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METEOROLOGY OF AUSTRALIA.

COMMONWEALTH BUREAU OF METEOROLOGY.

RESULTS

OF

RAINFALL OBSERVATIONS

MADE IN

QUEENSLAND.

INCLUDING ALL AVAILABLE ANNUAL RAINFALL TOTALS FROM 1040 STATIONS FOR ALL YEARS OF RECORD UP TO 1913; TOGETHER WITH MAPS AND DIAGRAMS.

Published with the authority of the Minister of State for Home Affairs under the direction of

H. A. HUNT,
COMMONWEALTH METEOROLOGIST.

By Authority:

ALBERT J. MULLETT, GOVERNMENT PRINTER, MELBOURNE.

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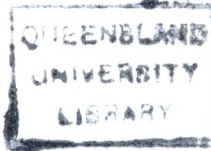
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RESULTS OF RAINFALL OBSERVATIONS MADE IN QUEENSLAND.

Commonwealth of Australia.
Department of Home Affairs,
Meteorological Bureau,
Central Office.
Melbourne, 15th December, 1914.

SIR,

The present volume is the third of a series to be published by this Bureau. Volumes for New South Wales and Victoria have already been issued, and the series will ultimately comprise concise histories of the rainfall, since records were first taken to the present, for each State of the Commonwealth. The volume contains tabulations of all available annual totals and number of days of rainfall up to the end of the year 1913 for 1040 Queensland stations—many of the records going back to 1880 and earlier—this being the first opportunity that has occurred of publishing such complete information under one cover.

Tables presenting complete monthly totals to the end of 1912 for 137 representative stations are also included, which data, it is anticipated, will be found of especial value in connexion with inquiries and investigations in regard to local seasonal rainfall.

It was intended to issue the volume during the year 1913, but owing to various causes, the issue was unavoidably delayed. Supplementary tables containing Rainfall totals for 1913 for Queensland and Papua stations, have, therefore, been added.

To make the work complete for reference and comparison, 27 Annual Rainfall Maps (covering the period 1887-1913), an authentic Average Rainfall Map, Monthly Normal Rainfall Maps, Charts indicating the number of recorded Remarkable Wind, Thunder, and Hail Storms, and an *Interim* Rainfall Map for Papua, were compiled, reproductions of which will be found in the volume, also a reproduction of a Frost Map of Australia.

Other special features comprise Diagrams and Graphs illustrating the Variations in the Annual Rainfall, Notes on the Monthly and Annual Rain Distribution, Evaporation Tables and Graphs, River Flood Height Diagrams, and General Notes on Meteorological Events.

Two appendices are included—one presenting Monthly and Annual Rainfall totals from Papua and some Islands in the South Pacific, and the other Monthly and Yearly Meteorological Elements and Normals for Brisbane.

The compilation of the volume was entrusted to Mr. D. Hodge, assisted by Messrs. C. F. Gréhan, E. W. Clayfield, C. McGrath, and J. Cunningham, and the work—which was exceptionally difficult and tedious, owing to the fragmentary, scattered, and incomplete state of the records, especially those belonging to the earlier years—has been carried out with all the extreme care and accuracy exercised in the compilation of previous volumes of the series.

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Every possible effort was made to ensure the publication of complete and correct figures; searches were made amongst Queensland histories, old official papers, and newspaper files; special appeals for authentic rainfall returns were made, directly and through the press, to station-owners, managers, &c.; and hundreds of original returns were unearthed and examined in order to reconcile apparent discrepancies, in which direction valuable assistance was rendered by the Divisional Officer and the Staff of the Brisbane Weather Bureau.

Prior to July, 1903, it should be mentioned, the rainfall observations were carried out under the direction of the Government Meteorologists of Queensland, and from July, 1903, until the establishment of the Commonwealth Meteorological Bureau, in January, 1908, under J. B. Henderson, Esq., M.I.C.E., etc., Hydraulic Engineer for Queensland.

I take this opportunity to express my great appreciation of the valuable service in the cause of Meteorology voluntarily rendered by the Rainfall Observers throughout the State. Additional observers are required in the more remote and sparsely-settled districts, and rain gauges will be issued, free of cost, to persons living in localities not within 10 miles of an existing gauge, provided that they undertake to keep a proper record of the rainfall, and forward monthly returns of same regularly to this Bureau.

My acknowledgments are due to J. B. Henderson, Esq., M.I.C.E., Hydraulic Engineer for Queensland; C. H. Knowles, Esq., B.Sc., Superintendent of Agriculture, Fiji; Rev. D. C. Bates, Director New Zealand Meteorological Service; also the Directors of Lever's Pacific Plantations Ltd., Sydney, and the Pacific Phosphate Co. Ltd., Melbourne, for much valuable data; to E. LaT. Armstrong, Esq., M.A., LL.B., Chief Librarian, Public Library of Victoria; and A. Wadsworth, Esq., Librarian to the Commonwealth Parliament, for many facilities accorded in connexion with searches made amongst official publications and newspaper files; and to the Proprietors of the *Brisbane Courier*, *Pugh's* and *Sapsford's Almanacs* for valuable information regarding notable meteorological events.

I have the honour to be,

Sir,

Your obedient servant,

H. A. HUNT,

Commonwealth Meteorologist.

The Honorable
The Minister of State for Home Affairs,
Melbourne.

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VARIATIONS IN THE ANNUAL MEAN RAINFALL OVER QUEENSLAND,

SHOWN BY DIAGRAMS AND TABLES, FOR THE YEARS 1888 TO 1913 INCLUSIVE;
AND OVER PORTIONS OF THE STATE FOR SOME OF THE YEARS 1865-1887.

In preparing the tables and diagrams, to show how the mean rainfall has varied from year to year over the various districts, as well as the whole State of Queensland, during the periods under review, the following method (which is similar to that followed in the preparation of the mean rainfall tables given in the "Results of Rainfall Observations in Victoria," published by this Bureau) was adopted:—

Some 160 stations were selected in such a way as to fairly well represent every well-marked physiographic and climatic division of the State. Practically all of the stations have complete records for the 26 years (1888 to 1913), the few cases of broken records being filled in by deductions from the records of surrounding stations. The names of the stations are as follow:—

Subdivisions.	Minor Divisions.	Stations.
Peninsula ..	Peninsula North ..	Thursday Island, Cape York, McDonnell, Mapoon, Moreton, Mein, and Coen.
	Peninsula South ..	Musgrave, Fairview, Palmerville, and Maytown.
Carpentaria ..	Lower Carpentaria ..	Gilbert River, Normanton, Croydon, Donor's Hill, Burketown, Cloncurry, and Mackinlay.
	Upper Carpentaria ..	Tate River, Mount Surprise, Cumberland, Georgetown, Pentland, Hughenden, and Richmond.
North Coast ..	Barron ..	Cooktown, Port Douglas, Cairns, Thornborough, Harvey Creek, and Herberton.
	Herbert ..	Innisfail, Cardwell, Ingham, Townsville, Clarke River, and Valley of Lagoons.
Central Coast	East Central Coast ..	Ayr, Bowen, Bloomsbury, Mackay, St. Lawrence, Marlborough, and Nebo.
	West Central Coast ..	Charters Towers, Balfe's Creek, and Grosvenor Downs.
	Central Highlands ..	Clermont, Emerald, Duinga, Springsure, Warrinilla, Taroom, Listowel Downs, Tambo, Blackall, and Alpha.
Central ..	Central Lowlands ..	Elgin Downs, Bowen Downs, Aramac, Barcaldine, Alice, Isisford, Longreach, Muttaborra, Cameron Downs.
Western ..	Upper Western ..	Dagworth, Ayrshire Downs, Winton, Bimerah, Brighton Downs, Carandotta, and Camooweal.
	Lower Western ..	Boullia, Diamantina Lakes, Monkira, Jundah, Currawilla, Windorah, and Birdsville.
	Port Curtis ..	Rockhampton, Gladstone, Bustard Head, Miriam Vale, Bundaberg, Sandy Cape, Gayndah, Hawkwood, Eidsvold, Mount Perry, Camboon, Banana, and Westwood.
South Coast ..	Moreton ..	Woody Island, Maryborough, Tiaro, Double Island Point, Gympie, Yandina, Crohamhurst, Caboolture, Cape Moreton, Brisbane, Beenleigh, Mundoolun, Southport, Beaudesert, Engelsberg, Laidley, Esk, Nanango, and Kilkivan.
	East Darling Downs ..	Jimbour, Dalby, Toowoomba, Yandilla, Allora, Warwick, Stanthorpe, Texas, Goondiwindi, Condamine Plains, and Chinchilla.
Darling Downs	West Darling Downs ..	Miles, Coomrith, Welltown, and Bullamon.
Maranoa ..	Maranoa ..	Roma, Yeulba, Surat, St. George, Eurella, MucRádilla, Mitchell, and Forest Vale.
	Warrego ..	Nive, Augathella, Charleville, Morven, Dillalah, Bindebango, Bollon, Dirranbandi, Curriwillingham, Noorama, Cunnamulla, Currawinya, Eulo, Beechal, and Gumbardo.
South-west ..	Far South-west ..	Adavale, Mount Margaret, Norley, Thargomindah, Onepah, and two South Australian stations, viz., Haddon and Innamincka.

The records from these stations were assumed to give a correct mean rainfall for the various meteorological districts into which the State is divided, and a mean rainfall for the whole State for each year was deduced from these alone.

In deducing the mean rainfall for the whole State for each year, the mean for each district was multiplied by a fractional number representing the ratio between the area of the district and that of the whole State, and the results for all the districts were added together.

The mean for the whole State cannot be even approximately given for the years prior to 1888, as unfortunately no records are available for the Peninsula North district, and the reduced number available for the remainder of the districts decreases each year as one works backwards, until from 1869 to 1865 only Brisbane and Warwick records are available. For the latter reason the mean rainfall for each district deduced from these records would probably differ from what would have been obtained had the full number of stations been recording. A correction, obtained as follows, was therefore applied:—For each district or minor division a mean rainfall was determined for each of the early years from the stations available. These stations were then used to determine a mean for their district

for the 25 years, 1888 to 1912. By comparing this mean with that obtained by using the full number of stations a factor was deduced, which, applied to the mean from the diminished number, was assumed to give the same result for the district as if the full number had been used.

For the 26 years—1888 to 1913—the mean annual rainfall for the whole State, deduced from the tables, is 26.50 inches. The wettest years were, in their respective order, 1894, 1890, 1891, 1906, 1910, and 1903, and the driest 1902, 1900, 1905, and 1888.

1893, the year of phenomenal heavy rains and floods in the South Coast district was the wettest year for the period in that portion of the State; but the rainfall was below average elsewhere, except on the Downs and at a few scattered places chiefly in the Far South-west.

The annual totals, in inches, are shown in diagrammatic form (Diagram A). The graph at the foot of the diagram is included to show the relation between the rainfall and the pastoral production of the State; and it indicates the disastrous effect of the series of dry years, which culminated in the great drought of 1902, on the number of live stock (horses, cattle, sheep, and pigs).

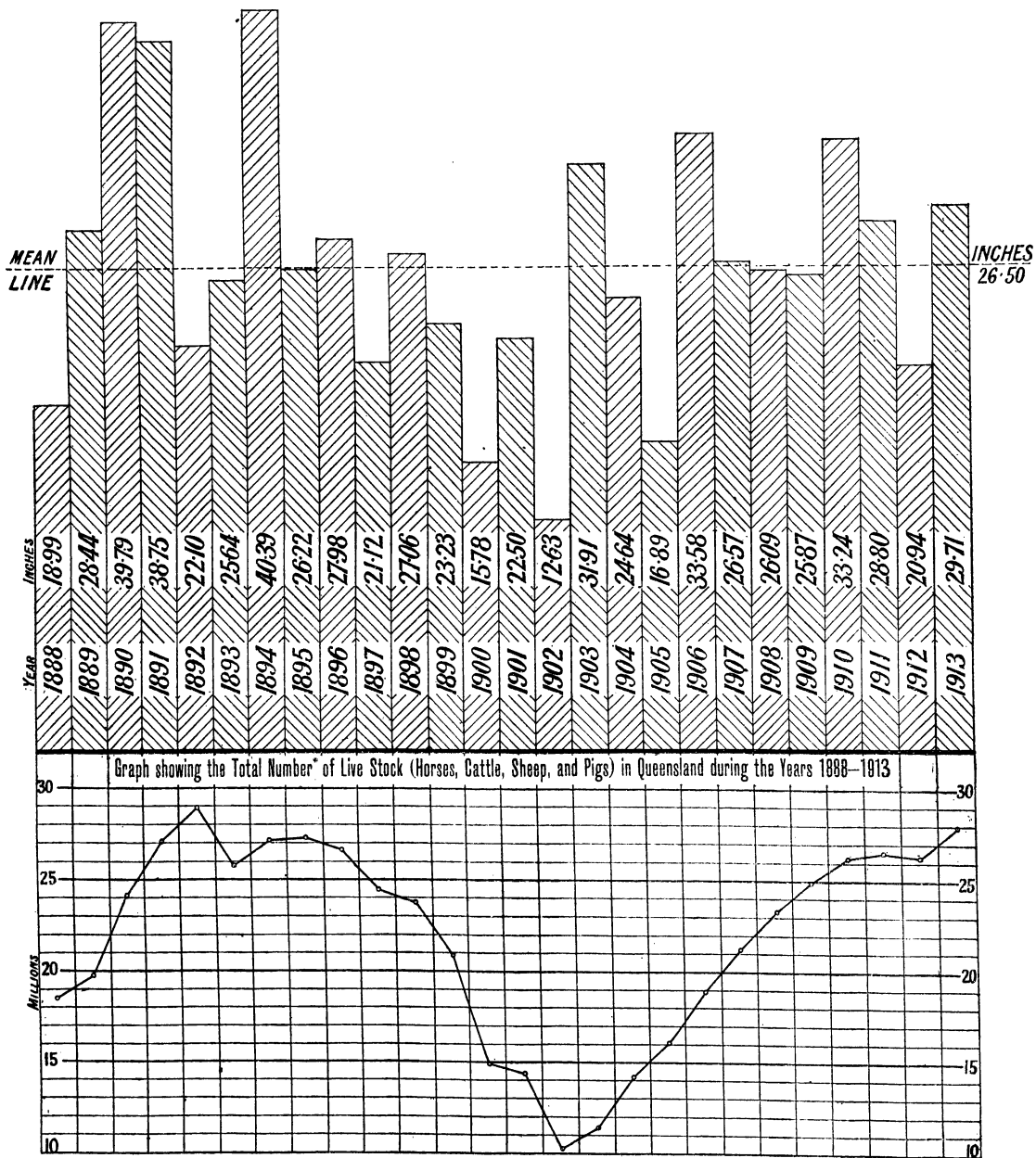
In 1892 the total number, according to figures published by the Government Statistician, was 28,839,425; by 1889 it had decreased to 20,898,560, and by 1902 to 10,233,780.

After that year a steady rise set in, and the number had increased again by 1906 to 18,891,555, and by 1911 to 26,607,038. A noteworthy feature of the graph is the close approximation in the number of years taken by the curve to fall from its highest

point to its lowest, and to reach its succeeding high point. In the one instance, 1892-1902, the period is eleven years, and in the other, 1902-1911, ten years. The rapid decrease in the number of live stock, particularly during the years 1899-1900 and 1901-1902, is shown by the steepness of the curve, and the uniform rate of increase after the drought, during the years 1903-1911, is also well indicated.

DIAGRAM A.

Graphic Representation of the Approximate Annual Rainfall over the whole State of Queensland.



NOTE.—Each vertical space of graph equals one million. * Obtained from official records published by the Queensland Government Statistician.

In consideration of the immense area (670,500 square miles) of Queensland, and the great variation in the average annual rainfall—which ranges from 9·84 inches for the Far South-west minor division to 80·39 inches for the Barron—diagrams B and C are included; also a chart showing in graphic form the annual totals for each of the nineteen minor divisions into which the State is divided.

DIAGRAM B.

Graphic Representation of the Approximate Annual Rainfall over the Eastern Highland, Pacific Slopes, and Peninsula.

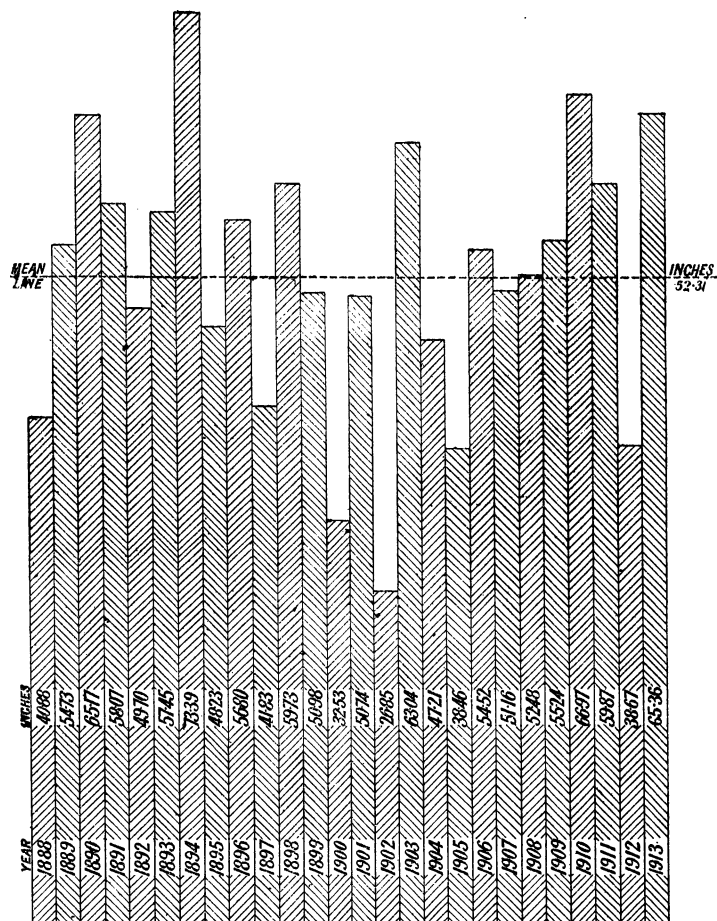


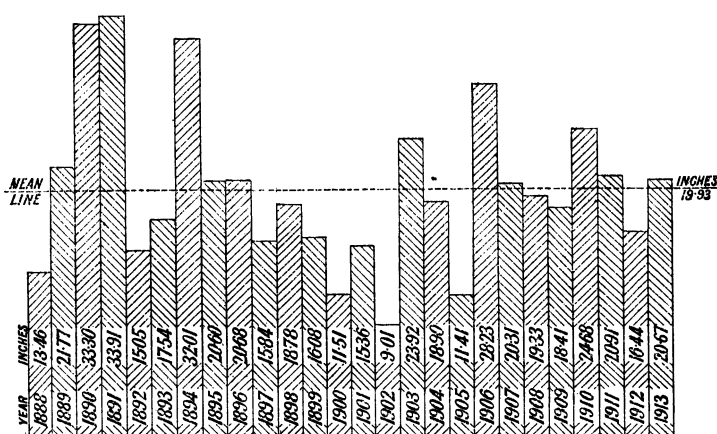
Diagram B gives a representation of the approximate annual rainfall for the 26 years over the Queensland Coastal Trade Wind Region and the Peninsula, that is, the Port Curtis, Moreton, East Central Coast, Herbert, Barron, North and South Peninsula minor divisions—total area, 135,820 square miles, and mean annual rainfall for the period 52·31 inches; whilst Diagram C gives a similar representation for the remainder of the State (all

the inland divisions and the Gulf country)—total area, 534,680 square miles; mean annual rainfall, 19·93 inches.

In deducing the figures used in the preparation of the two diagrams each of the two portions into which the State was divided was treated as a separate whole, and the records from the stations already enumerated were used. The variations from the mean rainfall line on the diagrams are generally in agreement; but exceptions to the rule occur for the years 1893, 1898, 1908,

DIAGRAM C.

Graphic Representation of the Approximate Annual Rainfall over the Inland Areas, including Gulf Country.



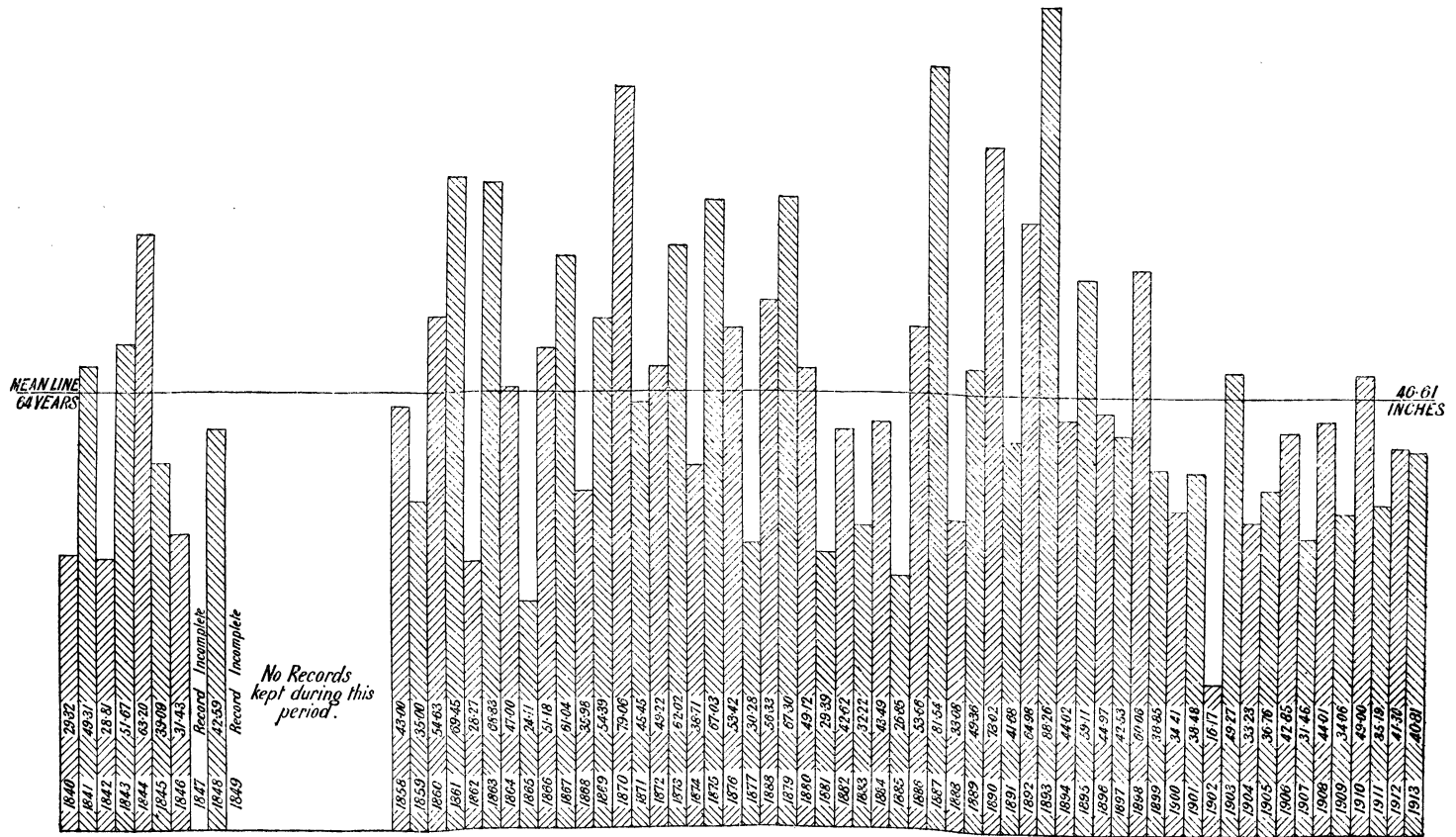
and 1909, where the variation is above on Diagram B, but below on C, whilst for 1895 and 1907 it is above on C, but below on D.

The graphs for all of the minor divisions of the State present the variations of the rainfall to a still more minute degree, and allow of the extent of country affected by various periods of good or bad rainfall being readily traced.

Diagram D gives representation of the annual rainfall totals recorded at Brisbane for the years 1840-1846, 1848, and 1858 to 1913 inclusive. It shows that the mean annual rainfall for Brisbane, determined from 64 years' records, is 46.61 inches. The years of greatest rainfall—above 67 inches—were, in their order, 1893 (88.26 inches), 1887, 1870, 1890, 1861, 1863, 1879, and 1875; and of least rainfall—below 30 inches—1902 (16.17 inches), 1865, 1885, 1862, 1842, 1840, and 1881.

The long spell of comparatively small annual totals experienced during the fifteen years—1899-1913—is rather remarkable. During this period the mean was exceeded on two occasions only. Owing, however, to the fact that, especially during the latter half of the period, the rain that occurred fell at most opportune times, any adverse effects resulting from the small annual totals were not nearly as noticeable as might have been expected.

DIAGRAM D.



BRISBANE ANNUAL RAINFALL.

QUEENSLAND.

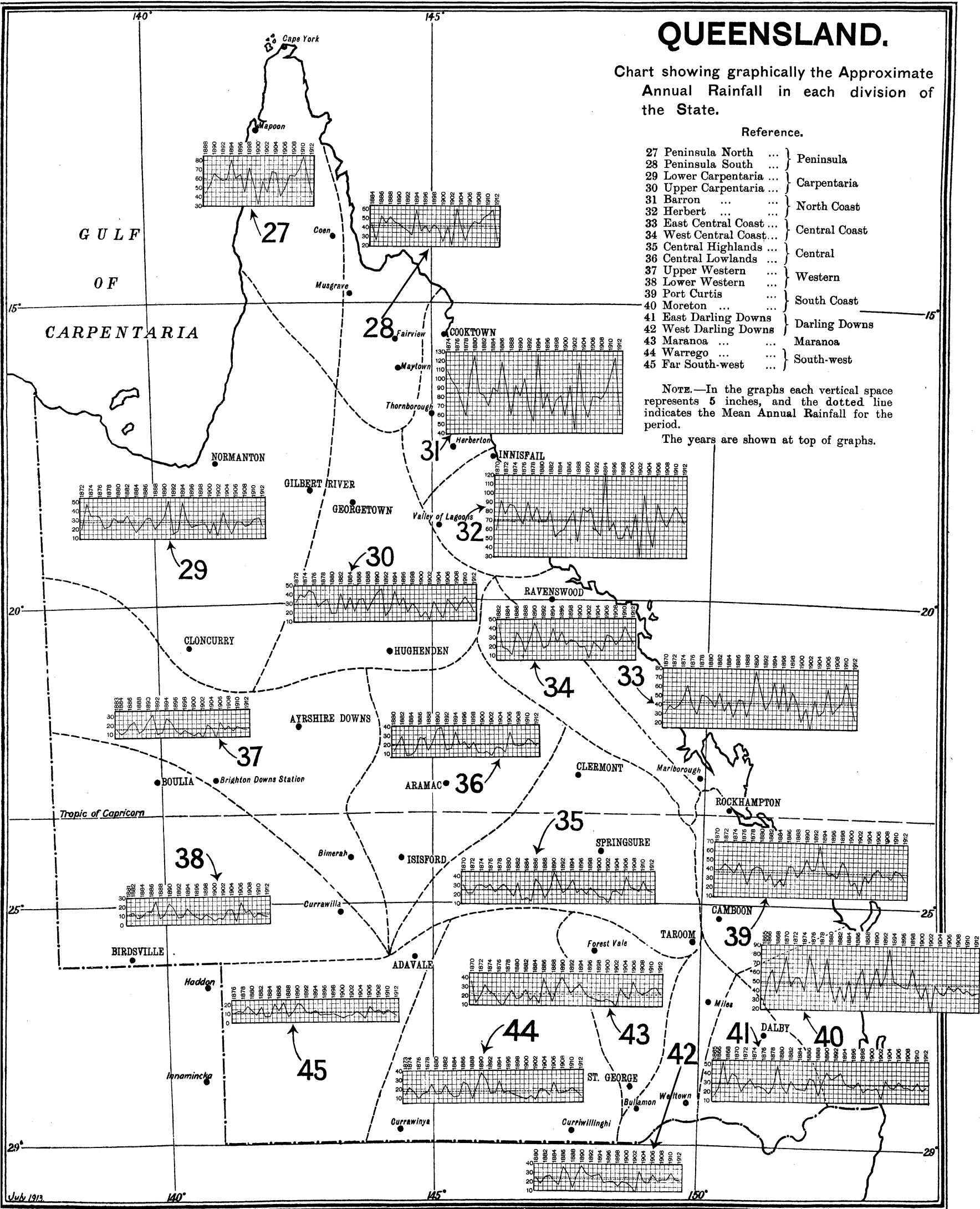
Chart showing graphically the Approximate Annual Rainfall in each division of the State.

Reference.

- | | | |
|-----------------------|-----|---------------|
| 27 Peninsula North | ... | Peninsula |
| 28 Peninsula South | ... | |
| 29 Lower Carpentaria | ... | Carpentaria |
| 30 Upper Carpentaria | ... | |
| 31 Barron | ... | North Coast |
| 32 Herbert | ... | |
| 33 East Central Coast | ... | Central Coast |
| 34 West Central Coast | ... | |
| 35 Central Highlands | ... | Central |
| 36 Central Lowlands | ... | |
| 37 Upper Western | ... | Western |
| 38 Lower Western | ... | |
| 39 Port Curtis | ... | South Coast |
| 40 Moreton | ... | |
| 41 East Darling Downs | ... | Darling Downs |
| 42 West Darling Downs | ... | |
| 43 Maranoa | ... | Maranoa |
| 44 Warrego | ... | |
| 45 Far South-west | ... | South-west |

NOTE.—In the graphs each vertical space represents 5 inches, and the dotted line indicates the Mean Annual Rainfall for the period.

The years are shown at top of graphs.



T A B L E S.

TABLE SHOWING THE MEAN RAINFALL (IN INCHES AND HUNDREDTHS) FOR THE VARIOUS SUBDIVISIONS AND MINOR SUBDIVISIONS OF QUEENSLAND FOR EACH YEAR THAT RECORDS ARE AVAILABLE.

Table with columns for Subdivision, Area in Square Miles, and various regional rainfall categories: Peninsula (North, South), Carpentaria (Upper, Lower), North Coast (Barron, Herbert), Central Coast (East, West), Central (Highlands, Lowlands), Western (Upper, Lower), South Coast (Port Curdiss, Moreton), Darling Downs (East, West), Maranoa, South West (Warrego, Far South West), and Whole State. Rows list years from 1840 to 1913, with summary rows for 26-year and 41-year periods.

Figures in block type indicate greatest and least amounts of rainfall in each column.

- Port Curtis—continued.**
h. Deduced from Rockhampton, Gladstone, Bustard Head, Miriam Vale, Bundaberg, Sandy Cape, Gayndah, Hawkwood, Camboon, Banana, and Westwood totals.
i. Deduced from Rockhampton, Gladstone, Bustard Head, Bundaberg, Sandy Cape, Gayndah, Hawkwood, Camboon, Banana, and Westwood totals.
- Moreton—**
a. Deduced from Brisbane totals.
b. Deduced from Maryborough, Gympie, Caboolture, Cape Moreton, and Brisbane totals.
c. Deduced from Maryborough, Gympie, Caboolture, Cape Moreton, Brisbane, and Beenleigh totals.
d. Deduced from Woody Island, Maryborough, Gympie, Caboolture, Cape Moreton, Brisbane, and Beenleigh totals.
e. Deduced from Maryborough, Gympie, Caboolture, Cape Moreton, Brisbane, and Beenleigh totals.
f. Deduced from Maryborough, Gympie, Caboolture, Cape Moreton, Brisbane, Beenleigh, and Kilkivan totals.
g. Deduced from Maryborough, Gympie, Caboolture, Cape Moreton, Brisbane, Beenleigh, Kilkivan, Mundoolun, and Southport totals.
h. Deduced from Maryborough, Gympie, Caboolture, Cape Moreton, Brisbane, Beenleigh, Mundoolun, Southport, Nanango, and Kilkivan totals.
i. Deduced from Woody Island, Maryborough, Gympie, Caboolture, Cape Moreton, Brisbane, Beenleigh, Mundoolun, Southport, Esk, Nanango, and Kilkivan totals.
- East Darling Downs—**
a. Deduced from Warwick totals.
b. Deduced from Dalby, Toowoomba, Warwick, and Condamine Plains totals.
c. Deduced from Dalby, Toowoomba, Warwick, Stanthorpe, and Condamine Plains totals.
d. Deduced from Dalby, Toowoomba, Yandilla, Warwick, Stanthorpe, and Condamine Plains totals.
e. Deduced from Jimbour, Dalby, Toowoomba, Yandilla, Warwick, Stanthorpe, and Condamine Plains totals.
f. Deduced from Jimbour, Dalby, Toowoomba, Yandilla, Warwick, Stanthorpe, Goondiwindi, and Condamine Plains totals.
g. Deduced from Jimbour, Dalby, Toowoomba, Yandilla, Warwick, Stanthorpe, Texas, Goondiwindi, and Condamine Plains totals.
h. Deduced from Jimbour, Dalby, Yandilla, Allora, Warwick, Stanthorpe, Texas, Goondiwindi, and Condamine Plains totals.
i. Deduced from Dalby, Toowoomba, Allora, Warwick, Stanthorpe, Texas, Goondiwindi, and Condamine Plains totals.
- West Darling Downs—**
a. Deduced from Welltown totals.
b. Deduced from Welltown and Miles totals.
c. Deduced from Welltown, Miles, and Bullamon totals.
- Maranoa—**
a. Deduced from Roma totals.
b. Deduced from Roma, Surat, and St. George totals.
c. Deduced from Roma, Surat, St. George, Eureka, and Mitchell totals.
d. Deduced from Roma, Yeulba, Surat, St. George, Eureka, Mitchell, and Forest Vale totals.
e. Deduced from Roma, Yeulba, Surat, St. George, Eureka, Mitchell, and Forest Vale totals.
- Warrego—**
a. Deduced from Charleville totals.
b. Deduced from Charleville, Cunnamulla, and Beechal totals.
c. Deduced from Charleville, Cunnamulla, Currawinya, and Beechal totals.
d. Deduced from Charleville, Cunnamulla, Currawinya, and Beechal totals.
e. Deduced from Nive, Charleville, Cunnamulla, Currawinya, and Beechal totals.
f. Deduced from Nive, Charleville, Curriwillingham, Noorama, Cunnamulla, Currawinya, and Beechal totals.
g. Deduced from Nive, Charleville, Dillalah, Bollon, Curriwillingham, Noorama, Cunnamulla, Currawinya, Beechal, and Gumbardo totals.
h. Deduced from Nive, Charleville, Dillalah, Bollon, Curriwillingham, Noorama, Cunnamulla, Currawinya, Eulo, Beechal, and Gumbardo totals.
i. Deduced from Nive, Charleville, Morven, Dillalah, Bollon, Curriwillingham, Noorama, Cunnamulla, Currawinya, Eulo, Beechal, and Gumbardo totals.
- Far South West—**
a. Deduced from Norley totals.
b. Deduced from Norley and Thargomindah totals.
c. Deduced from Norley, Thargomindah, and Innamincka (South Australia) totals.
d. Deduced from Norley, Thargomindah, Haddon (South Australia) and Innamincka (South Australia) totals.
- Peninsula South—**
a. Deduced from Maytown totals.
- Lower Carpentaria—**
a. Deduced from Normanton total.
b. Deduced from Normanton and Gilbert River totals.
c. Deduced from Normanton, Gilbert River, and Cloncurry totals.
d. Deduced from Normanton, Gilbert River, Cloncurry, and Mackinlay totals.
- Upper Carpentaria—**
a. Deduced from Georgetown total.
b. Deduced from Georgetown and Mount Surprise totals.
c. Deduced from Georgetown, Mount Surprise, and Hughenden totals.
d. Deduced from Georgetown, Mount Surprise, Hughenden, and Pentland totals.
e. Deduced from Georgetown, Mount Surprise, Hughenden, Pentland, and Cumberland totals.
f. Deduced from Georgetown, Mount Surprise, Hughenden, Pentland, and Cumberland totals.
- Barron—**
a. Deduced from Cooktown totals.
b. Deduced from Cooktown and Thornborough totals.
c. Deduced from Cooktown, Thornborough, and Cairns totals.
d. Deduced from Cooktown, Thornborough, Cairns, and Port Douglas totals.
e. Deduced from Cooktown, Thornborough, Cairns, Port Douglas, and Herberton totals.
- Herbert—**
a. Deduced from Townsville total.
b. Deduced from Townsville and Cardwell totals.
c. Deduced from Townsville, Cardwell, Innisfail, and Valley of Lagoons totals.
- East Central Coast—**
a. Deduced from Bowen, Bloomsbury, Mackay, St. Lawrence, Marlborough, and Nebo totals.
b. Deduced from Ayr, Bloomsbury, Mackay, St. Lawrence, Marlborough, Nebo, and Ravenswood totals.
- West Central Coast—**
a. Deduced from Charters Towers totals.
b. Deduced from Charters Towers and Grosvenor Downs totals.
c. Deduced from Charters Towers total.
- Central Highlands—**
a. Deduced from Clermont, Springsure, and Taroom totals.
b. Deduced from Clermont, Springsure, Taroom, and Tambo totals.
c. Deduced from Clermont, Springsure, Taroom, and Listowel Downs totals.
d. Deduced from Clermont, Springsure, Taroom, Listowel Downs, and Blackall totals.
e. Deduced from Clermont, Springsure, Taroom, Listowel Downs, Tambo, and Blackall totals.
f. Deduced from Clermont, Emerald, Springsure, Taroom, Listowel Downs, and Blackall totals.
g. Deduced from Clermont, Emerald, Springsure, Taroom, Listowel Downs, Tambo, and Blackall totals.
h. Deduced from Clermont, Emerald, Springsure, Taroom, Listowel Downs, Tambo, Blackall, and Alpha totals.
- Central Lowlands—**
a. Deduced from Aramac totals.
b. Deduced from Bowen, Aramac, Isisford, and Muttahburra totals.
c. Deduced from Bowen, Aramac, Barcaldine, Isisford, and Muttahburra totals.
d. Deduced from Bowen, Aramac, Barcaldine, Isisford, and Muttahburra totals.
- Upper Western—**
a. Deduced from Carandotta total.
b. Deduced from Dagworth, Winton, and Carandotta totals.
c. Deduced from Dagworth, Ayrshire Downs, Winton, Bimerah, and Carandotta totals.
- Lower Western—**
a. Deduced from Currawilla totals.
b. Deduced from Currawilla and Boulia totals.
c. Deduced from Currawilla total.
- Port Curtis—**
a. Deduced from Rockhampton, Gayndah, and Camboon totals.
b. Deduced from Rockhampton, Gayndah, Sandy Cape, Camboon, and Banana totals.
c. Deduced from Rockhampton, Gladstone, Sandy Cape, Gayndah, Camboon, Banana, and Westwood totals.
d. Deduced from Rockhampton, Gladstone, Sandy Cape, Gayndah, Camboon, Banana, and Westwood totals.
e. Deduced from Rockhampton, Gladstone, Sandy Cape, Gayndah, Camboon, Banana, and Westwood totals.
f. Deduced from Rockhampton, Gladstone, Bundaberg, Bundaberg, Sandy Cape, Gayndah, Camboon, and Westwood totals.
g. Deduced from Rockhampton, Gladstone, Bustard Head, Miriam Vale, Bundaberg, Sandy Cape, Gayndah, Hawkwood, Camboon, and Banana totals.

TABLE SHOWING DEPARTURES FROM THE MEAN RAINFALL DURING EACH YEAR (1888-1913 INCLUSIVE) IN THE VARIOUS DIVISIONS OF QUEENSLAND.

Subdivision.	Peninsula.		Carpentaria.		North Coast.		Central Coast.		Central.		Western.		South Coast.		Darling Downs.		Maranoa.		South West.		Whole State.
	Peninsula North.	Peninsula South.	Lower Carpentaria.	Upper Carpentaria.	Barron.	Herbert.	East Central Coast.	West Central Coast.	Central High-lands.	Central Low-lands.	Upper Western.	Lower Western.	Port Curtis.	Moreton.	East Darling Downs.	West Darling Downs.	Maranoa.	Warrego.	Far South West.		
1888	-15.47	+8.87	-6.18	+5.46	-20.18	-21.99	-16.34	-12.33	+9.44	+6.54	-3.84	-4.02	-5.71	-14.71	-11.47	+9.39	+0.86	+7.94	+3.80	+7.51	
1889	+6.69	+2.96	+0.77	+5.47	+13.49	+14.34	+2.31	+3.25	+0.10	+2.81	+0.58	+0.70	+1.80	+4.36	+3.28	+5.09	+6.95	+5.39	+1.52	+1.94	
1890	+2.06	+3.14	+6.52	+14.35	+0.11	+11.20	+33.95	+19.87	+19.20	+16.47	+8.96	+12.30	+14.46	+19.33	+13.54	+14.66	+15.98	+20.10	+10.99	+13.29	
1891	+1.39	+6.36	+24.34	+19.05	+19.44	+14.48	+14.77	+8.09	+7.65	+18.52	+16.22	+7.19	+2.67	+0.44	+6.36	+6.43	+8.35	+12.64	+8.21	+12.25	
1892	+0.41	+10.68	+8.70	+10.90	-12.71	+7.98	+8.44	+8.36	+3.61	+6.06	+5.42	-3.47	+3.07	+10.32	+9.61	+3.33	+0.49	+1.79	+0.92	+4.40	
1893	+21.38	+16.46	+22.75	+16.74	+45.62	+51.63	+22.36	+13.55	+10.28	+3.91	+3.38	-2.03	+29.61	+40.75	+13.62	+4.41	+5.20	+1.98	+0.42	+0.86	
1894	+1.17	+6.94	+3.53	+9.20	+2.93	+0.73	+21.12	+19.75	+3.90	+0.66	+7.81	+0.29	+6.60	+5.17	+2.94	+5.79	+0.28	+11.08	+2.68	+13.89	
1895	+5.51	+0.72	+0.42	+9.20	+2.93	+0.73	+11.26	+1.04	+1.12	+2.96	+1.30	-2.79	+1.30	+0.86	+0.48	+3.30	+0.28	+1.45	+2.25	+0.28	
1896	+14.19	+7.85	+2.51	+6.82	+19.98	+18.06	+9.74	+4.58	+5.01	+4.70	+5.85	-5.38	+5.36	+18.79	+7.06	+2.12	+5.99	+3.37	+1.90	+5.38	
1897	+5.38	+0.53	+1.79	+2.67	+4.14	+17.63	+11.26	+1.04	+2.26	+1.83	+1.34	-2.87	+5.73	+2.53	+7.06	+2.40	+8.14	+5.00	+0.88	+0.56	
1898	+27.62	+17.95	+11.27	+12.20	+21.73	+18.73	+21.15	+7.07	+8.11	+9.65	+6.88	+7.18	+13.90	+13.21	+4.00	+3.76	+8.79	+6.85	+5.82	+10.72	
1899	+2.91	+1.90	+0.36	+6.17	+11.77	+9.14	+6.04	+6.30	+8.25	+8.14	+3.93	+4.23	+10.01	+0.73	+2.28	+7.06	+8.92	+5.25	+3.35	+4.00	
1900	+14.73	+21.73	+13.59	+15.61	+37.62	+38.44	+29.63	+19.01	+14.23	+12.54	+8.95	+4.87	+24.23	+28.27	+14.44	+13.52	+14.14	+9.24	+9.24	+13.86	
1901	+8.57	+18.41	+11.85	+4.82	+36.78	+29.49	+3.04	+1.65	+1.55	+2.91	+4.78	+4.46	+2.56	+1.42	+5.44	+9.24	+5.01	+0.96	+1.21	+5.41	
1902	+6.85	+17.24	+2.08	+6.11	+9.13	+27.72	+14.37	+6.17	+1.42	+4.13	+0.68	+5.10	+10.08	+6.70	+1.60	+1.61	+2.81	+0.96	+1.34	+1.86	
1903	+9.99	+2.62	+1.28	+7.13	+0.73	+19.89	+15.26	+6.63	+14.16	+12.74	+7.32	+12.65	+4.56	+4.60	+1.67	+1.94	+12.85	+9.55	+2.41	+0.07	
1904	+4.45	+4.11	+0.77	+1.82	+1.11	+5.11	+12.00	+4.32	+2.49	+0.89	+1.47	+3.81	+3.01	+4.60	+1.68	+0.06	+1.00	+1.53	+2.60	+0.41	
1905	+8.28	+1.92	+3.76	+5.87	+3.25	+5.29	+0.18	+1.41	+1.05	+2.13	+2.97	+3.81	+6.07	+2.94	+3.97	+0.93	+0.28	+0.65	+2.29	+0.63	
1906	+10.76	+8.55	+2.09	+2.86	+4.89	+16.61	+22.02	+15.02	+9.52	+5.28	+2.06	+0.87	+3.48	+2.94	+3.77	+7.20	+5.47	+2.77	+2.86	+6.74	
1907	+25.18	+11.61	+4.04	+9.53	+22.07	+16.61	+4.55	+4.06	+1.29	+3.20	+0.78	+2.16	+3.48	+2.94	+5.02	+0.05	+5.87	+0.60	+0.27	+2.30	
1908	+3.30	+16.66	+5.48	+2.31	+41.67	+8.76	+18.38	+3.67	+2.57	+2.45	+1.42	+3.09	+7.80	+6.60	+1.52	+1.31	+1.34	+5.75	+3.39	+5.56	
1909	+17.10	+16.87	+4.13	+7.04	+21.61	+1.73	+4.18	+6.28	+0.41	+5.28	+0.84	+0.16	+10.29	+1.48	+4.82	+1.38	+0.45	+2.86	+0.63	+3.21	
1910	+17.16	+28.75	+0.07	+0.73	+17.97	+9.30	+4.18	+6.28	+0.41	+5.28	+0.84	+0.16	+10.29	+1.48	+4.82	+1.38	+0.45	+2.86	+0.63	+3.21	
1911																					
1912																					
1913																					

Amounts in Block Type indicate the extreme departures above and below the mean rainfall for each District.

NOTES
ON THE
MONTHLY AND ANNUAL RAIN DISTRIBUTION
IN
QUEENSLAND,
1888 TO 1913.
BY E. L. FOWLES.

This information has been compiled from all the records that could be collected, and shows the

The **Heavy Type** indicates areas *above*,

The type used in the *first line* of any month or year indicates the distribution of the rain. Thus, if the first line is

Years.	January.	February.	March.	April.	May.	June.	July.
1888 ..	<i>Generally below average, especially in eastern districts south from Cairns, including Darling Downs. Slightly above in Southern Maranoa, parts of Peninsula, and far south-west.</i>	Very wet month, greatly above average, except northern Peninsula and coast districts between Cooktown and Townsville, especially heavy between the Gulf and at Blackall.	<i>Generally very much below average, especially along the coast. Well above normal extreme north of Peninsula.</i>	<i>Again very dry month generally, except in the neighbourhood of Rockhampton and Herberton, where rain was slightly above average.</i>	<i>Below average generally, except parts of the north coast and south-west quarter, where well above normal.</i>	<i>Another dry month. A little rain fell on Darling Downs and coast south from Mackay and north from Townsville. Elsewhere no rain fell.</i>	<i>Dry month. Light showers fell on the coast as in June, but "nil" elsewhere.</i>
1889 ..	<i>Very dry generally, except at Bimerah and Windorah, where rain was slightly above average. The month's totals were—21 inches below at Innisfail, 12 inches below at Mackay, 11½ inches below at Normanton, and 5 inches below at Brisbane.</i>	<i>Again very dry and below average, except between Cairns and Innisfail and between Coen and Musgrave, where rain was well above normal.</i>	<i>Generally below, making the thirteenth consecutive month below. Rain was above in coast districts between Mackay and Bundaberg, also along southern border districts between St. George and Warwick, and at Adavale and Ayrshire Downs.</i>	Good wet month and above average generally (except northern Peninsula and far west between Camooweal and Birdsville); very heavy rain fell in central and southern districts.	Wet month over southern half, also all eastern districts to as far north as Coen. Dry and below the average over the north-west quadrant generally.	<i>Below average generally, except south of a line joining Boulia, Blackall, and Warwick, and on the coast between Gardwell and Ravenswood.</i>	Good wet month over the eastern half, especially in south-eastern quadrant. Rain over the western half and on Peninsula was slightly below normal, but it was above across the base of the Peninsula.
1890 ..	Greatly above average, exceptionally heavy all eastern districts—24 inches above at Mackay, 12 inches above at Rockhampton, 7 inches above at Brisbane. About normal or slightly below on Peninsula and between Springsure, Taroom, and Surat.	Another wet month much above average southern half of Peninsula, central districts, and most of south-east quarter. Below west of line joining Normanton and Cunnamulla, and over northern half of Peninsula.	Very wet month generally. Greatly above average in south-east quadrant—15 inches above normal at Brisbane, 12 inches above at Charleville, 20 inches above at Rockhampton. Below over all Peninsula and most of Western Division.	Again above normal, excepting eastern districts north from Maryborough and Taroom to Charters Towers and Cooktown, also Southern Maranoa and Downs. Heavy over Northern Maranoa and Warrego.	Very wet month over whole State, especially inland portion of southern half. Slightly below the average in the extreme south-east and at Aramac, Miles, and Bowen.	Well above average, except Darling Downs and Moreton districts, coast north from Mackay, most of the Peninsula, Carpentaria, and central districts southward to Springsure and Blackall.	<i>About normal or below over most part, but above in eastern districts south from Musgrave to Gladstone, and from there inland to Roma and Surat, also slightly above between Bimerah, Windorah, and Adavale.</i>
1891 ..	Wet month and above normal generally, except most of Peninsula and south coast between Bundaberg and Brisbane. Very heavy in central districts—13 inches above normal at Ayrshire Downs and Bimerah.	Most of northern half of State above average, also between Charleville and Cunnamulla, and between Boulia, Windorah, and Ayrshire Downs. South-east quadrant and far south-west well below mean.	Again wet and above average between lines joining Maryborough and Buliamon, and Birdsville and Gilbert River. Rest of State below average.	Above average over all the State, except east of a line joining Maryborough, Nanango, and Warwick, also between Nebo and Rockhampton, and most of Peninsula. Very heavy in central districts—16 inches above at Isisford, 8 inches above at Blackall.	Rainy month and above normal generally, except a narrow strip all along the southern border, also round the Gulf and most of the Peninsula.	Generally wet and above normal, excepting the Peninsula. Very heavy totals in Wide Bay district—10 inches above average at Bundaberg.	<i>Below average generally, except narrow strip extending in south-westerly direction from Gladstone to Miles, and thence south-eastward to the extreme south-eastern corner, where rain above normal.</i>

distribution of rainfall in Queensland, both monthly and annually, since January, 1888.

and the *Italic* the areas *below* normal.

in *Italics* it shows that the rain for the month or year, was below the normal over the greater part of the State.

August.	September.	October.	November.	December.	Year.
<i>Generally below the average. A little light rain was registered on north coast and in south-east quadrant.</i>	<i>Again generally below the average. Between Cairns, Herberton, and Innisfail, between Brisbane and the Tweed, and at Currawinya the rain was above the mean.</i>	<i>Below the normal generally. Light rain fell east of a line joining Clermont and Goondiwindi, but practically "nil" elsewhere. Rain was slightly above average at Gladstone.</i>	<i>Dry month most parts, although rain fell generally over eastern half. It was above the average in central districts extending north to Maytown, south to Charleville, and east to Marlborough, also above over eastern Darling Downs and parts of Moreton.</i>	<i>Below normal generally, except south of the Tropic and east of Isisford and Cunnamulla (below over Maranoa), and patches of north coast and Peninsula</i>	<i>Very bad year, with rain totals below average over the greater part of the State. Eleven months out of the twelve rain was below the normal over most of the State. The only parts where the rain was above the average were between Musgrave and Walsh River, on the Peninsula; between Stamford, Tangorin, and Ayrshire Downs; at Sandy Cape and Carandotta; and in the neighbourhood of Rockhampton.</i>
<i>Below average, except south of latitude of Bundaberg, central districts south of Muttaborra, and on coast between Cairns and Gardwell. Good month on Darling Downs and in south-east generally.</i>	<i>Over western half of State, all Peninsula, and north coast rain was below mean, as was also the case over the Burnett and Port Curtis districts; but it was above elsewhere, especially over the Downs and Moreton.</i>	<i>Below normal, except parts of the south-west quarter, the extreme south-east, near Mackay, and north from Townsville to Maytown and Cooktown, where it was slightly above.</i>	<i>Wet month and above the average, especially on north coast and inland parts south from the northern railway, but it was below normal west of a line joining Normanton and Birdsville.</i>	<i>Above average generally, except south-west quadrant, Darling Downs, and the extreme south-east. Very heavy generally north from latitude of Bowen. Rain was 38½ inches above at Innisfail, and 18½ inches above at Normanton.</i>	<i>Fairly good year. Good rain fell in April, May, July, November, and December, and although totals were below the average over most of the State, seven months out of the twelve, the annual totals were above the average over the greater part, especially in the south-eastern quadrant.</i>
<i>Generally well below normal, except small patches in Central and Western Divisions and at a couple of places on the Peninsula and north coast.</i>	<i>Good rainy month, and well above normal throughout the State.</i>	<i>Another good month and well above average, except most of Peninsula, and coast districts.</i>	<i>Mostly well below mean, but above in Port Curtis and Burnett Divisions, also over the Peninsula and from there southward to Muttaborra and Nebo.</i>	<i>Northern half dry and below normal, also the far south-west, Warrego and Wide Bay district; but very wet and well above over the remainder of the State.</i>	<i>Very wet year, with totals well above the average for eight months of the year. Rain was below average over most of the Peninsula, including the coast districts north from Townsville.</i>
<i>Good wet month. Above average south from line joining Normanton and Townsville, and east from line joining Normanton, Adavale, and St. George. Well above in south-eastern quarter. Below in west and most of Peninsula.</i>	<i>Dry month generally, except Darling Downs and Moreton districts, where slightly above on north coast and near Cunnamulla and Boulia.</i>	<i>Under average west from line joining Toowomba, Taroom, Avon Downs, Gilbert River, and Cooktown, except in Western Division between Carandotta and Monkira; also below on parts of north and south coasts.</i>	<i>Slightly below generally, except patches in central districts and Carpentaria, and south coast between Bundaberg and Gympie, and southern half of Darling Downs.</i>	<i>Below normal, although rain fell generally, but it was above in the south-east, including the Eastern Downs, and extending inland from there to Blackall, thence north to Aramac and Charters Towers.</i>	<i>Another good wet year, with totals well above average, excepting again most of the Peninsula—but it was above on the coast south from Cooktown; also below annual average over a large part of the south-east, south from the Tropic. During the first six months of the year rain was above the average over most of the State. Spring and early summer rains were not up to average.</i>

Years.	January.	February.	March.	April.	May.	June.	July.
1892 ..	<i>Below normal, except in central districts between Cloncurry, Muttaborra, Charleville, and Windorah, also on north coast extending inland to Mt. Surprise and Pentland, also patches on Peninsula and between Warwick and Helidon.</i>	<i>Very dry and much under normal over the whole State, especially in all eastern districts. Slightly above near Cloncurry, Boulia, and Birdsville.</i>	<i>Another dry month, except Peninsula (not including east coast south from Cooktown). Very heavy and above in south-east, east from line joining Gladstone, Taroom, and Warwick; also above at Cloncurry.</i>	<i>Again generally below, except east from line joining Welltown, Roma, and Gladstone, also between Mackay and Clermont.</i>	Wet month and above average, except over southern half of Peninsula (not including coast south from Cairns), and extending south from base of Peninsula to Boulia and Bimerah.	<i>Generally below normal. Practically no rain fell west from line joining Georgetown and Cunnamulla. Above average in extreme south-east, also over Western Downs and Maranoa to as far west as Charleville, on north coast south from Cairns, and on northern half of Peninsula.</i>	<i>Below average. Again no rain fell in western half, and very little on coast between Mackay and Townsville. Above on Darling Downs, Southern Maranoa, and Burnett, also over country extending west from Nebo and Rockhampton to Isisford, and on north coast between Cardwell and Musgrave.</i>
1893 ..	<i>Generally much below, but greatly above in South Coast Division, including parts of eastern and southern Darling Downs, also above on extreme north of Peninsula—12 inches above normal at Bundaberg and 11 inches above at Gladstone.</i>	<i>Below average all inland districts, but above in all coast districts, except between Cairns and Ingham. Extremely heavy in south-east, including Downs and Maranoa. Forty inches registered for month in Brisbane. Heavy floods all south-eastern rivers.</i>	<i>Greater part of State below, although rain was above average over large part of southern interior and over the Fitzroy River basin, on the coast between Bowen and Innisfail, and in Carpentaria between lines joining Gilbert River, Cloncurry, and Camooweal.</i>	<i>Below average generally, except the south-east quadrant, where generally above.</i>	South from a line joining Camooweal and Marlborough rain was generally above the average, also on Peninsula between Coen and Maytown. Rest of State below.	Again above normal over southern half of State (except the far west, where rain was below), especially east from a line joining Mackay and St. George; also above extreme north of Peninsula. Other parts below.	Another wet month, with rain above average generally, except over Carpentaria and far-western and south-western districts.
1894 ..	Fairly wet month, rain was above normal over about half the State and below over other half. It was above in south-eastern quadrant (except part of Downs) also above on coast between Mackay and Cooktown, and west from there to the Gulf.	Good wet month, and above normal generally, except east from a line joining Taroom and St. George, also below in central districts near Hughenden and Pentland, and from there north to Musgrave.	Another good month almost generally, 6 inches above normal at Charleville. Large area below east from a line joining Georgetown and Clermont, also parts of Peninsula; especially dry over extreme north.	Wet, and well above average generally, except west of line joining Boulia, Cloncurry, and Burketown, and extreme north of Peninsula.	<i>Much below average in western half, also between lines joining Normanston and Innisfail, and Bowen and Hughenden. Above over south-eastern quadrant (except Downs and Moreton districts); also above on the Peninsula (except east coast).</i>	Well above the average generally. Parts below were south from a line joining St. George and Maryborough (but above between Warwick and Toowoomba), Northern Peninsula, and most of the lower Western Division.	<i>Very dry month. Practically no rain fell south from the parallel of Townsville, but rain was above average over inland Peninsula south from Musgrave to Gilbert River and Cardwell.</i>
1895 ..	Most of State above. Very heavy rain fell south from Tropic and east from meridian of Springsure. Brisbane total, 21 inches above. Below in the far south-west, also north from line joining Camooweal, Boulia, Hughenden, and Marlborough, except narrow strip across base of Peninsula and on highlands inland from north coast.	Again above over greater portion of State; especially heavy over Carpentaria and central districts; 12 inches above at Cloncurry. Below over Northern Peninsula, most of south-east quadrant, and far south-west.	<i>Very dry month, much below average over whole State, but above at Innisfail.</i>	<i>Below over greater part, but above between lines joining Ayrshire Downs and Rockhampton and Ayrshire Downs and Warwick; also above on East-Central Coast, and North Coast and Peninsula between Coen and Innisfail.</i>	<i>Below all southern border districts and generally east from line joining Burketown and Goondwindi, but above in other parts.</i>	<i>Dry and below normal throughout the State, except at Innisfail, where 6 inches above normal.</i>	Good rain recorded north of line joining Maryborough and Monkira and south of line joining Normanston and Cardwell (except along coast north from Tropic), also above on northern half of Peninsula.

August.	September.	October.	November.	December.	Year.
<p>Very dry month, below average over whole State. A little rain fell along the north coast and east from a line joining Mackay and St. George. Elsewhere no rain fell.</p>	<p>Another dry period west from a line joining Charters Towers, Blackall, Charleville, and Thargomindah, but rain was above average east from above line, also above normal in neighbourhood of Monkira and Carandotta, and on the extreme north of the Peninsula.</p>	<p>Very wet month and well above average generally (except the north coast, between Cairns and Ingham). Very heavy rain fell south from a line joining Birdsville, Windorah, and Mackay.</p>	<p>Generally dry and below normal, but above average over the Maranoa, Northern Downs, and North Moreton, also over the country west from Marlborough to Aramac, thence north to Georgetown and Maytown, but below in both West and East Central Coast Division.</p>	<p>Another bad month, except Peninsula and east from a line joining Broad-sound, Roma, and Welltown, where well above. Exceptionally heavy in South Coast Division.</p>	<p>Rainfall failed to come up to the average over most of the State for ten months of the year. It was above the average generally south-east of a line connecting Rockhampton and Bollon. The 1891-92 summer rains failed.</p>
<p>Splendid rain throughout; above average over whole State.</p>	<p>Generally dry and below average; small isolated areas were above.</p>	<p>Again dry and below normal. Small areas above in the south-east quarter, also between Townsville, Elgin Downs, Nebo, and Bowen, and on highlands inland from the north coast.</p>	<p>Good rain fell, bringing the month's totals above the normal over most of the State. Below normal across base of Peninsula from the Gulf to the north coast, also between Bowen and Mackay and over area between Muttaborra, Grosvenor Downs, Nannango, St. George, and Aramac.</p>	<p>Dry, and much below average generally, except a small area near Cardwell, and between Ayrshire Downs, Hughenden, Bowen, and Nebo.</p>	<p>Rain again below average over most of the State, but totals were well above average over most of the country south of the Tropic. Below normal almost generally north from the Tropic. Exceptionally heavy rains occurred in the south-east during the early part of the year.</p>
<p>Most of State below the average, but good rain fell over the Peninsula and all central districts between lines joining Pentland, Thargomindah, and Taroom, slightly above also between Carandotta and Birdsville.</p>	<p>Good wet month, but below generally on the Peninsula and around Gulf, also over Warrego and lower portion of lower South-West.</p>	<p>Above average, except extreme south-east; near Rockhampton and north from a line joining Nebo, Penland, Mt. Surprise, and Normanion, but above between Cairns and Ravenswood. Below between Aramac and Windorah.</p>	<p>Below normal west from a line joining Normanion, Blackall, Marlborough, and Goondiwindi, but generally above east and north from that line.</p>	<p>Most of State above, but below over the Darling Downs, Maranoa, and Burnett districts, most of Carpentaria to east coast, and over Peak Downs and extreme south-west.</p>	<p>Very wet year generally and much above average almost throughout. The mean annual rainfall for the whole State is 2650 points, and the mean for this year was 4039, which is the highest average for any year from 1888 to 1913.</p>
<p>Only a little rain was recorded on the Darling Downs and along the coast (above average between Cairns and Innisfail), but no rain fell over rest of State.</p>	<p>Another dry month, but the rain was above the average over the Warrego, the eastern half of the far south-west, and in coast districts between Broad-sound and Gympie.</p>	<p>Still dry and below average generally. Small area between Camboon, Miles, and Roma was above, also above in far south-west, eastern half of the lower western, part of north coast, and extreme north of Peninsula.</p>	<p>Good rain and above average south-west of line joining Normanion and Bundaberg, but dry and below average north-east from that line; also below over Port Curtis and Burnett district.</p>	<p>Most of State rain was below average, but generally in the south-eastern quadrant it was above, especially over the Downs and coast south from Gladstone, also above inland parts of Peninsula south from Musgrave to Mt. Surprise, and between Charters Towers and Townsville.</p>	<p>Rain was below the average over most of the State for the year and for seven out of the twelve months. When the average for this year works out at 2622 it will be seen that on the whole the rain was about normal. It was well above the normal over a large area in the west, north from the Tropic and south from Camocweal, and west from the meridian of Muttaborra.</p>

Years.	January.	February.	March.	April.	May.	June.	July.
1896 ..	<i>Below generally inland and south of the parallel of Bundaberg, but above north and east of a line joining Bundaberg, Miles, Hughenden, and Gilbert River, also on the north coast and Peninsula, except inland between Fairview and Thornborough; very heavy on coast districts between Townsville and the Tropic.</i>	Very wet and greatly above average generally, except in the extreme south-west, where, below. 15 inches above at Cape York, 12 inches above at Charleville, 10 inches above at Muttaburra, Elgin Downs, Blackall, and Brisbane.	<i>The whole of the State south from the parallel of Bowen, also around the Gulf, and most of the Peninsula, was well below average. Rain was above average north and east of a line joining Charters Towers, Gilbert River, and Maytown, also on the extreme north of Peninsula and near St. George.</i>	<i>Greater part of State below, but above west and south of a line joining Normanton, Boulia, Springsure, and Cunnamulla, also above on the East Darling Downs and all Peninsula north of Cardwell and Mt. Surprise. Below round Gulf between Normanton, Georgetown, and Musgrave.</i>	<i>Much below average generally, except on north coast between Cairns, Thornborough, Fairview, and Cooktown.</i>	<i>Again very dry and below normal, except central coast between Bowen and the Tropic where slightly above.</i>	Good wet month and above average generally, except over Warrego, far south-west, the south-eastern portion of the lower Western Division; also below in coast districts between Gympie and Bowen, and Ingham and Cooktown.
1897 ..	<i>The year commenced with the rain totals below the average over most of the State. They were above the normal in the Central Division, also around the Gulf, near Cunnamulla, and between Surat, Miles, and Taroom.</i>	<i>Rain was registered in most of the eastern districts, but the totals were below the average generally over the State, except at one or two isolated places.</i>	<i>Like the previous months the rain was below normal generally, but above in small isolated patches.</i>	<i>Much below generally. No rain fell west from the coast districts—16 inches below at Innisfail. 5 inches below at Mackay, 3½ inches below at Brisbane.</i>	<i>Very dry and below average generally. Again no rain fell west from coast districts. Totals slightly above normal between Gilbert River, Maytown, and Herberton. Totals for last six months show Innisfail 69 inches below normal, Mackay, 32 inches below normal, Rockhampton, 17½ inches below normal, Brisbane, 14 inches below normal.</i>	Rain fell and was above average over most of State, except coast districts from Townsville southward, round Gulf and Peninsula north from Fairview, also over area extending from the Gulf towards Ayrshire Downs and Hughenden, and from there eastward to the seaboard.	<i>Practically no rain fell inland, but it was above the normal along the coast south from Bowen and generally south-east from a line joining St. George and Gayndah, also on the north coast between Cooktown and Innisfail.</i>
1898 ..	The year began fairly well, as the rain was above the average generally over the south-eastern quadrant, also on the Peninsula between Fairview, Georgetown, and Valley of Lagoons, and again in the far west between Monkira and Camooweal. In other parts the rain was below normal.	Splendid rain fell throughout the State, except over the Darling Downs and southern Maranoa and the upper Burnett watershed, also in small patches on the Peninsula, and between Valley of Lagoons and Cardwell. The rain was exceptionally heavy in the central districts—10 inches above normal at Hughenden, Isisford, Clermont, and Elgin Downs; 9 inches above at Ayrshire Downs.	<i>Very dry month all inland parts, but over all Peninsula north from a line joining Normanton and Cardwell, and in coastal districts south from Bowen and extending inland along the Burnett watershed to Miles, on the Darling Downs, the rain was much above the normal. Exceptionally heavy totals were recorded between Brisbane, Miles, and Rockhampton.</i>	<i>Rain much below average generally, except round the Gulf and on the extreme north of the Peninsula. At Cape York the total was 15 inches above normal.</i>	<i>Very dry month; very little rain fell anywhere, although over the Moreton district and between Cloncurry and Camooweal it was slightly above the average.</i>	<i>Another month below the normal generally, except all southern border districts, and extending northwards from the Far South-West along the western border to Cloncurry and Ayrshire Downs, where the rain was above the normal. It was also above on the Peninsula between Musgrave and Fairview.</i>	<i>Again dry, and below average generally, except on the north coast between Cairns and Cardwell.</i>

August.	September.	October.	November.	December.	Year.
<p><i>Much below normal. Rain was above average on north coast and Peninsula, also between lines joining Gladstone, Isisford, Aramac, Grosvenor Downs, and Rockhampton.</i></p>	<p><i>Again much below average generally, but slightly above at Cooktown.</i></p>	<p><i>Another dry month and totals were below the average everywhere, except at Gilbert River.</i></p>	<p>Good rain fell, especially in the south-east, including the Darling Downs and Maranoa. A large area west from a line joining Nebo and Taroom to as far west as Blackall and Hughenden, including the north coast and Peninsula, was below.</p>	<p><i>The last month of the year was generally below normal, but it was above over the Maranoa, Darling Downs, and Moreton districts, also in the central-west north from the meridian of Blackall, and west from a line connecting Normanston and Blackall.</i></p>	<p><i>Although the rain over the greater portion of the State was below the average, the average for the whole State was slightly above the normal. For nine months of the year rain was below normal over most of the State.</i></p>
<p><i>Generally below. A little rain was registered on the north coast, otherwise no rain fell over the western and northern halves. The totals were above average on coast between Bowen and Gladstone and extended inland to Muttaburra, also slightly above on south-east Darling Downs and near Gympie.</i></p>	<p>South from a line joining Monkira, Ayrshire Downs, Hughenden, Pentland, Ravenswood, Elgin Downs, Muttaburra, Forest Vale, Taroom, and Rockhampton the rain was above normal, also above from Herberton northward to Coen. Rest of State below.</p>	<p>Good wet month; above average generally, except across the base of the Peninsula and between Blackall Adavale, and Forest Vale, also over southern Maranoa and Peninsula between Coen, Musgrave, and Cooktown.</p>	<p><i>Bad month generally, but the rain was above the average between Muttaburra, Taroom, and Mackay, also near Brisbane and on the extreme north of the Peninsula.</i></p>	<p>Fairly wet month; above normal north and west of line joining Cardwell, Gilbert River, Carandotta, Boulia, and just west of Birdsville; also above between Townsville, Pentland, Elgin Downs, and Mackay, and very heavy south of Tropic and east from Charleville. Below in most central and south-western districts.</p>	<p>Very bad year; only isolated patches were above the annual average. The largest areas above the normal were in the Gulf country from Burketown southward and eastward to Donor's Hill; and most of the Darling Downs. In coast districts the following figures for six months (December, 1896, to May, 1897), give some idea of the dry spell:—Innisfail was 6908 points below normal; Mackay, 3217; Rockhampton, 1748; and Brisbane, 1434.</p>
<p>Fairly good month. The rain was above on the far north of the Peninsula and coast districts between Musgrave and Cardwell; also over most of the country west of a line joining Donor's Hill, Muttaburra, and Adavale; also eastward along the southern border to Brisbane, and from there north, taking in Wide Bay and Burnett districts, and the southern portion of the Leichhardt Division. Below normal in other parts.</p>	<p>Wet month, and above average generally, except on coast north from Cardwell, most of the Peninsula, and in the neighbourhood of Isisford and Thargomin-dah, and between Brisbane and Helidon.</p>	<p><i>Dry month and well below average generally, except a small strip extending from Forest Vale, through Roma, Surat, and Coomrith to Welltown, where the rain was above.</i></p>	<p><i>Very dry and again much below normal, except in the neighbourhood of Brisbane and between Maryborough and Bundaberg.</i></p>	<p><i>Another bad month generally, but the rain was above the average in small patches between Monkira and Birdsville, between Elgin Downs, Clermont, and Springsure, the extreme north of the Peninsula, and in the neighbourhood of Brisbane and Georgetown.</i></p>	<p><i>By far the greater portion of the State below average. Heavy rain fell during the first two months and good rain was experienced in August and September. The excess during these months made the average for the whole State slightly above normal. The annual totals were very much above mean in eastern districts south from Townsville and on parts of the north coast.</i></p>

Years.	January.	February.	March.	April.	May.	June.	July.
1899 ..	<i>Slightly below the average generally, but above in patches chiefly east of a line joining Nebo, Clermont, Miles, Coomrith, and Bullamon, but below between Nanango and Gympie; also above between Donor's Hill, Gilbert River, and Mt. Surprise, and at Coen, Fairview, Maytown, Ravenswood, Monkira, Adavale, and Cunnamulla.</i>	<i>Again below the average over most of the State, but it was above between lines joining Carandotta and Bime-rah, and Carandotta and Windorah; also above in coast districts between Marlborough and Bundaberg, and within lines connecting Townsville, Valley of Lagoons, Prairie, and Bowen.</i>	<i>Good month, and above the average over the whole of the northern half and most of the far-western and south-western districts, but in central parts and almost the whole of the south-eastern quadrant it was very dry and much below the normal. Very heavy rain fell over the Peninsula and north coast—13 inches above at Mapoon and Cooktown; 15 inches above at Cairns and Innisfail.</i>	<i>Below the normal all over the interior and Peninsula, and only above in eastern districts south from Fairview, and extending inland as far as a line connecting Clermont, Roma, and Warwick.</i>	<i>Again dry; practically no rain fell over the northern and western halves. The totals were above the average generally east from a line joining Elgin Downs and Nanango, also on the coast between Bowen and Mackay.</i>	<i>Another bad month, and below normal, except all along the southern border and in coast districts south from Bundaberg, where the totals were slightly above the mean.</i>	<i>Good rain fell during the month and totals were above the average, except in the far north and along the west coast of the Peninsula, and all far western and south-western districts, including most of Maranoa and Warrego, and between Gayndah, Nanango, and Maryborough.</i>
1900 ..	<i>A bad beginning for the year, as although rain fell, it was not up to the normal almost over the whole of the southern half and the major portion of the northern half. The rain was above the average over the Peninsula between Mapoon, Fairview, and Cooktown, and between Gilbert River, Hughenden, and Townsville, and along the coast north from there to Cooktown; also above between Brighton Downs and Carandotta, and isolated places in the south-west quadrant. Exceptionally heavy falls occurred on the north coast; Innisfail had a total of 62 inches for the month and Cairns 43 inches.</i>	<i>Very much below the average generally, although fair rain fell in the south-east, including the Darling Downs—totals at Dalby and Warwick were above. At Innisfail the total was 19 inches below the normal; at Cardwell, 14 inches below; and at Cairns 13 inches below.</i>	<i>The seventh consecutive month that rain has been below the average over the most of the State. The summer rains completely failed, and the rain was much below normal generally, except at Goondiwindi and in parts of the western southern border districts—between Currawinya, Thargomindah, and Innamincka (S.A.)</i>	<i>The eighth bad month. Much below normal and no rain fell at all in the western half, including the Carpentaria Division. Rain was well over the average over most of the Darling Downs and the eastern portion of the Maranoa.</i>	<i>Still without rain west of a line joining Cardwell, Blackall, and Goondiwindi, but generally east from there splendid rain fell, which brought totals for the month greatly above the average, especially from Springsure south-eastward to the Darling Downs and Moreton districts; also above on extreme north of Peninsula and at Musgrave.</i>	<i>The tenth consecutive month that rain has been below the normal over major portion of the State. Practically no rain fell in the interior, around the Gulf, or on the Peninsula, but totals were above normal again over the Maranoa, Darling Downs, and Moreton Divisions.</i>	<i>At last rain has fallen generally, and was slightly above the normal over practically the whole State, excepting only the Peninsula and north coast, also between a line connecting Cardwell, Georgetown, Charters Towers, and Ingham.</i>
1901 ..	<i>Dry conditions still continue generally and although some rain fell during the month it was much below normal, except a narrow strip across the base of the Peninsula extending from Normanton to Georgetown, and thence to the coast to Cardwell, and southward from there to Mackay, where the totals were well above the average.</i>	<i>Again much below the average generally, although rain fell all over the State. In coast districts north from Townsville, and including all eastern parts of the Peninsula, totals were much above the normal. It was also above average at Birdsville and Sandy Cape.</i>	<i>Fairly good month; north and west of a line connecting Birdsville, Aramac, Valley of Lagoons, and Cardwell beneficent rain fell and was above the average, especially in Carpentaria—Cloncurry was 8 inches above. Rain was also above at Cunnamulla, the southern half of the Downs, and generally east and south of a line joining St. Lawrence, Grosvenor Downs, Nanango, and Dalby, also above over Moreton district. Other parts below.</i>	<i>Another fairly good month; rain was above the average (except in small patches, where it was just under the normal), generally east of a line joining Thargomindah, Windorah, Bime-rah, Barcaldine, Hughenden, Gilbert River, and Fairview. It was also above in far western districts west from a line connecting Gilbert River and Carandotta. Below in other parts, including all Peninsula north from parallel of Fairview.</i>	<i>The third consecutive month of fairly good rain which was above normal, except south and west of a line joining Camooweal, Gilbert River, Valley of Lagoons, Ayrshire Downs, Windorah, and Bolton; also below average over a triangle formed between Bowen, Springsure, and Marlborough, and generally in the south-east, south and east from a line joining Gympie, Camboon, and Goondiwindi.</i>	<i>Dry weather prevailed; a little fell, but generally it was below average. The portions above were the Maranoa, Darling Downs, and Moreton Divisions, the Peninsula north from the meridian of Fairview, and along the western border between Carandotta and Birdsville.</i>	<i>Except along the coast no rain fell this month north of a line joining Innamincka (S.A.), Adavale, Forest Vale, and Rockhampton. South from that line the rain was above the average, excepting the south-eastern Darling Downs, and Moreton Division.</i>

August.	September.	October.	November.	December.	Year.
<p>Another good month, but rain was again below normal along the western border, also over the Peninsula and north coast, and in the south-east, including the eastern and southern Darling Downs.</p>	<p>Rain for this month was below the average generally, except on the north coast and the extreme north of the Peninsula. Practically no rain fell outside the south-eastern quarter of the State. In the south-east it was above the average east of a line joining Marlborough, Springsure, Taroom, Gayndah, and Dalby, and south from a line joining Dalby and St. George.</p>	<p>Below the normal generally, except in small patches. Again no rain fell in the western half or on the Peninsula. The rain was above the average between Townsville, Pentland, Elgin Downs, and Ravenswood; also between Springsure and Rockhampton, and between Gayndah and Nanango.</p>	<p>Another bad month. A little rain fell in Carpentaria, and at Gloncurry it was above the average; it was also above normal between Thornborough and Herberton, and along a narrow strip extending from Clermont south-eastwards to Brisbane.</p>	<p>Again no rain fell in the interior and very little on the coast and Peninsula, but it was above normal east from a line connecting Mackay, Camboon, Dalby, and Welltown.</p>	<p>The rain for this year was below the average over almost the whole State, although it was well above normal in coast districts between St. Lawrence and Bundaberg; and on the north coast between Cairns, Herberton, and Cardwell. Seven out of the last nine months of the year the rain was below the average over most of the State.</p>
<p>Rain this month failed to come up to the average, except over an area between lines joining Isisford, Rolleston, and Rockhampton, and Isisford, Toowoomba, and Gladstone, also between Ravenswood and Bowen, and again between Thornborough and Cooktown.</p>	<p>Again the rain was below the average over most of the State. A large area west of a line joining Donor's Hill, Ayrshire Downs, and Boulia had rain above normal, also the extreme north of the Peninsula, parts of the north coast and mountains immediately west of the coast; while in the south-east it was above normal over most of the country east of a line joining Rockhampton and St. George.</p>	<p>Practically no rain fell away from the coast districts, but over the Burnett watershed and between Innisfail and Cardwell the rain was above the average.</p>	<p>Slight relief rain fell over the Maranoa, Darling Downs, and south coast districts; it was above the average between Roma and Bullamon, and between Nanango, Toowoomba, and Melidon. It was also above at Cunnamulla and Ayrshire Downs, and between Herberton and Maytown. Elsewhere it was dry, and no rain of any note fell.</p>	<p>The last month of the year and still without rain of any value generally, although at Normanton, and between Roma, Surat, Coomrith, and Dalby it was above the average.</p>	<p>Very bad year with rain below the average throughout the State, excepting a few isolated places in the south-east. July was the only month during the year that rain totals were above the normal over the greater part of the State.</p>
<p>Rain totals were above the normal generally, except north and west of a line joining Carandotta, Richmond, Mt. Surprise, Fairview, and Cooktown, and in the centre of the State between Aramac, Blackall, Springsure, and Elgin Downs.</p>	<p>This month was again dry over most of the State, although it was above the normal over a fairly large area between Mackay, Elgin Downs, Isisford, Forest Vale, Toowoomba, Warwick, Beaudesert, and Bundaberg, also on the north coast between Cardwell and Cairns, extending inland from there to Georgetown.</p>	<p>Generally below the normal figures for the month, except the Darling Downs, Moreton, and upper Burnett watershed, all the Peninsula and north coast, and at Bowen and Marlborough, where above the average falls were recorded.</p>	<p>Very bad month and much below the average generally, excepting only at Cairns, where the rain was slightly above normal.</p>	<p>A little rain fell during the month in the eastern districts, around the Gulf, and on the Peninsula, but the totals were much below normal all over the State.</p>	<p>This year was slightly better on the average than the previous year, but fully nine-tenths of the State was below normal. Round the Gulf; on the Peninsula between Mein and Fairview; coast districts between Port Douglas and Cardwell; between Bowen and Mackay; and southward from Maryborough almost to Brisbane; also on parts of the Darling Downs, the totals were above average.</p>

Years.	January.	February.	March.	April.	May.	June.	July.
1902 ..	<i>Rain fell over most of the State, but it was much below the average throughout, except at Gilbert River, where the total for the month was just above the normal.</i>	<i>A similar month to January. All over the State the rain was below the normal, except in two small patches—near Cardwell, and between Cairns, Maytown, and Thornborough.</i>	<i>Very dry and much below the average throughout. Summer rain again failed making the fourth summer in succession that rain failed over most of the State.</i>	<i>A little rain fell in the eastern districts, but no rain was recorded in the interior. At Mackay, Dalby, and Camboon, the totals were slightly above normal.</i>	<i>Like previous months a little rain fell along the seaboard, but elsewhere no rain was experienced.</i>	<i>Still dry and without rain, and much below the average everywhere, except on the north coast between Cooktown, Herberton, and Innisfail, where the totals for the month were slightly above the normal.</i>	<i>No rain fell at all this month, except a few showers along the coast. On the north coast between Cardwell and Cooktown the totals were again above the average.</i>
1903 ..	<i>Again totals were below the average generally, except on the Peninsula north from a line drawn from Normanton, Mt. Surprise, Thornborough, and Innisfail; also above average at Birdsville, Windorah, and Cunnamulla.</i>	<i>Dry conditions continue and rain was below the normal generally, except on the Peninsula, between Fairview and Thornborough, where the totals were well above the average.</i>	<i>This month most of the State had rain above the normal; but it was below in the south-west, also south and east of a line joining Marlborough, Elgin Downs, Muttalburra, Springsure, and Roma. It was also below over the eastern Darling Downs and Moreton Divisions, and the Western Peninsula, between Mapoon and Musgrave.</i>	<i>Fair month over the northern half, most of which was above the average, and most of the southern half was below. It was above west from Currawinya and Thargomindah, and south from Surat to Goondiwindi and Hebel.</i>	<i>A good wet month over the whole of the south-eastern quadrant, and the rain also extended into the South-west Division and the southern part of the Western Division, and up through central and eastern districts to Hughenden and Townsville. It was also above on the Peninsula north from the meridian of Thornborough. Very heavy rain fell over the Darling Downs, Maranoa, and all south coast districts.</i>	<i>A little rain fell over the eastern districts, but totals were below the average generally, except on the Peninsula north from Coen and at Thornborough.</i>	<i>Good wet month and well above the average almost generally south of the Tropic, also east of a line connecting Pentland and Daringa, and over the inland parts of the Peninsula north from Georgetown to Cape York. The north-west quarter and most of the far west was below; it was also below in coast districts north from Townsville.</i>
1904 ..	<i>Rain was below the average generally, except in small patches in the eastern districts and over a narrow strip in the far west extending from Cunnamulla through Adavale, Bimerah, Brighton Downs, Boulia, and Carandotta to Camooweal. In the eastern districts rain was above normal over a strip between Banana and Gympie, between Grosvenor Downs and Mackay, and between Maytown and Thornborough.</i>	<i>Fairly good rain fell generally, and it was above the average over most of the Peninsula, Carpentaria, and Western Divisions, also above between Blackall and Springsure, and over the country lying between St. George, Goondiwindi, Toowoomba, and Dalby. With the above exceptions totals were below the normal generally over the eastern half.</i>	<i>Rain again fell almost throughout, but, with the exception of isolated places in the Southern Division, namely, at Brisbane, Dalby, Warwick, Goondiwindi, Bullamon, Charleville, and Windorah, and east of a line joining Coen and Valley of Lagoons, where the totals were above the average, the rain for the month was generally below the normal.</i>	<i>This month proved a good wet one over the south-eastern quadrant and all the Peninsula (except between Musgrave and Maytown). Rain was very heavy in coast districts south from Mackay. Little or no rain fell west and south from a line drawn from Thargomindah to Hughenden and Normanton, but at Birdsville the rain was nearly 2 inches above the mean.</i>	<i>The western and southern parts of the State, i.e., south of a line drawn from Burke town to Maryborough, had rain above the average for the month, while generally north from that line (except between Valley of Lagoons and Herberton), the totals were below the normal.</i>	<i>A little rain fell in the eastern districts, and at Grosvenor Downs and Nebo it was above the average, but with these exceptions totals were below normal throughout.</i>	<i>Excepting the southern portion of the State practically no rain fell this month, but over the country lying between Goondiwindi and Helidon the rain was above normal.</i>

August.	September.	October.	November.	December.	Year.
<p>Twelve months now since rain was above the average over most of the State. Except over the Warrego, parts of the Maranoa, and south-western Darling Downs, where it was above normal, practically no rain fell away from the coast.</p>	<p>The unlucky thirteenth month since good rain fell over most of the State and still without relief. Light rain fell over the Darling Downs and South Coast Divisions. It was just above normal at Rockhampton, Carnadotta, and Monkira.</p>	<p>Still without rain up to the normal generally, excepting the eastern Darling Downs and Moreton districts, where it was slightly above the average. The first time the rain was above the normal in these districts since October, 1901.</p>	<p>Most of the State without relief, although it was above the average for the first time since August, 1901, in the far west, west from a line joining Norman-ton, Windorah, Isisford, Forest Vale, and Bollon, and it was again above over Darling Downs and Moreton Divisions.</p>	<p>For the first time since August, 1901, the major portion of the State had rain above the average, but even now the whole of the far western districts (which had relief last month), the Peninsula (except the southern interior), and the eastern districts north from Mackay and Pentland and south from Gladstone, the rain was below normal.</p>	<p>This year was the climax of eight bad years. Rain was over 50 per cent. below the average. Only in December were the totals above the average over the major part of the State. For fifteen consecutive months previous to December rain totals were below the average over most of the State. Rain was above normal for the year on the extreme north of the Peninsula; and at Mt. Margaret in the far south-west of the State.</p>
<p>No rain fell on the Peninsula or over the western half of the State, but between lines joining Adavale and Goondiwindi, thence to the Tweed, and from Isisford to Taroom, Nanango, and Maryborough rain was again well above normal. It was also above at Gladstone, the extreme north of the Peninsula, and over a narrow strip extending from Hughenden and Pentland northwards to the coast between Innisfail and Ingham.</p>	<p>A very wet month almost generally, and above the average, except north of a line joining Gladstone, Emerald, Hughenden, Gilbert River, Normanton, and Burketown; also below in the far west, south from Carandotta and Boulia.</p>	<p>Fairly good month, and rain was above the average over most of the eastern half, including the north coast, and from about Townsville it extended westward to Cloncurry and Carandotta, taking in the southern portion of Carpentaria and the northern halves of the Central and Western Divisions. Over the south-west quarter, the Peninsula, and around the Gulf rain was below normal.</p>	<p>A wet month over the eastern and northern halves generally, especially so on the Darling Downs and Maranoa, and northwards from there to the coast between Gladstone and Mackay; also above average in western border districts south from Boulia.</p>	<p>Very wet month in western and northern halves, and above the average over whole of State, except the southern half of the South Coast Division, parts of the eastern Downs, and within lines connecting Forest Vale, Springsure, Marlborough, Elgin Downs, Aramac, Isisford, and back again to Forest Vale. At Cloncurry the month's total was 2026 points; at Brighton Downs, 992; Normanton, 1455; Mapoon, 1897; Herberton, 1552; Innisfail, 3786; Cardwell, 3894; and at Townsville, 1902.</p>	<p>A good year over most of the State with totals well above the average, except in the central districts within lines joining Pentland, Richmond, Longreach, Bogantungan, Tambo, Adavale, Reedy Creek, Blackwater, Clermont, and Pentland; also in most eastern districts east from a line connecting St. Lawrence, Taroom, and Dalby, where the totals were below normal.</p>
<p>The rain for this month was below the average throughout. A little rain fell along the coast districts and over the Darling Downs and Maranoa; elsewhere no rain fell at all.</p>	<p>Again almost generally no rain fell away from the coast. The exceptions where totals were above the average were round the extreme south-west corner of the State, generally over the Darling Downs, and along the southern border districts to the coast; on the Peninsula from Mt. Surprise northwards to Fairview, and to the coast in the neighbourhood of Cooktown; also at Mackay.</p>	<p>Summer rains started well and were above the average almost throughout. The rain was especially heavy in all central districts. Over the Peninsula, north from the latitude of Innisfail, between Rockhampton and Camboon, and over most of the Darling Downs and Maranoa, the rain was below normal.</p>	<p>Below average generally. Although fairly good rain was experienced east of a line joining Townsville and St. George, it was only above the average between Clermont and Grosvenor Downs, and at Camboon. Rain was above the average also at Hughenden and between Gilbert River, Thornborough, and Maytown.</p>	<p>Fairly good month. About half the State was well above, and the other half well below. All the Peninsula, the Gulf country into Camooweal, the major portion of the interior of the southern half was above average. All eastern districts south from Innisfail, except between Gladstone and Bundaberg, were well below normal, and the far west and south-west were well below.</p>	<p>Rain was below the average over most of the State for seven months of the year, and the annual totals were also below over most of the State. In the far west—west of a line joining Norman-ton and Birdsville—the rain was well above the average; it was also above within lines joining Bollon, Springsure, Longreach, Windorah, and Bollon. Rain was above normal in a few other scattered patches.</p>

Years.	January.	February.	March.	April.	May.	June.	July.
1905 ..	<i>The year started badly with rain below the average generally away from the coastal or eastern districts. Rain was above normal east of a line joining Killarney and Clermont, and north and east from a line joining the latter place to Aramac, Muttaburra, Pentland, and Charters Towers; also above over the southern half of the Peninsula.</i>	<i>Very bad month and much below normal generally. Muttaburra's record was 3 inches below normal; Norman-ton's, 8 inches; Innisfail's, 16 inches; Mackay's, 7 inches; Springsure's, 3 inches; and Brisbane's, 4 inches.</i>	<i>Again dry and much below normal throughout. The total deficiencies for the two months at the stations mentioned in February were—Muttaburra, 6 inches; Norman-ton, 11½ inches; Innisfail, 34 inches; Mackay, 14½ inches; Springsure, 5½ inches; and Brisbane, 7½ inches.</i>	<i>April was a wet month and well above the average south from a line connecting Norman-ton and Cardwell, and east from a line joining Norman-ton, Clon-curry, Ayrshire Downs, and Windorah. The far-south-west was above, except between Thargomindah and Currawinya, and it was also below average on the Peninsula, except at Mapoon and Maytown.</i>	<i>Rain fell over most of the Southern Division, also on the Peninsula and in the coastal districts, but it was only above the average on the north coast from Cooktown down to Innisfail, and extending inland from the coast to Mt. Surprise; at Windorah and in the south-east, including the Darling Downs and eastern Maranoa, excepting the coast south from Gympie, and along the southern border to Bullamon. Little or no rain fell elsewhere.</i>	<i>Below average almost generally. No rain fell inland, except along the western border north from Birdsville, where it was above the average. Rain was also above on the north coast between Cooktown and Ingham, and on the Peninsula north from Coen.</i>	<i>Again dry and generally below average, although light rain was experienced over all the Southern Division and in most of the eastern districts; it was only above the normal from Elgin Downs northward to the Valley of Lagoons.</i>
1906 ..	<i>Rain fell generally, but it was mostly below the average. A small area extending south-eastward from Dalby to the Tweed was above the normal; also at Forest Vale and a large portion of the south-western quadrant, and it extended from there through the central and northern interior in the vicinity of Ayrshire Downs and Hughenden to the Valley of Lagoons, Herberton, and Cardwell, and eastward from Hughenden to Ravenswood and Bowen.</i>	<i>February was a very wet month, and the best general rain occurred since April the previous year. The totals were generally much above the average, especially over the whole of the southern half, except along the western border between Birdsville, Boulia, and Carandotta, where it was below normal. Rain was also below between Donor's Hill and the Gulf, most of the Peninsula, and at Ayrshire Downs. Rain was 8 inches above at Springsure, 7½ inches at Charleville, and 10 inches at Taroom.</i>	<i>Again the rain was heavy and above average almost generally south of a line drawn across the base of the Peninsula. At Roma, Charleville, Grosvenor Downs, the coast districts south from Gladstone, and parts of the southern and western borders the rain was slightly below normal. Very heavy falls occurred in all central districts. Springsure and Isisford recorded over 20 inches for these last two months, and Muttaburra totalled 19½ inches.</i>	<i>A little rain fell on the Darling Downs, in all coast districts, and on the Peninsula, but the totals were much below normal. Inland no rain fell.</i>	<i>Below average over most of the State. Practically no rain fell in central, western, and northern areas, but east from a line joining Townsville, Springsure, and Warwick good rain fell, and it was above the average.</i>	<i>Again rain fell in the eastern districts, but it was below the average generally, except on the extreme north of the Peninsula, and on the north coast north from Ingham, also at Ravenswood and Mackay.</i>	<i>No rain fell over the Central and Northern Divisions, except on the coast north from Cardwell, where it was above the average. It was also above between lines connecting Charleville and Birdsville, and Charleville and Boulia, and at Roma and Surat. Rain was below the mean over the remainder of the State.</i>
1907 ..	<i>Rain this month was below the average over most of the State, although fairly good falls occurred generally. In western border districts west of a line joining Camooweal, Brighton Downs, and Thargomindah, over the Peninsula and coast north from Cardwell, also over a large area extending north and north-west from the southern border between Bullamon and Harrisville to Springsure and Banana, the rain was above normal.</i>	<i>Again below over the greater part, but fairly good rain fell in eastern and south-eastern districts. It was above the average at Forest Vale, between Nanango, Gympie, and Maryborough, and almost generally north from a line joining Carandotta and Bowen. On the Peninsula, north from Musgrave, it was below.</i>	<i>Rain fell generally except west of a line joining Norman-ton and Birdsville; but it was only above normal from Adavale southward to the border, between Elgin Downs, Aramac, and Clermont, and in the south-east over most of the country lying east of a line joining Rockhampton and St. George.</i>	<i>Generally below the normal, although fairly good rain fell over the southern interior; the rain was only above the average at Isisford, and between Charleville and Forest Vale.</i>	<i>This month was a good month, and rain was above the average almost generally over the northern half, also in the south-east, east of a line connecting Gladstone and Goondiwindi, and in the far west south from Boulia. South from a line connecting Boulia and Rockhampton, except as above mentioned, rain was below average, also below within lines joining Camooweal, Clon-curry, and Carandotta.</i>	<i>Another good month. Rain was above the normal south from a line joining Birdsville and Boulton, and east and north of a line joining Croydon, Ayrshire Downs, Surat, and Munday. Between these lines totals were below the mean.</i>	<i>Below the average over most part; practically no rain fell over the northern half, but the southern half had fair rain, and it was above the average between Boulia, Brighton Downs, and Monkira, also within lines connecting Thargomindah, Forest Vale, Clermont, Elgin Downs, Isisford, and back to Thargomindah.</i>

August.	September.	October.	November.	December.	Year.
<p>Still very dry and much below average generally, although it was above on the extreme north of the Peninsula and east of a line joining Fairview to Herberton.</p>	<p>Very dry and again much below average generally, except between Gladstone, Banana, and Sandy Cape; also between Townsville and Bowen, and on the Peninsula at Mapoon.</p>	<p>Rain fell over most of the south-eastern quadrant, but it was only above the average east from a line joining St. George and Camboon, but not between Gympie and Brisbane. Little or no rain fell over the rest of the State. So far this year rain has been below the normal in Brisbane eight out of the ten months, and the total deficiency is nearly 13½ inches.</p>	<p>Still the rain was below the average over the majority of the State. It was nearly up to normal in the south-east, including the Darling Downs and Maranoa, but it was only above at Helidon, and between Goondiwindi, Coomrith, and Bullamon; also above between lines joining Rockhampton, Taroom, Blackall, Clermont, and Ravenswood; at Muttaborra, Brighton Downs, and Carandotta; and between Mt. Surprise, Fairview, and Thornborough.</p>	<p>Rain fell almost generally this month, and was very close up to normal, but it was only above in coast districts south from Mariborough, and extending inland over the Downs to Roma and Goondiwindi. At Camooweal it was just above normal.</p>	<p>Very bad year, with the average for the whole State about 36 per cent. below normal. Only at isolated spots in the south-east quadrant, and at Tangorin was the rain above average; the largest area being in the coast districts between Maryborough and the Tropic. April was the only month during which rain totals were above normal over most of the State.</p>
<p>The country west from a line joining Cooktown and St. George had no rain at all, but east from that line the totals for the month were above the average, except along the coast between Mackay and Cardwell.</p>	<p>Heavy rain fell, and it was above the average almost throughout. No rain fell on the Peninsula north from Coen, and at Georgetown it was slightly below normal.</p>	<p>The rain over the greater part of the southern half was above the average, and it was also above along the coast from Mackay northwards to Cardwell. East of a line joining Marlborough and Taroom the rain was below the mean as was also the case over the Peninsula, Carpentaria, and the western border districts to as far south as Birdsville.</p>	<p>Totals over most of the State this month were above the normal, and rain was registered throughout; but was below the average in the far west from Cloncurry southward to Thargomindah, also between Hughenden and Muttaborra, and east and north of a line connecting Bowen, Nebo, Springsure, and Charleville, and from there to the Tweed; but rain was above between Gayndah and Gympie.</p>	<p>Again rain was above the average over most of the State. Round the Gulf and over a large portion of the central districts extending from Brighton Downs in the west to Marlborough in the east, and from Winton in the north to Blackall in the south; also along the southern border west from Goondiwindi, and between Brisbane, Gayndah, and Bundaberg, it was below normal.</p>	<p>Good wet year with rain totals above average generally south of a line connecting Lake Nash, Cloncurry, Croyden, Palmerville, and Innisfail. During February the best general rain occurred since April the previous year. North of the above-mentioned line rain totals were below average.</p>
<p>Dry month and much below the average. Rain fell in coast districts, and most of the Southern Division, but it was only above the normal at Nebo and on the Peninsula between Musgrave and Maytown.</p>	<p>Another very dry month. Little or no rain fell anywhere, except on the coast north from Innisfail, and on the Peninsula north from Musgrave, where it was above the mean.</p>	<p>Fairly good rain fell generally, but it was below the average over most of the State. It was above average on the Peninsula north from Coen, also over a large area extending south-eastward from the Gulf between Camooweal and Normanton to Hughenden and Ayrshire Downs, and from there southward to Adavale; thence eastward to Charleville and Forest Vale.</p>	<p>Good wet month and well above the average over most of the State lying east and north of a line joining Camooweal, Blackall, and Cunnamulla; also above round the far south-west border districts. Rain was below west of the line above-mentioned on the extreme north of the Peninsula, and on most of the north coast.</p>	<p>Very wet and much above the average throughout, except the extreme north of the Peninsula, one or two places along the western southern border, most of the Darling Downs, and between Gladstone and Bundaberg. The rain was very heavy over almost all the inland parts, the Peninsula, and north coast.</p>	<p>The annual map shows most of the State below average, but it was very near normal, and the average of the whole State shows the rain slightly above the normal, so on the whole the year may be termed a normal year for rainfall.</p>

Years.	January.	February.	March.	April.	May.	June.	July.
1908	Rain fell in the eastern districts, over the Peninsula, and around the Gulf, but generally it was below the average. Patches where the rain was above normal were—between Charters Towers and Ravenswood; between Cairns and Gardwell; between Coen and Musgrave; and at about half-a-dozen very scattered stations.	Rain fell throughout, but over the majority of the State it was below the normal. A large area where the totals were generally above the average was north of a line joining Boulia and Goondiwindi, and south of a line connecting Richmond, Hughenden, Aramac, Blackall, Springsure, and Rockhampton.	Wet month with the rain totals above average generally, except over most of Carpentaria, and in the far west north from Boulia; it was also below average over parts of the Warrego and in coast districts between Bustard Head and Double Island Point.	Rain fell generally, but it was below normal over most of the State. Good totals were recorded and it was above the average generally south-west from a line joining Camooweal and Goondiwindi; also between Bundaberg, Banana, and Rockhampton; between Bowen, Mackay, and Nebo; and between Coen, Musgrave, and Cooktown.	Below the average almost generally; but it was above within lines joining Innisfail, Charters Towers, Twin Hills, Winton, Kynuna, Longreach, Alpha, Clermont, Nebo, and Ayr; also above at Cape York, Coen, and Sandy Cape.	Below the average throughout. Light to moderately heavy rain was recorded all along the coast and over most of the south-east quadrant.	Rain totals were below normal over most of the State. Rain was recorded generally east of a line joining Normanton and Thargomindah; but it was only above the mean between lines joining Isisford, Thargomindah, Cunnamulla, Taroom, Barcaldine, and Isisford; and north and east of a line connecting Mackay, Hughenden, Normanton, and Coen.
1909	Rain was recorded throughout, but over most of the State the totals failed to come up to the average. Rain was above normal within lines connecting Richmond, Charters Towers, and Aramac; also within lines joining Gladstone, Rolleston, Barcaldine, Isisford, Charleville, Chinchilla, and Double Island Point; also above in patches along the coast north from the Tropic to Cape York.	Again rain was registered generally, but it was mostly below the average. Many parts of the southern interior were above the normal.	Still rain over most of the State was below the mean, but almost generally north and west of a line joining Boulia, Aramac, and Ingham, the totals were above the average. It was also above normal between Yeulba and St. George. Elsewhere well below.	Again mostly below normal, but the rain was about normal or above over most of the State south from the latitude of Bundaberg. It was also above between Clermont, Springsure, and Banana; between Winton, Muttaborra, Barcaldine, and Longreach; between Cairns and Innisfail; and at Camooweal.	Generally much below normal; but the totals were slightly above between Charters Towers, Ayr, and Bowen; on the Peninsula north from Musgrave, and in the vicinity of Georgetown, Gilbert River, and Goondiwindi.	Splendid wet month, with rain above the average over most of the State, especially in central and southern interior. Rain was below average between Wallangarra, Toowoomba, and Brisbane; also east of a line joining Double Island Point, Camboon, Emerald, and Mackay; the Peninsula north from Coen; and in the far west—south and west of a line connecting Uran-dangie, Winton, and Thargomindah.	No rain fell west of a line joining Normanton and Hebel. Between the coast and a line connecting Ingham, Hughenden, Roma, Nanango, and Brisbane, good rain fell, and totals were above average; also above over Peninsula north from latitude of Cooktown; in Gulf country between Normanton and Gilbert River; and in the extreme south-east Darling Downs, and from there eastward to the coast.
1910	Almost generally all parts east and north of a line joining Hebel, Charleville, Georgetown, and Normanton rain totals were above the average; also above round the far south-west corner west from a line joining Windorah and Thargomindah, and between Camooweal and West Leichhardt, and at Mackinlay. Rest of State below.	About half State above and half below. Rain was registered generally. It was above average north from a line joining Townsville, Winton, Windorah, and Uran-dangie; also within lines joining Augathella, Springsure, and Tambo; on southern border between Texas, Wallangarra, and Stanthorpe, and at Banana. Below average in other parts.	Very wet month, with rain above average almost generally. Totals were slightly below on the Darling Downs within lines joining Texas, Yandilla, Pittsworth, and Killarney, and at one or two other very isolated places. Rain was 12 inches above average at Augathella, 10½ inches above at Tambo and Barcaldine, and 8 inches above at Blackall.	Rain was below the normal over most of the State. It was above on the Peninsula north from Coen; north and west of a line running from Uran-dangie to Cloncurry and Normanton; in the far south-west between Windorah and Thargomindah; on the coast between Cairns and Innisfail; and at Bowen	Again well below the average generally. Totals were above the normal at Eulo, Normanton, Gilbert River, Coen, Cooktown, and Herberton.	Over the whole State south from a line connecting Camooweal, Mackinlay, Richmond, Pentland, Mt. McConnell, and Bowen (except between Longreach and Muttaborra), the rain was well above the average, and it was below normal over most of the State north from that line, the only exception being in the coast districts between Port Douglas, Clarke River, and Ingham.	Rain over most of the State was below the normal. It was above between Charters Towers, Ravenswood, and Mt. McConnell; between Marlborough, Clermont, Rolleston, and Gladstone; and south from a line joining Uran-dangie, Cloncurry, and Toowoomba.

August.	September.	October.	November.	December.	Year.
<p>Again below average over most of the State; but it was above normal over most of the south-east quadrant; it was also above between Jundah and Windorah; and at Pentland, Cardwell, Cooktown, and Coen.</p>	<p>Below average generally. Fairly good rain fell over the south-east quarter and along the coast; but it was only above normal between Miles, Yeulba, Taroom, and Hawkwood; between Herber-ton and Innisfail; between Coen, Fairview, and Cooktown; and at Brisbane.</p>	<p>Good wet month, with rain totals well above the average generally west of a line joining Nebo, Taroom, Dalby, and Stan-thorpe, and south and east of a line joining Camoo-weal, Gilbert River, and Mus-grave. The rain was very heavy between Long-reach, Emerald, Springsure, and Jundah. Rain was below average over the rest of the State</p>	<p>Below normal over the greater part. It was above the average over most of the Darling Downs, and from there along the extreme southern border districts to Southport; also above within lines joining Roma, Cunnamulla, Win-dorah, Isisford, Blackall, and back to Roma; and within lines connecting Floraville, Georgetown, and Normanton; and at Mackay, Rock-hampton, Sandy Cape, and Hugh-enden.</p>	<p>This month the rain was below the aver-age over most of the State, although fairly good rain fell generally. It was only above the average south and west of a line join-ing Longreach, Charlieville, Gun-namulla, and Goondiwindi; and between Burke-town and Donor's Hill.</p>	<p>Again most of the State below the average, but on the whole it was a fair year, with the average for the whole State only slightly below the normal. The greater part of the south-west quadrant of the State was above average.</p>
<p>Splendid rain fell, which brought totals above the averages south from a line drawn from Camoo-weal to Cloncurry, Croy-don, and Rock-hampton; also above normal on coast between Townsville and Cooktown. Below normal over other parts. During the past two months practically the whole State has had rain above the average.</p>	<p>Little or no rain fell away from the coast districts, and totals were below average generally. In the extreme south-east within lines connecting Yandina, Pitts-worth, and South-port; also at Sandy Cape, Gladstone, Junction Creek, and Herber-ton, the rain was above normal for the month.</p>	<p>Below average for greater part; but above north from a line joining Townsville and Camoo-weal; with-in lines connecting Mackay, Twin Hills, Alpha, Longreach, Ayr-shire Downs, Hughenden, and Bloomsbury; also between Rock-hampton, and Marlborough; and along the southern border east from Goondiwindi. Fairly good rain was experienced over most of the eastern districts.</p>	<p>Major portion of State below normal. Almost generally over the Peninsula and north coast rain was heavy and well above aver-age; also above in places in Car-pentaria; about normal or above south and east of a line joining Bowen, Hughen-den, and Bollon; but below west of that line; also be-low over most of the Darling Downs.</p>	<p>Very good wet month and above average generally, except west of a line join-ing Camoo-weal, and Jundah; also below over the Maranoa, and Western Darling Downs, although fair rain was reg-istered there.</p>	<p>Similar year to the two previous, but the annual average was slightly less than either, and the total area above normal was smaller. The average rainfall for the whole State is 2650 points, and the figures for this year and for 1908 and 1907 were 2587 points, 2609, and 2657 respectively.</p>
<p>Very dry month and below the average generally, except between Cairns, Herber-ton, and Innisfail, and on the Peninsula north from More-ton. A little rain was recorded in coast districts and over the southern interior, but else-where no rain fell.</p>	<p>Almost generally north and east of a line joining West Leichhardt and Southport the rain was above the average, and south from that line it was below. East from a line con-necting Dingo, Hawkwood, and Woodford (except at Gayndah and Bundaberg) the rain was below the mean.</p>	<p>Totals for this month were below the aver-age over the greater part of the State. Generally the rain was about normal—large areas were above and again large areas were below, and rain had been experi-enced generally. On the Peninsula north from Walsh River it was very much above, and it was also above mean over most of the Darling Downs and south-eastern districts.</p>	<p>November was a good wet month, and the rain was above the average almost throughout, es-pecially good rain fell over the south-ern interior. It was below the aver-age slightly over most of the Penin-sula north from Palmerville; also in the far west south from Uran-dangie and Boulia, and over the Bris-bane River water-shed.</p>	<p>Rain over most of the State was below the normal, al-though rain was experienced gener-ally. It was very heavy and above the average gener-ally over the Peninsula and to as far south as Pentland. It was above normal between Camoo-weal, Donaldson, and Cloncurry; also above or about normal over a large portion of the south-east quadrant. It was below in coast dis-tricts from Nanan-go north to Broad-sound.</p>	<p>On the whole a good year, with rain above the normal almost throughout. The areas below average were between the Gulf and a line drawn from Normanton nearly to Cloncurry, and from there to West Leich-hardt and Lawn Hill; in the far west, south from a line joining Urandangie, Boulia, and Jundah, and north from the latitude of Jundah; most of the southern border districts and over the Burnett and Mary watersheds. Two hundred and one inches were recorded at Harvey Creek, North Coast Division.</p>

Years.	January.	February.	March.	April.	May.	June.	July.
1911 ..	Good wet month, with rain above the average almost generally north and east of a line connecting Camooweal, Adavale, and Eulo. Rain totals were below normal south-west of that line; also on the Peninsula north from Coen, and between Gilbert River, Georgetown, and Tate River.	Another good month, with the rain about normal or above, but it was below average over most of the Moreton district and Darling Downs, and west of a line joining Adavale, Longreach, Winton, Richmond, and Tate River, excepting the Gulf districts northwards from Donor's Hill through Normanston.	<i>Rain for the month was below the average generally, except in the coast districts between Ayr and Rockhampton; between Gladstone, Rosedale, and Mt. Perry; and from Sandy Cape southward to Caloundra; also on the coast east from a line joining Mein, Walsh River, and Herberton.</i>	About half the State above normal and half below. North from a line joining Urandangie, Boulia, Isisford, Twin Hills, and Nebo (except the coast between Townsville and Bowen), the rain was well above the average. South from that line it was below. Very heavy rain was experienced on the north coast—Cairns' total for the month was 5231 points; Innisfail's, 5053; Cooktown's 2679; and Ingham's, 1946.	<i>Below average generally, except along southern border districts between Cunnamulla and St. George.</i> Good rain was registered over the Maranoa and Darling Downs Divisions, but it was not up to the normal.	<i>Rain totals were below the average throughout. A little rain was experienced in coast districts, but elsewhere no rain fell.</i>	<i>Another bad month, with rain totals below average almost generally. Rain was registered over the south-west half of the State, but it was only above the average on the southern Darling Downs; between Wyandra and Bollon; and between Urandangie and Boulia. Rain was also slightly above on the coast between Cairns and Innisfail, and at Coen.</i>
1912 ..	<i>The year began badly with the rain below the average generally, the only exception being Hughenden, where the total was three-quarters of an inch above the normal. In the South Coast Division the rain was from about 2½ to 6½ inches below the average for the month.</i>	<i>Rain totals again below the average generally, although fairly good rain fell throughout; it was above average only at a few isolated places. The largest area above normal was in the north-west—north and west of a line joining Urandangie, Mackinlay, Donor's Hill, and Burketown.</i>	<i>Fairly good rain fell generally, but totals were for the most part below the average. Many isolated places were above normal. Good heavy falls occurred in the south-east—east of a line joining Chinchilla, Pittsworth, and Wallangarra. Brisbane's total was nearly 4½ inches above the normal. Rain was also above normal over most country north of a line connecting Hughenden and Floraville.</i>	<i>Rain below average generally. Little or no rain fell away from the coast districts. Totals were above normal between Townsville, Clarke River, and Innisfail. Exceptionally heavy rain fell at Innisfail, where the total for the month was 5614 points, being over 30 inches above the average.</i>	<i>This is the fifteenth consecutive month that the rain totals were below the average over most of the State. Again little or no rain fell away from the coast districts, but it was above normal in patches east of a line joining Thornborough, Twin Hills, and Duaringa.</i>	Phenomenal rain fell, probably the heaviest winter rain ever experienced in the State. Totals were above the average throughout. The following are some of the totals recorded:—1580 points at Pine Hill, 1465 at Twin Hills, 1386 at Alpha, 1209 at Clermont, 1165 at Springsure, 823 at Mitchell, 729 at Brisbane, 774 at Toowoomba, and 597 at St. George.	<i>Again the rain was heavy, and above the average generally south and east from a line joining Lake Nash, Stamford, Charters Towers, Clarke River, and Cardwell. Little or no rain fell elsewhere. Large totals were again recorded. Charleville had 463 points; Augathella, 541; Emerald, 462; Mitchell, 428; and Tambo, 316. Coast districts south from Bundaberg were below normal.</i>
1913 ..	<i>Below average over the greater part, especially from the coast districts from between Townsville and Bloomsbury westward to the Gulf. In coastal districts north from Ingham to Mein and from Mackay southward, extending inland to Clermont, Taroom and Pittsworth, to a little north of Brisbane, the rain was above the normal. It was also above over most of the Warrego, and between Aramac, Longreach, and Beta.</i>	A good wet month, with rain well above the average everywhere, except east of a line joining St. Lawrence, Springsure, Roma, and Hebel, where generally it was below, although at isolated spots within this area it was above. Very heavy rain fell in Central districts, the total at Richmond was 6½ inches above normal; 10½ inches above at Muttahburra; 8½ inches above at Winton; and 5 inches above at Longreach.	<i>Greater part of State below normal. In the Lower-western, the Far south-west, south-western portion of the Warrego, and generally north of a line joining Bowen, Charters Towers, Walsh River, Gilbert River, and Cloncurry, totals were much above the average. Generally over the remainder of the State totals were below.</i>	<i>Although the greater part was below the average, the totals were well above the normal between lines connecting Townsville, Richmond, Kynuna, and the extreme south-west corner of the State, and from Bloomsbury to west of Nebo to Duaringa, and thence to Alpha, Yeulba, and Hebel. Rain was also well above in coast districts south from Miriam Vale and at two stations on the Peninsula.</i>	Over the Peninsula and generally east from a line joining Georgetown, Richmond, Longreach, Tambo, and Eulo, rain totals were above the normal. At Brisbane it was 3¼ inches above; at Goondiwindi, 5½ inches above, and at Surat 2½ inches above. West of the above-mentioned line the rain was below the average.	Another good month with the rain above the normal, except north of a line drawn from Camooweal to Croydon, Mount Surprise, Clarke River, and Ayr; also south-west of a line connecting Urandangie, Isisford, and Cunnamulla. On the Darling Downs the rain was from 1 inch to 3½ inches above the average.	<i>Below the normal generally, except on the Peninsula north from Coen; at Cooktown and Cairns and in coast districts south from Sandy Cape, where the totals were slightly above the normal.</i>

August.	September.	October.	November.	December.	Year.
<p>Still without rain of a beneficial character. Away from the east coast rain did not fall at all over the northern half. Totals were above the normal between Rockhampton and Banana; between Taroom, Roma, and Wallumbilla; between Tangorin and Muttaburra; between Cape Moreton and Tweed Heads, and at Woodford, Bollon, and Kynuna.</p>	<p>Again much below the average generally, except at Texas, Yeulba, and Adavale; and between Bollon and St. George; and Camooweal, Cloncurry, and Urandangie, where totals were above normal.</p>	<p>Still below average over majority of the State; good rain fell over the whole of the south-east quarter. It was above average generally south from the Tropic east of a line joining Rolleston, Taroom, and Wallangarra; also between Charters Towers, Mount McConnell, and the coast between Ayr and Bowen; also between Longreach and Aramac; and between Walsh River, Gilbert River, and Croydon.</p>	<p>About half the State above and half below. Splendid rain fell generally south and west of a line joining Normanston, Tate River, Tambo, Wyandra, and Bollon. Much below average over rest of the State.</p>	<p>Rain fell generally, but it was only above the average in isolated patches, the largest area being between Charleville, Thargomindah and Eulo, and eastward from the last-named place to St. George.</p>	<p>The year's totals showed rain above the average over most of the State. The last eight months of the year were bad to medium, the rain being below average over the greater part for six months, and about half the State was above normal, and about half below for the other two months. South from the Tropic rain was below normal, except most of the Maranoa and lower south-west; also coast districts between the Tropic, Mt. Perry, and Bundaberg, and at two or three small patches in the south-east.</p>
<p>A little rain was experienced all along the coast, over the Darling Downs, and Maranoa, but elsewhere no rain fell. Totals were above the average only between Cooktown, Cairns, and Herberton; and between Coen and Mein.</p>	<p>Again below average generally. Very little rain fell anywhere; but it was slightly above the mean at one or two places along the southern border between Hebel and Wallangarra; and at Herberton, Fairview, Mein, and McDonnell.</p>	<p>Most of the State again below normal; but it was above over almost all country east of a line joining Mt. McConnell, Clermont, Duaringa, Augathella, and Hebel; also slightly above at Burketown, Croydon, and Clarke River; and between Cooktown, Maytown and Cairns.</p>	<p>Rain totals for this month were about normal or just below over most of the State. In fairly large scattered patches the rain was above the average.</p>	<p>The year closed with the rain below the average almost throughout. Fairly good rain fell over the northern half and in southern districts. It was above the average between Muttaburra, Ayrshire Downs, and Richmond; between Thargomindah and Eulo; and at Dirranbandi, Brisbane, Gayndah, Isisford, Marlborough, and McDonnell.</p>	<p>The year's totals were below average almost generally, notwithstanding the phenomenal winter rains in June and July. Up to May inclusive it was the fifteenth consecutive month that rain was below the average over most of the State. Only small isolated patches were above normal.</p>
<p>No rain fell at all this month, except just a little on the north coast between Cooktown and Innisfail, and on the Peninsula between McDonnell and Torres Straits, consequently it was below the average throughout.</p>	<p>Another dry month; little or no rain fell, and totals were below the average generally, except most of the country south and east of a line connecting Rosedale, Banana, Taroom, Crow's Nest, Ipswich, and Warwick, where the totals were from about $\frac{1}{2}$ inch to 3 inches above the mean.</p>	<p>Still rain totals were generally below average; small patches were above—the largest area being on the coast between Cooktown and Innisfail. Fairly good rain fell in the Central and Southern interior, but totals for the month did not come up to the normal.</p>	<p>This was the fifth consecutive month that totals were below the average. Between St. Lawrence, Emerald, Eidsvold, and Maryborough the rain was close up to the normal, and at isolated places within that area it was above the average.</p>	<p>A good wet month, with the totals above the average over by far the greater part of the State. It was below normal north and west of a line joining Lake Nash, West Leichhardt, Ayrshire Downs, Richmond, Donors Hill, and Normanston; also south-west of a line connecting Jundah and Wyandra; and south and east of a line joining Inskip Point, Kulkivan, Taroom, Roma, and St. George.</p>	<p>The annual totals show that over about one-half, or a little more than half, of the State the rain was above the average. The areas below were from the Gulf south to Ayrshire Downs and Urandangie; small patches in the neighborhood of Mount Surprise, Georgetown, and Torrens Creek; between Ravenswood, Aramac, Tambo, Springsure, and Nebo; the southern portion south from a line joining Yandina, Durah, Roma and St. George; and that part of the far south-west and west lying west of a line connecting Hungerford, Cowley, Tenapera, Jundah, Monkira, and Birdsville.</p>

Years.	January.	February.	March.	April.	May	June.	July.
1914 ..							
1915 ..							
1916 ..							

August.	September.	October.	November.	December	Year.

NAMES OF OFFICIAL METEOROLOGICAL OBSERVERS
AT BRISBANE, AND SOME NOTES ON THE EARLY
METEOROLOGICAL SERVICE OF QUEENSLAND.

The official meteorological observations at Brisbane were taken by, or under the direction of, the officials whose names appear in the following list :—

From 1840 to 1850 (April) inclusive	Captain J. C. Wickham,* Government Resident.
From 1850 (May) to 1857 inclusive	No record available.
From 1858 to 1862 inclusive ..	Dr. F. J. Barton, Meteorological Observer.
1863	Albert Barton, Esq., Meteorological Observer.
From 1864 to 1865 inclusive ..	The Superintendent of Telegraphs.
From 1866 to 1868 (August) inclusive	Rev. John Bliss, Government Meteorologist.
From 1868 (September) to 1886 inclusive	Edmund MacDonnell, Esq., Government Meteorological Observer.
From 1887 to 1903 (June) inclusive	C. L. Wragge, Esq., F.R.Met.Soc., Government Meteorologist.
From 1903 (July) to 1907 (December) inclusive	J. B. Henderson, Esq., Hydraulic Engineer.
1908 and onwards	H. A. Hunt, Commonwealth Meteorologist.

Prior to 1864 the Brisbane records were published in the *Queensland Annual Statistical Register*, and afterwards in the *Parliamentary Votes and Proceedings of the Legislative Assembly of Queensland* or in the *Queensland Government Gazettes*.

Extract from the Meteorological Observation Report for 1868, by Edmund MacDonnell, Government Meteorological Observer; published with the Annual Report for that year of the Registrar-General for Queensland :—

“ Since 1860, with the exception of Dr. Haran’s records at Cape York,† observations have been taken at Brisbane only, and, in consequence of the death of two of the gentlemen engaged in the work, as well as from other causes, the records

* Extract from the *History of the Colony of Queensland* by William Coote, Vol. I., (years 1770–1881 inclusive), page 144 :—
“ In its first magistrate and Government Resident, Captain Wickham, the district was fortunate in having a man of scientific and observant mind; and I find that for some time he was in the habit of contributing what he termed a ‘weather journal’ to the *Courier* with regularity—such omissions as occur not being, I think, attributable to him. His observations comprise the period from 1840 to April, 1850 inclusive, at which last date they, for unexplained reasons, ceased to be communicated, and I have tabulated them mostly in an abridged form, as perpetuating a valuable contribution to meteorological facts, and in the hope that some generous man of science may fill up the interval between April, 1850, and the time when meteorological observations were officially and regularly taken, I believe, by the late Dr. Barton in 1859 or 1860. From these observations we are able to see that in the three years 1841, 1843, and 1844, a more than usual downpour took place, that in 1844 being extraordinary, and we are not surprised to find it remembered that a great flood took place at Ipswich in January of that year, and that the country was continuously flooded for a long time in December, 1843, and January and February, 1844. . . . I trust to be able to connect these observations with those of Dr. Barton, as we shall then have a table of the rainfall in the district for a period of 36 years, and the deductions to be collected will be of great value to the colonists in the East and West Moretons and the Darling Downs. Further North or West I fear no records exist up to the time when the official ones began to be taken.”

(NOTE.—Mr. Coote did not publish a second volume.)

† Dr. J. J. Haran, surgeon R.N., officer in medical charge of the settlement at Somerset, Cape York—lat. 10° 44’ S., long. 142° 31’ 43” E., height above sea-level 70 feet—kept a complete meteorological record (including 9 a.m., 3 p.m., and 9 p.m. daily barometer and thermometer readings, together with direction and force of the wind) at that place from May, 1865, to July, 1867, and his records are published in full in the *Annual Statistical Registers* for those years. For rainfall totals see Somerset record, pages 166 and 167.

have not been so satisfactory or correct as it is desirable they should be; for without regularity and accuracy reliable results cannot be arrived at.

Within the past few months new stations for observing, with complete sets of instruments, have been established at Cape Moreton, Toowoomba, and Warwick. Cape Moreton in latitude 27° 1’ S., longitude 153° 28’ east, being almost the eastern extremity of Australia, and since its discovery by Cook, in a position well known to the world, is likely to yield much valuable information. Mr. James Brayden, the observer at Cape Moreton, for several years acted in a similar capacity when this colony formed a portion of New South Wales, and, from the care with which his work is carried out, full reliance may be placed upon its accuracy.

At Toowoomba, latitude 27° 34’ south, longitude 152° 10’ east, 1,960 feet above mean sea-level, an observatory has been established, under the care of Mr. T. C. Cowl, and one also at Warwick, latitude 28° 12’ south, longitude 152° 16’ east, 1,520 feet above mean sea-level, under the care of Mr. T. Towel; and, as both of these gentlemen evince considerable interest in science, much benefit may be expected to be derived from their labours. The country surrounding Toowoomba and Warwick, being entirely occupied under pastoral or agricultural pursuits, the results to be obtained from their observations cannot fail to be of ultimate benefit.

Summaries of the observations taken at Cape Moreton, Toowoomba, and Warwick are published regularly every month in the *Government Gazette*, in a form similar to that of the observations taken at Brisbane; and by this means uniform records are insured.

“ Prior to September, 1868, the Brisbane observations were taken at a height of 70 feet, and after that date at 140 feet over mean sea-level.”

Extracts from Mr. Edmund MacDonnell’s report for 1870 :—

“ At present returns are received from over 40 stations, and published monthly in the *Government Gazette*, including the following places :—

Banana,	Durah,	Ravenswood,
Beenleigh (Windaroo),	Enoggera Res.	Rockhampton,
Bloomsbury,	Gayndah,	Roma,
Bowen,	Gladstone,	Sandy Cape,
Brisbane,	Goodna,	St. Lawrence,
Caamboon,	Gympie,	Taroom,
Cabulture,	Helidon,	Toowoomba,
Cape Moreton,	Ipswich,	Townsville,
Cardwell,	Keppel Bay,	Vale of Herbert,
Clermont,	Lytton,	Warwick,
Cleveland,	Mackay,	Waterview,
Condamine,	Marlborough,	Westwood,
Craven,	Maryborough,	Woody Island.
Dalby,	Nebo,	

New meteorological stations have been established at Sweer’s Island (Gulf of Carpentaria)—Observer, G. F. Sandrock, Esq.; Craven—Observer, A. Van Wessem, Esq.; Ravenswood Gold-field—Observer, T. W. Hackett, Esq.

I much regret that no returns have reached me from Cape York during the year.”

Extracts from Mr. Edmund MacDonnell's reports for 1878, 1879, and 1882:—

1878.

"First-class stations opened at Rockhampton, Townsville, and Cooktown.

It is to be regretted that no station exists north of Cooktown. A first-class station was established at Somerset, under the superintendence of Dr. Haran, R.N., subsequently under H. M. Chester, Esq., Police Magistrate, and lastly under Dyson Aplin, Esq., but unfortunately, from the removal of the settlement and other causes, observations have been discontinued."

1879.

"A first-class station was established at Goode Island, near Cape York—Observer, Mr. Walter D. T. Powell; position in Torres Straits, latitude 10° 33' S.; longitude, 142° 10' E."

1882.

"Efforts have been made to discover whether any record was taken at Brisbane during the period 1850 (May) to 1857, but without success. It is possible that Captain Wickham's observations may have been taken under different circumstances from the present, and no record appears to have been kept of the number of days on which rain fell."

NUMBER OF STATIONS REPORTING.

TABLE showing total number of Rainfall Stations in Queensland reporting each year, 1870 to 1913 inclusive, and increase over previous years.

Year.	Total Number of Stations Reporting.	Increase over Previous Year.	Quinquennial Increase.
1870	36	..	..
1871	44	8	..
1872	48	4	..
1873	55	7	..
1874	56	1	..
1875	56	..	..
1876	57	1	..
1877	59	2	..
1878	61	2	6
1879	66	5	..
1880	76	10	..
1881	89	13	..
1882	101	12	..
1883	117	16	56
1884	144	27	..
1885	189	45	..
1886	243	54	..
1887	265	22	..
1888	383	118	266
1889	431	48	..
1890	422	- 9	..
1891	342	-80	..
1892	342	..	..
1893	427	85	44
1894	468	41	..
1895	404	-64	..
1896	504	100	..
1897	502	- 2	..
1898	538	36	111
1899	580	42	..
1900	609	29	..
1901	601	- 8	..
1902	570	-31	..
1903	580	-10	22
1904	546	-14	..
1905	544	- 2	..
1906	563	19	..
1907	555	- 8	..
1908	578	23	18
1909	603	25	..
1910	627	24	..
1911	668	41	..
1912	734	66	..
1913	803	69	225

MEMORANDUM ON THE AVERAGE RAINFALL MAP.

The Average Rainfall Map of Queensland included in this volume is the last of a series of six prepared at the Central Bureau.

All the maps have been drawn to the same scale and are, therefore, comparable.

Stations having records extending over fifteen years or more have been used, except in a few instances where large blanks would have appeared on the map, and in these cases those with records of fourteen years were included.

The figures of nearly 400 stations appear on the map, and the records range from 14 to 63 years.

When it is considered that these stations are scattered over an area of 670,500 square miles, it will be understood that the isohyetal curves must be only approximate, especially over the interior and the Peninsula, where the records are very sparse.

To emphasize the immense areas over which the gauges are distributed, it might be pointed out that, while nearly 450 stations' records were used for the Victorian map, less than 400 were available for the Queensland map, and one subdivision (C) in the latter State, where the records of 19 stations were used, has an area of 88,712 square miles, or equal to that of the whole of Victoria, and again the records of 31 stations are scattered over subdivisions Upper Western (K), Lower Western (L), and Far South-west (S), with a total area of 177,536 square miles, or twice the size of Victoria.

As is the case in the other States, the heaviest rains occur in the coastal districts, and the precipitation in Queensland diminishes in quantity towards the south-west corner of the State.

The influence of physiographical features—combined with proximity to the tropical coast—on the rainfall, is shown in a remarkable degree in the North Coast Division (E. and F). This district has by far the greatest annual rainfall in Australia, 70 per cent. of which falls during the first four months of the year.

South from Cairns are the Bellenden-Ker Ranges (the highest mountains in Queensland), with altitudes ranging up to 5,438 feet. It is between the eastern side of these ranges and the littoral that exceptional precipitation takes place. The highest annual average record is at Harvey Creek (about half-way between Cairns and Innisfail, and immediately east of the north end of the above-mentioned range), where the annual average fall is 165.58 inches (nearly 14 feet); next is Goondi (about 20 miles south-south-east of Harvey Creek, and about 18 miles east-south-east of the south end of the range), with a record of 154.78 inches per annum, and Innisfail, a few miles south of Goondi, with an annual fall of 150.06 inches.

About 25 miles west of the range is Herberton (altitude nearly 3,000 feet), with an average fall of only 43.55 inches, a difference of about 122 inches in 40 miles.

The lowest annual average record in the State is 6.37 inches at Birdsville, in the extreme south-west (about 820 miles west-north-west of Brisbane, and 550 miles due south from Burketown).

The areas receiving various quantities of rainfall, as shown on the map, are as follow:—

Under 10 inches	..	..	91,012 square miles
10-15	..	..	87,489 "
15-20	..	..	112,738 "
20-25	..	..	115,968 "
25-30	..	..	97,811 "
30-40	..	..	69,880 "
40-50	..	..	55,982 "
50-60	..	..	24,687 "
60-70	..	..	10,530 "
Over 70	..	..	4,403 "
			670,500 "

The following Table, compiled from the records of 387 stations, shows the mean annual rainfall for each minor subdivision of Queensland, derived from the mean of all the stations in each minor subdivision with at least fifteen years' records:—

Subdivision and Minor Subdivision.	Area (100 sq. miles = unity).	No. of Stations with 15 years' record and over.	Mean Annual Rainfall.	Average No. of years for Mean.	Variations.
Peninsula	315	7	58.40	24	From 46.12 inches at Coen to 67.54 inches at Thursday Island
Peninsula North	196	5	40.82	23	From 36.32 inches at Walsh River to 45.50 inches at Musgrave
Peninsula South	119	2	77.08	25	From 60.80 inches at Coen to 93.28 inches at Thursday Island
Carpentaria	887	19	24.83	25	From 16.28 inches at Morestone Downs to 37.81 inches at Normanton
Lower Carpentaria	474	20	24.03	23	From 16.20 inches at Lammermoor to 35.40 inches at Tate River
Upper Carpentaria	413	19	25.63	25	From 16.28 inches at Morestone Downs to 37.81 inches at Normanton
North Coast	128	12	70.94	24	From 34.75 inches at Thornborough to 165.58 inches at Harvey Creek
Barron	108	11	76.14	25	From 24.81 inches at Clarke River to 154.78 inches at Goondi
Herbert	20	2	100.00	25	From 24.81 inches at Clarke River to 154.78 inches at Goondi
Central Coast	220	28	41.28	26	From 21.59 inches at Dotswood to 76.19 inches at Kululu
West Central Coast	190	2	25.29	24	From 25.19 inches at Balfe's Creek to 25.38 inches at Charters Towers
Central	486	29	25.03	25	From 17.78 inches at Listowel Downs to 30.88 inches at Warrinilla
Central Highlands	456	26	17.85	24	From 18.59 inches at Ruthven to 22.62 inches at Elgin Downs
Central Lowlands	456	26	17.85	24	From 18.59 inches at Ruthven to 22.62 inches at Elgin Downs
Western	646	17	14.15	24	From 9.38 inches at Cork to 16.65 inches at Manuka
Upper Western	689	8	10.25	23	From 6.37 inches at Birdsville to 15.93 inches at Jundah
Lower Western	689	8	10.25	23	From 6.37 inches at Birdsville to 15.93 inches at Jundah
South Coast	214	24	36.99	27	From 23.07 inches at Banana to 49.60 inches at Sandy Cape
Port Curtis	176	72	43.15	25	From 27.15 inches at Harrisville to 79.47 inches at Crohamhurst
Moreton	176	72	43.15	25	From 27.15 inches at Harrisville to 79.47 inches at Crohamhurst
Darling Downs	178	46	28.36	25	From 23.11 inches at Callandoon to 38.66 inches at Toowoomba (Ness Bank)
East Darling Downs	129	5	22.37	26	From 20.73 inches at Bullamon to 26.64 inches at Miles
West Darling Downs	129	5	22.37	26	From 20.73 inches at Bullamon to 26.64 inches at Miles
Maranoa	178	14	23.75	26	From 21.50 inches at St. George to 26.64 inches at Yeulba
Maranoa	178	14	23.75	26	From 21.50 inches at St. George to 26.64 inches at Yeulba
South-west	593	35	15.89	26	From 10.27 inches at Wangarilla to 22.83 inches at Augathella
Warrego	441	7	11.92	26	From 7.49 inches at Onepah Station to 15.47 inches at Adavale
Far South-west	441	7	11.92	26	From 7.49 inches at Onepah Station to 15.47 inches at Adavale
Whole State	670,500	387	25.37	25	From 6.37 inches at Birdsville to 165.58 inches at Harvey Creek

NOTE ON THE ANNUAL RAINFALL MAPS.

The maps at the end of the volume show the distribution of the rainfall over the State for each year from 1887 to 1913 inclusive, by means of isohyetal lines drawn, for the most part, for every 10 inches increase or decrease. To determine these the records from about 300 stations were used. The tinted portions indicate the areas over which the rainfall for any given year was above the normal amount.

***TABLE SHOWING RECORDS OF HEAVY RAINFALLS AT BRISBANE FROM MARCH, 1911, TO DECEMBER, 1913, INCLUSIVE. (100 POINTS = 1 INCH).**

Year.	Date.	Rain-fall.	Duration.	Heaviest Fall.		
				Time.	Amount.	Rate per Hour.
		Points.		Points.	Points.	
1911	Mar. 3	76	Showers, 2.30-11 p.m.	7.25-7.45 p.m.	38	114
	11	94	9.7-10.55 p.m.	9.7-9.22 p.m.	74	296
	25	172	Continuous light rain, 10.15 p.m., 25th, to 3.5 p.m., 27th (40 hrs. 50 mins.)	Between 1.22 p.m. and 6.30 p.m. 26th (78 points)		
	26					
	27					
	27					
	May 11	48	2.30-3.40 a.m. (3 points), 6.25-8.50 a.m. (45 points)	6.27-6.55 a.m.	30	64
	July 14	124	Showers 9 a.m.-9 a.m.	6.17-6.28 a.m.	17	93
	Aug. 21	39	9.2 p.m.-9.40 p.m.	9.6-9.24 p.m.	36	120
	23	27	5.35-6 p.m.	5.35-5.43 p.m.	21	158
	28	51	Showers, 11.50 a.m.-4.40 p.m.	11.58 a.m.-12.10 p.m.	22	110
	Oct. 4	83	3.42-3.55 p.m.	3.42-3.55 p.m.	33	152
9	84	10-11.40 p.m.	10.12-10.22 p.m.	15	90	
15	100	9.30 p.m., 15th-16th	9.32-9.37 p.m., 15th	34	408	
16	118	Showers, 9 a.m.-9.45 a.m. (3 points), 3-6 p.m. (115 points)	8.47-8.51 a.m., 16th	18	270	
16			3.23-3.30 p.m., 40	35	300	
18	130	Steady rain (17 hours) and light showers (7 hours) to 4.17 p.m.	3.40-3.53 p.m., 40	40	185	
19			5.20-5.30 p.m., 24	24	144	
24	39	4-4.17 p.m. and 6.53-7.13 p.m.	10.25 a.m., 18th, to 3.30 a.m., 19th (steady rain)	128	7	
Nov. 28	56	12.30 a.m.-7.40 a.m.	4-4.14 p.m.	31	133	
Dec. 2	106	7.50-10.20 p.m.	4.13-4.30 p.m.	22	78	
14	17	5.38-5.50 p.m.	7.50-8.6 p.m.	71	266	
29	29	11.30 a.m.-12.5 p.m.	5.38-5.41 p.m.	12	240	
1912	Jan. 2	136	2.35 a.m.-5.10 a.m.	11.30 a.m.-11.54 a.m.	25	63
Feb. 6	27	10.23 a.m.-12.15 p.m.	2.45-3.2 a.m.	65	229	
9	101	1.50-5.45 a.m. and 4.20-6.40 p.m.	11.46-11.56 a.m.	14	84	
14	18	2.30 p.m.-3.5 p.m.	2.13-4.25 a.m.	46	21	
Mar. 1	795	Heavy showers from 1.25 p.m., 1st, to 8.40 p.m., 3rd; but continuous steady rain from 11 p.m., 1st, to 9.20 a.m., 3rd	4.35-4.42 p.m.	16	120	
2			1.29-3.5 p.m.	16	80	
3			1.29-1.44 p.m., 1st	39	300	
15	92	Showers, 2.35 a.m.-1 p.m.	5.17-5.40 a.m., 2nd	70	280	
29	47	9 a.m.-9.53 a.m. (41 points), 9-9.10 p.m. (6 points)	9.38-9.50 a.m., 2nd	62	162	
June 8	62	Showers	12.5-1.6 p.m., 2nd	52	260	
10	86	Showers (80 points to 9.30 a.m.)	10.36-10.43 a.m. 3rd	96	94	
23	186	Almost continuous—2.20 p.m., 23rd, to 4 a.m., 24th (181 points)	2.36-2.55 a.m.	53	167	
24			9.52-10.8 p.m., 23rd	15	56	
June 24	223	Continuous — 12.10 p.m., 24th, to 12.10 a.m., 25th (221 points)	2.50-3.14 p.m.	20	50	
July 3	59	Showers to 8.30 a.m.	5.30-5.53 a.m.	21	55	
Aug. 14	46	Showers	2-2.17 p.m., 14th	18	64	
28	36	2.33-3.33 p.m.	2.35-2.44 p.m.	21	140	
30	59	4.39-8.10 p.m.	4.39-6.57 p.m.	31	103	
Oct. 21	150	2.50-9.35 p.m.	6.0-6.3 p.m.	17	128	
23	136	Showers, 11.53 a.m.-11.10 p.m.	6.34-7.12 p.m.	53	84	
26	178	Showers, 5.15 a.m., 26th, to 4.30 p.m., 27th	11.26-11.39 p.m., 26th	34	157	
27			2.49-3.28 p.m., 27th	50	77	
Nov. 8	54	3.23-4.10 p.m.	3.50-3.59 p.m.	46	307	
21	62	5.25-9.40 p.m. (61 points)	5.27-5.53 p.m.	40	92	
23	70	7.52-10.20 p.m.	7.52-8.13 p.m.	47	184	
25	68	2.39-3.20 p.m.	2.39-3.4 p.m.	66	158	
Dec. 7	62	12.7-1 p.m., 7th (26 points), 2.25-4.40 p.m., 8th (36 points)	2.37-2.52 a.m., 8th	30	120	
10	96	2.59-5.50 p.m.	2.59-3.13 p.m.	54	231	
11	165	1.49-3.5 p.m.	4.31-4.35 p.m.	21	315	
14	86	2.23-3.5 p.m., 14th (70 points), 6.40-7.30 a.m., 15th (16 points)	1.49-2.5 p.m. (for 2 minutes at rate of 15 inches per hour)	140	525	
15			2.45-3.1 p.m., 14th	63	236	

* Compiled from registrations made by the pluviometer installed at the Weather Bureau, Brisbane, in March, 1911.

HEAVY RAINFALLS AT BRISBANE—continued.

Year.	Date.	Rain-fall.	Duration.	Heaviest Fall.		
				Time.	Amount.	Rate per Hour.
1913	Jan. 1	56	5.12-8.4 a.m. ..	5.29-5.42 a.m. ..	25	115
	7	147	Continuous from 8.40 a.m.-10 p.m.	2.8-4.47 p.m. ..	45	18
	15	99	6 a.m., 15th-7 a.m., 16th (almost continuous)	8.10-3.22 p.m. ..	15	75
	16					
	30	21	2.57-3.30 p.m. ..	0.59-1.8 a.m. ..	15	100
	Feb. 6	99	10.58 a.m.-12.15 p.m., 6th (15 points). 0.10 a.m.-7.20 a.m., 7th (84 points)	12.22-12.29 p.m. ..	11	94
	7					
	9	87	Short showers, 11 a.m., 9th, to 1 a.m., 10th, averaging over 60 points per hour; light showers to 9 a.m., 10th	11.44-11.54 a.m. ..	25	150
	10					
	10	43	11.42 a.m.-12.40 p.m.	6.55-7.22 p.m. ..	88	196
	17	91	6.54-7.30 p.m. ..	3.58-4.9 p.m. ..	13	71
	Mar. 7	65	Showers, 4 p.m., 7th, to 5 a.m., 8th, 10.20 p.m., 7th to 5 a.m., 8th (45 points)	8.59-9.13 p.m. ..	21	90
	8					
	12	52	8.47-11.30 p.m. ..	10.38-10.48 a.m. ..	11	66
	21	55	10.23 a.m.-1.40 p.m.	12.36-12.44 p.m., 22nd	33	248
22	106	Sharp showers, 10.10 a.m.-4 p.m., 22nd (78 points), and 3.18-4.50 a.m., 23rd (28 points)	10.10-10.18 a.m., 22nd	18	185	
23						
			3.18-3.28 a.m., 23rd	22	182	

HEAVY RAINFALLS AT BRISBANE—continued.

Year.	Date.	Rain-fall.	Duration.	Heaviest Fall.			
				Time.	Amount.	Rate per Hour.	
1913	Apr. 2	25	3.10-3.40 p.m. ..	3.12-3.17 p.m. ..	19	228	
	5	290	Continuous from 10.40 a.m., 5th, to 5.10 a.m., 6th	4.27-5.1 p.m., 5th	32	56	
	6						
	9	145	Showers, 2.42 p.m., 9th, to 8.10 a.m., 10th	0.23-0.33 a.m. ..	42	252	
	10	117	Short, sharp showers from 11.43 a.m., 10th, to 9 a.m., 11th	2.15-2.25 a.m. ..	23	138	
	11						
	May 13	195	7.8 a.m.-4.20 p.m. ..	4.12-4.16 p.m. ..	18	270	
	22	70	Showers, 7.10 a.m.-10.10 p.m.	11.45-11.53 a.m. ..	23	173	
	24	239	Showers, 11 a.m., 24th, to 7.10 a.m., 25th	1.23-1.33 a.m., 25th	23	138	
	25						
	June 21	304	10.30 a.m., 21st to 7 a.m., 22nd	12.38-1.57 a.m., 22nd	103	78	
	Sept. 27	127	4.58 p.m., 27th, to 6.50 a.m., 28th	Mod.
	Oct. 25	33	10.15 p.m.-midnight	10.15-10.30 p.m. ..	25	100	
	Nov. 1	22	9.55-10.20 p.m. ..	9.57-10.2 p.m. ..	18	216	
	4	82	12.2-12.15 p.m. (48 points), 1.30-1.45 p.m. (34 points)	12.2-12.8 p.m. ..	46	460	
		8.38-8.55 p.m. ..	1.30-1.38 p.m. ..	31	233		
Dec. 21	20	8.38-8.55 p.m. ..	8.38-8.50 p.m. ..	19	95		
12	69	8.52-10.30 p.m. ..	8.52-9.12 p.m. ..	52	156		
19	83	1.42-7.30 a.m. ..	2.12-2.19 a.m. ..	19	163		

HEAVY RAINS.

The Queensland coast is characterized by occasional very heavy downpours. These are almost entirely confined to the summer months, as the following table (for storms giving over 10 inches during 23 years, 1887-1909) clearly indicates :-

Month.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Number ..	104	42	92	24	1	9	1	1	2	0	2	26
Per cent...	33	14	31	8	..	3	..	..	1	..	1	9

These phenomenal rains are apparently most abundant between Cairns and Cardwell. The great number recorded in the Brisbane district is largely due to the fact that here the rain-gauges are well distributed and fairly numerous, which is not the case in the less settled regions of Queensland.*

* The Climate and Weather of Australia, Commonwealth Bureau of Meteorology.

List of HEAVY RAINS recorded in QUEENSLAND during years previous to, and including, 1913.

Station.	Date.	Amount which fell in 24 Hours.	Station.	Date.	Amount which fell in 24 Hours.	Station.	Date.	Amount which fell in 24 Hours.
		ins.			ins.			ins.
Aloomba (Cairns)	30 Jan., 1913	13.50	Cooktown	22 Jan., 1903	12.49	Granada (formerly Donaldson)	27 Jan., 1891	11.29
Anglesey	26 Dec., 1909	18.20	"	19 " 1907	11.70	"	8 " 1911	13.50
Ascot	14 Mar., 1908	11.34	"	1 Apr., 1911	11.11	"	9 " "	14.30
Atherton (Cairns)	31 Jan., 1913	16.69	Cooran	1 Feb., 1893	13.62	"	9 Mar., 1901	11.64
Ayr	20 Sept., 1890	14.58	"	9 June, "	10.12	Gympie	5 Feb., 1899	15.37
"	25 Mar., 1891	10.19	"	26 Dec., 1908	14.08	Halifax	8 Mar., 1899	11.00
"	26 Jan., 1896	10.50	Cooroy	9 June, 1893	13.60	"	6 Jan., 1901	15.68
Babinda	17 Mar., 1912	10.15	"	10 Jan., 1898	13.50	"	8 Feb., "	10.50
Babinda (Cairns)	31 Jan., 1913	12.79	"	6 Mar., 1898	10.04	"	26 Mar., 1903	10.07
"	1 Feb., 1913	20.51	Cressbrook	16 Feb., 1893	10.65	"	30 Jan., 1906	10.41
Banyan (Cardwell)	31 Jan., 1913	13.79	Crohamhurst (Blackall Range)	31 Jan., 1893	10.78	"	8 Apr., 1912	12.75
Barrine (Cairns)	31 " "	13.34	"	2 Feb., "	35.71	Hambledon Mill	7 Jan., 1908	11.00
Beenleigh	21 " "	11.30	"	9 June, "	13.31	"	13 " 1909	13.80
"	14 Mar., 1908	10.40	"	9 Jan., 1898	19.55	"	16 Feb., 1910	11.45
Bloomsbury	14 Feb., 1893	17.40	"	6 Mar., "	16.01	"	7 Jan., 1911	18.61
"	27 Jan., 1896	10.52	"	26 Dec., 1909	13.85	"	10 Feb., "	13.97
"	10 " 1901	16.62	"	2 Aug., 1908	11.17	"	30 Mar., "	13.04
"	4 Mar., 1906	11.36	Crow's Nest	29 Jan., 1908	15.00	"	31 " "	14.95
"	9 Jan., 1908	11.30	Croydon	21 " 1887	14.00	"	1 Apr., "	19.62
Boggo Road Junction	14 Mar., 1908	10.42	Cryna (Beaudesert)	16 Mar., 1893	22.17	"	30 Jan., 1913	17.32
Botanic Gardens, Bris.	" "	10.80	Dungeness	19 Jan., 1894	11.84	Harvey Creek	8 Mar., 1899	17.72
Bowen	13 Feb., 1893	14.65	"	17 Apr., "	14.00	"	25 Jan., 1900	12.53
"	20 Jan., 1894	11.11	"	9 Jan., 1898	18.45	"	25 May, 1901	14.00
Bowen Park	16 Feb., 1893	10.38	Dunira	6 Mar., "	15.95	"	14 Mar., 1903	12.10
"	14 Mar., 1908	11.50	"	"	"	"	21 Apr., 1903	10.10
Brisbane	21 Jan., 1887	18.31	Dunk Island, Brammo Bay	31 Jan., 1913	11.15	"	11 Jan., 1905	16.96
"	14 Mar., 1908	11.18	Eddington (Cloncurry)	23 " 1891	10.33	"	28 " 1906	12.29
Bromby Park (Bowen)	14 Feb., 1893	13.28	Emu Park	31 " 1893	10.00	"	20 " 1907	10.13
"	20 Jan., 1894	11.20	"	18 " 1913	12.75	"	8 " 1908	10.31
Brookfield	14 Mar., 1908	14.95	Enoggera Railway	14 Mar., 1908	12.14	"	30 " "	11.31
Buderim Mountain	11 Jan., 1898	26.20	" Reservoir	" "	10.98	"	25 Mar., "	11.84
"	9 Mar., 1898	11.10	Ernest Junction	" "	13.00	"	14 Jan., 1909	14.40
Bulimba (Brisbane)	16 Feb., 1893	10.40	Esk	21 Jan., 1887	10.70	"	16 Feb., 1910	10.90
Bundaberg	31 Jan., 1893	10.15	"	14 Mar., 1908	11.12	"	3 Jan., 1911	27.75
"	16 " 1913	16.94	Eton	27 Feb., 1913	11.00	"	11 Feb., "	12.88
Burketown	15 " 1891	13.58	Fairymead Plantation (Bundaberg)	16 Jan., 1913	15.32	"	31 Mar., "	10.93
"	12 Mar., 1903	14.52	Fassifern	21 " 1887	10.20	"	1 Apr., "	13.61
Burnett Heads (Bundaberg)	16 Jan., 1913	15.22	Flat Top Island	22 Dec., 1909	12.96	"	2 " "	16.46
Bustard Head	18 Feb., 1888	10.14	Floraville	6 Jan., 1897	10.79	"	17 Mar., 1912	10.15
"	30 Jan., 1893	11.85	"	11 Mar., 1903	12.86	"	31 Jan., 1913	24.72
"	17 " 1913	14.93	Flying Fish Point	7 Apr., 1912	16.06	Haughton Valley	26 " 1896	18.10
Caboolture	21 " 1887	10.00	"	31 Jan., 1913	16.10	Herberton	31 " 1913	14.00
"	10 " 1898	10.28	Gatcombe Head (Gladstone)	18 Jan., 1913	12.88	Hillcrest (Mooloolah)	26 Dec., 1909	13.35
Cairns	11 Feb., 1889	14.74	Gin Gin	16 " 1905	13.61	Holmwood (Woodford)	2 Feb., 1893	16.19
"	21 Apr., "	12.40	"	16 " 1913	12.27	"	10 Jan., 1898	12.40
"	5 " 1891	14.08	Gladstone	18 Feb., 1888	12.37	Homebush	3 Feb., "	12.04
"	9 Jan., 1892	10.56	"	31 Jan., 1893	14.62	"	21 Mar., "	10.26
"	4 " 1909	11.56	"	4 Feb., 1911	18.83	"	11 Jan., 1901	11.40
"	3 " 1911	11.97	Glass Mountains	26 Dec., 1909	10.48	Howard	15 " 1905	19.55
"	11 Feb., "	15.17	Glen Boughton	5 Apr., 1894	18.50	"	16 " 1913	11.33
"	17 Mar., "	10.35	Glen Prairie	31 Jan., 1913	14.92	Indooroopilly	14 Mar., 1908	10.28
"	1 Apr., "	11.71	Gold Creek Reservoir	18 Apr., 1904	12.18	Ingham	18 Jan., 1894	12.60
"	2 " "	20.16	"	16 Feb., 1893	11.16	"	7 Apr., "	10.10
"	31 Jan., 1913	13.94	Goldsborough (Cairns)	14 Mar., 1908	12.50	"	6 Jan., 1901	13.59
Caloundra	21 " 1887	10.50	"	31 Jan., 1913	19.92	Inkerman	25 Dec., 1903	12.30
Cape Capricorn	17 " 1905	10.16	Goodna	1 Feb., "	12.22	Inneshowen (Johnstone River)	21 Sept., 1890	12.93
Cape Grafton	5 Mar., 1896	13.37	"	21 Jan., 1887	11.00	"	30 Dec., 1889	14.01
Cardwell	18 " 1887	10.15	Goodwood (Bundaberg)	14 Mar., 1908	11.03	Innisfail (formerly Geraldton)	11 Feb., 1889	17.13
"	30 Dec., 1889	12.00	Goondi Mill (Innisfail)	16 Jan., 1913	13.07	"	31 Dec., "	12.45
"	2 Jan., 1890	10.06	"	20 " 1892	11.10	"	25 Jan., 1892	11.10
"	23 Mar., 1890	12.00	"	6 Apr., 1894	15.69	"	6 Apr., 1894	16.02
"	18 " 1904	18.24	"	7 Mar., 1899	10.08	"	3 Mar., 1896	11.42
"	3 Apr., 1911	12.84	"	18 Apr., "	14.78	"	7 " 1899	10.25
"	7 " 1912	11.90	"	24 Jan., 1900	13.30	"	18 Apr., "	13.20
Cedar Pocket	26 Dec., 1909	11.36	"	6 " 1901	10.70	"	24 Jan., 1900	15.22
Central Kin Kin	" "	10.17	"	2 Mar., "	10.67	"	6 " 1901	11.35
Chiefswood	14 Mar., 1908	11.01	"	29 Dec., 1903	17.83	"	29 Dec., 1903	21.22
Childers	6 " 1898	11.28	"	17 Mar., 1904	10.00	"	17 Mar., 1904	10.35
Clare	26 Jan., 1896	15.30	"	21 " 1910	10.38	"	30 Jan., 1908	11.76
Cleveland	13 " 1910	10.13	"	10 Feb., 1911	17.68	"	14 " 1909	11.65
"	2 June, "	11.20	"	31 Mar., "	12.38	"	11 Feb., 1911	14.48
Coen	20 Apr., 1903	11.11	"	1 Apr., "	13.60	"	1 Apr., "	12.35
"	1 Apr., 1910	10.71	"	6 " 1912	15.55	"	2 " "	15.00
Collaroy	30 Jan., 1896	14.25	Goondi	30 Jan., 1913	24.10	"	3 " "	11.25
"	30 " 1910	10.25	"	"	"	"	"	"
Colton (Maryborough)	16 " 1913	10.60	"	"	"	"	"	"

LIST OF HEAVY RAINS RECORDED IN QUEENSLAND, ETC.—continued.

Station.	Date.	Amount which fell in 24 Hours.	Station.	Date.	Amount which fell in 24 Hours.	Station.	Date.	Amount which fell in 24 Hours.
Innisfail (formerly Geraldton)	7 Apr., 1912	20.50	Mapleton	26 Dec., 1909	15.72	Port Douglas ..	11 Feb., 1911	11.88
" " "	8 " 1912	12.15	" " "	4 Feb., 1911	10.07	" " "	17 Mar., "	16.10
" " "	31 Jan., 1913	20.91	Mareeba	31 Mar., 1911	10.59	" " "	1 Apr., "	31.53
Inskip Point ..	13 Mar., 1892	10.65	Mareeba	31 Jan., 1913	10.32	Ravenswood ..	24 Mar., 1890	17.00
Invicta, Kolan River ..	16 Jan., 1913	14.58	Marlborough ..	17 Feb., 1888	14.24	" " "	27 Jan., 1896	10.52
Isis Junction ..	6 Mar., 1898	13.60	" " "	29 Jan., 1896	10.84	Redcliffe ..	21 Jan., 1887	14.00
" " "	16 Jan., 1913	10.93	Mayne Junction	14 Mar., 1908	10.30	" " "	16 Feb., 1893	17.35
Kamerunga (Cairns) ..	20 " 1892	13.61	Mein	4 Apr., 1895	10.50	" " "	10 Jan., 1898	10.25
" " "	23 Feb., 1894	10.10	Milton	14 Mar., 1908	12.24	Riverview ..	14 Mar., 1908	10.12
" " "	6 Apr., "	14.04	Mirani	12 Jan., 1901	16.59	Rockhampton ..	17 Feb., 1888	10.82
" " "	5 " 1895	12.31	Miriam Vale (Bundaberg)	28 Mar., 1903	10.16	" " "	29 Jan., 1896	10.53
" " "	5 Mar., 1896	11.81	Molloy	17 Jan., 1913	15.80	Rosedale ..	6 Mar., 1898	12.60
" " "	8 " 1899	10.50	" " "	16 Mar., 1911	11.50	" " "	16 Jan., 1913	18.90
" " "	21 Apr., 1903	11.75	" " "	30 " "	10.00	Sandgate ..	21 " 1887	10.50
" " "	2 Jan., 1911	10.95	" " "	31 " "	20.00	" " "	16 Feb., 1893	14.03
" " "	3 " "	10.25	" " "	1 Apr., "	20.00	Sherwood ..	14 Mar., 1908	11.08
" " "	11 Feb., "	13.07	Monkira ..	2 " "	20.00	Somerset ..	28 Jan., 1903	12.02
" " "	17 Mar., "	10.30	Mooloolah ..	1 Feb., 1906	11.61	Southport ..	14 Mar., 1908	11.05
" " "	1 Apr., "	14.20	" " "	13 Mar., 1892	21.53	St. Helena ..	16 Feb., 1893	11.20
" " "	2 " "	21.00	" " "	2 Feb., 1893	19.11	St. Helens (Mackay)	24 " 1888	12.00
" " "	31 Jan., 1913	16.00	" " "	9 June, 1893	11.50	" " "	22 Mar., 1898	10.00
Kilkivan Junction ..	10 " 1898	11.08	Morningside ..	6 Mar., 1898	14.43	St. Lawrence ..	17 Feb., 1888	12.10
Kulara (Cairns) ..	31 " 1913	12.69	Mount Chambers	14 " 1908	10.50	" " "	30 Jan., 1896	15.00
Kululu, Mackay ..	11 " 1901	11.70	Mount Crosby ..	3 Feb., 1911	11.90	Sunnybank ..	14 Mar., 1908	11.40
" " "	12 " 1905	10.94	Mount Cuthbert	14 Mar., 1908	14.00	Tabragalba ..	21 Jan., 1887	10.00
Kuranda (Cairns) ..	6 Mar., 1899	14.12	Mount Gravatt ..	8 Jan., 1911	18.00	Tallebudgera ..	14 Mar., 1908	10.80
" " "	20 Apr., 1903	14.16	Mount Perry ..	14 Mar., 1908	10.80	Tambourine Mountain	17 July, 1889	10.91
" " "	14 Jan., 1909	12.37	Mount Perry ..	24 Feb., 1887	10.00	Taringa ..	14 Mar., 1908	11.40
" " "	27 " 1910	9.40	Mourilyan ..	14 Jan., 1909	13.00	Tewantin ..	10 Jan., 1898	10.51
" " "	28 " "	9.28	" " "	3 " 1911	12.70	" " "	30 Mar., 1904	12.30
" " "	3 " 1911	10.72	" " "	11 Feb., "	17.40	" " "	14 Apr., "	11.36
" " "	11 Feb., "	16.30	" " "	1 Apr., "	13.20	The Hollow (Mackay)	23 Feb., 1888	15.12
" " "	17 Mar., "	15.10	" " "	2 " "	10.59	" " "	— Mar., 1891	10.39
" " "	31 " "	18.60	" " "	7 " 1912	18.97	Thornborough ..	20 Apr., 1903	18.07
" " "	1 Apr., "	24.30	Mundoolun ..	31 Jan., 1913	15.05	Tierawoomba ..	2 Feb., 1898	10.36
" " "	2 " "	28.80	Mungar Junction	21 " 1887	17.95	Tooloombah ..	29 Jan., 1896	11.70
" " "	31 Jan., 1913	16.34	Murrarie ..	10 Mar., 1901	10.20	Toowong ..	14 Mar., 1908	11.60
Lake Nash ..	10 " 1895	10.25	Musgrave ..	14 " 1908	11.50	Townsville ..	24 Jan., 1892	19.20
" " "	20 Mar., 1901	10.02	Nambour ..	6 Apr., 1894	13.71	" " "	28 Dec., 1903	15.00
Landsborough ..	2 Feb., 1893	15.15	" " "	29 Dec., 1913	11.37	Victoria Mill ..	6 Jan., 1901	16.67
" " "	9 June, "	12.80	Nambour ..	9 Jan., 1898	21.00	Walkerston ..	12 " 1905	10.60
" " "	9 Jan., 1898	9.54	" " "	7 Mar., "	13.28	Walsh River ..	12 " 1903	10.22
" " "	7 Mar., "	10.35	Nanango ..	27 Dec., 1909	16.80	" " "	1 Apr., 1911	13.70
" " "	26 Dec., 1909	14.00	Nerang ..	9 June, 1893	10.00	Woodford ..	2 Feb., 1893	14.93
Low Island ..	10 Mar., 1904	15.07	" " "	15 " 1892	12.35	" " "	10 Jan., 1898	11.40
" " "	16 " 1911	10.15	Netley (Rockhampton)	14 Mar., 1908	10.95	Woodlands (Yeppoon)	10 " 1889	10.00
" " "	31 " "	14.70	Normanton ..	29 Jan., 1896	11.77	" " "	26 Jan., 1890	10.22
" " "	1 Apr., "	15.30	North Kolan (Bundaberg)	14 " 1905	10.72	" " "	25 Mar., "	14.25
Lucinda ..	4 Feb., 1899	11.10	" " "	16 Jan., 1913	12.90	" " "	31 Jan., 1893	23.07
" " "	17 " 1906	13.35	North Pine ..	21 " 1887	11.60	" " "	30 " 1896	11.91
" " "	10 Mar., 1906	14.60	" " "	16 Feb., 1893	14.97	" " "	9 Feb., "	13.97
Lytton ..	21 Jan., 1887	12.85	Nundah ..	14 Mar., 1908	12.00	" " "	7 Jan., 1898	14.50
" " "	13 Mar., 1892	10.60	Oxenford ..	14 " 1908	15.65	Woodstock ..	4 Nov., 1903	10.44
" " "	16 Feb., 1893	11.74	One Mile, Gympie	10 " 1901	11.40	Woody Island ..	16 Jan., 1913	12.66
" " "	20 Mar., 1898	10.20	Oxenford ..	14 " 1908	15.65	Woogaroo ..	14 Mar., 1908	11.20
Mackay ..	17 Feb., 1888	10.10	Palmerville ..	1 Apr., 1911	11.55	Woombye ..	26 Dec., 1909	13.42
" " "	15 " 1893	10.46	Palmwoods ..	4 Feb., 1893	12.30	Wynnum ..	14 Mar., 1908	11.95
" " "	3 " 1898	11.95	" " "	10 Jan., 1898	15.85	Yandina ..	1 Feb., 1893	20.08
" " "	5 Jan., 1904	10.45	" " "	7 Mar., "	13.02	" " "	9 June, "	12.70
" " "	23 Dec., 1909	13.96	" " "	25 Dec., 1909	17.75	" " "	9 Jan., 1898	19.25
" " "	12 Mar., 1910	10.31	" " "	3 Mar., 1912	10.00	" " "	7 Mar., "	13.52
" " "	21 Dec., 1913	10.03	Peacheater ..	26 Dec., 1909	14.91	" " "	28 Dec., 1909	15.80
Sugar Experimental Farm, Mackay	23 Dec., 1909	12.00	Pialba (Maryborough)	16 Jan., 1913	17.22	Yarrabah ..	14 Jan., "	11.20
Maonade Mill ..	28 Mar., 1891	10.61	Pinkenba ..	14 Mar., 1908	11.63	" " "	3 " 1911	11.50
" " "	15 " 1893	10.50	Pittsworth ..	11 " 1890	14.68	" " "	11 Feb., "	12.00
" " "	18 Jan., 1894	12.56	Plane Creek (Mackay)	26 Feb., 1913	27.73	" " "	2 Apr., "	30.65
" " "	17 Apr., "	14.26	Port Douglas ..	5 Mar., 1887	13.00	Yeppoon ..	31 Jan., 1893	20.05
" " "	5 Feb., 1899	15.20	" " "	12 Feb., 1888	10.00	" " "	30 " 1896	11.02
" " "	6 Jan., 1901	23.33	" " "	20 Jan., 1892	11.50	" " "	8 " 1898	18.05
Maleny ..	14 Mar., 1908	10.95	" " "	23 Feb., 1894	10.25	" " "	8 Apr., 1904	10.70
" " "	26 Dec., 1909	14.76	" " "	7 Apr., "	10.00	" " "	3 Feb., 1906	14.90
Manly ..	14 Mar., 1908	11.90	" " "	10 Mar., 1904	16.34	" " "	" 1911	14.92
Mapleton ..	" "	14.29	" " "	29 Dec., "	10.67	" " "	18 Jan., 1913	13.00
			" " "	11 Jan., 1905	14.68	Zillmere ..	14 Mar., 1908	11.00
			" " "	2 " 1911	11.64			

FROSTS IN AUSTRALIA.*

Although observations have been taken continuously for a great number of years, no notes of appreciable frosts have been recorded over all the northern coastal regions extending from Geraldton on the west coast right round the north and east coasts to Brisbane. The same remark applies to Northern Territory.

In all other parts of Australia, however, night frosts are severe and frequent, although of considerably varying periods.

On the highlands in New South Wales, Victoria, and Tasmania, frosts of a more or less damaging nature have occurred in every month of the year. Over a stretch of country largely comprising the wheat areas of South Australia, Victoria, New South Wales, and Queensland, they have been recorded between April and October.

Over north-central and north-east Victoria, the south and central western slopes of New South Wales, from April to November; over the Gascoyne and north-eastern parts of Western Australia and Central Australia from June to August.†

In central and western Queensland from June to July, June to August, or May to August.

Over the southern portion of Western Australia from April to October, or May to September.

For details of frost periods and distribution, see Frost Map at end of volume.

RAINFALL DURING THE WHEAT-GROWING PERIOD.*

In Australia wheat-growing under ordinary conditions is generally considered a safe and payable proposition when 10 inches of rain and over falls from the month of April to that of October inclusive.

The map at the end of the volume showing average rainfall for the wheat-growing period has been compiled for the purpose of showing what portions of the continent are favoured with the above requirements.

There are in all 484,330 square miles of country with 10 inches of rainfall and over during the wheat-growing period, distributed as follows:—93,500 square miles in Western Australia, 46,980 square miles in South Australia, 79,247 square miles in Queensland, 163,772 square miles in New South Wales, 74,616 square miles in Victoria, and 26,215 square miles in Tasmania.

Much of these areas, however, is unsuitable, probably half the total, by reason of excessive rains, early summer rain, topography and soil, but as compensation there are vast tracts of interior land possible for cereal growth by the adoption of drought resisting seed and dry farming methods, which, in all probability, may still give the estimated 500,000 square miles or even more for wheat cultivation.

During the year 1912–13 there were only 11,247 square miles, less than half the area of Tasmania, under wheat, yielding 88,554,738 bushels. This is approximately only one-third of the area at present used for this purpose, allowing for land under fallow and rotation of crops. Estimating, therefore, that only a third of the 500,000 would be available each year for wheat cultivation, the possible output from Australia could reach 900 to 1,000 million bushels.

From the trend of developments during the last few years it would appear that the greatest scope for expansion in wheat production is in New South Wales and Western Australia.

The boundary of the 10-in. wheat period isohyet starts on the west coast of Western Australia, a few miles to the south of Hamelin Pool, thence passes inland in a south-easterly direction towards Southern Cross, from there almost due east, entering the great Bight to the north of Israelite Bay. It again enters the mainland between Fowler's Bay and Streaky Bay, in South Australia, curving south-eastwards from Yardea to Spencer's Gulf to the north of Cowell, and crossing the Gulf it strikes the Peninsula

near Port Pirie, forming a loop over the country well to the north of Port Augusta, whence it takes a sinuous course southwards through the lower Mallee to the north-east Wimmera, crossing the Murray in a north-easterly direction to the west of Deniliquin in Riverina, then over the Murrumbidgee at Darlington Point, from there bending northwards and passing successively near Mount Hope, Nymagee, Coonamble, Walgett, to Munigindi, whence it extends almost in a direct line northwards, finally leaving the Queensland coast at Bowen.

It will be noticed how remarkably closely the 10-in. and Goyder's line follow one another in South Australia.

In New South Wales, however, there are considerable deviations between Coghlan's and the 10-in. wheat lines.

Goyder's line was determined in 1865 by Mr. G. W. Goyder, the Surveyor-General of the then colony, based upon the estimated average rainfall and native flora.

Coghlan's line was determined by Mr. T. Coghlan, State Statistician, in 1903, based upon rainfall data and the actual experience of growers.

The percentage lines of the wheat-growing period in relation to the annual average rainfall are of considerable interest, and emphasize the alternating distinct wet and dry season in Australia already referred to.

Roughly speaking, from 60 to 70 per cent. of the annual total precipitation falls over southern Australia during the seven coldest months, and from 30 to 40 per cent. during the hottest months. North of the tropic the quantitative distribution is reversed, only 10 to 40 per cent. falling during the cold months and from 60 to 90 per cent. during the hot months.

In the south-western portion of Western Australia, it will be observed that 90 per cent. of the annual average rainfall is precipitated in the winter and 10 per cent. only during the summer months.

On the south-eastern shores of the Gulf of Carpentaria we have the other extreme—only 5 per cent. of the year's rainfall total falls within the seven cold months mentioned, and 95 per cent. during the remaining five.

QUEENSLAND FLOOD WARNING SERVICE.

GENERAL INSTRUCTIONS TO OFFICERS IN CHARGE OF FLOOD WARNING STATIONS.

1. Reports are to be sent from each Station strictly according to the heights and times marked on each Gauge Diagram, and as set out in the table accompanying the special instructions. For instance:—As soon as the officer in charge of the Flood Warning Station at Kenilworth observes that the water has reached 10 feet on his gauge, he should at once send messages according to his special instructions, and continue sending them every 12 hours until the water reaches 15 feet. Whenever it reaches 15 feet, messages should immediately be sent to the proper places, irrespective of time of despatch of last message; and so on.

2. *With Falling Water*, reports are to continue at the prescribed times, until the lower 6-hour limit is reached, except at Maryborough, where reports may cease when the water has fallen to 16 feet. If the river should begin to rise again, a report should *immediately* be sent, *irrespective of the time*, and thereafter as provided.

3. A copy of each message (plainly endorsed "Telegram" or "Telephone" according to the manner of transmission) sent or received is to be kept on special forms and filed on the files provided; at the end of the flood such copies to be forwarded to the WEATHER BUREAU, BRISBANE.

4. Each flood message should contain the following information in the order stated:—Time of reading river-gauge; rainfall since last report; direction and force of wind; state of weather at time of reading river-gauge; height of water on river-gauge; rate of rise or fall per hour.

* From *The Climate and Meteorology of Australia*, Bulletin No. 9, Commonwealth Bureau of Meteorology.

† These data were largely gathered from explorers' diaries.

5. The telephone is to be used in preference to the telegraph to transmit flood messages, provided there is no undue delay. Special instructions have been issued by the Deputy Postmaster-General to the officers concerned that they are to give flood-warning officers every reasonable assistance in getting their messages through promptly.

6. When flood messages have to be transmitted by telegraph, the codes printed on the Gauge Diagrams are to be used. A perusal of the specimen message will make its application quite clear. Telephone messages will, of course, be sent in plain language.

7. By arrangement with the Deputy Postmaster-General, all flood messages, whether transmitted by telegraph or telephone, will be allowed to pass without prepayment.

8. A river-gauge register is supplied to every station at which there are gauges. Particulars of every set of observations are to be entered as soon as practicable.

9. Whenever the numbering on the gauges will permit, readings should be made once a day on every occasion of a rise above normal summer level until the water reaches the reporting height indicated for each station, and thereafter as provided. Such readings are to be entered in the river-gauge register.

10. The entries in the river-gauge register should be copied into two of the forms provided, at the end of every month, one copy to be sent to the Commonwealth Meteorologist, Melbourne, and the other to the Divisional Officer, Weather Bureau, Brisbane. If no readings have been made, a "Nil" return should be sent to each address. No stamps need be put on returns or correspondence on flood-warning business.

11. IMPORTANT.—A close watch should be kept on flood waters when near the *highest point*, and a careful note made of the height reached and time of occurrence.

Special instructions will be found under the front cover of the river-gauge register supplied to each station.

Commonwealth Bureau of Meteorology,
Melbourne, 1st January, 1912.

TELEGRAPHIC CODES.*

RAINFALL.

Points.	Points.	Points.	Points.
0 Ab	31 Age	61 Am	91 Apron
1 Abase	32 Aged	62 Amaze	92 Aqua
2 Abbot	33 Agent	63 Amber	93 Arab
3 Abet	34 Agile	64 Amble	94 Arcade
4 Abide	35 Aglow	65 Amen	95 Arch
5 Able	36 Agree	66 Amid	96 Ardent
6 Absent	37 Ahead	67 Amiss	97 Ardor
7 Abyss	38 Aid	68 Ammon	98 Argil
8 Ache	39 Ajar	69 Ample	99 Argus
9 Acid	40 Akin		
10 Act			
	41 Alas	71 Andy	100 Babel
11 Active	42 Alba	72 Angel	200 Balm
12 Actor	43 Album	73 Angry	300 Barge
13 Acute	44 Alder	74 Anise	400 Bask
14 Add	45 Alert	75 Ankle	500 Bay
15 Aden	46 Alibi	76 Annex	600 Beard
16 Adieu	47 Alike	77 Annoy	700 Beat
17 Adler	48 Allay	78 Annul	800 Belch
18 Admit	49 Allege	79 Anthem	900 Bell
19 Adorn	50 Allude	80 Antic	1000 Bengal
20 Adri			
	51 Alma	81 Anvil	1100 Bind
21 Adrift	52 Alms	82 Any	1200 Blame
22 Adult	53 Aloe	83 Apart	1300 Bled
23 Advise	54 Aloft	84 Ape	1400 Blight
24 Afar	55 Along	85 Apex	1500 Bloom
25 Affix	56 Aloud	86 Apish	1600 Blush
26 Afraid	57 Alpha	87 Appeal	1700 Body
27 Aft	58 Alps	88 Append	1800 Bold
28 After	59 Also	89 Apply	1900 Brace
29 Again	60 Alum	90 April	2000 Brute
30 Agate			

If the rain measured exceeds 100 points, it is to be sent in two words, for instance—281 points is to be sent as "Balm Anvil."

* Printed on the Gauge Diagrams supplied to officers in charge of Flood Warning Stations.

WIND.

N.	..	..	Race	S.	..	..	Ranche
N.N.E.	..	..	Rack	S.S.W.	..	..	Range
N.E.	..	..	Raft	S.W.	..	..	Rank
E.N.E.	..	..	Rage	W.S.W.	..	..	Rapid
E.	..	..	Raid	W.	..	..	Rare
E.S.E.	..	..	Rake	W.N.W.	..	..	Rasp
S.E.	..	..	Rally	N.W.	..	..	Rat
S.S.E.	..	..	Ralph	N.N.W.	..	..	Ratio

Force.	Miles per Hour.	Force.	Miles per Hour.
	Calm—"Reap"	7	Moderate gale
1	Light air	8	Fresh gale
2	Light breeze	9	Strong gale
3	Gentle breeze	10	Whole gale
4	Moderate breeze	11	Storm
5	Fresh breeze	12	Hurricane
6	Strong breeze		

When sending wind observations, use the code word for the direction, and the figure for the strength of the wind; for example—Wind from N.E., blowing a fresh breeze, would be "Raft 5."

STATE OF WEATHER.

Fine and clear	..	Gad	Heavy, gloomy sky	..	Geld
Gale increasing	..	Gaff	Sultry	..	Gem
Gale moderating	..	Gag	Thunder storms	..	Gig
Hot wind	..	Gall	Thunder showers	..	Ginger
Fierce hot wind	..	Game	Haze	..	Get
Fierce squalls	..	Grimy	Heavy dew last night	..	Gills
Snow	..	Gray	Hoar frost last night	..	Gin
Threatening rain	..	Gang	Foggy	..	Gird
Light rain	..	Gap	Dense fog	..	Girl
Passing showers	..	Garb	Mist	..	Girth
Misty rain	..	Gas	Smoke haze	..	Gibe
Showery	..	Gash	Sea rising	..	Gift
Heavy showers	..	Gasp	Sea moderating	..	Give
Heavy steady rain	..	Gate	Overcast	..	Go
Steady rain	..	Gats	Three-fourths clouded	..	Gob
Squally	..	Gaunt	One-half clouded	..	Gog
Squally, with hail	..	Gay	One-fourth clouded	..	Gold
Hail storm	..	Gear	Fine, but cloudy	..	Golden

RIVER GAUGE READINGS.

Feet.				Inches.
1 Sale	26 Serf	51 Size	76 Soap	1 Pant
2 Salute	27 Serge	52 Skate	77 Soda	2 Park
3 Sap	28 Serve	53 Skew	78 Sodom	3 Pate
4 Saul	29 Set	54 Skid	79 Solar	4 Paul
5 Savor	30 Shake	55 Skiff	80 Solid	5 Pave
6 Saw	31 Shape	56 Skin	81 Soon	6 Peak
7 Saxon	32 Shave	57 Skip	82 Sort	7 Pear
8 Say	33 She	58 Sky	83 South	8 Peep
9 Scab	34 Shed	59 Sled	84 Sowing	9 Pegs
10 Scald	35 Shelf	60 Slick	85 Spade	10 Pelt
11 Scrape	36 Shell	61 Slide	86 Span	11 Pena
12 Scar	37 Shield	62 Slight	87 Spank	12 Pent
13 Scheme	38 Shift	63 Slow	88 Spasm	
14 Scorn	39 Shoal	64 Slug	89 Speck	
15 Scot	40 Shock	65 Smack	90 Spice	
16 Scrap	41 Short	66 Smash	91 Spit	
17 Scud	42 Shut	67 Smile	92 Spoil	
18 Sea	43 Sick	68 Smoke	93 Spoke	
19 Seam	44 Sickly	69 Smut	94 Sponge	
20 Season	45 Sidon	70 Snail	95 Spree	
21 Sedge	46 Sign	71 Snake	96 Sprigg	
22 Seek	47 Silex	72 Snap	97 Spring	
23 Self	48 Silk	73 Sniffle	98 Spud	
24 Send	49 Silly	74 Snipe	99 Spur	
25 Sense	50 Since	75 Snob	100 Spy	

SPECIMEN FLOOD MESSAGE.—FULL TEXT.

Time of reading river-gauge, 10.30 p.m.; rainfall since 3 p.m., 352 points; direction of wind, N.E. moderate breeze; raining heavily; height of water on river-gauge, 36 ft. 5 in.; rising at rate of 2 ft. 7 in. per hour.

MESSAGE CODED FOR TRANSMISSION BY TELEGRAPH.

10.30 p.m. barge alms 3 p.m. raft 4 gate shell pave rising salute pear.

NOTE.—These codes are to be used when sending messages by telegraph ONLY; messages by telephone are to be transmitted in plain language.

THE BRISBANE FLOOD NOTICE BOARD.

By G. G. Bond, Divisional Officer, Brisbane.

24th January, 1911.

A Notice Board for giving information to the general public of the rise and fall of flood waters at the various flood warning stations on the Brisbane River and tributaries has been erected under the clock tower of the General Post Office at the main Queen-street entrance by courtesy of the Deputy Postmaster-General.

A careful scrutiny of the new board will reveal its essential features. The design was adopted from a diagram prepared and issued by the Hydraulic Engineer some years prior to the transfer of the Flood Warning Scheme, with the Queensland Weather Bureau, to the Federal Government, and consists of two diagrams.

Diagram No. 1 gives representations of the river gauges at the Flood Warning Stations in the Brisbane basin, viz., Woodford (at the head of the Stanley River), Caboonbah (on the Brisbane River, just below its junction with the Stanley River), Lowood (below the junction of Lockyer Creek), Ipswich Pumping Station, Goodna (below the junction of the Bremer River), and Brisbane (Port Office gauge).

The heights of all the floods about which accurate information is available are clearly shown by means of black lines connecting the various gauges.

The most important feature of the Board is the metal slide which has been affixed to the right-hand side of each river gauge. An arrow, fitted with springs to maintain it at any desired position, and painted bright green, works up and down on each slide, being at the same time moveable on an axis. The purpose of the arrows is obvious, namely, to indicate the height of the water on each gauge—pointing upwards to the figures if rising, downwards if falling, and horizontally if stationary. An additional arrow, painted bright red, will be used on the Port Office gauge-slide to indicate (when sufficient information is available to warrant an opinion) the approximate height to which the flood waters are expected to rise in Brisbane.

The danger level is marked on the diagram in red against each station. When the flood-warning officer at, say, Woodford reports to the station next below that the water has reached 22 feet on the Woodford gauge, *i.e.*, danger level at that station, and is still rising, it is the duty of the officer in charge of the

flood-warning station at Esk to send out mounted messengers up and down the river to warn people resident on land liable to flooding. Similar action is taken by each successive station down the river to Goodna. Finally, the height at which each officer must begin sending flood reports to the stations below him, in accordance with his carefully framed instructions, is indicated on each gauge.

Diagram No. 2 is of special interest and value to merchants and others whose places of business or residence are situated below the flood mark. It shows, in the form of a longitudinal section, the relative levels of certain wharves, floors, and streets, the surfaces of observed floods, and the approximate surfaces of floods rising to different heights on the Port Office gauge. When it is expected that a flood will rise to a certain height, indicated by the red arrow on the Port Office gauge, anyone whose wharf or floor is shown on the diagram can, by following back the flood surface line, ascertain whether such a flood will reach his wharf, floor, or cellar, as the case may be. It would certainly be advisable for all those who do not know the exact height of their premises above low water datum to have the level accurately ascertained by a surveyor, so that full use may be made of the facilities offered.

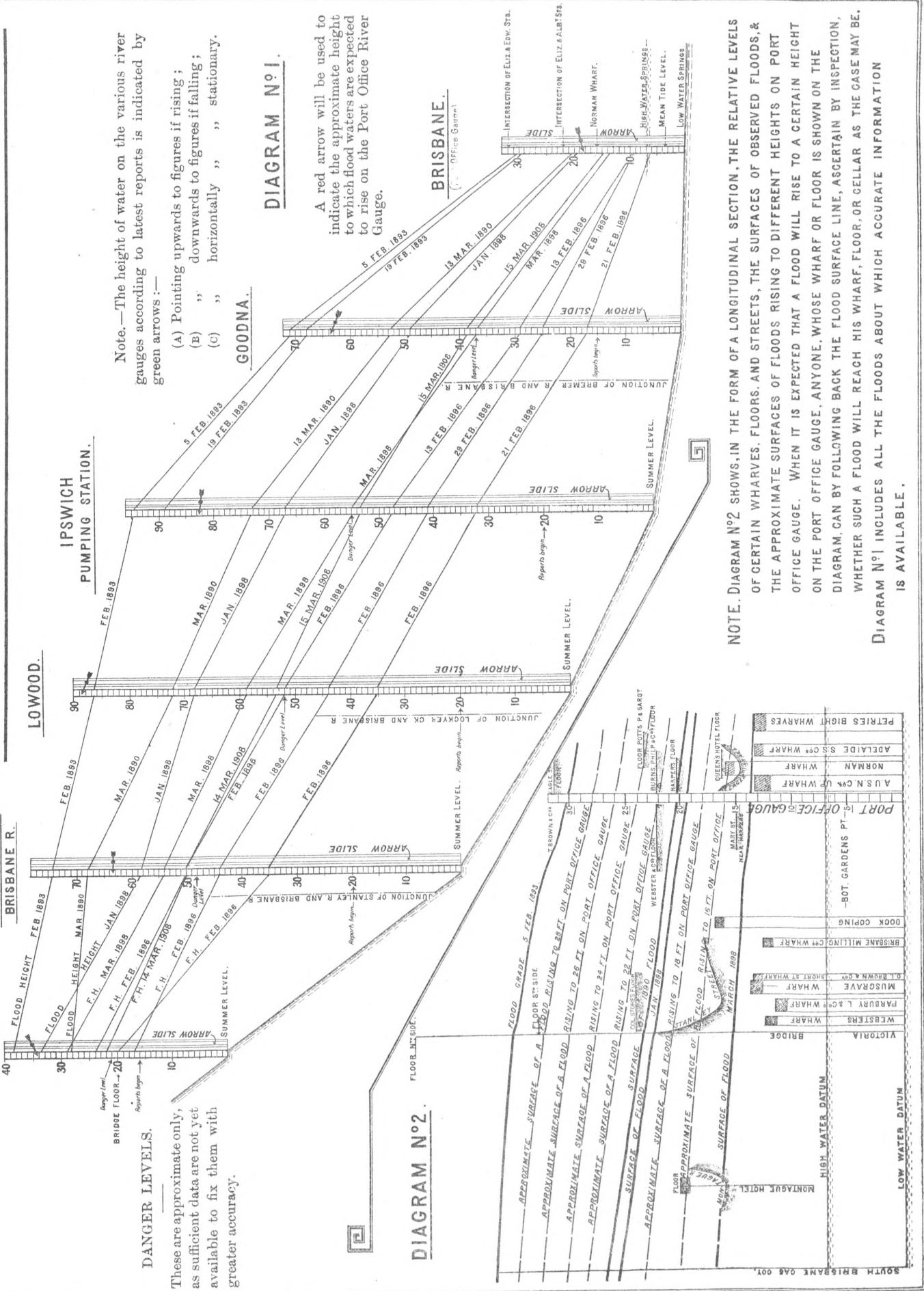
The Notice Board has been erected in a very prominent and convenient place by the Commonwealth Meteorological Bureau at considerable expense, and, in the event of a rise in the Brisbane River, officers will be in attendance at the Weather Bureau, night and day, to receive messages from the flood-warning stations, the import of which will *immediately* be indicated by the green arrows. The public may therefore rest assured that the very earliest intimation of a flood in Brisbane will be afforded by the Flood Notice Board, and they are requested to bear in mind two things:—

- (a) The instructions to flood-warning officers (mostly police officers) are very explicit, and well understood by them.
- (b) If no reports are received at the Weather Bureau, it may be taken for granted that the water *has not reached reporting height*.

It is hoped that a remembrance of these two points will cause all those interested in flood developments to refrain from making personal inquiries, either at the Weather Bureau or by telephone, but make full use of the Notice Board, thus materially aiding the work of the Meteorological Office, which is rendered abnormally heavy in times of threatening floods.

BRISBANE RIVER FLOOD GAUGES.

WOODFORD.
STANLEY R.
CABOONBAH.
BRISBANE R.



Note.—The height of water on the various river gauges according to latest reports is indicated by green arrows :—
 (A) Pointing upwards to figures if rising ;
 (B) " downwards to figures if falling ;
 (C) " horizontally " stationary.

GOODNA.

DIAGRAM N° 1.

A red arrow will be used to indicate the approximate height to which flood waters are expected to rise on the Port Office River Gauge.

DIAGRAM N° 2.

NOTE. DIAGRAM N° 2 SHOWS, IN THE FORM OF A LONGITUDINAL SECTION, THE RELATIVE LEVELS OF CERTAIN WHARVES, FLOORS, AND STREETS, THE SURFACES OF OBSERVED FLOODS, & THE APPROXIMATE SURFACES OF FLOODS RISING TO DIFFERENT HEIGHTS ON PORT OFFICE GAUGE. WHEN IT IS EXPECTED THAT A FLOOD WILL RISE TO A CERTAIN HEIGHT ON THE PORT OFFICE GAUGE, ANYONE, WHOSE WHARF OR FLOOR IS SHOWN ON THE DIAGRAM, CAN BY FOLLOWING BACK THE FLOOD SURFACE LINE, ASCERTAIN BY INSPECTION, WHETHER SUCH A FLOOD WILL REACH HIS WHARF, FLOOR, OR CELLAR AS THE CASE MAY BE. DIAGRAM N° 1 INCLUDES ALL THE FLOODS ABOUT WHICH ACCURATE INFORMATION IS AVAILABLE.

DANGER LEVELS.
 These are approximate only, as sufficient data are not yet available to fix them with greater accuracy.

Location	Approximate Flood Surface
APPROXIMATE SURFACE OF A FLOOD RISING TO 5 FT. ON PORT OFFICE GAUGE	5 FEB. 1883
APPROXIMATE SURFACE OF A FLOOD RISING TO 26 FT. ON PORT OFFICE GAUGE	5 FEB. 1883
APPROXIMATE SURFACE OF A FLOOD RISING TO 26 FT. ON PORT OFFICE GAUGE	5 FEB. 1883
APPROXIMATE SURFACE OF A FLOOD RISING TO 22 FT. ON PORT OFFICE GAUGE	5 FEB. 1883
APPROXIMATE SURFACE OF A FLOOD RISING TO 22 FT. ON PORT OFFICE GAUGE	5 FEB. 1883
APPROXIMATE SURFACE OF A FLOOD RISING TO 18 FT. ON PORT OFFICE GAUGE	5 FEB. 1883
APPROXIMATE SURFACE OF A FLOOD RISING TO 18 FT. ON PORT OFFICE GAUGE	5 FEB. 1883
APPROXIMATE SURFACE OF A FLOOD RISING TO 15 FT. ON PORT OFFICE GAUGE	5 FEB. 1883
APPROXIMATE SURFACE OF A FLOOD RISING TO 15 FT. ON PORT OFFICE GAUGE	5 FEB. 1883

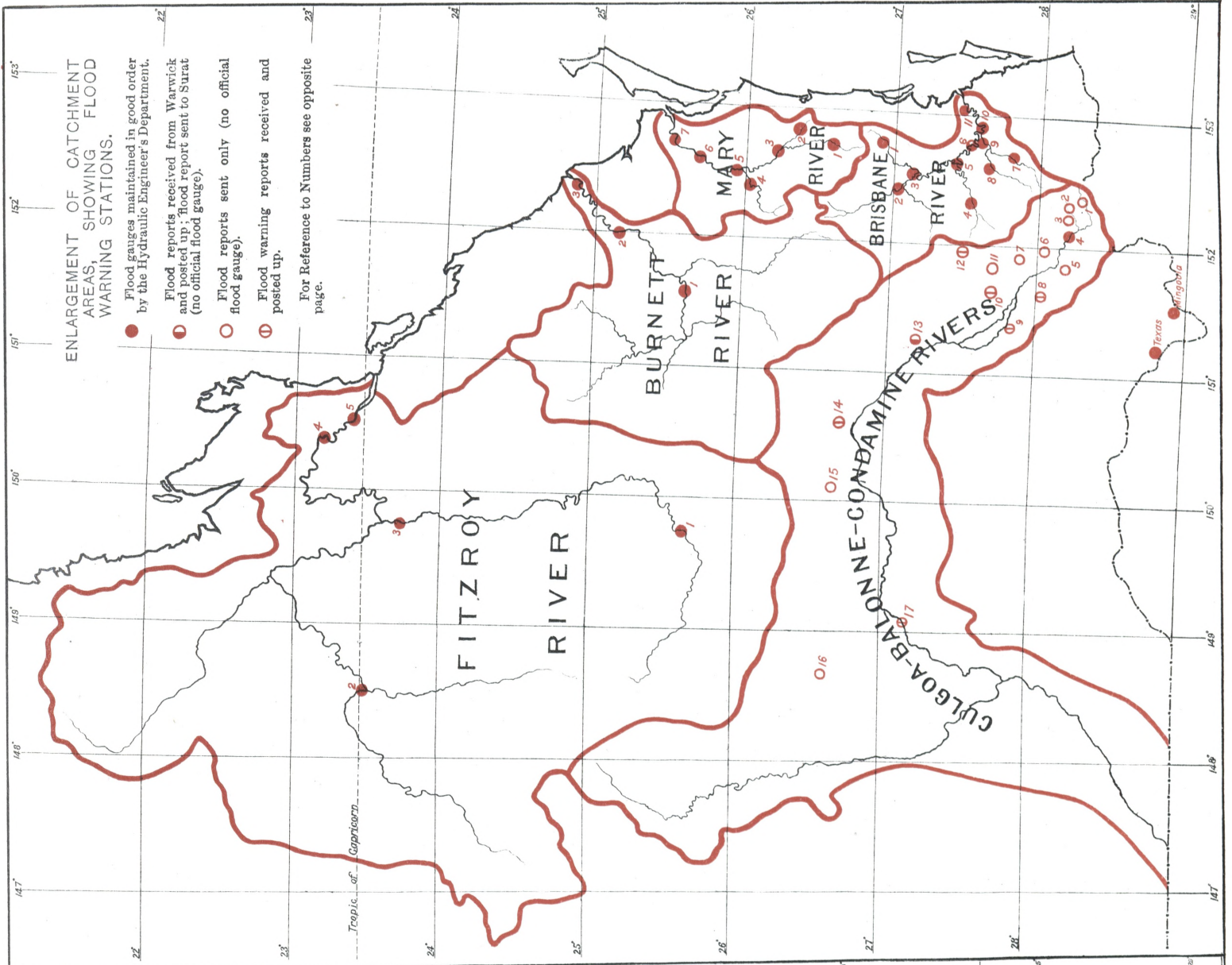
**REFERENCE TO STATIONS NUMBERED ON ENLARGEMENT OF
CATCHMENT AREAS.—(See opposite page.)**

Brisbane River and Tributaries.	Mary River and Wide Bay Creek.	Burnett River.	Fitzroy River and Tributaries.	Culgoa, Balonne, and Condamine Rivers.	Tributaries of Barwon River.
<ol style="list-style-type: none"> 1. Woodford 2. Cressbrook 3. Caboonbah 4. Gattion 5. Lowood 6. Ipswich (Pumping Station) 7. Harrisville 8. Rosewood 9. Ipswich (Bremer River) 10. Goodna 11. Brisbane 	<ol style="list-style-type: none"> 1. Kenilworth 2. Cooran 3. Gympie 4. Woolooga Rly. Stn. 5. Miva 6. Tiaro 7. Maryborough 	<ol style="list-style-type: none"> 1. Gayndah 2. Walla 3. Bundaberg 	<ol style="list-style-type: none"> 1. Taroom 2. Comet 3. Darringa 4. Xarumba 5. Rockhampton 	<ol style="list-style-type: none"> 1. Killarney 2. Emerald Vale 3. Swan Creek 4. Warwick 5. French Tooburra 6. Eudon 7. Clifton 8. Yamba 9. Yarrilla 10. Pittsworth 11. Carnooloa 12. Toowoomba 13. Dalby 14. Chinchilla 15. Miles 16. Roma 17. Surat 	<ol style="list-style-type: none"> 1. Texas 2. Mingoola

QUEENSLAND.

Map showing catchment areas of rivers on which flood warning stations have been established:—

A Brisbane River	...	Area 5,465 sq. miles.
B Mary	...	3,422 "
C Burnett	...	13,200 "
D Fitzroy	...	54,632 "
E Culgoa - Balonne - Condamine Rivers	...	(in Queensland) 35,392 sq. miles.



ENLARGEMENT OF CATCHMENT AREAS, SHOWING FLOOD WARNING STATIONS.

- Flood gauges maintained in good order by the Hydraulic Engineer's Department.
 - Flood reports received from Warwick and posted up, flood report sent to Surat (no official flood gauge).
 - Flood reports sent only (no official flood gauge).
 - ⊕ Flood warning reports received and posted up.
- For Reference to Numbers see opposite page.

Reference.

- 27 Peninsula North
- 28 Peninsula South
- 29 Lower Carpentaria
- 30 Upper Carpentaria
- 31 Barron
- 32 Herbert
- 33 West-central Coast
- 34 West-central Coast
- 35 Central Highlands
- 36 Central Highlands
- 37 Upper Western
- 38 Lower Western
- 39 Port Curtis
- 40 Moreton
- 41 Darling Downs
- 42 West Darling Downs
- 43 Maranoa
- 44 Warrego
- 45 Far South-west

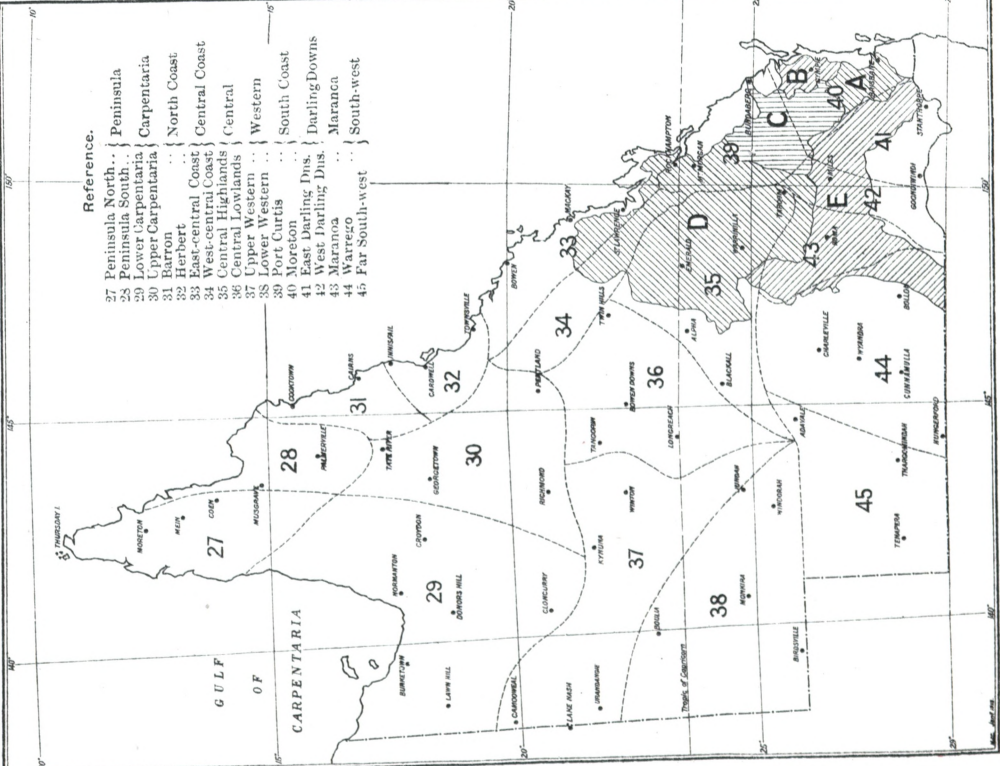
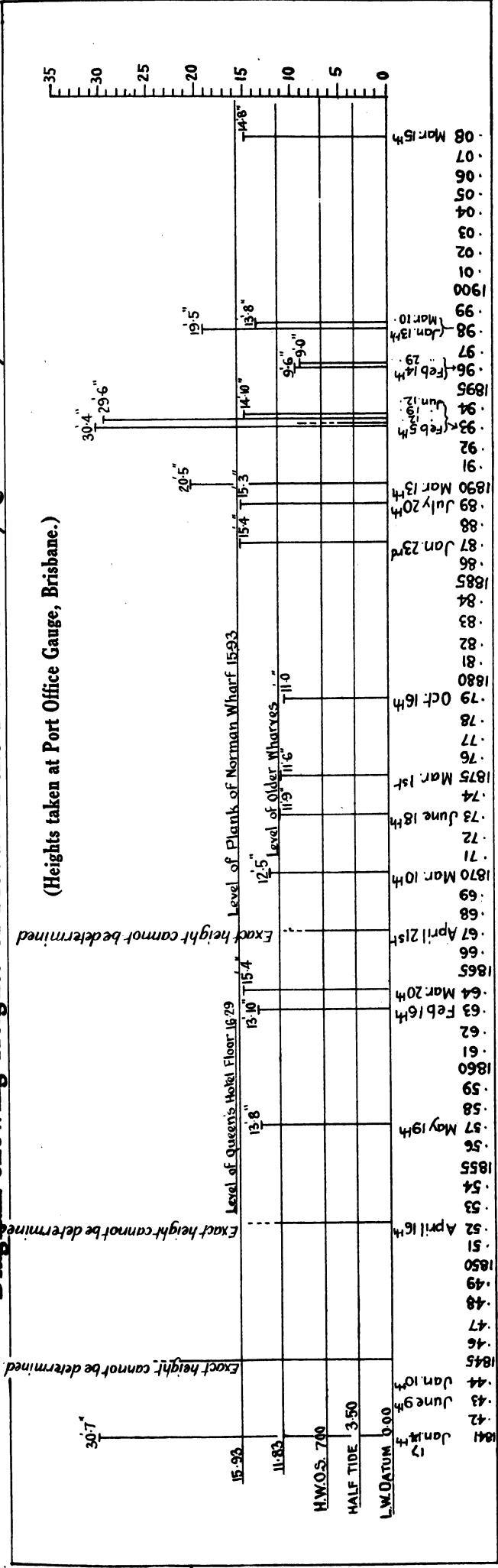
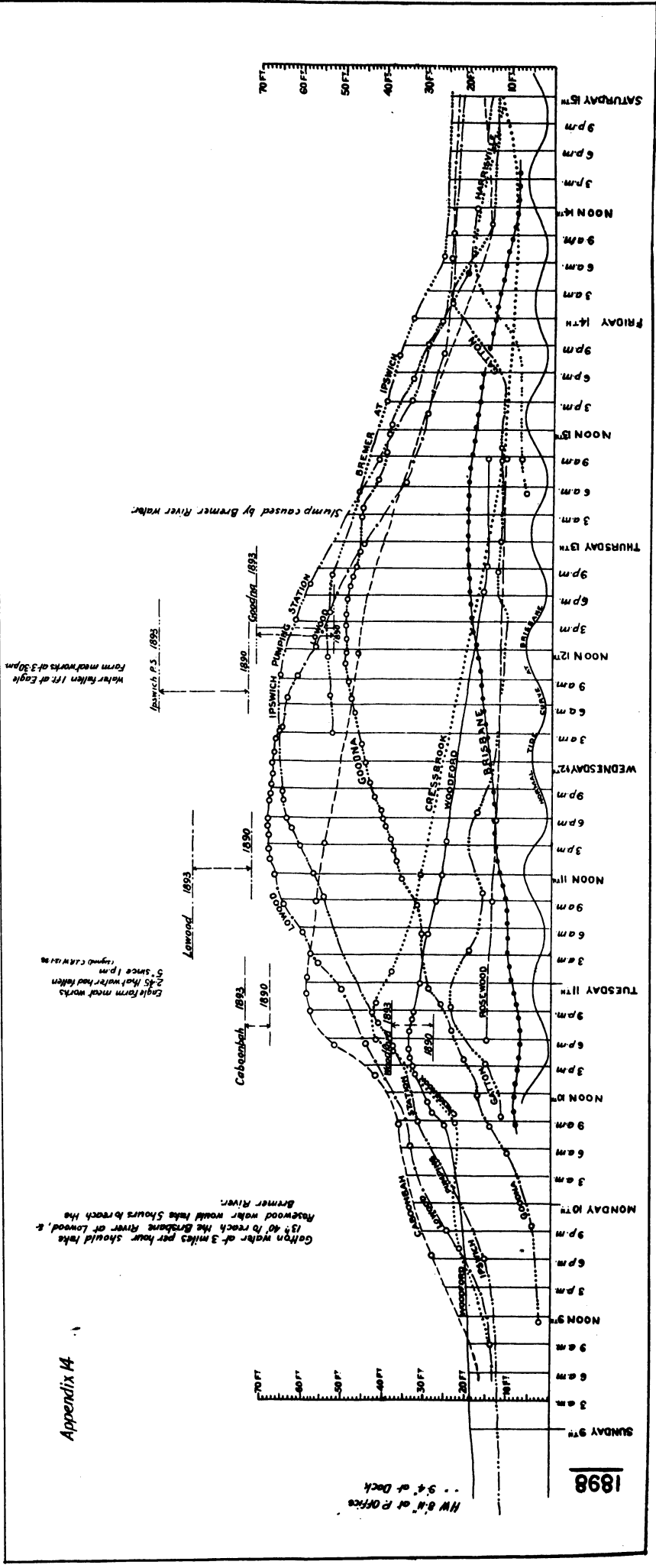


Diagram showing Heights of Floods in the Brisbane River, Queensland, since 1841.

(Heights taken at Port Office Gauge, Brisbane.)



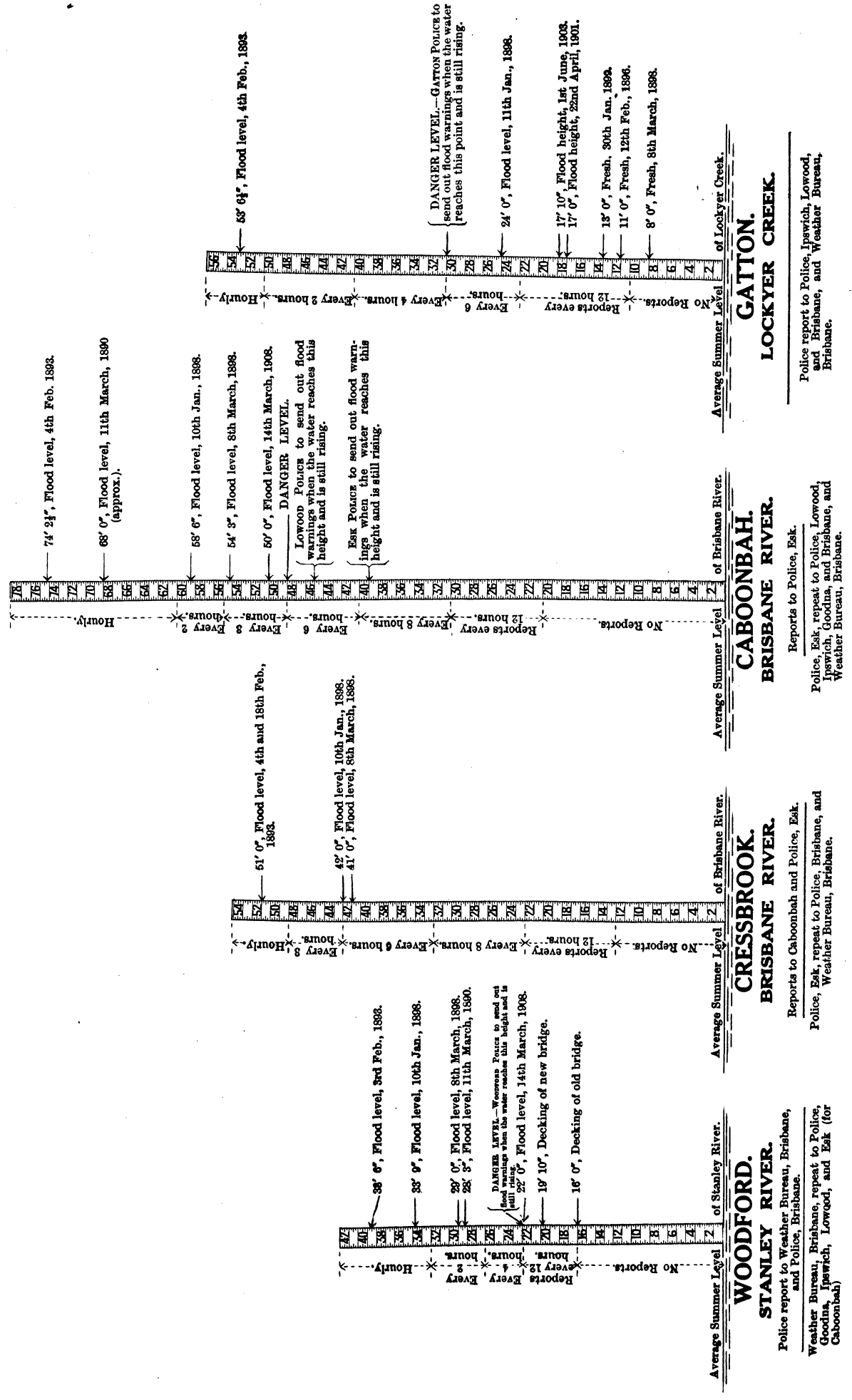
HYDROGRAPH OF FLOOD IN BRISBANE RIVER, QUEENSLAND, JANUARY, 1898.



From Diagrams by J. B. HENDERSON, M.I.C.E., Hydraulic Engineer, Water Supply Department, Brisbane.

QUEENSLAND FLOOD WARNINGS.

DIAGRAM OF FLOOD GAUGES ON THE BRISBANE RIVER AND TRIBUTARIES.



Police report to Police, Ipswich, Lowood, and Brisbane, and Weather Bureau, Brisbane.

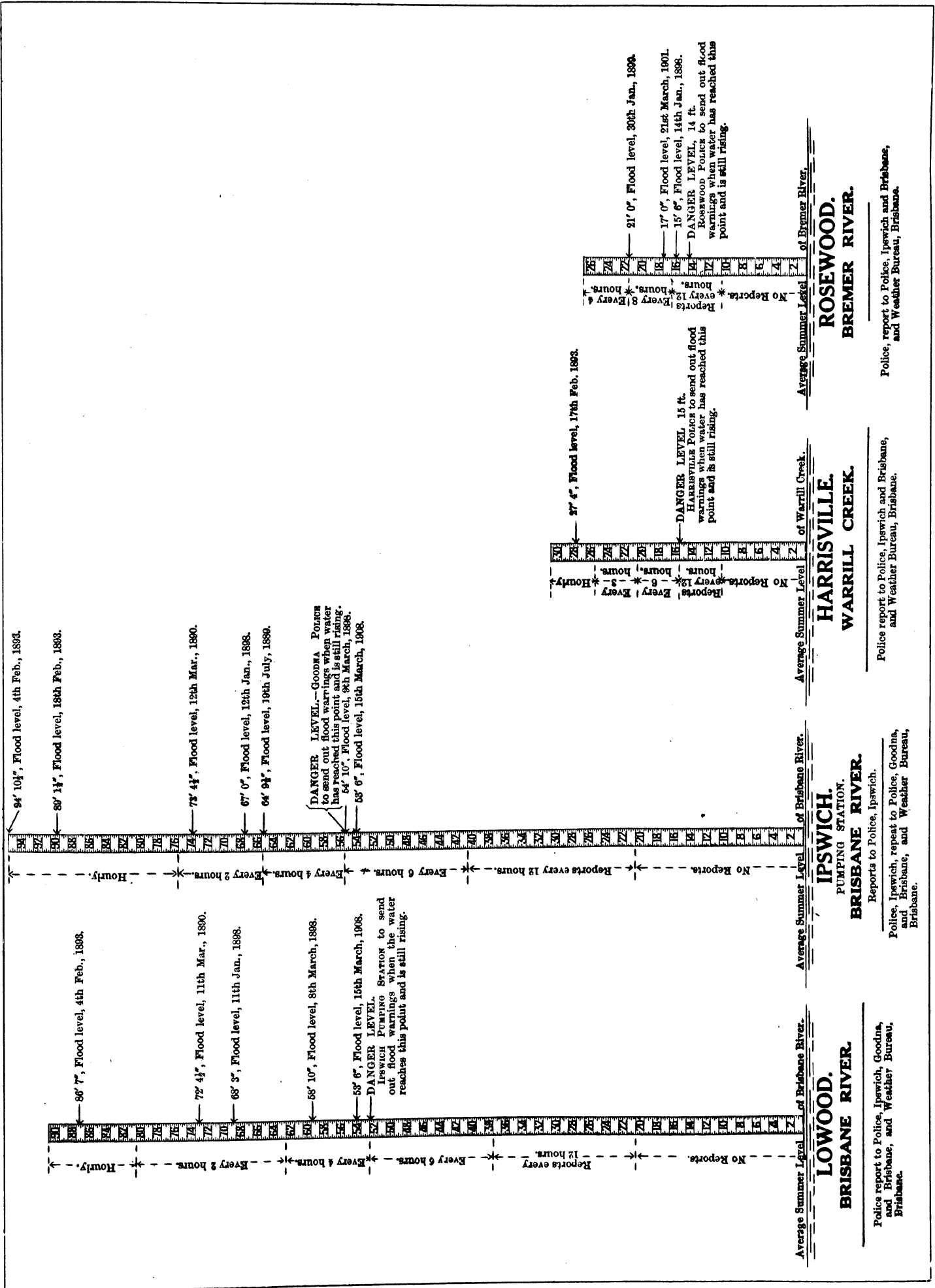
Reports to Police, Esk.
Police, Esk, repeat to Police, Lowood, Ipswich, Goodna, and Brisbane, and Weather Bureau, Brisbane.

Reports to Caboonbah and Police, Esk.
Police, Esk, repeat to Police, Brisbane, and Weather Bureau, Brisbane.

Police report to Weather Bureau, Brisbane, and Police, Brisbane.
Weather Bureau, Brisbane, repeat to Police, Goodna, Ipswich, Lowood, and Esk (for Caboonbah)

QUEENSLAND FLOOD WARNINGS.

DIAGRAM OF FLOOD GAUGES ON THE BRISBANE RIVER AND TRIBUTARIES—(continued).



Police report to Police, Ipswich, Goodina, and Brisbane, and Weather Bureau, Brisbane.

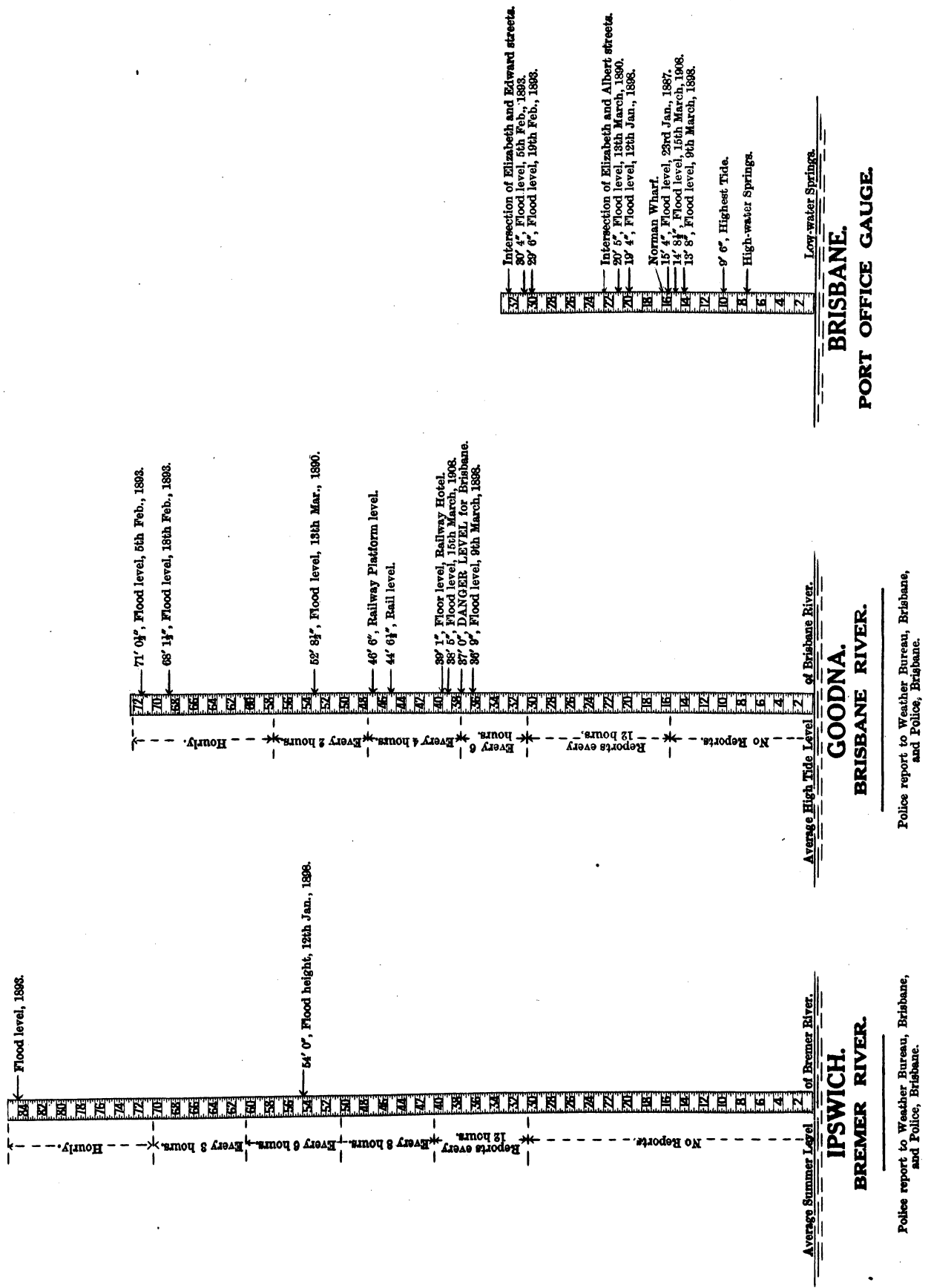
Police report to Police, Ipswich and Brisbane, and Weather Bureau, Brisbane.

Police report to Police, Ipswich, Goodina, and Brisbane, and Weather Bureau, Brisbane.

Police report to Police, Ipswich, Goodina, and Brisbane, and Weather Bureau, Brisbane.

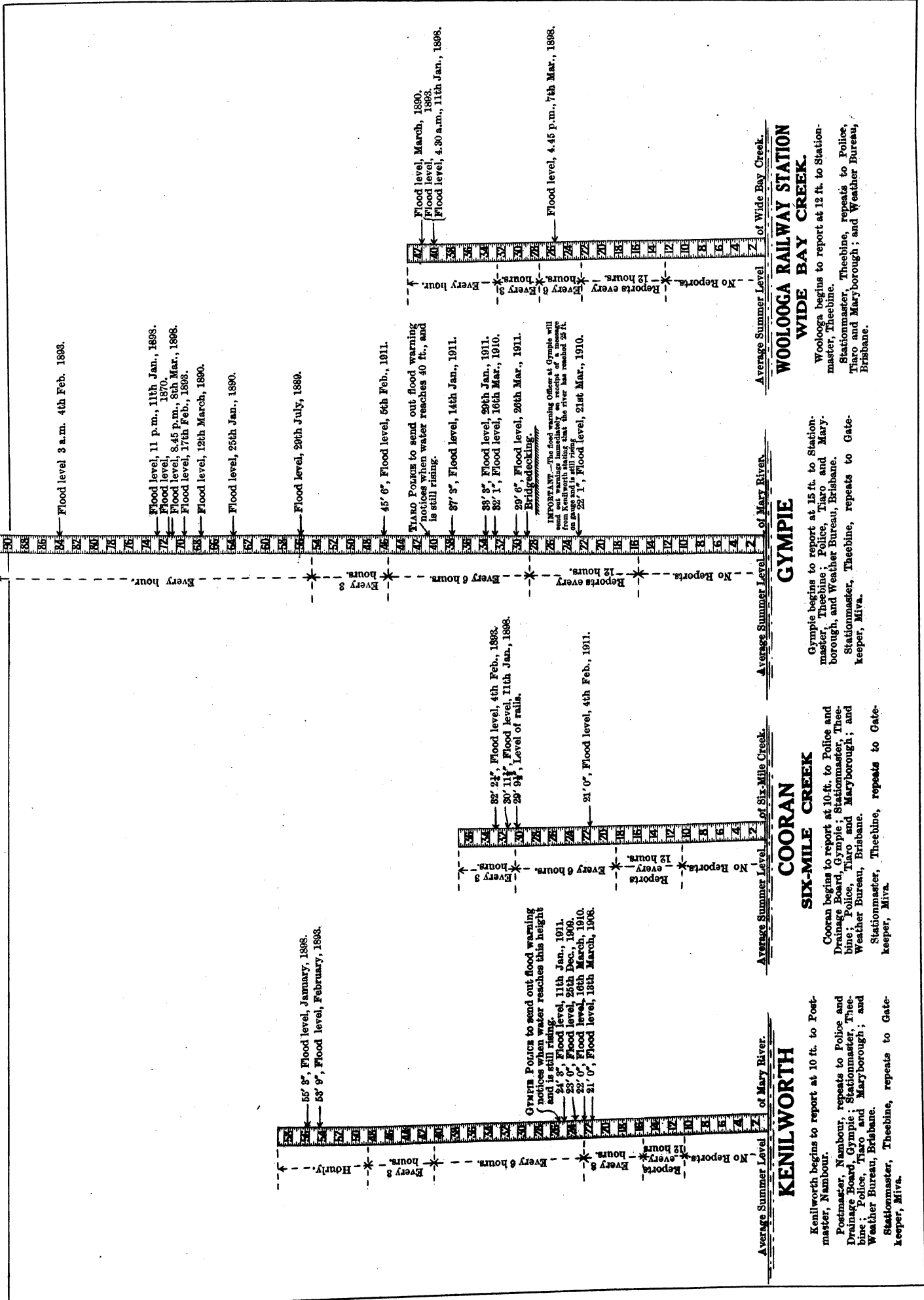
QUEENSLAND FLOOD WARNINGS.

DIAGRAM OF FLOOD GAUGES ON THE BRISBANE RIVER AND TRIBUTARIES—(continued).



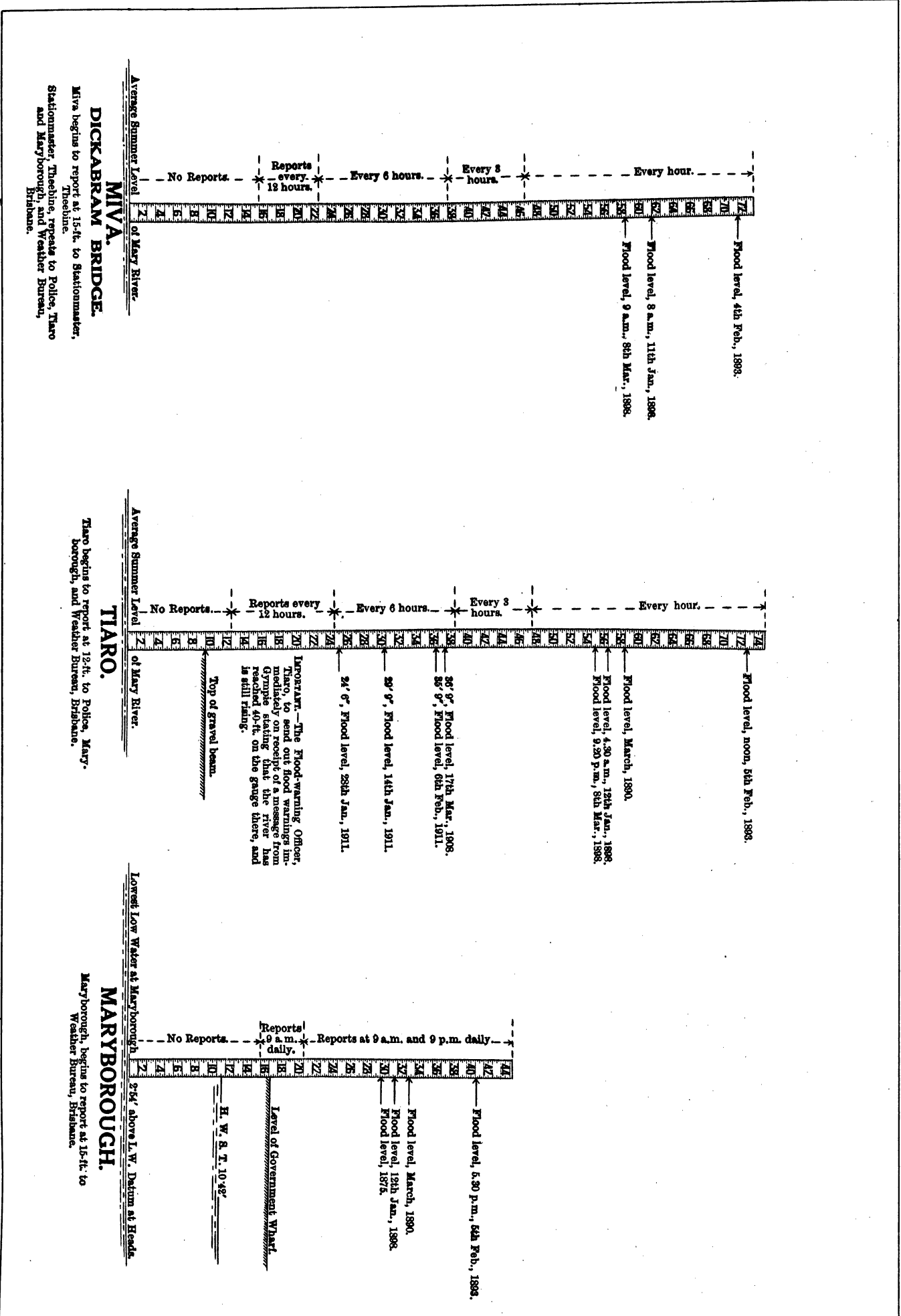
QUEENSLAND FLOOD WARNINGS.

DIAGRAM OF FLOOD GAUGES ON THE MARY RIVER AND WIDE BAY CREEK.



QUEENSLAND FLOOD WARNINGS.

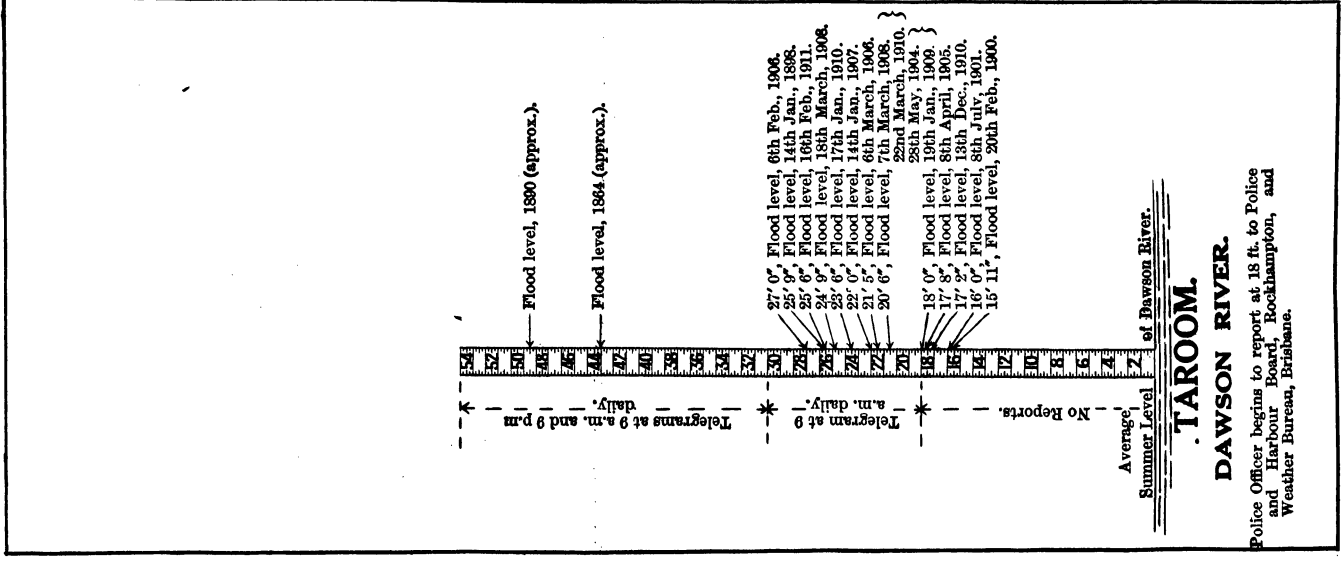
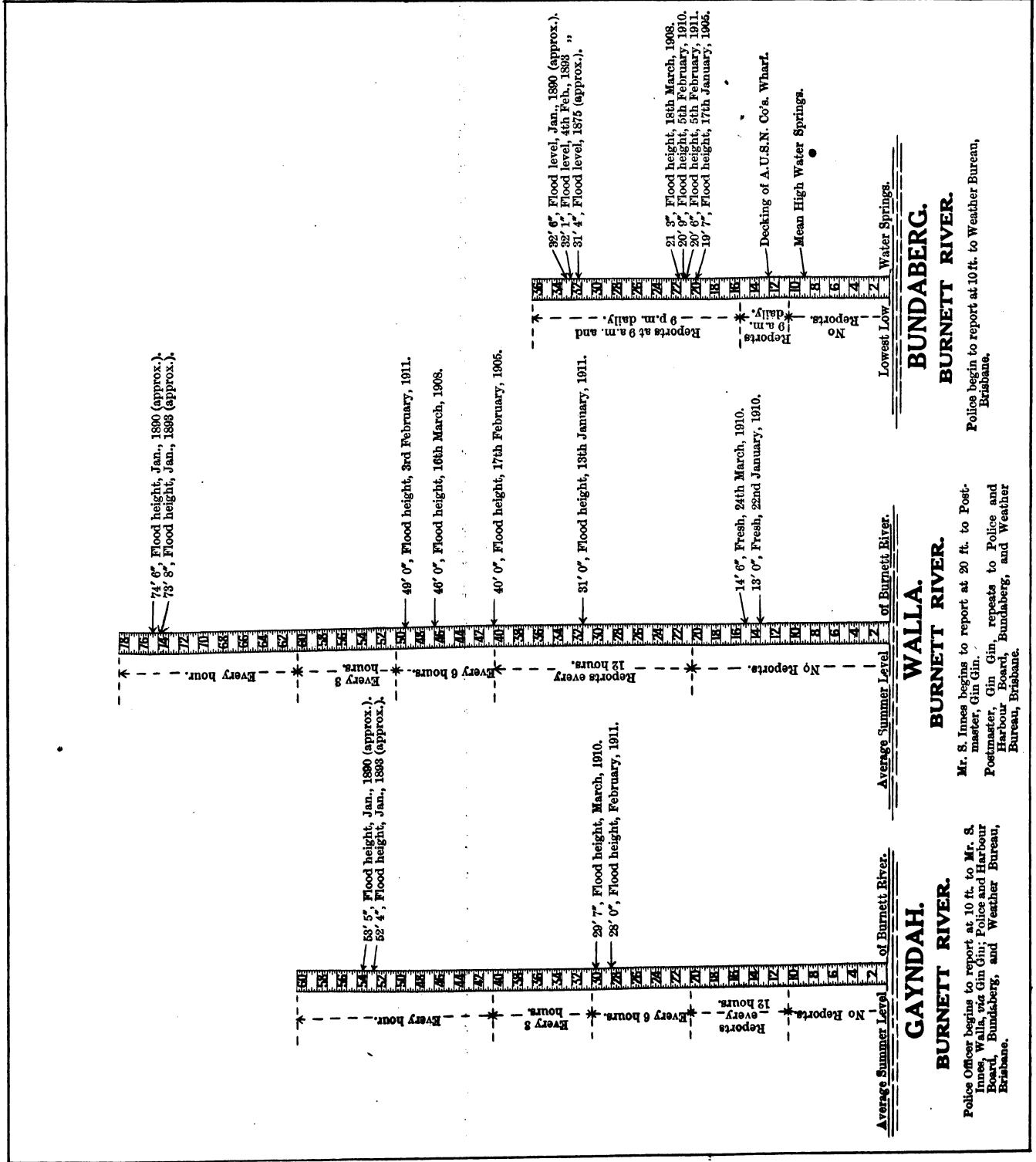
DIAGRAM OF FLOOD GAUGES ON THE MARY RIVER AND WIDE BAY CREEK—(continued).



QUEENSLAND FLOOD WARNINGS.

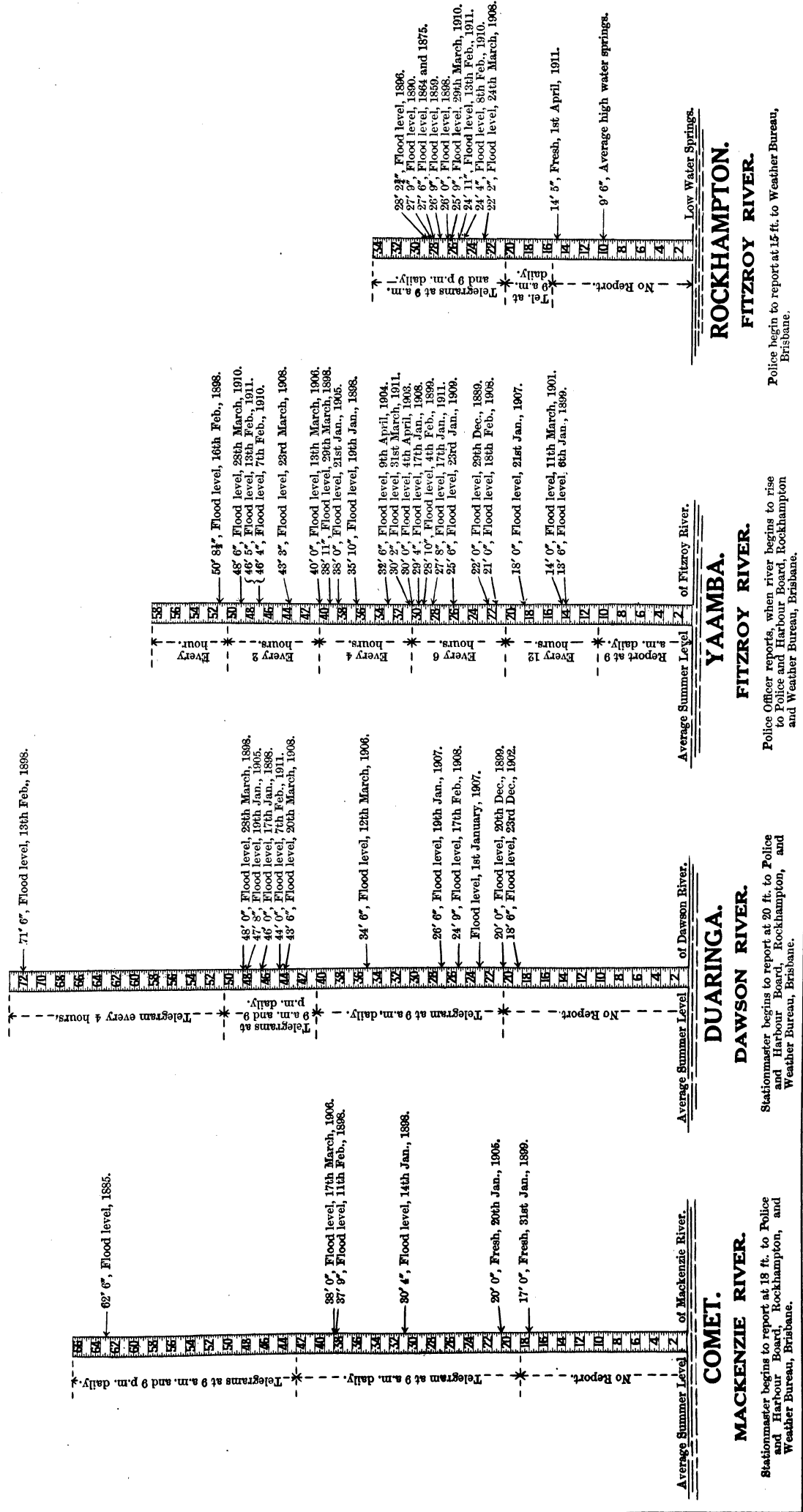
Diagram of Flood Gauges on the Burnett River.

Diagram of Flood Gauges on the Fitzroy River and Tributaries.



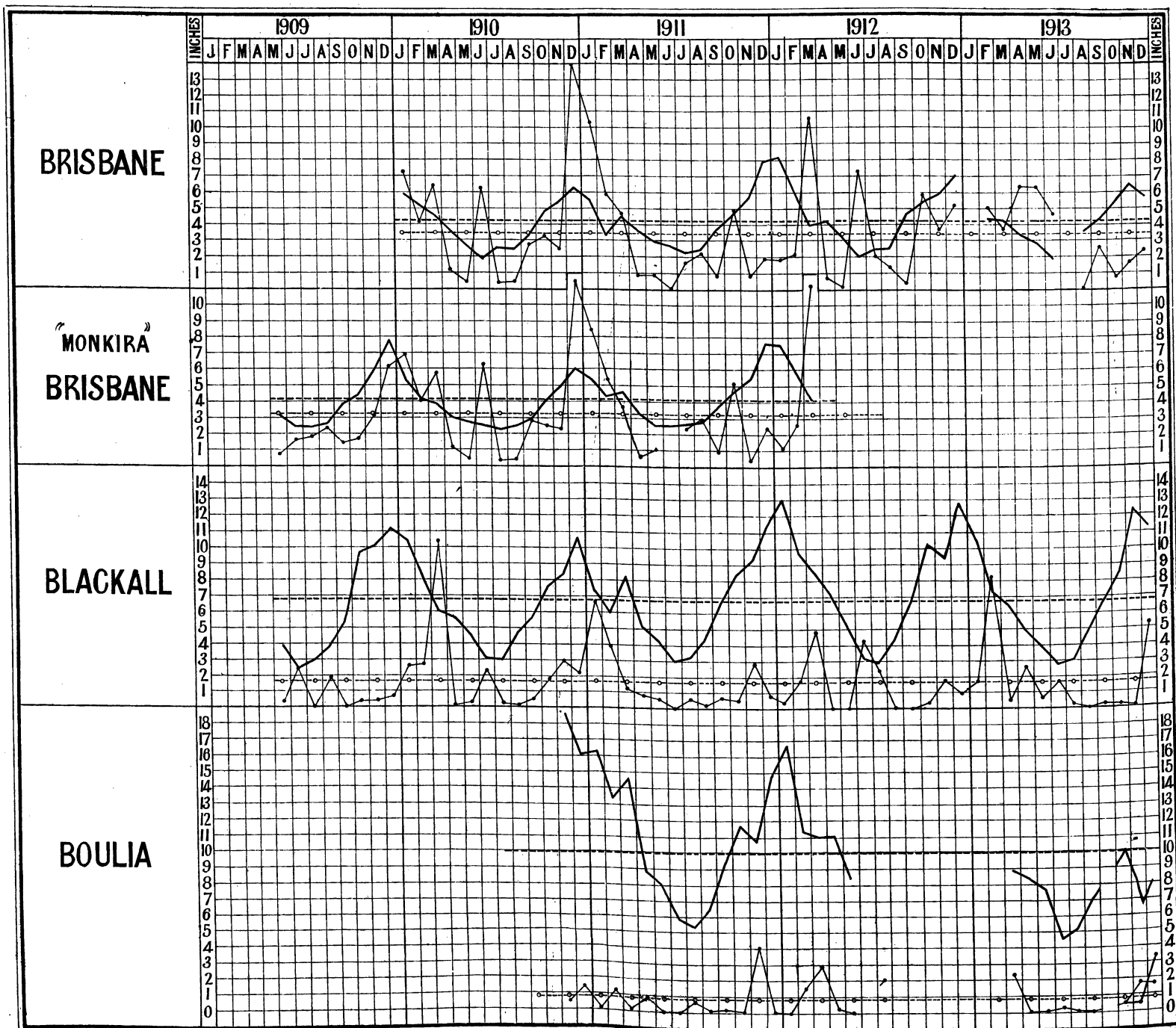
QUEENSLAND FLOOD WARNINGS.

Diagram of Flood Gauges on the Fitzroy River and Tributaries—(continued).



QUEENSLAND.

Graph showing comparison between Evaporation and Rainfall.



NOTE.—Monthly Evaporation shown thus _____ Monthly rainfall shown thus
 Mean Evaporation shown thus - - - - - Mean Rainfall shown thus . - . - . - . - .

No records available where breaks appear in Graph.

EVAPORATION AND RAINFALL.

The following tables present monthly and annual evaporation and rainfall totals (in inches and hundredths) recorded at official evaporation stations in Queensland, together with the greatest and least amounts of evaporation in one day for each month.

The evaporimeters at the Weather Bureau, Brisbane,* and at Boulia, have two open circular tanks for holding water—an inner one (from which the measurements are taken), 36 inches, in diameter and an outer (which forms a water jacket), 6 inches in width; whilst those at "Monkira," Brisbane, and Blackall have one circular tank, about 48 inches in diameter, with a 6-in. non-heat-conducting jacket formed of layers of powdered charcoal intervening between the side and bottom of the tank and the ground. The instruments at "Monkira," Brisbane, and Blackall were installed by the Water Supply Department of Queensland, and are under the supervision of J. B. Henderson, Esq., M.Inst.C.E., &c., &c., Hydraulic Engineer, who kindly supplied the data from those stations for the tables.

All the tanks are let into the ground to a depth of about 36 inches, the tops being within an inch of the surface level, and they are kept nearly full of water. The registering device in each case consists of a rod carried by a float, which is protected from the action of any ripples that may be set up by the wind on the surface of the water. The level of the water is measured to inches and tenths by means of a vertical scale, and to hundredths and thousandths of an inch by means of a disc divided into 100 parts, and mounted horizontally on a threaded spindle.

The observations are made by noting the difference in level of the water surface from day to day. When rain falls, the

amount determined in each case from the record of an ordinary rain-gauge, is allowed for in computing the amount of evaporation. When great evaporation or rainfall necessitates the adding to or removal from the water in the tanks, a new reading is taken immediately after such operation is completed, so as to determine the value with which the next day's reading is to be compared.

The mean annual amounts of evaporation computed from the tables are:—

	Inches.
Brisbane, Weather Bureau (three years' observation)	51.191
Brisbane, "Monkira" (three years' observations)	49.130
Blackall (four years' observations)	82.928
Boulia (two years' observations)	114.579

It will be observed, on referring to the table, that the records from Boulia are very incomplete, and the mean from that station must, therefore, be regarded as only roughly approximate.

A graph, showing a comparison between the evaporation and rainfall, is also included, and shows at a glance the relative variations of the two elements. The mean evaporation and mean rainfall lines on the graph were determined by taking an arithmetical mean of all the available monthly totals for the periods shown for the respective stations. It will be seen that the mean monthly evaporation at the two Brisbane stations exceeds the rainfall by about 0.81 inches, at Blackall by about 5.20 inches, and at Boulia by about 9.14 inches, whilst the months of greatest evaporation appear to be November, December, and January, and of least June and July.

*For eight years prior to 1910 a Piche tube evaporimeter was used for determining the amount of evaporation at Brisbane.

EVAPORATION AND RAINFALL, QUEENSLAND STATIONS.

Year.	1909.					1910.					1911.					1912.					1913.				
	Evaporation, in Inches.			Total Rainfall, in Inches.	Total Number of Wet Days.	Evaporation in Inches.			Total Rainfall, in Inches.	Total Number of Wet Days.	Evaporation, in Inches.			Total Rainfall, in Inches.	Total Number of Wet Days.	Evaporation, in Inches.			Total Rainfall, in Inches.	Total Number of Wet Days.					
Month.	Total.	Greatest Amount in one Day.	Least Amount in one Day.			Total.	Greatest Amount in one Day.	Least Amount in one Day.			Total.	Greatest Amount in one Day.	Least Amount in one Day.			Total.	Greatest Amount in one Day.	Least Amount in one Day.			Total.	Greatest Amount in one Day.	Least Amount in one Day.	Total.	Greatest Amount in one Day.

BRISBANE WEATHER BUREAU.

January	5.872	0.296	0.067	7.24	15	5.453	0.350	0.122	10.30	10	8.152	0.481	..	1.85	5	4.377	0.255	0.084	4.95	19
February	5.219	0.271	0.053	4.19	12	3.295	0.189	0.039	5.85	21	6.025	0.355	..	2.13	0	4.299	0.237	0.037	5.06	15
March	4.550	0.272	0.015	6.42	18	4.528	0.261	0.047	4.69	14	3.977	0.207	..	10.59	14	..	..	..	3.74	14
Total for First Quarter	15.641	..	0.296	17.85	45	13.276	..	0.350	20.84	51	18.154	..	..	14.57	28	..	..	0.255	0.084	4.95
Extremes .. .. .	..	..	0.015	..	..	..	..	0.039	..	..	..	..	..	..	..	..	..	0.237	0.037	3.74
April	3.621	0.190	0.079	1.22	11	3.627	0.193	0.028	0.88	5	4.230	0.267	..	0.71	7	3.398	0.267	0.000	6.32	7
May	2.621	0.146	0.038	0.43	9	2.977	0.169	0.043	0.89	9	3.259	0.174	0.030	0.20	6	2.830	0.104	0.003	0.33	15
June	1.885	0.147	0.008	6.24	18	2.683	0.180	0.025	0.08	5	2.008	0.177	0.010	7.29	12	1.854	0.128	0.040	4.65	10
Total for Second Quarter	8.127	..	0.008	7.89	38	9.287	..	0.193	1.85	19	9.497	..	..	8.20	25	8.082	..	0.267	0.000	17.30
Extremes .. .. .	..	..	0.008	..	..	..	..	0.025	..	..	..	..	..	..	..	..	..	0.267	0.000	..
July	2.567	0.160	0.004	0.39	4	2.274	0.133	0.026	1.69	9	2.425	0.183	0.006	2.04	13	3.552	0.197	0.060	2.40	6
August	2.483	0.158	0.016	0.43	8	2.469	0.144	0.014	2.22	13	2.484	0.186	0.033	1.32	9	3.552	0.197	0.060	0.02	2
September	3.332	0.189	0.051	2.72	12	3.720	0.223	0.041	0.84	5	4.649	0.264	0.006	0.43	4	4.312	0.378	0.081	2.55	9
Total for Third Quarter	8.382	..	0.004	3.54	24	8.463	..	0.223	0.014	4.75	27	9.558	..	3.79	26	..	..	0.378	0.060	4.97
Extremes .. .. .	..	..	0.004	..	..	..	..	0.014	..	..	..	..	..	..	..	..	..	0.378	0.060	..
October	4.869	0.278	0.052	3.27	6	4.696	0.357	0.067	4.93	12	5.302	0.329	0.003	5.85	8	5.498	0.320	0.060	0.78	4
November	5.397	0.295	0.061	2.48	9	5.660	0.376	0.093	0.84	10	5.900	0.257	0.078	3.71	15	6.422	0.318	0.054	1.64	4
December	6.273	0.291	0.116	13.97	11	7.954	0.442	0.129	1.94	9	7.039	0.356	0.125	5.20	12	5.577	0.379	0.004	2.37	10
Total for Fourth Quarter	16.539	..	0.052	19.72	26	18.310	..	0.442	0.067	7.71	31	18.341	..	14.76	35	..	..	0.379	0.004	4.79
Extremes .. .. .	..	..	0.052	..	..	..	..	0.067	..	..	..	..	..	..	..	..	..	0.379	0.004	..
Total for Year	48.689	..	0.296	49.00	133	49.336	..	0.442	0.014	35.15	123	55.650	..	41.32	114	..	..	0.379	0.000	40.81
Extremes .. .. .	..	..	0.008	..	..	..	..	0.014	..	..	..	..	..	..	..	..	..	0.379	0.000	..

* Amounts for some days during month estimated.

‡ Water in float for first half of month.

§ Tank leaking during part of month.

EVAPORATION AND RAINFALL, QUEENSLAND STATIONS—continued.

Table with columns for Year (1909-1913) and Month, and rows for Brisbane, Blackall, and Boulia. Each row contains data for Evaporation (Total, Greatest, Least) and Rainfall (Total, Greatest, Least) in inches, and Total Number of Wet Days.

* Total for May-December inclusive only.

† Amounts for some days during month estimated.

‡ Indicates no record.

GENERAL NOTES.

The notes on pages 50 to 160 were collected from official publications, observers' reports, newspapers of the day, and *Pugh's* and *Sapsford's Almanacs*, and they form a fairly complete record of notable meteorological events from about 1860 to 1913 for the Central and South Coast and the Downs divisions, and for period 1880-1913 for the remaining divisions (Inland and far North), of Queensland.

The notes are grouped under the following headings:—

Aurora Australis.	Plagues and Pests, also Diseases in Live Stock.
Droughty Conditions.	Rainfall (Heavy).
Earthquakes.	Shower of Ashes.
Floods.	Snow.
Frosts (Severe) and Exceptional Cold.	Thunder and Lightning.
Hailstorms.	Tidal Waves.
Heat (Excessive) and Heat Waves.	Waterspouts.
Meteors.	Windstorms (Hurricanes, Cyclones, Heavy Gales, &c.).
Mirage.	

AURORA AUSTRALIS.

1869.

14th May.—Brisbane.—A display of the Aurora Australis was visible for upwards of half-an-hour after midnight on 13th. The variation of colours was very beautiful and distinct during that time, after which it slowly faded into a dull leaden colour.

1870.

5th April.—From the Government Meteorologist's Report, Brisbane:—"On 5th April a remarkable Aurora appeared in the south at 11 p.m., resembling the reflection from a bush fire, for which it might have been mistaken but that the light was behind some cumulus clouds. The Aurora continued to increase in size and brilliancy for a quarter of an hour, then gradually decreased and passed away within half an hour of its first appearance. The colour was a dull red, unmarked by conuscations or variety of any kind. There is no record of a similar Aurora having been seen here, as far as I can ascertain. Several lunar halos were visible during the month, and on the nights of 11th and 12th they presented a very uncommon and beautiful appearance, and showed the prismatic colours distinctly."

1894.

24th July.—Brisbane—Extract from the *Brisbane Courier*:—"A resident of Brisbane informs us that the Aurora Australis mentioned in our Sydney telegram yesterday was distinctly visible in Brisbane. On Friday night (20th) he saw the Aurora in the south in the form of a pink flush, extending for some distance above the horizon. Only for the brightness of the moonlight the colour would doubtless have been more decided."

1909.

25th September.—Magnificent display of Aurora Australis visible in S.E. Queensland.—"For about an hour before midnight on Saturday, and for some hours afterwards, a brilliant display of the Aurora Australis was visible in south-eastern Queensland, the effect of which would have been magnificent to a remarkable degree had the night been dark instead of moonlit. Viewed from Brisbane, portion of the sky appeared to be brightly illuminated by a reddish glare, resembling that of a great conflagration, and occasionally giving place to other colours. So remarkable was the appearance of the light that in some of the south-western townships the residents had their curiosity aroused to such an extent that numbers of them went to the local railway stations and requested the officials to inquire by telegraph if anything had happened in the direction of other places. The passengers by the night trains saw the glare while travelling between Toowoomba and Ipswich, and it was clearly visible from many other places. In the Northern Hemisphere the Aurora Borealis produces similar effects. It is said to be about 30 years since an Aurora was last observed in Queensland."

DROUGHTY CONDITIONS.

DROUGHT IN 1858.

The following interesting note on the weather in Eastern Australia in 1858 is given in a letter from R. Copland Lethbridge, Esq., of Forest Vale Station, Richmond, Queensland, under date 13th October, 1910:—

"In 1858 A. C. Gregory passed over this run, and he describes the country as very bare and the river dry. When he got to the Victoria River (now the Barcoo) the drought

had been of such a long continuance that the whole of the vegetation had been destroyed, and he describes the trees as having been killed; and on the Thompson River their horses eagerly devoured the thatch of some old native huts. In May, 1858, I went from Sydney out to the Castlereagh River to inspect a station near where Coonamble now stands. A little rain had fallen by the time I reached there, but before that there had been a terrible drought. I rode for two days over the run, which I went to inspect, and saw no grass at all, and only about 50 head of cattle. The stock had all been taken out to the Warrumbungle Mountains to save their lives. My horse had nothing to eat during the three days I was there, except sprouts of saltbush; and evidently it was a drought of unusual severity, and covered a large area of country. I experienced none like it again until 1902."

1862.

5th February.—Port Denison.—About this time sufficient rain fell to fill the small swamps. The observer stated that prior to this rain, he did not recollect a single shower during the previous eight or nine months, although plenty of rain had been seen falling on the other side of the bay.

7th February.—Country about the Dawson dried up; rain wanted badly. Thermometer registered over 100° in shade every day in January.

23rd to 25th March.—Brisbane.—The long continued season of hot dry weather terminated on the night of the 23rd, when heavy rain began to fall and continued, with some few intermissions, up to the morning of 25th. The rain was most acceptable to the neighbouring agriculturists, and to dairy farmers, who were very much in want of it.

24th to 25th March.—Ipswich.—After several weeks of excessive heat, heavy rain commenced falling during the evening of 24th, and continued on 25th. The rain was much needed, as the country in the neighbourhood of Ipswich had, for some time, presented a dry and arid appearance.

16th June.—Gladstone.—Dry weather for several weeks past.

30th June.—Gladstone.—The late rains proved of great value to the diggers.

15th July.—Dalby.—With the exception of an occasional thunderstorm, no rain for some time past; waterholes very low.

28th July.—Gladstone.—Gold-digging operations still materially affected by want of rain.

July.—Brisbane.—For the last four years July has been the driest month, the respective totals being—July, 1859, 0.03 inches, 1860, 0.49 inches, 1861, 1.90 inches, 1862, 0.51 inches.

4th August.—Ipswich.—Country to the westward in a blaze, the first bush fire of the season. The absence of rain, combined with the warmth of the mid-day sun, caused the bush to be unusually dry and parched for the time of the year.

6th August.—Brisbane.—Effects of the long continued drought severely felt both by cultivators and graziers; vegetation parched; cattle dying in numbers in many parts of the district.

1st to 8th August.—Tamworth (N.S.W.).—Mountains at the back of Tamworth on fire during the whole of the week. The winds were very high; the fire spread for miles along the tops of the hills, and presented a startling appearance after dark.

9th August.—Gayndah.—Rain wanted to change the parched appearance of the country.

16th August.—Brisbane.—Big tank at the gaol dry.

22nd August.—Complaints general as to the disastrous effects of the long continued drought; cattle dying; vegetation greatly affected.

23rd August.—Drought conditions caused considerable loss of sheep and cattle in the East and West Moreton and the Darling

1854. December marked end of 7 months dry weather. Great scarcity of water on Darling Downs particularly. Therm. at Condamine registered 122° F.

Downs districts. A considerable area of the Downs country was burnt some time back, and the frost and absence of rain prevented the young grass from springing; stock absolutely dying of starvation; outlook bad for agricultural and pastoral interests.

Ipswich.—Country completely destitute of feed for cattle between Ipswich and the Range, every blade of grass in the country dried up by the drought. Creeks, waterholes and lagoons surrounded by dead and dying cattle; no rain for over two months.

26th August.—

Gladstone.—Great scarcity of water; no rain for two or three months; ground parched, and many of the creeks dry. Work at the Calliope Diggings suspended for want of water.

Men at the Calliope diggings, near Gladstone, obliged to cease work owing to scarcity of water; no rain in that district or in many other parts of the colony for two or three months.

27th August.—Toowoomba.—Country in frightful state for want of rain; not a bit of green herbage to be seen on the Downs; lambs dying in hundreds every day at some stations; horses, bullocks, and other cattle dying in scores for want of grass. Only a 25 per cent. increase of lambs anticipated.

30th August.—Brisbane.—Reports of distress, arising from either a scarcity of water or a total absence of feed, to hand from all quarters. Drinking water, in many localities, scarce or unfit for use; rain looked for with greater anxiety than for several years past.

1st September.—A few showers, the first for many months, fell in and around Brisbane.

3rd September.—Port Denison.—Water scarce; no rain since January.

6th September.—Brisbane.—Want of rain still severely felt. A shower or two fell on the 2nd, but herbage still parched and withered. Great losses of early lambs reported from country districts; losses of all kinds of stock very great.

6th to 9th September.—Toowoomba.—Several smart showers of rain; heavy falls at some of the neighbouring stations.

7th September.—Ipswich.—A moderately heavy and most welcome shower of rain, which lasted two hours, occurred.

9th September—

Gladstone.—Drought conditions still prevail; one or two slight showers fell recently; but ground still parched and bare as ever.

Rockhampton.—Weather continued dry up to night of 6th, when refreshing and copious showers fell; further showers on the 7th.

10th September—

Oxley Creek.—Serious losses in the neighbourhood owing to the want of rain.

Maryborough.—Weather still dry in the Wide Bay district, though some heavy storms accompanied by copious rains occurred in the Burnett. Change badly wanted, particularly by agriculturists.

12th September.—Toowoomba.—Refreshing showers during last few days, which caused grass to spring up everywhere. The winter on the Downs was the worst experienced for many years.

12th to 14th September.—Dalby.—A rather heavy thunderstorm occurred during evening of 12th, and was followed throughout the 13th and 14th by nice genial showers; grass springing again.

13th September.—Warwick.—Rain fell during the last few days after three or four months of continued dry weather.

15th September.—Burnett District.—Parched appearance of country rapidly changing into lovely verdure. The storm on the 12th brought with it a copious supply of rain, which continued to fall up to 15th.

19th September.—Brisbane.—Almost the whole of the central and southern districts want rain. Great losses of stock experienced, and the mortality among the spring lambs up to the present date

serious. A few showers fell lately, but except in the neighbourhood of the main range there was not sufficient rain to do much good. Reservoir at North Brisbane almost dry.

22nd and 23rd September.—Surat.—Two days' heavy rain, after a long spell of dry weather; grass again springing.

23rd September to 7th October.—Gladstone, 7th October.—Seasonable supplies of rain during the past fortnight.

24th September.—Rain reported from Warwick district; good prospect for farmers.

24th and 25th September—

Brisbane.—Throughout the night of 24th and all day 25th rain fell steadily, and occasionally with great force, so that the reservoir and all the waterholes in and about the town were well filled.

Ipswich.—The drought, from which this district suffered for a long time, terminated on the 24th, when rain set in and continued, almost without intermission, until early in the morning of the 26th. The rain had been long wanted, all agricultural pursuits having been retarded by its long continued absence.

7th October.—Rockhampton.—Weather dry. Captain Cottier reported a heavy three hours' shower of rain on the river, but no rain fell in the town.

15th October.—Banana.—Continued dry weather; great privations experienced by travelling stock throughout the country. Average of lambs much below that of the preceding year.

25th October.—Warwick.—Drought conditions still prevail; all hope of rain abandoned.

5th November.—Maryborough.—Rain greatly needed; none experienced for a long period.

7th November.—Dalby.—Rain wanted very badly; creeks and rivers drier than they have been for some years past; shearing discontinued on account of the scarcity of grass.

10th November.—Brisbane.—Rain still wanted; much loss in consequence to owners of stock and agriculturists. Special prayers for rain offered up on the 9th in most of the churches. Drought conditions reported from most parts of the colony. Dense smoke haze; innumerable bush fires.

13th November—

Maryborough.—Effects of drought disastrous; squatters unable to wash wool in the Burnett district; vegetation dying in the immediate neighbourhood of the town.

Rockhampton.—Slight fall of rain, but not sufficient to benefit vegetation.

17th November.—Comet.—Weather exceedingly hot and dry; no rain since the middle of June. Water very scarce, especially on the Nogoia runs. Little or no grass; an immense amount of burned bare country.

18th November.—Brisbane.—Continued drought conditions; sky overcast day after day, but no rain. The rainfall for October was the smallest for that month for some years.

19th November—

Pike Creek.—Country very parched; water-holes dried up in places.

Gladstone.—Operations at Calliope gold-fields suspended for want of water.

22nd November.—Toowoomba.—Continuance of drought conditions, notwithstanding the frequent indications of storms. Little or no grass around Dalby, as well as further inland. Sheep-owners anticipate heavy losses.

24th November—

Ipswich.—A great deal of inconvenience experienced owing to the heat and long continued drought.

Brisbane.—Agreeable change in the weather. Light but refreshing intermittent thundershowers throughout the night.

Toowoomba.—About 9 p.m. rain came down fast for a short time, but did not continue long enough to penetrate far into the parched ground. Heavy rain reported from Clifton and Pilton. No rain at Dalby.

The Dawson District.—Weather all over the district very dry during the last few months; very little rain since June; feed for stock much dried up.

29th November—

Gayndah.—Rain wanted; country parched in the extreme; hardly a blade of grass visible. Very slight fall of rain on 28th.

Maryborough.—Heavy thundershower which did much good. Some of the crops lost beyond hope, potatoes in particular almost a total failure. The cotton crop also failed, the seed coming up here and there without any regularity.

Rockhampton.—Some rain fell, but more wanted.

Bowen.—Drought conditions prevail.

2nd December—

Gladstone.—Weather still excessively dry, though by no means hot. Diggers leaving owing to scarcity of water.

Nanango.—Within the last few days frequent refreshing thundershowers fell.

2nd and 3rd December.—Toowoomba.—A regular burst of rain and hail occurred on the night of 2nd. The rain continued fairly steadily during the night of 2nd and morning of 3rd.

3rd December—

Brisbane.—A few showers fell in the city. In the neighbourhood the rain was much more abundant, and in the agricultural district of Warwick there was a beneficial downpour.

3rd to 5th December.—Copious showers fell at the German Station, Eagle Farm, Cooper's Plains, Oxley Creek, and other agricultural localities in the vicinity, and at Ipswich rain fell for two days.

8th December.—Taroom.—Reports received of heavy rainfalls on both sides of the ranges.

10th December—

Toowoomba.—The showers of last week refreshed grass and gardens. They did not, however, extend beyond Canal Creek, consequently dry parched conditions still prevail over the country to the westward. No rain on the Dawson, though the showers extended to Wombo and probably to the Maranoa.

Banana.—Waterholes overflowing, owing to the recent thundershowers.

11th December—

Brisbane.—Water in the reservoir almost the colour and consistency of pea soup, and scarcely a fortnight's supply left. Some carriers forced to travel 6 miles for good drinking water.

12th to 15th December.—Heavy rains, accompanied in some places by thunder, occurred during this period at Brisbane, Ipswich, Toowoomba, Gayndah, Maryborough, and on the Dawson; many of the waterholes filled.

13th December.—Rockhampton.—Butchers unable to supply mutton; sheep too poor owing to scarcity of feed. Heavy showers on 12th and 13th filled waterholes, and mitigated drought conditions considerably.

16th December.—Gladstone.—Weather still excessively dry.

21st and 22nd December.—Thunderstorms accompanied by heavy rains relieved drought conditions to some extent at Warwick, Ipswich, Toowoomba, and Port Denison.

23rd December.—Gayndah.—Shearing delayed by absence of rain.

25th December.—Extract from the *Toowoomba Chronicle*.—"A gentleman who has just returned from the Maranoa gives a deplorable account of the state of the country. In one part as much as 60 miles of the river was perfectly dry. Our informant had to travel nearly 70 miles in two days for water, and when the waterhole was reached it was found completely surrounded by dead sheep, and the little water that remained was putrid. No rain in some parts of the Maranoa for fifteen months."

27th December—

Brisbane.—Rain set in at 6 p.m., and continued without intermission until early the following morning. It filled the reservoir and numerous waterholes around the city.

Toowoomba.—Weather broke to-day; a heavy thunderstorm, which lasted several hours, occurred.

1863.

20th January—

Brisbane.—The recent heavy rains visited coast districts only, and reached, at the most, no more than 200 miles inland. Country on the Maranoa, Condamine, and Balonne still bare, and conditions quite as bad in the north. Severe losses sustained by sheep-owners. Some stations that were considered the best watered in the Leichhardt district unable to carry sheep.

Condamine.—Long continued drought,—which had badly affected cattle, sheep, and horses—broken; plenteous and genial rain.

7th February (about)—

Condamine District.—Three days soaking rain, and more indicated. Rain badly wanted on the Maranoa and Macintyre rivers.

Culgoa, St. George.—No feed for horses or cattle.

Brisbane.—Travellers stated that stock in the west, south-west, and north-west were severely affected by shortage of grass and water. Heavy rain falling from Wallan to Brisbane.

28th November.—Warwick.—Rain badly wanted.

1864.

20th August.—Maryborough.—A correspondent at Burdekin River, North Kennedy, wrote:—"The weather has been very dry, and grass for lambs scarce, but the rain has come at last."

6th September.—Gladstone.—The local correspondent wrote:—"Some of the over-plus of rain experienced to the southward would be acceptable here. Scarcely a shower has fallen for three months. Waterholes are almost dry, and feed is very scarce."

28th September.—Toowoomba.—Weather still very dry; farmers anxiously waiting for rain.

10th October.—Toowoomba.—The local correspondent wrote:—"The weather now is exciting great attention, and much dread is experienced as to the extreme probability of a long and disastrous drought. The bitter cold weather which followed the heavy rain in the early part of August, coupled with the present drought, has had a bad effect on the lambing, which falls far short of the average of last year."

14th October.—Brisbane.—Shortage of water all over the country; great complaints of the scarcity of feed in the north; cereal crops on the Darling Downs affected by the drought.

15th October (about).—Maryborough.—Long spell of dry weather. Ordinary supplies of water long ago exhausted, and water in river so brackish as to be nearly undrinkable.

18th October.—Rockhampton.—The somewhat exceptional drought which recently prevailed terminated on Tuesday, the 18th inst., by a violent thunderstorm, which broke over the town about half-past twelve, and continued for some time. It commenced with a high wind, which swept clouds of dust over the town, and apparently broke in all its fury directly overhead. The town was deluged with a perfect storm of hail and rain. It was stated that hailstones fell at Woodend as large as marbles, and that the thermometer fell 21 degrees in half-an-hour, during which period the barometer showed no change.

21st and 22nd October.—Goondiwindi.—Heavy thunderstorms and showers relieved drought conditions to some extent.

22nd October.—Brisbane.—Heavy downfall of rain; fears of reservoir failing at an end, and the use of muddy water from the reserves, retailed at a shilling per barrel, discontinued.

25th October.—Toowoomba.—Rain general throughout the district.

28th October.—Toowoomba.—Intelligence received from all quarters indicated the extended character of the late rains. No mails were received at the post office from the Condamine, Surat, Roma, or St. George offices on Wednesday, owing, doubtless, to the creeks being flooded from the heavy fall of rain on the nights of the 20th and 21st inst.

12th November.—Brisbane.—Rain wanted in the Upper Warrego district; no rain since March.

14th November.—Brisbane.—Summer thunderstorms and rain; townspeople relieved from the necessity caused by the dry weather of using the muddy water from the reservoir and waterholes.

31st December (about).—Bowen.—Rain badly wanted throughout the district.

1865.

6th April.—Dalby.—Still dry, hot weather. Grass dry and yellow; plains full of great earth-cracks; bush fires in all directions. Water sold at two shillings per cask.

8th April.—Rockhampton.—All semblance of feed scorched up.

10th April.—Dalby.—Continued drought. Creek, with the exception of the deeper waterholes, dried up.

15th April.—Water more sought after than gold on Peak Downs gold-fields.

29th April.—Country in vicinity of Darling Downs in very parched condition.

6th May.—Water still scarce in neighbourhood of Peak Downs.

13th May.—Clermont miners driven away by drought; trade suspended.

27th May.—Much inconvenience and loss to dairy farmers and small agriculturists in neighbourhood of Brisbane caused by long continued drought. All small watercourses about the town dried up.

31st May.—Maryborough.—Crops and grass failing for want of moisture.

6th June.—Maryborough.—Drought broken; rain falling.

8th June.—Rockhampton.—Drought broken; general rain throughout district.

29th August.—Toowoomba.—No rain for past four months except few light showers. Crops withering; gardens parched.

6th September—

Warwick.—Weather very dry for some months past.

Toowoomba.—First shower of rain for four months. Crops and gardens in bad condition; cattle dying in great numbers.

16th September—

Goondiwindi.—Rain greatly needed; everything burnt up; fish dying in river; animals starving.

Maryborough.—Long drought broken. On 18th and 19th tempestuous weather with heavy rain prevailed.

20th September.—Toowoomba.—Drought conditions in district for some months past. Frequent soaking showers, however, experienced since 17th instant.

8th October.—Goondiwindi.—Very dry weather.

16th October.—Clermont.—The distress caused by the scarcity of water has been dispelled by a seasonable fall of rain.

29th October.—Goondiwindi.—Another week of fearful heat and drought.

1st November.—Warwick.—Want of rain severely felt.

6th November.—Warwick.—Drought broken by copious fall of rain which proved very beneficial to gardens, wheat crops, and grass.

7th November.—Warwick.—Recent dry weather seriously affected hay crops.

11th November.—Clermont.—Water very scarce.

16th November.—Toowoomba.—District affected by drought and heat; supplies of water failing.

21st November.—Warwick.—Intense heat and drought; crops affected. A severe thunderstorm occurred on 19th instant which benefited the young maize and grass, but had a further deteriorating effect on wheat crops, owing to the exceedingly oppressive weather that followed. Bush fires in every direction. River low, but water still good; ordinary charge for supply—9d. per cask.

30th November.—Dalby.—Bush fires prevalent in neighbourhood; fire spread over about 7 miles of country on the Daandine run.

1st December.—Charleville.—No rain; all waterholes from Culla Mulla downwards nearly dry. Weather very warm and rations scarce.

3rd December.—Goondiwindi.—Continued drought.

7th December—

Toowoomba.—Weather still dry.

Dalby.—Price of water per cask raised from 1s. to 1s. 6d. Almost all the water dried up, and that left in the creek unfit for household purposes.

11th December.—Brisbane.—The rain which fell during past fortnight freshened up the country, but was too late to do more than save growing crops from destruction. The year 1865 was one of the most trying years ever experienced by agriculturists.

21st December.—Oxley Creek.—Particularly dry and trying season for farmers.

22nd December.—Dalby.—Fruit crops, especially grape and peach, greatly affected by the drought; creek rather low.

1866.

6th January.—Oxley Creek.—Rain anxiously awaited.

19th January.—Roma.—No rain; grass burnt up; water very scarce; two stations in district untenable.

21st January.—Roma.—Rain at last; sufficient to break the drought.

27th January.—Warwick.—Country barren of feed.

2nd February.—Warwick.—Drought still prevails; maize crops a failure.

22nd February.—Gregory's Creek, Drummond.—Country parched up.

2nd March—

Dalby.—Heavy losses by farmers and squatters owing to want of rain.

Drought at Oxley Creek.

10th March.—Peak Downs.—Water scarce; drinking water carted 3 miles; men leaving the diggings.

19th March.—Kangaroo Point.—Continued drought; cattle and sheep dying; water very scarce.

21st March.—Toowoomba.—Continued drought; dense clouds of red dust over the roads.

23rd March—

Roma.—Heat in afternoon almost unendurable.

Oxley Creek.—Continued drought.

24th March.—Goondiwindi.—No sign of rain; no grass or water.

29th March.—Toowoomba.—Heavy fall of rain; drought broken.

31st March—

Water very scarce at Oxley Creek; cattle very weak.

Ipswich.—Weather still dry.

4th April.—Warwick.—Continued drought; water very scarce.

14th June.—Peak Downs.—Two good thundershowers added a little to the water supply; waterholes still quite dry at the Copper Mine.

20th June.—Bald Hills and Pine River.—Roads in very bad state owing to the late rain—the only good soaker experienced for two years past.

5th July.—Roma.—Horses and bullocks suffering from lack of feed.

7th July.—Goondiwindi.—Drought still unbroken.

15th July.—Goondiwindi.—Drought broken; two days fine rain; grass growing miraculously.

11th August.—Ashford.—For past six months the Dumaresq and Severn rivers were merely a series of waterholes. These rivers and their tributaries were lower than ever before experienced. Owing to the late rain, however, rivers now in flood.

22nd September.—Gayndah.—Weather excessively dry; feed very scarce, especially towards Taroom and the Upper Dawson.

4th October.—The Logan.—The want of rain severely felt.

6th October.—Maryborough.—Country in bad state around Taroom in consequence of long drought. No feed on some of the runs; sheep and cattle dying; lambs on some runs nearly all dead; horses weak and unable to carry rations to out-stations, or to travel.

16th October.—Carraba.—Want of rain severely felt.
 18th October.—Logan.—Rain badly wanted.
 20th October.—Clermont.—Feed very scarce in neighbourhood; no appearance of rain.

27th October.—Cleveland Bay.—Great want of rain in interior.
 6th November.—Talgai Reef.—Rain very much needed.
 8th November.—Clermont.—Almost every station severely affected by drought.

15th November—
 Drought very severe beyond Junction Creek—a distance of about 70 miles destitute of water and grass. Scores of kangaroos and wallabies lying dead on and near the road.

Roma.—Rain badly wanted; no water or grass for stock.
 19th November.—Surat.—Scorching hot weather and high winds; horses in very poor condition; river water bad and very low; Talavera station about to be abandoned for want of water.

22nd November.—In consequence of absence of grass between Condamine and Roma, coach service discontinued. Drought in interior of colony continues with unexampled severity. Many stations in Maranoa district deserted.

23rd November.—Roma.—No grass for miles around.
 27th November.—Both Logan and Grosvenor Downs stations, which were in a very bad state for want of rain, have experienced partial relief owing to heavy rains at Huntly and the Peaks.

1st December.—Surat.—Thousands of sheep and cattle lost owing to intense drought.

5th December.—Maryborough.—Great suffering and loss in the interior from want of water.

1867.

1st January.—Curriwillingham.—A copious fall of rain occurred just in time to save the flocks from perishing of thirst, as creeks and waterholes were all dried up. In some instances 10,000 or 12,000 sheep had to be watered from the one small hole on the same day; and the whole country for hundreds of miles around was as bad or even worse than this district.

5th January.—Roma.—Rain badly needed; 25 per cent. of the most valuable grasses utterly withered.

22nd January.—Ipswich.—The much-desired rain occurred; steady downfall for three hours.

28th January.—Goondiwindi.—All grass dried up; no sign of rain.

5th February.—Peak Downs.—During past fortnight frequent thunderstorms occurred. Whole country now fairly well supplied with water, and stock rapidly getting into condition.

18th February.—Goondiwindi.—No rain; no grass.

20th February.—Roma.—Earth dry and brown, and feed very scarce.

22nd February.—Marlborough.—Very dry and warm weather for some time past; rain much wanted; grass drying up.

23rd February.—Fountain's Camp.—Steady rain for past few days; grass fresh and green and very plentiful. Cattle and sheep improving in condition.

2nd March.—Taroom.—Continued drought.

3rd March.—Roma.—Another fall of rain; grass springing luxuriantly; complaints at an end.

4th March.—Condamine.—Weather still dry.

10th March.—Roma.—Twenty hours steady, soaking, beneficial rain occurred.

13th March—

Taroom.—Drought gone at last; steady rain for past six days.

Bowen.—Plentiful rains; all fears of drought for present dispelled.

16th March.—Coongoon.—Rain badly needed to renew supply of feed for winter months.

19th March.—Condamine.—Rain at last. On 16th inst. rain fell steadily and continued at intervals during the night. On

17th, 18th, and 19th similar falls occurred. The ground was so parched that not a single drop of moisture was to be seen shortly after the last fall of rain.

20th March—

Charleville.—Weather still hot and dry.

Taroom.—Country looking exceedingly well in consequence of the late rains.

25th March.—Curriwillingham.—Weather still very dry, and grass rapidly disappearing.

2nd April.—Goondiwindi.—Rain at last.

10th April.—Dalby.—Very welcome rain during past week.

21st October.—The Logan.—Continued drought.

23rd October.—Tingalpa.—Continued drought.

31st October.—Oxley.—Drought conditions serious.

9th and 10th November.—Warwick.—Drought broken. Thunderstorm with light showers. Rain accompanied by high wind and heavy storm of hail on 10th—0·67 inch of rain fell in about fifteen minutes.

23rd November.—The Logan.—Weather still dry.

26th November.—Curriwillingham.—Country very dry and scorched; herbage and grass rapidly withering.

24th December.—Dalrymple.—Country very dry and burnt; cattle dying on the Flinders for want of water.

1868.

6th January.—Very bad season for agriculturists; rain wanted since end of August; soil hard and parched.

7th January—

Brisbane.—Special prayers offered for rain.

Moggill.—Continued drought and extraordinary heat.

8th and 9th January.—Warwick.—Drought broken; on the 8th a thunderstorm passed over the district and rain fell all night; on the 9th a more severe storm broke in the neighbourhood of Warwick, accompanied by violent wind and steady rain. Heat for last few days unprecedented—temperature 104° during early part of week; and on one occasion 105°. The Condamine was reduced to a succession of stagnant pools.

10th January.—Curriwillingham.—Weather very dry; water rapidly drying up.

11th January.—Dalby.—Several very heavy thundershowers during last few days; water plentiful in creeks. Water which lodged upon the plains quickly absorbed in cracks and fissures, which abounded in all directions; grass showing improvement.

15th January.—Break up of the extended drought that prevailed throughout the country.

21st January.—Logan District.—Fine showery weather after nearly eight months drought; everything changed.

23rd January.—Brisbane.—General rains; reports from all parts of the country allude to the good effects of the rains.

7th April—

Tingalpa.—Weather exceedingly hot; grass brown and scorched; vegetation checked.

Roma.—Weather very dry and hot; water scarce at the Blacks' Waterhole and at Tyrconnell Downs; 40 miles of road without water.

14th April.—The whole Barcoo district dry and burnt, and along the coast a stage of 30 miles without water exists.

18th April.—Burnett.—Rain anxiously awaited; all vegetation fading rapidly; country like an immense stubble-field.

23rd April.—Oxley Creek.—Dry weather affecting farming operations; early potatoes have suffered from heat, drought, and grubs.

24th April.—Roma.—Weather still hot and dry; no signs of rain; squatters travelling sheep between Roma and Charleville.

25th April.—Biddenham.—Very little rain since June, 1867.

28th April.—Warrego District.—Drought conditions still prevail.

29th April.—Curriwillingham.—Extremely dry; grass and vegetation rapidly disappearing.

7th May.—Tingalpa.—Farming operations almost suspended owing to want of water. Waterholes, in many cases, entirely empty.

8th May.—Dalby.—Four months since rain fell; creeks and waterholes drying up; grass too dry to give sustenance to flocks and herds.

14th and 15th May.—Splendid rains, which were badly needed, occurred at Bowen and inland as far as Cape River diggings.

15th May.—Roma.—No rain in western districts for months; not a drop of water along 70 miles of the road between Roma and Charleville.

20th May—

Mary River.—Rain at last, but too late to be of much service to owners of horses or cattle.

Curriwillingham.—Weather very dry and bleak again.

27th May.—Oxley.—Another week without rain; ground parched.

28th May.—Tingalpa.—Rain still wanted; water getting scarce.

2nd June.—Warwick.—Continued drought; ground too hard to plough.

4th June.—Toowoomba.—Heavy rain all day; a change greatly appreciated by farmers.

6th June.—Brisbane.—The break in the drought seems general; telegrams from various parts of the colony state steady soaking rain falling.

22nd July.—The Dawson.—Rain wanted badly.

26th July.—Springsure.—Drought conditions still prevail; grass all parched up in this district.

7th August.—Roma.—Fine fall of rain reported from the interior to the westward.

20th August.—The Comet River Country.—Prolonged drought. Some squatters compelled to turn their sheep adrift in the bush—a last desperate chance to keep them alive.

27th August.—Dalby.—Bad accounts from the north and west country. No water, no grass, sheep starving, and the lambing looks like another failure similar to that of two years ago. Wells in Dalby beginning to fail.

4th September.—Rain much wanted at Tingalpa and on the Logan.

5th September.—Ipswich.—Rain wanted badly.

8th September.—Tingalpa.—Sharp thunderstorm accompanied by a heavy downpour of rain, unfortunately of short duration.

10th September—

Brisbane.—Light soaking rain occurred and extended inland as far as Warwick, Hawkwood, Taroom, and Clermont. In these inland places rain was badly wanted, as sheep and cattle were perishing in numbers for want of water.

Toowoomba.—Slight fall of rain; more badly needed.

Oxley Creek.—Showers during week; rain fairly continuous to-day.

16th September.—Toowoomba.—Rain fell heavily for half an hour. Reports to hand daily of the great fall of rain experienced in the western districts.

19th September.—Gayndah.—Grass exceedingly scarce. Rain fell ten days ago, but did not do much good.

26th September.—Maryborough.—Unfavorable accounts respecting pastoral affairs to hand from all quarters of the district. General dearth of fodder; no grass or water and no rain. Creeks and holes at many places, for first time on record, absolutely dry.

7th October—

Dalby.—Weather sultry; rain much wanted.

Toowoomba.—Dry weather badly affecting crops. Rust in wheat; water short on the Highfields agricultural reserve. Disheartening accounts to hand from Dalby respecting the state of the country; scarcely a blade of grass to be seen for a hundred miles.

Goondiwindi.—Every appearance of another severe drought; water carted 15 miles daily for shearers at Talloona.

10th October.—Warwick.—Weather still very dry and warm; farming and gardening operations at a standstill; no grass for cattle and horses. Many waterholes dry, and river lower than for many months past. Wheat and other crops almost withered up. Slight thunderstorms on 9th, but very little rain fell, hardly sufficient to damp the surface of the ground.

12th October.—Rockhampton.—Town very dull, partly owing to the long continued drought.

13th October.—Brisbane.—Sky in various directions red with the glare of bush fires.

14th October.—Toowoomba.—A storm, the chief part of which must have passed over the country some distance to the south-west, occurred in the morning. Steady rain fell for half-an-hour, but did not sink very deeply into the ground.

15th October.—Brisbane.—Complaints of want of rain on all hands. Reports received from all parts of the country, but especially from the western districts, of losses and misfortunes suffered by settlers.

16th October.—Brisbane.—Heavy rain fell during the evening, but unfortunately the shower was not of long duration.

17th October.—Dalby.—Practically no rain since last July. Weather intolerably hot since spring set in; grass and water very scarce. All wells in the town dry, and water in the creek not fit for use. Great losses of stock reported from up-country districts owing to the drought. A correspondent, writing from Taroom, stated, "Country reduced to a desert; scarcity of grass and water causing much anxiety amongst the squatters in the Burnett and Dawson districts."

19th October—

Maryborough.—Drought disastrous in the country.

Rockhampton.—Several thundershowers reported from the Noga district.

Gayndah.—Drought still continues in all its dryness. Literally no grass in this neighbourhood, and sheep from most of the stations travelling for grass.

20th October.—Oxley.—Extremely dry weather severely affecting crops.

21st October—

Dalby.—Want of water and grass prevent teamsters attempting journeys of any length up-country.

Tingalpa.—Bush fires very frequent.

Gladstone.—Weather excessively hot; rain much wanted.

Warwick.—The thunderstorms of the last ten days did much good, and the rapid change from withered herbage to green fields was most agreeable.

22nd October.—Toowoomba.—Some slight thundershowers during the afternoon.

23rd October.—Brisbane.—Smart thundershower which lasted for a couple of hours or more.

24th October—

Roma.—The whole of the surrounding country in bad state for want of rain; no grass to be seen for miles; waterholes nearly all dry.

Burnett District.—News from the country respecting the effect of the drought on flocks and herds most disheartening; great losses experienced. On 23rd heavy rain fell for about twenty minutes, but it did not make any perceptible change in the appearance of the country; a week's steady soaking rain required.

24th to 26th October.—Good rain occurred at Brisbane, Drayton, and Maryborough, and extended to Wide Bay district.

26th October.—Rockhampton.—Smart thundershower on 25th, but more rain still wanted. A storm occurred west of Copperfield, after which water ran in all the creeks. Another storm at Clermont raised the lagoon 2 feet in 25 minutes. A few showers reported from Springsure.

29th October.—Tambo.—Continued drought conditions.

30th October.—Ipswich.—Fine thunderstorm, which lasted over two hours, reported from Warrego; prospects of more feed for stock.

4th November.—Mackay.—Herbage and water very scarce along the roads to the interior.

5th November.—Gladstone.—Weather still unchanged; rain much wanted.

6th to 10th November.—Heavy rains at Toowoomba, Dalby, Brisbane, Ipswich and Roma; more wanted at latter place.

10th November—

Logan and Albert districts.—Outcries for want of rain at an end at last; country drenched.

Roma.—Heavy rain at Roma on 7th and at some places to the north-west; water in the Bungil, and grass beginning to spring; more rain badly wanted.

11th November—

Clermont.—Drought almost unbroken in this district; a light shower on night of 6th; country terribly dry and barren.

Bowen.—Drought continues; country around Port Denison parched up; weather exceedingly hot and dry.

13th November.—Rockhampton.—Some smart thunder-showers occurred last week and extended to Cawarral and Morinish.

19th November.—Curriwillingham.—Weather very dry throughout the district.

20th November.—Roma.—Rain badly wanted for the grass.

21st November.—Taroom.—Drought conditions prevail; no vegetables, butter, or milk.

23rd November.—Rockhampton.—Heat intense; drought increasing in severity; many stations temporarily abandoned.

24th November—

A sheep inspector stationed at Bowen wrote as follows:—"The drought still continues and is beginning to assume a most alarming aspect. The sheep are dying in hundreds on many stations from the combined effects of grass-seed and inanition. The country presents the appearance of a desert without a blade of grass, and all water, except in the main streams and lagoons, has disappeared."

Rockhampton.—Rain fell for about two hours.

26th November—

Taroom.—Matters in the district very bad, far worse than in 1866; sheep dying everywhere at a fearful rate. Sheep belonging to Jundah and Cockatoo stations all turned out.

Drought continues at Nebo and Clermont. Light showers fell at Clermont during evenings of 23rd and 25th.

Reports from St. Lawrence and Maryborough state drought breaking; refreshing showers all day.

Banana.—Rain fell; lagoons replenished; cattle saved.

28th November.—Roma.—Large numbers of sheep passing through the town every week travelling in search of grass and water. Out of one flock of 16,000, 3,000 died before reaching Roma, having travelled a distance of about 150 miles; country in bad condition.

2nd December.—Rockhampton.—Considerable fall of rain inland; Petrie, Capella, Gordonson, and Retreat Creeks, also the Nogoia River, all running. Drought appears at an end in the Peak Downs and Springsure districts.

7th December.—Taroom.—Young grass considerably damaged by hot winds.

8th December.—Roma.—Country in a bad state; no flour in the town and provisions of all sorts scarce; carriers unable to travel; heat most oppressive.

9th December.—Clermont.—Aspect of country round Clermont desolate in the extreme; little or no grass of any sort left. One carrier lost a whole team while travelling from Rockhampton to Clermont. Country on the Suttor and Burdekin in even worse plight. Some heavy showers reported from the Belyando district.

10th December.—St. Lawrence.—Many months of drought, nearest water three miles distant.

11th December.—Warrego.—Everything burnt up; dead sheep in the waterholes which provide the only water within about 40 miles; stages of from 45 to 78 miles without water, and no grass at the halting places.

12th December.—Rain wanted at Tingalpa and Oxley.

15th December.—The usual supplies of water for South Brisbane exhausted; people compelled to use unwholesome water obtained some distance away.

16th and 17th December.—Toowoomba.—Two months dry spell broken on 16th by one of the heaviest thunderstorms experienced during the year.

17th December.—Rolleston.—Rain falling; drought breaking.

18th December.—Rockhampton.—No water for work on any of the diggings except Cawarral.

21st December.—Bowen.—Drought breaking; light rain fell on 18th and 19th, and heavy rain from evening of 20th until morning of 21st.

22nd December.—Eight Mile Plains.—Rain wanted for maize crops; pasture parched and dry.

Doughboy Creek.—Water for cattle scarce.

25th December.—Ipswich.—Bush fires in all directions; very bad in neighbourhood of Cabbage Tree. The little grass that was available for cattle burnt; great deal of fencing destroyed.

31st December.—Bauhinia Downs.—Terrible season; worse than that of 1866; losses on the Comet very heavy; nearly all the sheep in the district from Planet Downs to Mantuan Downs—a distance of 160 miles—turned loose.

1869.

13th January—

Upper Dawson.—A traveller from the Upper Dawson stated that within a great radius of the Upper Dawson (the country lying between the Taroom, Comet, and Maranoa districts) there was scarcely a blade of grass. One large station was unable to commence shearing operations for want of rations. Great losses in cattle and horses. On one station 10,000 sheep out of 22,000 died from starvation.

Eulo.—Great scarcity of water.

8th February.—Surat.—Drought broken up; heavy rain on 29th and 31st January.

20th February—

Gayndah.—Plenty of rain; good grass.

The Balonne.—Break up of drought; three days steady rain. (See Rainfall (heavy)).

24th February.—Roma.—Drought broken up; whole district from Dalby on the east to the Warrego in the far west covered with green grass; all the creeks bank high.

30th June.—Gayndah.—Heavy showers after a long spell of dry weather.

6th September.—Logan and Albert district.—Long spell of dry weather; farmers affected.

18th September.—Mackay.—Still a serious dearth of water and grass inland; no rain for weeks; stock of all kinds in very poor condition.

1871.

22nd February.—Gilberton.—Dry weather; scarcity of water.

8th April.—Condamine.—Weather dry and hot.

10th April.—Maryborough.—Weather very dry.

14th April.—Charleville.—No rain for nearly three months; no running water in the Warrego.

15th April.—Mary River.—Bush fires prevalent.

25th April.—Roma.—Weather very dry; no rain since February.

22nd July.—Dalby.—No grass; hundreds of horses and cattle already dead.

23rd August.—Toowoomba.—Weather very dry; mortality on some stations in the Dalby district very heavy.

24th August.—St. George.—Rain wanted badly; grass very scarce.

31st August.—Toowoomba.—Country in a very bad state; bush fires in every direction; condition of stock lamentable.

2nd September.—Dalby.—Rain very much wanted in the district; country for miles round the town as bare of herbage as a well-beaten road. Cattle either dead or in a very weak state.

7th September—

Beenleigh.—Waterholes nearly dry; pasturage scarce.

Warwick.—Cattle dying for want of food; bush fires abound.

9th September.—Burnett District.—Country in a very bad state; great losses of all kinds of stock. Losses due mainly to the long continued and severe frosts, and the sweeping bush fires that followed them.

21st September.—Burnett District.—Country in very bad condition from want of grass; sheep and cattle dying; bush fires prevalent.

26th September.—Logan and Albert.—Field cultivation retarded because of long continued drought.

27th September.—Warwick.—Rain wanted badly.

28th September.—St. George.—Weather dry and hot; grass scarce.

14th October.—Barcoo.—Weather dry for past ten months; grass and water very scarce.

28th October.—Maryborough and Rockhampton districts.—Drought broken up.

27th November.—Inglewood.—Rain badly needed.

1872.

12th April.—Condamine.—Weather still dry, and grass very scarce.

24th April.—No rain in Warwick district for some months; with the exception of two or three light showers; country bare and parched in the extreme; stock in very poor condition; grass and water very scarce.

2nd May.—St. George.—Rain greatly needed; grass very dry, and getting scarce.

9th May.—Rain much wanted in the south-western districts of the interior.

14th May.—Logan and Albert.—Long period of dry weather; potatoes and cotton much in want of moisture.

8th June.—Rain greatly needed in the interior.

29th July.—Mackay.—Weather still very dry; want of rain becoming serious.

13th August.—Goondiwindi.—Winter long and severe; no nourishment in the dry and unseasonable grass; stock in poor condition.

23rd September.—Very severe drought at Bowen.

25th September.—Rain badly wanted at Ravenswood.

4th October.—Sheep sent to the coast on account of drought conditions at Isaac River stations (Rockhampton district).

17th October.—Country at head of the Isaacs and right down the river in very bad condition; sheep at Grosvenor Downs too weak to travel; Nebo and neighbourhood a desert, no grass anywhere; hay or corn for horses unobtainable.

25th October.—The country about Rockhampton suffering from a severe drought. Carriers unable to start up country on account of scarcity of water.

1873.

9th October.—Rain wanted in the country districts.

20th October.—Rain fell after a long continuance of dry weather.

1874.

4th September.—Large bush fires in the district round Toowoomba; barns, haystacks, and corn destroyed.

6th September.—The long continued dry weather and scarcity of water, together with extensive bush fires, created much anxiety throughout the State. At Mr. O'Brien's farm, "Highlands," Toowoomba, barns and sheds, together with a large quantity of maize, were totally destroyed.

24th October.—The long continued drought caused serious loss in many districts.

1875.

2nd October.—Cooktown.—Country for some distance around quite parched.

4th October.—Rockhampton.—Continued dry weather causing loss to stock owners, especially dairymen; stock dying from starvation.

22nd December.—Drought conditions almost everywhere in the colony caused great anxiety and loss.

1877.

7th August.—Very severe drought throughout the State; in many places no rain experienced for several months.

25th September.—Roma.—One of the most terrible drought periods experienced prevailed prior to December, 1876; abundance of rain during the last three months.

6th November.—Drought very severe. Bush fires in almost every district.

14th November.—Religious services held at Brisbane, Ipswich and many other places with reference to the disastrous drought. Large numbers of people present.

28th November.—Thanksgiving services for recent rains held in Brisbane and other places.

Extract from Government Meteorological Observer's Report for 1877.—"As was anticipated the weather of the year was unusually dry and warm, and the early setting in of warm weather in the spring, combined with great scarcity of rain in many parts of the colony, has resulted in very serious loss to all classes whose interests were liable to be affected from such causes. It may be roughly estimated that but little over one-half of the average rainfall of the colony was recorded during the year."

1880.

14th September.—Steady rain occurred after several months dry weather.

1882.

Extract from Government Meteorological Observer's Report for 1882.—"The rainfall has been limited during the year throughout the colony."

1883.

15th October.—Break up of the drought. General fall of rain throughout the State.

Extract from Government Meteorological Observer's Report for 1883.—"The most remarkable feature of the year has been the unusually limited supply of rain in all parts of the colony."

1884.

14th January.—"Liquid mud" selling at Muttaborra for 6s. 6d. per cask. Pure water unobtainable.

1885.

16th September.—Prayers for rain offered in Rockhampton. Several business houses closed.

7th October.—Special prayers for rain offered at Toowoomba.

18th October.—Prayers for rain offered in Brisbane churches.

29th November.—Churches in Roma crowded; special prayers for rain offered.

1887.

July and August.—Large bush fires occurred in parts of the Carpentaria, South Peninsula, and North Coast divisions; much grass burnt.

September.—Large bush fires occurred at many places in the Central and Northern Divisions; water and feed for stock scarce.

October.—Miles of grass burnt in Central and Northern Divisions; feed and water very scarce; stock in poor condition.

1888-1889.

SPECIAL NOTES RE SEASONS AND DROUGHTS (1888 AND PREVIOUS SEASONS); CONDITION OF STOCK AND STATE OF COUNTRY.

Kindly supplied by the owners and managers of stations and plantations; reprinted from the Queensland Government Meteorologist's "Special Report on the Floods of 1890, with Notes on the Meteorology of previous seasons."

Branscombe, Mackay (South Kennedy),
16th August, 1890.

Re the effects of the late droughts and floods upon crops and animals, the following may be of service:—

I may premise that, taking the average of twenty-five years, the annual rainfall is 75 inches, of which 55 inches fall during the first six months of the year.

In February, 1888, there was the unprecedented rainfall of 47·13 inches, after which there was practically no rain till the end of October, what little rain fell, 4·23 inches, being distributed over forty-eight days.

The crops for that year were a total failure; the ground was saturated and sodden by the February downpour, and the cane never grew afterwards, the ground being set hard.

The Pioneer River (particularly in the preserved part) was swarming with ducks and hundreds of wild geese during all this year, and they only left with the February and March rains of 1889, since which they have not returned, as is usual during the normal dry season—*i.e.*, July to November, 1889.

There were the usual thunderstorms at the end of 1888—September to December—giving twenty-nine days' rain of 10·87 inches.

The year 1889 was a normal year, and yielded a good crop, spoiled by the setting in of the rainy season on the 16th of November (two months in advance of the usual time), which lowered the density of the cane juice, and prevented the crop being reaped; 21·62 inches fell in November and December, 1889, in thirty-eight days, followed by 73·37 inches in 103 days, January to May, 1890, inclusive. This last rainfall has not been so detrimental to the growing crops for 1890, as it has checked the preparation of land, and the planting for the crop for 1891, though the continual growth has made the crop late and caused a very general flowering of the cane, which causes the eyes to shoot, and the juice to become in consequence gummy and difficult to work.

The worst effects of the unusual weather was from the drought in 1888; the bamboos were without leaves, and the hedges of *duranta* were quite withered up, but started again when rain came. Several large gum-trees, which had been left for ornament, were killed.

Up to date no wild-fowl have put in an appearance on the Pioneer River, showing the abundance of moisture in the interior.

The Pioneer River continued its usual flow all through the drought, and the floods in the early part of 1890 were not so remarkable for their height as for their long continuance.

J. Ewen Davidson.

Burleigh, *via* Richmond Downs (Burke),
18th August, 1890.

The cattle, strange to narrate, hitherto have not been nearly in as good condition as during the late dry years: this I attribute to the rankness of the grasses through over-abundance of rain. For the last ten years I have not seen Burleigh looking so well *re* grass or water, although there is not a permanent waterhole on the run. At the same time I do not think our country has

had by feet the rain that we experienced from 1870 up to 1875; but, unfortunately, in those days we had not the means of gauging the rainfall accurately. Water in a well which was 42 feet deep nine years ago has vanished, but it is my opinion that if we were to have a long and heavy wet season this water would return. At a depth of 64 feet there seemed an unlimited supply, the water rising 24 feet up the shaft, and we could bail it by windlass and bucket down to 15 feet, when it could be seen boiling up at that depth almost as thick as one's arm; now the flow is almost reduced to *nil*. Last November the undercurrent in the river* (which is one immense bed of sand) was giving way rapidly because the wells were down on the clay, and I was fearing a repetition of 1868. The supposed permanent supply of water in the 64 feet well was in a light green sandstone in the shale. I had a hole drilled to a depth of 23 feet 6 inches without water. The Stawell River is fast filling up with sand. Water-holes which were permanent after the floods of the "seventies" are a thing of the past. This country used to abound with bandicoots, but I have not seen one for years. Quail used to be very numerous and destructive in the kitchen-garden, but these have also disappeared. This run was noted for wild duck up to the present year, but I believe there are not a score to be seen now.

F. Henry Broadley.

Carandotta, *via* Boulia (Gregory North),
23rd August, 1890.

The Georgina River ceased running, after a small flood, early in February, 1888. The rainfall for January being 6·55 inches for eight days of rain; for February 2·62 inches for ten days of rain. The total rainfall for the remainder of 1888 was 2·39 inches, of which 1·29 inches fell on one day in May, 0·28 inches on two days in August, 0·09 inches on two days in September, and 0·73 inches on four days in October. The total rainfall for 1889 was 8·65 inches. The only falls of any benefit to stock were those of January, 3·07 inches for six days; May, 2·30 inches for seven days, and June, 1·08 inches for four days.

The river failed to run during the summer of 1888-1889, as also did every creek on Carandotta, and only attained a state of flood again during the second week in January, 1890, after an interval of 23 months, at the termination of which its channel was dry from Camooweal to Mungala waterhole, on Carandotta, a distance (by the river) of 200 miles. This excepts two holes—Bob's Lagoon, on Headingly, and Marion Lake, seven miles below Urandangic, in the outermost billabong—both of which were nearly exhausted. The winter of 1888 was exceedingly and unusually cold; the frosts† were very severe and long continued, and took all sustenance from the grass, which was otherwise plentiful. In consequence of this the stock got into very low condition towards the end of 1888, and the losses (especially among the old sheep—the greatest sufferers) were nearly twice the normal allowance.

The showers of January, 1889, replenished the feed, however, and the welcome falls of May and June kept the stock in fair condition till the January rains of the present year. The increase, however, of cattle (though the losses of both sheep and cattle were normal during 1889) was affected to the extent of fully 25 per cent., owing to the dry state of the feed after the winter of 1889; and among the sheep the lambings were very indifferent owing to the absence of surface water, for almost the whole of the sheep were watered at wells for a period of 18 months.

Sidney W. Donner, Manager.

* Burleigh Station is situated on the Stawell River or Cambridge Creek, which flows into the Flinders River adjacent.
† The record of frosts at Carandotta and Fanning River, lat. 21° 55', 19° 43' S., long. 138° 42', 146° 25' E. respectively, is of significant interest. The altitude of the former place probably does not exceed 500 feet above the Gulf of Carpentaria.

Eddington, *vid* Richmond Downs (Burke),

May, 1890.

We had a very severe drought all last year up to November, when we experienced small thunderstorms, partially distributed, and doing little good to stock—having the effect of taking them away from the boggy waterholes, and causing them to follow the storms about without any good result: the reverse obtained with regard to wasted cattle, many being in such a condition at that time. With Christmas last we got some real tropical storms, which swamped the country for a few miles where they fell, and green grass soon appeared. Good storms through January, 1890—in fact, we have not had any rain, except in storms; no “set in” rain at all. The country is well grassed, as a rule; but much heavier in places than in others. The storms became much lighter through February and March, and in April they died out as they began. All through the parched period the thermometer daily rose to 110 and 112 degrees in a good shade. After Christmas temperature decreased to about 100 degrees daily; and at nights we required no bedclothes beyond a mosquito net. Since the last week of April the maximum temperature ranged from 70 to 90 degrees at noon, and the minimum by night ranged between 55 and 60 degrees. We had no travelling storms—there seemed to be no wind amongst the clouds—but the storms seemed to burst from single clouds overhead.

Geo. Macgillivray, Owner.

Fanning River, near Charters Towers (North Kennedy),

July, 1890.

For some weeks past we have had severe frost† almost every night.

Henry Abbott.

Habana, Mackay, 15th August, 1890.

SIR,—This part of the Mackay District, known as the north side of the Pioneer, does not in any way suffer in flood time, except so far as regards damage to roads, the land being so naturally well drained that little or no washing away of soil takes place.

The only very marked way in which the drought and wet years can be compared is by the cane crops reaped during those periods. In 1888 the cane averaged about 9 tons per acre; for 1890 the average tonnage is expected to exceed 28 tons per acre.

A great number of new weeds have appeared, but I have not sufficient botanical knowledge to classify them.

With reference to animal life, there were reports of countless wild ducks dying during the drought near the seaboard; but we being on the coast, and enjoying permanent water, seldom had more game about—ducks, native companions, kangaroo, wallaby, &c.—than in 1888, the dry year. Since then they have considerably decreased.

I remain, &c.,

Edward M. Long.

Maxwelton, *vid* Hughenden (Burke),

29th August, 1890.

During the drought which prevailed from 1883 to 1887 the creeks afforded only an intermittent supply of water, often being quite dry for long periods. Owing to the paucity of the rainfall the supply of herbage and grasses was also scanty. It was,

† The record of frosts at Carandotta and Fanning River lat. 21° 55', 19° 43' S., long. 138° 42', 146° 25' E. respectively, is of significant interest. The altitude of the former place probably does not exceed 500 feet above the Gulf of Carpentaria.

however, noticeable that all feed plants were specially nutritive, and several instances of stock having done far better than could have been expected considering the scanty fare they had, could be quoted. The foregoing refers, however, chiefly to sheep; cattle and horses suffered earlier and more severely.

During floods the stock here suffer but little, as with ordinary care they are placed clear of creeks, a course of management rendered possible by the preceding rains, which produce a supply of such grasses as the Mitchell, Barley, Star, Blue, and Flinders, together with many others not even locally named.

The station meteorological reports show the times of rainfall. If, as occasionally happens, a heavy fall of rain takes place in July or early in August, the grasses benefit little, but a plentiful growth of herbage occurs, the carrot and “boggabry” being ranked first for quantity and usefulness. The general surface configuration of this run is open downs—indeed almost entirely destitute of timber. Along the banks of the creeks in places a few coolibarr trees and a stunted variety of mimosa grow. Indigenous animals consist of dingoes, a very few kangaroos, and ground rats, which visit us only periodically.

J. Burkitt.

Mount Cornish, Muttaborra (Mitchell),

16th August, 1890.

I forward a few notes respecting the stock and state of the country for the last six years. I have mentioned six instead of three as requested, because the seasons have been peculiar.

1884.—This season, though it had not the smallest rainfall known, was yet the worst ever known for stock, as the rainfall was insufficient to produce growth of grass, consequently ruinous losses were occasioned in the stock, those losses varying from one-fourth to two-thirds of the whole. Total rainfall, 10·68 inches.

1885.—Good thunderstorms fell during the first three months of this year, and the stock recovered very rapidly, and remained healthy throughout; but as the season from March to December was exceedingly dry they again became poor towards the end of the year. A few thunderstorms fell in December, which carried them along, as a slight spring in feed was caused in places. Rainfall, 16·52 inches.

1886.—The early part of this year had a very threatening aspect to stock-owners in this district, the scant supply of rain being insufficient to give growth to the grass; and in April I feared that we should again lose a large proportion of our stock. However, in May the drought broke up thoroughly, and heavy rains fell during the winter, the consequence being that the whole country was completely covered with a mass of herbage (which only grows from winter rains) from a foot to 18 inches high. November and December rains fell in considerable quantity and grass followed, the consequence being that all stock were in excellent condition at the close of the year. Rainfall, 27·49 inches.

1887.—Heavy rains again fell during the first three months of this year, and the growth of grass was immense; but as the winter advanced the season became drier. This district was visited this season with the worst attack of pleuro-pneumonia that has ever been known, and the losses on this station were serious, probably 1,500 out of a herd of 25,000. The disease broke out about April, and although the whole herd was inoculated with all possible despatch, this loss occurred before the work could be completed, but it stopped entirely within two months of inoculation. Although rain fell in nearly every month, the last part of the year became very dry. Rainfall, 27·77 inches. Heavy losses of fencing and sheep occurred in October and November in consequence of the visitation of some extraordinary thunderstorms, the lightning being in many cases continuous for hours, and very little rain falling. Many fires

were caused by this, and as the country was clothed with such a mat of grass the fires swept for many miles, being beyond the powers of the residents in many cases to stop them.

1888.—This season throughout was fair, the rain all being just sufficient for our requirements; but became dry towards the end of the year. Stock healthy and in good condition. Rainfall, 16·18 inches.

1889.—The early part of this year was again very scantily supplied with rain, and up to the end of March the outlook was exceedingly threatening. There was no growth in the grass whatever, and at that time deaths commenced amongst the stock; but rain fell in April in a quantity which put matters straight, so that both country and stock improved rapidly, and all through the rest of the year the season was all that could be desired. Heavy rains fell in November and December, and the growth of grass was abnormal. Rainfall for the year, 26·86 inches.

1890.—During the first four months of this year the rainfall was very heavy; nevertheless no excessive rain fell at any one time, and only a few losses were occasioned at this station. *August.*—The country is now getting very dry, and residents are becoming anxious about fires and taking every precaution to prevent losses later on when the land may become thoroughly dry. Cattle are in fine condition, but horses do not seem to thrive so well this season, the grass having apparently become rank; but still all stock are healthy, and our output of fat cattle will be greater this year than for some years past.

E. D. Edkins,
Mount Cornish.

Pine Mountain, Yeppoon (Port Curtis),
19th August, 1890.

SIR,—During the droughts the loss among cattle was very heavy. In the last half of 1885 we wrote off 20 per cent. on all female cattle and bulls, and 10 per cent. on other males. In 1888, during the second half of the year, we wrote off double our usual allowance for deaths (*i.e.*, 5 per cent. per annum).

1889 was a splendid year for stock, and ours were in capital condition. When we got the floods in the beginning of this year, had they been poor we should probably have lost a few head, but as it was I don't think we lost any in the floods, though some of the cattle fell away in condition a little.

Re natural history and botanical data:—Ducks of all kinds almost disappeared during the drought, but since it broke up and during the floods they have been breeding very fast and continuously. I have seen nests of young ducks every month for the last twelve months.

During the drought great numbers of native companions were bogged when going into half-dry waterholes for a drink; the rest were so poor and weak that they could hardly fly. In one or two instances I caught them on an open plain. Rats on the same plain were very numerous and lively during the worst of the drought.

Many trees were very much blighted during the drought, but in most cases have thrown the blight off since then.

This year, for the first time for seven or eight years, the grasses have flowered and seeded really well.

William H. Flowers.

St. Helen's, Mackay (South Kennedy).

I draw attention to the fact that 1888 was the driest year known about here and was very disastrous to stock, the total rainfall being 47·92 inches, as against 68·98 inches for 1889, and 55·30 inches for the first three months of 1890.

Dyson Lacy.

Stoneleigh, Ingham (North Kennedy),

May, 1890.

The year 1888, from June till the end of November, was a very dry one for this district, and only light rains fell in the early part of 1889. The heavy rain fell on December 24th and 25th, viz., 6·04 inches, and on the 26th 8 inches fell; the 27th, 1·17 inches; on 28th, 2·27 inches.

During the past three months we have had continuous rain, though this house being in the hills the rain-gauge does not register as much as our neighbours who are on the open country round Ingham.

T. S. Beatty.

Electric Telegraph Office, Townsville,
18th August, 1890.

From my own personal observation I may state that never in the history of Townsville has such a splendid season been experienced. Grass and water in abundance everywhere, and stock in splendid condition.

Agriculture.—Last year produce of all kinds was very dear, and inferior in quality; English potatoes up to £30 per ton, and even unprocurable at that price. This year there is a very heavy crop of locally grown potatoes of a quality surpassing anything ever imported, and selling at £8 per ton. Vegetables of all kinds are cheap and plentiful, and of a better quality than I have seen during the past eight years. Fruit is also plentiful, the orange crop being very heavy, while the mango crop will be the heaviest ever known in this district. The long severe drought seems to have done good by giving the land a good rest, hence, in my opinion, drawing up to the surface the mineral salts that were previously too deep down to have any beneficial effect.

Botany.—The *Sida retusa* and Bathurst burr were very bad during last season, and seem to have taken advantage of the natural grasses in their struggle for existence during the drought in occupying every inch of space, and so choking everything else out of existence. I have noted several plants in the district this season which were not here before, and my theory is that the seeds were borne across the ocean in the cyclone in April last, and it would be interesting to know from whence the cyclone came,* and compare the plants with those growing on the islands in the track of the cyclone.

Natural History.—During the drought many birds were observed in this district that were never seen here before; for instance, the *Poephila Gouldia*, never found except on the Flinders Plains and at Pentland, were taken at Acacia Vale Nursery; also the superb fruit-pigeon (*Ptilinopus superbus*) and the magnificent fruit-pigeon (*Carpophaga magnifica*) found in the scrubs at Geraldton, were taken for the first time at my brother's Acacia Vale Nursery during the drought.

Since the floods the termites (white ants) have been extremely active and destructive to property, so active indeed that had the wet weather continued another few months only, few telegraph poles would have been left standing between Townsville and Cardwell; and the selectors state that these insects were never known to be so numerous and destructive before.

T. A. Gulliver,
Manager

Tooloombah, near Marlborough (Port Curtis),

2nd May, 1890.

The only remarkable fact to mention is that the ground is as hard as in the drought, and breaks up in great lumps owing to the excessive wet beating it down.

O. C. J. Beardmore.

* Probably from the neighbourhood of the Solomon Islands.

Undilla, near Camooweal (Burke),
8th June, 1890.

The best season ever experienced by the oldest residents. Stock in splendid order. Mange in horses again making its appearance; I think it is owing to the abundance of green grass. The water rises in the creek fully 2 inches when a north-easterly wind blows, and almost disappears when a south-easterly wind prevails.* In 1888, in the month of October, during the drought, the creek ran for 400 yards and then almost immediately dried up again. The weather is very mild at present—not at all like winter.

P. K. White.

Uanda Station, *via* Aramac (Mitchell),
9th July, 1890.

As we have had a good season, the cattle are in splendid order and health.

F. H. Sachse.

Yeppoon (Port Curtis),
16th August, 1890.

My observations relate solely to the Central Queensland coast, and such as they are, I place them at your service. The drought of 1888 was felt less severely in my district than perhaps in any part of Southern or Central Queensland. Of course, on lightly stocked country losses were not heavy, though many of our selectors and smaller run-holders lost a considerable number of cattle, especially where stock had to drink from boggy water-holes. During the dry weather where the country was not heavily stocked, and where water was plentiful and easily obtained, I noticed fewer signs of disease among cattle than usual, pleuro-pneumonia almost entirely disappearing—at least the outward signs of it—and very few fresh cases of tuberculosis being noticeable. There is no doubt that stock generally are far more healthy in a dry time than in continuous rainy weather. In the worst part of the drought, the only grasses which held their own were the “coarse blady grass” and couch and buffalo grass; the growth of the most fattening grasses being completely at a standstill. The much-abused *Sida retusa*, a weed which has spread considerably during the last few years, was eagerly devoured by cattle and sheep, and proved itself to be, at any rate, of some value as a fodder plant. The dry weather of 1888 was very severe on the sugar crop at the plantation, and it was expected there would be no cane to crush in 1889. However, in January and February, 1889, a good deal of rain fell, followed by heavy rain in March, which lasted at intervals thenceforth, the ground never since having been thoroughly dry. The yield at the plantation in the 1889 crushing was about 11½ cwt. per acre.

The change from dry to wet weather in the beginning of 1889 was very hard on cattle, weakened as they were by the drought, and a good many losses ensued, after which they recovered strength until about October. A good many cases of “pleuro” were then observed, together with a disease known on the coast as rheumatism, in which the cattle become completely paralyzed in the hindquarters, and which frequently prove fatal. If the cattle affected with it, however, are shifted on to dry country in the early stages, they generally recover.

There are a number of farmers in the vicinity of the Yeppoon Plantation who are growing sugar-cane, panicum grass (*Setaria*

* This interesting phenomenon seems to be explained by the remarkable differences and wide range of atmospheric pressure which prevail over the country south from the Gulf of Carpentaria, and north-west from the Diamantina River. The north-east wind is a characteristic of a low or monsoonal barometer—hence the rise of the water.

germanica), oats, barley, sweet potatoes, maize, English potatoes, bananas, oranges, limes, lemons, citrons, papaws, melons, pumpkins, &c. Those of the melon tribe have not done nearly so well, since the wet weather set in as they did during the dry weather nor have the farmers done as well with their maize during the rains, though the crops would have been far heavier. Much of the corn began to grow on the cob, and the weevils attacked what was safely harvested with greater violence than I have ever seen before. The one crop of all others which has benefited by the wet weather is the sugar-cane, the yield from the land already crushed varying from 2 tons to 3 tons per acre, as against 11½ cwt. during the previous year.

English potatoes and sweet potatoes have returned very large crops, and have shown no signs of disease. The most successful grower of English potatoes in the neighbourhood informs me that as the plants begin to grow strongly he lifts every one with a gardening fork, which checks the top growth, and that plants so treated have yielded potatoes three and four times the size of those growing alongside, which had not been disturbed.

During the wet period horses suffered very much from the mange, which seemed to have nearly disappeared during the previous drought; and no grass-fed horses have been able to stand work since the wet weather began so well as during drier conditions, the grass seeming to lose all substance. Their hoofs, too, have been very bad, where not shod, owing to the continuous wet.

I may remark that both young horses and cattle have grown more quickly since the wet weather set in, and calves and foals born in 1889 are far more forward than those born during the drought were at the same age.

William Broome.

Warrenda, *via* Boulia (Gregory North),
30th August, 1890.

I believe the late drought affected this neighbourhood more severely than any other. From what I can learn many parts of the Mitchell and other districts had had a fair rainfall last year, giving grass and water to carry on with. Our rainfall for the year 1889 was 6·520 inches, and for the previous year 7·539 inches, the principal rain of 1888 falling in February, thus giving about two years of dry weather, or nearly so. Though these two falls seem sufficient to carry on with,—we have had two years here, 1883 and 1884, of a smaller rainfall, 4·650 inches and 6·090 inches, but these seasons were much better, as the rain then fell fairly in one fall, making both grass and water—yet the rain fell in such small quantities at a time that it did no good beyond a little grass, which soon dried up again. In fact, many of these showers did harm, enticing the stock away from the water to which the stockmen often had to bring them back.

No surface water accumulated here, and the stock were dependent entirely on the springs and what few wells were put down near them, the water being baled into iron troughs that had fortunately been ordered previously, and arrived here in January, 1889. On the Burke, the cattle had nothing but water raised from shafts sunk in the sandy channel of that river, and put direct into troughs made of big logs hollowed out. Baling for these cattle, of course, was very tedious, as it was principally night work, there being no supply tanks.

The feed, of course, for miles around the watering places was very scarce, but it is astonishing how well those cattle thrive that enjoyed good water for some time, and where only a few could be supplied at one place. The general herd, of course, was in a poor condition, and it was sad to see some of the poor creatures hardly able to stagger into the water, having then to wait their turn at the trough. Quiet cattle that never went far from the water seemed to keep their condition fairly well, though there was hardly anything for them to eat I have

come to the conclusion that if stock get good water, within easy reach, and plenty of it, they will survive most of the droughts out here, because the Mitchell grass stalks that are left, together with what nourishment they can get from bushes, will suffice for two or three months if their condition is fair at all.

Considering the severity of the season the stock got along fairly well. Ten per cent. was here allowed for losses in female cattle, and 5 per cent. for males, which, I think, covers them. Of course, there has been no "bang-tail muster" to verify these losses.

John D. Wienholt.

Bon Accord (Darling Downs).

The drought of 1888 was the most severe on stock and vegetation that has ever been experienced on the Darling Downs. The last three months—namely, January, February, March, 1890—was the wettest period in the memory of the oldest residents on the Downs, and the floods in the Condamine River were the highest ever known from Leyburn down to Burke. Many sheep and lambs perished from excessive wet on plains and flat country where the water could not drain off quickly through the long, dense grass. Three weeks of continuous wet proved too much for cattle and horses, stock being damaged owing to the flooded state of the land. The country is now (April, 1890) drying up well, and cattle, &c., are rapidly recovering from the effects of the late rains.

A. McLeod.

Bucknalla, Westwood (Port Curtis),

18th August, 1890.

In this district during the drought, which ended in February, 1889, the country was very bare of grass, from bush fires and overstocking, combined with want of moisture in the ground; but stock held out very much better than during previous droughts, the principal losses being cows that had been milked, these in almost every instance dying, even after being fed until rain came.

As this country is to a certain extent a tableland, the late flood was not much felt; but the continuous rain before and after interfered very much with farming and other ground works, and the past winter, although so wet, was very severe on all stock; indeed, cattle are very poor just now from the fact that during last summer the grass grew too rank and sloppy to fatten them for the winter. The experience of stockowners is that a fair season is much better for fattening stock than one so wet as that just passed.

F. H. Hobler.

Burenda, *via* Augathella (Warrego),

15th August, 1890.

The drought commenced in this district in March, 1888, and may be said to have broken up in March, 1889, there having been only a few showers during the twelve months.

The grass during this dry time did not disappear as it did during the previous drought, but water dried up faster than I ever observed before. All dams and creeks got very low and boggy, and the principal losses of stock were from this cause.

Cashmere, *via* Mitchell (Maranoa),

21st August, 1890.

The channel of the lower Maranoa River was void of surface-water for nearly four months to the beginning of the year 1888. Wells sunk during that period in the river bed to tap the soakage

were useless for the purpose of stock-watering in almost all instances, as the water came in but slowly. The lagoons upon the river banks in some cases held water, and lastly, mud, long after the Maranoa was practically dry. Upon sinking a shaft through the bottom-wash of some of these water-holes, an underlying bed of water-filled sand was met with, which was the sole resource of some live stock-owners living along the river. These under-basins were only capable of yielding the standing water which they contained; there appeared to be no drainage to them from surrounding lands or drifts. Upon their supply giving out it was often found that by sinking through the second bottom a second wet bed of sand was met with. These bottoms are composed of layers of silted mud, sticks, leaves, &c., felted together in a more or less compressed stage, whilst the lowest bottom reached (to my knowledge) was composed of vari-coloured strata of a hard, cement-like clay, which became easy to pulverize after exposure to the air and light. In this were mud-stone and pudding-stone boulders and fragments. Many pieces of petrified woods are to be picked up through the sands when sinking; but I do not know of any bits of coal having been revealed. In the back country, or country several miles distant from the river frontage, wells sunk to depths varying to 150 feet generally discovered a moderate supply of seemingly permanent water, though this was doubtless but the drainage from the underground channels, as wet and dry drifts of diverse widths were cut at all depths. Large tanks of 6,000 and 8,000 yards measurement, which had been filled to overflowing in the rains of 1886-1887, were almost emptied, even where there were no stock to drain them. The evaporation and "earth's thirst" completely dried up those at which many stock watered.

The surface of the ground where sands prevailed was grassless, and on the black and clayed soils, withered stalks and leaves were found of kangaroo grass, seedy barley grass, and blue grass. The "blow-away" fabrics* of other sorts were sometimes preserved in shape, though perfectly dried, dusty, and unedible, containing no nourishment whatever.

Timber is plentiful upon the Maranoa, and scrubs are dense in many places, pine trees especially so along the sands, which, like the rivers, run more or less north and south throughout the district.

Pine saplings and larger pines died in thousands wherever they were thickly surrounded by their fellows. "Oak" (balar) scrubs showed by their withered fringes that a very few months' more dry heat would make their growth a thing of the past. The outstanding trees having more encouragement from the soil, and less root absorption to contend against, kept green; but hundreds, thousands, of the central trees appeared to be, and many were, completely lifeless.

The forest gum trees died where the underground water-drifts dried away, or lingered on in nearly leafless misery.

The low wattle growing on sand ridges shed its seeds and died entirely, just to spring up again after the rains. The myrtle, or "wait-a-while," and the low brigalow—we have no high brigalow here—died in many cases above ground, and so saved their roots for future propagation.

Box and coolibah trees shed their leaves, and the small limbs and twigs dried and dropped off. Round-leaved iron-bark trees drooped and withered; currajongs, too, lost their fresh greenness, and many rotted and fell.

The sandal wood scrubs shed dead twigs and leaves, but their vitality was little impaired. Bendee, or mulga, willow, ironwood, beefwood, myall, yanan and many other hard polishing woods alone withstood the terrible water famine, and to these trees the graziers owe the salvation of their remaining flocks and herds.

Of the indigenous animals, dingoes were rare where they were formerly numerous; opossums were stricken with a wasting disease, caused apparently by the loss of their accustomed vegetable foods, and died in myriads throughout the country. Every

* This refers to the great balls of dried native grasses which often drift, and are carried by the winds many miles over the vast plains of the interior of Australia.

track bore their carcasses here and there along it, and I have passed the recently dead remains of more than thirty of these creatures during a day's ride. Kangaroo were rarely heard of, and, like opossums, those seen were poor, blear-eyed, and mangy.

Paddy-melons (a small kind of wallaby) and "bielby" seemed to exist in the greatest health, owing, I presume, to their root-eating habits.

Hawks were plentiful, but ducks and the small feathered denizens of the bush were noticeably absent, except at some water-trough or well, to which the latter and wild pigeons flocked by hundreds.

The country was indeed on the very verge of transformation into a skeleton-laden, verdureless, barren waste, upon which neither man nor the lower animals could exist; and but a very few more dry weeks would have yielded this result.

Thunderstorms during January of 1889 gave a temporary supply of water on several runs; until all fears were allayed by a rainfall on the 25th March, which continued for nearly a week. The March rainfall here was approximately 2.30 inches. The rainfall for April was 2.95 inches; the rainfall for May was 1.25 inches; and to the 7th June was 2.50 inches. Thus for the four months we had approximately 9.00 inches by rough measurement.

Gilbert T. Macmicking.

Crystal Brook, *vid* Mitchell (Maranoa),

19th August, 1890.

1. The state of the country was very bad during last drought, which terminated here with a very heavy thunderstorm on 25th March, 1889, followed by several others, and showery weather all through the winter of 1889.

2. Condition of stock was low during 1888, especially the last six months, owing to bush fires as much as anything. These swept the whole district, destroying the old grass, which would have kept stock in some sort of heart, although not fattening.

3. With the fall of the rains, beginning in March, 1889, everything was changed; the country became like a wheat field, and the growth of herbage during the winter of 1889 was unprecedented in the district, especially of crowfoot, although old residents say that they had not seen any for ten years before, showing that the seed must have retained the germs of life all that time. Owing to such a splendid growth of herbage last winter, which seeded well, people thought that, given a moist winter, the herbage would be even more plentiful this year. We have the moist winter, but no herbage to speak of. The seed must have rotted in the ground with the extreme wet.

4. The floods here this year have been the highest ever known by the proverbial oldest inhabitant. As this part of the Maranoa district is situated near the head of the river, and a high table-land, with a fall to the south, the floods cannot do the same harm in this neighbourhood as lower down—all homesteads being beyond their reach.

5. In conclusion, I may state that although grass and water are in abundance, stock are not in such good condition as this time last year—the excessive wet has made the grass too wasty: it seems to be the same in other parts. The winter has been the mildest I ever experienced; no continuous frost at all, just a day or two, and then close and cloudy.

M. Macdonald.

Forest Vale, near Mitchell (Maranoa),

18th August, 1890.

The last drought was that extending from March or April, 1888, until 27th March, 1889. The last rain we had to do any good in 1888 was on 4th March. The only fall of any importance

after that date being 2.04 inches on 7th November, and 1.90 on 5th December. The winter of 1888 was excessively cold, the thermometer on several occasions going as low as 12 degrees. Still, stock held their condition very well during the winter, as the copious rains of March had given us a good supply of grass. But when the spring set in very dry, bush fires became frequent, and nearly the whole frontage to the Maranoa, from its head to its confluence with the Balonne, was burnt, and as no rain fell the grass did not grow again for some time, and it was that fact—viz., the bush fires—that made the comparatively short drought of 1888 to be so severely felt. On two occasions here, to my certain knowledge, the grass was ignited by lightning. That drought broke up in March, 1889, and was followed by copious rains, extending through the winter, causing a very heavy growth of all sorts of herbage—crowfoot carrots, marsh mallows, and sow thistles, being most abundant. The grass did not seem to get a good start until the summer of 1889-90. The heavy floods that occurred in March, 1890, gave us a great quantity of grass, but, strange to say, although there was far more rain in the autumn and early winter of 1890 than in that of 1889, still, the growth of herbage was nothing in 1890 in comparison with 1889. Whether the seed has to lie in the ground for more than a year to mature, or whatever may be the cause I do not know, but this year, notwithstanding all the rain we have had, the herbage is almost *nil*. Stock also have not fared so well in this abnormally wet season as in an ordinary one, which I suppose is to be accounted for by the fact that the grass is too rank and sodden, and the whole country so boggy that stock have difficulty in moving about. The rains on the Upper Maranoa have not been nearly so heavy during the last six months as in other places further east—for instance, on March 22nd, when 7.23 inches fell at Yeulba, 6.00 inches at Roma, 3.23 inches at Mitchell, there was only 1.58 inches at Forest Vale, followed by 2.28 inches on the 24th. This was most fortunate for those people living below the junction of this river with the Balonne, for although the Maranoa was higher than it has been for the last twenty years, still, it was not so high by 10 or 12 feet as it was in 1864, while the Balonne and some of its tributaries are said to have been much higher in 1890 than in 1864. Had this river gone as high as in 1864 the consequences lower down would have been terrible.

For the last three weeks we have had fine frosty weather and it seems as if we were in for a dry spring; but I think as soon as the sun gets more power the amount of moisture in the ground will cause thunderstorms to be numerous, so I do not anticipate a very dry summer.

R. Copland Lethbridge.

Hillsborough, near Mitchell (Maranoa),

19th August, 1890.

As requested, I forward to you a few notes relative to the drought of 1888 on this station and adjoining runs. There was not a drop of water except in wells, and a great number of stock perished for the want of feed, as the country was so dry that the natural trees and shrubs died in thousands, and the emu and kangaroo were so poor when they came to the wells to drink that they would fall down and die.

Wm. Marsh.

Monkira, Diamantina River (Gregory North),

4th June, 1890.

The season is all that can be wished. Cattle and horses are in splendid condition, and the next calf-branding promises to be a large one over the district.

George Debney.

Narada Downs, *viâ* Tamba (Warrego),

28th July, 1890.

Weather settled at present; heavy frosts; condition of stock very good; everything rolling fat; lambing progressing favourably; abundance of grass and water.

P. M. Browne.

Toornoo, *viâ* Mitchell (Maranoa),

20th August, 1890.

As to the condition of the stock and country during the drought of 1888-89, the former suffered to such an extent that we lost about 2,000 head. The country was as bad as it possibly could be, and water very scarce. With reference to the succeeding flood of 1890, there fell at this station 44.49 inches of rain between 2nd February and 2nd July last. The country was in a frightfully flooded condition. Mungallala Creek rose 42 feet 4 inches perpendicularly, and was about 15 feet higher than ever known before by either white man or blackfellow.

J. M. Watson.

Vacy Plains, near Dalby (Darling Downs).

The drought began to break on 24th March, 1889.

H. C. Hurlock.

Yandilla, Darling Downs.

Rainfall.—January, 1890, 5.665 inches; February, 1890, 7.325 inches; March, 1890, 12.160 inches.

N.B.—The average rainfall for January (average extending over 14 years) is 3.436 inches; for February 3.555 inches and for March 2.261 inches.

Francis A. Gore.

Warbreccan, Stonehenge, near Isisford,

7th July, 1890.

From about April, 1888, to March, 1889, we suffered from drought. Only a passing thunderstorm occurred now and again. Towards end of 1888 the heat and drought were very severe, continuing until March, 1889, when the weather broke. During the time of broken weather we measured about 6 or 7 inches of rain. These rainstorms continued at intervals till about May, when fair weather with passing thunderstorms occurred till 4th January, 1890, when the flood rains set in.

Jos. Smith.

1890.

3rd December.—Cunnamulla—Extensive bush fires.

1891.

17th May.—A water famine prevailed over the district around Toowoomba.

1893.

30th January.—Very severe drought reported from south-west Queensland.

15th February.—Barcaldine reported very great drought; no rain for eight weeks.

26th February.—Country around Barcaldine in awful condition for want of rain.

27th December.—Stock dying in large quantities in Charleville districts owing to want of rain.

1894.

29th January.—Severe drought in the far West; heavy losses of stock reported.

1895.

August.—“Drought conditions, feed and water scarce,” reported from many inland stations, especially those in the south-western quarter; but rain over far south-west in September, and over greater part of State in November, brought relief.

August.—Bush fires very prevalent in Moreton and East Darling Downs districts.

Ipswich.—Rather severe drought for some months; the total rainfall for January was somewhat over 13 inches; after that the rainfall was very small till near end of year; drought partially broke up on 17th September.

1897.

NOTES ON THE DROUGHT PERIOD OF 1897,

Compiled from Observers' Reports furnished in May, 1897, when drought conditions prevailed over the greater part of the State, and a succession of very dry months had been experienced since February, 1896, except for partial rainfall recorded during the months of April, July, and November of that year.

The conditions over most of the southern half of the State were, however, relieved by good rains in June and September, 1897, but it was not until December of that year that rain sufficiently heavy to break up the drought for the time being occurred over the northern districts and the Gulf country.

LOWER CARPENTARIA:—

Cloncurry.—Country south of Cloncurry absolute desert, all stock removed, drought worst experienced; north of Cloncurry drought not so severe.

UPPER CARPENTARIA:—

Bolwarra.—Drought worst experienced in fifteen years.

Brookland.—Very little rain fell in early part of year; every appearance of very dry season.

Carpentaria Downs.—Observer writes:—“No drought here now (16th May). 1884 and 1885, 1888, 1889 and 1892 were in my opinion all worse years.”

Esmeralda Station.—Worst season ever experienced; great loss of stock probable.

Fores Home Station.—Observer writes:—“Have not seen any season to compare with the present one in my experience, which dates from 1889.”

Homestead.—Season considered worst since 1888; feed unusually scarce; all waterholes dry.

Lyndhurst.—Feed and water scarcer than ever experienced during residence of 26 years.

Mount Surprise Station.—Very light rainfall this year—creeks very low, but grass fair; heavy losses in stock probable.

Pentland.—The general opinion is that the present drought is more severe than any experienced for many years.

Richmond Downs.—Managers of neighbouring stations assert that drought conditions not yet in evidence, but grass and water becoming scarce much sooner than expected; heavy winter rains anxiously looked for.

Rosella Plains.—No drought—both grass and water plentiful.

Spring Creek.—Country very dry, season similar to that of 1888 and of 1893; rainfall very patchy.

Tarbrax Station.—Grass more plentiful than it was during the corresponding period of preceding year.

Torrens Creek.—Drought conditions generally considered to equal those of previous years. Unless winter rains fall, the effects will be more severe, as the country is heavily stocked.

EAST CENTRAL COAST :—

- Ravenswood Junction.—Very dry year; season as bad as that of 1888.
- Sellheim.—Drought worst known in district for number of years. The Burdekin River has never been so low at this time of year (May); outlook most serious.
- St. Albans Station.—Worst season experienced for years; waterholes in many places quite dry.
- St. Helens Station.—Manager states that he has not experienced a better season for stock for some years.
- Wando Station.—Country has not been so short of water and grass during observer's experience of twenty years; little or no rain fell during first five months of year.
- Strathmore.—Stock keeping in good condition but grass getting very dry; unless winter rains fall the outlook will be very serious.

WEST CENTRAL COAST :—

- Charters Towers.—Very small rainfall this season; grass and water getting scarce; Burdekin and Fletcher Rivers low; heavy morning dews frequent.

CENTRAL HIGHLANDS :—

- Bluff.—Conditions not as severe as experienced in preceding droughts.
- Emerald Downs, Glendarriwill.—Existing drought worst experienced for years.
- St. Helen's Estate.—Worst drought experienced for years.

UPPER WESTERN :—

- Buckingham Downs.—Drought not as severe as that of 1892.
- Carandotta.—Drought severe, but not as bad as past ones.
- Headingly.—Drought bad, but not as severe as past ones.
- Lake Nash.—Drought bad, but not as severe as past ones.
- Winton.—Present season worse than any since 1894; good rainfall urgently required.

LOWER WESTERN :—

- Bedourie.—Driest season experienced for fourteen years.
- Bredalbane Station.—Only 180 points of rain fell here during the thirteen months ended May, 1897.
- Bulgroo.—Season worst on record.
- Cluny.—Grass and water more plentiful than in drought of 1892. A good storm passed over portion of run, and King's Creek ran for some miles; winter rain anxiously awaited.
- Currawilla.—Conditions not as severe as experienced in preceding droughts.
- Daroo.—Drought promises to be worse than any preceding one.
- Hammond Downs.—Drought most severe and of long duration.
- Glenormiston.—Drought compares favorably with that of 1892; grass fairly abundant.
- Herbert Downs.—Observer writes:—"Winter rains not being a regular thing in these parts I do not recognise any material differences between this and previous droughts."
- Keeroongooloo.—Water plentiful, but no feed.
- Lucknow.—Season cannot be called a drought as both water and grass plentiful, owing to the storms which occurred at the beginning of the year.
- Marion Downs.—Drought more severe than that of 1892; grass scarce but water in fair supply.
- Mooraberrie.—Not as severe as preceding droughts.
- Mount Leonard.—Present drought will prove worse than any previously experienced.

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LOWER WESTERN—continued.

- Sandringham.—Drought felt sooner here than any previous one, as country had not recovered from drought of 1892-1893; present drought considered to be worst on record.
- Springvale.—Present drought equal in severity to that of 1888-1889, but not as severe as that of 1892-1893.
- Tenham.—Worse than preceding droughts.

PORT CURTIS :—

- Coonambula.—Most exceptional season experienced during residence of 36 years; no general rains since the early part of 1896 but towards end of that year and beginning of present year frequent thunderstorms and rain occurred which resulted in an abundant supply of water and feed; stock in good condition and little, if any, loss expected.
- Ideraway.—Season promises to be as disastrous as the seasons of 1872-1873, 1883-1884, when prolonged dry spells of about eighteen months duration occurred. 1868 and 1869 were very dry years on the Burnett.
- Mount Debatable.—Worst season experienced during residence of 26 years; most disastrous to stock.
- Wetheron.—General scarcity of grass and shortage of water; decrease in live stock probable.
- Yenda (Elliott Creek).—Worst season experienced; grass and water dried up more rapidly than ever known before.

EAST DARLING DOWNS :—

- Gowrie.—Worst drought experienced since 1883.
- Harrow Station.—Stock in good order, but grass very scarce; country in bad position to face winter.
- Jondaryan Station.—Observer writes:—"Present summer and autumn driest experienced in this neighbourhood and it promises to be a most severe winter; hitherto rainfall sufficient to keep stock in very good condition but quite inadequate to give winter feed."
- Westbrook.—The most serious drought experienced during residence of twenty five years.

MARANOA :—

- Amby Downs.—Every prospect of a serious drought; grass though not abundant is of fair quality; stock in good condition and water fairly plentiful; outlook will be very serious if dry weather continues.
- Bindango.—Present drought not nearly as serious as that of 1885, although season opened very badly.
- Eurella.—Little or no loss has yet been experienced, but losses will be considerable if no rain falls during winter months. The last rain fell so suddenly that the ground could not absorb it, consequently there is a smaller quantity of grass with which to commence the winter than has been the case since the drought of 1884-1885.
- Prairie.—Every prospect of this being the most severe drought experienced during the past twenty years.

WARREGO :—

- Ambathala.—The existing drought most peculiar in its patchy nature; rain fell at the southern and northern ends of the run while the middle remained quite dry; preceding droughts have been far more general in character.
- Authoringa.—The droughts of 1882 and 1892 were quite as severe as the existing drought.
- Burrandilla.—Drought not as severe as that of 1885-1886; water plentiful.
- Coongoola.—The most severe drought experienced. Very severe frosts occurred on the 6th, 7th and 8th of May; rainfall very patchy but very heavy in places—4 to 5 inches falling in about an hour.
- Dillalah.—Existing drought not nearly as bad as the droughts of 1884 and 1888.

WARREGO—*continued.*

Gumbardo Station.—The drought of 1884 considered to be the worst ever experienced; feed and water plentiful at present.

Mangalore.—Present drought not nearly as severe on stock as preceding ones.

Thylungra.—Observer writes:—"Present season promises to be worst ever experienced here. This is now the third year of drought, during which period we have not had sufficient rain to bring the grass and herbage to maturity."

Yarron Vale.—Existing drought not as severe as that of 1893.

FAR SOUTH-WEST:—

Ardoch.—Existing drought one of the most severe experienced in locality for a great many years.

Boondoon.—Present dry season not as severely felt as previous droughts, as several thunderstorms occurred during the summer months.

Bulloo Downs.—Existing drought worst experienced for a great many years.

Comongin South.—Most severe drought during fourteen years as regards insufficiency of grass; but water fairly plentiful.

Eulbertie.—Season worse than that of 1893 and compares with the drought of 1884 which was worst known.

Gilmore.—Season considered to be a fair one.

Kyabra.—Existing drought is the worst ever experienced.

Milo.—The rainfall from the 1st May, 1896, to 11th May, 1897, was 4.54 inches, the lowest amount recorded at the station for any consecutive period of 12 months. Winter will be very severe unless good rains fall. Water supply still fairly good.

Mount Margaret.—Present drought worst experienced for a great many years.

Nickavilla Station.—Present season worst experienced for years.

Norley Station.—Present drought worst experienced for a great many years.

Orient.—Existing drought worst experienced for a great many years.

Tobermory.—Present drought worst experienced for a great many years.

1898.

17th October.—Drought in Roma district caused severe damage to wheat crops.

1900.

25th November.—Severe drought in Clermont district.

1901.

31st December—

Beenleigh.—Continued dry weather; water very scarce; no grass.

Collaroy.—Very dry; no sign of rain.

1902.

1st January.—Freestone.—Dry hot weather; hundreds of acres of early corn withered and dead.

1st and 2nd January.—Continued hot, oppressive weather at Cunnamulla, Roma, Thargomindah, and Mount Morgan.

2nd January.—Warwick.—Drought conditions; corn crops badly affected, especially in the Hendon, Allora, and Pratten districts.

3rd January.—Nambour.—Weather terribly dry; a few bush fires.

6th to 10th January.—Drought conditions continued at Esk, Allora, Ormonde, Degilbo, Gatton, Charleville, Longreach, Hughenden, Townsville, Cairns, Clermont, and Maryborough.

8th January.—Southport.—Good rain; dry spell at an end for the present.

12th January.—Hughenden.—Rain at last; water carting at an end for present.

13th January.—Marburg.—Rain wanted badly.

16th January.—Boonah.—Rain badly needed; grass withered and maize hardly worth cutting for fodder; one of the severest droughts ever experienced in the district; terrific heat.

17th January.—St. George.—Country in a bad state; grass and water scarce; stock seriously affected by the drought; miles of untenanted country.

18th January (about).—Bogantungan.—Severe losses of cattle through drought; fruit and native trees, also mountain shrubs, withered and dead.

18th January—

Upper Logan.—Intense heat and drought; fruit trees badly affected; cracks in the ground several feet deep.

Crow's Nest.—Rain badly wanted.

18th to 20th January.—Drought conditions severe at Georgetown, Mackay, and Dalby.

22nd January—

Very hot weather and no signs of rain at Charleville, Cunnamulla, or Longreach.

Warwick.—Continued hot, dry, and oppressive weather; no sign of rain; late corn crops affected.

23rd January—

Nambour.—Very dry weather; rain wanted for fruit crops.

Highfields.—Rain badly wanted; maize and potato crops utterly ruined; grass withered by excessive heat; springs dry; large cracks in the earth everywhere in district.

Brisbane.—Rain fell in the Emerald, Barcaldine, Longreach, and Warwick districts.

29th January.—Fall of rain at Rockhampton, Townsville, Cairns, Winton, Hughenden, Beaudesert, Pittsworth, Goondiwindi, Charleville, Mount Morgan, Longreach, Mackay, and (on 27th inst.) Highfields; water tanks filled at Highfields.

1st February.—Freestone.—No rain of any consequence since September, 1901; corn crops ruined; dams dry.

4th February.—Ormonde.—Rain badly wanted.

6th to 11th February.—Continued hot dry weather at Marburg, Esk, Degilbo, Meringandan, Goondiwindi, Charleville, Barcaldine, Mount Morgan, Bowen, Longreach, and Cunnamulla; rain wanted badly.

9th February.—Warwick.—Rain badly wanted; more than half of the maize crops in district withered and dead.

11th February.—Upper Logan.—Rain greatly needed; no grass; water very scarce; cattle hand-fed.

12th February.—Dalby.—Weather very dry; no rain for weeks; stock badly affected.

Wallumbilla.—Rain greatly needed.

17th February—

Oakey.—Country drought-stricken and bare.

Rain badly wanted at Mount Morgan, Bowen, Ormonde, Georgetown, Longreach, and Muttaborra; intense heat.

Toowoomba.—No rain; grass and herbage scarce; maize crop almost completely ruined.

22nd February—

Bowen.—Continued drought conditions inland; water and feed scarce in parts of coastal districts.

Cunnamulla.—Continued heat and drought.

Muttaborra.—Warmest and driest summer known in the district.

22nd to 27th February.—Drought conditions continued at Warwick, Goondiwindi, Mackay, and Barcaldine.

February.—Townsville.—Pronounced drought conditions; total rainfall for January and February 4.50 inches—smallest amount recorded during that period for last thirty-two years.

6th March—

Southport.—Rain badly needed; grass scarce; crops of corn and potatoes in poor condition.

Esk.—Weather very hot and dry; fair amount of feed, but water very scarce.

7th March.—Highfields.—Rain needed to save potato crop; grass scarce; stock in low condition.

10th March.—Bowen.—Drought conditions; poor orange crop; ground too hard to plough.

12th March—

Mount Morgan.—Rain wanted.

Rockhampton.—Some good storms in the Central division, but more wanted; position serious, particularly in the country bordering on the valley of the Dawson River; grass withered by intense heat; hundreds of cattle dead. Numbers of people out of employment. At Rockhampton only 7.26 inches of rain fell during the five "wet" months—19.50 inches below the average of previous nineteen years for those months.

13th March.—Esk.—Continued dry weather; no grass; water very scarce; farming operations at a standstill; supply of cream diminishing at rate of 200 gallons and over per week.

14th to 18th March.—Rain wanted badly at Bundaberg, Roma and Degilbo. Degilbo Creek lower even than it was during the drought of 1884.

24th March.—Upper Logan.—Continued dry weather; country in bad state; losses of cattle reported.

24th March (about).—Camooweal.—No rain of any consequence for the past ten months; no feed for cattle.

25th March—

Highfields.—Weather extremely dry.

Rockhampton.—Position in western country serious; no feed for stock.

Avon Downs.—A report from Clermont stated "telegraph station at Avon Downs deserted; water supply exhausted."

Leichhardt Downs.—Leichhardt Downs Station abandoned; no grass or water; manager compelled to live in a tent 30 miles from the homestead.

Duaringa.—Cattle fed on leaves of trees, &c.

27th March.—Southport.—Agreeable change in weather; half an inch of rain fell. Stock in poor condition; water and grass scarce.

30th March.—Muttaborra.—Stock badly affected by the drought.

31st March.—Crow's Nest.—Continued drought; no prospect of any late potato crops.

2nd to 4th April.—Grass and water scarce at Goombungee, Allora and Evergreen; rain wanted badly at Cunnamulla.

7th April.—Barcaldine.—No grass; sheep transported to other districts.

8th April—

Yeppoon.—Little or no growth in the cane; little prospect of a crushing at the sugar plantation.

Rockhampton.—Business dull; men discharged from employment.

9th April.—Marburg.—Very little feed for cattle.

10th April—

Degilbo.—Continued drought; outlook for winter very serious.

Esk.—Drovers state grass and water very scarce on stock routes.

Southport.—Condition of district immediately around the town very bad; water scarce both for stock and household purposes.

16th April—

Redbank Plains.—Effects of drought very severe; water for household purposes carted a distance of four miles; numbers of fruit and wattle trees dead.

Goodna.—Shortage of stores and of feed for cattle; supplies received from Ipswich; large fissures in the ground at places.

North Pine.—Grass and water scarce; worst season for past 35 years.

17th April—

Brisbane.—Prayers for rain offered throughout the colony; Government and many business offices closed for the day.

Continued dry weather at Caboolture and Nambour.

19th April.—Emerald State Farm.—No feed, all cattle removed to the Dee, about 40 miles further west; only 150 sheep and lambs left on the station.

19th April (about).—Mitchell.—Hot and dusty; streets ankle deep in sand; country along the railway line bare; grass parched and friable; cattle in fairly good condition on wild carrot feed.

21st April.—Dalby.—Loads of chaff and other fodder conveyed to surrounding stations; cattle bogged in creeks and dams.

27th April.—Evergreen.—Driest season for 25 years; mobs of cattle, sheep, and horses sent to the Burnett.

28th April.—Wallumbilla.—Very light rain occurred; more urgently needed; water very scarce; horses and cattle fed on prickly pear.

29th April—

Oakey.—Stock routes in district very bare of feed.

Mount Hutton.—Effects of drought very severe; more than half of the herd of 22,000 cattle lost.

1st May.—Goombungee.—Drought very severe; many holdings in the west abandoned; cattle fed on bottle trees.

4th May.—Hughenden.—No sign of rain; very serious outlook for stock-owners; grass and water very scarce.

6th May.—Rockhampton.—No sign of rain; great demand for grass.

8th May.—Maryborough.—Many of the timber-getters' bullocks died from drought and cattle diseases.

11th May.—Upper Logan.—Continued dry weather; stock feed very scarce; great losses of cattle throughout district.

13th May—

Evergreen.—Continued dry weather; position serious.

Stanthorpe.—Continued dry weather; large losses of stock, especially in the Texas district.

Roma.—Continued dry weather.

15th May—

Boonah.—Supply of tank water almost exhausted; water in lagoon lower than ever known before; cows hand-fed.

Esk.—Stock routes in bad condition; no running water in creeks.

Allora.—Water scarce.

16th May (about).—Longreach.—Rain greatly needed; miles of country without a blade of grass; thousands of cattle lost.

16th May.—Dalby.—Water scarce.

19th May.—Gladstone.—Continued drought; very little herbage left; water-courses almost dry.

21st May.—Southport.—Country in very bad state; no sign of rain; many horses and cattle dead in bog-holes.

22nd May—

Allora.—Feed and water scarce; all stock hand-fed.

Muttaborra.—Continued dry weather; only 2,000 sheep left on Weewondilla.

24th May.—Upper Logan.—Grass and water very scarce; worst season in district; cattle dead everywhere; fruit crops a failure.

27th May.—Roma.—Country in terrible condition; sheep sent to other districts.

28th May—

Oakey.—Prickly pear largely used as a fodder; produce at famine prices.

Muttaborra.—Country very bare; no feed for stock except scrub.

29th May.—Esk.—Rain badly wanted; farming operations at a standstill.

30th May.—Toowoomba.—Continued dry weather; feed scarce; road to Pittsworth nothing but sand.

1st June.—Culloden.—Country in a very bad state; sheep dead in hundreds.

2nd June—

Degilbo.—Losses of cattle from effects of drought reported; farm work at a stand-still.

Barcaldine.—Whole of surrounding country a huge desert.

3rd June—

Roma.—Rain badly wanted; only 15 points in April; business exceedingly dull.

Rockhampton.—No rain during May for the first time since 1873. Total rainfall for first five months of year only 8.04 inches, while the twelve months prior to June were the driest on record. Residents decided to explode quantities of dynamite in the hope of causing rain.

4th June.—Cania.—Country in a very bad state; grass and water very scarce; big losses of stock and sheep; 4,000 out of 6,000 sheep lost on one station.

5th June—

Esk.—Weather still very dry; an inch of rain, however, fell 20 miles to the north-west a few days back; carriage of goods, &c., suspended; bullock-drivers unable to secure feed for their cattle.

Toowoomba.—Very few cattle or sheep to be seen between Toowoomba and Warwick.

6th June—

Freestone.—Water scarce, and no grass; stock kept alive on wheat; trees dead on the ridges; country as bare as the road.

Mackay.—Pasturage in excellent condition owing to recent showers; stock from all parts brought to the district.

8th June.—Meringandan.—Water and feed very scarce; pigs and cattle fed on prickly pear, with good results.

9th June—

Cleveland.—Rain badly wanted.

Evergreen.—Large cracks everywhere in the soil; ploughing impossible.

Goombungee.—No prospect of a wheat crop; ground too hard to plough.

Pittsworth.—Rain badly wanted; large patches of forest trees and scrub withered; farm work hindered. Good supplies of water, from springs, in some of the gullies.

12th June.—Esk.—Cattle in district in fair condition, but large supplies could not be sent to the metropolis through scarcity of water along the roads.

16th June—

Mitchell.—Cattle and sheep fed on scrub fodder on almost every station in this section of the Maranoa.

Cunnamulla.—Continued dry weather; warm clear days and cold nights; dry herbage almost exhausted.

17th June—

Highfields.—District in very bad condition; wheat-sowing completely suspended; no germination of grain seed; maize-stalks (which afforded the cattle food for some time past) exhausted, and haystacks almost finished.

Longreach.—Still no rain; outlook very bad; trade and business of all kinds paralyzed.

Extract from the *Brisbane Courier* of the 21st June, 1902.

“Rockhampton, 17th June.

Yesterday five 20-lb. charges of dynamite were exploded at intervals of a minute on Mt. Archer, in the hope of bringing rain from the cloudy sky overhead. Within five minutes light rain fell, followed by heavy showers to the east, which continued at intervals for four hours. Opinions differ as to whether the explosion of the dynamite had anything to do with the rain or not, and it was pointed out that before the time of the experiment rain was falling at Emu Park and on the adjacent islands in Keppel Bay. The organizer, however, takes all the credit for the visitation.

The fall was sufficient to replenish the supplies of drinking water in and around Rockhampton.”

Rockhampton.—Showers in the immediate neighbourhood on 16th, which replenished the supply of drinking water.

18th June—

Southport.—Large losses of stock. Several slight showers during night of 17th and morning of 18th.

Degilbo.—Continued drouthy conditions; water very scarce and of very poor quality, especially in the creek beds; cattle fed on prickly pear fruit; all hope of seed planting for next winter's fodder crops abandoned. In one direction, however, the evil of the drought resulted in good, for many farmers sunk wells, with, in most cases, excellent results.

Warwick.—Light rainfall in the district during night of 17th.

Laidley.—Very light showers during the last few days; no appreciable effect upon the soil or local water supply.

19th June—

Oakey.—Over 30,000 sheep sent by rail last month from Jondaryan Station to grass country in the Maryborough and Gladstone district; sheep on the station fed, with good results, on steamed prickly pear, mixed with chaff and salted.

North Pine.—Extreme drought conditions; no feed or water for stock; roads in district in many places fully six inches deep in dust.

20th June—

Pittsworth.—Continued dry weather, no signs of rain. New springs continue to break out in places. Grass very scarce; sheep and dairy cattle fed on straw chaff and molasses; cattle and pigs fed on the much despised prickly pear, but with doubtful results.

Woombye.—Orange orchards “panning out” well, notwithstanding the dry weather.

23rd June—

Caboolture.—No rain at all lately; outlook very bad; water very scarce.

Sandgate.—First lagoon dry; water carted into the town.

Dalby.—Drought conditions very serious; stock fed on tree and prickly pear fodder.

25th June—

Goombungee.—Extremely severe drought conditions; large patches of iron bark trees withered and dead—an occurrence previously unknown in district.

Degilbo.—Cold nights and westerly winds killed many poor conditioned cattle.

27th June.—Pittsworth.—Grass scarce; large numbers of sheep sent to the coast for pasturage. A few points of rain lately caused slight growth in wheat seed, but good rain badly wanted.

27th to 30th June.—Drought conditions continued at Esk, Goondiwindi, Childers, Toowoomba, Laidley, and Mitchell.

30th June—

Bowen.—Several showers, 42 points recorded; first rain since 23rd April.

Childers.—Drought; sugar crop anticipated to equal only one-tenth of last year's crop.

1st July.—Rockhampton.—No rain for two months.

1st July (about).—Peak Downs.—Birds died from starvation.

3rd July—

Allora.—Alarming shortage of feed.

Cleveland.—Unprecedented drought.

4th July—

Westbrook State Farm.—Little or no rain for months.

Goombungee.—Drought; farms sold at low prices.

5th July—

Longreach.—No sign of rain; river low.

Upper Logan.—Water very scarce and not fit for use; losses of cattle reported.

Freestone.—Feed for cattle almost exhausted.

5th and 6th July.—Brisbane, Ipswich, Toowoomba.—Showery weather.

7th July.—Stanthorpe.—Continued drought; great losses of stock.

8th July.—Southport.—Change occurred, 70 points of rain.

10th July—

Esk.—Drought conditions responsible for considerable loss of stock in district.

Warwick.—No fat stock; three butchering establishments closed.

12th July.—Brisbane.—Continued drought conditions throughout the State.

13th July.—Townsville.—Water supply low.

14th July—

Hughenden.—Water supply from river low.

Degilbo.—Drought conditions; losses of stock reported.

16th July.—Crow's Nest.—No vegetables in district.

19th July.—Upper Logan.—Fassifern and Rosevale districts.—The Upper Logan practically dry; cattle fed on leaves of oak trees; absolutely no grass; anticipated loss of milking and breeding herds—50 per cent.

21st July.—Goombungee.—Practically no fodder; straw, even thatch from old sheds, used for feed for cattle; prickly pear used also at some places.

22nd July.—Roma.—Water very scarce; both of the Roma dams almost empty.

24th July—

Laidley.—Cream consignments from Laidley decreased from 5,753 gallons in June, 1901, to 931 gallons in June, 1902.

Dalby.—Drought conditions serious; losses of stock reported; cattle in Bunya Mountain district fed on bottle-tree.

26th July—

Warwick.—Eighteen points of rain.

North Pine.—Feed for cattle very scarce; anticipated loss of stock in lower part of district—50 per cent.

Dalby.—Serious losses of dairy stock; worst season for fodder known, hardly a stack of hay left in district; farming operations at standstill, scarcely any cream, butter factories on half time; water for domestic purposes very scarce in parts of district.

27th July.—Toowoomba.—Continued drought; decided falling off in trade throughout district; no sign of change in weather.

28th July—

Bowen.—Total rainfall since 1st January, 5·55 inches.

A report from Charleville gave the following rainfall totals, for period 1st January to 30th June, recorded at various stations in West Queensland:—

	Inches.		Inches.
Thargomindah ..	0·17	St. George ..	2·68
Charleville ..	1·46	Wyandra ..	1·70
Augathella ..	3·32	Windorah ..	0·36
Cunnamulla ..	0·61	Adavale ..	0·99
Mitchell ..	2·41	Bollon ..	1·02
Roma ..	3·63	Eulo ..	0·67
Morven ..	1·28		

29th July—

Rockhampton.—Reports from country districts gloomy as ever; trade duller than at any previous period.

Marburg.—Kircheim and Marburg water tanks empty; Kircheim residents dependent upon Bremer River (about seven miles distant) for water.

Goombungee.—Drought conditions still prevail; all cattle feed, except prickly pear, exhausted.

30th July—

Roma.—No feed for stock, except chaffed prickly pear or bottle-tree.

Crow's Nest.—Water very scarce and unfit for use; township supplied from stock waterholes about a mile distant.

Cairns.—No rain in the back country, and no feed.

Mitchell.—No rain; no growth of wheat plants.

31st July—

Warwick.—Practically no germination of wheat seed; oats and barley crops withered.

Esk.—Very dry; no feed; large losses of stock; average weekly cream yield reduced from 1,000 to 200 gallons.

July.—Drought conditions continued at Goondiwindi, Evergreen, Bundaberg, Barcaldine, Marburg, Woombye, Pittsworth, Warwick, Crow's Nest, Oxley, and Rockhampton.

1st August—

Laidley.—Very heavy losses of stock during past two weeks.

Roma.—Total rainfall for past four months only 35 points. No rain during May or July.

3rd August.—Townsville.—No rain during July, and total rainfall for seven months (January to July), 7·07 inches. For the twelve months ended 31st July, 11·00 inches were recorded—the smallest amount by far registered in any similar period for 32 years.

4th August—

Barcaldine.—No change in weather. Total rainfall for the seven months ended 31st July, 2·85 inches. Nil for last three months.

Evergreen.—Water very scarce and settlement almost wholly dependent upon one public well; most of the milking cows dry; no wheat crop expected this season.

Freestone.—No soil-drenching rain for almost twelve months; no germination in wheat or barley seeds; losses of old and weak cattle experienced.

7th August—

Esk.—Country bare generally.

Allora.—Great scarcity of feed for dairy cattle in Ramsay district; large crops of prickly pear, at Woody Camp and West Talgai, turned into fodder.

9th August—

North Pine.—Great losses of cattle, one man alone skinned over a thousand carcasses during last few months; no prospect of a seed-time.

9th to 11th August.—Maryborough.—Showers experienced; tanks replenished to some extent, but no benefit to vegetation.

10th August.—Goombungee.—Steady, soaking, beneficial, showers of rain occurred.

11th August—

Thunderstorm at Pittsworth.

Warwick.—General beneficial rains in district; an inch recorded at Freestone.

Dalby.—Heavy losses of stock reported.

Marburg.—Dairying industry almost at a standstill through drought.

Pittsworth.—Very slight improvement in weather, 50 points of rain recorded; great losses of stock.

12th August—

Darr River Downs, near Longreach.—A report from Darr River Downs stated that during the fourteen months ended 31st July, rain fell on 24 days only. The total for the fourteen months was 3·21 inches of which 1·60 inches fell in December and January. No rain in July, 1901, or in April, May, June, or July, 1902; whilst for the six months ended 31st July the rainfall was only 0·69 inches.

Rockhampton.—Rainfall for the three months ended 31st July, 0·01 inch; for the seven months ended 31st July, 8·05 inches; and for the twelve months ended 31st July, 13·98 inches only.

Mitchell.—Continued dry weather; very little prospect of a grain crop of any kind.

13th August—

North Pine.—Continued losses of stock; in many cases almost whole herds lost; no green feed.

Dalby.—Continued heavy losses of stock.

14th August.—Highfields.—Water very scarce; no grass; acres of gum, box, and ironbark trees withered and dead; no germination of grain seed.

16th August.—Hughenden.—Heavy losses of sheep (from the animals feeding on ironwood trees) in the Burleigh resumption area.

17th August.—Brisbane.—Thunderstorm and several smart showers; thunderstorm and heavy downpour at Ipswich.

18th August—

Toowoomba.—Thunderstorm, but only a few drops of rain; heavier fall at Greenmount and below the range.

Very light rain occurred during last 48 hours in the extreme south-east and on parts of the east coast.

19th August—

Thunderstorms with rain and hail experienced east of a line joining Warwick and Rockhampton:—Rocklea, 1.50; Pialba, 1.25; Kilkivan Junction, 0.65; and Howard, 0.78 inches, heaviest amounts reported.

Degilbo.—Losses of cattle and horses from starvation reported.

21st August—

Warwick.—Heavy rainfalls reported from Western and New England districts.

Charleville.—Seventy-five points of rain recorded, sufficient to replenish water tanks to some extent.

Charleville.—(From the Brisbane *Courier*, 28th August, 1902).—“A Stiger Vortex gun was fired at some heavy clouds passing overhead, and the ring of smoke was seen going up to a great height with a peculiar whistling sound. Rain immediately began to fall, but whether as the result of the bombardment is a matter of opinion.”

22nd August—

Good showers in southern and south-western Queensland.

Warwick.—General rains in south and south-west; maximum—Deepwater, 2.40 inches. Roma reported 20 points; all stations from Alpha westward reported light rains.

23rd August—

Upper Logan.—Continued drought; no grass; great losses of stock. Many cattle died from eating the fruits of the bean trees.

Goombungee.—Rain of a partial character occurred in district a few days ago; outlook brighter; grass springing.

24th August.—Townsville.—Only a fortnight's supply of water in lagoon; position very serious.

25th August.—Nambour.—Several showers lately; grass springing.

26th August—

Southport.—Water very scarce, that for household purposes obtained from a well in Queen's Park.

Rockhampton.—Reports from the interior indicate position very serious; large losses of sheep in Peak Downs district.

27th August—

Toowoomba.—Position very serious; numerous losses of stock; no fodder available locally; no growth in wheat or barley seed.

Pittsworth.—Rain of last week too light to benefit crops; no prospect of a grain crop this season; great losses of sheep and cattle.

28th August.—From the Brisbane *Courier*, 30th August 1902.—

“Captain J. E. Meaburn, of the *Wodonga*, which arrived in Brisbane on 28th from Cooktown, reports that prior to entering Moreton Bay, the clouds being apparently heavily charged with moisture, the opportunity was taken to discharge a distress signal rocket containing $\frac{1}{2}$ lb. of gun-cotton. After the explosion, contrary to expectation, the clouds appeared to separate, but they subsequently re-gathered and a heavy downpour was the result.”

29th August—

Degilbo.—Hand feeding resorted to, to save cattle.

Light rain occurred at scattered stations inland, chiefly along southern border, and in most coastal districts.

30th August—

Hughenden.—Fat cattle very scarce.

Heavy storm at Warwick, and rain reported from considerable number of stations in various parts of southern Queensland.

Charleville.—Thunderstorms and rain, apparently general, occurred; outlook hopeful.

31st August.—Heavy rain over Warwick district.

1st September—

Barcaldine.—No rain; both Beaconsfield and Rodney Downs stations closed.

Bowen.—All stock hand fed. Total rainfall for August 1 point; total since 1st January 5.62 inches; and since 1st September, 1901, 8.36 inches.

2nd September—

Good rains over the greater part of southern and south-western Queensland.

During past fortnight over an inch and a half of rain fell at Texas, and nearly an inch at Stanthorpe; grass springing.

Maryborough.—Heavy showers of rain during past day or two; first time for months that water ran in gutters or overflowed tanks. Beneficial change in weather; good spring anticipated.

4th September.—Highfields.—Weather again fine; drought conditions still prevail; no herbage; large number of forest trees withering; springs drying up.

5th September—

Toowoomba.—Recent rains made little alteration in appearance of district; country from Toowoomba to Chiltern and along the Pittsworth line, quite desolate.

Effects of the drought upon the prices of various foodstuffs in the Eastern and Southern Downs indicated by list of retail prices at Warwick, as follows:—

Article.	Price in August, 1901.		Price in August, 1902.	
	s.	d.	£	s. d.
Flour	15	6	per 200 lb. bag	1 6 0
Bran	12	6	“ 200	1 2 0
Sugar	14	0	“ 70	0 16 0
Maize	11	0	“ bag	1 7 6
Mixed Chaff ..	2	6	“ cwt.	0 8 6
Chick-wheat ..	13	9	“ bag	1 4 0
Meat	0	3 $\frac{1}{2}$	“ lb.	0 0 6
Bread	0	2 $\frac{1}{2}$	“ lb.	0 0 3 $\frac{1}{2}$
Butter	1	2	“ lb.	0 2 4

Esk District.—Rainfall since 31st August:—Esk 1.00, Bellevue 1.20, Colinton 0.75 and Eskdale 1.50 inches; slight spring in grass throughout the district.

6th September—

Upper Logan District.—Heavy rains occurred lately; good spring in grass. Heavy losses of cattle reported from all parts of the district; forest trees withered; birds dead in great numbers.

Goombungee.—Showers experienced of late, but no growth in grass; stock fed on oak, apple, myrtle, currajong, and bottle trees.

7th September.—Winton District.—Grass and water very scarce; 160,000 gallons of water carried weekly, to various places along the line, from Winton.

8th September—

Boulia.—District fairly fortunate this year as regards drought conditions; a correspondent described Boulia as an “oasis of plenty” compared with other western towns.

Marburg.—Continued drought; many cattle dead; water scarce.

9th September—

Toowoomba.—Severe bush fires on parts of the range.

Rockhampton.—Continued dry weather; total rainfall for the five months ended 31st August, 0.31 inches, and for 12 months, 11.03 inches.

10th September.—Birdsville.—Continued drought; no immediate prospect of rain.

11th September.—Degilbo.—Continued drought.

13th September.—Landsborough.—Bush fires around township for two or three days.

15th September—
Nambour.—The bush fire from Landsborough reached Woombye on the 14th; country all around seemed a mass of fire.

Gympie.—Bush fires in various parts of district.

Freestone.—No rain of any consequence for nearly 12 months; large number of cattle dead.

16th September.—Brisbane.—Bush fires in various directions; heavy damage to property.

17th September—
Cane fires prevalent in the north, Plane Creek badly affected; loss to the mill estimated at 3,000 tons of cane. Large areas burnt at Pleystowe and Marian; considerable losses, mainly buildings, implements, &c.

Degilbo.—Mount Woowoonga on fire for last fortnight; fire during the week in the Paradise district.

18th September—
Caboolture.—Bush fires continued in neighbourhood.

Disastrous bush fires between Brisbane and Gympie; considerable damage to property.

Longreach.—Outlook serious at Silsoe Resumption; supply of water almost finished.

Esk.—Continued great losses of cattle.

19th September.—Bush fires still in North Coast district; at Buderim Mountain every plantation suffered.

20th September—
Gympie.—Extensive bush fires occurred lately on Kenilworth and Imbil runs, and burnt much standing timber in vicinity of Coolootlim Creek, Cootharabah, and Musket Flat.

Upper Logan.—Bush fires all round district; further losses of cattle reported.

22nd September—
Pimpama.—Heavy thunderstorm and rain over district between Pimpama and Burleigh Head; tanks and water holes replenished; growth of grass facilitated.

Mitchell.—No prospect of even a fair crop of wheaten hay.

Bowen.—Bush fires very prevalent throughout district; 40 acres of cane burnt at Proserpine; several miles of dry herbage consumed.

23rd September.—Kynuna.—A local correspondent stated that the artesian bores saved the district from desertion; native animals starved out; carcasses of 5,000 head of cattle counted at one of the waterholes on Cooper's Creek; cost of horse feed £3 3s. per horse per week.

27th September.—Goombungee.—Stock still poor; heavy losses reported.

29th September.—Degilbo.—1·16 inches of rain during past week.

30th September—
Gatton.—On the 28th 53 points of rain fell over a very limited area; grass springing. Very great loss of stock in district.

Rain generally light, recorded at a few stations in the East-Central and Wide Bay districts; best fall, 1 inch at Gin Gin.

Nambour.—Slight fall of rain on the 29th, grass springing. Bush fires destroyed all ticks.

Longreach.—Steady rain for a little while on 28th; continued very hot weather.

Isis (Childers).—Rainfall from 1st January to 30th September, 1900, was 25 inches, but for the same period this year only 10½ inches.

September.—Brisbane.—Amount of produce sent into country during September, 1901—618 tons, and during September, 1902—6,233 tons 13cwt.

1st October—
Bundaberg.—Weather hot and dry.

Townsville.—Rainfall for September, nil; total for last five months only 22 points,

2nd October—

Cunnamulla.—Rain of last month heavy in parts only. At Coongoola over 2 inches fell on part of the run—sufficient to keep the sheep alive.

Esk.—A heavy storm broke over Mt. Beppo on 28th September; the rainfall varied from 1 to 3 inches; dams and rivulets filled; nice shoot of grass noticeable.

3rd October—

Further rain, comparatively light, however, reported from the far south-west. Principal falls—Thargomindah, 0·67 inch; Hebel, 0·45 inch; Eulo, 0·36 inch; Cunnamulla, 0·10 inch; and Boulia, 0·14 inch.

Gatton.—Continued dry weather; further heavy losses of stock.

4th October—

Birdsville.—Beneficial showers in district; thunderstorms fairly general in the west; change in weather saved thousands of sheep.

Thunderstorms and light to heavy rain reported from the southern and south-eastern divisions of the state. Best falls occurred in the neighbourhood of Murphy's Creek (1·49 inches) and Goodna (1·68 inches); creek bank high at Goodna.

Esk.—Heavy rain last night at head of creek; 4 feet of water in creek.

Upper Logan.—Logan River for miles, and lagoons in district (empty for first time) still dry. Good spring in grass, however, since recent rains.

6th October—

Light rain recorded at a few scattered stations along the coast, and in south-east, including the Downs.

Marburg.—Further losses of cattle reported.

7th October—

Conditions in the far west.—Extract from a Rabbit Inspector's report:—

“Whole country in bad state; no rain for last three months, except from storms in parts which yielded from 5 to 70 points; long stages from Charleville to Adavale without water. Great losses by stock-owners, settlers, and others; many practically ruined. Food for inhabitants of the far west brought by camels from Hergott Springs (South Australia).

Stations which formerly carried from 10,000 to 25,000 head of cattle, now have from 100 to 500 head only; banks of waterholes covered with carcasses. At one hole on the Cooper no less than 10,000 carcasses were counted, and at a hole on Morney Plains, 6,000. Dead rabbits in thousands on south side of the netted fence. The Mulligan has not run right through for six years.”

Brisbane.—Difficulty still experienced in maintaining the water supply for locomotives; supply at the Willows, on the Central line, exhausted.

Rockhampton.—Thunderstorms lately; up to 3 inches of rain fell in places, and on a strip along the Dawson up to 4 inches. The rainfall at Rockhampton for nine months ended 30th September was 9·55 inches, and for the twelve months 10·66 inches only.

Roma.—No prospect of a wheat crop; total rainfall for past six months only 1·16 inches.

9th October—

Grape vines on the State farms badly affected by the drought.

Brisbane.—Light to moderately heavy rain reported from isolated stations throughout the southern half of the State. Best falls:—Wallumbilla, 0·75 inch; Amby, 0·60; Chinchilla, 0·50; Bell, 0·42; and Charleville, 0·40 inch.

Esk.—The recent heavy storm at Mount Beppo gave farmers a splendid start, 3 inches of rain recorded at several places; splendid grass in the Eskdale district.

10th October.—Brisbane.—Further satisfactory reports to hand from the Maranoa; rain sufficient to do a considerable amount of good experienced. About an inch fell at Mitchell, Charleville, and Roma. A report from Mt. Morris (60 miles north-west of Charleville) states 2 inches of rain, and Langlo Creek a banker,

Light rain also at a number of stations on Darling Downs and at few places in the Central district.

11th October.—Meringandan.—Great improvement in grass and crops, especially in locality of Bergen.

13th October—

Light to heavy rain recorded almost generally in the Moreton district, in the southern half of Wide Bay and in the eastern portions of the Burnett and Darling Downs divisions; heaviest falls in the neighbourhood of Brisbane.

Warwick.—Losses of stock during past fortnight heaviest on record.

Highfields.—Heaviest downpour of rain for months occurred on the 11th, and was accompanied by a gale of wind and vivid lightning; rain in torrents for half an hour. A spring in some of the grasses noticeable; but wheat and other grain crops past hope. Losses of stock greater than ever.

14th October—

Stanthorpe.—Thunderstorms and rain general throughout district. On the night of the 11th over half-an-inch fell at Stanthorpe in less than half-an-hour, and 2 inches at Silver Spur in twenty minutes. Very good spring season at Lyra and Wallangarra.

Allora.—Sufficient rain fell between Glengallan and Goomburra to start wheat and lucerne crops—otherwise no rain of any consequence; a good percentage of losses amongst dairy herds in district still reported.

15th October.—Goombungee.—Still no grass for stock; country, however, looks better.

17th October—

Laidley.—Heavy beneficial rain, accompanied by hail, fell at places in the outside district north of the railway; little or no rain in the township.

18th October—

Brisbane.—Thunderstorm accompanied by a good fall of rain.

Warwick.—Thunderstorm; 42 points of rain.

Cleveland.—Heavy fall of rain.

20th October.—Brisbane.—Light to heavy rain fell over the south-eastern quarter of State during the past 48 hours.

23rd October.—Birdsville.—Recent falls at Morney and Monkira amounted to 1.40 inches; several waterholes filled; no rain at Birdsville for some time.

24th October.—Brisbane.—Thunder and rain recorded over the Darling Downs, and at a few stations in the Eastern Warrego and Maranoa. The falls ranged from a few points to over $\frac{3}{4}$ of an inch; heaviest fall, 0.82 inch, at Emu Vale.

25th October.—Useful, but rather patchy, rain fell over the greater part of south-eastern Queensland, and extended to many stations on the Darling Downs, also as far north as Gympie, where over an inch and a half was registered.

27th October.—Thunderstorms again reported with light to heavy rain in the south-eastern districts, also over the Peninsula.

28th October—

Light to moderately heavy rain recorded over the Maranoa and Warrego districts; light rain also in parts of the north.

Dalby.—Fairly general rain throughout district.

Clifton.—75 points of rain in the evening; best fall for twelve months; maize planting commenced.

29th October—

Splendid rain recorded over the Darling Downs and Moreton districts, also in parts of the Burnett and Wide Bay divisions. Hail at a few places in the extreme south-east.

Brisbane.—Good growth of grass everywhere; prospect of early crops.

Danderoo.—Several good storms lately; country fresh and green; total rainfall since 18th inst. slightly over 3 inches.

Upper Logan and Marburg.—Country refreshed and green; maize plants already springing.

Highfields and North Pine.—Best rain of the year.

30th October—

Light rain—fairly heavy at Longreach (0.76 inch), Dalby (0.75 inch), and Goondiwindi (0.64 inch)—again reported from the south-east quarter. Prospects very much brighter on the Downs in consequence of recent rain.

Warwick.—Great revival of trade in consequence of the recent rains. Grain planted months ago above ground at last, prospect of abundance of green feed therefrom.

Esk.—Good growth of grass throughout district.

October.—Brisbane.—Amount of produce sent into the country during October, 1901, 978 tons; and during October, 1902, 6,896 tons.

1st November—

Hughenden.—Stock scarce and high-priced.

Toowoomba.—Recent heavy rainfall resulted in revival of business; prospects of good corn crop.

Goombungee.—Good growth of grass and corn; prospect of good (though late) spring; meat very scarce; still heavy losses of stock; cattle fed on boiled prickly pear.

3rd November—

Upper Logan.—Country in splendid condition; heavy falls of rain reported from every part of the district.

Light rain fell in the south-eastern regions, principally east of the ranges, during past 48 hours.

4th November—

Light rain along the coast; moderately heavy rain in the far north-west.

Rockhampton.—Total rainfall for last ten months only 9.60 inches, almost half of which fell in January, and of the remainder 1.41 inches fell during a shower in September. Cattle in vicinity of Rockhampton fed on leaves of pandanus and oak trees, also on rushes.

Oakey.—Losses of dairy cattle through green feed reported: meat at famine prices; great scarcity of fat stock.

5th November.—Goombungee.—Many strange diseases of late proved fatal to stock; diseases due it is believed, to prolonged dry weather.

6th November—

Cairns.—Slight showers during week, but too late to benefit the newly planted cane; several acres to be replanted.

North Pine.—Potato crop almost entire failure; supply of milk for butter factory very small.

7th November.—Laidley.—Great improvement in maize and lucerne crops. The drought caused great loss of dairy cattle throughout the district, and in some cases entire herds died. In October, 1901, 7,806½ gallons of milk were sent away by rail, whilst during the same month of 1902, only 53 gallons were forwarded. The number of pigs trucked during corresponding periods were 554 and 105.

8th November.—Degilbo.—Mining operations delayed by want of rain; corn planted some weeks ago withered away.

10th November—

Beaudesert.—More rain badly wanted to ensure growth of vegetation. Over 7 inches of rain were, however, recorded at the head of the different creeks near the Macpherson Range during the last four weeks.

St. George.—From a Central Rabbit Board Inspector's report:—"The Balonne, from Surat down, dry for miles at a stretch; all the Goondiwindi country a desert; 60 to 80 per cent. of sheep on small holdings lost. Wallabies and rabbits starved out. Difficult to keep the Board's horses alive; almost cheaper to shoot them than buy food at present prices."

11th November—

Brisbane.—During the 48 hours ending 9 a.m. on the 11th, light to heavy rain fell in the south-east quarter of the State. Good falls occurred in the Burnett; heaviest at Gayndah, 1.18 inches.

11th November (about).—Brisbane.—A newspaper representative stated, on his return from a trip through the Downs, that the drought was not broken there, nor even materially mitigated; a few favoured districts received good rains, but by far the larger

portion of the country only a very meagre sprinkling; very serious losses of cattle and sheep.

12th November—

Light to heavy rain again reported from the south-eastern quarter, and isolated falls reported as far north as Emerald; heaviest fall (2.00 inches) at Sandgate.

Warwick district.—Perceptible growth of grass.

North Pine.—Thunderstorm on 11th gave 80 points of rain; farmers still compelled to buy fodder for cattle.

13th November—

North Pine.—Heaviest fall (0.80 inch) of rain in district for over a year occurred on 11th; many waterholes filled. It was estimated that 80 per cent. of the cattle of the district perished during the drought.

Pittsworth.—Heavy losses of station stock reported; upwards of 40,000 sheep perished on one station: 10,000 sheep subsisting on imported fodder.

14th November—

Brisbane.—Rain, heavy at a few stations, fell in parts of the north and the north-west, also in the central and south-eastern districts, including the Downs; heaviest falls Donor's Hill (1.34 inches), and Boonah (1.20 inches).

Danderoo.—Last month's rainfall amounted to 4 inches, and did an immense amount of good; wheat in ear in a few instances; good growth of maize and lucerne crops.

Highfields.—Good growth of grain, maize, and lucerne; further losses of cattle; all local supplies of fodder exhausted.

15th November—

Brisbane.—Light to heavy rain reported over Peninsula, and light rain in parts of the north east; heaviest fall, 1.48 inches, at Musgrave.

Maryborough.—Rain badly wanted.

Upper Logan.—Series of thunderstorms during past week; water plentiful in back country; almost 50 per cent. of the timber carters' horses lost owing to severity of the drought.

16th November—

Bundaberg.—Effects of drought very severe on fruit trees.

Winton.—The first good storm of the season in the district occurred; 1.75 inches of rain recorded at Bladensburg station, adjoining the town.

17th November.—Nambour.—Crops in fairly good condition after thunderstorms; but good soaking rain badly wanted for sugar-cane plants.

18th November—

Brisbane.—Rain reported in far west; light showers in far north-east.

Mackay.—Showers during past week; planting commenced in parts of district.

21st November.—Brisbane.—In consequence of the severity of the drought it was considered doubtful whether more than 500 bags of wheat would be gathered from the whole of the Darling Downs.

22nd and 23rd November—

Caboolture.—Good rainfall in district.

Pittsworth.—Fairly general rainfall throughout district.

24th November.—Splendid rainfalls recorded over a large area in southern and south-eastern Queensland. Several of the stations in the Maranoa and Warrego districts received about half an inch, while Barrington, across the border on the Warrego received 2.50 inches.

24th November.—Splendid soaking rains reported from Laidley, Toowoomba, Warwick, Gympie, and Nambour.

25th November.—Goombungee.—Continued dry weather; horse feed very scarce, Argentine corn largely used.

26th November.—Light to moderately heavy rain recorded along the southern border and as far north as Mitchell and Tambo. Light rain also recorded along the north-east coast.

27th November.—Morney Station, near Windorah.—Thunderstorms; 75 points of rain.

28th November—

Brisbane.—Splendid rains reported from the south-western portion of the State and along the western border as far as Cloncurry.

Charleville.—Rain throughout district during last few days, heavy in places; swamp near Charleville filled for first time in twelve years.

29th November—

Cloncurry.—Three inches of rain since 27th.

Charleville.—One of the best falls of rain for many months occurred during the day; the Currajong almost a sheet of water.

Thargomindah.—Two inches of rain since 18th; heavier falls in parts of the district; and rain general as far as Windorah.

30th November.—Splendid rains recorded over a large area in the south-western, western-central, and the coastal districts.

1st December—

Splendid rain almost general over the eastern half of the State, south from the parallel of Mackay.

A Warwick resident stated:—"Drought broken on the Darling Downs; country between Toowoomba and Warwick fresh and green; freshes on creeks after late rains, and the Condamine flowing 50 miles from its source. Practically no wheat or wheaten hay this year, only about 1,000 bushels of grain gathered."

Highfields.—Grain crops now coming into ear, although growth short and heads stunted; lucerne paddocks saved the remnant of starving horses and dairy cows.

Charleville.—Rainfall up to 9 a.m. yesterday 0.71 inch; sufficient to start grass on sandy country, but on black soil much more rain necessary.

Thargomindah.—Rainfall since 18th November 2.13 inches, sufficient to start growth of grass; another 6 inches necessary before pastoralists re-stock.

Winton.—Recent rains mitigated the water difficulty on stations; and in some places rain, sufficient to start growth of grass, occurred.

Childers.—Rain needed, although copious rains fell within 10 miles of township.

2nd December—

Light to heavy rain recorded at scattered stations on and near coast, chiefly in north-east.

Brisbane.—Private advices from the south-west state that rain, sufficient to ensure supplies of grass and water until February rains are due, was experienced generally; good shoot of grass all through Thargomindah, Charleville, and Cunnamulla districts; outlook more hopeful than for many months past.

3rd December—

Good rain experienced at many stations in central division, and at few stations in south-west and north-east.

Birdsville.—Splendid rains, creeks all bankers—Canterbury 5 inches, Morney 2 inches, Palparara 2.16 inches, Whitula 3 inches, Mooraberrie 2 inches, Currawilla 0.75 inch at the homestead, and heavy rain on the run. Best grass rain since 1898; travellers detained five days owing to floods; mails also delayed.

Gatton.—Splendid rain; crops benefited; heavy corn crop anticipated.

4th December—

Further general rains, heavy in some places; over an inch recorded at Adavale, Tambo, Blackall, Hughenden, Wyandotte, and Tate River.

Boonah.—Whole face of country changed; good growth of grass.

Esk and Goombungee.—Rainfall in district generally very good; grass now visible and in parts high; creeks running.

Heavy rainfalls at Ravensbourne, Northampton Downs, Alice Downs, Terrick Terrick, Lorne, Malvern Hills, Malvern Bore, and Gowan; Barcoo River, at Blackall, a banker.

Highfields.—Loss in stock throughout district estimated at 25 per cent.; fruit crop a failure, and dead trees numerous.

5th December—

Light to heavy rain at scattered stations over greater portion of State; further good falls at Tambo, Windorah, Mackinlay, Bollon, Georgetown, Alpha, Collaroy, Yelvertoft, Mirani, and Mount Garnett.

St. George.—Recent thunderstorms resulted in a good fresh in Maranoa River; flood waters came down past Cashmere on 1st inst. bank high, and reached the junction with the Balonne on 3rd. The waters filled miles of the dry bed of the Balonne River, which rose to 1 foot above normal at St. George. Balonne running for first time since July, 1901, and first fresh in same river for nearly two years.

Aramac.—Rainfall since 28th November, 2·68 inches.

Barcaldine.—Terrific thunderstorm accompanied by slight hail and 25 points of rain. Owing to the heavy fall in neighbourhood of Dalgi, the tank on Aramac-road (which was dry for over two years, and which holds twelve months supply of water) was filled. Splendid water all over the Barcaldine, Dunraven, and Tara country, and all creeks at Patrick and Alice well supplied. Over 5 inches of rain fell at Barcaldine Downs, and herbage grew so rapidly on Barcaldine desert paddocks that all the station sheep were transferred there.

6th December—

Bouli.—1·24 inches of rain fell during 48 hours previous to 9 a.m., the 6th.

Cunnamulla.—Rainfall 1·14 inches since 29th ult.; Warrego running, first time for eighteen months.

Freestone.—Since recent rains farm lands at Swan Creek and Canning Downs considerably improved; lucerne and corn well forward, and grass fully a foot high; condition of horses and cattle also much improved.

Esk.—Creeks exceptionally high; many trees uprooted and carried down stream.

8th December (about).—Thargomindah.—Rain general over district; average fall 3 inches; rapid rise in Bulloo River.

8th December—

Barcaldine.—Very rapid growth of herbage in desert country.

Winton.—Bouli coach-driver reported rain ranging from 1½ to 4 inches at a number of stations.

Splendid rains reported from almost all parts of the State. South, centre, and north portions all benefited, and heavy satisfactory rains experienced over a large portion of the west.

9th December—

Light to heavy rain over most of the eastern regions; heavy storm at Forest Hill (near Laidley) last night, when 2 inches of rain fell in 25 minutes.

Mount Morgan.—Heavy storm filled large dam, which holds over six months supply of water; value of storm to country estimated at £25,000.

Charters Towers.—A fresh occurred in Burdekin River; shortage of water at an end.

10th December (about)—

Sheep sent from coast back to the west, in consequence of recent rains.

Further rains, chiefly south from Tropic.

Stanthorpe.—Late rains very beneficial to fruit crops; record apple crop anticipated.

Meringandan.—Rain almost daily; grass abundant, twelve inches high in places; very fair potato crop anticipated.

Further rains at Maytown 1·63 inches, Alice 2·05, and Morven 1·24 inches.

11th December—

Childers.—Splendid rains over a large area planted with maize; large return expected.

Esk.—District in splendid condition; grass from 3 to 6 inches high; 5 inches of rain during past week; 12 inches during past three months.

Barcaldine.—Cyclonic storm occurred, followed for two hours by grand showers; ground saturated; Lagoon Creek a banker.

Washaways at Palm-tree Creek Bridge, Peak Crossing (Dugandan line), and on Central line.

Maryborough.—Splendid rain, 5·20 inches recorded; nearly 10 inches during last week; rapid growth of grass.

12th December—

Further rain, heavy in places, recorded in south-east portion of State, and at scattered places in Central division.

Warwick.—Heavy storm; 72 points of rain fell in half-an-hour.

Brookville.—Cyclonic storm; rainfall estimated at 5 inches.

Thursday Island.—Public wells dry during last three weeks; small supplies obtained from the garrison tanks; little or no sign of rain; outlook serious.

13th December.—Longreach.—Feed fairly plentiful on selections to the south; but more rain required for grass around the town.

15th December—

St. George.—Country in splendid condition; best grass for some years.

Light to heavy rain recorded over eastern half of State.

Dalby.—Stock returned from coastal districts.

16th December—

Further welcome rains recorded over greater portion of eastern half of State, also at a few stations in the far south-west.

Mount Irving, Jondaryan.—Severe drought; twelve months, without rain; cattle and stock dying in large numbers.

Toowoomba Ness Bank.—“Big drought year. Total rainfall for year 21·13 inches; 4·59 inches fell during first three months, balance principally in November and December.”

1909.

24th February.—Continued dry weather caused apprehensions of drought on the Darling Downs.

1910.

May.—Pine Hill.—Country dry; bush fires in vicinity.

June.—Coen.—Bush fires numerous.

July.—Wyandotte reports “Large bush fires daily.”

August.—Bush fires reported from Musgrave, Comet, Sellheim, Reid River, and Hawkwood.

September.—Bush fires prevalent in the Peninsula, Carpentaria, and Central districts.

1911.

September.—Bush fires prevalent in Carpentaria, Central, North Coast, and Darling Downs districts.

October.—Bush fires prevalent in Carpentaria and Central districts.

22nd December.—Extensive bush fires in Crow's Nest district.

28th December.—Serious bush fires in many parts of the State.

1912.

21st January.—Prayers for rain offered in churches at Toowoomba.

January.—Tambo.—Season exceptionally hot and dry.

February.—Drought conditions at Chinchilla, Wondalli, and Texas Station.—Reports from last-named place state country as dry as in 1890 drought.

24th February.—Water famine at Mungallala water carted 50 miles.

March.—Droughty conditions still hold sway in the south-west and parts of central divisions. Grass and water scarce in eastern half of Warrego district.

17th April.—Charleville.—Owing to the local drought and consequent loss of sheep, Ambathala Station, the property of Cobb and Co. was shut down yesterday and the shearers paid off.

April.—Stanthorpe.—The month closed without the registration of a single point of rain; tanks in the town almost empty; vegetable crops affected by the dry weather. Only 70 points of rain fell in April of last year, but during the preceding three months of that year some 15 inches were recorded.

April.—Cunnamulla.—Numbers of stock sent eastward on account of drought.

18th May.—St. George.—Prolonged dry conditions in district; stock-owners anxious. The upper part of the Moonie district very good, but the lower part from Nindy Gully downwards is in bad condition.

20th May.—Great anxiety felt in country districts owing to the dry weather.

28th May.—Charleville.—Large numbers of stock sent to relief country. Country beyond the Bulloo River in good condition, and feed plentiful for a few miles around Augathella and Mungallala. On the Paroo River, out Boatman way, and in the Cunnamulla district, however, drought conditions prevail, and no feed but mulga scrub available for stock.

30th May.—Inglewood.—Drought as severe as that of 1902. Weather intensely cold.

May.—Cunnamulla.—Exceptionally dry month; thousands of sheep sent to agistment country.

May.—Thargomindah.—Continued drought; feed and water very scarce.

4th June.—Charleville.—For the last 12 months only 594 points of rain were recorded, whilst for the first five months of this year (including the rainy months of January, February, and March) only 135 points fell. Cartage of goods delayed through scarcity of water along the routes.

7th June.—Welcome showers of rain, after prolonged drought, reported from several places in the country.

8th, 9th and 10th June.—Prolonged dry spell completely broken up; heavy rain experienced almost throughout the State; floods and washaways reported, especially from the central districts.

21st October.—The spell of dry weather in south-western Queensland broken by thunder rain.

November.—Reports from the Peninsula and Upper Carpentaria stated that grass was very scarce, and the outlook bad.

December.—Blackall.—Very dry; no grass; considerable losses of stock; very little water in river.

1913.

29th September.—Innisfail.—Water sold at 3s. per 100 gallons. Summary for 1913.—Supplied by the Divisional Officer, Weather Bureau, Brisbane.)—The latter half of the normal wet season was unusually dry, but, as in the previous year, tropical influences prevailed in June and caused splendid rain over the greater part of the State. Only temporary relief was, however, afforded, and droughty conditions were experienced throughout until the middle of September, when the south-eastern quarter received general and very beneficial rain, which dissipated all anxiety as to the success of the wheat crops. The intense heat which set in in November, together with the fact that the usual November thunderstorms were almost entirely absent, gave rise to serious apprehensions of a drought on every hand, but after the first week of December, normal tropical influences set in, with the result that all parts of the State in turn received welcome rain.

EARTHQUAKES.

1866.

29th December.—Somerset (extract from Dr. Haran's reports). "During cool and pleasant weather a slight shock of earthquake of a few seconds duration was felt at two different parts of the settlement, and at the cattle station nearly three miles distant, at or about 2 o'clock, p.m., and as the motion was distinctly felt and similarly described by several persons, there can be no

reason to doubt its occurrence; although it so happened that neither I nor another officer walking with me at the time felt any unusual motion."

1872.

30th March.—A slight shock of earthquake felt in the Burnett district. The vibration lasted about 10 seconds.

1875.

17th September.—Shocks of earthquake felt at Toowoomba and Gatton.

1877

27th February.—Shock of earthquake felt at Brisbane and in several parts of the colony.

1883.

29th August.—Severe shock of earthquake felt over a considerable portion of southern Queensland.

1894.

16th July.—Georgetown.—A distinct shock of earthquake occurred at 10.45 p.m., which appeared to travel in about an E.N.E. direction. A heavy vibration which shook all buildings was experienced, and the shock was followed by a long-continued rumbling noise like distant thunder.

1897.

16th June.—Croombit (5 miles from Cania, Gladstone District).—A shock of earthquake was felt just before sunrise, accompanied by a noise like two heavily-charged blasts exploding, one after the other, at a great depth below the surface of the ground. The ground trembled, and the furniture in some of the houses moved. The motion appeared to come from the west. About ten minutes later a rumbling noise, like thunder far away to the eastward, was heard.

1900.

9th May.—Shock of earthquake at Townsville.

1901.

27th June.—Slight shock of earthquake reported from Cardwell, Halifax, Ingham, and Mungalla (13 miles from Ingham).

1907.

11th June.—Thursday Island.—Two slight earth tremors experienced, one of which was accompanied by a deep rumbling noise.

27th June.—Thursday Island.—A sharp earth shock occurred during night, and was followed by others less severe; no damage done.

8th November (about).—*Sydney Morning Herald*, 8th November, 1907.—"Thursday Island.—Earth tremors have been frequent here during the last fortnight, but no further serious shocks have been felt."

10th November.—*Sydney Daily Telegraph*, 12th November 1907.—Brisbane. Monday.—A telegram from Thursday Island states that a further severe earthquake shock was experienced shortly before 12 o'clock on Sunday night last (10th), which caused consternation throughout the island. The original shock lasted about twelve seconds, and was followed by eight slighter tremors at intervals until daylight. No damage was done, but the subterranean explosions and rumblings demoralised the community. The residents in the Japanese quarter were greatly excited, and many declared their intention of leaving the island. Information from Goode Island states that the lighthouse, which was slightly injured by the last shock, shows no further signs of damage.

1908.

1st January.—Thursday Island.—Light earthquake shock at 9.40 p.m.

16th February.—Thursday Island.—Earth shock at 7.30 a.m.

18th February.—Thursday Island.—Earth shock at 10.30 a.m.

28th February.—Thursday Island.—Light earth shock.

February.—Thursday Island Residency.—Earth tremors or shocks of uncertain and varying force or strength have been of frequent occurrence the last four months.

March.—Earthquake shocks at Thursday Island on 1st, 6th, and 26th.

1909.

3rd January.—Thursday Island.—A sharp shock of earthquake occurred at 9.15 p.m.

1912.

7th December.—Gladstone.—Light earthquake tremor experienced at 5 a.m.

25th December.—Cape York.—At 2 a.m. a meteor passed from south to north-east; followed by earth tremor, rumbling noise, and an explosion.

1913.

24th September.—Buna Bay, Papua.—The following note was supplied by Mr. A. E. Oelrichs, Meteorological Observer at Buna Bay, on the north coast of Papua:—

“A severe earthquake took place on Wednesday, the 24th September, 1913, at 1.13 p.m. (local mean time). There were two distinct shocks, and the second occurred immediately after the first. The Parade ground was cracked all over in irregular lines, not so badly as it would have been had the ground been solid, as the sand fell back again, but the cracks were undoubtedly caused by the shocks. The natives inform me that about 18 years ago (date obtained from Mr. Oates, who remembers it, down the coast) there was a very similar shock, and that a tidal wave came along immediately after it and went into the bush as far as Dobodura (8 miles). As the water receded again, thousands of fish were deposited on the ground. There were also very large cracks in the ground on that occasion. The natives here were very frightened this time, and came to me to inquire whether I thought it was safe to stay in the village, and I advised them to remain. There was another shock at 4.41 p.m., only very slight.”

18th December.—Charters Towers.—Earth tremor experienced at Charters Towers, and at other places in the East-central Coast District.

FLOODS.

1841.

17th January.—Highest flood on record, occurred at Brisbane and Ipswich. *30 7' Brisbane. Ipswich 70'.*

1844.

10th January.—Heavy floods at Ipswich.

1845.

17th December.—Flood at Ipswich.

1852.

11th April.—Heavy floods at Brisbane and Ipswich.

1857.

19th and 20th May.—Great floods at Ipswich and Brisbane; river at Ipswich rose 45 feet, and at Brisbane 12 feet.

May.—A correspondent of the *Brisbane Courier* furnished the following information on 29th June, 1907, regarding the flood in the Brisbane River during May, 1857:—

“The flood of 1857 was the result of eight weeks' continuous, but not heavy, rain. There had been a strong fresh in the river for several weeks, and during a portion of this time all vehicular traffic between North and South Brisbane was suspended, as the horse-punt at Russell-street was unable to cross on account of the strong current. At Ipswich the river rose 45 feet, and waterside stores were submerged to the roof; in the Brisbane reaches, however, the flood waters did not rise more than 7 feet above ordinary springs. Rowing boats were plying in Margaret, Mary, and Charlotte streets, but except near Edward and George streets there were few houses in the streets named. There were only a couple of houses in Albert-street between Charlotte and Alice streets, and the whole of the low-lying ground from Elizabeth-street to the river was a muddy lake. At South Brisbane one could stand on a hill at Cordelia-street near Boundary-street and see an unbroken sheet of water stretching from Melbourne-street to Tribune-street. Stanley-street was submerged from Walmsley-street to within 100 yards of the present dry dock. A good deal of the land at Hill-end was submerged, as was also the land on the opposite side of the river, now known as St. Lucia, and which was then a dense vine scrub. Most of the scrub lands at Oxley were also under water, as was Montague-road from Stanley-street to the present West-end Reserve.”

Extract from *Brisbane Courier*, 13th June, 1857—

“We have been informed that the head station of Mr. F. North and the public house belonging to Mr. J. Smith at Wivenhoe, on the Upper Brisbane, were completely inundated during the recent flood, and people were compelled to take refuge in tents. The people at Balfour station were also washed out.”

1858.

7th October.—Flood at Ipswich.

1862.

29th March to 1st April—

Heavy rain at Gladstone. The Calliope and Boyne Rivers rose exceedingly high and flooded a large portion of the district. Several farmers compelled to leave their head stations and seek shelter as best they could. Great numbers of sheep swept away, and a man lost his life whilst attempting to swim across a creek.

Maryborough.—Very heavy rains in Wide Bay and Burnett districts. The Gayndah mail a week behind time in consequence of a flood in the Barambah.

Rockhampton.—Heavy rain commenced on 29th and continued until the night of 31st, when the storm increased. On the morning of 1st April the river reached its highest level, not less than 20 feet above the highest spring tides.

Reports on the 31st stated that 2,000 sheep had been drowned about a mile from the town, and that the back country was under water for miles.

The Messrs. Archer sailed 7 miles from their head station at Gracemere to within a short distance of the town. The new saw-mill was covered. The water extended from the town as far as the eye could reach, and actually communicated with the Yeppen Yeppen, which rose 18 feet. The wharves and boat sheds were covered, but appeared to suffer no material damage.

5th April—

Yaamba.—An unprecedented flood in the Fitzroy; highest water level reached by river so far at this township. Some of the farms recently laid out near Alligator Creek were about 2 fathoms under water. Traffic at a standstill.

The Calliope and Boyne Rivers in the Port Curtis District overflowed their banks in consequence of the heavy rains, and inundated a large extent of country. One man lost his life while attempting to swim a swollen creek; much damage was done, several hundreds of sheep being washed away.

21st April—

Rockhampton.—Fresh in the river caused by the late heavy rains considerably decreased, and river almost at its ordinary level.

The Nogoia, Mackenzie, Comet, Isaacs, and the Connors Rivers rose slightly, but the lower part of the Dawson was very high. The whole of the country between Rannes and the River Dee—a distance of 14 miles—was flooded, whilst at the township of Rannes the rise in the river was about 40 feet. In the vicinity of Knebsworth the Dawson rose 30 feet above its usual height.

The Upper Dawson was not flooded, though heavy rains fell in the locality.

The rise was very rapid at Yaamba, and the river reached its greatest height, which was within 6 feet of the level of the township about twelve hours earlier than at Rockhampton.

26th June.—Ipswich.—The late rains caused a considerable rise in the Bremer, and all traffic was carried by punts.

1st July.—Dalby.—Owing to heavy rainfall about Warwick, the Condamine rose about 10 feet; passage of drays blocked.

1863.

16th January.—Heavy flood on the Fitzroy River.

24th January.—Severe floods on the Fitzroy River.

26th January.—Ipswich.—Brisbane River bank high (*see* Rainfall (Heavy)).

30th January.—Ipswich.—Bremer River still rising, and the Brisbane a banker.

2nd February.—Ipswich.—Bremer rapidly falling. At the height of the flood a shed on the river bank was about 15 feet under water.

7th February (about).—Dalby.—Condamine River bank high.

9th to 19th February.—Maryborough.—Heavy storms of wind and rain; Mary River a great height, wharves submerged; steamers compelled to anchor in mid-stream; Union Saw-mills flooded on the 13th; boats employed to remove resident families from lower part of ground; scrub road to the farms at the south east of the town impassable.

11th February.—Ellangowan, near Toowoomba.—The Condamine River swollen; highest level for years.

15th and 16th February.—Severe floods at Brisbane, Ipswich, and places elsewhere.

17th February—

Brisbane.—Great deal of damage done by floods; road to Ipswich impassable; Oxley Creek residents flooded out; hundreds of acres of land under water; machinery at the mill affected, work stopped; Frog's Hollow under water; telegraphic communication with Sydney interrupted. River 40 feet above ordinary level.

Taroom.—Plenty of rain in the district; Dawson River flooded, and for some days impassable at the township; bridge under water. A few hundred sheep lost through flood.

18th to 20th February.—Ipswich.—Heavy rain fell incessantly from the 12th until the 15th, and caused the highest flood, except that of 1841, on record. Stores along the wharves swept away; roads and creeks impassable; ferry house and several small buildings on the banks of gullies and other low-lying positions inundated; creek at One-mile Bridge a roaring torrent, telegraph posts submerged; Rosewood township partly under water; Nelson Plains one sheet of water.

19th February.—Floods throughout the country; fearful gales on coast.

20th and 21st February.—Toowoomba.—One of the most violent storms of wind and rain experienced occurred. Heavy and continuous rain; streets almost impassable; creeks unfordable. The greater portion of the lowlands between Laidley and Ipswich one sea of water; Dalby mail delayed.

Warwick.—One of the most disastrous floods ever experienced in the district occurred. On the night of the 20th a fearful storm caused much damage. The Condamine rose and flooded the flats; Rosenthal Creek in flood; wash-pools and bridges destroyed; 4 feet of water around telegraph posts at the Warwick Post Office.

26th February.—Surat.—Floods on the Dogwood Creek; great losses.

27th February—

Ipswich.—Macintyre River unfordable; it rose a few feet during the week.

Gayndah.—Great rain and wind storms. Burnett River in flood, 40 feet above ordinary level; highest flood in the district for six years. A number of sheep drowned; garden produce, domestic utensils, &c., washed away.

Condamine.—Heavy rain lately; river a banker, highest level reached for years.

27th February (about).—Leyburn.—Abundance of rain; Condamine River for some days several feet above the bridge at Ellangowan. Great number of sheep swept away by the flood. At Yandilla the residents were compelled to climb trees to escape the flood waters.

4th March.—Peak Downs.—Country flooded; roads impassable; provisions scarce.

9th March.—Gayndah.—It was reported that one of the up country stations lost 2,000 sheep, and several others lesser numbers during the late storm and flood.

16th March.—Maryborough.—Some persons injured whilst attempting to cross flooded rivers; roads in very bad state; mails delayed.

17th March.—Flood in Queen-street, Brisbane; very heavy fall of rain; shops and dwelling-houses flooded. (*See* Rainfall (Heavy)).

28th March.—McIntyre River.—Long continued spell of wet weather; floods experienced on all the rivers to the westward.

13th April.—Gayndah.—Burnett River impassable for last two months.

23rd April.—Brisbane.—The late rain caused floods over the low-lying ground at Milton and in Fortitude Valley.

25th April.—Ipswich.—Bremer River rose 15 feet; water within a few inches of the One-mile bridge; rain ceased; no further rise.

20th June.—Goondiwindi.—Heavy rains; roads almost navigable; river swollen; mails delayed.

6th to 9th July.—Warwick.—Highest flood known for many years in the McIntyre Brook occurred; the water rose to a great height in the neighbourhood of Pike's Creek.

10th October.—Goondiwindi.—Roads on many occasions during past nine months covered with water, generally about knee deep; rivers impassable.

13th October.—Talgai.—Floods; bridge at the Condamine submerged.

3rd December.—Ipswich.—Continuous rain; flood at Three-Mile bridge; western road impassable.

16th December.—Peak Downs Diggings.—Copious rains; Belyando River a banker; Mackenzie high; Fitzroy (at Yaamba) swollen.

1864.

3rd to 10th February.—Goondiwindi.—Rain poured down incessantly. The river rose, overflowed its narrow limits, rushed down the streets, and flooded the houses. It remained at its height for two days, then slowly abated.

5th February.—Ipswich.—Owing to heavy rains communication with the interior cut off and the Warwick mailman forced to return to Ipswich; creek at Fassifern bank and bank; Bremer River rising rapidly.

8th February (from *Courier* files, 8th to 13th February, 1864).—“The weather has been very tempestuous and rainy during the early part of the week, and the Bremer and Brisbane Rivers rose above their usual flood-tide levels. Very slight inconvenience

was felt in Brisbane from the overflow, the proprietors of warehouses on the waterside having taken timely precautions to prevent damage to property by removing their goods. At Ipswich, however, the ferry house was submerged, and the gauging shed was considerably damaged, and several of the wharves were flooded. Steam traffic between the two towns was temporarily suspended. Man drowned whilst attempting to cross the river at Ipswich."

18th February.—Rockhampton.—River within a few feet of the summit of the second bank; low-lying huts, boathouses, and other buildings submerged. Portion of the low-lying land below Crocodile Creek flooded. Country reports indicate a general rise in rivers and creeks. Two deaths by drowning chronicled.

20th February.—Heavy floods throughout colony.

23rd February.—Leyburn.—Flood—one of the heaviest experienced for some years; low lands of the Downs in many places several feet under water; mails delayed for days; roads impassable; 300 sheep carried away by the flood.

4th to 10th March.—Lower Condamine.—Steady and continuous rain; creeks flooded.

6th March.—Maryborough.—Great quantities of rain during past fortnight; impossible for teams to cross creeks.

8th March.—Floods at Toowoomba (from *Courier* files 15th to 18th March, 1864).—"The rain increased on Tuesday, 8th March, and its effect was speedily apparent in the great body of water that passed down the western swamp at the foot of James-street. The flood in the evening was within 12 inches of the roadway over the Premier bridge in Russell-street, or 2 feet higher than the highest flood level previously known. The streets are, in many parts, 6 to 8 inches deep in mud and slush. . . ."

9th March (from *Courier* files, 15th to 18th March, 1864).—The *Rockhampton Bulletin* of 10th inst. says— . . . The Fitzroy again exhibits signs of an approaching flood—last night the wharves were submerged 3 or 4 feet, and the waters were rising rapidly. (*See Rainfall (Heavy)*)

12th March.—West Maranoa.—The heaviest rains ever seen in the district, by either blacks or whites, occurred about the beginning of the month. Rain commenced on the 26th February and continued for thirteen days and nights, except for occasional breaks of an hour or so. One spell of rain lasted for 48 hours without a break. Creeks and rivers swollen; roads quite impassable. Continuous rain also fell between 2nd and 14th February, which caused record floods on the Maranoa and Balonne; and this later rain was expected to cause floods of even more severe nature.

16th March.—Brown River.—Higher floods in the Dawson, Mimosa, and Brown Rivers than ever known before; Dawson 11 feet higher than previous flood.

17th to 19th March—

Flood and gale at Brisbane and Ipswich (from the *Courier* files, 19th to 22nd March, 1864).—Very seldom indeed is the neighbourhood of Brisbane visited by a gale of wind of so lengthy a duration and of so violent a character as that which commenced on Thursday night last (17th March) and terminated on Saturday. It was throughout accompanied by heavy and continuous rains, which beat into the windows of the best-protected houses, and did a great deal of damage generally. Between the hours of 9 a.m. on Friday until 9 a.m. on Saturday no less than 6·72 inches of rain fell; and in such a manner as to defy every effort made to subvert its penetrating power. Out of doors umbrellas were useless, and indoors the rain made its way under eaves through crevices in shingles—in fact, it came in in every conceivable way. On Saturday night the river began to rise, and it was evident that a flood was impending. The telegraph posts at the One-mile Creek Bridge, Ipswich, which had been raised 20 feet higher than they were at the flood of 1863, were swept away, although they had been let into the ground to a depth of 9 feet and supported by struts. The water at Brisbane rose throughout the whole of Sunday, and at 4 o'clock in the afternoon Albert-street, from Alice-street to Charlotte-

street, was impassable, and many of the residents of Frog's Hollow had to abandon their tenements. Raff's Wharf was 5 feet under water, as also were Harris's, Forrests', and Towns'. The water went up Russell-street as far as Mr. Kinchela's store. At the 3 miles scrub the water rose 25 feet above the ordinary level. At Milton much damage was done, and the whole of the cemeteries were under water. (*See Windstorms.*)

Gayndah.—After a brief cessation, rain again set in; continuous rain from evening of the 17th until the morning of the 18th. The river rose; communication between the town and the mountain cut off, except by boat. The Barambah Creek rose 40 feet, and at Nanango it was higher than on any previous occasion within the memory of the residents.

17th March (about).—Leyburn.—Heavy rain again set in; Condamine River and the creeks again flooded; plains near Ellangowan entirely under water; heavy rain at Callandoon.

18th and 19th March.—Toowoomba.—Heavy rains for some weeks past. At 10 p.m. on the 18th the river commenced to rise at the rate of 3 feet an hour, and families settled on the premises of the Union Sawmills were taken off in boats. On the 19th several houses began to float, and farms adjacent to the town were flooded. The flood rose 2 feet higher than that of 1857 and reached nearly to the eaves of a shipping store 25 feet above the level of the wharf. Bridge in Kent-street covered by water to a depth of 1 foot or more.

18th to 20th March.—Maryborough.—Terrific storm of wind and rain. The water rose rapidly and reached a height of 8 feet over the watermark of last year. Much damage to buildings, &c.; greatest flood in district since the first white settlement.

19th March.—Warwick.—The Condamine at Warwick rose 20 feet. The whole of that part of the town called "The Flat" under water, and the people forced to remove elsewhere. Great devastation occasioned.

19th to 22nd March—

From the *Courier* files from 19th to 22nd March, 1864.—Deluge at Dalby.—"Our Dalby correspondent reports a perfect deluge in the Dalby district. The Condamine River and Canal and Thaw Creeks are in flood, and for several days communication between the eastern and western portions of the town has been cut off, whilst the principal street has been converted into a canal. . . ."

From the *Courier* files from 23rd to 30th March, 1864.—Flood damage at Oxley Creek.—A large amount of property has been destroyed at Oxley Creek by the late floods. All the farmers on the Brisbane side of the creek were compelled to leave their houses, and camp on the high ground in the neighbourhood of Cooper's Plains. On the opposite side very few were driven out. M'Donald's Hotel was submerged to the eaves, and a sheet of water extended from the new sawmills, situated near the junction of the creek with the river, to the high land at the back of Cooper's Plains, a distance of nearly 7 miles. River rose 18 feet above the level reached during the flood that occurred about a fortnight ago, and 10 feet above that of the flood of March, 1863.

From the *Courier* files from 4th to 9th April, 1864.—Details of the floods in the west given. The Moonie and Balonne joined and formed a sheet of water over 25 miles wide. At one place fifteen horses stood for nine days in the water; nine of them died, and the six survivors had their tails and manes eaten off. Mr. Beck, of Canmaroo, lost 250 rams, and Mrs. Browne, of Southwood, lost 1,500 out of 1,800 sheep. It was reported that four men were drowned on the lower part of the Moonie.

21st March.—Knebsworth.—At least 70 or 80 feet of water in the river; nearly all the town flooded.

23rd March—

Brisbane.—The greatest amount of damage by the recent floods occurred at South Brisbane, Frog's Hollow, and Fortitude Valley. For many miles along the banks of the river farmers were flooded out, and crops, furniture, and in some cases their habitations, swept away. Stone jetty at Cleveland completely swept away during a gale on the 18th.

Ipswich.—Ipswich surrounded by impassable rivers and creeks ; immense damage caused. At Gatton the creek rose 15 feet higher than ever known before.

24th March.—Dalby.—Fearful floods. Old residents stated that the Condamine was 7 feet higher than on any previous occasion. Losses among sheep very heavy ; embankments of a bridge at Myall Creek washed away.

26th March.—Rockhampton.—River commenced to fall. The mailman who left Brown River (Comet district) on the 19th brought news as follows:—Unable to reach Springsure ; Brown River three-quarters of a mile wide ; flood at Knebsworth (Dawson River) 12 feet higher than on any previous occasion.

29th March.—Yandilla.—Country for 6 miles around Yandilla under water for last three weeks ; from the head station to Connor's, a distance of 16 miles, the entire surface of the country was from 2 to 4 feet under water.

31st March—

Toowoomba.—Incessant rains, which fell at times in torrents. Roads in a most dreadful condition ; bridges swept away ; serious losses sustained by all classes. Goondiwindi, Condamine, and Dawson mails eighteen days overdue. Eye-witnesses declared the Condamine to be 2 miles wide in places.

Maryborough.—Roads fearfully cut up by floods ; some of the streets of the town impassable ; bridge on the road to the scrub farm carried away, and access to the farm by horse or dray impossible.

Rockhampton.—Floods subsided. Considerable damage done to wharfs and approaches to the river. The level reached by the river in February was 6 inches lower than that attained by the February flood of 1859 ; but this recent flood was 2 feet higher than any yet experienced.

March.—Upper Warrego.—Floods ; roads impassable.

2nd April.—Brisbane.—Two hundred teams stuck up on the road between Ipswich and Toowoomba. Highways throughout interior in impassable state after heavy rains ; distressing accounts of destruction received from the northern and interior districts ; several lives lost.

4th April.—Condamine.—Loss of property on Maranoa tremendous ; Mr. Tooth's station at Maryvale swept away ; several people lost all their sheep.

9th April.—Brisbane.—Accounts from the distant interior were to the effect that the floods extended to the furthest limits of settlement. On the Moonie River a considerable loss of stock and other property was caused by unusual rise and spread of the waters beyond all former limits.

5th May.—Toowoomba.—Mr. S. Heyland stated that the whole of his premises (Callone Stores) at Balonne River were swept away by the late flood. He said, "There have been great floods down here. We had no mails for seven weeks. The water came down in the night ; before daylight it was in the house, and before sundown it was 12 feet over it."

5th to 10th August.—Ipswich.—Heavy and almost continuous rain ; river rose ; wharfs many feet under water ; One-mile bridge impassable ; rifle butts under water.

1865.

9th June—

Brisbane.—The recent rains were not confined to the Brisbane district, but extended generally over the colony.

The Auburn River (at Auburn?) rose 22 feet during the night, or nearly 2 feet per hour.

17th June.—Gayndah.—Mails to Dalby, Taroom, Nanango, and Walla were brought back by mailman ; creeks in each direction in high flood after recent rains.

19th September.—Gayndah.—The Burnett on 18th a mere mill stream, but on 19th it was a wide river. The creek at Baramba rose 30 feet, and the water was, at one time, 15 feet over the low-water bridge. The stonework at the ends of the bridge was much

damaged, and the approaches on both sides were completely torn up by the water. The Burnett quickly fell again to its summer level.

22nd September.—Brisbane.—Some damage done to the dam in course of erection at the Enoggera Creek waterworks by a heavy fall of rain.

1866.

27th January.—Bowen.—Roads impassable ; rivers high, teams unable to cross.

27th October.—A terrific storm occurred at Brisbane ; town flooded and some buildings unroofed.

28th November.—Cleveland Bay.—The Upper Burdekin rose 2 or 3 feet in consequence of the heavy fall of rain.

10th to 12th December.—Brisbane.—Almost incessant rain since 2 a.m. on the 10th inst. ; creeks and water-courses overflowed ; lower parts of South Brisbane flooded to a considerable extent ; A.S.N. Co.'s wharf covered ; a foot of water in the shed. Total rainfall from 2 a.m. Sunday, 9th, to 9 p.m. Wednesday, 12th, 5.75 inches. At 9 a.m. on 11th inst. the water was within 3 feet of the by-wash at Enoggera Reservoir, and rising at the rate of 4 inches per hour. At 1.30 a.m., 12th, the depth of the overflow was 9 inches. By 5 p.m., the 11th, all the wharfs at Ipswich on the southern bank were several feet under water, while there were 3 or 4 feet of water in the sheds ; water almost level with the top of the Railway wharf at North Ipswich, and about 10 feet above its ordinary level at high water.

11th December.—Tremendous storm at The Kogan, about 35 miles north-west of Dalby ; rain fell in torrents ; roads covered with water ; creeks impassable ; Condamine River within 6 inches of the underside of bridge.

1867.

1st February—

Brisbane.—The recent heavy rain caused floods on low and excavated land and basement floors of buildings in several portions of the town.

Ipswich.—At about 12.30 p.m. the Bremer River had risen 20 feet at the Ipswich wharfs, and was still rising ; the One-mile Creek bridge at Little Ipswich was submerged ; the railway at Walloon flooded, and traffic suspended. The embankments upon the line, 4 miles from Gatton, were washed away. A man and a team of horses were drowned while trying to cross the creek at Helidon.

2nd February.—Serious floods at Brisbane, Ipswich, and in parts of the country.

10th April.—Taroom.—Dawson River flooded.

21st April.—Severe flood and gale at Brisbane and Ipswich ; loss of life occurred ; houses unroofed ; damage done to new Victoria Bridge works.

26th to 28th April.—Brisbane.—During the most of the week ending 27th April, the weather was very unsettled, and on Friday, the 26th, rain commenced to fall steadily, and continued with but little intermission all day on Saturday. Soon after midnight on Saturday the rain, which had been falling in heavy showers accompanied by squalls of wind, commenced to descend in torrents. The wind also increased in violence, and the storm raged furiously until about 2.30, when there was a temporary lull. Shortly before 4 o'clock the gale again increased, but gradually subsided, though the rain continued to fall incessantly until daylight. In consequence of this heavy rain the river rose, and never within the last twenty years have the indications of a flood shown themselves within so short a period. The river at high water on Sunday was on a level with the highest spring tides, although the present are dead neaps. Between 8 and 9 o'clock at night, which would have been about half ebb, the water had fallen 2 feet. The two lowest wharfs in the town were covered. A strong current was running down the river all Sunday, carrying with it large quantities of drift timber in single logs and rafts as well as other *débris*, evidently washed off the banks of the river.

The railway line between Gatton and Wallon was submerged. Many of the dwelling houses situated in the lower parts of Brisbane were flooded. Fences were blown down in all directions, windows smashed, roofs damaged, verandahs carried away, and trees blown out of the ground.

The following interesting meteorological facts in connexion with the gale were supplied to the press by the Rev. J. Bliss, the Government Meteorologist:—

“A gale of very unusual intensity visited the neighbourhood of Brisbane on the night between Saturday and Sunday, but from the observations taken at the time there is reason to think that only the outskirts of the storm reached us. The wind appeared to come from a little north of east, but the darkness was so thick that it was impossible to see the vane, and therefore the direction can only be guessed at. The following is the record of the barometer reduced to 32° Fahr. and to the sea-level:—

Saturday, at 9 a.m., 29·893; 3 p.m., 29·740; 9 p.m., 29·708.

Sunday, at 1.30 a.m., 29·414; 3.30 a.m., 29·334; 9 a.m., 29·578.

It will be seen that the barometer on Saturday, at 9 a.m. was low; but at 3 p.m. only a little lower than might have been expected; but the reading at 9 p.m. clearly indicated the vicinity of bad weather, and on Sunday morning, from 3 to 6, it was blowing a strong gale. The actual force of the wind as experienced here would hardly account for the low reading of the barometer at 3.30 a.m., which is the lowest on record since 4th December, 1863. At this time the gale was at its height, but shortly after that hour it began to moderate, and the barometer slowly to rise. The rainfall has been as follows:—

	9 a.m.	3 p.m.	9 p.m.	Total.
Saturday, 27th	0·24	2·65	0·60	3·49
Sunday, 28th	1·55	0·00	0·18	1·73
				5·22”

At Breakfast Creek many trees were uprooted, and two horses were killed by trees falling on them. One of the most curious effects of the wind on Saturday night was the destruction of a small wooden cottage situated in a gully near the oyal. During the night, while the occupants were in bed, the wind lifted the house bodily from its foundation, leaving the floor intact, and carried it to a distance of 8 or 10 yards.

When the steamer *Brisbane* left Ipswich at 9.30 a.m. on Monday the water was fully 30 feet above the level of the ordinary high tide. The water was at its highest about 2 o'clock on Sunday afternoon, when it was 10 feet higher than at the time the steamer left. In spite of the exertions of the men employed to clear the bridge of the accumulation of drift timber that collected on Sunday, they were unable to remove the logs and rubbish as fast as they drifted down the river. The mass of timber increased in size, and the immense pressure occasioned by it caused the piles to yield. About 6.30 p.m. the two narrow bays on the north side of the wide one left for the passage of the river steamers gave way with a tremendous crash. The piles were broken off, and the planking fell into the river, leaving a gap of about 70 feet. No further damage took place until past 10 o'clock, when the whole of the remainder on the north side of the gap, with the exception of about 30 feet from the abutment, was carried away. Fortunately no accident to life occurred.

1868.

22nd January—

Floods throughout the country, especially the southern parts.

Ipswich.—Bremer rose 9 feet; wharves submerged; flood anticipated.

23rd January.—Ipswich.—Floods subsiding, weather clearing up.

25th January.—Dalby.—Roads on the black soil plains almost impassable owing to the rains. Flood water from the Bunya Mountains coming down, and creek rising.

12th to 15th February.—Rockhampton.—Freshest in river during last three days. At Yaamba on 12th inst. the river was 4 feet higher than any water mark made last year, and on the 14th it rose higher still. Eighteen-mile Island submerged; Alligator, Lion, Ten-mile and Deep Creeks all in flood. At high tide on 14th Queen's wharf was more than 2 feet under water.

14th February.—Rockhampton.—The Fitzroy rose 9 feet, and still rising; the Dawson bank high.

18th February.—Maryborough.—River 50 feet higher than during the dry season; roads in very bad condition.

19th February.—Taroom.—River in flood; greatest height reached since the great flood of 1864.

24th February.—Rockhampton.—Mails between Rockhampton and Clermont detained by floods.

25th February—

Ruthven.—Creeks all bank high, and plains almost under water.

Maryborough.—River 50 feet above ordinary level.

2nd March.—Rolleston.—Rivers and creeks bank and bank for several days; large trees uprooted and carried down stream; low lands covered with water for miles. On 31st ult. the Comet River was 16 feet above the bridge.

30th March.—Burketown.—Very high floods on Albert and Leichardt; the latter rose 50 feet in 24 hours. The township of Chandos, was completely submerged.

5th April.—Heavy floods reported on Flinders River; losses of sheep on several stations.

27th April—

Ipswich.—Heavy rains. Slight fresh in the Bremer last week, and on 27th the river continued to rise with great rapidity. Shortly after noon it was flush with the wharves, and towards evening there were several feet of water in the sheds. The railway line was also damaged.

Warwick.—Creeks much swollen, and roads in very bad state.

4th May.—Goondiwindi.—Unceasing heavy rain—flood succeeding flood; mails held up; grass most luxuriant.

6th May.—Rain fell for nearly 50 consecutive hours over the country at the head of the Clarence River, which rose from 20 to 30 feet above the usual level.

24th June.—Jimna Creek Diggings.—Mary River and creeks swollen.

29th June.—Taroom.—The recent rains flooded the Dawson.

1869.

13th March.—Gulf Country.—The following is an extract from a letter published in the *Cleveland Bay Express* of 13th March, referring to the condition of the Gulf Country:—“We have had fearfully heavy floods, higher by 4 feet 6 inches than ever before known to the station hands. Some stations were 4 feet under water, and nearly everything was swept away, whilst one man was drowned. Very heavy losses of sheep—one owner lost 3,000, another 2,000, and at Port Bowen 800 died. Some of the stations further down have been swept away, rations and all, but no loss of life reported.”

8th April.—Maryborough.—Rain almost daily since the 20th March; grassy flats transformed into lakes; river rising; roads very bad.

10th April—

Rockhampton.—Fitzroy rising steadily; wharves almost under water; Dawson and Mackenzie Rivers bankers; country traffic stopped.

Leyburn.—One of the greatest floods experienced in the district swamped the water-course known as Canal Creek in less than two hours; much damage done.

10th April (about)—

Goondiwindi.—The mailman from Mungindi reported that the Barwon was a sea; nothing seen like it for years.

Mary River.—No end of rain; country like a swamp. Man drowned while attempting to cross a creek near Tiaro.
21st April.—Goondiwindi.—Creeks flooded; mails delayed.

1870.

5th January—

Charleville.—The greater proportion of northern voters prevented from recording their votes in consequence of the heavy floods on the Warrego.

Warrego River not only a "banker," but overflowing at places; greatest height reached since the year of the great floods.

29th January to 2nd February.—Nebo.—Nebo Creek flooded and uncrossable; carriage of mails delayed.

31st January—

Brisbane.—Creeks between Brisbane and Gympie swollen. After the Glass House Mountain stage was reached the driver of the Gympie coach found it necessary to swim across the creeks with the mails.

Maryborough.—Heavy rainfall caused a fresh in the river. The Floating Bath was washed away and carried out to sea, together with a large quantity of pine logs.

Clermont.—At midnight a disastrous flood, caused by the overflowing of Sandy Creek, suddenly swept on Clermont, carrying away houses, furniture, and fences. In an hour there was nearly 5 feet of water over the town, and in some places the current flowed at the rate of 8 or 9 miles per hour. Some people took refuge in trees, and others on the tops of houses. By 9 a.m. the following day the water had, however, completely subsided. Nearly all the outbuildings in the town were swept away, and scarcely a rod of fencing left standing. The total amount of damage sustained was estimated at £10,000. Business was completely paralyzed. Five lives were lost at Peak Downs station and Capella, and four children were drowned at Lilyvale. On the Wolfgang Station from six to eight thousand sheep were lost; all the dams and miles of fencing were washed away. In all, fifteen lives were lost—six children, three women, and six men. The chief fall of rain was in the neighbourhood of Peak Range.

Rockhampton.—The following particulars with regard to the floods at Cawarral were furnished by one of two men who were camped in a humpy near the creek opposite the crushing machine. On the night of the 31st a body of water rushed in and washed them clean out of their bunks. Two humpies near the machine were carried away, the store was completely flooded, and the claims considerably damaged. The informant and his mate left Cawarral on the 2nd February but found Moore's Creek, at the time, impassable.

Mackay.—Floods in the river, but not to a serious extent.

1st to 7th February.—Heavy floods throughout Queensland. At Clermont the amount of damage done was estimated at nearly £15,000; several persons escaped drowning by climbing trees.

2nd February.—Rockhampton.—Heavy rains; greater portion of the country along the river flooded; wharves submerged; steam punt unable to ply between the north and south banks of the river; railway line damaged at Stanwell.

2nd to 4th February.—Rockhampton.—Wharves submerged on 2nd. Country all about Rockhampton under water for miles; Alligator Creek 2 miles wide, and half a mile of railway line under water. Most of Yaamba and the country around it under water; Bonnie Doon and other creeks impassable. Fitzroy River still rising; communication with the north suspended.

3rd February.—Gympie.—Water over the bridge at Deep Creek; mail for Brisbane delayed.

4th February—

Gympie.—Communication with Maryborough impossible owing to rise in Mary River; creeks between Gympie and Brisbane flooded.

Rockhampton.—Two hundred and eighty yards of Wiseman's Bridge carried away by flood waters; railway bank gave way in several places. Fitzroy River within 4 feet of the highest flood

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mark and still rising. In one direction only the tops of telegraph posts visible for the distance of a mile. Rainfall from the 29th January to the 3rd February amounted to 22.5 inches.

5th February.—Gainsford.—The Dawson commenced to fall, and in spite of the great height the water attained no damage was done; road traffic stopped; up-country mails delayed.

8th February.—Maryborough.—The Burrum in flood, and rose 22 feet above the level of the highwater mark of the spring tides.

26th February.—Bowen.—Country flooded for miles; river rose to a great height; flood worst experienced since settlement of the district. No communication with Townsville since 21st; telegraph line across the river Burdekin broken down for at least 31 chains, probably owing to heavy gale on night of 20th.

Collaroy.—Country flooded to a serious extent.

27th February.—Brisbane.—Owing to severe weather and floods in the Kennedy district, telegraphic communication suspended between Bowen, Cleveland Bay, and Cardwell.

2nd March.—Bowen.—Communication almost impossible; creeks and rivers flooded; telegraphic communication between Clermont and Nebo interrupted.

5th March.—Cape River Diggings (Bowen).—Great floods; half the houses submerged; nearly all claims on the Union and General Grant lines caved in; reefs almost abandoned. A large number of sheep lost at Leichhardt Downs, and much wool destroyed in neighbourhood of Burdekin.

7th to 11th March—

Brisbane.—Great rains.—On the 7th there was a fresh in the river; the Upper Brisbane showed signs of flood, the water being within a foot of top of breakwater. Much of low-lying country at Eagle Farm Flats was flooded and Breakfast Creek-road below the Waterloo Inn was covered to a depth of several inches.

On the 8th the river rose considerably, at 2 p.m. it was 6 feet above high water mark. At Enoggera Reservoir the water was 1 ft. 7 in. below bywash on the 5th, 9 inches above on 6th, and 4 ft. 10 in. above bywash on 11th.

All creeks in district flooded. The water covered Bowen Bridge and extended as far as foot of the hill beyond the hospital. At Caboolture on 8th the river rose 15 feet above ordinary high water-level. On the 9th the river at Ipswich was 20 feet above high water-level, and at Brisbane on the same date, from 3 to 4 feet deep on wharf and in wool pressing and produce stores. In Stanley-street, Town's Wharf was completely hidden by water which appeared to be half-way up posts on the wharf sheds. The Bremer at Ipswich subsided after reaching within a few feet of last great flood. See also Rainfall (Heavy).

10th March—

Goodna.—Flood waters surrounding the post office and still rising; wires submerged at the creek; Glengallan Creek very much flooded; Condamine still rising slowly.

Maryborough.—The greatest flood within the memory of the oldest inhabitant; effects disastrous in the extreme. Owing to very heavy rains on morning of 5th the river rose and continued to do so until the morning of the 8th, and was then 30 feet above low water-mark. The floating baths were lifted on to the bank and partially smashed by tremendous drift which came down the river. On the 6th, the *Mary Ann Eaton*, a small river steamer, was overturned and carried away to the ocean. Graham's Creek swollen into a broad river, and every other creek up and the country impassable.

12th March—

Mackay.—The Pioneer flooded; all crossing places on Nebo road impassable.

Oxley.—Fields along the banks of Oxley Creek partially devastated by floods.

14th March—

Maryborough.—River fell 12 feet, but again rose 6 inches owing to heavy rains on 13th; several houses swept away at Tiaro. A steamer from the Burnett arrived on the 13th and reported that she was driven out of river by flood on 8th. Heavy rain on 14th; river rose 4 feet.

Dalby.—Steady rain; the Condamine and creeks all flooded; railway dam burst; roads very bad.

Ipswich.—Incessant rain; river again rose considerably.

19th March.—Heavy floods in many parts of Queensland, particularly at Gympie.

8th April.—Gympie.—Heavy rains; Deep Creek Bridge flooded; 9th April—One-Mile Creek high.

9th April.—Mary River.—Heavy and frequent showers. The river rose on the 7th, and still rising; creeks swollen.

11th May.—Three men on the Flinders flooded out; they took refuge in trees and were cut off from help for eight weeks; two died.

30th May.—Mooloolah.—Long spell of rain; the local correspondent estimated that no less than 30 miles of plain country in the immediate neighbourhood was under water.

14th to 18th July.—Brisbane.—Heavy rains. On the 15th the Bremer rose at Ipswich until the water was 2 feet above the wharves. On the 16th the Bremer was 20 feet above ordinary level and still rising; only the roofs of the wharf sheds visible. On the 18th rain ceased; the Brisbane River was swollen considerably. On the 16th heavy rains occurred on the Burnett and Upper Dawson. At Gayndah the fall exceeded 1½ inches; at Hawkwood and Taroom it was over 1 inch.

15th July—

Gympie.—Rain incessant for twenty hours; river rose over 30 feet, and at one place it rose 1 foot in five minutes. One-mile township flooded; residents forced to move; 7½ inches of rain fell in the last 24 hours.

Townsville.—Disastrous flood on the Flinders; all traffic stopped; one station lost 4,000 sheep.

18th July—

Maryborough.—River flooded owing chiefly to heavy rains in interior. The flood reached its highest point on the 17th, when it was 15 feet above ordinary high water-level. Floating baths carried away.

Gympie.—One-mile township completely swamped; punts plying in the main streets of Gympie; river falling slowly.

21st July.—Mary River.—River slowly falling.

22nd July.—St. George.—Very wet weather during past fortnight; rivers bank and bank; roads a perfect bog.

23rd July.—Roma.—Country in flooded state; roads almost impassable; torrents of rain nightly; weather bitterly cold.

14th August—

Warwick.—Condamine bank and bank; Burnett's Bridge considerably under water.

22nd August—

Clifton.—During a storm the meat preserving establishment was flooded to a very unusual extent; water 4 to 5 feet above floor level.

Condamine.—Water 3 feet deep on bridge over the Condamine; current running strongly.

Inglewood.—Heavy rain; one of the greatest floods in the Macintyre for many years.

2nd November.—Drayton.—The recent floods did considerable damage to the growing crops, fruit trees, and fences.

16th November.—Townsville.—Very heavy rains; Burdekin River high; traffic stopped.

17th November.—Ipswich.—Perfect deluge of rain in the evening and during the greater part of the night; the Bremer rose almost to the top of the sheds at the company's wharf; One-mile Creek high.

17th and 18th November.—Brisbane.—Heavy rain on evening of 17th over the whole of southern portion of the colony; lower parts of the town flooded; creek overflowed its banks and flooded cellars of the houses in Queen-street. Rainfall for 24 hours ending 9 a.m. on 18th, 3·66 inches; heaviest fall since floods in early part of the year.

17th and 19th November.—Warwick.—Very heavy rain accompanied strong winds from the southward; the Condamine rose 4 feet above its usual level.

1871.

24th February.—Oxley.—Heaviest thunderstorm of the year; creeks and roads flooded.

28th February—

Rockhampton.—Lagoons in the neighbourhood 1 foot higher than during the flood last summer.

Clermont.—Creeks rose; many houses endangered.

Bowen.—Heavy rain; creeks and rivers flooded.

31st May.—Cleveland Bay.—Western Creek and Cloncurry roads impassable, owing to rainy season; business quiet.

1872.

17th January.—Normanton.—Heavy rains throughout district; rivers and creeks all flooded; whole of the country between Normanton and mouth of the Norman River under water. Mail services between Normanton and Townsville suspended.

18th January.—Georgetown.—The Gilbert and other rivers in vicinity flooded; down mail to Normanton unable to cross the Gilbert.

23rd January.—Normanton.—Still showery; country flooded.

25th January.—Georgetown.—Country all flooded; no mails.

26th January.—Floods continue. Country between Normanton, Carron Creek, and the shores of the Gulf under water for miles at a stretch. Telegraph Station at Carron Creek surrounded by a vast sheet of water. Since the first of the month more than 14½ inches of rain fell at Carron Creek; 4 inches fell at Norman Mouth on 25th inst.

30th January.—Normanton.—Rivers and creeks still running bank high, but floods considerably subsided.

1st February.—Townsville.—Wet season still continues; traffic seriously impeded, and in some directions entirely suspended.

2nd February.—Normanton.—Norman and Gilbert Rivers and Carron Creek much lower; Flinders and Bynoe Rivers still bank high; roads not yet fit for traffic; no mails.

4th to 6th February.—Dalby.—Heavy rains in district; creeks a banker; Condamine River high; country flooded from Daandine to Dalby; roads covered with water; man drowned whilst attempting to cross Daandine Creek.

5th February.—Several teamsters and a mailman were swamped 30 miles from Carron Creek, during the late heavy floods; several horses and bullocks drowned and many others lost.

24th February.—Rain abundant in Springsure district; Nogoia and Comet Rivers, also all creeks, flooded.

3rd December.—Heavy rains during last few days at Condamine; river 6 feet above bridge and rising; mail communication with Roma stopped in consequence of flooded state of creeks.

7th December—

Maryborough.—Flood in Burnett and other rivers; mails delayed in consequence.

Condamine.—Constant succession of thunderstorms since 26th November. On 3rd inst, the river rose to a very great extent, and communication by means of the bridge was quite cut off. The water continued to rise until Saturday, 7th, when it was fully 9 feet above the floor of the bridge; it then commenced to subside.

11th December.—Floods on the Burnett River.

13th December—

Floods in the north. New dam at Logan Downs washed away, entailing a loss of £500.

Rockhampton.—Strong fresh in Fitzroy River; Dawson also flooded.

16th December.—Stanthorpe.—Quart Pot Creek, Broadwater and Severn Rivers very high; great many dams on Sugar Loaf and other creeks washed away; whole of the claims on the Broadwater and Severn Rivers totally under water.

22nd December.—Bremer River rose rapidly; 3 feet of water in the A.S.N. Co.'s sheds at Ipswich in a few hours' time.

22nd and 24th December.—Severn River, Stanthorpe.—Heaviest rain ever experienced. The Severn rose more than 6 feet above height reached by previous highest flood.

25th December.—Tambo.—Heavy rains; Warrego and Ward Rivers flooded.

30th December.—Several of the cellars in Queen-street, Brisbane, flooded through the stoppage of the creek. Almost all rivers up country flooded during last week by heavy rains.

1873.

5th January.—Advices to 5th January state that the highest flood ever known exists in the Gilbert district.

24th January.—Northern rivers flooded.

25th January.—Heavy floods throughout the northern districts; all inland traffic suspended for several days.

6th February.—Houses at Normanton washed away by floods.

14th February.—Very heavy floods reported from Cardwell.

28th February.—The Bremer and other rivers much swollen owing to the continued rains; overflow at the Enoggera reservoir, about 14 inches above the by-wash.

1st March.—The Bremer rose to within a few inches of the A.S.N. Co.'s receiving shed at Ipswich.

17th to 19th June.—Heavy flood at Brisbane. At Ipswich one of the greatest floods experienced since 1864 occurred, and the Bremer rose 40 feet above ordinary level; eight persons and over 6,000 sheep drowned at Cecil Plains. Floods also general up country; great damage at places.

20th June.—Heavy losses through the recent floods reported from up country.

24th June.—The highest point reached by the flood at the port office in Brisbane was 3 feet 10 inches above the highest spring tides and 5 feet lower than the flood in 1864.

2nd December.—Great floods at Condamine and throughout the Western district; all traffic stopped.

18th December.—The Palmer River flooded; much difficulty experienced in conveying food to the miners.

31st December.—Flood at Ipswich.

1874.

17th February.—Very high floods in the north.

8th April.—Floods in the Condamine district again stopped all traffic.

6th July.—New dam at Dalby destroyed by flood.

1875.

20th February.—Heavy rains produced serious floods and extensive losses. All coach and railway traffic stopped.

4th March.—Reports from Maryborough and Rockhampton describe the late floods and the very critical positions from which many were rescued, also the drowning of two men in the Maryborough district. The water on the Dawson River rose 16 feet above the 1864 flood, the railway was submerged for miles, and the loss of life in all parts of the colony was too great to particularise.

8th March.—Fever prevalent on the Dawson River, very great number of dead cattle about.

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10th March.—A telegram stated 45 persons yet living on a punt at Laurel Bank, Dawson River, current too strong to attempt to release them.

19th April.—Flood swept away the Peak Downs Company's dam.

25th April.—Telegram from Springsure stated that the Comet River was higher than in the flood of 1864.

11th July.—Partial floods in several parts of the colony.

1876.

18th February.—Great rain at Clermont and Copperfield caused floods; railway near Rocky Creek much damaged, and all the rivers connected with the Fitzroy swollen.

19th February.—The Mary River at Gympie rose 26 feet in one night.

25th February.—Amamoor Creek bridge near Gympie washed away by flood waters. Heavy flood at Millchester; telegraph line down for seven days.

14th July.—Great rain, accompanied by thunderstorms, in the southern and western portions of the colony. Floods in many places unprecedented in height. Myall Creek bridge at Dalby almost destroyed, and part of the railway near Gowrie was swept away. Very heavy gale and high sea on the coast. Several lives lost in different places, also large numbers of stock and sheep.

25th July.—*The Courier* of 29th July reprints from the *Tenterfield Star* of 25th July an account of disastrous floods and loss of life at Grafton (N.S.W.)

1877.

22nd January.—Reports from Surat, St. George, and Cunnamulla, state that these townships were entirely surrounded by water.

1878.

26th March.—Great floods in the Comet River district.

1879.

26th June.—Floods in several parts of the colony reached a very great height.

July.—Heavy flood at Mount Irving, Jondaryan.

27th August.—Very severe and unprecedented floods in some parts of the colony. In Dalby many were forced to leave their houses; the river at Brisbane rose upwards of 8 feet above high water mark.

29th August.—The railway train left Warwick without any passengers; flood completely interrupted all traffic.

30th August.—The floods reached the highest mark. Victoria baths washed down the Brisbane River; thirty tons of Yengarie sugar destroyed at the Bundaberg wharf.

16th September.—Up to date, floods prevailed in the Western district and traffic was suspended.

1880.

12th January.—Heaviest flood on record in the Daintree River, the water rose 40 feet, washed bullocks and a large quantity of goods and produce into the ocean, and drowned some men.

19th February.—Floods in the north and west higher than those of 1864; much damage done to parts of the Western Railway.

1881.

26th January.—Very heavy floods reported from the Flinders.

1882.

13th January.—Very heavy floods reported from Thargomindah.

9th March.—The Comet River rose 9 inches above the railway bridge. The creek at Clermont overflowed its banks and caused serious damage.

12th March.—The Comet River rose 19 feet above the bridge.

19th October.—Rain general throughout colony. At Maryborough 6 inches were recorded, and goods to the value of £1,000, belonging to Messrs. Miller and Menzies, drapery, were submerged.

20th October.—Enoggera reservoir in flood.

1883.

12th February.—The Balonne River overflowed its banks at Goondiwindi. The inhabitants saved township from flood by damming back the waters.

5th March.—The highest flood known at Thargomindah occurred. The river in places was several miles wide; many horses and cattle swept away.

1884.

31st January.—Mackay—Heavy rain, which caused one of the heaviest floods known.

7th February.—River Fitzroy in flood; water 2 feet above the wharves at Rockhampton.

17th February.—The stanchions and centre of the Endeavour River bridge at Cooktown washed away.

21st February.—Endeavour Bridge washed away by the floods.

25th February.—Heavy floods stopped traffic on the Northern Railway.

3rd March.—Charters Towers—Heavy rain; two bridges at Millchester swept away by flood waters.

4th May.—The Condamine River rose 8 feet at Warwick.

1886.

26th July.—Heavy floods at Charleville; six persons who had taken refuge in a tree were rescued by Mr. Yaldwyn by means of a canvas boat.

27th July.—Famine at St. George through non-receipt of supplies owing to floods.

1887.

19th to 22nd January.—Very heavy rain over Moreton and East Darling Downs divisions. Creeks in flood and low-lying ground submerged at Cryna (Beaudesert) and Fassifern. Goodna township flooded; houses under water. Quart Pot Creek, at Stanthorpe, at its highest level for past twelve years.

22nd January.—Railway traffic on the Southern and Western Railway suspended on account of floods. Bowen Bridge, Brisbane, 5 feet under water at 4 p.m., washed away at 6.30 p.m.

23rd January.—Very high flood at Brisbane. Several lives lost by drowning and a great deal of property damaged.

25th January.—News of fearful loss of property on the Logan River, and destruction of the railway bridge was received at Brisbane. The steamer *Barrabool* ran aground in Brisbane River and two sailors were drowned by the flood waters.

22nd to 28th February—

Very heavy rain over country to the south of Winton, Alpha, Springsure, and Tewantin. Rivers and creeks flooded.

Alpha.—Town flooded.

Cowley.—Station house destroyed by highest flood on record.

Mount Morris.—Highest flood for some years.

Springsure.—All rivers and creeks in district in flood.

Thargomindah.—River in flood.

Warwick.—Heavy flood came down the Condamine at 3 a.m. on 22nd; water rose 2 feet 6 inches higher than the floor of the Post Office; meteorological instruments in yard submerged, and embedded in mud. No observations made with these instruments from 21st to 25th.

27th February.—Heavy floods at Maryborough and Bundaberg.

10th March.—Heavy floods stopped all traffic on the Northern Railway at Townsville.

14th March.—Severe flood at Roma.

March.—Very heavy rains during month at places in North and South Coast, Central Highland, and Upper Carpentaria divisions. Country flooded at Alpha, Caloundra (water 6 inches above the January flood mark), and Tewantin.

13th August.—Heavy rains flooded the low-lying ground in neighbourhood of Brisbane.

1888.

18th January.—Floods at Rockhampton; 21.12 inches of rain fell in three days. Mount Morgan coach washed away, mails lost, and a passenger drowned.

1889.

17th July.—Low lying suburbs of Brisbane flooded owing to the heavy rains; river rose to within a few inches of the flood mark of January, 1887.

19th July.—Floods in most of the Queensland rivers south of Bundaberg. Five vessels adrift in Brisbane River. The Brisbane wharves and part of Ipswich submerged.

1890.

11th January.—Great floods at Aramac.

18th January.—Floods at Bundaberg.

25th January.—Brisbane—Water in the river 3 feet 4 inches above the height reached by the King tides; several of the wharves flooded.

2nd February.—Floods in Fitzroy River.

3rd February.—Northern Railway flooded.

24th February.—Railway traffic on central lines interrupted by floods.

10th March.—Floods in the Brisbane River.

11th March.—Owing to floods all telegraphic and postal business interrupted. Brisbane River 18 inches above the level of the 1887 flood.

13th March.—Brisbane—Flood 5 feet 2 inches above the level of the 1887 flood.

14th March.—Floods subsided.

16th March.—Central railway line flooded.

28th March.—Floods and loss of life in the Northern, Western, and Central districts.

29th March.—Floods at Stanthorpe.

June.—Heavy flood at Mount Irving, Jondaryan.

The data and notes on pages 85 to 90 are reprinted from the "SPECIAL REPORT ON THE FLOODS OF 1890—WITH NOTES ON THE METEOROLOGY OF PREVIOUS SEASONS," published by the Queensland Government Meteorologist.

SPECIAL DATA RE THE FLOOD LEVELS OF CERTAIN RIVERS AND CREEKS, forwarded in APRIL, 1890, by Managers and Officers at Telegraph Stations.

NORTH QUEENSLAND.

Place	River or Creek.	Normal "Height" or Condition.	Highest Rise above Normal.	Date.	How Rise Measured, Vertically or Horizontally.	Remarks.
Boulia	Burke River	*Not running	7 or 8	January 7th to 9th	Vertically	By 16th April the river had ceased running for some time.
Burketown	Albert River	9	14	4th to 12th	"	The normal height refers to the north-west season; the Gulf tidal rivers being naturally at a lower level during the south-east trades of winter.
Clarke River	Clarke River	1	25	25 March	"	
Clermont	Sandy Creek	1 to not running	26½	25 March	"	
Floraville	Leichhardt River	..	..	..	..	Leichhardt River in many places dry during dry season; normal height during flood about 50 ft., measured vertically; highest on 6th January.
Georgetown	Etheridge River	..	..	..	..	Depth of water on 16th April, 1 ft. Under normal conditions river ceases to run about end of June. Greatest height on 21st February, giving a vertical depth of 14 ft. during the greatest period of flood.
Hillgrove	Basalt or Limestone River	½	30	24 March	Horizontally	
Hughenden	Flinders River	..	..	..	..	Only runs during wet season; highest on 20th March, about 12 ft., measured horizontally.
Ingham	Herbert River	2, summer level	42½ above summer level	..	Vertically	At Gairloch, closely adjacent, width of river during flood nearly sixteen chains.
Junction Creek	Junction Creek	½	10	..	"	Creek is a chain of holes rising from natural spring. During dry weather the bed of the creek is dry between the holes, some of which are very deep. Always a running stream at the crossing at a normal height of 6 in.
Normanton	Norman River	..	..	..	..	"Highest flood waters were on 3rd January, measured horizontally; were 16 ft. 6 in. above normal level of river."
Palmerville	Palmer River	Not running	35	25 January	Vertically	
Richmond Downs	Flinders River	..	..	..	..	"River channel a dry sand bed, except during wet season, when it is usually bank high, or 15 to 20 ft. deep. Highest rise in February, when river overflowed its banks."
Rockhampton	Fitzroy River	..	..	..	..	The following information has been supplied by Mr. Thomas Parker, Town Surveyor, &c.:—"The flood of 1890 was 18 ft. 2 in. above high water level of ordinary spring tides. Flood in river, at Rockhampton, highest on 6th April. The flood of 1890 was 2½ in. above the flood of 1875."
Tate River	Tate River	..	..	..	..	"Normal height during flood 15 ft. 5 in. Highest above normal 6 ft. 10 in. on 3rd January and 9th February, taken vertically."
Walsh River	Walsh River	Not running	30	9 February	Vertically	

* It must be understood that the words "Not running," although frequently meaning that the bed of the river or creek is dry, do not imply that there are not occasional or intervening waterholes.

SPECIAL FLOOD LEVELS AT TOWNSVILLE.

Town Hall,
Townsville, 24th April, 1890.

MEMO. SHOWING FLOOD LEVELS OF 25TH MARCH, 1890.

River or Creek	Location	Height	Notes
Ross River	At Cruickshank's, 40 chains above railway bridge	9.50	(Ordinary spring tides.)
"	*At Rooney's (River View), 130 chains below railway bridge	4.86	" "
"	*At Main-street and 4th Avenue	4.41	" "
Ross Creek	At Queen's-road Crossing, 30 chains below Cruickshank's	7.50	" "
"	At Minehan's, 30 chains below Queen's-road	6.50	" "
"	At Railway wharf, 24 chains below Minehan's	5.00	" "
"	*At Victoria-bridge	4.89	" "
"	At Aplin Brown's, 22 chains below railway wharf	2.50	" "
"	At Rooney's, 15 chains below Aplin Brown's	2.00	" "
"	*At Boat-house (lower) in front of Satini's Hotel	2.75	Elbow of creek
"	At Harbors and Rivers	1.77	" "
"	Highest King Tides at Victoria bridge	52.26	February, 1890.

WILL. DYER.

* Observations taken by Municipal Engineer. The remainder taken by Engineer for Harbors and Rivers.

TOWNSVILLE FLOOD LEVELS 25TH MARCH, 1890.

Harbours and Rivers Department,

Townsville, 21st April, 1890.

River or Creek	Location	Height	Notes
Ross River	4,000 feet above Railway Bridge (at Cruickshank's)	9 6	(Ordinary spring tides.)
Ross Creek	3,000 feet below Cruickshank's (at Queen's-road crossing)	7 6	" "
"	3,600 feet below Queen's Crossing (at Minehan's)	6 6	" "
"	2,400 feet below Minehan's (at railway wharf)	5 0	" "
"	2,200 feet below Railway wharf (at Aplin Brown's)	2 6	" "
"	1,500 feet below Aplin Brown's (at Rooney and Co.)	2 0	" "

High water ordinary spring tides is a fixed level.

In January, 1890, the King Tide rose 2 ft. 1 in. above that fixed level.

GILBERT F. ELIOTT,
River Engineer.

SPECIAL DATA re THE FLOOD LEVELS OF CERTAIN RIVERS AND CREEKS, ETC.—continued.

SOUTH QUEENSLAND.

Place.	River or Creek.	Normal "Height" or Condition.	Highest Rise above Normal.	Date.	How Rise Measured, Vertically or Horizontally.	Remarks.
		Feet.	Feet.			
Adavale ..	Blackwater River	2	15	31 March ..	Vertically ..	Greatest height known. No dry ground in Adavale; loss of stock not known yet; amount of town property lost, according to Board valuation, £1,700; loss of goods, £1,300.
Allora ..	Dalrymple Creek	..	..	..	..	On the north side of the town the water rose about 4 ft. higher than the banks on 27th March; a tributary of the Condamine River.
Alpha ..	Alpha Creek ..	Not running ..	28	28 February	Vertically ..	A tributary of the Belyando River.
Aramac ..	Pelican Creek ..	" ..	15	8 January ..	" ..	Pelican Creek flows into the Thomson River, and is usually a chain of small waterholes.
Blackall ..	Barcoo River ..	" ..	15½	22 February	..	Water of creek 2 miles wide.
Bollon ..	Wallam Creek ..	5	25	30 March ..	Vertically ..	The river rose to 12 ft. 2 in. above high-water springs on 13th March, measured at the Port Office Wharf, under the superintendence of the Harbours and Rivers Department.
Brisbane ..	Brisbane River ..	..	..	..	..	The normal height given is that at high-water springs.
Bundaberg ..	Burnett River ..	14½	28	26 January ..	Vertically ..	The normal height given is that at high-water springs.
Charleville ..	Warrego River ..	Not running ..	26	28 March ..	" ..	
Chinchilla ..	Charley's Creek ..	" ..	24	29 March ..	" ..	
Comet ..	Comet River ..	" ..	49½	31 March ..	Presumably vertically	Ordinarily only a succession of waterholes with dry intervening spaces.
Cunnamulla ..	Warrego River ..	Chain of water-holes	31	2 March ..	Vertically ..	Horizontally the waters of the Warrego reached 50 miles on each side of the river.
Duarina ..	Dawson River ..	2	Nearly 61	3 April ..	Vertically	Normal flood height 33 ft. measured vertically.
Emerald ..	Nogoa River ..	3	38½	30 March ..	" ..	The normal state considered as at the shallowest places in the main channel. The recent flood was caused chiefly by the overflow from the Warrego.
Eulo ..	Paroo River ..	1	13½	..	" ..	When flood reached a height of 32 ft. the waters broke over the banks and spread greatly.
Goondiwindi ..	McIntyre River	16	33	28 March ..	" ..	" Flood mark was over railway line by 9 ft. 2 in., vertically measured. Line 43 ft. above high water at Ipswich."
Goodna ..	Brisbane River ..	..	..	..	..
Gympie ..	Mary River ..	About 6 ..	66	12 March, ..	Vertically	
Ipswich ..	Bremer River ..	.. ..	..	2 a.m. ..	..	" Normal height of spring tide about 4 ft. above Brisbane springs; height of flood above spring tides, January, 1887, 52.65 ft.; July, 1889, 46.21 ft.; 12th March, 1890, 58.48 ft.; 28th March, 1890, 35.85 ft., measured at high water at Bremer railway bridge "
Isisford ..	Barcoo River ..	Not running ..	About 30½ ..	..	Vertically ..	During the greater part of the year the Barcoo is but a chain of waterholes, and the river does not run except after heavy rain. During the flood the river was 1½ mile wide, and much wider below Isisford.
Jericho ..	Jordan River ..	" ..	13½	22 February	Presumably vertically	
Killarney ..	Condamine River	..	..	..	..	" Normal level of Condamine River 21 ft. below banks; highest rise during late floods 23 ft. above normal, on 10th March, from bridge, taken vertically.
Kooroon ..	Moonie River ..	..	..	..	..	The highest flood known here, was on 28th March, 1890, being 2 ft. 9 in. higher than the flood of 1864
Miles ..	Dogwood Creek ..	½	41	25 March ..	Vertically ..	The width of this creek under normal conditions is "bank to bank," or 76 yards, but width of flood waters reached 1,119 yards. The telegraph line was carried away, and the water rose about 2 ft. over the iron girders of the railway bridge.
Mitchell ..	Maranoa River ..	Not running ..	33	24 March ..	" ..	
Muttaburra ..	Landsborough Creek	" ..	25	30 March ..	" ..	Landsborough, Thomson, and Cornish Creeks become in times of flood virtually one, the water spreading from 3 to 4 miles in width and forming a chain of lagoons.
Roma ..	Bungil Creek ..	Chain of water-holes	35	24 March ..	" ..	
Stanthorpe ..	Quart Pot Creek	2	12	..	..
Surat ..	Condamine River	..	45	26 March ..	Vertically ..	On 16th April 25 ft. above "ordinary" level.
St. George ..	Balonne River ..	..	40	30 March ..	" ..	On 16th April 25 ft. above "normal" level.
Tambo ..	Barcoo River ..	Chain of water-holes	15	27 March ..	" ..	The normal state of the Barcoo is but a chain of water-holes, except for a week or so after rains.
Texas ..	Dumaresq River	2	28	..	..
Thargomindah ..	Bulloo River ..	About 7 average	12½	8 April ..	..	" No rain here; water came from Adavale; river about five miles wide. The normal depth of the river varies from about 15 ft. to nil." It appears that the Bulloo has never quite ceased to run, even during the longest period of drought.
Warwick ..	Condamine River	13	17	10 March ..	Vertically ..	The great flood of 21st and 22nd January, 1887, was higher by 2 feet, vertically measured, than that of March, 1890.
Windorah ..	Cooper's Creek ..	Chain of lagoons or deep water-holes with dry intervening areas	About 25	..	..

SPECIAL DATA *re* THE FLOOD LEVELS OF CERTAIN RIVERS AND CREEKS, ETC.—*continued*.SOUTH QUEENSLAND—*continued*.

Place.	River or Creek.	Normal "Height" or Condition.	Highest Rise above Normal.	Date.	How Rise Measured, Vertically or Horizontally.	Remarks.
Winton	Western River	Feet. Not running	Feet. 12	31 March	Vertically	"The Western River is a series of shallow billabongs, with detached waterholes from two to three miles apart. Normal state of river, dry. The flood of 1881 was about 20 ft. higher horizontally than last." The Burnett River was higher on 25th and 26th January, 1890, than ever before known, though the rainfall was not so great as that which fell in 1887, 24th February, 10·400 inches in 36 hours.
Yenda	Burnett River	..	..	..	..
Yuleba	Yuleba Creek	Chain of waterholes	35	24 March	Vertically	

SPECIAL NOTES OF THE FLOOD IN THE VALLEY OF THE UPPER BRISBANE RIVER.

Orchard Farm, Lowood.

I forward notes on the flood of 11th March, 1890, which came under my own notice.

6th March.—Steady rain set in; creek low; rainfall 1·388.

7th March.—Heavy rain; rainfall 2·730.

8th March.—Rain; creek rising slowly; rainfall 1·068.

9th March.—Rain, very heavy. Information given me that a man was drowned in crossing a gully at Tarampa; sent notice to the police late at night. Spring Creek crossable; creek rising; rainfall 3·020.

10th March.—Creek fell early in the morning, about 15 feet; re-commenced rising about 10 a.m.; heavy rain all day; rainfall 3·142; ceased raining 7 p.m.; creek rising fast; water up to mark of previous floods.

11th March.—3 a.m.: By this time the water had broken over the cultivation. Between 7 a.m. and noon, water rising 1 foot an hour, and like ice (a very singular thing—my experience during 23 years is that flood water is warm). Noon: Water up to mark of July, 1889, which was 10 feet higher than any known previous flood. 3.50 p.m.: Water still rising 1 foot an hour; first haystack floated away; logs and pumpkins sailing past at the rate of 8 miles an hour. (The water for a dozen yards would be warm, then icy cold, and again warm—to swim would be certain cramp). 7.30 p.m.: Water rose 2 inches in last hour and a quarter, but by 11 p.m. began slowly to fall.

12th March.—6 a.m.: By this time water had fallen 5 feet. The flood rose 18 feet over the Lockyer high level bridge, which is, under normal conditions, 65 feet from the creek, or a total of 83 feet. The present flood, from marks made at previous floodings, was 8 feet higher than in July, 1889, and 18 feet higher than any flood I have known within the last 23 years. A neighbour, Mr. Noonan says it is higher than at any time within the last 45 years. The destruction to property is immense, crops, fencing, &c., having been swept away. The force of the current was terrific; a large gate and posts in Mr. Noonan's lane were washed away entirely; the posts were 6 feet in the ground, and had stood fourteen years. Water half way into the Stevenson thermometer screen, which stands in the garden about 4 feet above the ground.

27th March.—This day we had a downfall of rain, which threatened at one time to end in a more disastrous flood than that of the 11th. The creek rose rapidly to a great height, viz., between 35 and 40 feet; fortunately the river did not rise. The current was like a mill stream. Some idea of its force may be given when I inform you that a large Cornish pump, with its massive foundation of logs crossed and bolted together, was shifted, and the brass part of the steam valve broken off. The same pump stood the water of the 1889 inundation and earlier floodings of 1890.

Severe storm, 4.45 p.m.; ceased at 5.15 p.m., giving a rainfall of 1·136
 Rain set in at 7.15 p.m.; took gauge 9.40 p.m. .. 1·338
 11.50 p.m.: Creek rose so rapidly that boys got the punt ready at 12.10 a.m. (28th); took gauge; the rainfall being 1·558
 Rain suddenly ceased at 12.40 a.m. (28th) ———
 Total rain for 27th and 28th March 4·032

John Flewell Smith.

REPORT ON THE EFFECT OF THE FLOOD OF MARCH, 1890, ON THE PLANTS IN THE BOTANIC GARDENS, BRISBANE.

The Brisbane Botanic Gardens will for some years bear to the practised eye very evident traces of the flood of March, 1890. For some months before the flood the steady rain had inflicted considerable damage on many plants. The subsoil throughout the Gardens being of a rather retentive clay, and a complete system of subsoil drainage never having been carried out, it follows that after a period of incessant rain the surface soil becomes charged with moisture, which soon injuriously affects the roots of plants. Up to the time of the flood the plants which seem to have suffered most were of the orders *Coniferae*, *Euphorbiaceae*, and *Cactae*. Palms seemed rather to enjoy the unusual condition of affairs, and many made excellent growth. This was not an unmixed benefit, as they have since suffered much more severely than would have been the case had their growth not been so rapid and the tissue developed so succulent. Most strong growing creepers flourished also; and, of course, weeds, especially the hated nut grass, thrived apace, and demanded great exertion to keep them under. The poinsettia (*Euphorbia poinsettia*) showed signs of distress very early, the leaves falling off or turning yellow; and even before the flood nearly all the brilliant plants of this species were dead, except where they happened to occupy elevated and well-drained positions. The flood waters covered an area of about three-fourths of the entire Gardens, the depth in some places being 10 feet. All the rose beds were entirely covered to about this depth; so were the azaleas; and when the waters subsided, all of these plants were quite leafless. They were not, however, cut back,—a process which killed many plants which were flooded in small gardens—but they were allowed to slowly recuperate, and then pruned rather severely. These roses have never flowered better than during the present month. The azaleas have not flowered this season, and a great many have died. All soft-wooded plants were killed when covered by the waters, and many of the larger trees are only now beginning to show the effect produced upon them. To my mind the great lesson which was taught by this flood is, that we should array against a possible future calamity of a similar nature the remedy

which nature has provided and which man may direct—viz., the growth of forests upon the watersheds of the country. The necessity for this is being sharply brought home to the American people, and preparations are now being made in that country to spend for this purpose enormous sums, when, if the matter had been taken in hand in time, a comparatively trifling outlay would have sufficed.

Philip Macmahon,
Curator.

REPORT ON THE EFFECTS OF THE FLOOD OF MARCH, 1890,
ON THE PLANTS IN THE ACCLIMATISATION SOCIETY'S
GARDENS, BOWEN PARK, BRISBANE.

The actual damage done by the flood in these gardens was only slight, as the water did not continue to lie long on the submerged portion, as the drainage is excellent, the outlet to Breakfast Creek being of ample dimensions to carry away the greater volume of the flood. Nevertheless, many plants in the lower parts of the grounds were more or less damaged, and in some instances killed outright. Some very interesting knowledge has been gained respecting the endurance of plants when submerged, and several unaccountable circumstances are connected therewith—for instance, the Moreton Bay chestnut (*Castanospermum Australe*)—young plants were killed; while similar sized plants of the weeping fig (*Ficus benjaminea*) escaped injury, although both plants were growing within a few yards of each other, and both equally submerged. Roses and camellias, although covered with water, were not affected. Azaleas lost all their foliage, but have since grown vigorously. The date palm was not affected, while the *cocos plumosa* (feather palm of Brazil) was killed. *Kentia Fosteriana* also succumbed, while *Caryota urens* escaped. Hibiscus of various sorts were all more or less affected, but not killed. *Ficus macrophylla* (Moreton Bay fig) lost all the leaves that were under water; these have since been replaced by young ones. *Araucaria Cookii* was nearly killed, notwithstanding only six inches of water were over the roots, and only for thirty-four hours. Maize was unaffected to all appearance, but died a fortnight afterwards. Lucerne completely killed. Teosinte not affected, although deep in the water. Guinea grass not affected, although covered for forty-nine hours. Grass lawns in no way suffered. *Alternanthera*, used for borders of flower beds, was none the worse for immersion; but the coleus was killed.

Wm. Soutter.

SPECIAL NOTES OF THE FLOOD AT MARYBOROUGH.

Municipal Council Chambers,
Town Hall, Maryborough, May, 1890.

I have the honour, by direction, to forward the following information, as received in a telegram from Mr. A. B. Brady, Engineer for Bridges, concerning the late flood in the Mary River:—

“Taking the level at the intersection of Kent and Guava streets as the datum the levels required are as follows:—High water ordinary spring tide is 8 feet and half an inch below intersection; highest flood level, 1890, is 13 feet 8½ inches above intersection or 21 feet 9 inches above high water ordinary springs. The only additional information that can be supplied is that the flood of 1890 rose 2 feet 8½ inches above the flood of 1875 and 14 feet 3 inches above that of 1887.—A. B. BRADY.”

Yours faithfully,

W. B. Jones,
Town Clerk.

SPECIAL NOTES OF THE FLOOD IN THE WARREGO RIVER.

From C. Francis, Esq., Police Magistrate, Cunnamulla.

Grosvenor Bank,
Cunnamulla, April 16th, 1890.

1890 has been a most extraordinary year, so far as regards rain; and this district has had its share of floods in common with other portions of the colony. Happily there has not been, so far as known, loss of human life, with the exception of one drowned. As to stock, 4,000 breeding sheep belonging to a grazing farmer appear to have been lost.

The first flood we had here (on the Warrego) in 1890 was in February. As you are aware, there has been showery weather since December. On 20th February we had the heaviest fall I have ever seen in the time in this district—viz., 4.50 inches in the 24 hours. The next day the river began to rise, and continued doing so for a couple of days. It then subsided a little, but soon the upper waters began to arrive, and the rise was continuous until the 26th, when the highest point was reached—about 4 inches lower than the flood of 1886, which I also witnessed. The floods are always impressed on my mind, because I live close to the bank of the river, and between my house and the town there is a billabong, through which a very large quantity of water finds its way in flood time, and I cannot reach town without a boat. The floods rise here very rapidly, frequently a foot an hour, so long as the water is confined to the main channel of the river; but as soon as it begins to get over the banks the vertical rise is very small. In the March flood the rise commenced on the 27th, and by 9 a.m., 28th, had risen 12 feet; by 9 a.m. next day it was as high as in July, 1886. On March 29th—30th the rise was 6 inches during 24 hours, and next day about 2 inches. By April 2nd a further rise of about ½ inch had been noted. After that there was no perceptible alteration of the level for two days. On the morning of the 5th there was a decided fall, and since then the river has fallen slowly.

On Sunday last, 13th April, I made a measurement, and ascertained that the fall from the highest point was 19 feet 4 inches. At that time the water was what I call “half bank” that is, by my estimate, about 10, or perhaps 11, feet above the summer ordinary level of the river. I call the ordinary level when the river ceases to run at the crossings above and below the town on the Eulo-road.

The Warrego River is reported to have been highest on 30th March, at 2 a.m., at Murweh Station.

C. L. W.

SPECIAL NOTES RE THE FLOODS OF 1890.

Kindly supplied by the Owners and Managers of Stations and Plantations.

NORTH QUEENSLAND.

Branscombe, Mackay (South Kennedy),*
16th August, 1890,

The Pioneer River continued its usual flow all through the drought, and the floods in the early part of 1890 were not so remarkable for their height as for their long continuance.

J. Ewen Davidson.

* The name of the district in which each station is situated is enclosed in brackets.

Carandotta, *via* Boulia (Gregory North),
23rd August, 1890.

The flood in the river (Georgina) of January, 1890, was the highest that has occurred since February, 1883, but not remarkable on that account. The rains here in January last were light and showery in nature, only amounting to 2.935 inches for twelve days. They were, however, heavier towards the east, as evidenced by the running of all the creeks taking their rise from the range between the Georgina and Wills' Creek. None of the small creeks west of the river ran, and the feed there, as might be expected, was scanty. The rains of April, May, and June (1.305, 1.040, and 1.525 inches respectively) have gone far to improve matters, and all kinds of stock are fat, while the feed is still green, but short, and will require replenishing in a couple of months to enable stock to hold out till the mid-summer rains may be looked for.

Sidney W. Donner,
Manager.

Kensington Downs, Muttaborra (Mitchell),
2nd May, 1890.

There has been nothing approaching a flood on this station, although the rain has been sufficiently heavy to make the creeks run several times.

The weather now looks unsettled, with heavy clouds.

The last three mornings the fog has been remarkably heavy.

It is almost needless to say that the country is looking remarkably well.

J. Robson Scott,
Manager.

Logan Downs, near Clermont
(South Kennedy).

Synopsis of Weather, &c., 1890.

January.—Rain fell on 21 days, favourable for grass and stock, but too damp for haymaking or agricultural operations, and much against the continuous shearing of sheep.

February.—Rain fell 11 days, which kept soil and grass damp.

March.—Rain fell 12 days; grass still growing and very favourable for stock. Logan Creek, which runs through length of station, keeps running, and all waterholes full.

April.—Rain fell four days, and grass turning dry, but no fear of fire yet. Slightly frosty nights, with cloudy days.

Cashmere, *via* Mitchell (Maranoa),
21st August, 1890.

The Floods.—With regard to the flood waters of March and April in the present year (1890), I have no measurements, but fortunately our local rains were least serious just at the times of the greatest floods—on the 26th and 29th March last. Had the downpour been as frequent and heavy at those times with us, as it appears to have been at other places, a greater depth of water would have covered the Balonne lands, though the dwellers on the Maranoa River, and perhaps their stock, would not have suffered much. Here the water was about 35 feet deep upon its usually dry sandy channel, or, say, 40 feet above the moist sand of the preceding drought. All the homes along our lower river were islanded for periods of from one to two weeks. The back country was uncrossable, simply rotten throughout with superabundant moisture, causing ferns and mosses to grow on many places where grass had been before. Some of the sand ridges were hardened, set by the wet; but traffic on horseback was simply impossible, except along a very well-used and hard-beaten road. The flood waters broke over their boundary ridges, on which

grow rosewood and pine in many places, and established separate rivers of many miles in length along hollows which were before unobservable with an unaided eye. Wherever the waters overcovered the drier land timbers, such as pine, sandal-wood, or box, those trees died. The coolibah, gum, and ti trees, on the other hand, were renewed in strength by, and thoroughly enjoyed the submersion, as the later extreme rapidity of their growth has testified.

Where the muddy waters affected the grasses no new grass has sprung through all our winter months, though now the verdure of advancing spring shows up with a plenteous promise. An opinion ruled here that such a flood as has been experienced would sweep accumulated sands from former waterholes, and so render the river channel capable of retaining a more lasting supply of good water; but this is found not to represent the present case to any appreciable extent. Many river holes, on the contrary, have gathered more sand than they contained during the drought. Should there be no spring or early summer rains this year, still the growth of new grass will prove abundant. Herbage has grown very sparingly this season, crowfoot and wild carrots are found only at wide intervals, and grow to straggling weak-limbed plants. This is at variance with the usual state of this country's growth after moderate winter rains. Stock are generally in excellent condition in spite of the numerous light frosts which have hindered the luxuriance of grasses. The earth, before the copious rains, was open, cracked, and greedy for moisture, so that heavy storms filled holes and small tanks in some places, to become empty again in a few days or at the most, weeks. Now an hour's fair rain will "slop" the ground's surface; water will collect in small pools, and will remain there until the greatest portion has been absorbed by winds and sun.

The highest daily heat during the present month averages about 75 to 80 degrees Fahr., and our lowest noticed record has been almost 3 degrees below freezing Fahr.

Light breezes from the north are general, alternating with stronger variable northerly winds. All appearances favour the impression that we shall experience a welcome, genial season.

Gilbert T. Macmicking.

Crystal Brook, *via* Mitchell (Maranoa),
19th August, 1890.

The floods here this year have been the highest ever known by the proverbial oldest inhabitant. As this part of the Maranoa district is situated near the head of the river, and a high tableland, with a fall to the south, the floods cannot do the same harm in this neighbourhood as lower down, all homesteads being beyond their reach.

In conclusion, I may state that although grass and water are in abundance, stock are not in such good condition as this time last year; the excessive wet has made the grass too wasty. It seems to be the same in other parts. The winter has been the mildest I ever experienced; no continuous frost at all, just a day or two, and then close and cloudy.

M. MacDonald.

Burenda, *via* Augathella (Warrego),
15th August, 1890.

The floods which took place during the past year were quite unprecedented. Owing to there being very few low flats in this district, very little loss of stock has occurred. A few sheep were caught here and there, and drowned. The principal damage was done to the dams. Many have been carried away, and nearly all were more or less damaged, and are only now being mended up and repaired; and should we have a prolonged spell of dry weather

many places will be short of water. Fences have also been a good deal damaged, as the crossing of every creek and gully was carried away. Altogether the floods have done a good deal of good, having thoroughly saturated the sub-soil, and given the creek banks such a soaking that the waterholes will stand better than they have done for some years past.

Should we get a few showers in the early spring, the coming summer must be a good one for grass, as the ground has been wetted to such an extent that very little rain will suffice to make it grow.

Forest Vale, near Mitchell (Maranoa),
18th August, 1890.

The heavy floods that occurred in March, 1890, gave us a great quantity of grass, but, strange to say, although there was far more rain in the autumn and early winter of 1890 than in that of 1889, still the growth of herbage was nothing in 1890 in comparison with 1889. Whether the seed has to lie in the ground for more than a year to mature, or whatever may be the cause I do not know, but this year, notwithstanding all the rain we have had, the herbage is almost nil. Stock also have not fared so well in this abnormally wet season as in an ordinary one, which I suppose is to be accounted for by the fact that the grass is too rank and sodden, and the whole country so boggy that stock have difficulty in moving about. The rains on the Upper Maranoa have not been nearly so heavy during the last six months as in other places further east—for instance, on 22nd March, when 7.23 inches fell at Yeulba, 6.00 inches at Roma, 3.23 inches at Mitchell, there was only 1.58 inches at Forest Vale, followed by 2.28 inches on the 24th. This was most fortunate for those people living below the junction of this river with the Balonne, for although the Maranoa was higher than it has been for the last twenty years, still it was not so high by 10 or 12 feet as it was in 1864, while the Balonne and some of its tributaries are said to have been much higher in 1890 than in 1864. Had this river gone as high as in 1864 the consequences lower down would have been terrible.

For the last three weeks we have had fine frosty weather, and it seems as if we were in for a dry spring; but I think as soon as the sun gets more power the amount of moisture in the ground will cause thunderstorms to be numerous, so I do not anticipate a very dry summer.

R. Copland Lethbridge.

Hillsborough, near Mitchell (Maranoa),
19th August, 1890.

Regarding the floods of 1890, they were here not so high by 4 feet as the flood of 1864; but in other parts near the Balonne the water was quite as high owing to the rains that fell in this locality. The country was in a fearful state with bog, so that the stock could not get about. I had cattle on one ridge for three weeks, and they could not get off. More were smothered in the bog; no parts of the animals being visible but the head and the extreme back. Parts of this run are still wet. Most of the country here is of a very porous nature, and will not hold water.

Wm. Marsh.

Record of the rise and fall of Cooper's Creek at Innamincka, fourteen miles below the boundary of Queensland and South Australia. Kindly supplied by Alfred Walker, Esq., of Innamincka Station.

The most marked floods of Cooper's Creek, which usually does not run, are noted as follows during the last eight years:—On 28th February, 1882, the water rose rapidly to 35 feet, and stopped running on 3rd November following. On 25th January, 1885, the creek rose to 21 feet, and continued rising and falling till 15th November; and on 25th December of the same year the water rose 16 feet, and was running strongly at the end of the year. These floodings were due to local rains, north-east winds prevailing. The creek stopped running on 6th May, 1886, but rose 4 feet on 23rd July, owing to floods in the Barcoo and Thomson Rivers, and ceased running again on 10th October of that year. On 9th March, 1887, Cooper's Creek again commenced to rise owing to flood waters from the Wilson River and local Queensland stations under prevailing north-east winds, and by 4th April had risen 28 feet, the flood waters from the Barcoo and Thomson Rivers having reached Innamincka. It remained stationary till 28th April, when it rose steadily to 33 feet owing to local Queensland rains, and stopped running on 24th December, 1887. South-east to north-east winds prevailed during this period. On 3rd February, 1888, the creek commenced to run again, and ceased on 3rd September following. During 1889 the water rose 11 feet on 3rd January owing to local and Queensland rains, and stopped running on 18th January, flowing again on 23rd April, rising to 11 feet on 21st May, and ceasing to run on 1st November. During 1890 the Cooper started running on 14th January owing to local rains, on the following day the water rose 10 feet, and by 27th January it had risen 15 feet, and immediately thereafter began slowly to fall. On 5th February the creek again commenced to rise steadily, owing to local and Queensland rains, and by the 18th had risen to a height of 15 feet, when the water began to fall slowly. On 23rd April the water was 5 feet above summer level, and remained stationary till the next day, when it commenced to rise slowly as the result of floods in the Barcoo and Thomson Rivers. By 9th May the water had attained a height of 30 feet, and began to fall very slowly next day. On 16th June the creek was 15 feet above summer level, and was still falling steadily.

Toornoo, *via* Mitchell (Maranoa),
20th August, 1890.

With reference to the flood of 1890, there fell at this station 44.49 inches of rain between 2nd February and 2nd July last. The country was in a frightfully flooded condition. Mungallala Creek rose 42 feet 4 inches perpendicularly, and was about fifteen feet higher than ever known before by either white man or black-fellow.

J. M. Watson.

Yandilla, Darling Downs.

Rainfall.—January, 1890, 5.665 inches; February, 1890, 7.325 inches; March, 1890, 12.160 inches.

N.B.—The average rainfall for January (average extending over fourteen years) is 3.436; for February, 3.555; and for March, 2.261 inches.

Francis A. Gore.

Warbreccan, Stonehenge, near Isisford.
7th July, 1890.

Towards the end of 1888 the heat and drought were very severe, continuing until March, 1889, when the weather broke. During the time of broken weather we measured about 6 or 7 inches of rain. These rainstorms continued at intervals till about May, when fair weather with passing thunderstorms occurred till 4th January, 1890, when the flood rains set in.

1891.

28th January.—Traffic on the Normanton railway suspended owing to heavy floods.
 5th February.—Extensive floods on the central railway.
 12th February.—Heavy floods at Normanton.
 30th March.—Floods in the central districts interfered with the railway traffic.
 7th June.—Western districts almost impassable through rain.
 10th June.—Floods in Fitzroy River.
 11th June.—Traffic on Indooroopilly ferry interrupted owing to strong fresh in the Brisbane River. Mines at Gympie exempted from work for seven days owing to floods.

1892.

25th January.—A serious flood caused great damage at Townsville.

1893.

2nd February.—Floods at Gympie, Maryborough, and Bundaberg.
 3rd February.—Lower part of Brisbane submerged, and water still on the rise; the *Elamang* and the gunboat *Paluma* were carried by the flood into the Botanical Gardens, and the *Natone* on to the Eagle Farm flats.
 4th February.—Disastrous floods in the Brisbane and Mary Rivers; 8 feet of water in Edward street at the *Courier* building. Numbers of houses at Ipswich, Brisbane, Gympie and Maryborough washed down the rivers. Seven men drowned through the flooding of the Eclipse Colliery at North Ipswich. Telegraphic and railway communication in the north and west interrupted.
 5th February.—The Indooroopilly railway bridge washed away by the flood. Heaviest floods known in Brisbane and suburbs.
 6th February.—The lower part of South Brisbane completely submerged. The flood rose 23 feet 9 inches above the mean spring tides and 10 feet above the flood mark of 1890; north end of the Victoria bridge destroyed.
 7th February.—Flood waters subsiding. Sydney mail train flood-bound at Goodna, unable to either proceed or return.
 10th February.—Very heavy flood; nine days' continual rain at Mount Irving, Jondaryan.
 11th February.—Toowoomba.—Most severe flood ever experienced.
 13th February.—Second flood for the year in the Brisbane River. Rapid rise in the Burnett.
 16th February.—More rain in the south-east districts; another rise in the Brisbane; further floods predicted.
 17th February.—A third flood occurred in the Brisbane River for the year.
 18th February.—The *Elamang* floated off from the Botanical Gardens. Business at a standstill in Brisbane, Ipswich, and other towns. Several deaths by drowning reported.
 19th February.—The gunboat *Paluma* safely floated off the Gardens, and the *Natone* off Eagle Farm flats. Another span of the Indooroopilly railway bridge carried away. The third flood reached its maximum height at 12 (noon), viz., 10 inches below the first flood. Floods occurred at Warwick and Dalby.
 21st February.—Flood waters subsiding.
 10th June.—Floods at Gympie, Maryborough, Mount Irving, Jondaryan, and Bundaberg; a freshet in the Brisbane River.
 11th June.—Flood waters of the Brisbane River still rising.
 12th June.—Flood at Brisbane reached a height of 10 feet 10 inches above low water, or 1 foot 4 inches above the level of the flood of 1887; water stationary at 10 a.m. 2,000 sheep drowned at Jimbour.
 17th July.—Heavy floods occurred in the Darling and Warrego Rivers.

1894.

17th January.—The railway traffic at Townsville suspended owing to flood; water 6 feet above the Burdekin bridge.
 20th January.—Flood waters 22 feet over the rails of the Burdekin bridge.
 20th April.—A great deal of damage done in the north by floods.
 22nd April.—The biggest floods ever known by white men in that district reported from the Diamantina.
 26th June.—The rains caused heavy floods in the Central district.
 27th June—
 Cunnamulla.—Big flood, due to heavy rains during past week, at Cunnamulla and on the Warrego. All billabongs about the township connected with the river flooded, and traffic between the different parts of the town carried out by means of boats; schools surrounded by water; Chinamen's gardens flooded; river still rising. Water 1 foot below the level reached during the big flood of 1890.
 Emerald.—Nogoa River 7 feet over railway line, and still rising; Comet River also rising.

1895.

8th April.—Heavy floods in north Queensland; the Daintree River rose 8 feet higher than ever known before.

1896.

1st February.—Heavy floods at Clermont.
 6th February.—Heavy floods at Rockhampton.
 3rd March.—Great flood at Georgetown.

1901.

3rd April.—The station buildings at Austral Downs were destroyed by flood.

1903.

18th March.—Heavy rains and floods at Camooweal and Urandangie.
 March and April.—Floods at Mulgrave Central Mill, Nelson, near Cairns.
 3rd April.—Floods in northern Queensland.

1904.

March.—Floods at Mulgrave Central Mill, Nelson, near Cairns.

1906.

February.—Floods at Mulgrave Central Mill, Nelson, near Cairns.

1907.

28th February.—Brisbane.—Considerable rise in the Brisbane after the recent heavy rains; immense quantities of water hyacinth washed down to the city reaches of the river.
 19th March.—Mails delayed in south-western Queensland owing to heavy rains.

1908.

January.—Floods at Mulgrave Central Mill, Nelson, near Cairns.
 6th January.—An extensive washaway occurred on the Clonourry railway.
 8th January.—Burketown.—Floods throughout district; Leichhardt River between Floraville and Donaldson in high flood, mails delayed for 27 days.
 Floraville.—The Leichhardt River uncrossable from 19th December, 1907, to 10th January, 1908, during which time it reached its highest level since 1904.
 Extract from the *Sydney Morning Herald*, 10th January, 1908.—
 "Brisbane.—The Commissioner for Railways has received a telegram from the officials at Cooktown stating that heavy rain accompanied by boisterous weather has been experienced there and at Laura.

The Normanby River is 14 feet over the rails, and rising. Washaways occurred at three places on the line. A telegram has also been received regarding the Cairns line, stating that the road is clear and that traffic has been resumed. The Barron River, however, is in high flood and rising. Ten inches of rain fell at Kuranda and $6\frac{1}{2}$ inches at Atherton. Stony Creek had the highest flood known, and Freshwater Creek was level with the bottom girders of bridge. Numerous slips have occurred on the range.

The railway line is under water at several places between Atherton and Tolga.

The train leaving Charters Towers for Townsville was blocked at Antill Plains; the water is 9 inches over the rails and rising fast. 625 points of rain fell at Townsville from 9 a.m. Tuesday (7th) till 6 p.m., Wednesday. The weather is now gusty. The glass at the Pilot Station fell to 29.64, and at 10 p.m. was still falling. At Geraldton all the low-lying parts of the district are flooded. The river was very high yesterday but is now falling."

Sydney Morning Herald, 14th January, 1908.—"Information has been received by the Commissioner for Railways to the effect that traffic has been suspended upon the Ayr tramway, owing to flood-waters having covered portions of the line. The district engineer at Townsville wired the Commissioner that the flood-water is reported to be over the Bowen line in several places, and the water is 5 feet over the Elliot bridge. The power-house at Elliot was washed away and the boiler capsized. No damage was done to the line."

January Notes:—

Mackay.—River flooded with fresh water on 8th and 9th; normal during the evening of the 10th.

Walsh River.—River at times fairly high, and on three days during the month fordable only by horses.

Thornborough.—River Hodgkinson higher on 8th than for eight or nine years past.

Maytown.—River in flood on 8th; highest since March, 1904.

Kuranda.—Barron River rose 32 feet on 8th and several smaller rises of from 3 feet to 5 feet occurred; at end of month almost at normal level. This flood was three months earlier than usual and was the highest since 1894.

Reid River.—River in full flood on 9th and 10th.

Clare.—River in flood all the month.

Eton.—Creeks all flooded on 7th and 10th.

Gilbert River.—Rivers in flood.

Kynuna.—River a banker from 26th December, 1907, to 5th January, 1908.

Twin Hills.—Highest known flood in Suttor River for 32 years.

Jundah.—River Thompson in high flood from 25th December, 1907, to about 16th January, 1908.

Windorah.—Cooper's Creek in flood during early part of month.

Birdsville.—Abundance of grass and water everywhere in the district. Diamantina River within its banks; no flood.

Nappa Murrie.—River in flood during part of month.

Hungerford.—The Paroo River in flood at end of month.

Yaamba.—River in flood.

Mount Garnett.—Herbert River, 8 miles distant, more or less in flood during month.

Wyandotte.—Fresh in Wyandotte Creek on two occasions during the month.

Halifax.—River in high flood on 9th and 30th; and ran strongly all through month.

Ingham.—Rivers and creeks flooded during whole of month.

Acacia Vale.—River and creeks all full, but no local flood.

February Notes:—

Burketown.—Floods throughout district during first week of month. Albert River and all creeks between here and Floraville

in flood. On Gregory River (Camooweal side) heaviest flood since 1891, and in watershed of Leichhardt River (Cloncurry side), heaviest rains for last fifteen years. An early wet season. Vehicle traffic practically suspended.

Walsh River.—River in high flood twice during month started to fall on 29th.

Mount Garnett.—Creeks generally high, occasional floods.

Clare.—Burdekin River in flood all the month.

Lake Nash.—River very high first two weeks of month, crossable at end of month.

Kynuna.—River a banker on 1st, 2nd, 23rd, 24th, 25th, and 26th.

Twin Hills.—All creeks and rivers in district in flood.

Boulia.—All rivers in the locality flooded during month.

Blackall.—River in flood several times during the month. Country looking splendid; stock in good condition.

Macalister.—Creeks and Condamine River in high flood.

Windorah.—Cooper's Creek in flood on 6th, 7th, 8th and 9th. Grass and water plentiful.

Hungerford.—The Paroo River in high flood up to the 20th; now falling.

Yaamba.—River in flood.

Biggenden.—Creeks flooded.

Degilbo.—River gauge reading 13 feet. All creeks in flood.

Esk.—So far best season in this district for some years. Mail services dislocated several times owing to flooded state of country.

Goodwood.—River above its usual level nearly all the month; a splendid month for the country.

Kilkivan.—Wide Bay Creek full, and uncrossable at different sections throughout the month; mails, &c., delayed.

Mount Perry.—Creeks in vicinity full, uncrossable for short time on 22nd and 25th; creeks in district flooded.

4th March.—Portions of western railway submerged.

15th March.—Floods in the Fitzroy, Burnett, Mary, Brisbane, Logan, and Albert Rivers. At Brisbane the river rose to 14 feet $8\frac{1}{2}$ inches above low water springs. Serious flood at Rosewood.

17th March.—Wharf at Fairymead swept away. Floods at Gin Gin and Bingara not far short of those of 1893.

19th March.—Rockhampton wharfs submerged.

25th March.—Portion of Cairns inundated. Floods around St. George.

March.—Mein.—Very wet season. Archer River uncrossable since early in January. Flood last week heaviest ever known even by old aborigines. The flood waters extended about half a mile outside south bank of river, and carried away two bark huts erected on ground hitherto considered quite clear from river waters. Sixteen horses, gear, &c., belonging to a packer swept away, and telegraph wires snapped from poles on both sides of river.

Musgrave.—Creek in high flood on 2nd, 7th, 10th, 11th and 18th.

Floraville.—Rivers have all been in more or less high flood according to country drained. Mails blocked.

Harvey Creek (formerly Lower Russell River).—River in flood.

Laura.—The Laura River blocked traffic for longer period than for many years past.

Ingham.—Creeks and rivers full; some in flood.

Mt. McConnell.—Burdekin and Suttor Rivers uncrossable since Christmas. Grass and water plentiful.

Walkerston.—15th and 16th, creek in flood; 16th to 20th, creek and river in flood. Low country all flooded.

Twin Hills.—Splendid grass rain. River and creeks flooded.

Alice.—River overflowed banks during greater part of month.

Pine Hill.—Belyando River ran banker during month, but caused no damage.

Gindie State Farm.—River very high during earlier part of month.

Blackwater.—River Mackenzie bank high for two weeks, now normal.

Dingo.—All creeks in vicinity flooded.

Cambooya.—Creek rose 12 feet above normal. Moderate flood; a few fences washed away.

Charleville.—This month a somewhat unusual spectacle occurred—the Warrego in flood between Charleville and Cunnamulla. The river was at its highest, 10½ feet, about noon on the 7th inst. Observer unable to say whether the waters reached the Darling, but it is probable that they did.

Jundah.—River Thompson in high flood since New Year; and a very high flood occurred in the Barcoo.

Taroom.—River in flood from 16th to 21st; rose 25 feet above summer level.

Hawkwood.—All rivers and creeks in district have been in high flood; all mails flood-bound for a fortnight. Rivers and creeks still considerably above normal.

Miles.—Dogwood Creek up to 30 feet during month; end of month 3 feet high.

Chinchilla.—Heavy floods from 17th to 27th.

Malakoff.—Creeks all ran strongly in the beginning of the month, stronger than during previous ten years.

Surat.—River from 6 feet to 34 feet 6 inches above summer level all through month. Highest point reached at 3 p.m. on the 18th. Bridge under water on 7th and 8th, also from 17th to 30th inclusive.

Clifton.—Floods in various creeks and rivers in middle of month.

Dirranbandi.—Big flood; river rose to 17 feet 2 inches on 12th, fell to 11 feet on 18th, rose again to 17 feet 6 inches on 23rd, remained stationary three days, then fell slowly; height at end of month, 17 feet.

Hebel.—River in flood, 11 feet above summer level. Some country inundated. Roads on Queensland side impassable.

Collaroy.—Heavy rain on night of 12th. Biggest flood for year and a half.

Yaamba.—River in flood.

Burnett Heads.—River fresh until 15th, and in flood from 13th to 20th. Fresh till the end of the month.

Bundaberg.—Copious rainfalls in district during early part of month caused Burnett River to overflow banks to small extent.

Boonah.—Good seasonable rains; rivers and watercourses all flooded during month.

Brookfield.—Creeks all flooded; nearly as high as 1893 flood.

Crow's Nest.—Creeks flooded during heavy rains. Ground had best soaking since 1893.

Eidsvold.—Burnett River flooded throughout month; rose to greater height than at any time during past ten years. Grass and water in abundance. Stock in good condition.

Esk.—Heaviest rain and floods since 1903. All traffic practically suspended for some days. Extraordinary season.

Goodna.—River highest at 2 p.m., 15th—38 feet 4 inches.

Harrisville.—Creeks all bankers 13th to 17th, and all low lying lands flooded.

Ipswich.—Bremer River in flood; rose to 48 feet.

Kamerunga.—23 wet days. Bowen River (within ½ mile) at high tide level.

Kilkivan Junction.—Very wet season. River very high at various times owing to heavy rain over watersheds.

Laidley.—Excessive rains throughout district from 14th to 17th caused local floods and washaways, and some damage to crops.

Pinkenba.—Floods in river, and half of Pinkenba under flood for three days.

Redbank.—Flood covering all low lying lands.

Rocklea.—Owing to heavy rains on 14th and 15th, flood prevailed in this district, but did not reach quite as high as 1903 flood.

April.—Yaamba.—River in flood. More rain than is usual in April.

Hebel.—Country, which was inundated by overflow of rivers, very boggy; abundance of feed, which will improve, and last a long time.

Gayndah.—Stock in excellent condition. River crossable and traffic resumed after recent heavy and continuous floods.

1909.

11th to 20th January.—Floods on the Thompson and other western rivers during this period and afterwards to the end of the month.

30th January.—Floods in northern Queensland.

13th to 25th February.—Local floods. Rise in Warrego at Charleville; roads almost impassable. Creeks all in flood at Chinchilla. Burrum River impassable at Howard. Dingo Creek very high at Longreach.

19th March.—Cloncurry.—River very high; bridge leading to ballast pit partially washed away. All work again suspended on the Mount Elliott line.

19th March.—Muttaborra.—River over bridge; Cornish Creek a banker.

21st March.—Cloncurry.—Three washaways occurred on the railway line between Julia Creek and Cloncurry.

22nd March.—Croydon.—Country outside town boggy and impassable.

22nd March.—Longreach.—Thomson River at Camoola in flood, and at higher level than that reached during floods of last January and February; flats covered. At Longreach, Thomson within 2 feet of bridge.

22nd March.—Winton.—Diamantina River a banker.

3rd December.—Cairns.—Heavy rain; 575 points recorded during 24 hours previous to 9 a.m. Mulgrave River in flood; tramway bridge submerged; traffic beyond Mulgrave suspended. All creeks in district bankers; Barron and Stony Creek Falls in flood.

4th December.—Cloncurry.—Over 2 inches of rain at Marabah; creeks flooded, and all work in connexion with railway construction suspended. Three large washaways occurred on the Mount Elliott line.

25th to 28th December.—Phenomenal rainfall over the watershed of the Brisbane River. Mary River at Gympie in flood; highest level reached, 48 feet 9 inches, or 20 feet 9 inches above the decking of the Channon-street bridge.

30th December.—Mary River at normal level.

1910.

1st to 16th January.—Creeks flooded, and rivers swollen in all directions; considerable damage to railway lines.

19th January.—During a thunderstorm, no less than 371 points of rain fell in three-quarters of an hour at Harrisville, and caused a local flood. The railway bridge near the town was submerged. The water in Normanby Gully rose 8 feet in an hour, and at Churchbank it was more than a foot over the railway line.

22nd to 31st January.—Very heavy rain; floods along the Pacific slope; high seas on coast.

BIG FLOODS IN QUEENSLAND, MARCH, 1910.*

The March rains in Queensland were frequent and heavy, and over almost the whole State were above the average.

For the 24 hours ending 9 a.m. on the 7th, light to very heavy rain fell throughout—covering, in fact, almost the whole of the eastern half of the Commonwealth—under the influence of a system of low barometers which apparently had two centres of energy, one (9 a.m. 7th) over the eastern districts of Queensland south from the parallel of Townsville, and the other over Western Victoria. In central Queensland, some exceptionally heavy falls occurred, Longreach registering 498 points, Isisford

* From *Australian Monthly Weather Reports*, March and May, 1910.

485, and Barcaldine 314. By 9 a.m. of the 8th, the northern centre of energy had moved eastward, and was then shown to the north-east of Mackay.

Further light to heavy rain fell over all that country lying east from the line joining Normanton and Goondiwindi, the falls being heaviest in the north-east and south-east.

Under the influence of an area of low barometers off the central Queensland coast, a renewal of rainy weather set in in the south-eastern quarter on the 10th, and by 9 a.m. on the 14th, the rain area had extended northward to Torres Straits and the Gulf of Carpentaria.

On the 18th, a well-defined tropical storm was central in the neighbourhood of Townsville, and was causing further rain over the eastern districts of the central and southern divisions of the State, and the rain area again extended inland. Exceptionally heavy falls occurred in the central districts. For the 48 hours ending 9 a.m., 21st, Blackall recorded 494 points, Rolleston 405, Tambo 773, Rockhampton 851, and Gladstone 627.

As a result of the heavy rain that fell over the central and southern portions of the State during the greater part of the first three weeks of the month, stations situated on or in the neighbourhood of almost every river or stream south from latitude 20 deg. and east from longitude 142 deg., reported floods. In many instances the flooding was serious and attained record heights. Heavy losses occurred in stock; railway traffic was suspended; and the mail service was entirely disorganized.

Observers' notes are as follow:—

McDonnell.—River has been at a good swim all the month; maximum height 17 feet on the 7th inst., and lowest 4 feet 9 inches on the 18th and 20th.
 Coen.—River has been high.
 Walsh.—River flooded throughout month; large and small floods; not crossable, 1st April.
 Junction Creek.—Creek in high flood several times during month.
 Pentland.—River flowing strongly.
 Gilbert River.—River higher than for some years.
 Hughenden.—River has been very high at times.
 Winton.—All creeks in flood for about a week.
 Windorah.—Cooper in big flood.
 Urandangie.—River running over banks.
 Muttaburra.—River in flood.
 Jericho.—Floods from 19th to 21st; loss of stock; damages to rail.
 Alice.—River not so high since 1891.
 Barcaldine.—Flood in Alice highest ever known; stopped traffic a week.
 Alpha.—Creek broke over bank 20th; height, 29 feet.
 Clermont.—Country in flood; Sandy Creek 15 feet.
 Lochnagar.—Floods caused by heavy rain. (See Lochnagar Railway Station report).
 Pine Hill.—River in high flood.
 Twin Hills.—Highest floods since 1882; loss of stock.
 Tambo.—Highest flood on record 20th; Barcoo 18 inches higher than 1906; considerable loss of stock.
 Bauhinia Downs.—All creeks flooded.
 Duaringa.—Light floods; no serious damage.
 Rolleston.—Floods.
 Comet.—River flooded.
 Blackwater.—Local creeks in high flood.
 Dingo.—Country flooded for some days.
 Emerald.—River rose to highest point for 30 years; stock losses.
 Blackall.—Second biggest flood known on 20th; stock losses.
 State Farm, Gindie.—River flooded.
 Bowen Downs.—Big floods caused by heavy rains at heads of creeks.

Bluff.—Floods.

Isisford.—Barcoo River in flood; within 8 inches of 1906 flood.

Laura.—River in flood; traffic at standstill.

Cooktown.—River very high at times.

Halifax.—River overflowed banks three times.

Kuranda.—Barron River average about 3 feet above normal.

Wyandotte.—High flood three times.

Geraldton.—Floods.

Ingham.—River flooded.

Acacia Vale.—Creeks and rivers temporarily flooded.

Clare.—Burdekin River in huge flood; within 18 inches of January record.

Reid River.—River high.

Mount McConnell.—Burdekin, Suttor, and Selheim Rivers in high flood.

Nebo.—River running high.

Bowen.—Rivers and creeks repeatedly bankers.

Ravenswood.—River in flood.

St. Lawrence.—Heavy floods.

Islandholme.—River in high flood.

Rockhampton.—Fitzroy River rose to 25 feet 6 inches above summer level.

Walkerston.—River and creek flooded twice.

Queentown.—River high.

Bundaberg.—Fresh river.

Rosedale.—River and creeks more or less under flood.

Gayndah.—River in flood six days.

Cooran.—Creek rose to 12 ft. 4 in. on 16th inst.

Gympie.—River rose to 31 feet on 17th; receded; rose again to 23 feet on 22nd.

Tiaro.—River Mary above usual height two or three times.

Woombye.—Creeks running bankers.

Crohamhurst.—River constantly in flood.

Esk.—River 12 feet over normal.

Goodna.—Slight fresh during month.

Cedar Pocket.—Creek in a continual fresh.

Harrisville.—Warrill Creek in flood twice.

Oxenford.—River normal.

Howard.—River in fresh several times, but crossable.

Yeulba.—Creeks in very high flood.

Amby.—Creek in very high flood.

Roma.—Bungil Creek in very high flood for two days.

Surat.—River flooded; highest, 32 ft. 10 in. at 4 p.m., 23rd.

Warrong.—River has been running past Station for last seventeen weeks.

Bollon.—All creeks, Maranoa District, in high flood past fortnight.

Mitchell.—River rose to 20 feet on flood gauge on 21st inst.

Dirranbandi.—Big flood; river rose 17 feet on 27th and 28th.

Eurella.—All creeks ran bankers.

Hebel.—River in flood; some stock losses.

Lagoon Flat.—River high and uncrossable for few days.

Glencoe.—Warrego overflowed 26th inst.; flooded 30,000 acres.

Hungerford.—River rose 8 feet on 30th inst.

Langlo Downs.—River rose higher than previously known; general floods.

Augathella.—Record floods.

Wyandra.—River flooded on 19th inst. higher than 1906 record.

Cunnamulla.—Flood waters over large area; river rose 25 feet.

Charleville.—Maximum height of flood, 20 feet above usual level.

Thargomindah.—High flood in river, 29th, 30th and 31st.

LOCHNAGAR RAILWAY STATION.

Referring to rainfall, March 5th and 6th, this station seemed to be just on the outside of the fall, as Rocklea and Lochnagar, two stations to the south-south-east, registered 299 and 236 points respectively. They also report Back Creek ran and the Alice River is running. These stations are 6 miles distant from here.

11th March.—Good steady rain fell nearly the whole day and will greatly benefit the surrounding districts. The Alice River rose again to-day to about half a banker at the Lochnagar Rocklea crossing. Rainfall, Lochnagar railway, 24 hours, 22 points.

14th March.—Good steady rain fell during last night (Sunday), 170 points registered here, but over 2 inches both at Lochnagar and Rocklea stations. The Alice, after falling during Sunday, rose again through the night. Back Creek also ran this afternoon. Water over the rails at 330½ miles (between here and Alice); one washaway reported, but not serious.

18th March.—Yesterday was very close and muggy. At 8 p.m. a thunderstorm broke from the east; rainfall, 23 points.

19th March.—Very heavy rain all night, with strong winds at times from east; 461 points rain.

20th March.—Showery, with strong winds. Alice River very high; all the low-lying country covered. Alice River not known to be so high before. Railway line blocked; no trains running here.

24th March.—Lovely clear morning, strong wind blowing from east; country in a very boggy state.

27th March.—Weather now clear, with lovely cool atmosphere. First train got through (Brisbane Mail) since 18th March, 1910.

31st March.—Country looked splendid. All stock, travelling and otherwise, in splendid condition. Abundance of surface water sufficient for twelve months. Country in very boggy condition and quicksands very prevalent. Sand-flies and mosquitoes very bad. Birds of all kinds returning here to their former feeding grounds.

The following information respecting the March floods of 1910 was received through the courtesy of the Inspectors of police in the Charleville, Longreach, Roma and Toowoomba districts.

1. CHARLEVILLE.

Place.	Date.	Height.
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WARREGO RIVER.

Augathella ..	21st March	15½ feet
Charleville ..	22nd March	30 feet
Wyandra ..	24th and 25th March	50 feet
Cunnamulla ..	25th March	35 feet
Wooroorooka ..	30th March	10½ feet

BULLOO RIVER.

Milo Station ..	21st March	5 feet
Emudilla Station ..	21st March	9 feet
Thargomindah ..	31st March	10 feet

(The Bulloo is 6 miles from Adavale. The above dates are those on which the greatest heights were reached. The heights are only approximate, there being no flood-gauges; they were calculated from marks left on trees, &c.)

2. LONGREACH.

Station.	River.	Height reached above Summer Level.	Date.	Remarks.
Tambo ..	Barcoo ..	23 feet*	20th March	Highest flood known in Barcoo at Tambo
Blackail ..	" ..	25 feet*	21st March	
Isisford ..	" ..	30 feet*	19th March	
Tangorin ..	Landsborough Creek	..	..	This creek empties into Thomson River at Muttaborra. Floods in March, 1910, so small that they would have no effect on Thomson River
Muttaborra	Thomson, Landsborough Creek, Cornish Creek	12 feet	17th March	On gauge
Longreach	Thomson ..	12 feet*	18th March	
Arrilalah	" ..	20 feet*	22nd March	
Stonehenge	" ..	24 feet*	26th March	
Jundah ..	" ..	23 feet*	29th March	
Windorah	Cooper's Creek	25 feet*	29th March	

* Figures approximate.

NOTE.—The floods in March, 1910, were not as high as those of 1906, except at Tambo (Barcoo River) and Jericho on Jordan River. The Rivers Barcoo and Thomson junction near Windorah, after which the stream is known as Cooper's Creek, which runs into South Australia, and although, according to the map, the channels of Cooper's Creek appear to terminate before reaching Lake Eyre, its flood waters do eventually reach the lake. Therefore, the sub-inspector points out, the flood waters of the Barcoo and Thomson could not possibly have any effect on the floods that occurred in the northern rivers of New South Wales.

3. ROMA DISTRICT.

Date.	Station.	River.	Height of Flood Waters above Ordinary Level.
20th March ..	Condamine ..	Condamine ..	8 feet
19th March ..	Goondiwindi ..	Weir ..	12 feet
17th March ..	Goondiwindi ..	McIntyre ..	31 feet
19th March ..	Goondiwindi ..	Moonie ..	12 feet
4th March ..	Hebel ..	Balonne ..	16 feet
21st March ..	Mitchell ..	Maranoa ..	18 feet
21st March ..	Mungindi ..	Barwon ..	21 feet
21st March ..	Mungindi ..	Weir ..	15 feet
21st March ..	Mungindi ..	Moonie ..	8 feet
23rd March ..	Surat ..	Balonne ..	32 feet
25th March ..	St. George ..	Balonne ..	27 feet.

4. TOOWOOMBA DISTRICT.

The Condamine rose at Killarney 3 feet above summer level, at Warwick only a slight rise was noticeable, and at Chinchilla there was a rise of 6 feet.

The McIntyre Brook rose at Inglewood 9 feet above summer level.

The Dumaresq River at Texas rose a few feet above summer level, owing to a few freshes.

5th and 12th April.—River at Thargomindah in high flood.

16th July.—Flood in Cooper's Creek.

10th to 18th November.—Burdekin River in high flood at Ravenswood; crossable on the 27th.

— November.—Thargomindah reports—Bulloo River in high flood for two weeks; rabbits drowned in thousands.

31st December.—Barron and Mulgrave Rivers in full flood.

1911.

6th January.—Floods in the Cairns and Townsville districts.

9th and 10th January.—Heaviest flood known at Mount Cuthbert; huge trees uprooted from the banks of creeks.

10th to 24th January.—Highest recorded flood at Floraville; country submerged for miles. Rivers and creeks overflowed; river still in flood.

12th January.—Floods occurred in various places in southern Queensland. 600 sheep were drowned near Warwick owing to the rapid rise in Emu Creek. Streets flooded at Laidley.

13th January.—Floods at Rosewood.

January.—Floods delayed traffic during month at Laura and New Einasleigh. Floods feared at Murweh.

3rd February.—Balonne River 12 feet over the bridge at St. George, and 6 feet at Surat.

4th February.—Flooding of a more or less serious nature occurred on the Fitzroy, Burnett and Mary Rivers, but the Brisbane River escaped owing to a deflection of the storm track away from the south-east coast.

February.—Darr and Thomson Rivers in high flood at Arriolah; land flooded as far as the eye can see. Water began to recede on the 7th. Many rivers and creeks in flood in the Peninsula Division during the month. Heaviest floods for fourteen years at Halifax. Sellheim and Burdekin Rivers in flood. Rivers in flood in the Maranoa division during the month; also heavy rains and floods in south-west.

16th March.—Widespread devastation caused by wind and flood in the plantations and farms in the vicinity of Cooktown.

March.—Floods at Mulgrave Central Mill, near Cairns. The month closed with every appearance of a record flood at Palmerville. Record flood over the whole country at Thornborough; much damage to mines and agriculture. River highest on record at Mareeba. Record flood since 1893 at Hebel.

1st April.—Heavy rain in north Queensland. Record floods at Palmerville and Walsh River; big loss of stock. On the 1st, 2nd, and 3rd the Barron River was in flood at Kuranda; flood estimated to be the highest on record.

6th April.—Considerable damage done by floods at the Kamerunga State Nursery.

7th April.—Over 5 inches of rain fell in two hours at Cloncurry. Railway traffic interrupted.

11th April.—Portions of the railway lines in north Queensland washed away; 1,000 men employed for many weeks to repair the damage done by the Barron and other rivers.

1912.

January.—River flooded at Walsh.

February.—River in flood for two days at Taroom.

1st to 3rd March.—Slight flood in Stanley River, and a moderate fresh in the Mary River.

17th March.—Longreach.—Rise in river; flood waters from north.

March.—Rivers in high flood at Floraville. River in flood at Halifax and Caboolture.

March.—Blackall.—River in flood during month owing to heavy rains in district.

March.—Windorah.—River about 10 feet above normal. Good rains west of Windorah; Diamantina and Georgina rivers fairly big and wide-spread.

March.—Richmond.—River in flood during early part of month, owing to heavy rains at its source.

6th to 12th June.—More or less flooding occurred in the central rivers, and the Mackenzie, near Comet, rose to 57 feet, or within 6 feet of the highest flood on record.

17th June.—Cunnamulla.—River rose about 16 feet.

17th June.—Over 20,000 sheep, belonging to the Arcturus Downs station, were, it was reported, swept away and drowned during the recent flood in the Comet River.

22nd and 23rd June.—Thomson River in flood.

June.—Some floods reported from the Central Coast district.

June.—Emerald.—Very heavy rain; all rivers and creeks in the central-west flooded; Nogoia, at one period, 42 feet above normal.

1st July.—Roma.—On several occasions lately, river overflowed its banks; now normal.

5th July.—Cunnamulla.—River rose about 27 feet.

10th July.—Floods in the western district at Longreach and Muttaborra.

13th July.—Longreach.—River rose as high as the bridge.

July.—Windorah.—River very high in early part of month.

July.—Thargomindah.—River in flood for nearly four weeks.

1913.

13th to 17th January.—A tropical disturbance caused very heavy rain south from Townsville, especially heavy on and near coast between the Tropic and Wide Bay. Record flood occurred in Baffle Creek, near Rosedale.

29th to 31st January.—A terrific tropical disturbance struck the coast between Cooktown and Cardwell during evening of 29th; torrential rainfall; highest floods on record at Innisfail, Cairns, and various other places. At Innisfail, cane crops were covered and stock drowned; over 100 houses under water; telegraph lines submerged for miles. River in heavy flood at Ingham; water 25 feet over the bridge, all low-lying land submerged; all farms around Long Pocket and Hawkins Creek under water; numerous washaways on the railway line between Cardwell and Lucinda. At Cairns, Mulgrave River 20 feet over railway bridge; Barron River in flood; big flood in Freshwater District.

8th to 17th February.—Widespread rains. Floods in rivers in inland parts of Northern and Central divisions. Railway washaways in parts of the north.

21st to 28th February.—General rains; very heavy on parts of coast and in central districts. High floods subsequently occurred in the Thompson, Barcoo, Bulloo, and Paroo Rivers, and in Cooper's Creek; mails for many inland towns delayed. At Longreach, the Thompson rose to within 2 feet of the 1906 flood mark. Railway washaways occurred near Winton, between Hughenden and Richmond, and near Cairns. Station Creek, at Chillagoe, in flood.

FROSTS (SEVERE) AND EXCEPTIONAL COLD.

1862.

24th April.—Toowoomba.—Winter set in early this season. Two or three sharp frosts already experienced.

30th April to 9th May.—Toowoomba.—Cold wet weather, accompanied by thick fogs.

30th May.—Ipswich.—Winter set in with uncommon severity. At 6 a.m. on 30th the thermometer in the hall of a house stood at 38°, and hoar-frost lay thick upon exposed parts of the ground.

3rd June.—Warwick.—A piece of ice, an inch and a half thick, was seen a morning ago.

7th June.—Gayndah.—Several rather frosty nights damaged the grapes, and gave the country a dry and parched appearance.

23rd to 27th June.—Toowoomba.—Nights very cold.

23rd to 30th July.—Toowoomba.—Extremely cold weather.

24th June.—Dalby.—Bright days and rather sharp, frosty nights.

26th to 28th July—Brisbane.—The nights of the 26th, 27th, and 28th were intensely cold, and towards morning the ground was covered with hoar-frost. In the neighbourhood of Brisbane the bananas and other plants situated on the low grounds near fresh water, or on the banks of the river, were much damaged. At several places in the vicinity, the water in casks and other vessels was frozen to the thickness of half an inch.

At Toowoomba, ice was said to be fully an inch thick.

Ipswich.—Very severe frosts. On the morning of the 26th, the thermometer stood at 28°, and ice a quarter of an inch thick was to be found in most exposed places; whilst at noon the thermometer stood at 92°.

29th July.—Warwick.—Sharp frosts in the mornings.

11th August.—Ipswich.—Sharp frosts night after night; planting delayed.

August.—Brisbane.—Hoar-frosts on the mornings of the 5th, 8th, 9th, 10th, and 16th. The 16th was the coldest morning of the winter; terrestrial thermometer reading 29°. A large quantity of fruit and vegetables was destroyed about Brisbane that night. No rain for the month.

4th October.—A correspondent of the *Rockhampton Bulletin* writing from the Kennedy district about this date, stated that the cold weather had been more severe, and extended over a much longer space of time than during the previous year. In the vicinity of the coast, no frosts were observed, but 15 and 20 miles back severe frosts and ice were reported. On the Upper Bowen, ice was said to have been seen as thick as a crown piece. On the tablelands of the Upper Burdekin, the frosts were severe enough to kill the young grass on lately burnt ground. Mr. McKinlay and others stated that it was nothing uncommon there (on the Upper Burdekin) to have water or tea frozen in the pannikins overnight, or to find ice on the blankets over them in the morning. A climate most extraordinary surely, continued the correspondent, in latitude 19° and 20°, at trifling altitudes above sea level.

1863.

27th April.—Ipswich.—Herbage in and around the town covered with hoar-frost.

30th May.—Gayndah.—Two or three very cold frosty nights.

9th June.—Toowoomba.—One or two very sharp frosts.

10th June.—Rockhampton.—Cold frosty nights.

27th June.—Gayndah.—Three or four severe frosty nights.

10th July.—Warwick.—One of the most severe frosts of the season; temperature indoors fell to 33°; pieces of ice three quarters of an inch thick seen.

1st August.—Dalby.—Severe winter weather set in, extremely cold during past week.

30th September.—Auburn.—Sixty hours of cold, bleak rain; many young lambs killed.

12th October.—Hamilton Plains, Dalby.—Cold weather killed many young lambs.

1864.

1st June.—Toowoomba.—Exceedingly severe frosts for past few nights.

1865.

3rd June.—Fortitude Valley.—Severe cold last few days—ice as thick as a half-crown piece found on water. At Bulimba the ground was covered with hoar-frost.

1866.

31st May.—Blacks perishing from cold at Roma.

28th June.—Oxley Creek.—Boisterous and very cold. Severe frost in morning.

5th July.—Roma.—Weather very cold at night. On one occasion ice formed $\frac{3}{4}$ of an inch in thickness.

7th July.—Goondiwindi.—Cold, frosty nights.

14th July.—Toowoomba.—Piercingly cold weather at times.

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24th July.—Toowoomba.—Hard frost last four nights. Ice formed nearly an inch thick on some shallow water.

26th July.—Oxley Creek.—Last few mornings very cold. Frosts sharper than any previously experienced during season.

28th July.—Toowoomba.—Sharp frosty nights, thick hoar frost in morning. Ice on tanks up to three-quarters of an inch in thickness.

30th July.—Goondiwindi.—Weather for last ten days intolerably cold. Frosts and cold winds with blighting effects. Teams unable to travel, cattle impoverished by starvation and cold. Butter, milk, &c., unobtainable. People forced to subsist on a mixture of flour and water.

5th August.—Bulimba.—Sharp frosts, doing much damage in neighbourhood.

7th August.—Clermont.—Late frosts checked growth of grass. Great scarcity of young feed in consequence.

16th August.—Holmes' Camp, Murphy's Creek.—Nights intensely cold; thin layers of ice on all still water in mornings.

25th August.—Goondiwindi.—Cold, frosty nights. Ice half an inch thick on water in mornings.

20th September.—Pumpkins, melons and even comparatively hardy creepers, ruined by frost and the bitter cold of last two mornings.

25th September.—Toowoomba.—Two nights of hard frost at beginning of last week.

28th September.—Cold and wintry weather at Toowoomba.

1867.

19th June.—Oxley Creek.—Frosts occurred daily during past week.

1868.

28th May.—Tingalpa.—Several nights of frost.

3rd June.—Warwick.—Ice seen on three consecutive mornings. On Saturday night (30th May) the thermometer registered 31°, on Sunday night 30° and Monday night 27°.

21st July.—Upper Mary.—Ice a quarter of an inch thick observed about this date.

21st and 22nd July—

Mimosa Creek.—Mornings exceedingly cold and frosty.

Gayndah.—Frost prevented the rain from doing any good.

13th August.—Oxley Creek.—Last morning or two fearfully cold; severe frosts.

25th August.—The Logan district.—Severe frosts during the past week; damage greater than at any previous time during the season; sugar crops on low places completely cut, and other early crops suffered also.

1869.

3rd August.—Brisbane.—The Government Meteorological Observer stated that the night of 3rd was the coldest experienced in the colony during the past seven years. temperature 27°. In situations exposed to the action of the frost, but sheltered from the wind, ice about the thickness of a shilling formed on the water.

6th to 11th August.—Warwick.—Three very sharp frosts experienced, the most severe for the winter. During night of the 6th the thermometer registered 28°, during night of 10th 24°, while at 9 a.m. on 11th it was still at freezing point. In some places ice, fully half an inch thick, formed.

7th August.—Dalby.—Frost every night; ice formed on the water to the thickness of about a quarter of an inch; at sunrise grass covered with hoar-frost.

1870.

22nd June.—Peak Mountain.—Cotton fields looked like one vast sheet of brown leaves and shaggy wool, owing to frost.

4th July.—Gilberton.—Severe frosts at night.

18th July.—Eight Mile Plains.—Two or three mornings of rather severe frost.

1st October.—Rockhampton.—Frost; ice as thick as a shilling on water tank.

1871.

19th June.—Oxley.—Severe frost; ice formed.

24th June.—Peak Downs.—Sharp frosts; water frozen; ice, in some cases, a quarter of an inch thick. On the morning of the 19th the temperature was 28°.

14th July.—Condamine.—Severe frosts; ice a quarter of an inch thick.

9th September.—Burnett district.—Long continued and severe frosts, together with droughty conditions and bush fires, were the main causes of the great losses of stock.

2nd October.—Toowoomba.—A nipping frost set in and severely affected the potato, cucumber and melon plants, whilst the best of the young vine shoots were destroyed.

2nd October.—Warwick.—“Black frost” caused terrific havoc among the early grape vines; leaves all withered and black.

1872.

17th May.—Ipswich.—Heavy frosts in mornings during the week.

10th June.—Inglewood.—Remarkably heavy frosts.

4th July—

Thermometer stood at 10° below freezing point at Warwick.

Oxley.—Most severe frost of season.

5th July.—Ipswich.—Last two nights extremely cold. Ice in abundance this morning.

19th July.—One or two rather heavy frosts at Oxley.

1st August.—Mount Perry.—Weather bitterly cold with severe frosts.

9th August.—Condamine.—Weather still cold at night, with many white frosts.

13th August.—Goondiwindi.—Dry, cold weather, with frosts, still prevails.

1876.

2nd April.—Sharp frost at Warwick.

1st May.—Three degrees of frost at Stanthorpe.

1885.

3rd July.—Thermometer at Toowoomba registered 17° on the grass.

1887.

11th and 17th May.—Banana.—Grass cut by heavy frosts.

18th and 24th June.—Ayrshire Downs.—Heavy frosts.

27th June.—Heavy frosts at Ayrshire Downs and Cumberland. Herberton—Minimum temperature, 26°; ice $\frac{1}{4}$ -in. thick; vegetation affected.

June.—Severe frosts occurred during the month over the Central and Southern divisions, especially on the Downs; vegetation affected at places. Coldest month experienced for some years at Bon Accord and Isisford, also at Cooktown. Ice recorded on several occasions at Allora, also on one or two days at Wyandotte, Clermont, and Marlborough. At Weribone, Surat, the heaviest frost (one which lasted for three weeks) ever experienced in the locality occurred.

12th and 13th July.—Watsonville, Cairns.—Thin ice formed on swampy ground.

13th and 14th July.—Walsh River.—Sharp frosts for (according to the observer's remarks) the second time in ten years.

Wyandotte.—Sharp frosts; ice formed.

14th July.—Herberton.—Minimum temperature 25°; ice $\frac{1}{4}$ to $\frac{1}{2}$ -in. thick.

17th–31st July.—Waroonga, Mitchell.—Very severe and continuous frosts experienced.

July—

Highbury, Cooktown.—Slight frost on one occasion about the commencement of the month. Observer stated that it was the first frost ever experienced so far north.

Sharp frosts over the Darling Downs, Maranoa, and parts of Port Curtis division, chiefly from the 8th to 11th, and 19th to 27th.

5th–9th August.—Sharp frosts over the Downs and Central Highlands, also at places in South Coast division. Ice formed at Bogantungan and Weribone (Surat).

8th–10th September.—Frosts at many places in South Coast, and at few stations on Downs and in Central districts.

September.—Waroonga, Mitchell.—Frosts almost every day up to 28th; vines and fruit trees damaged.

1888.

6th June.—Stanthorpe.—Severe frosts.

21st June.—Exceptionally cold morning; thermometer at 4 feet above ground registered as low as 20° at Cambooya, 27° at Roma, and 28° at Warwick; frost recorded at many stations.

22nd June.—Upper Mary District.—Severest frost experienced for many years past occurred during night; cane crops very badly affected.

24th June.—Warwick.—Coldest weather experienced for many years; temperature 15° below freezing point; water in pipes frozen to such an extent that in several instances the pipes burst.

25th June.—Ipswich.—Coldest morning so far for the winter; severe frosts experienced for several days past.

11th July.—Toowoomba.—Very cold weather; severe frosts nightly.

14th July.—Gin Gin.—Sharp frosts at night during past fortnight.

16th July.—Heavy frosts recorded at many inland stations.

17th July.—Very cold weather; severe frosts recorded generally over the Downs; a report from Roma stated “ice may be found every morning.”

22nd and 23rd July.—Exceptionally cold nights at Warwick, Maryborough, and Roma.

26th July.—Intense cold on the Downs; 17° of frost at Cambooya; water frozen in pipes at Warwick; heaviest frost for season at Toowoomba, where ice half-an-inch thick was found in exposed positions.

26th July (about).—Herberton Mining District.—Good thick coating of ice observed on water in exposed vessels.

July.—Carandotta, *vid* Boulia.—Exceedingly and unusually cold winter; very severe and long-continued frosts took all sustenance from the abundant supply of grass.

July.—Forest Vale, near Mitchell.—Excessively cold winter; the thermometer (on the grass) read on several occasions as low as 12°.

1889.

28th June.—Goombungee.—Ice observed first time for season; very severe frosts experienced lately.

1st July.—Tambo.—Very heavy frosts at night for past week.

1st and 2nd July.—Brisbane.—Exceptionally cold nights; heavy frosts, especially at Milton, Rosalie, and Torwood; water in tubs left in the open at Torwood thoroughly frozen over.

2nd July.—Gympie.—Severe frost; ice observed in many localities.

2nd July.—Maytown.—Temperature 8° below freezing point; several very cold nights during last few weeks.

3rd July.—Cunnamulla.—Sharp frosts at night during past week.

4th July.—Allora.—Hard frosts during past week; on the 2nd ice up to half-an-inch thick formed on all open water; gardens badly affected; sleet in district on 3rd.

1890.

1st July.—Cunnamulla.—Cold nights with occasional frosts. At Widgeeooora the frosts recently experienced were the severest for many years past.

3rd July.—Frosts around Peak Downs, and ice observed at Clermont. Low temperatures and frosts over the Darling Downs.

4th July.—Further frosts throughout the Darling Downs and the Central districts. Minimum temperatures, taken at standard height of 4 feet above surface of ground, at a few selected stations:—Alice River 33°, Crow's Nest 29°, Dalby 30°, Dulacca 32°, Goondiwindi 30°, Killarney 25°, Warwick 28°.

5th and 6th July.—Low temperature in many parts of State. Minimum readings :—Alice River 29°, Cambooya 25°, Stanthorpe 24°, Crow's Nest 28°, Goondiwindi 30°, Roma 29°, Dulacca 25°, Clermont 31°, Avon Downs and Mitchell 28°.

7th July.—Mackay—Very low night temperatures for this district; from 30° to 40° registered during the past week.

10th July.—Heavy frosts over Darling Downs and Maranoa districts. Minimum readings :—Dulacca 23°, Killarney, Mitchell, Roma and Nanango 27°, Dalby 28°.

11th and 12th July.—Very severe frosts in many parts of Southern Queensland; minimum temperature each day at Stanthorpe 12° below freezing point. Other minimum readings :—Cambooya and Killarney 20°, Warwick 21°, Dulacca 22°, Miles 23°. The thermometer on grass at Maryland registered 8° only on morning of 12th. Ice was observed at places in the vicinity of the Acclimatization Society's Gardens, Brisbane; while at Toowoomba, ice over half-an-inch thick was found in exposed positions.

The following note was published in *Brisbane Courier* of 15th July :—“The late reading of 8° on the grass at Maryland, 3,000 feet above the level of the sea, beats the record. There was a mythical 10° at Warwick some 25 years ago, and 11° at Cambooya in 1887, which last is more wonderful (elevation considered) than 8° at Maryland.”

14th July.—Heavy frosts in many parts of southern divisions; ground frosts around Brisbane. A report from Roma stated “weather clear and cold, ice every morning,” and one from Rockhampton stated “ice was found in lumps along the Central Railway line this morning.”

15th July.—Heavy frosts in various parts of Southern Queensland; minimum temperature at Stanthorpe again 12° below freezing point. Other minimum readings :—Cambooya 21°, Warwick 22°, Dulacca and Killarney 23°, Maryland 26°.

24th, 25th, and 26th July.—Heavy frosts over the Maranoa, Darling Downs, and Burnett districts. Minimum shade temperatures :—Warwick 25°, Dulacca 26°, Cambooya and Miles 27°, Mitchell 29°, Roma 30°.

30th July.—Maryborough—The recent frosts did no material damage to sugar-cane in district.

30th July.—Minimum temperature at Clermont 26°, and Cambooya 29°.

July.—Fanning River (near Chartars Towers)—For some weeks past severe frosts occurred almost every night.

1891.

19th June.—Frost at many places in Maranoa, Darling Downs, and Moreton districts; minimum temperature at Stanthorpe, 26°.

22nd June.—Frost at many places in Darling Downs and Maranoa districts. Minimum temperatures :—Cambooya 25°, Roma 27°, Killarney and Dulacca 28°, Tambo and Mitchell 29°.

30th June.—Frost over Darling Downs. Minimum temperature at Stanthorpe, 26°.

2nd–4th July.—Frosts over Darling Downs and parts Maranoa district. Minimum temperature 22.4° at Cambooya.

7th July.—Frost at many stations. Minimum temperature at Cambooya 27°.

16th and 17th July.—Frost at places on Darling and Peak Downs, and Central highlands. Minimum temperatures :—27° at Tambo and 25° at Cambooya.

28th July.—Frost at many stations on the Darling Downs.

13th to 22nd August.—Frosts at many places on Darling Downs and in Warrego and Central divisions. Minimum temperatures :—26° at Killarney on 19th, 25° at Dulacca and Cambooya on 22nd.

24th August.—Goombungee—Nights extremely cold, with hard frosts.

1892.

3rd June.—Many frosts over the Peak and Darling Downs; minimum temperature at Avon Downs 32°, and Warwick 27°.

11th–12th June.—Very heavy frosts over Darling Downs and Maranoa district; frost appeared like snow on the ground; plants

shrivelled and cut. Minimum thermometer readings :—Warwick 24°, Cambooya, Stanthorpe, and Wallangarra 25°, Dulacca and Killarney 27°, Mitchell, Pittsworth, and Toowoomba 29°.

13th June.—Upper Mary—Slight frost on the 9th. Frosts this year much less severe than those experienced during past four years.

18th June.—Many frosts over Darling Downs; minimum temperature at Warwick, 26°.

22nd and 23rd June.—Frosts general on Peak and Darling Downs. Minimum temperatures :—Warwick and Stanthorpe 25°, Tambo 28°, Roma 29°.

25th June.—Very cold weather over Peak and Darling Downs; minimum temperature at Cambooya and Warwick, 23°.

27th and 28th June.—Very cold nights on Maranoa and Darling Downs. At Roma, on 27th, thin layers of ice formed on water in open tanks. Minimum temperature at Stanthorpe, 25°.

1893.

2nd–7th July.—Frosts over the Darling and parts of the Peak Downs. Lowest temperatures for year over the Downs were recorded during this period, viz. :—Stanthorpe 19°, Cambooya 19.4°, Killarney 23°, Springsure 25°.

10th July.—Frost at many stations. Minimum temperatures :—Boulia 28°, Dulacca 23°.

10th July.—Heavy frosts about this date in Mackay district. At one plantation the temperature was, it was stated, as low as that recorded during the severe frost of 1883; cane plants affected.

12th July.—Frosts at many places on Darling Downs. Minimum temperature at Cambooya and Stanthorpe, 25°.

16th July.—Taroom—Twenty-six consecutive frosts (some severe) experienced; severest winter in district for many years. Rain of continuous character preceded the frosts; cattle and horses in poor condition.

21st July.—Frost over Darling Downs. Minimum temperature at Boulia 29°, Stanthorpe 28°.

22nd July.—Caboolture—Frosts (severest for many years) experienced every night for past three weeks; very little grass for stock.

1894.

2nd–4th June.—Frosts over the Downs; minimum temperature, Stanthorpe, 26°.

6th June.—Frost in the Logan and Albert district marked potato plants and pumpkin vines.

11th–13th June.—Frosts at many places on the Downs; minimum temperature, Stanthorpe, 25°; Cambooya, 26°.

16th June.—Further frosts reported, especially from the Darling Downs stations. Minimum temperature at Stanthorpe, 24°.

16th June.—Herberton—Heavy frost on and near the Evelyn tableland; earliest frost experienced in district during last ten years.

18th and 19th June.—Frosts recorded over greater part of the colony. Minimum temperatures—Stanthorpe 22°, Killarney 25°, Dulacca and Miles 26°, Yandilla 27°.

18th and 19th June.—Logan and Albert district (from the local correspondent)—Very severe frosts experienced lately. The upper portion of the district, though containing thousands of acres of the richest of land, is not suitable for sugar cane, owing to heavy frosts.

21st June.—Nanango—Very severe frosts experienced on many occasions during past four weeks.

29th June.—Frosts at many places on the Downs.

4th to 14th July.—Severe and general frosts over the interior, especially on the Downs. Minimum temperature at Cambooya, 19.1° on 10th. Longest spell of severe frosts at Toowoomba since 1890. All the small waterholes at Taroom were on one occasion frozen over, and even water in jugs in dwellings frozen, whilst ice formed on water in dishes in the open on the 11th at Rockhampton, and on the 12th at Corinda, Wynnum, and in the Rocklea district.

17th July.—Minimum temperature at Wyandotte 28°, Dulacca 27°, Avon Downs, Boulia, and Alice River 26°.

20th–27th July.—Frost at many places, more particularly on the Downs and the Central highlands. Minimum temperature at Cambooya, 21.1° on 24th. Ice about 3 inches thick formed on water in a bucket at Beaudesert on 24th; ice observed also during this period at Marlborough.

31st July.—Minimum temperature at Cambooya 25.1°, and Boulia 29°.

July.—Taroom—Coldest winter experienced for many years; 28 consecutive heavy frosts recorded during the month; live stock adversely affected by the cold spell, and work on surrounding stations suspended.

July.—Brisbane—Frequent dews and ground frosts during the month.

3rd and 4th August.—Frosts on the Downs.

7th August.—Cambooya minimum temperature, 23°.

9th and 10th August.—Frosts at many places, especially on the Downs. Minimum temperature at Cambooya on 9th, 22.3°.

14th August.—Frosts over the Downs.

20th August.—Crosshill, Toowoomba—A correspondent stated that owing to the long protracted winter, the longest on record, stock were in low condition; frosts every night, but fairly warm days; water fairly plentiful; ice three-quarters of an inch thick formed on water in a basin in the open on the 9th.

30th August.—Frosts recorded here and there over the Downs.

August.—Brisbane—Frequent dews and ground frosts during the month.

September.—Brisbane—Frequent dews and ground frosts during the month.

1895.

4th and 5th June.—Frosts at many stations; minimum temperature, 20° at Cambooya, Stanthorpe, and Wallangarra.

12th–14th June.—Heavy frosts at many places, especially on the Darling Downs. Minimum temperatures—Cambooya and Stanthorpe, 17° on 12th; Stanthorpe, 18° on 13th and 14th.

17th–21st June.—Heavy frosts on Darling Downs; minimum temperature at Cambooya on 19th, 25°; ice an inch thick observed at Taroom on 17th.

25th–29th June.—Heavy frosts on Darling Downs, also in Central and South-east districts. Minimum temperatures—Stanthorpe, 20° on 26th; Alice River and Dulacca, 24° on 28th; Cambooya, 19° on 29th.

June.—Brisbane—Heavy frosts at various places in the suburbs. Minimum reading of thermometer on grass at Observatory, 32° on 29th.

2nd–4th July.—Very heavy frosts over the country south from the Tropic. Lowest temperature for the winter. Minimum screen readings on 4th—Cambooya 13.7°, Dalby and Mitchell 19°, Warwick 18°, Killarney and Miles 17°, Stanthorpe 12.2°. At Stanthorpe on the morning of the 4th, when the record low temperature in the screen for Queensland (12.2°) occurred, running water in the creeks was frozen over, and ice half an inch thick formed. At Warwick, sheets of ice over half an inch thick lay in the water-tubs at noon on the 2nd, and it was stated that the lowest temperature previously recorded at that place, viz. 17°, occurred twenty years ago.

Considerable damage was done by the frosts to growing cane in the Maryborough, Bundaberg, and Southport districts.

9th July.—Frosts in Central and South-eastern districts. Minimum temperatures—Emerald 32°, South Brisbane 27°, Stanthorpe 15°.

9th July.—Hungerford—The local Customs officer wrote:—“Weather cool, with very little frost for this time of the year.”

11th–16th July.—Heavy frosts over Central and South-eastern districts, especially on south-east highlands. Minimum temperatures—At Cambooya 20° on 13th, 21° on 16th, and 23° on 15th.

Mr. T. Walter, of Sheep-station Creek, Kilcoy district, stated that the frost was unprecedentedly severe in that locality on the 11th, when waterholes were frozen over, milk frozen; water in a billycan frozen into a solid block of ice, and icicles 8 inches long depended from eaves of houses in the township.

14th July.—Bundaberg—Damage done by recent frosts severe in patches, but not general as was the case last year.

22nd to 26th July.—Heavy frosts in parts, especially on Darling Downs and the south-east highlands.

23rd July.—Dalveen—Winter most severe; ice an inch thick on water in the open until noon.

26th July.—Rockhampton—Weather during week extremely cold. On morning of 26th the thermometer registered 35.7° in shade, and a solid block of ice was found in an open plate three-quarters of an inch deep, which had been filled with water and put out over night at North Rockhampton.

26th July.—Beenleigh, Logan and Albert districts—The very severe frosts seriously damaged the young cane; much reduced yields anticipated.

28th July.—Rockhampton—Ice half an inch thick found as late as 9 o'clock.

29th July.—Very low temperatures in many instances; the lowest for the winter throughout country; frost recorded as far north as Junction Creek. Minimum readings—Wyandotte 25°, Avon Downs 27°, Cambooya 17°, South Brisbane 30°.

July.—Brisbane—Heavy frosts at various places in the suburbs. Minimum reading of thermometer at Observatory on grass, 27.8° on 4th.

1st August.—Roma—Very dry, cold winter; ice formed frequently on creeks and water courses, and lasted till midday.

1st August.—Townsville—Reports from the Lower Burdekin stated—“Severe frosts experienced over the whole district; on 29th ice a quarter of an inch thick was seen in a can; cane on low-lying ground badly affected.”

2nd to 12th August.—Frosts in East and South-east districts. Minimum temperatures—Stanthorpe, 23° on 8th; Dulacca, 25° on 9th.

8th August.—The local Customs officer at Mungindi reported:—“The last weeks of June and July were the coldest known in district; thermometer down to 27°; lambs and other stock lost through cold and want of green feed; snow water from New England district (N.S.W.) made the river rise about a foot last week.”

16th August.—Frost on parts of the Downs; minimum temperature at Miles, 23°.

23rd, 24th, 27th, and 30th August.—Frosts on the Downs; minimum temperatures—Dulacca, 23° on 23rd; Cambooya, 24° on 24th; Cambooya, 23°, and Stanthorpe, 21° on 30th.

August.—Brisbane—Heavy frosts at places in the suburbs. Minimum reading of thermometer at Observatory on grass, 33° on 4th.

1896.

12th May.—Upper Logan—Heavy frost during night; potatoes and pumpkins considerably damaged.

1st to 6th June.—Frosts over Central and Southern divisions, and (on 3rd) at places in Upper Carpentaria district; ice observed on several occasions in the Logan and Albert districts.

15th–27th June.—Frosts over southern half of State, and in places in Upper Western and Upper Carpentaria divisions; ice observed at Georgetown and Hughenden. Minimum temperatures—23° at Cambooya on 15th, 21° at Stanthorpe on 17th, 20° at Stanthorpe on 18th, 23° at Cambooya on 20th and 22nd, 24° at Alice on 24th, 23° at Mitchell on 25th, and 24° at Stanthorpe on 27th.

20th June.—Oak Park—Frequent and severe frosts during past two months.

June.—Brisbane—Frost on several occasions. Temperature at Observatory on grass, 30° on 22nd.

1st–7th July.—Frosts over Darling Downs and South Coast divisions. Water in taps at Bowen Park, Brisbane, frozen on morning of 3rd; heaviest frost at Bowen Park for twelve years

vegetation affected to a great extent. Minimum temperatures—17° at Killarney and Stanthorpe, 18° at Warwick, 21° at Dulacca, 22° at Mitchell, 25° at Toowoomba, 27° at Alice, Springsure, and Tambo on 1st; 23° at Alice River on 2nd; 15° at Stanthorpe on 3rd; 16.4° at Cambooya on 4th. Grass minimum at Bowen Park, Brisbane, on 3rd, 13°.

4th July.—Upper Logan district—Few heavy frosts last week, which were more severe than any frosts experienced last year.

9th–15th July.—Heavy frosts over southern half of State; on 10th, ice found in a shaded place at Roma after 1 p.m.; sugar-cane on Mary River much damaged.

10th July.—Yandilla—Extract from a letter from Francis A. Gore, Esq., published in the *Brisbane Courier*, 13th July, 1896:—
“ I have kept records for 20 years. The minimum thermometer on the verandah (with which I have recorded during the period) registered 26° on the 2nd, 3rd, and 4th of this month. The only previous occasion on which such a low reading was registered was on the 18th June, 1878—the minimum average for that month being 36° and the maximum 62°. June, 1880, averaged 36° and 64°, and June this year 38.8° and 61°, so it has been quite as cold in the past. Our coldest days were the 23rd September, 1881, and the 9th of this month, when the glass on each occasion did not rise above 50°.

“The lowest average for any month so far is that of July, 1881, when the minimum average was 35.3°. The highest average, maximum for any month was 97° for January, 1884, and the lowest 58.8° for July, 1895. The highest single reading was 108° on 16th January, 1884. Heaviest day's rainfall during the twenty years, 4.10 inches on 27th November, 1895, and heaviest month's rainfall for same period 15.53 inches for February, 1893. (The thermometers in the meteorological screen always register a lower minimum and a higher maximum than those on my verandah).”

11th July.—Beaudesert—The local correspondent stated—
“Winter coldest ever experienced in Logan and Albert district. Temperature this morning 2° lower than it has been for past 30 years. Thermometer on verandah of a house near Beaudesert registered 21°, and ice could be found in shady spots up till 2 p.m.”

11th July.—Emerald—Weather during past three or four weeks coldest ever experienced; icicles depended from galvanized iron roofs.

11th July.—Brisbane—Telegrams from Maryborough and Rockhampton, as well as from the South, indicated that unusually severe winter conditions still prevailed. Very severe frosts occurred in the Wide Bay district, and heavy frosts at Rockhampton, where, it was stated, ice formed on water both in creeks and waterholes. Great damage done to cane crops in the northern parts of New South Wales.

13th July.—Brisbane—Reports from all parts of the Wide Bay and Burnett districts showed that the recent frosts were the heaviest felt for some years; grass everywhere brown and dry to the roots; cane crops badly frosted, except in the locality of Pialba.

15th July.—North Pine—Most severe winter known in district; shallow pools of water on the road-sides frozen over.

15th July.—Cunnamulla—Winter severest experienced for many years; very heavy frosts; grass and herbage badly affected.

17th July.—Albert River—A correspondent supplied the following details of severe cold weather in the Albert River district:—“The coldest June was in 1881, when the mean temperature was 50.8°. The mean for June, 1896, was 51.3°. On the 1st, 2nd, 3rd, and 4th July the minimum thermometer registered 25.7°, 25.5°, 24°, and 25° respectively, but on the 10th and 11th it registered 27° and 23°, a record for this district. On one occasion only (in 1895) had 23° been previously registered. The readings were taken from a thermometer on a wall under a wide shingled verandah, with iron over the shingles, the verandah facing about due south.”

22nd July.—Toowoomba—Coldest day for the year.

23rd and 24th July.—Frosts over southern districts. Minimum temperatures—28° at Tambo, and 25° at Thargomindah on 23rd; and 27° at Cambooya and Killarney on 24th.

25th July.—Beaudesert—Owing to the severity of the winter, the marsupials stripped acres of green oat and barley crops in the vicinity of scrub areas.

27th July–3rd August.—Heavy frosts over southern half of State, more especially over the Downs. Minimum temperatures—20° and 21° at Cambooya on 27th and 28th, 24° at Avon Downs and 20° at Cambooya on 29th, 22° at Dulacca on 31st, 20° at Dulacca on 1st August, 19° at Cambooya on 3rd.

July.—Brisbane—Frost on several occasions. Minimum reading of thermometer on grass at Observatory, 26.9° on 3rd.

5th–7th August.—Frosts over southern half of colony; thick ice at Winton on morning of 5th. Minimum temperatures at Cambooya on 5th and 6th, 19° and 20°; at Cambooya and Stanthorpe on 7th, 26°.

6th August.—Rockhampton—Winter one of the severest ever experienced in district; thermometer on grass below freezing point on past ten mornings; minimum 28°.

12th August.—Frost over Darling Downs.

18th August.—The manager of the Acclimatization Society stated:—“Vegetation at Bowen Park, Brisbane, slowly recovering from the effects of the freeze in the early part of July, but many of the plants permanently damaged.”

19th–21st August.—Frosts over Darling Downs. Minimum temperature—28° at Cambooya, Dulacca, and Stanthorpe on 19th, and 27° at Dulacca on 20th.

27th–28th August.—Frosts in parts of east and south-eastern districts. Minimum temperature—26° at Dulacca on 27th and 28th.

28th August.—Maryborough—Frosts during week did further injury to cane crops on the Upper Mary River.

August.—Brisbane—Frost on several occasions. Minimum reading of thermometer on grass at Observatory, 30.4° on 4th.

1897.

15th June.—Frosts again experienced at many places in southern districts.

6th to 8th July.—Frosts experienced in southern districts; heavy over Darling Downs; pastures in Upper Logan districts affected. Minimum temperatures—21° and 22° at Stanthorpe on 6th and 7th respectively.

6th to 18th July.—Heavy frosts over southern half of State; grass cut on the Upper Logan.

13th to 22nd July.—Heavy frosts over Darling Downs. Minimum temperatures:—24° at Killarney on 13th, 15th and 17th, and at Cambooya and Dulacca on 17th.

3rd–4th August.—Frosts over Downs. Minimum temperature—25° at Dulacca on 4th.

7th August.—Frosts at many stations over Darling Downs. Minimum temperature at Stanthorpe, 25°.

19th August.—Frost over the Downs. Minimum temperatures:—27° at Stanthorpe and Wallangarra.

23rd August.—Frost over the Downs. Minimum temperature at Cambooya and Stanley, 29°.

26th–27th August.—Frosts over the Downs. Minimum temperature—28° at Stanthorpe on 26th, and at Dulacca on 27th.

1898.

15th to 29th May.—North Pine—Several heavy frosts in district, but no serious damage reported.

21st and 22nd June.—Frosts in Dulacca district. Minimum temperature at Dulacca on 22nd, 24°.

25th June to 1st July.—Frosts over Darling Downs. Minimum temperature—21° at Stanthorpe on 27th June, and 24° at Dulacca on 25th.

27th June.—Brisbane—Ground frost in suburbs. Minimum temperature on grass at Observatory, 34.5°.

6th to 14th July.—Severe frosts over the Darling Downs. Minimum temperature—22° at Stanthorpe on 11th.

20th July.—Collaroy—Exceptionally cold nights and heavy frosts.

18th to 22nd July.—Frosts over southern districts. Minimum temperature—20° at Dulacca on 21st. Sugar-cane at Woombye affected.

23rd July.—Charleville—Continuous severe frosts; stock affected.

25th to 27th July.—Very low temperatures recorded over the Darling Downs. Minimum readings—Dulacca and Stanthorpe 22°, Warwick and Killarney 23°, on 26th.

30th July.—Frost again over the Darling Downs. Minimum temperature—28° at Stanthorpe.

July—Brisbane—Ground frosts in suburbs on several occasions. Minimum temperature on grass at Observatory, 29° on 21st.

2nd to 4th August.—Frosts over the Downs. Minimum temperatures—22° at Dulacca on 4th, and 24° at Killarney on 3rd.

August.—Brisbane—Ground frost in suburbs on several occasions. Minimum temperature on grass at Observatory, 31.8° on 3rd.

1899.

31st May.—Cunnamulla—Very cold, with heavy frosts.

31st May to 2nd June—Frosts over the Downs; 27° at Dulacca on 31st May.

3rd–5th June.—Exceptionally cold weather on the East Darling Downs.

9th June.—Crow's Nest—The local correspondent stated:—"Grass very scarce; all feed in the open country destroyed by frost and cold westerly winds."

13th June.—Very cold weather over southern divisions. Minimum readings—25° at Springsure and Taroom.

14th June.—Very cold night over greater part of colony. Frosts recorded almost generally over southern half; severest frost of season at Dalby; heavy frost at Cunnamulla and Collaroy.

15th June.—Charleville—Minimum temperature, 28°; good deal of frost and ice.

16th June.—Exceptionally cold nights about this date in tropics, thermometer at Junction Creek as low as 25°; frosts recorded at many places.

18th and 19th June.—Bowen—Heavy frosts did damage to crops.

25th June.—Telemon, Hughenden—Extremely cold. Ice formed on water left over night in buckets or dishes. In one instance water in two water bags was converted into solid blocks of ice.

26th June.—Frosts recorded over the Downs and parts of Far South-west. Minimum temperature—28° at Stanthorpe.

28th–30th June.—Frosts in many districts; heavy on the Downs. On 30th, at Allora, stagnant water was frozen, and running streams were completely covered with ice, whilst at Warwick, water in taps was frozen, and frost lay on the ground for two or three hours after sunrise. Minimum temperatures—Dulacca 21°, Alice and Blackall 29°.

3rd July.—Charleville—Coldest morning experienced for eight years; temperature 23°. Ice formed on every piece of water, and water taps were frozen.

3rd–5th July.—Frosts experienced over major portion of country. The frosts were very severe over the eastern and northern coastal divisions, and in Mackay, Herbert River, and Cairns districts extensive areas of cane were affected. At Clermont ice an inch thick formed.

4th July.—Bowen—Heavy frost; potato crop seriously affected.

5th July.—Charters Towers—Weather extremely cold; ice found in morning.

6th July.—Frost at many places, chiefly in south-west.

6th July.—Hughenden—Coldest week experienced for years past; water in troughs and other exposed places frozen.

6th July.—Esk—Weather during past week extremely cold, with heavy frost every morning.

7th and 8th July.—Frost recorded at many stations. Minimum temperatures—27° at Stanthorpe on 7th; Prairie and Winton on 8th, 29°.

11th–13th July.—Frosts in parts of northern and central divisions. Minimum temperatures—25° at Urandangie on 11th; 25° at Prairie on 12th.

13th July.—Collaroy—Exceptionally heavy frosts.

18th to 22nd July.—Frosts over greater part of southern half of colony.

25th July.—Frost over Downs.

8th to 19th August.—Very heavy frosts experienced over a large area of the country, especially over Darling Downs. Minimum temperatures—Warwick, 24.2° on 9th; and 24° at Killarney on 12th.

1900.

2nd July.—Heavy frost over southern half of State. Minimum temperature—Stanthorpe 20°, Botanic Gardens, Brisbane, 32.5°, Tambo 36°. A report from North Pine stated that the extreme cold had adversely affected the milk supply to the extent of thousands of gallons during the last few weeks.

7th to 19th July.—Severe frosts experienced over southern and central districts. Minimum temperatures—Stanthorpe 18°, and Cambooya 19° on 18th; Stanthorpe and Killarney, 20° on 19th; Cambooya, 21° on 13th; Killarney, 22° on 14th. On the 10th, stations on the base of the Peninsula reported frost. Cane crops badly damaged in parts of the Isis (Maryborough) district. At Degilbo ice formed on water in the open, and in some instances water in jugs inside houses was frozen.

27th July.—Crow's Nest—Heavy night frosts for last fortnight; grass cut back to the roots.

July.—Brisbane—Ground frost on several occasions in the suburbs. Minimum temperature on grass at Observatory, 27° on 18th.

August.—Brisbane—Ground frost on several occasions in the suburbs. Minimum temperature on grass at Observatory, 30.0° on 21st.

28th September.—Severe frost on the Darling Downs.

1901.

3rd to 5th June.—Sharp frosts over southern half of State, more especially on the Darling Downs.

13–14th June.—Frosts over Darling Downs, and most parts of southern districts. Minimum temperature at Wallangarra on both days, 26°.

18th June.—Barcaldine—"Mildest winter on record."

19th June.—Childers—First frost of season; 60 acres of cane frosted.

19th–21st June.—Frosts over Darling and Peak Downs, and many other parts of southern division of the State.

23rd–25th June.—Frosts over Darling Downs and most parts of southern districts. Minimum temperatures—Warwick 23.8°, Wallangarra 26°. At Lowood, on 23rd, water in low-lying places was covered with a thin coating of ice.

June.—Brisbane—A spell of westerly conditions, which ended on 22nd, was followed by very cold weather, with frosts and heavy dews in and around Brisbane, especially in low-lying places. Minimum temperature on grass at the Observatory, 31.8° on 23rd.

1st and 2nd July.—Frosts (mostly light) over Darling Downs, Peak Downs, Maranoa, and southern border districts.

10th–12th July.—Frosts over central and southern districts, but more especially over Darling Downs.

15th to 23rd July.—Frosts over greater portion of southern half of State; heavy on the 17th. Minimum temperature at Wallangarra, 28° on 17th and 18th.

27th July.—Heavy frost over Peak and Darling Downs; lighter over other portions of southern half of State. Minimum temperatures—Avon Downs 27°, Wallangarra 29°.

29th July.—Hughenden—Water in water bags on railway train from Winton frozen.

31st July.—Heavy frosts throughout southern half of State, especially over the Downs and in central districts. Minimum temperature at Wyandotte and Wallangarra, 24°. Sharp frosts at Bowen, and severe frosts in all parts of the Bundaberg district.

July.—Brisbane—Frosts, fogs, and heavy dews on several occasions. Minimum temperature on grass at Observatory, 29.0° on 31st.

August.—Brisbane—Marked absence of frost during month; grass temperature only once below 32°, viz., 30.7° on 1st.

1902.

11th May.—Upper Logan.—Two recent heavy frosts cut down late maize and pumpkins.

10th to 14th June.—Heavy frosts over southern districts. Minimum temperatures—27° at Mitchell on 12th; 28° at Miles on 13th and 14th.

22nd to 28th June.—Heavy frosts over southern half of State, especially over Darling Downs. Minimum temperatures—23° at Mitchell on 23rd; 21° at Wallangarra on 24th.

23rd June—

Charleville.—Heavy frost during morning of 23rd; at 7 a.m. thermometer registered 28°; water in taps frozen, and ice in abundance.

During the night of 23rd, heavy frosts experienced over the southern half of the State; thermometer registered 21° at Wallangarra, 23° at Mitchell, 27° at Charleville, and 28° at Roma.

23rd to 25th June.—Degilbo, 25th June.—Very sharp frosts during the last night or two. On the morning of the 24th ice observed up to 9 o'clock.

8th to 26th July.—Frosts over greater portion of southern half especially over Darling Downs and Maranoa divisions. Minimum temperatures—26° at Alice on 11th; 22° at Mitchell on 17th.

29th July to 1st August.—Frosts on parts of Downs.

5th to 16th August.—Heavy frosts over greater portion of the south-eastern quarter, and at many inland places. Minimum temperatures at Mitchell, 23° on 6th, and 21° on 14th.

1903.

24th–26th May.—Clifton—Cold nights; ice formed in places. 28th and 29th May.—Frosts over Central and Southern divisions; minimum temperature, 28° at Mitchell.

31st May.—Bowen River district—Three nights' frost.

9th June.—Frosts in Central and Southern divisions; minimum temperature at Alice, 29°.

10th and 11th June.—Sharp frosts at East Darling Downs.

14th–18th June.—Frosts over Southern divisions; heavy on the Maranoa and Darling Downs. Minimum temperature at Warwick, 29° on 18th.

20th June.—Maryborough—Exceptionally mild winter.

20th and 21st June.—Degilbo—Sharp frosts.

21st to 25th June—

Frosts over Central and Southern divisions; very heavy on parts of Darling Downs. Minimum temperature at Warwick, 24° on 22nd.

Allora—Remarkably severe frosts; water in the open frozen over.

Gin Gin—Severest frosts on record; two-thirds of the cane held for planting destroyed.

Goombungee—Native grasses badly affected by frosts.

28th June.—Frost on parts of the Downs. Minimum temperature at Warwick, 29.5°.

6th and 7th July.—Very low temperatures over Darling Downs and Maranoa divisions. Minimum temperatures—23.1° at Warwick, and 25° at Mitchell on 6th.

Ipswich.—Extremely cold weather; very severe frosts in outlying districts; running water in many cases frozen over.

Danderoo.—Extremely cold; on the 6th water and milk in vessels left in the open were frozen, and a thin coating of ice formed over water in a dam in the vicinity.

11th July.—Low temperatures in the Maranoa and south-west. Minimum reading 28° at Thargomindah.

17th and 18th July.—Frost over Southern division of State. Minimum temperatures—29° at Thargomindah on 17th, and at Warwick on 18th.

22nd and 23rd July.—Frosts over the Darling Downs and Maranoa divisions. Minimum temperature, 28.5° at Warwick.

23rd July.—Marlborough.—Sharp frost; some ice observed.

29th July.—Ground frosts over the Downs and the central lowlands.

3rd and 4th August.—Severe frosts over the highlands in southern half of State. Minimum temperature at Mitchell, 29°.

14th August.—Frosts over the highlands and the Southern divisions. Minimum temperature, 27° at Mitchell.

21st August.—Sharp frost over the highlands in southern districts, especially the East Darling Downs.

1904.

8th June.—Nanango—Some heavy frosts experienced since the 5th.

9th June.—Low temperatures in the interior and far south-west. Minimum reading—Thargomindah, 28°; minimum at Brisbane, 54°.

14th June.—Low temperatures in the interior; Alice 39°, Mitchell 30°. Heavy frosts in Allora, Esk, and Nanango districts,

17th and 18th June.—Frosts again at many stations in inland parts of southern half of State; minimum temperature at Alice 35°, Mitchell 32°. Heaviest frost so far for the winter at Toowoomba on 17th.

23rd June.—Frost over the Downs' country. Minimum reading at Alice 35°, Thargomindah 30°.

24th to 30th June.—Severe frosts over Southern Queensland, including Central highlands. At Dalby, ice formed on all water in the open on 24th; at Gin Gin a cutting frost occurred on the 24th. At Thargomindah ice formed on water in water troughs on 29th. At Pittsworth the temperature fell to 20° during the cold spell; ice an inch thick was found in waterholes and dams in exposed positions, while the water in kitchen and bathroom taps was frozen; old residents declared that the frosts were the severest experienced since 1893. At Upper Logan, the heaviest frosts for many years were experienced, and ice a quarter of an inch thick formed. Minimum temperatures—Warwick, 28.3° on 24th; Lord John Swamp (thermometer on grass), 17° on 25th; Mitchell, 24° on 28th; Thargomindah, 27° on 29th.

June.—Brisbane—Ground frosts recorded at Observatory on four occasions towards latter part of month, and very severe frosts in low-lying suburbs. Minimum grass temperature, 30.4° on 26th.

1st to 5th July.—Continued cold weather with severe frosts over southern and central districts, but more especially over the Downs.

12th and 13th July.—Low temperatures in Central and South-west districts; Thargomindah 30°, Tambo 32°.

16th–19th July.—Light to heavy frosts over most parts of inland southern districts. Minimum temperature at Mitchell 27°, Thargomindah 29°.

July.—Brisbane—Ground frost recorded at Observatory during first part of month, and very severe frosts in low-lying suburbs. Minimum grass temperature, 28.4°, on 3rd.

1905.

1st–5th June.—Frosts over central and southern inland districts; minimum temperature at Toowoomba on 4th, 27°.

9th June.—Low temperature over western Darling Downs and Maranoa districts; minimum at Mitchell, 27°. Heavy frosts at Crow's Nest and in Upper Logan district.

15th–17th June.—Very heavy frosts over Central and Southern divisions. Ice on open water at Dalby, Carrara (near Nerang), Upper Logan, and Danderoo; at the last-mentioned station a dam was frozen over on several mornings in succession. Minimum

temperatures—Cambooya 23°, Mitchell and Alice 24°, on 15th; Mitchell 24°, Warwick 25°, on 16th; Alice and Mitchell 25°, on 17th.

24th–25th June.—Very low temperatures over Central and Southern districts, and heavy frosts at places; Alice and Mitchell, 29°.

June.—Brisbane.—Frosts several times during month in low-lying parts of city and suburbs. Minimum grass temperature at Observatory, 31.9° on 15th.

3rd–7th July.—Heavy frosts over Central and Southern interior, especially on the Downs; lowest temperatures for the season. At Tannymorel (near Warwick) on 6th, dams were frozen over, and ice observed at places in the creek. Sugar-cane crops in Maryborough and Cooran districts badly effected. Lowest temperatures occurred on 6th, viz., Mitchell 21°, Warwick 22.2°.

11th to 14th July.—Low temperatures over the State, except on the Peninsula and along northern coast line; heavy frosts over the Central and Southern districts. Minimum readings—Warwick 24.9°, Alice and Mitchell 26°, on 13th; Warwick, 24° on 14th.

13th–16th July.—Heavy frosts experienced over Central and Southern districts.

18th July.—North Pine.—Frosts much more frequent than usual in district this winter.

23rd July.—Bundaberg.—Large area of frosted cane in district.

24th–29th July.—Severe frosts over southern and south-eastern districts. Minimum temperature—Warwick, 20.7°, on 29th; and 21.2° on 24th; Mitchell, 24.0° on 25th. Cane crops in Cooran district and pineapple crops at Nundah affected.

The following table shows the extreme minimum temperatures recorded at Warwick for years 1896–1905 inclusive:—

1896—July	..	16.3°	1901—June	..	24.3°
1897—May	..	21.2°	1902—June	..	21.6°
1898—July	..	22.6°	1903—July	..	23.1°
1899—August	..	24.2°	1904—July	..	27.3°
1900—July	..	22.6°	1905—July	..	20.7°

July.—Brisbane.—More frost was observed this month than for some time past, and the morning of the 25th was especially memorable. Although the terrestrial radiation thermometer exposed on a black board at the Observatory only registered 27.6° on that day, much lower readings were obtained in the less protected parts of the city, for instance, 22.9° at Enoggera. The frost extended a considerable distance from the ground, mango and other trees 12 and 15 feet high being “touched.” Minimum temperature for month—37.2° at 7 a.m., 25th; terrestrial minimum, 27.6° on 25th.

1906.

31st May.—First frost of season over Darling Downs.

1st June.—Roma.—Severe ground frost.

11th June.—Thargomindah.—Frosty nights.

15th June.—Beenleigh.—No frosts so far.

24th and 25th June.—Heavy frosts over Maranoa and Darling Downs, also parts of South Coast district. Minimum temperatures—Toowoomba 20°, Warwick 26.5°.

25th and 26th June.—Brisbane.—Sharp frosts in suburbs, especially on 25th; none recorded at the Observatory.

27th and 28th June.—Light to heavy frosts over central and southern interior. Minimum temperature—Warwick, 26.8° on 28th.

1st to 7th July.—Heavy frosts over the Downs and South Coast districts, and in parts of the south-west. On the 4th, the minimum temperature at Warwick was 23°, and at Toowoomba a little ice formed in low-lying parts. One-third of the cane in the Gin Gin district was somewhat severely damaged.

19th to 26th July.—Heavy frosts (heaviest for season) occurred over the southern divisions. Minimum temperature at Warwick, 18.7° on 25th; at Mitchell, 20.0° on 26th; ice at Toowoomba and Charleville.

28th July.—Stanthorpe.—Heavy frosts during last two weeks. Ice of sufficient thickness in parts to bear the weight of calves formed on the creek.

July.—Brisbane.—Frosts during the month were frequent, and at times fairly severe. Notwithstanding the fact that the grass minimum thermometer at the Observatory did not register lower than 32.2°, an instrument exposed in exactly the same way at Enoggera gave readings as low as 21.0°. The heaviest frost of the month was experienced on the morning of the 19th. Minimum temperature—36.5° about 6.50 a.m. 19th. Terrestrial minimum—32.2° on 19th.

1907.

17th–19th June.—Sharp frosts over central and southern division. Minimum temperature—Mitchell, 32°, and Thargomindah, 35° on 18th; Toowoomba and Mitchell, 30°, Thargomindah 33°, and Windorah 39° on 19th.

24th–25th June.—Roma.—Heaviest frosts experienced during season.

27th June.—Stanthorpe.—Sharp frosts.

3rd to 5th July.—Sharp frosts over the eastern Downs.

7th to 9th July.—Heavy frosts over the south-eastern districts. Minimum thermometer readings—21° at Mitchell, and 22.3° at Warwick on 8th; and 25° at Warwick on the 9th. Heaviest frosts of season experienced at Laidley, Maryborough, Beenleigh, Stanthorpe, and Lismore. At Goomburra (where ice is seldom seen) ice formed to a considerable thickness.

11th to 15th July.—Heavy frosts again over the Maranoa and Darling Downs. Minimum temperature at Warwick on 12th, 13th, and 14th, 25.5°, 20°, and 25.9° respectively. At Mitchell, on the 13th, 20°. Heaviest frosts of the season at Warwick on the 13th, and at Yangan on the 11th. At Cambooya the thermometer registered 18° on several occasions.

19th to 24th July.—Heavy frosts experienced over the Warrego, Maranoa, and Darling Downs districts.

July.—Brisbane.—Sharp frosts on 3rd, 8th, and 22nd; light “touches” on several other occasions.

31st July to 3rd August.—Heavy frosts over the southern districts. Minimum temperature at Warwick, 25.9° on the 31st July.

22nd and 23rd August.—Severe frosts on the East Darling Downs and South-coast districts. Sharpest frosts for the season in and around Brisbane; coldest mornings during the winter at Beenleigh, and in several places the cane was affected.

August.—Brisbane.—Many frosts during first and last week of month. Sharp frost on 23rd. Minimum grass temperature at Observatory, 30.4° on 23rd.

1908.

9th to 11th May.—Cold snap in Darling Downs and Maranoa divisions. Minimum reading in screen at Mitchell station, 29°.

21st to 30th May.—Very cold in south-eastern interior, especially on 29th, when screen minimum thermometer registered 26° with corresponding grass reading of 22°.

3rd to 5th June.—Cold wave affected whole of interior, including far north-west and northern interior, minimum thermometer in screen recorded 32° at Camooweal and 22° at Mitchell on the morning of the 4th, and grass thermometer at the latter station registered 14° on the 3rd and 4th. Bleak and cold in southern border districts on the 5th.

8th June.—Pronounced cold snap in south-eastern Queensland. Screen minimum thermometer registered 19° and grass thermometer 11° at Mitchell. Grass reading of 21.6° at Enoggera.

12th to 16th June.—Moderate cold wave passed over South Queensland; lowest grass reading at Mitchell, 22°, on the 15th.

20th to 30th June.—Severe cold wave, which began to affect the far south-west on 20th—minimum screen reading at Thargomindah, 32.5°—and extended over central and southern

divisions by the following day. Lowest readings in screen at Mitchell during the wave, 19° on 25th and 26th, and 19·2° on 29th.

1st to 6th July.—Very cold in sub-tropical Queensland with severe frosts; lowest temperature in screen at Mitchell, 21°, on the 6th, with grass reading of 15°.

11th to 14th July.—Cold wave in south-eastern quarter; minimum in screen at Mitchell, 24°, on 13th and 14th, with grass readings of 18° and 19° respectively.

23rd to 25th July.—Cold wave followed disturbed conditions in central and southern divisions; grass minimum 20° at Mitchell, on the 24th.

13th to 15th August.—Cold spell in the southern division, with sharp frosts, especially in the south-eastern interior.

17th to 19th August.—Very cold in the south-eastern quarter; grass thermometer, 18° at Mitchell, and 26° at Enoggera, on the 18th; 28° at Mitchell and 21° at Enoggera the following day.

31st August.—Grass thermometer registered 22° at Mitchell.

3rd September.—Cold snap in south-eastern interior; grass temperature at Mitchell, 26°.

8th September.—Cold snap in the south-eastern interior; grass temperature at Mitchell, 30°.

15th to 17th September.—Cold spell in the southern border districts and south-east; grass temperature at Mitchell, 25°, on the 15th; 20° on the 16th and 19° on the 17th; 28·5° at Enoggera on the 16th and 26·3° on the following day. Sharp frosts on the Downs and in western districts on the 16th.

21st to 23rd September.—Cold spell in the southern border districts and south-east; grass temperature, 21°, at Mitchell, on the 22nd; 26° at Enoggera, on the 21st.

30th September.—Cold snap on Downs and in Maranoa division; grass temperature at Mitchell, 23°.

1st and 2nd October.—Cold spell in southern division; grass temperature, 21°, at Mitchell on both dates; sharp frost in suburbs of Brisbane and reading of 24·3° obtained at Enoggera on the 1st. Slight frost on Darling Downs and in Lockyer districts on the 1st.

1909.

23rd April.—First pronounced cold spell of the season; grass temperature at Mitchell, 28°.

20th and 22nd May.—Very cold in south-eastern interior; grass temperature at Mitchell, 23°, on 20th and 21st, and 24° on 22nd; temperature in screen, 31°, each day of spell.

17th June.—Very cold by night and in the early morning in the south-eastern interior; grass minimum thermometer at Mitchell, 24°; rather severe frost in the suburbs of Brisbane.

2nd–6th July.—Pronounced cold wave over whole State, except far north. Boisterous, chilly, westerly winds in south-east quadrant, which attained the velocity of a moderate gale on the night of the 2nd. Grass temperature of 20° noted at Mitchell on the 3rd, 4th, and 5th, and in the suburbs of Brisbane values as low as 24·6° were observed with severe frosts.

10th–13th July.—Marked cold spell in central and southern divisions; grass temperature below 26° at Mitchell each day of period.

17th–24th July.—Severest cold wave of the season, interrupted by a peculiar warm wave on the night of the 20th. At Mitchell grass temperature was below 22° every morning between the 17th and the 23rd (inclusive), except on the 20th as noted, and on the morning of the 19th the lowest reading this winter was recorded viz., 18°. Screen temperature fell to freezing point as far northwards as Camooweal, and at Burketown the corresponding reading was 45°. Severe frosts occurred almost daily not only in the interior, but in the south coastal area.

27th–31st July.—Cold wave passed over south-east quarter; sharp frosts daily, and grass temperature at Mitchell fell to 18° on the 27th, the value of each day between the 28th and 31st (both inclusive) being 20°. Grass readings as low as 26° were recorded in the suburbs of Brisbane.

1st–5th August.—Continuance of cold wave; grass thermometer at Mitchell, 20° on 1st and 2nd, and 19° on 3rd and 4th; screen minimum thermometer registered 25° on morning of 4th. Sharp frosts in and around Brisbane. Grass thermometer at Enoggera recorded 21·6° on the morning of the 2nd.

1st and 2nd September.—Frost in suburbs of Brisbane.

4th and 5th September.—Cold snap in south-east interior; grass minimum thermometer at Mitchell, 26° on 4th, and 28° on 5th.

24th September.—Frost on Downs and adjacent country; grass minimum thermometer at Mitchell, 27°.

27th, 28th, and 29th September.—Cold snap in south-eastern interior; grass temperature at Mitchell on 27th and 28th, 27°, and on 29th, 31°.

5th–6th September.—Sharp cold snap in south-eastern interior; screen minimum thermometer registered 33° at Mitchell on both dates, with grass reading of 24° and 30° respectively.

1910.

3rd June.—Very cold inland in Queensland on the night of the 3rd. Frosts general, minimum air temperature in screen at Richmond, 30°, and at Camooweal, 32°.

7th July.—Frosts occurred on the night of the 7th, not only on the Downs and in the Maranoa, but also in the sub-tropical region.

15th–22nd July.—In the interior very low temperatures were general, and frosts, extending as far north as Cloncurry, of frequent occurrence.

August.—A cool spell, with rather sharp frosts, was experienced during the first week of the month over the central and southern portions of the State, particularly over the Maranoa and Darling Downs; and another cold snap with further frosts occurred during two days of the last week in the south-eastern quarter. The terrestrial minimum at Mitchell registered 20° and 25° on the respective days referred to.

12th October.—Frost recorded at Torrens Creek—an extraordinary occurrence.

October.—A remarkable cool change set in during the second week, which affected most of the State. Maximum temperatures in the north and west only reached 90°. In the Central and Southern districts frost was experienced at many places, which is very abnormal for October. In one of the suburbs of Brisbane the terrestrial minimum registered as low as 28°; at Mitchell, 28·5° on the 12th; and at Toowoomba, 25·1° on the 13th.

1911.

March.—At latter end of month frost destroyed a late maize crop at Leyburn.

May.—Cold weather from the 20th to 24th and from the 28th to 31st, with severe frosts in central and southern divisions. Some low ground temperatures on the 30th and 31st, Enoggera recording 24·4° and 24·9° on these days, and Mitchell 25° and 21°.

12th June.—Exceedingly cold weather in the west; water in taps frozen at Charleville.

21st to 29th June.—Very cold nights in southern Queensland. On 23rd the ground temperature at Mitchell was down to 11°.

July.—Cold nights in southern Queensland. At Enoggera the ground temperature on 27th was down to 17·9°, on 28th 18·8°, and 29th 19·8°.

September.—Very pronounced cool spell throughout the interior, with screen minimum as low as 30°, and at Mitchell a grass reading of 26°.

1912.

22nd to 30th April.—Cold wave affected greater part of the State. First frosts of the season on Darling Downs and adjacent country. Grass minimum temperature at Mitchell, 32°, on the 22nd, 30° on the 24th, and 31° on the 26th.

28th April.—Severe frost reported from several country districts, especially on the Downs.

1st to 4th June.—Very cold over sub-tropical Queensland, particularly in Maranoa and Darling Downs divisions, where severe frosts were experienced. At Mitchell on the 1st, screen and grass minimum thermometers recorded 28° and 24° respectively.

28th June.—Winton.—The cold snap which followed the rain caused heavy losses at places among sheep, and it was stated that some horses perished from the severe cold.

30th July.—Richmond.—Ice observed in some tins in a garden.

July.—Tambo.—Frosts on 16th, 17th, 20th, 25th, 28th, 29th, and 30th.

July.—Cannamulla.—Some very cold nights during month; frosts on 4th, 16th and 17th.

4th to 9th August.—Sharp frosts in the southern interior. Grass readings of 30°, 24°, 23°, 26°, and 25° noted at Mitchell on the 4th, 5th, 6th, 7th, and 8th respectively.

31st August.—Sharp frosts on the Darling Downs. Screen minimum reading, 22°, at Cambooya.

9th, 10th, and 12th September.—Rather sharp frosts in the south-eastern interior.

20th to 25th September.—Pronounced cold spell affected the whole State south from latitude 20°. Screen temperature fell to freezing point at Mitchell on the 22nd, while the grass thermometers recorded 26° on that date, and also on the 20th. Severe frosts experienced not only in the southern interior but in the south-east division, where potato and other crops were considerably damaged.

5th and 6th October.—Wintry degree of coldness in the south-eastern interior; temperature in the screen at Mitchell, 34° and 36°, with corresponding grass readings of 23° and 29°.

11th December.—Cold snap experienced at Stanthorpe. Ice found on the morning of the 12th at a farm in the district.

1913.

7th–10th March.—Unseasonable cold spell experienced over the south west and the Downs divisions. The spell culminated on the 10th, when the minimum temperature recorded at Tambo and Mitchell was 44°, and slight ground frosts occurred at Dalveen and at other places on the southern Downs.

19th March.—Charleville.—First ground frost of season occurred.

29th March.—Coldest morning since last winter. In the south-eastern interior minimum thermometers in screen registered from 37° to 39°, and frost occurred on the Downs and adjacent country to the north and west. The earliest date on which frost was previously recorded was 6th April, 1893.

29th April.—Cold snap in south-eastern interior. Ground thermometer at Mitchell registered 32° for first time this season.

6th May.—Cold snap in extreme south-east; white frost in early morning at Killarney and Stanthorpe.

7th May.—Frosts in parts of south coast division.

31st May.—Cold westerly wind over south-eastern districts; very cold in southern interior; grass thermometer at Mitchell registered 22° for first time this season.

10th June.—Sharp cold spell general over Queensland, except the north coast and the Peninsula. Minimum thermometer readings in screen—Windorah 32°, Tambo, Mitchell, and Warwick, 30°, Charleville 33°, Cambooya 24°, Stanthorpe 26°; minimum readings on grass—Longreach, 26° on 9th; Mitchell, 22°

11th–13th June.—Continued cold spell. Abnormally low temperature on central and north coast; minimum thermometer reading in screen on 13th at Cardwell and Bowen, 42°.

26th–28th June.—Cold wave over sub-tropical region; sharp frosts general, especially on Darling Downs.

7th–9th July.—Sharp frosts at many places on the Downs; minimum thermometers registered as low as 31°.

21st July.—Coldest morning of season in most parts of the south-eastern interior. Minimum thermometer readings in screen—Cambooya 24°, Stanthorpe 28°, Mitchell and Warwick 29°, Tambo 32°, Gayndah 35°, Miles 32°, Pittsworth 31°; minimum on grass at Mitchell, 20°

2nd August.—Very cold in southern Darling Downs. Minimum readings in screen—Cambooya 24·6°, Stanthorpe 26°.

5th August.—Very cold in south-eastern interior and western parts of south coast division. Minimum readings in screen—Cambooya 20·9°, Killarney 23·8, Stanthorpe 26°, Nanango 26·5°, Mitchell 28°, Miles, Toowoomba. and Pittsworth 31°; grass minimum at Mitchell 18°.

6th August.—Sharp frosts at many places in the southern half. Minimum temperatures—Stanthorpe 29°, Warwick 30°, Nanango and Mitchell 31°, Charleville 32°.

11th–15th August.—Sharp cold snap followed westerly wind; severe frosts experienced throughout south-eastern quadrant; Lowest minimum readings in screen—Cambooya 18·9°, Killarney 20°, Mitchell 24°, Nanango 23°, Stanthorpe 24°, Warwick 23°, Surat 26°; grass minimum at Mitchell 13°. on three occasions. Frosts occurred as far north as Winton and Clermont inland, and St. Lawrence on the coast.

22nd–27th August.—Very low temperature again in southern interior, with sharp frosts. Grass minimum at Mitchell on 25th, 12°.

2nd–4th September.—Severe frosts in southern interior; grass minimum at Mitchell on 2nd, 14°.

17th and 18th October.—Cool change followed warm and very dry weather, and light ground frosts occurred at several places in Southern Downs.

5th–6th November.—Ground frost on and near Darling Downs. Minimum readings in screen at Cambooya, 33·4° on 5th; 33·8° on 6th.

HAILSTORMS.

1850.

13th October.—Severe hailstorms occurred in Moreton Bay district. At Brisbane, lumps of ice, a quarter of a pound in weight and 9½ inches in circumference, fell.

1859.

20th October.—Brisbane.—Terrific hailstorm.

1860.

3rd December.—Brisbane.—Severe hailstorm during the afternoon; pieces of ice fell with great violence from the north-west quarter and did much damage.

1862.

5th November.—Gayndah.—A very severe hailstorm passed over the district; some of the hailstones were very large.

24th November.—Warwick.—Very heavy hailstorm; some of the hailstones were so large that three of them would more than fill a tumbler.

1863.

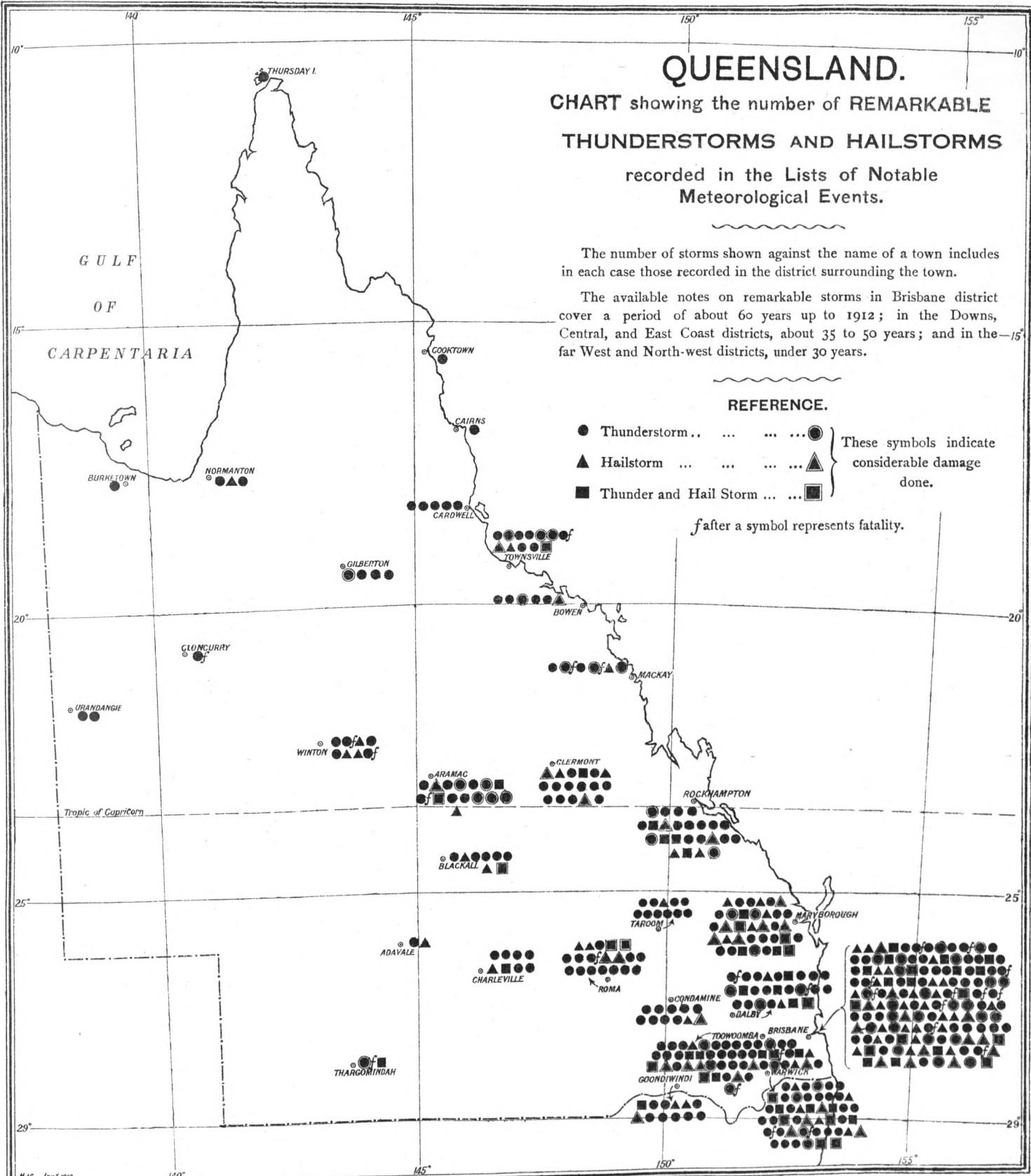
6th November.—Brisbane.—Heavy hail, rain, and thunder in early morning; lightning and thunder at intervals all day; average length of hailstones along the Ipswich-road and at Ipswich was 2 inches; a good deal of damage done at Ipswich.

11th to 13th December.—Maryborough.—Several storms occurred, and hail larger than any previously seen fell; one stone measured 5½ inches in circumference.

1864.

18th October.—Rockhampton and Woodend.—A storm of hail and rain occurred. Hailstones as large as marbles fell at Woodend.

14th November.—Brisbane.—The first heavy hailstorm of the season commenced about 5 p.m. Large pieces of hail came down



at a tremendous rate, accompanied by loud peals of thunder and vivid flashes of lightning. The storm, though violent, was of short duration. Several horses, alarmed at the noise made by the thunder and hail, bolted, and caused some damage and loss of property.

1st December.—Bendmere.—A very heavy hailstorm occurred and lasted three-quarters of an hour. The creek rose 8 feet in two hours and the men engaged in sheep-washing had scarcely time to save the sheep before the whole of the washing arrangements were carried away. Hawks and other wild birds were killed, turkeys and fowls sharing the same fate. The trees were stripped of their foliage and the gardens laid waste. In some of the windows not a pane of glass was left whole. One man received a blow on his head from a piece of ice, which almost stunned him.

December.—Gayndah.—About the 18th December a hailstorm of unprecedented violence occurred.

1865.

4th February.—Boggo.—Hailstones as large as hens' eggs fell.
19th November—

Goondiwindi.—Shower of rain, accompanied by hail.

Peak Downs-road, Roper's Creek.—Terrific hailstorm. The hailstones averaged about the size of an egg, and were driven with such force that they burst through the bark on the roof of a house. Trees were entirely stripped of foliage and the ground thickly spread with leaves. Fowls were killed and gardens ruined—melons and cucumbers cut in pieces. The thunder was appalling and lightning very vivid. (*See Windstorms.*)

2nd December.—Warwick.—Hailstorm of unprecedented violence. Its approach was announced by a roaring noise from westward, from which direction a dirty-coloured cloud swept along with great rapidity. The storm was preceded by a violent hurricane of wind carrying thick clouds of dust before it, and followed by large drops of rain which speedily gave place to hailstones of ordinary size. The stones increased in size until they became larger than pigeons' eggs, and the wind drove them to the ground with great force. Windows facing west were smashed in every direction, houses were blown down, and trees torn up by the roots.

The storm lasted about eight minutes during which time the streets were entirely covered with hailstones.

It was estimated that about 500 squares of glass were broken in the town.

Gardens greatly damaged—fruit-trees stripped, vines cut to pieces, and vegetables destroyed.

A thunderstorm followed after the hailstorm.

11th December.—Roma.—Terrific storm of wind and hail; many of the hailstones weighed 4 ounces and upwards.

17th December.—Gladstone.—Terrific hailstorm. Windows smashed, houses drenched, and, in many instances, unroofed; Court House and National School considerably damaged; large pieces of irregularly-shaped ice fell.

20th December.—Hailstones of enormous size and weight fell at Murphy's Camp, Sandy Creek. The hail passed through the tent roof, rendered a strong cork hat totally useless, and raised lumps on Mr. Murphy's arms and shoulders.

1866.

27th October.—Heavy hailstorm on the Upper Mary. Many of the hailstones were as large as nuts.

18th December—

Brisbane.—About 4.15 p.m. a hailstorm occurred which was unprecedented in this part of Queensland. The majority of the hailstones were almost the size of hens' eggs—some measured 2½ and 3 inches in diameter. Windows all over the city were smashed and several zinc and galvanized iron roofs of verandahs were perforated. The storm occurred very suddenly. The appearance of the stones, apart from their great size, was most remarkable. Some were very irregular in form and of a distinct crystalline structure, while others were rounded

and much the shape of a Flat China peach. All were alike in the respect that the centre was composed of white opaque ice while the outside was clear and transparent. Five stones picked up at random weighed rather more than half a pound.

Oxley Creek.—Excessively violent hailstorm; large hailstones; great quantity of corn, melons, cucumbers, &c., completely destroyed.

1867.

19th January.—Warwick.—Severe storm accompanied by hailstones of immense size. (*See Windstorms.*)

7th February.—Roma.—Tremendous storms of thunder and hail in district. At Bindebango large lumps of ice fell and thickly covered the ground.

29th March.—Roma.—Hailstorm and severe gale occurred; much damage done.

10th November.—Warwick.—Heavy storm of hail.

11th November.—Dalby.—Heavy shower of hailstones.

1868.

10th January.—Toowoomba.—Heavy hailstorm, thunder and lightning. A good deal of damage done to fruit trees, &c.

11th January—

Highfields.—Severe storms of hail, wind, and rain throughout district. (*See Windstorms.*)

Hail, as large as ordinary-sized eggs, fell in large quantities at Booval and Redbank, and damaged crops and gardens.

5th October (about).—Degilbo Station.—A very severe hailstorm occurred.

9th November.—Gympie.—One of the severest hailstorms known in the colony occurred about 4.30 p.m. When the storm, which was preceded by a rumbling sound, reached its culminating point, a tremendous downfall took place, which almost rivalled in its intensity that experienced during the celebrated Brisbane storm of some years since. The ground was literally covered with hail about the size of pigeons' eggs, while lumps averaging an inch and a half in diameter were very plentiful. Rain set in after the hail ceased.

1869.

27th January.—Warwick.—Succession of thundershowers. On the evening of the 21st a shower of heavy snowballs occurred. Some of the balls were 9 inches in circumference, and did great damage to crops, fruit trees, &c. A horse was struck in the forehead by one of the stones and died shortly afterwards.

2nd October.—Enoggera.—Hail and rain storm of terrific violence; severe damage to vines, melons, cotton, etc. (*See Rainfall (Heavy).*)

31st October.—St. George.—A severe hailstorm caused a great deal of damage to gardens.

9th November.—Brisbane.—About 3 p.m. a thunderstorm burst over the city. A heavy downpour of rain and light hail accompanied by a very shifty wind followed. The wind was stronger and the hail larger at Sandgate, where, for about ten or fifteen minutes, stones about the size of a hazel nut fell; some were the size of hens' eggs, and others larger still. After the wind abated rain continued for several hours accompanied by thunder and lightning. (*See Windstorms.*)

Logan and Albert district.—A very sudden storm of hail and rain passed over the district, and did much damage to crops and cotton plants.

13th November.—Dalby.—A terrific hailstorm of twenty minutes' duration, accompanied by thunder and lightning, passed over Dalby in the evening, and caused considerable damage to plants and trees. The hailstones were compact heavy pieces of ice about the size and shape of walnuts, and completely covered the ground.

1st December.—Gympie.—A heavy hailstorm in the evening did great damage to windows, gardens, &c.; the hailstones were of unusual size.

3rd December.—Grantham.—Very severe hailstorm; lumps of ice as large as cricket balls fell with tremendous force and pierced galvanized iron roofs. Fifty-eight holes were made in an iron roof 50 by 18 feet in size and each hole or tear was 3 inches in diameter; several horses severely injured and some dogs killed; lightning very vivid.

17th December.—Goondiwindi.—Violent hailstorm.

1870.

15th January.—Gowrie Creek.—Hail as large as hens' eggs fell during the passage of a hurricane; corn and vegetable crops ruined; windows smashed, and, in some places, bark beaten off trees. (*See* Windstorms.)

3rd October.—Doughboy Creek, near Brisbane.—A hailstorm of extraordinary violence, the severest for years, occurred. Crops destroyed; vegetables reduced to a pulp and driven into the soil; fruit trees stripped of leaves and crop; roofs stripped, windows broken and the ground covered with branches of forest trees. The storm was also experienced in the bay, where its violence was almost unprecedented.

16th October.—Ipswich.—A severe storm accompanied by hail occurred.

1871.

10th October.—Ipswich.—A hailstorm, unequalled in severity by any that fell within the memory of the oldest inhabitants of the district, occurred at Mr. McGrath's station at Warrill Creek. The storm was terrific, the hail was driven along with great force by a south-west wind, and within the limits of the track of the storm, which was only half a mile wide, hail lay about a foot thick on the ground. Hail also fell in great quantities at Fernie Lawn and other places. South-west winds, it was stated, always accompany such visitations in this district.

1872.

10th October—

Heavy hailstorm, accompanied by violent wind, occurred in the Moggill district, near Brisbane. Large trees and fencing blown down, and fruit and other crops considerably damaged.

A devastating shower of hail fell in Ipswich and vicinity. It lasted about 15 minutes and destroyed vegetation of all kinds. The hailstones were as large as marbles and came down with great force. A good deal of damage was done to glass windows, &c. It was the most severe hailstorm experienced for the past nine or ten years.

11th October.—A heavy hailstorm occurred down the Severn, about 12 miles from Stanthorpe.

9th November.—A furious storm of hail did much damage in the West Moreton district.

9th December.—Rain and hail at Warwick.

1873.

20th October.—A heavy hailstorm caused much damage in the Warwick district.

18th November.—Heavy hailstorm in the Albert district.

1874.

2nd October.—A great storm of hail, wind, rain, and snow occurred at Stanthorpe and in the surrounding district. Similar storms on the 3rd and 4th.

28th November.—Terrific hailstorm at Taroom.

1875.

11th to 13th October.—Stanthorpe.—Three thunder and hailstorms occurred within 48 hours; great damage done to fruit trees and crops by the hail.

15th October.—Heavy storms, with thunder and hail, at many places.

16th October.—Wide Bay.—Heavy hail and rain storm.

17th October.—Heavy storms of thunder, with hail, very general.

24th October.—Heavy storm of thunder and hail at Reckhampton.

28th October.—Hail and thunderstorms frequent at Brisbane; hailstones very large.

1876.

22nd January.—A very severe storm of hail, thunder, lightning and wind at Brisbane; much property destroyed.

16th October.—Severe hailstorm at Wooloogo, Wide Bay; a number of wild animals, goats, &c., killed.

25th October.—Terrible storm of thunder, lightning, and hail at Toowoomba and Warwick.

1877.

2nd and 3rd October.—Heavy thunderstorms, accompanied by much hail, in several parts of the colony.

3rd December.—Ipswich.—A heavy hailstorm occurred about 4 p.m. Some of the hail 1 inch in diameter; many windows broken; vineyards damaged severely, and cattle badly cut and injured. Streets and house-tops presented an appearance similar to that caused by a heavy snow storm. Oldest residents stated that the storm was the heaviest seen at Ipswich. A splendid rainfall followed.

4th December.—Exceedingly heavy thunder and hailstorms in many parts of the colony.

25th December.—Great hailstorm at Mount Perry.

28th December.—A very severe hailstorm passed over Brisbane, which broke thousands of panes of glass, and destroyed a great deal of property. In the Meteorological Observer's Report it is stated that many of the hailstones exceeded 2 inches in diameter and weighed from 1 to 2 ozs.

1878.

24th January.—Severe hailstorm at Ipswich.

26th May.—Thunder squall at Ipswich reserve, with very large hailstones.

15th September.—Severe hailstorm at Mount Esk.

1880.

12th October.—Heavy thunderstorm with hail and rain at Dalby.

25th October.—A most severe storm of hail and rain, which lasted half-an-hour, occurred in Brisbane.

29th December.—Heavy hailstorm at Toowoomba.

1883.

28th January.—Heavy storm passed over Toowoomba; houses struck by lightning; sheep killed by hailstones, some of which measured 3 inches by 2 inches.

1884.

26th February.—Tents of a telegraph camp at Tambo blown to pieces during a violent hailstorm. The ridge pole of one of the tents struck one of the men and killed him.

31st October.—£3,000 worth of wheat damaged by hail during a severe storm at Gladfield, near Warwick.

31st December.—Heaviest hailstorm known occurred at Toowoomba; Botanic Gardens almost wrecked.

1886.

23rd November.—Fearful hailstorm in western suburbs of Brisbane; great damage done.

23rd November.—Heavy hailstorm at Corinda.

1887.

30th September.—Walkerston.—A hailstorm, which lasted an hour, occurred. Stones between the size of a marble and a walnut fell, and destroyed great numbers of young fruit trees.

2nd October.—Weribone, Surat.—Large hailstones fell a short distance from Weribone during a very heavy thunderstorm.

1889.

26th November.—Hailstorm at Roma damaged gardens.

29th November.—Very heavy hailstorm in Brisbane, hail $3\frac{3}{4}$ inches long by $2\frac{1}{2}$ inches. One piece at Coorparoo weighed 5 oz.

1890.

21st November.—Terrific hailstorm at Laidley.

18th December.—Corinda.—A very severe hailstorm broke over the district at 3.55 p.m. Hail fell for about ten minutes, and some of the stones were very large. After the heavy rain ceased, a stone was picked up which measured 3 inches long by 2 inches wide, and was very jagged in appearance. A great amount of damage was done to fruit trees, vines, &c., and if the hail had not been accompanied by very heavy rain the result would probably have been much worse. The rainfall from 3.55 p.m. until 4.10 p.m. amounted to exactly 1.00 inch; and the total was 1.10. This was the worst hailstorm experienced since 23rd November, 1886. The hail on that occasion fell for 20 minutes, during which time the rain held off; the wind was also much more severe, and the storm came from the south-east. The storm of the present date came from south-west, veered to south, and finished from east, and was accompanied by very severe thunder and lightning. For some time before it broke, all the lower clouds could be seen rushing towards the south-west; a very black bank of clouds formed there, and began to rise towards the zenith, and the clouds from all parts of the compass appeared to make for this heavy mass, which did not take more than ten minutes to come overhead. It then became so dark that lamps had to be lit. A roaring sound was heard for some time before the storm burst.

1891.

26th October.—Great damage done to the fruit crop in the Toowoomba district by hailstones.

1893.

22nd October.—A hailstorm destroyed all crops, fruit trees, and vineyards at Gowrie Junction.

27th November.—Heavy thunderstorm, accompanied by strong wind and hailstones, did considerable damage about Toowong and Goodna.

1896.

6th November.—Heavy hailstorm at Roma.

1897.

25th January.—Cyclonic hailstorm at Bundaberg.

25th September.—Severe hailstorm at Maryborough.

1st November.—A severe storm, with unprecedented hail, passed over Brisbane.

1899.

17th July.—North Pine.—A very severe thunder and hail storm occurred; exceptionally large hailstones; considerable damage done to fruit and flower gardens.

1900.

7th November.—Severe hailstorm at Rockhampton.

1902.

18th August.—Heavy hailstorm in Brisbane and suburbs.

25th October.—Stanthorpe.—A heavy hailstorm occurred in parts of the district, and did some damage to the fruit and vegetable crops. The hail did not reach the town but was very heavy in the Kyoomba and Sugarloaf districts; at Sugarloaf it lay 2 feet deep in places.

29th October (about).—North Pine.—6th November.—It was stated that the melting of hailstones from last week's storm caused the river to run, and some of the ice was seen three days after the storm. In the river bed the stones lay 3 feet deep.

10th November.—

Gympie.—Heavy hailstorm during the afternoon.

Colinton.—Heavy rain and hail.

29th November.—Hermitage State Farm.—Severe hailstorm damaged fruit crops.

8th December.—Esk.—Storm occurred, accompanied by very heavy hail.

12th December.—Brookville, near Ravenswood.—A cyclone struck Brookville at 4 p.m. and caused universal devastation. Numbers of houses levelled. Hailstones as large as teacups fell; every pane of glass in the track of the storm broken. Rainfall estimated at 5 inches. Cowley Creek and tributaries overflowed.

1903.

26th October.—Terrific hailstorm at Charters Towers.

1907.

2nd November.—Heavy hailstorm at Brisbane.

1908.

3rd April.—Destructive hailstorm at Gympie.

1909.

1st January.—Severe hailstorm at Crow's Nest.

5th January.—Hailstorm at Normanton.

8th February.—Tremendous storm at Charleville, accompanied by blinding rain and hail.

13th–25th February.—Heavy thunderstorms experienced in various parts, accompanied by violent local blows, hail, and heavy rain.

18th February.—Kynuna.—A terrific hailstorm accompanied by heavy wind occurred at the Combo mail change (6 miles from Kynuna on the Winton-road) during the night; the hailstones were the size of pigeons' eggs.

22nd February.—Adavale.—A storm accompanied by hail the size of pigeons' eggs occurred during the night.

27th March.—A terrific hailstorm occurred at Cordalba about 6 p.m. and did terrible damage to houses and crops. Not a house in the town escaped some damage or other. The storm came up from south. The wind blew half a gale and then hail fell, some as large as small hens' eggs, and piled up alongside houses and fences a foot high. It broke the glass in every window facing the south and deluged all the houses with broken glass, hail, and water. The sugar cane was almost threshed bare and was split and broken down. Hundreds of acres of fine corn were completely destroyed, only bare sticks about 2 feet high being left. The storm is said to be the worst ever experienced in the district.

At Mount Beppo the storm was very heavy, and nearly two inches of rain fell. Wind and hail did a great deal of damage to crops and levelled a large area of maize. Trees uprooted in many places and several cattle killed.

Pittsworth.—A heavy thunderstorm accompanied by terrific wind and hail swept over the town in the afternoon. 114 points of rain were registered in 10 minutes. Considerable damage done to roofs of buildings; one side of the Catholic Chapel unroofed, also portions of the Central Hotel and other public buildings.

15th September.—Hailstorms at Inglewood and Allora.

22nd September.—Hailstorm at Yeppoon.

25th–26th October.—Destructive hailstorms occurred at Yateville and Rosewood. At the latter station the hailstones were at times as large as billiard balls. In many places they drifted into heaps 6 inches deep; many windows in churches and other buildings smashed; maize, potatoes, and all greenstuffs practically destroyed.

29th-31st October.—Hail at places in eastern Darling Downs and south-east coastal regions.

31st October.—Rosewood.—“Reports from Rosevale indicate that the hailstorm experienced there last week was exceptionally severe, old residents classing it as the worst of its kind ever witnessed. Maize crop completely spoiled; trees stripped of their bark; poultry and sheep killed. In some residences every pane of glass in several windows was broken, while lumps of ice ricocheted through the rooms, and smashed their way in through the iron roofs, which were gashed and cracked beyond repair.”

13th-15th November—

Warwick.—“A terrific hailstorm passed over the Lord John Swamp, Danderoo, and Emu Vale districts yesterday afternoon (14th) and apparently continued its destruction over the range to Boonah, Harrisville, Ipswich and Brisbane. In the districts referred to, corn was stripped to the stem, and wheat and lucerne crops beaten into the soil. Out of one paddock of wheat at Danderoo 200 acres were rendered absolutely useless. Fruit trees were stripped and other serious damage done in the track of the storm, which fortunately was only about 3 miles wide. Very little rain accompanied the storm.”

A monsoonal depression caused thunderstorm conditions of great intensity on Pacific slope south from Mackay and eastern parts of Darling Downs. 159 points of rain were recorded at Cooran and 240 at Gin Gin. Destructive hailstorms occurred in south-east Queensland, including eastern Darling Downs. *Brisbane Courier*, 15th November.—“The most disastrous hailstorm that has occurred in south-eastern Queensland for many years swept over a large area yesterday afternoon. It appeared to work up from the south—an unusual direction—and the wind accompanying it, which in places was of almost hurricane force, veered from south to south-east. It wrought considerable damage to house property and laid waste the flower gardens and orchards, particularly in the western suburban districts. In places the hail was as large as hens' eggs, and it fell so quickly and with such force that not only were window panes smashed, but iron roofs and tanks were pierced. Fruit trees were badly damaged. Fowls and birds were killed, and in the track of the storm the fallen hail in places covered the ground in thick layers to a depth of a foot or more. The trees projecting over the streets suffered severely, and the pathways underneath were everywhere strewn with a thick covering of stripped leaves. When the rain came and swelled the storm waters caused by the rapidly melting hail the street water-tables in many places were unable to carry off the flood which accumulated in miniature lakes, and in some instances swamped low-lying cellars.”

16th November.—Severe cyclonic thunderstorm, with hail, at Cooran.

17th November.—Heavy hailstorm at Beaudesert.

23rd November.—Toogoolawah.—“A violent hailstorm passed over the township about 7 o'clock last evening. The hail was the largest ever seen here, some of the stones being over 2 inches in diameter. The fall only lasted for about 8 or 10 minutes, but during that time the windows in nearly every building, except where they were protected, were broken, while the roofs were all dented. In some places the trees were denuded of leaves. The growing maize on a few farms was cut to pieces and fruit trees were stripped. Very little rain fell, except at a few isolated places, 20 points being registered here, 20 at Caboonbah, and 8 at Mt. Brisbane; but heavy rain fell at Otaba, and at the junction of Cressbrook Creek and the river. The storm seemed to be most severe along Cressbrook Creek.”

17th December—

Bundaberg.—A heavy thunderstorm accompanied by heavy rain broke over the district. At Gin Gin, hail fell which damaged the peach and grape crops.

Crow's Nest.—One of the severest hailstorms experienced in the district occurred during the afternoon. The storm came from the south and was preceded by a roaring sound. Large hail

of all shapes fell for about half an hour; horses terrified; large number of windows broken; great damage done to grape and other fruit crops. The fall at Peechey and Hampton was heavier still, and the creeks from that direction came down bankers. Crow's Nest rainfall 102 points.

Cyclonic hail storm at Moonmera, near Mount Morgan, 280 points registered.

1910.

21st January.—A terrific storm passed over Aramac at 4 p.m. The wind blew with hurricane force and was accompanied by large hail.

26th November.—Hailstorm at Pittsworth, lasting 20 minutes, with hailstones as large as hens' eggs.

4th December.—General and severe wind and hail storms in eastern Queensland south from tropic; considerable damage done by wind in suburbs of Brisbane, particularly at Kelvin Grove.

Lowood.—A series of heavy hail and rain storms occurred; total rainfall 142 points.

Murwillumbah.—The fringe of a heavy hailstorm passed over this afternoon. Reports from Crystal Creek state that scattered hailstones, some of them 3 inches in diameter, fell there, and half an hour after the storm had passed, many the size of hens' eggs were picked up.

5th December.—Rosewood.—A peculiar hailstorm passed close to the town at 2 p.m. to-day. The noise of falling hail was distinctly heard, and caused some commotion in various houses in the town. Scattered hail fell on the roofs while the sun was shining overhead.

Murwillumbah.—Oppressive heat culminated in a storm this afternoon, accompanied by slight hail.

6th December.—Bluff (Central Railway).—Hail as large as cricket balls; six lumps, weighed after storm, averaged $\frac{1}{2}$ -lb. each.

17th December.—Crow's Nest.—Hail did much damage to crops and caused some loss of stock.

The following notes for the 17th, 18th and 19th of December were published in the *Toowoomba Chronicle* of 20th December, 1910:—

“Southbrook.—The most terrific hailstorm experienced here for many years burst over our little township on Saturday afternoon last (17th). About 3.30 p.m. the storm gathered away to the south and, accompanied by vivid lightning and some wind, the rolling masses of ice-clouds came surging forward and the storm commenced in all its fury about 4 p.m. For about 5 minutes the rain seemed to tumble down in sheets. Then the hail commenced, and the stones fell thick and heavy for about 25 minutes. Some of the specimens were nearly as big as hens' eggs. Window panes were broken in all directions, but the worst damage was done on the farms of Messrs. F. Sterling and M. MacNamara. A 17-acre paddock of malting barley belonging to Mr. Sterling was ‘belted’ into mother earth. Mr. MacNamara suffered a similar loss. A few small areas of late wheat were also destroyed. The vegetable and fruit gardens, next to the crops mentioned above, received the worst of the storm. The young maize crops were cut to pieces, also the lucerne crops. About 2 inches of rain fell within 30 minutes. The storm was accompanied by a heavy fog, probably caused by the atmospheric heat acting on the ‘ice-junks.’ The Pittsworth train was pulled in at the Southbrook railway station during the deluge.

Gowrie Junction.—On Saturday afternoon (17th) Gowrie Junction and district was visited by a terrific hailstorm, but it was between Kingsthorpe and Gowrie Junction that the fall was most severe. The lucerne in the paddocks was stripped bare, and the storm destroyed the young corn crop. After the storm had abated a ganger went along the line and found hail piled up everywhere, and the grass all beaten down.

17th and 18th December.—Wellecamp.—At Mr. A. H. McShane's Verdant Vale Farm, the storms of Saturday and Sunday afternoon (17th and 18th) did considerable damage. Hail fell in quantities on both days, but on Sunday the wind blew with hurricane force. Trees were uprooted and sheets of iron stripped off the sheds. After the storm Mr. McShane found that a 4 x 2 hardwood rafter, 14 feet long, had been blown 200 yards away from its shed. Fortunately none of the stock was killed, but considerable damage was done to the crops. The rainfall recorded was 3.50 inches. Mr. McShane states that the storm of Sunday was the severest ever experienced at Verdant Vale.

Glencoe.—The most terrific hailstorm, accompanied by wind of hurricane force, ever witnessed by the oldest inhabitant, passed over Glencoe last Saturday evening (17th) at 5 p.m. Shortly before the storm arrived a rumbling noise in the clouds could be heard—a sure sign that disaster was approaching. When the storm (which came from the south) arrived, the wind blew with hurricane force, and hail fell heavily for 35 minutes. Sheets of iron were blown in all directions, trees uprooted, roofs of all buildings in the track of the fiercest part of the storm pierced by hailstones, and every exposed window was smashed to pieces. Some hailstones were as large as turkeys' eggs; all standing crops were battered to the ground, and every orchard stripped of fruit and leaves. Cattle also suffered, and blood was noticed trickling off their bodies from the bruises made by the hailstones.

Laidley (19th).—A disastrous cyclone swept across the Lake Clarendon and Tarampa localities yesterday afternoon between 2 and 3 o'clock. Much damage was done to stock and property. Houses were unroofed, barns and hay-sheds blown bodily into the Lockyer Creek, and horses and cattle killed. Fifty or sixty settlers sustained heavy losses, and their dwellings in some instances were first unroofed, then deluged. Maize and other crops were chaffed up by the hail. The greatest havoc was wrought in a strip of country about 20 miles long by less than half-a-mile wide. The energy of the storm was very great."

1911.

4th May.—Severe thunderstorms, with hail, in south-east Queensland. At Brisbane a sharp thunderstorm, accompanied, in some of the suburbs, by strong wind, rain, and a heavy fall of hail, passed over early in the afternoon. In the city proper a sharp shower of rain (14 points) fell. At New Farm and Bowen Hills there was a heavy fall of small hail, which drifted in places to a depth of 18 inches.

28th August.—A remarkable series of thunderstorms, accompanied in places by hail, occurred on Southern Downs and in Moreton district. Hail fell over Brisbane and suburbs shortly before midday, heavy at places, more especially at Enoggera, where lumps of ice the size of large marbles fell thickly for about half an hour. In most parts of the metropolis, however, the fall was not of sufficiently long duration to greatly damage gardens or orchards. During the afternoon there was further thunder, rain, and small hail.

Grandchester.—A storm passed over the district about 12.30 p.m. and was particularly severe at Summerhill, where there was a heavy fall of hail for half an hour.

Laidley.—Several thunderstorms passed over the town, the first (which occurred about midday) was accompanied by hail and very heavy rain.

Toowoomba.—A slight shower of hail occurred about 1 p.m., followed an hour later by heavy thunder and rain.

1912.

9th February.—Hailstorms on the Downs; very heavy at Crow's Nest, Woodford and Yarraman.

Crow's Nest.—A terrific hailstorm occurred this afternoon, and in a quarter of an hour 80 points of rain fell. The hail was very large and jagged.

Woodford.—A very severe storm accompanied by hail occurred in the district. In the town proper there was little hail, but at Delaney's Creek and D'Aguilar the fall was extremely heavy, some of the stones being as large as pullets' eggs; great damage was done to fruit trees and vines.

Yarraman.—A very heavy hailstorm broke over the town during the evening. Old residents state that it was the heaviest ever experienced. The hail was the size of hens' eggs.

13th February.—Beaudesert.—A violent storm of hail, heavy rain, thunder and vivid lightning, passed over the town and district about 3 p.m.

2nd March.—Unprecedented fall of hail at Gargett (Mackay district); some of the stones were larger than a man's fist, and pierced large holes in new iron roofs; horses and cattle were so maddened by the hail that they broke through barbed wire fences.

27th to 29th March.—Thunder and hail storms in Darling Downs and South Coast divisions. At Toowoomba, on 27th, a heavy rain and thunder storm broke over the city, followed by a violent hailstorm. Some of the hailstones were as large as marbles, and considerable damage was done to gardens. The storm lasted half an hour. At Petrie's Creek, Pinelands, Mount Walker, and Ebenezer, hail did great damage to crops.

21st June.—Kynuna.—A storm from the south-west occurred at 10 p.m., and hailstones like pigeons' eggs fell. Heavy rain fell for 15 minutes, and light intermittent rain followed; total to 9 a.m. 22nd, 180 points.

28th June.—Winton.—Reports from all the district centres contain the news of a splendid rainfall, the average amount being 5 inches. At Dick's Creek a terrific hailstorm occurred, and the total rainfall was estimated at 8 inches.

13th and 14th August.—Thunderstorms, with strong wind and some hail, on Darling Downs and in Southern Eastern districts. Thunderstorm, with some light hail, at Brisbane.

28th August.—Thunder, strong winds, hail, and rain in south-east. Severe hailstorm at Dalby.

31st August.—Thargomindah.—Thunderstorm and a little hail occurred; only 5 points of rain recorded.

12th October.—Mount Morgan.—Heavy storm; hail, thunder, and lightning.

20th to 24th October.—A monsoonal disturbance caused beneficial rain with thunderstorms, and in places hail, in Maranoa, Darling Downs, and South Coast divisions. On the 23rd large sized hail fell at Dalby, and little hail at Miles.

23rd October.—Dalby.—At 3.30 p.m. a heavy hailstorm occurred; large hail.

4th November.—A severe hailstorm occurred in Mount Walker and Rosevale districts; considerable damage done to crops.

9th November.—Blackall.—Terrific thunderstorm with hail occurred about 10 p.m.; great damage to buildings, &c.

12th November.—Severe hailstorm did considerable damage to crops in the Greenmount district.

24th November.—Rockhampton.—Heavy thundershower; hail, twice the size of peas, fell.

26th November.—A cyclonic storm from southward, which lasted for half-an-hour, passed over Laidley and vicinity at 1.15 p.m., accompanied by large hailstones the size of pigeons' eggs.

Hailstorms of greater or lesser severity were also experienced at Kannangur, Lowood, Toogoolawah, Maryborough, Walla-ville, and other places in the South Coast division.

Heavy thunderstorm in afternoon at Kelsey Creek, 10 miles west of Proserpine; 3 inches of rain fell in an hour, accompanied by heavy hail up to size of pigeons' eggs; considerable damage done to crops.

One of the severest storms ever experienced in the Murrumba district, just outside Esk, broke at 2.30 p.m., and 3 inches of rain fell in three-quarters of an hour. Hailstones the size of eggs pierced the roofs of houses, and some dwellings were

swamped. A horse was struck by lightning, and killed. Many of the crops were destroyed. The storm passed over Esk, but no rain fell.

7th December.—Stanthorpe.—A succession of thunderstorms, with vivid lightning and hail, occurred during the night. The hail did not do much damage in the town, but it was apparently very heavy some little distance out, for numbers of dead parrots were seen lying under the trees; and at Ballandean Station a number of windows were broken.

9th December.—Mount Morgan.—Heavy rain, hail, thunder, and lightning.

10th December.—Sandgate.—A severe thunderstorm, with strong wind and hail, occurred about 3.50 p.m. Approaching Sandgate from the direction of Cabbage Tree Creek, the hail commenced to fall in large jagged lumps, in some cases the size of small hens' eggs, the fall lasting for fully five minutes. Fortunately little if any damage was done to property. Small hail fell thickly for several minutes longer, until many parts of the town were covered with a thin mantle of white. Heavy rain, severe lightning, and heavy thunder followed.

Severe hailstorms occurred also in southern half of South Coast division and adjacent parts of the Darling Downs (at Beaudesert, Nambour, Veresdale, Ottaba—near Toogoolawah), and particularly severe between Bald Hills and Nudgee, where vines and fruit trees were practically ruined. At Zillmere the hailstones were as large as hens' eggs.

11th December.—Brisbane.—A very severe hailstorm, accompanied by vivid lightning and heavy thunder, passed over the city between 1.45 and 2.15 p.m., during which time the temperature fell 18°, and 142 points of rain and hail were registered; whilst the atmospheric pressure increased 0.18 inches in 20 minutes. The hail did great damage to windows, trees and gardens in that part of the city between Indooroopilly and East Brisbane, and accumulations of hail in roof-drains and gutters caused flooding in several warehouses and shops. Comparatively little hail fell north and south of the track of the storm, but there was very very heavy rain in all parts of the metropolitan area. The lightning struck the General Hospital at Bowen Bridge, and also wrought damage in South Brisbane. This storm also affected practically the whole of the southern half of the South Coast division, and heavy falls of hail occurred at Lowood, Nundah, Woodford, and Roadvale.

11th December.—Rockhampton.—Stormy conditions; heavy shower with hail, thunder, and lightning at 10.30 a.m. Unusually severe thundershowers, with hail and lightning, during the month.

12th December.—Murwillumbah.—A terrific hailstorm accompanied by high wind and torrential rain passed over the Tyalgum and Duranbah district early in the night. At several places the hail was as large as small hens' eggs. The storm was of short duration, but considerable damage was done to banana patches, gardens and maize crops.

12th December.—Mount Morgan.—Hail, thunder, and lightning.

1913.

17th September.—Maryborough.—Hail and rain fell heavily in various parts of the district.

17th September.—Nanango.—A thunderstorm accompanied by a fall of small hailstones broke over the town and district in the afternoon.

25th October.—Gatton.—A thunder and hailstorm broke with unusual severity over the Ma Ma Creek and Grantham districts, and the heavy hail did considerable damage in some places to standing wheat crops.

25th October.—Helidon.—A severe thunderstorm, accompanied by large sized hail, occurred during the evening. The hailstones killed a number of fowls, broke some window panes, thrashed down the young corn, stripped grape vines and fruit trees of half their fruit and pierced roofs of some houses.

4th November.—Brisbane.—Two thunderstorms accompanied by hail and rain broke over the city and suburbs, and gardens in some localities were damaged by the hail.

4th November.—Southport.—A very heavy storm, accompanied by very large hail and strong wind, broke over the town. It was reported that a number of windows were broken at the Southport school, while at Mauns Bros.' property at Ernest Junction, the hail did great damage.

4th November.—Bald Hills.—A heavy thunderstorm was experienced in the afternoon, accompanied by hail and wind. In some parts considerable damage was done to cucumbers and to young fruit trees.

* HEAT (EXCESSIVE) AND HEAT WAVES.

1860.

November.—Brisbane.—The last day of the month was very hot; maximum temperature in shade 97°, and in the sun 121°.

1861.

March.—Brisbane.—Very hot weather at the commencement of the month, the 4th and 5th being the hottest days of the summer; maximum temperature in shade on 4th, 99.1°; in sun, 123.3°; and on the 5th, 99.7° and 122°.

1862.

19th January.—Ipswich.—Excessive heat, broken by a gentle and steady rain, which was greatly desired.

31st January.—Dalby.—One of the hottest days of the season; work suspended for the greater part of the day. At 2 p.m. the thermometer registered 102° in the shade, and 138° in the sun.

January.—The Dawson, 7th February.—The thermometer registered over 100° in the shade every day during last month.

21st September.—Ipswich.—One of the hottest days of the season.

28th September to 1st October.—Ipswich.—Weather excessively warm, and nights very close.

30th October.—Ipswich.—Weather very hot during the week.

7th November.—Dalby.—Weather very hot during the past week; the thermometer at times as high as 110°.

12th November—

Pike's Creek, Stanthorpe.—Thermometer registered 94° in the shade.

Brisbane.—Thermometer registered 100.2° in the shade, and 126.8° in the sun.

21st November.—Ipswich.—Weather very hot during the week; on one occasion the thermometer registered 93° in the shade.

23rd November.—The Burnett district.—Weather excessively warm during past few weeks; thermometer registered 102° on 22nd.

24th November.—Toowoomba.—Weather very hot; during the first part of the week the thermometer registered 101° in the shade.

14th December—

Warwick.—Mean maximum temperature for past week over 90°.

Gayndah.—Weather during past week very sultry; thermometer varying from 96° to 103° in the shade.

27th December.—Brisbane.—Thermometer at noon 100° in the shade.

December.—Brisbane.—Temperature much above average; mean for month, 77.5°. North-east winds prevailed. Evaporation unusually great, amounting to nearly 9 inches for the month.

1863.

9th February.—Brisbane.—Hottest weather experienced for some time; thermometer registered 94° in the shade.

* The correctness of the temperature records given in these notes for the years 1860-1886 inclusive, cannot be vouched for, as very little is known of the conditions under which thermometers were exposed in Queensland during those years.

16th to 18th February.—Brisbane.—Intense heat. On the 18th the thermometer registered 97° in the shade. Three fatal cases of sunstroke.

19th February.—Brisbane.—Temperature 101·4° in shade.

21st February.—Ipswich.—Almost unbearable heat.

21st to 28th February.—Brisbane.—Very sultry weather; temperature ranged from 90° to 100° in the shade.

23rd February.—Gayndah.—Heat intensely oppressive; almost impossible to sleep under roof.

February—

Bowen.—Weather very sultry; thermometer ranged from 82° to 93° in the shade.

The Brisbane Weather Report for February, 1863, states:—"The month was hot and quite oppressive throughout, the 18th and 19th being the hottest days of the summer. On the 19th, the maximum shade reading was 101·4° (the highest reading here since observations have been taken), maximum in sun, 125·8°. South-east winds prevailed; much thunder and lightning. Evaporation between 4 and 5 inches.

24th October.—Goondiwindi.—Exceedingly warm weather; thermometer registered 90° in the shade.

6th November.—Port Denison.—Excessive heat.

13th November.—Ipswich.—Warmest day so far for season; temperature about 4 p.m., 97°.

16th November.—Rockhampton.—Heat almost intolerable; two or three deaths from sunstroke.

21st November.—Brisbane.—Deaths by sunstroke occurred during the week; weather excessively hot.

24th November.—Dalby.—Intense heat; thermometer at 1 p.m. registered 102° in the shade.

1864.

25th January.—Goondiwindi.—Weather for past week singularly oppressive; 103° and 104° in the shade quite common.

11th September.—Toowoomba.—Weather hot, sultry, and unhealthy.

16th November.—Warwick.—Scorching hot weather during the whole of the past week.

19th November.—Toowoomba.—Weather fearfully hot on the goldfields.

16th December.—Talgai Gold-fields.—Weather fearfully hot.

24th December.—Rockhampton.—Intense heat.

1865.

28th January.—Brisbane.—Weather excessively hot; two deaths from sunstroke reported during the week.

29th October.—Goondiwindi.—Thermometer registered 95°, and on two occasions lately 98° in the shade.

8th and 9th November.—Ipswich.—Very hot weather; 102° and 105° in shade.

9th November—

Intense heat at Toowoomba.

Dalby.—Intense heat last few days.

Warwick.—Hot wind and burning sun. Wheat ripened a week before its time, and immediate reaping became imperative to save the grain. All hay crops withered, and wheat crops were so affected by the heat that farmers converted them into hay. (See Droughty Conditions.)

11th November—

Condamine.—Excessive heat; thermometer ranged from 98° to 105° during past week.

Clermont.—Extremely warm weather during last six days.

21st November.—Toowoomba.—Intense heat during last week.

9th December.—Gayndah.—Intense heat during the week.

17th December.—Gladstone.—Very oppressive heat for several days.

21st December.—Toowoomba.—Thermometer over 100° in shade. Two men died while crossing Goomburra plains from effects of excessive heat and fatigue.

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23rd December.—Warwick.—Intense heat during week; thermometer up to 100°.

31st December.—Toowoomba.—Weather frightfully hot.

1866.

2nd January—

Condamine.—Intense heat accompanied by hot winds.

Warwick.—Hot weather seriously affected the maize crops.

12th January.—Warwick.—Weather oppressively hot.

15th January.—Roma.—Weather oppressively hot during the week; thermometer recorded 108° in shade and 95° three hours after sunset.

27th and 28th January.—Brisbane.—Heat very oppressive.

14th February.—Condamine.—Weather intensely hot. Flies troublesome; many persons suffering from blight.

15th February.—Warwick.—Weather oppressively hot.

18th February.—Fortitude Valley.—Fatal case of sunstroke.

27th March.—Charleville.—Weather intensely hot.

8th November.—Ipswich.—Fatal case of sunstroke.

19th November.—Surat.—Scorching hot weather and high winds; the thermometer last week averaged 104° in the shade.

1867.

5th January—

Bowen.—Weather exceedingly hot during last three days.

Roma.—Terrible heat for past two days. On 4th thermometer in shade stood at 112° for four hours, and in the open air at 8 p.m. 102°; to-day (5th) 106° in shade. A hot wind prevailed yesterday and badly affected the young grass.

6th January.—Dalby.—A man died from effects of sunstroke received on 4th instant, and the great heat experienced caused considerable amount of sickness amongst the townspeople.

7th January.—Rockhampton.—Very hot weather.

9th January.—Roma.—Very hot weather; thermometer stood at 120° in shade.

21st January.—Dalby.—Weather still oppressively hot; all garden produce destroyed by the heat.

18th February—

Brisbane.—Weather oppressively hot during past three days; on 16th instant temperature 102° in shade.

Goondiwindi.—Thermometer 104° in shade.

19th February.—Ipswich.—Weather very hot and oppressive.

20th February.—Roma.—Weather still very hot; thermometer registered 110° in shade on 16th instant.

25th February.—Warwick.—Extremely hot weather; thermometer ranging between 92° and 96° in shade.

24th October.—Burnett.—Oppressive heat during week.

17th November.—Toowoomba.—Greatest heat ever experienced.

6th December.—Taroom.—Intense heat; grass dry and friable.

18th December.—Maryborough.—Oppressive heat; on 16th thermometer registered 104° in shade.

21st December.—Burnett.—Intense heat during week.

21st to 28th December.—Curriwillinghi.—Intense heat; on some days thermometer registered 122° in shade.

1868.

2nd January.—Oxley.—Growing crops withered by continued hot weather.

6th January.—Excessive heat at Rockhampton; several cases of sunstroke.

8th January.—Toowoomba.—Unprecedented heat during last few days—temperature 104° during early part of week and on one occasion 105°; six deaths from sunstroke during the week.

10th January—

Rockhampton.—Weather very hot; bush-fire near Gladstone; house burnt down and other valuable property destroyed.

Curriwillingi.—Heat still very great; weather very dry and water drying up. Between the 21st and 28th ult. the thermometer registered, at times, 122° in shade.

11th January.—Maryborough.—Very hot weather; thermometer 108° in the shade; grass scorched up; no sign of vegetable matter in gardens.

21st February.—Dalby.—Intense heat.

19th March.—Tingalpa.—Vegetation rather withered owing to intense heat during day and coldness at night.

25th March.—Maryborough.—Very hot.

26th March.—

Tingalpa.—Uncomfortably hot in the sun lately.

Oxley.—Weather during last few days as hot and dry as that usually experienced in summer; ground dry and cracked; crops very badly affected by the great heat.

7th April—

Tingalpa.—Weather exceedingly hot.

Roma.—Weather very dry and hot; thermometer registered 96° and 98° in shade.

11th April.—Weather still very hot at Roma; thermometer registered 104° in shade during week.

12th and 13th April.—Brisbane.—Weather for time of year excessively hot; thermometer on 12th inst. about 95° in shade.

30th September and 1st October.—Rockhampton.—Heat very great for this time of the year; on 30th the thermometer stood at 95° at Banana, and on 1st 95° at Rockhampton.

15th October.—Brisbane.—Heat during the night something alarming for this time of the year; regular mid-summer weather already set in.

10th to 17th October.—Dalby.—Heat excessive during the week; thermometer ranging from 90° to 95° in the shade.

21st October.—Gladstone.—Weather excessively hot.

8th November (about).—Taroom, 11th November.—Weather exceedingly hot; the thermometer registered 108° in the shade a few days ago; stock affected.

9th to 16th November.—Rockhampton.—Two cases of sunstroke during the week.

11th November.—Clermont.—Heat intense; thermometer registering from 100° to 110° in the middle of the day.

20th November.—Roma.—Thermometer registered 112° in shade.

29th November.—St. George's Bridge.—Thermometer 109° to 112° in the shade; grass and herbage totally parched.

5th December.—Warwick.—Weather excessively hot.

7th December—

Rockhampton.—Excessively hot.

Taroom.—Excessively hot.

Clermont.—Thermometer registered 114° in the shade.

10th to 17th December.—Rolleston.—Weather fearfully hot; fatal case of sunstroke on the 10th.

14th December.—Rockhampton.—The thermometer at the Boiling Down establishment, Laurel Bank, registered 100° at 9 o'clock; in some of the coolest stores in the town, the temperature reached 102° before 10 o'clock.

14th to 17th December.—Gladstone.—Excessive heat; cattle suffered severely.

16th December.—Dalby.—Hot weather prevailed in the neighbourhood until 16th, the thermometer ranging from 100° to 106° in the shade.

24th December.—Warwick.—Weather oppressively hot; thermometer registered 100° in the shade.

26th December—

Brisbane.—Hottest day for six years; maximum temperature in the sun, 139°; in the shade, 108°; evaporation exactly half an inch.

Toowoomba.—Weather very hot, but change indicated.

29th December.—One-mile Creek, Gympie.—Fatal case of sunstroke.

1869.

13th and 14th January.—Gympie.—Terrific heat; temperature in shade 120° on the 13th, and 114° on 14th.

18th January.—Gayndah.—Thermometer for several days past 100° to 103° in the shade.

19th January.—Peak Downs.—Excessively warm week; maximum shade temperature in well-ventilated buildings with iron roofs 122°, with bark or shingled roofs, from 108° to 115°, according to situation.

26th January.—Gympie.—Weather frightfully hot.

4th February.—Gympie.—Temperature in the forenoon 114° in the shade.

9th and 10th October.—Brisbane.—Very great heat on the 9th and 10th.

27th October.—Roma.—The thermometer at the telegraph office registered 113° in the shade, and 163° in the sun.

4th December.—Dalby.—Intensely hot week; thermometer registered 98° in the shade.

5th to 7th December.—Ipswich.—Very hot weather; thermometer registered 100° in the shade on 5th.

29th December.—Brisbane.—Hottest day remembered; 105° in the shade at 10 a.m.; several cases of sunstroke.

29th and 30th December.—Gympie.—Heat excessive; a man died on 29th from sunstroke.

10th December.—Gilberton.—Heat very oppressive during week.

25th to 31st December.—Brisbane.—Hottest weather of season; five cases of sunstroke. The 29th was the hottest day experienced for a considerable period; thermometer registered 100° in reasonably cool places.

1870.

8th and 9th December.—Condamine.—Excessive heat; 103° and 105° in the shade on 8th and 9th respectively.

15th December.—Brisbane.—Hottest day of the summer; thermometer registered 95° in the shade and 153° in the sun.

1871.

27th January.—Gympie.—Excessive heat; thermometer 101° in the shade.

30th January.—Ipswich.—Excessive heat during the week.

10th February.—Warwick.—Weather very hot; temperature over 100° in the shade one day during the past week.

27th November.—Leyburn.—Weather extremely warm; thermometer stood at 90° in the shade.

7th December.—Gilberton.—Heat almost intolerable.

26th December.—Condamine.—Weather very hot; thermometer registered 105° in the shade.

1872.

5th January—

Oxley.—Weather very hot and oppressive in early part of week. Very hot weather at Condamine; 105° in shade on 26th ult., and not less than 100° since.

22nd January.—Condamine.—Weather very hot and oppressive.

25th January.—Oxley.—Heat very great and oppressive.

28th January.—Charleville.—Thermometer 97° in the shade at 3 p.m.

8th December.—Brisbane.—Hottest day this summer so far; 94° in shade, 150° in sun.

1873.

19th September.—Brisbane.—Weather unusually hot and oppressive.

1874.

27th October.—Brisbane.—Hottest day so far for the year.

1875.

8th January.—Heat very great; several persons in the north died from sunstroke.

12th January.—Reports of intense heat general. At Peak Downs the thermometer registered 108° in the shade.

24th November.—Brisbane.—Heat very oppressive.

25th December.—Brisbane.—Heat intense; hottest day for 14 years.

28th December.—Brisbane.—Two deaths from sunstroke; continued excessive heat.

1876.

10th January.—Heat very great.

17th January.—Hottest day in Toowoomba for many years. Heat in the west and north excessive.

18th January.—A woman at Dawson River killed by sunstroke.

20th January.—Heat at Townsville very excessive.

11th February.—Man died from sunstroke at South Brisbane.

15th June.—Weather unusually warm, with constant drizzling rain.

13th December.—Fatal case of sunstroke at Commercial wharf Brisbane.

15th December.—Weather extremely hot in various parts of the colony. 108° to 112° in the shade for several days in succession.

16th December.—A new arrival died from sunstroke at Rockhampton; a surveyor sunstruck on Cecil Plains.

Extract from Government Meteorological Observer's Report for 1876:—"The year has not been marked by any special meteorological phenomena, except the unusual duration and heat of the summer. At Brisbane, highest temperature during the year was 108° on 16th December, and the middle portion of the month was unusually warm, not only in Brisbane but throughout the colony. A heat wave appeared to have passed over and the effects were distinct as far south as Glen Innes, in New South Wales, at an elevation of about 3,000 feet."

1877.

Extract from Government Meteorological Observer's Report for 1877:—"Temperature at Brisbane was considerably above average. Observations show that the average heat was about 1° daily over the past 10 years. There can be but little doubt of this having been the warmest summer on record. Highest in shade during year was 104° on 17th January."

1878.

14th January.—Brisbane.—Weather exceedingly hot.

21st February.—Four sudden deaths, caused by the great heat, at Rockhampton.

22nd February.—Two more sudden deaths at Rockhampton; heat most intense.

15th August.—Brisbane.—Weather unseasonably hot.

25th December.—Two women died suddenly at Rockhampton from the intense heat.

26th December.—Brisbane.—Weather very hot.

Extract from Government Meteorological Observer's Report for 1878:—"Highest temperature in Brisbane during the year was 104°, on 16th January; but only on one other occasion did the temperature exceed 100°."

1879.

20th February.—Heat very great; several deaths from sunstroke recorded.

Extract from Government Meteorological Observer's Report for 1879:—"At Brisbane the highest temperature in the shade was 100°, on 23rd February, and 18th November, but the heat did not reach the same record on any other occasion."

1880.

30th December.—Cool weather after heat of previous days.

Extract from Government Meteorological Observer's Report for 1880:—

"The highest temperature at Brisbane for the year was 100°, on 13th November."

1881.

3rd January.—Recorded as the hottest day in Brisbane for the last 21 years.

12th December.—Intensely hot day.

Extract from Government Meteorological Observer's Report for 1881:—"Mean temperature in shade 70·3°, only 0·1° over average of past 9 years. Maximum in shade for year, 108°, on 3rd January."

1882.

21st January.—110° in shade at Rockhampton.

17th December.—Hottest day of season—95° in shade and 150° in sun at Brisbane.

Extract from Government Meteorological Observer's Report for 1882:—"Highest shade temperature in Brisbane, 103°, on 2nd and 21st January."

1883.

5th February.—Three sudden deaths occurred at Townsville owing to the excessive heat.

19th February.—Brisbane.—With the exception of 22nd December, 1882, to-day was the hottest of the season.

20th February.—A woman died in Brisbane from heat apoplexy.

19th March.—A man dropped dead in Maryborough from sunstroke.

9th December.—Hot day in Brisbane; thermometer registered 103° in shade.

14th December.—One of the hottest days for the past twenty years. 106° in shade recorded.

Extract from Government Meteorological Observer's Report for 1883:—"Maximum shade in temperature at Brisbane for year, 106°, on 14th December."

1884.

5th January.—A farmer died from sunstroke at Maryborough.

23rd January.—Four cases of sunstroke reported at Townsville.

1887.

12th January.—Excessive heat; 112° at Roma and 114° at Boulia.

4th February.—Man died from sunstroke in George-street, Brisbane.

1888.

21st January.—Two cases of sunstroke in Queen-street, Brisbane.

16th December.—Intense heat at Croydon, 109° in shade. Several deaths from heat apoplexy.

1889.

17th January.—Temperature at Cloncurry, 127·5° in the shade.

1890.

30th December.—Hot day in Brisbane; 96° in shade and 156° in sun.

1891.

2nd January.—Very great heat; several cases of sunstroke in Brisbane, Maryborough, and Rockhampton.

17th December.—At Brisbane the thermometer registered over 90° in shade on seven different occasions during the past fortnight.

23rd December.—Cunnamulla reported temperature 108° in the shade.

1893.

10th January.—Very hot day throughout Queensland; 99° in shade at Toowoomba.

11th January.—Several persons admitted to Brisbane Hospital suffering from sunstroke.

29th January.—Very hot weather at Toowoomba.

18th October.—Hottest day in Brisbane since 1887; 101° in the shade.

26th December.—The shade thermometer in Brisbane registered 106°.

1896.

9th January.—Excessive heat at Cunnamulla by day and night.

1897.

24th January.—Excessive heat at Charters Towers; 100° at 10 p.m.

1901.

18th December.—Intense heat in Brisbane; 102·6° in the shade; several cases of sunstroke and heat apoplexy.

20th December.—Great heat at Rockhampton; 108·7° recorded.

1902.

13th January.—Ipswich.—Spell of hot weather.

16th January.—Townsville.—Temperature between 80° and 100° for eleven days.

18th January—

Brisbane.—Temperature about 100° in shade daily for some time past.

Upper Logan.—Intense heat; thermometer about 100° every day during week.

21st January.—Barcaldine.—Many sheep killed by excessive heat; country in bad state; all work in middle of day stopped.

January.—Weather excessively hot at Rockhampton, Townsville, Toowoomba, Roma, Goondiwindi, Bowen, Charters Towers, St. George, Dalby, Cairns, Mount Morgan, Charleville, Winton, Hughenden, and Pittsworth. At Pittsworth, on the 14th, the temperature reached 105·5°, at Roma 108° to 110°, and at St. George 112°. On several occasions during the month the temperature at Rockhampton and Townsville exceeded 100°; and at Townsville the thermometer registered between 80° and 100° for a week.

6th February.—Goombungee.—Most intense and oppressive heat ever experienced in district.

15th February.—Hughenden.—Temperature of 105° recorded during the week.

22nd February.—Longreach.—Weather intensely hot; losses of fowls and household pets reported.

Muttaborra.—Thermometer day after day for past week registered 118° in the shade.

24th February.—Hughenden.—Maximum temperature during past week not less than 105°; minimum temperature on 23rd, 85°,—highest minimum on record.

27th February.—Maryborough.—Thermometer registered 107° in shade.

18th March.—Cunnamulla.—Weather very hot; shade temperature over 100° daily.

26th March.—Cunnamulla.—Excessive heat; thermometer registered over 100°.

1st October.—Bouliā.—Temperature 101° in shade.

5th October.—Temperature 100° in the shade at Camooweal, 99° at Bouliā and 97° at Windorah.

13th October.—Burketown.—Temperature 100° in shade.

20th October.—Bouliā 106°, Richmond 103°, and Thargomindah 94°, in shade.

21st October.—Maximum temperature at Richmond 105° in shade, at Windorah 102° and Alice 98°.

22nd October.—Maximum temperature at Richmond 105° in shade, at Windorah 104°, and Bouliā 102°.

10th November.—Laidley 105°, Camooweal and Bouliā 102° and Windorah 100°, in shade.

11th November.—Bouliā 106°, Camooweal 104° and Windorah 103° in shade.

12th November.—High temperatures experienced throughout the State; 109° in shade at Windorah and 106° at Richmond and Bouliā.

13th November.—Ipswich.—Weather extremely hot; 101° in shade.

Temperature 104° in shade at Camooweal, 105° at Mitchell, and 102° at Alice.

14th November.—Shade temperature 101° at Georgetown and 99° at Rockhampton.

17th November.—105° in shade at Bouliā, 102° at Camooweal and 100° at Thargomindah.

18th November.—108° in shade at Bouliā and 102° at Camooweal and Windorah.

19th November.—106° in shade at Bouliā, 105° at Camooweal and 104° at Windorah.

20th November.—107° in shade at Bouliā, 103° at Richmond and 101° at Windorah.

Degilbo.—Hot dry weather, accompanied by very strong winds.

20th and 21st November.—Roma.—Over 100° in shade.

21st November.—Charleville.—Over 100° in shade past few days.

107° in shade at Windorah, 102° at Camooweal and 100° at Alice.

26th November.—103° in shade at Richmond, 101° at Bouliā and 100° at Mitchell.

2nd December.—Temperature in shade 101° at Burketown and 95° at Rockhampton.

3rd December.—Temperature in shade 106° at Richmond, 96° at Bouliā, 94° at Thargomindah.

1903.

2nd December.—98° in shade at Brisbane.

14th December.—99° in shade at Brisbane.

1905.

2nd and 3rd January.—Great heat wave throughout Australia; 102·4° in shade in Brisbane on 2nd.

1908.

13th–18th November.—Extreme heat in far south-west; 108° at Thargomindah, on 16th.

7th December.—Very high temperature in extreme south-west; maximum, 111°, at Thargomindah.

9th December.—Very hot in east and south-east of Queensland; maximum at Brisbane, 101·8°.

1909.

1st to 6th January.—Intense heat wave affected whole of interior, particularly in the far south-west; maximum thermometer at Thargomindah registered 118° on the 1st, 116° on the 2nd, and 117° on the 3rd.

13th September.—Very hot in far north-west; maximum thermometer at Camooweal, 98°.

24th September.—Very hot in far west; maximum thermometer at Bouliā, 100°, first time for season.

10th October.—Great heat in far south-west, 106° in screen at Thargomindah.

1910.

16th–22nd January.—Abnormally hot and oppressive weather. Many cases of sunstroke among human beings and horses, with several fatalities.

1911.

5th to 15th September.—Unseasonable hot spell over north-western Queensland. Maxima of 100° and 101° at Bouliā and Urandangie on the 15th.

13th and 14th October.—High temperatures in north-west; 107° recorded at places.

9th November.—Hottest day of the season in Queensland to date. Urandangie 110°; Rockhampton 100°; and Brisbane 93°.

10th November.—Maximum at Urandangie 112·4°.

5th to 17th December.—Heat wave in southern Queensland. In Brisbane shade temperatures exceeded 90° from 5th to 17th inclusive, except on 6th (88·3°); 100·2° recorded on 5th; and 104·6° on 16th.

22nd December.—Abnormal heat wave in southern Queensland; maximum at Brisbane 101·3°.

28th December.—Continued hot weather.

31st December.—Year closed with very hot weather.

1912.

January—

Great heat experienced throughout the greater portion of the month, owing to the practically continuous operations of monsoonal influences. One man died from sunstroke at Rockhampton on the 11th, and another from heat apoplexy at Cairns on the 27th. The following readings of 110° and upwards were noted:—

4th.—110·3° at Urandangie.

5th.—113·4° at Urandangie, 110° at Boulia.

20th.—113·2° at Urandangie, 111·6° at Windorah, and 111° at Boulia.

21st.—111·4° at Urandangie and 111° at Boulia.

22nd.—113·2° at Urandangie, 112·4° at Thargomindah, 112·2° at Windorah.

110·6° at Cunnamulla, 110·5° at Boulia, 110·8° at Cloncurry, and 110·0° at Camooweal.

23rd.—114·9° at Boulia, 114·4° at Urandangie, 113·4° at Windorah, 111° at Winton and Camooweal, 111·7° at Cloncurry, and 110·2° at Longreach.

24th.—113·6° at Camooweal, and 114° at Richmond.

114·2° at Cloncurry, and 112·9° at Winton.

112·2° at Donor's Hill, and 112·1° at Longreach.

110·5° at Tambo, and 110·4° at Urandangie.

25th.—114·2° at Richmond, 113° at Winton, and 113·8° at Cloncurry; 110·1° at Longreach.

26th.—110·2° at Winton and Richmond.

27th.—110° at Boulia, 112·4° at Camooweal, and 112° at Urandangie.

28th.—111·6° at Urandangie, and 111·5° at Cloncurry.

January.—Charleville.—The local observer stated: "Longest spell of continuous heat experienced during 30 years' residence in Queensland; men, women, and children prostrated; large losses of cattle; temperature over 100° on 17 days during the month; maximum, 108·4°.

January.—Winton.—Intense heat; thermometer over 100° on 29 days during the month; extreme maximum, 113° on 25th; lowest maximum, 98·6° on 6th."

February—

High temperatures during the first half of the month in the interior, especially over western half; shade values daily considerably above 100°; highest reading 112°, at Boulia on the 6th.

25th to 29th March.—Great heat in western half; shade temperature up to 110° at places on the 27th.

1st to 8th April.—Abnormally hot. Maximum shade temperature daily in vicinity of 100° in north-western quarter, and up to 106° on 5th and 6th.

23rd to 31st August.—High temperatures in the north-west. Shade values frequently reached or exceeded 90°. 97° recorded at Donor's Hill, and 95° at Richmond and Urandangie on the 31st.

14th to 17th September.—Remarkable heat wave affected whole State; maximum thermometers registered 102° at Donor's Hill on the 15th and at Richmond on the 16th. In Brisbane temperature rose to 95·2° on the 16th, and the maximum did not fall below 90·3° on the two following days. A notable feature of the heat wave was the almost wintry coldness of the

early mornings, notably that of the 16th, when a reading of 50·5° was observed, giving the remarkable range of 44·7° in less than nine hours.

The previous highest temperature at Brisbane during September as far back as 1887 was 90·2° in 1904.

1st and 2nd November.—Intense heat by day in far north-west; 108° at Urandangie on the 1st and 107° on the 2nd.

14th December.—A seaman died of heat apoplexy at Townsville.

1913.

24th–29th January.—A heat wave affected the greater part of the State. It culminated on the 26th, on which date the temperature in shade at Urandangie reached 115°.

1st and 2nd February.—Very hot in far north-west; maximum temperature 110° at Urandangie on 1st and 109° on 2nd.

16th–19th February.—Heat wave over southern border districts, which culminated in the interior on 18th. Temperature 105·6° at Cunnamulla, and 104·2° at Goondiwindi; and in south coast division on 19th, temperature 100·1° at Brisbane.

11th–18th September.—First hot spell of season. Temperature in north-western quarter considerably above 90° each day, 102° at Urandangie on 12th and 17th; 100·4° at Richmond on 16th.

17th and 18th November.—Heat wave over southern Queensland; maximum temperature at Brisbane on 18th, 106·1°—a record for November.

19th and 20th November.—Extreme heat inland, especially in north-western quarter; maximum shade temperature at Urandangie 115·8°, Camooweal 111°, Donor's Hill 112·2°.

22nd–24th November.—Heat wave over south-eastern and eastern Queensland. Principal registrations of temperature in shade:—On 22nd: Brisbane 92·4°, Rockhampton 99·8°, Dalby 96°; on 23rd: Brisbane 92·6°, Rockhampton 102·2°, Gayndah 99·2°; on 24th: Brisbane 92·5°, Townsville 101°, Charters Towers 99°.

26th–30th November.—Another pronounced heat wave affected the whole State. Maximum shade readings at Urandangie on 28th, 113°; 29th, 114·1°; 30th, 115·2°; at Brisbane on 30th, 95·5°.

1st–6th December.—Very hot over south-eastern Queensland, especially on 3rd, on which date the maximum thermometer at Brisbane registered 103·4°. A pronounced cool change set in late on 6th.

1st–16th December.—Great heat and exceedingly dry atmosphere over greater part of northern and western Queensland. At Urandangie the maximum thermometer registered 107° or over from 1st to 14th inclusive, and 116·1° on the 7th. Bush fires very prevalent.

15th December.—Intense heat over south-eastern Queensland (maximum 103° at Brisbane for second time during month—a very unusual occurrence); followed on 16th by a very pronounced cool change.

Summary for 1913.—(Supplied by the Divisional Officer, Weather Bureau, Brisbane).—The general mildness of temperature during June and July was noteworthy, and no very low readings were recorded until August. Summer conditions commenced in earnest in November, and very hot weather was experienced over the greater part of the State during the remainder of the year, broken only by a few comparatively cool days in the interior and two or three temporary—though very pronounced—cool changes in the south-eastern districts.

METEORS.

1862.

21st March.—Brisbane.—Shooting stars on the night of the 21st.

23rd June.—Brisbane.—Brilliant meteor seen in west on night of 23rd; frequent shooting stars on the nights of 22nd and 27th.

18th July.—Shooting stars at Brisbane.

8th November.—Shooting stars at Brisbane.

14th November.—Brisbane.—Bright meteor seen to the South during the evening.

1865.

18th January.—Brisbane.—Beautiful comet visible in the S.W. at a slight elevation above the horizon. The nucleus was very brilliant and the tail extended upward from the head in a line about 60 degrees to the southward of the zenith.

1866.

25th October.—Warwick.—A very extraordinary phenomenon was observed about 8 p.m., when a bright luminary passed with great velocity from south to north, in a direct line. It appeared to enlarge as it travelled and left a bright trail, like that of a comet, behind. As it disappeared it broke into two or three small stars. The whole occurrence lasted about ten seconds.

1867.

18th March.—Warwick.—A very brilliant comet visible in the east for some mornings past, between 3 and 5 o'clock.

1869.

July.—Brisbane.—In the summary of observations for July, the Government Meteorological Observer reported that meteors were frequent. One seen on the 11th at 6.30 and which was visible for about 6 seconds, was unusually brilliant, and changed in colour from white to red, blue, and green.

1871.

22nd May.—Brisbane.—At a quarter-past 11 p.m. a more than usually bright meteor appeared about midway between the constellations Orion and the Southern Cross. The moment it appeared it seemed to enlarge and assume an intense brightness. It travelled for a very short distance in a northerly direction. On bursting it seemed to break into millions of pieces. It was followed shortly afterwards by a few others of the more ordinary kind. Meteors are more than usually prevalent.

1872.

29th January.—Oxley Creek.—Large beautifully coloured meteor observed. It travelled slowly, appeared to have a long tail, and made a rather loud noise in transit.

1887.

30th March.—Magnificent meteor observed at Clermont.

22nd April.—Nanango.—A meteor—like a large ball of fire—shot across the sky from N.W. to S.E., accompanied by a noise as of heavy dull thunder.

1895.

30th July.—*Brisbane Courier*, 2nd August, 1895.—A correspondent from the Upper Burnett wrote to the *Maryborough Chronicle* as follows: "On Tuesday afternoon many persons at Eidsvold and at the stations around were startled by a sound as of thunder, which was remarkable from the fact that a cold west wind was blowing, and the sky was clear, . . . and only on Thursday was the matter in a measure cleared up. A gentleman arrived from Cracow (a station on the Dawson, midway between Banana and Taroom) and, on mentioning the fall of an aerolite, accompanied by a loud report, near that station at 4.30 p.m. on Tuesday, was astonished to find that at Dykehead station, Eidsvold, and Coonambula station, a similar sound had been heard about the same time. There can be no doubt that this report was heard a distance of at least 100 miles around. . . . The meteor was described as an exceedingly brilliant ribbon of light. . . ."

1903.

2nd August.—Rockhampton.—A remarkably brilliant meteor was seen on the night of 2nd, and about 8 minutes after it disappeared a rumbling sound was heard. Some houses shook, and the telegraph wires rattled.

13th September.—Walsh River.—At 7.41 p.m. a very brilliant meteor appeared in the west, travelling slowly northwards; visible for a long distance; a splendid sight.

1906.

5th June.—Sandgate, Brisbane.—Extract from a letter from Mr. J. Walter Hayne, published in the *Brisbane Courier* of 7th June, 1906—

" . . . A large and bright meteor was observed about 10.10 p.m., which travelled at an immense speed in an almost due west direction. . . . Twenty minutes after it disappeared from view a report, similar to that made by distant cannon fire, was heard, and windows rattled. . . ."

5th June.—Dalby.—A bright meteor momentarily lit up the sky during the night, and, apparently, exploded within a comparatively short distance of the town. A rumble as of distant thunder was heard, and dwellings rattled.

9th July.—Georgetown.—At 7 p.m. a meteor fell a few miles east of the town. About two minutes afterwards a number of explosions, which sounded like heavy artillery fire, were heard; followed by a roaring noise, as of an approaching hurricane, which lasted for several minutes.

1908.

27th April.—Low Island.—A meteor, travelling from east to west, burst with great brilliancy at 8.30 p.m.

1909.

5th June.—*Sydney Daily Telegraph*, 17th June, 1909.—"Brisbane, Wednesday. Private correspondence has been received in Brisbane reporting a strange occurrence at Mountain View, near Yaamba, in the Rockhampton district.—On 5th June a large meteor like a ball of fire, with a streak of light behind it, was seen travelling through the clouds about half-past 4 o'clock in the afternoon. It lit up the whole district and appeared to be moving at a tremendous speed in a north-easterly direction, coming lower as it moved. After a time it appeared to strike the ground. A moment afterwards, a tremendous explosion was heard, followed, during nearly ten minutes time, by a succession of loud reports, which gradually died away.

In 1903, residents of the same district, but more particularly those at Mount Morgan, experienced a similar occurrence. About 4 o'clock in the morning* people were awakened by what sounded for a few minutes like hoof-beats of army-shod horses, galloping in the distance. The sound increased in volume until it became an indescribable roaring noise, interspersed with loud rapid detonations, following close on one another. The whole sky became lit up with a lurid glow by what seemed to be a ball of fire, somewhat larger than a moon, rushing up from the south-western horizon. It crossed the sky, and disappeared as on the present occasion."

1910.

20th April.—About 9 p.m. a brilliant meteor travelling in the western heavens was observed from Toowoomba, Southbrook, Jondaryan, Toogoolawah, Esk, Bundaberg, and from various outside places on the Downs. Most of the reports state that the light from the meteor lit up the heavens and surrounding country for miles, and a rumbling noise as of thunder was heard.

1912.

24th January.—Richmond.—A brilliant meteor, which illumined the whole sky, was observed to the S.W. at 10.10 p.m.

25th December.—Cape York.—At 2 a.m. a meteor passed from the south to north-east, followed by an earth tremor, a rumbling noise and an explosion.

* Month and Day not stated.

MIRAGE.

1909.

21st October.—Toowoomba.—About 9 a.m. a remarkable mirage was observed in the sky to the northward, and the beaches, the open water and even the Pile Light of Moreton Bay, were visible.

PLAGUES AND PESTS, ALSO DISEASES IN LIVE STOCK.

1863.

23rd February.—Maryborough.—Scourge of flies, mosquitoes, and other insects.

27th February.—Ipswich.—Myriads of sand-flies and mosquitoes.

10th March (about).—Brisbane.—Gardens and orchards in the vicinity of the town ravaged by "flying foxes" (vampire bats).

14th March.—Ipswich.—Saturated ground severely affected sheep on some stations in the form of foot-rot.

16th March.—Maryborough.—Plague of caterpillars appeared after the recent flood; every blade of grass in the path of the insects eaten; at one place 10 acres of corn completely destroyed.

28th March.—Toowoomba.—Myriads of caterpillars, which ate a great portion of the grass in the district, also damaged vines and the sweet potato plants.

15th July.—Marlborough.—Outbreak of pleuro-pneumonia among cattle.

26th November.—Toowoomba.—Plague of caterpillars; gardens devastated.

28th November.—Warwick.—Garden produce destroyed by caterpillars.

11th, 12th, and 13th December.—Toowoomba.—Great flight of butterflies; millions observed flying northwards.

1864.

21st March.—Knebsworth.—Pleuro-pneumonia in the district, but confined almost to working bullocks.

16th June.—Taroom.—Outbreak of pleuro-pneumonia.

23rd June.—Toowoomba.—Land infested by great numbers of grubs; fears entertained for success of crops.

1865.

29th October.—Goondiwindi.—Snakes unusually plentiful and bold. A species of green snake very conspicuous among the reeds and bushes on the river bank, and frequently in the water itself.

16th November.—Pleuro-pneumonia still prevalent amongst cattle in vicinity of Dalby; scores lying dead along creek; many others in last stage of disease.

1866.

7th February.—Pleuro-pneumonia amongst cattle in Bowen district.

14th February.—Condamine.—Pleuro-pneumonia causing mortality among dairy cattle and working bullocks.

28th February.—Gibbon's Camp.—Pleuro-pneumonia in district, but only to very slight extent.

29th March.—Pleuro-pneumonia very prevalent in Dalby district; great losses of cattle; one proprietor lost 60 head of cattle during last three months.

23rd August.—The Logan.—Cattle disease still lingers; a few more cattle found dead in the bush last week.

23rd September.—Burketown.—Pleuro-pneumonia in district; large numbers of cattle dead.

18th October.—Oxley Creek.—Pest of grubs in potatoes, corn, and cotton plants.

Logan.—Rust in wheat rather bad.

27th November.—Moth and grub in cotton fields at Ipswich.

1st December.—Toowoomba.—Rust damaged a paddock of wheat so badly that the owner burnt it down.

1867.

22nd March.—Ipswich.—Several cattle in district died of pleuro-pneumonia during past few days.

1868.

7th January.—Cotton plants affected with blight at Moggil.

10th March.—Maryborough.—Blight and flies prevalent.

7th April.—Tingalpa.—A species of grub caused considerable damage to potato crops; about 2 acres ruined on one farm.

28th April.—Tingalpa.—Cockatoos plentiful; great amount of damage done to the maize crops.

5th May.—Oxley Creek.—Flocks of cockatoos and crows did considerable damage on some of the farms in district; every grain of maize taken from one 2-acre field at Eagle Farm.

24th June.—Catarrh appeared amongst a flock of sheep on the South Toolburra Station.

15th August.—Maryborough.—Catarrh on Munumbar Station.

20th August.—Gladstone.—Post-office invaded by a small army of rats; letters, documents, &c., torn into shreds.

7th October.—Warwick.—Great number of snakes seen in neighbourhood, probably owing to dryness and excessive heat.

21st October.—Tingalpa.—Snakes more plentiful on the roads than usual, owing to bush fires and excessive heat.

8th November.—Cape River Diggings.—Flies very bad.

1872.

2nd February.—Common flies, sand-flies, and mosquitoes very numerous.

6th February.—Pleuro-pneumonia in Peak Downs district; not in virulent form, but bad enough to kill many cattle.

15th April.—Flying foxes did great damage among all kinds of fruit throughout the East Moreton district.

9th November.—Toowoomba.—Rust in wheat very bad.

24th December.—Dalby.—Mosquitoes and sand-flies in myriads.

1875.

4th October.—Toorilla.—Horses died from wort disease, which was believed to be the result of poison.

1886.

22nd November.—Plague of grasshoppers and caterpillars at Toowoomba.

1887.

May.—Townsville.—Plague of caterpillars; much damage to vegetation done.

August.—Lowood.—Plague of mice during first week of month; grain and pumpkins destroyed.

September.—Lowood.—Plague of mice, kangaroo rats, and bandicoots; acres of maize destroyed. The Observer stated it was the worst visitation of the kind in his experience of twenty years.

1888.

9th July.—An irruption of wild cats at Thargomindah.

1892.

1st April.—Plague of caterpillars at Rockhampton.

1894.

16th January.—Myriads of grasshoppers surrounded Mareeba (Cairns district), and remained for some days.

1896.

6th June.—Townsville.—Tick plague very virulent in Tully River district; one man lost 450 cattle in three or four weeks.

9th June.—A letter from a firm in Townsville reported great losses on the Burdekin delta owing to tick fever. In one instance a herd of 3,000 cattle was reduced in twelve months to 700; in

another, 500 head were lost on the roads ; whilst almost the whole of a milking herd of 900 died. Most of the dairy cattle in the neighbourhood succumbed.

23rd June.—Townsville—The tick plague was very severe on the Upper Mary River (near Cardwell) ; losses of cattle from 50 to 75 per cent.

1897.

8th March.—Grasshopper plague in the vicinity of Cairns and Georgetown.

8th July.—Bowen—Ticks very numerous. Red-water prevalent in district.

July.—Ticks prevalent at places here and there in northern districts.

1902.

8th May.—Maryborough.—Considerable losses of timber-getters' bullocks from cattle diseases and drought.

November.—Goombungee.—Many strange diseases proved fatal to stock ; diseases due, it was believed, to prolonged dry weather.

1904.

7th June.—Plague of mice in and around Surat and St. George ; thousands killed daily.

15th June.—Allora—Mice driven to take shelter by frosty weather ; houses overrun with them.

1907.

6th July.—Lismore, Winton—Plague of mice and rats through out district ; green crops damaged.

1908.

February—

Mein.—One of the worst seasons for March flies, mosquitoes, and sand flies known ; horses almost driven mad.

Gilbert River.—Splendid season for stock, but bad one for farmers ; corn crops destroyed by grasshoppers.

Lake Nash.—Plagues of sand-flies, mosquitoes, and grasshoppers.

March—

Ayr.—Ticks troublesome.

Mackay Sugar Farm.—Ticks still very prevalent.

Gindie State Farm.—Grasshopper pest very prevalent.

Jundah.—Plague of grasshoppers.

Dirranbandi.—Sand-flies, mosquitoes, and grasshoppers numerous.

Yaamba.—Stock much worried by mosquitoes and sand-flies.

Kilkivan Junction.—Red-water and black-leg bad in places.

Nerang.—Ticks rather numerous ; several head of cattle died from effects of red-water during month.

31st March.—Cunnamulla—State school closed for a week owing to a plague of sand-flies.

April—

Walton.—Ticks very prevalent.

Yaamba.—Sand-flies bad.

St. Lawrence.—Ticks very bad.

Marlborough.—Ticks numerous.

Kabra.—Ticks bad.

Manly.—Tick pest troublesome, and red-water amongst dairy herds in some localities caused a good deal of loss.

Nerang.—Red-water amongst milkers ; deaths rather numerous.

Peachester.—Few stock lost with red-water during the month.

Burketown.—Grasshoppers plentiful ; considerable damage done to local Chinamen's gardens.

Thargomindah.—Grass scarce in places owing to a plague of caterpillars in district.

1910.

April.—Ticks bad in the Peninsula, also around Mount Perry in the South Coast district and in the Central district in the neighbourhood of Bluff. Grasshoppers bad round Boulia.

May.—Ticks troublesome at Walsh, Palmerville, and Woodstock, whilst Hillgrove reports that they were worse in places than in the preceding year: Spiders, small flies, and red ants prevalent at Cooktown. At Lochnagar the sheep-owners complained of sheep being fly-blown ; this, though common on the Darling Downs, is very rare in the desert country.

June.—Ticks prevalent at Tate River and Bluff. Oxenford reported 30 to 40 per cent. of the stock inflicted with red-water.

July.—Ticks numerous at Walsh, Coen, Bluff, Ingham, and at several stations in the Central Coast district, also at Gladstone and Mount Perry. "Black-leg" caused mortality among the stock at St. Lawrence.

August.—Ticks bad at Walsh, Palmerville, Tate, Bluff, Woodstock, Marlborough, St. Lawrence, Mount Perry, and Gladstone.

Pinkeye reported among stock at Cairns, and at Irvinebank horses were affected with pneumonia.

Mount Perry reported :—Traces of black-leg showing ; little red-water.

September.—Ticks fearfully bad at Tate River and very bad on cattle and horses at Woodstock.

Valuable draught horses dying from some form of influenza at Childers.

October.—Ticks plentiful at Walsh, and very prevalent at Bluff, Ingham, and Esk ; fowls affected at Beta.

Blight in potatoes at Oxenford.

November.—Ticks troublesome at Walsh, Mourilyan, and Cooktown.

Cooktown reports :—Bad season for vegetables and fruit ; ants and grubs numerous.

Plague of grasshoppers on the downs within four miles of Anakie.

Strangles prevalent among horses at Cairns.

December.—Ticks prevalent at Walsh and Mackay.

Plague of grasshoppers at Emerald.

Mosquitoes at Cooktown and pests numerous at Cedar Pocket.

1911.

January.—Ticks very bad at St. Lawrence and several stations in the South Coast division. Number of insects at Lagoon Flat and many stations in the Central division. Mosquitoes and sand-flies troublesome at Dirranbandi.

February.—Insects prevalent in the Maranoa and Darling Downs divisions.

March.—Swarms of grasshoppers appeared on the 16th at Palmerville and almost disappeared by the 29th. Ticks prevalent at places in the South Coast.

September.—Dengue fever and ticks reported from Bowen.

October.—Ticks numerous in Central Coast district.

1912.

4th January.—Great increase of ticks reported at Rosewood.

January.—Ticks numerous at Walsh and Cedar Pocket. Plague of grasshoppers at Gilbert River, Normanton, and Hillgrove, where they destroyed the grass. Prickly pear abundant at Hawkwood.

February.—Grasshoppers very bad at Spring Creek, Gilbert River, Goldsborough, Victoria Mill, and Normanton. At Rainworth, country which was looking well was reduced to a wilderness by a plague of grasshoppers. Fly pest unusually severe at Cloncurry. Ticks at Mount Alford and Musgrave.

6th March.—Railway train from Babinda to Nelson delayed by swarms of caterpillars on rails.

19th March.—Horses badly stung by bees in Forest Hill district.

March.—Insect pests bad at Thursday Island and Urandangie. Flies and mosquitoes plentiful at Dalby, mosquitoes bad at Rockhampton. Ticks at Walsh and Maleny. Grasshoppers bad at Port Douglas, Halifax, Sellheim, Acacia Vale, Georgetown, Pentland, and Balfe's Creek. Red-water prevalent at Kia Ora.

April.—Great plague of locusts at Coen. Grasshopper plague reported from the Central Coast district.

May.—Gladstone—Ticks numerous.

June.—Ticks numerous at Goldsborough.

July.—Ticks numerous in the Peninsula district.

September.—Ticks numerous at Palmerville. Horses on the Daintree River dying from an unknown disease.

15th November.—Caterpillar plague destroyed crops at Toogoolawah.

November.—Grasshoppers bad at Clarke River.

December.—Horses died from strangles in the Western district. Locust pest at Kingaroy. Ticks bad at Cedar Pocket. Swarms of Grasshoppers at Springsure.

1913.

February.—Peninsula South—Sandflies and mosquitoes very troublesome. Central Highlands—Ticks, caterpillars, and grasshoppers very numerous. South Coast—Ticks bad at places in Moreton and Port Curtis districts.

March.—Peninsula, Carpentaria, and the Central Lowlands—Sandflies and mosquitoes numerous. South Coast and East-central Coast—Ticks bad at places. Plagues of grasshoppers fairly general over the State. A report from Thunda (Lower Western district) stated, "country over-run with frogs."

April.—East-central Coast—Sandflies numerous. Central Highlands—Grasshoppers plentiful. Ticks and flies badly affected sheep at many stations, especially in the Central and Upper Western districts.

May.—Sheep in many districts, especially in Central and Maranoa divisions, badly affected by flies. Ticks troublesome at isolated places in East Darling Downs and East-central Coast districts. Fruit fly affected oranges at Dunk Island.

June.—Central district—Few isolated cases of tick. Peachester—Late potato crop destroyed by blight. Amamoor Creek—Oat crop badly affected by rust.

August.—Maranoa district—Plagues of caterpillars did considerable damage to trees at several stations.

RAINFALL (HEAVY).

1861.

17th January.—Two inches of rain fell at Brisbane in one hour.

29th August.—Very heavy rain fell at Brisbane.

25th to 31st December.—Violent thunderstorm occurred at Maryborough on Christmas Day and heavy rain fell at intervals until the afternoon of 31st, when steady heavy rain began and continued until the morning of 2nd January, 1862.

31st December.—Dalby.—Weather exceedingly wet from the night of 31st December until evening of 3rd January; streets in very bad condition.

1862.

1st and 2nd January.—Maryborough.—See note of 25th to 31st December, 1861.

22nd January.—Dalby.—Heavy rain during afternoon, and at intervals through the night.

21st February.—Toowoomba.—Heavy thunderstorm during the evening.

23rd February (about).—An exceedingly violent, but short-lived, thunderstorm (fearful crashes of thunder) passed over Gladstone; rain fell in torrents; some damage done to fences, and soil in places washed away.

23rd to 25th March.—Brisbane.—Heavy rain began on the night of 23rd, and continued with a few intermissions up to the morning of 25th.

23rd to 26th March.—Maryborough.—Weather very wet for several days previous to 26th.

24th and 25th March.—Ipswich.—Heavy rain commenced on the evening of 24th and continued during 25th.

25th March.—Gladstone.—Rain plentiful.

25th to 26th March.—Heavy fall of rain at Toowoomba; mail delayed for 5½ hours.

29th March.—22·035 inches fell in 39 hours in Rockhampton district. (See Floods.)

29th to 31st March.—Very heavy rains fell in the Wide Bay and Burnett districts. (See Floods.)

Rockhampton.—A gale and deluge occurred between 29th and 31st. The rain at times poured down in sheets and at a late hour on the evening of 31st seemed to threaten an entire inundation of the back part of the town. (See Floods.)

From the *Bulletin* (Notes by Mr. Wiseman).—"It appears that from Saturday the 29th, 9 a.m. till 9 a.m. on Sunday the rainfall was 1·023 inches; from 9 a.m. Sunday to 7 a.m. Monday 31st it was 12·015 inches, and from Monday 7 a.m. till Tuesday 7 a.m. it was 10·020 inches.

The rain poured down unremittingly throughout Sunday and continued throughout the night and following day. At midnight of Monday the storm had spent itself and the weather gradually cleared. From Sunday morning to Monday evening the rainfall amounted to 22·035 inches in 39 hours. This is the heaviest rainstorm known since 1855.

Gladstone.—Heaviest and most continuous fall of rain experienced since settlement of district, occurred. Work stopped at the Calliope diggings. (See Floods.)

1st April.—Heavy rains in the Burnett district.

5th April.—Heavy rains in the Port Curtis district. (See Floods.)

23rd April.—Toowoomba.—Heavy rain during the evening and night.

5th May.—Heavy rain between Toowoomba and Dalby.

6th May.—Dalby.—Big fall of rain during the night.

8th May.—Maryborough.—Steady rain; no immediate sign of clearing.

16th May.—Dalby.—Heavy weather lately; roads in a very bad state.

20th to 27th May.—Warwick.—The weather during the week was exceedingly wet and unpleasant, and on the evening of the 23rd, one of the heaviest thunderstorms experienced for years occurred.

25th May.—A severe storm of thunder, lightning, and rain passed over the Downs, especially heavy at Toowoomba and Warwick.

14th and 15th June.—Rain fell very heavily at Gladstone.

16th June.—Rockhampton.—Very wet weather; streets impassable.

30th June.—Warwick.—Weather very wet lately; all traffic at a standstill in consequence of the heavy state of the roads.

3rd December.—A violent thunderstorm, accompanied by exceedingly heavy rain, overtook the *Moggil* on her way down to Brisbane.

12th December.—Very heavy rain on the Dawson caused a great fresh in that river.

14th December.—Toowoomba.—Terrific thunderstorm; rain fell not in drops, but in perfect sheets.

22nd December.—Warwick.—Rather severe storm which lasted about three hours; rain fell in torrents.

27th December.—Toowoomba.—Heavy thunderstorm which lasted several hours; all creeks flooded.

28th December.—Rockhampton.—Heavy thunder shower; water holes full in half an hour.

1863.

24th January.—Brisbane.—Gale of wind from E.N.E. accompanied by heavy downpour of rain; outward bound steamer to Sydney delayed.

25th January.—Maryborough.—Violent storm of rain and wind caused a fresh in the river.

26th January.—Ipswich.—Continuous rain; Bremer rose 4 or 5 feet; Brisbane River bank high; Brisbane-road almost impassable.

27th January.—Toowoomba.—Abundance of rain; creeks flooded.

30th January.—Dalby.—Abundance of rain right to the Maranoa; creeks flooded.

31st January.—The Downs.—Drought broken. Rain for a whole week; creeks and water holes flooded; very heavy rain all over the Darling Downs.

31st January.—Rockhampton.—Heavy rains; floods.

31st January and 1st February.—Warwick.—Heavy rains; the Condamine rose 20 feet in less than an hour.

6th February.—Gayndah.—One of the most severe storms experienced in the district occurred. Rain fell in torrents, accompanied by furious wind; rivers and creeks rose. (See Wind-storms.)

7th February—

Gayndah.—Rain almost daily for three or four weeks; rivers and creeks flooded.

Balonne River.—Heavy rains.

9th February—

Toowoomba.—Sharp thunderstorm in the evening; heavy rain for about two hours.

9th February.—Brisbane.—A thunderstorm occurred in the evening; torrents of rain, accompanied by frequent and vivid flashes of lightning. The storm lasted two hours.

9th to 19th February.—Maryborough.—Copious supply of rain about the 9th. On the 13th and 14th rain fell in torrents, and nearly every habitation was flooded to a greater or lesser extent, whilst streets were converted into almost impassable quagmires. Squally weather and thunder on the 14th, 15th, and 16th. (See Floods.)

12th to 15th February.—Ipswich.—Heavy and continuous rain. (See Floods.)

13th February.—Brisbane.—Incessant rain, accompanied by strong squalls of wind; creeks swollen, and the rivers rising fast.

14th February.—Condamine.—Abundance of rain; creeks flooded.

16th February—

Ipswich.—Heavy rain; Bremer rapidly rising.

19th February.—Ipswich.—A thunderstorm occurred in the evening, accompanied by a very heavy fall of rain.

20th and 21st February.—Maryborough.—Most violent storm of wind and rain occurred.

21st February.—Warwick.—A great deluge of rain, and a tornado, occurred during the afternoon.

26th February.—Ipswich.—Heavy showers of several hours' duration, accompanied by thunder and lightning.

27th February.—Brisbane.—Severe squall of wind and rain, followed by a violent thunderstorm with heavy rain.

27th February (about).—Leysburn.—Abundance of rain; gardens damaged. (See Floods.)

28th February—

Brisbane.—Torrents of rain, accompanied by terrific thunder.

Bowen.—Several very heavy showers during the past week.

3rd March.—Brisbane.—Rain in torrents.

4th March.—Ipswich.—Heavy rain at intervals.

7th March.—Rockhampton.—Tremendous showers of rain and gusts of wind; creeks and rivers high; trade paralyzed; over 1,000 sheep washed away at a station on the Dawson.

10th March.—Gladstone.—Heavy and frequent rain; creeks very high; roads impassable.

13th March.—Rockhampton.—Inclement and wet weather followed closely upon shearing, and caused great losses in the Lower Mackenzie, Lower Dawson, Princhester, Apis Creek, and Maryborough districts.

14th March—

Gayndah.—Incessant rain for past week.

Brisbane.—Steady and continuous rain for past week.

Ipswich.—Heavy rain; roads almost impassable; saturated ground caused foot-rot in the sheep on some stations.

17th March—

Brisbane.—Dr. Barton furnished the following particulars of the extraordinary fall of rain on the evening of 17th:—"The rainfall for 24 hours ending 9 a.m. on the 18th was 5.45 inches—the greatest quantity registered in 24 hours since an official record was commenced at Brisbane. The greatest portion fell in the evening within a period of two hours."

Felton.—Heavy rain; one of the heaviest rainstorms seen in the colony.

20th March—

Brisbane.—Almost continuous rain, accompanied by a heavy gale of wind; river very high.

Ipswich.—Incessant rain.

6th April.—Gladstone.—Continuous wet weather.

11th and 12th April.—Rockhampton.—Heavy rain.

17th to 21st April.—Rockhampton.—Heavy showers.

21st and 22nd April.—Dalby.—Rain; steamy days; cold nights.

11th June.—Rockhampton.—Plenty of rain; roads in a fearful state.

20th June.—Goondiwindi.—Plenty of rain. (See Floods.)

27th and 28th June.—Brisbane.—Very wet weather.

23rd July.—Brisbane.—Almost incessant rain at Lytton, Ipswich, Laidley, Drayton, Warwick, and Brisbane.

1st August—

Dalby.—Deluge of rain over the district; water 3 feet deep in places.

Rockhampton.—Heavy showers.

Gayndah.—Considerable quantity of rain during past week; Barambah Creek rose, and was uncrossable for a day or two.

3rd September.—Drayton.—Continuous rain for weeks.

6th September.—Brisbane.—Heavy rain.

1st October.—Toowoomba and Drayton.—Heavy rain.

2nd October.—Brisbane.—Continuous rain at Ipswich, Laidley, Toowoomba, Drayton, Warwick, and Brisbane.

5th October.—Maryborough.—Rain for four days; creeks rising.

9th October.—Brisbane.—Great quantity of rain during past week; business for a time stopped; roads very bad.

10th October.—Gayndah.—Several days of incessant rain; water-courses flooded; Burnett River very high.

12th October.—Toowoomba.—Heavy rain.

18th October.—Upper Warrego.—Heavy rains; floods.

23rd October.—Maryborough.—A very great quantity of rain fell during past week, accompanied by wind, thunder, and lightning; streams swollen; mails delayed. Plenty of rain up country

24th October.—Goondiwindi.—Several terrific thunderstorms occurred, accompanied by great wind and rain.

26th October.—Toowoomba.—Heavy rain, accompanied by brilliant lightning and loud thunder.

30th October.—Toowoomba.—Heavy thunder, lightning, and rain.

7th November.—Goondiwindi.—Heavy thunderstorm, accompanied by rain and wind.

8th November.—Gayndah.—A furious storm of wind and rain, accompanied by vivid flashes of lightning, burst over the town towards evening, and continued through the night.

11th November.—Condamine.—A great deal of thunder and rain; floods in places.

1st December.—Rockhampton.—Three days' heavy rain; wool-drays delayed.

2nd December.—Maryborough.—Heavy rain.

3rd December.—Ipswich.—Rain for three days; heavy at times. (See Floods.)

29th December.—Rockhampton.—Heavy and continuous rains occurred during past week.

1864.

18th January.—Rockhampton.—Weather bad; very heavy rains.

26th January.—Toowoomba.—Very heavy thunderstorm in the evening; rain fell in torrents for two hours; streets like rivers.

2nd February.—Toowoomba.—Very heavy rain for several hours during the evening.

5th February.—Ipswich.—Heavy rains. (See Floods).

11th February.—Toowoomba.—Rain almost continuous during past three days.

17th February.—Rockhampton.—Incessant rain; streets in bad state.

4th to 10th March.—Lower Condamine.—Steady and continuous rain. (See Floods).

5th to 9th March.—Marlborough.—Torrents of rain almost without interruption.

9th March.—(From *Courier* files, 15th to 18th March, 1864).—“Heavy rain at Rockhampton.—Rockhampton also has shared the pluvial visitation, concerning which so much grumbling has of late been heard in Brisbane.” The *Bulletin*, of 10th inst., says:—“Our hopes of a speedy termination of the ‘wet season,’ with its attendant muddy thoroughfares, interrupted traffic, and murky vapours are indefinitely deferred. On Saturday morning last rain set in, and continued a steady downpour almost without intermission until yesterday morning, when a partial cessation took place. The Fitzroy again exhibits signs of an approaching flood—last night the wharves were submerged 3 or 4 feet, and the waters were rising rapidly.”

12th March.—West Maranoa.—Rain commenced on 26th February, and continued for thirteen days and nights except for occasional breaks. Heaviest rain experienced in the district. (See Floods.)

16th to 19th March.—Toowoomba.—Heavy rain began on 16th, and lasted until the 19th. The rain storm reached its height on the 18th, when water literally fell in sheets, accompanied by tremendous wind. Two stores in course of erection blown down. (See Floods.)

17th March.—Leyburn.—Heavy rain again set in. (See Floods.)

17th and 18th March—

Toowoomba.—Rain commenced on the 17th, and increased in intensity during the night. Between 3 and 4 o'clock in the morning of 18th it fell in torrents, accompanied by a heavy gale of wind. The gusts were fearful, and almost continuous for four or five hours; considerable damage done by wind and water.

Gladstone.—Unusual storm of wind and rain commenced on 17th, and continued until noon on the 18th, when it developed into a perfect hurricane. Rain fell in torrents for about 36 hours.

Gayndah.—Continuous rains. (See Floods).

17th to 19th March.—Heavy rain at Brisbane.—(Extract from the *Courier* files of 19th to 22nd March, 1864).—“Very seldom, indeed, is the neighbourhood of Brisbane visited by a gale of wind of so lengthy a duration as that which commenced on Thursday night last (17th March), and terminated on Saturday. It was throughout accompanied by heavy and continuous rains, which beat into the windows of the best protected houses, and did a great deal of damage generally. Between the hours of 9 a.m. on Friday and 9 a.m. on Saturday, no less than 6.72 inches of rain fell, and in such a manner as to defy every effort made to subvert its penetrating power. Out of doots umbrellas were useless, and indoors the rain made its way under eaves, through crevices in shingles,—in fact, it came in in every conceivable way.”

19th March.—Ipswich.—Heavy rain, accompanied by high wind since 17th, with few intermissions; river rising rapidly.

31st March.—Toowoomba.—Incessant rains. (See Floods.)

11th April.—Toowoomba.—Heavy fall of rain for about half an hour; tree struck by lightning, branches on one side broken off; water in the creek rose 6 feet.

23rd April.—Brisbane.—A heavy thunder-storm broke over the town, accompanied by vivid lightning, and lasted nearly an hour; rain poured down in torrents.

12th June.—Goondiwindi.—Copious rains and floods.

18th June.—Brisbane.—Rain and storms frequent; streets in a bad state.

14th July.—Rockhampton.—Steady and continuous rain; streets ankle deep, and in some places waist deep, in mud.

21st July.—Toowoomba.—Heavy rain; streets like a sea of mud.

25th July.—Armidale.—Thunder-storm, accompanied by hail and rain, at Gostwyck and Mihi Creek. Heavy showers at Armidale during the night of 25th.

5th to 10th August.—Ipswich.—Heavy and almost continuous rains. (See Floods.)

12th August.—Toowoomba.—Heavy downpour of rain; roads in impassable state; bridges flooded towards coast.

20th and 21st October.—Toowoomba, 28th October.—Rain general throughout district; no mails received at the post office from Condamine, Surat, Roma, or St. George on Wednesday (26th), owing to the heavy rainfall on the nights of the 20th and 21st, which flooded the creeks.

27th October.—Heavy rain on the road from Ipswich to Brisbane.

29th October.—Rain and hail fell in torrents at Normanby, Ipswich; country in flooded state for some hours.

16th November.—Tremendous storm with exceptionally heavy rain at Gayndah; lightning very vivid, and the correspondent stated that he had only once previously heard such heavy claps of thunder.

23rd November.—Toowoomba.—A storm of more than usual violence, which was ushered in by thunder and lightning occurred at Toowoomba. Very heavy rain fell from 8 till 9 p.m. At a quarter to 10 rain again fell in torrents, and continued with scarcely any abatement up till 12 o'clock, and no signs of clearing then.

A violent thunderstorm from the westward burst over Warwick. The storm was accompanied by very heavy rain, which came through the roof of almost every building in the town, and formed watercourses in every street. The rain continued to fall more or less heavily during the night.

The dam at Talgai Quartz Reef, which was just on the point of completion, was destroyed by the heavy rain.

3rd and 4th December.—A violent thunderstorm broke over Brisbane shortly after 8 p.m., and heavy rain fell for some considerable time. About 12 o'clock there was a slight lull, but early in the morning (4th) the rain commenced again and continued at intervals throughout the day.

8th December.—Toowoomba.—Two or three very heavy thunderstorms occurred during the week throughout the district; heavy rain at Clifton on the 6th inst.; roads between Jondaryan and Gowrie nearly under water.

1865.

6th and 7th January.—Two of the heaviest falls of rain experienced in the neighbourhood of Brisbane for some months occurred on the nights of the 6th and 7th. The rainfall on the 6th amounted to upwards of 3 inches and was accompanied by vivid lightning and heavy thunder. Several houses were flooded. The river was considerably swollen and the creeks beyond Ipswich flooded.

13th June.—The recent rains were not confined to the Brisbane district, but extended very generally over the colony and in some parts a great deal of rain fell.

20th September—

Rain fell at Clermont, extended to the Belyando and set that river running; whole country clothed with luxuriant verdure.

Leyburn.—Thunderstorm with rain.

13th October.—A thunderstorm accompanied by heavy showers occurred at Warwick.

16th October.—Heavy showers frequent at Bowen.

22nd October.—A very heavy shower of rain occurred at Maxwellton about the 22nd, and in some places the rain came down in an almost solid mass. On a partial cessation of the rain the ground was observed to be thickly sprinkled with small frogs about the size of almonds. Thousands of the frogs were swept by the water into the mouths of the drains, which they partially blocked. The correspondent further stated that the fact that the frogs fell with the rain is undisputed, as there is no marsh or pond near the place from which they could have issued, and they could hardly have sprung from the hard macadamized roads.

6th November.—The Fitzroy River rose considerably in consequence of a heavy fall of rain in the Isaacs and MacKenzie districts. Several flocks of sheep and cattle bound for the Gulf country were detained owing to the flooded state of the country.

19th November.—Ipswich.—A very severe thunderstorm occurred at 11.30 a.m., followed by a heavy fall of rain which lasted about four hours.

24th November—

Brisbane.—A heavy fall of rain, which lasted two and a half hours, occurred.

Copious rainfall in the Ipswich district; at Ipswich, thick steady rain fell for three hours in the afternoon; the driver of the Toowoomba mail reported that the creeks on the road were almost in flood.

25th November—

Thunderstorm at Toowoomba; for a period of nearly four hours, steady, though not very heavy, rain fell and was productive of much good to the late crops.

The rainfall east of the range between Toowoomba and the coast was much heavier than in and around that town.

Goondiwindi.—Thunderstorm, with heavy rain.

— November.—Somerset (Extract from Dr. Haran's reports).—"Thunderstorms with very heavy rain occurred daily in the south-west quarter."

9th to 11th December.—Heavy thunderstorms accompanied by very heavy rains occurred at Warwick on 9th, 10th, and 11th. The rains did much good to the vegetation of the district.

11th December.—Heavy rains general throughout Toowoomba district during the night.

18th December.—A thunderstorm, accompanied by heavy rain which continued for more than two hours, broke over Ashford during the afternoon.

22nd December.—Warwick.—A large quantity of rain fell during the night.

26th to 28th December.—Soaking rains at Rockhampton.

1866.

19th to 26th January.—Heavy rains and strong south-east gales at Rockingham Bay.

1st February.—Heavy rains throughout Toowoomba district.

8th February.—Heavy showers throughout Warwick district.

11th February.—Toowoomba.—Thunderstorm accompanied by heavy rain and strong wind.

29th March.—Warwick.—Thunderstorm and heavy rain; bullocks killed by lightning.

— March.—Somerset, Cape York (Extract from Dr. Haran's reports).—"On one occasion in March $7\frac{1}{2}$ inches of rain fell in less than twelve hours."

30th May.—Thunderstorm in Clermont district, followed by heavy rain which lasted about five hours.

14th June.—Continuous rain reported from Roma; roads in a very bad state; top boots a necessity in the town.

18th to 22nd June.—Nearly 2 inches of rain at Warwick.

19th June (about).—Warwick.—Heavy and continuous fall of rain all day, accompanied towards evening by brilliant flashes of lightning and loud peals of thunder.

20th June.—Roads in a very bad state at Bald Hills and Pine River owing to late rains.

21st June.—Oxley Creek.—Very wet weather during past fortnight; roads in a fearful state.

25th and 26th June.—Rain commenced to fall at Barcoo on 25th and was still falling on evening of 26th; river then bank and bank.

26th June.—Heavy rain commenced to fall early in the morning at Warwick, and continued almost without intermission during the whole day, accompanied towards evening by brilliant flashes of lightning and loud peals of thunder.

5th August.—Heavy rain fell at Bulimba, preceded by sharp frosts, which did much damage in the neighbourhood.

11th August.—Heaviest fall of rain experienced at Ashford since November, 1864, occurred, and set the rivers running again; the latter rose so much that the mailmen were unable to get through.

18th August.—Bush round Leyburn converted into mud by late rains; roads in a very bad state.

26th October—

A very severe wind and rain storm broke over Brisbane about 3 p.m. Rain fell in sheets and the wind blew with hurricane force for upwards of half an hour; Botanical Gardens flooded. Vivid flashes of lightning occurred during the storm but the thunder was hardly audible. (See Windstorms.)

One of the most violent thunderstorms ever experienced in the Nudgee district occurred on the 26th; lightning very vivid and dangerously near. The rain commenced at 3 p.m. and for three-quarters of an hour peal after peal of thunder occurred, while the rain poured down in torrents and flooded several houses to a depth of 3 or 4 feet. The thunder and lightning were followed by very heavy hailstones.

Oxley Creek.—One of the severest storms of wind, rain, and hail for the past seventeen years occurred during the afternoon of the 26th. The course followed by the storm appeared to be narrow and to lie between Oxley Creek and Brisbane. Rain fell so heavily that during a momentary lull in the gusts of wind, a very substantially-built house seemed to shake all over from the sheer weight of the water falling thereon.

8th November.—Thunderstorm with heavy rain at Banchory and Beaufort.

9th November—

A very heavy thunderstorm accompanied by showers of rain passed over Brisbane. (See Thunder and Lightning.)

Heavy showers of rain and hail, lasting for about an hour and a half, at Toowoomba.

10th November.—

Heavy rain at Toowoomba during the afternoon and greater part of the night. The rain was followed by cold piercing winds from the west and south-west, which increased to a gale during the night.

Very heavy rain at Dalby and Warwick.

27th November.—Very heavy rain at Huntly and around the Peaks; creeks flooded.

30th November.—Severe thunderstorm accompanied by heavy rain and violent wind at Warwick. (See Windstorms.)

1st December.—Dalby district shared in the heavy fall of rain which descended all over the colony during the past week.

8th December.—Heavy rains at Dalby and Roma during the week.

9th December.—A heavy and almost continuous rainfall, which visited the Mackay district during the week ending the 9th, deluged the town and caused a freshet in the river. The rain extended a considerable distance inland.

10th to 12th December—

Brisbane.—Rain fell almost incessantly, and caused floods in parts of the city. (See Floods.)

Heavy rain fell at Toowoomba and Warwick. At Warwick the river rose several feet.

Heavy rain at Cleveland Bay, and a rise of 2 or 3 feet took place in the Upper Burdekin.

Maryborough.—On Wednesday morning (12th), between 1 and 5 o'clock, rain fell in torrents and the streets were soon like creeks or rivers of water. An immense amount of rain fell, but the ground was so dry that the fresh in the river was not nearly as great as might have been expected.

All along the coast rain fell heavily, extremely heavy northward from Maryborough.

11th December.—After a day of abnormal heat, a tremendous storm broke at The Kogan, about 35 miles north-west of Dalby, and rain fell in torrents. (See Floods.)

December.—Somerset (Extract from Dr. Haran's reports).—"The rainfall was more than double that of the corresponding month in 1864 and 1865, and on the 19th it amounted to 9.00 inches in the 24 hours, the greatest quantity hitherto observed here."

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16th January.—Warwick.—A severe thunderstorm accompanied by heavy rains occurred during the evening. The rains proved beneficial to the growing crops in the surrounding district.

19th to 26th January.—Dalby.—The weather for the week was decidedly wet. On Tuesday evening (22nd) a thunderstorm passed over the town and heavy rain fell. The Condamine River and Oxley Creek rose bank high.

21st January—

Maryborough.—Thunderstorm with rain.

Ipswich.—For nearly three hours during the evening there was a steady downpour of rain.

22nd January.—Clermont.—A tremendous storm of wind, hail, and rain, accompanied by heavy thunder, occurred in and around Clermont. The town was completely inundated, and several feet of water added to the lagoon.

23rd January.—Ipswich.—The storm on Wednesday night (23rd) was followed by a steady soaking rain which lasted till the afternoon of the next day. Early on Thursday morning the river commenced to rise, and expectations of a flood were general.

28th January.—Emu Creek Diggings.—A series of thunderstorms occurred. One of them, which lasted not more than twenty minutes, deluged the whole place, set the creeks in the neighbourhood running, and poured down a body of water from the clouds, not in drops, but in perfect sheets; the whole place was flooded.

31st January and 1st February—

Oxley Creek.—Heavy and continuous rain commenced about 9 p.m. on the 31st January and continued without intermission until about 10 a.m. on the 1st February.

Warwick.—A heavy thunderstorm occurred on Thursday (31st) at about 2 a.m.

Brisbane.—The 31st was one of the hottest days experienced in Brisbane for the summer. Shortly before nightfall the sky became overcast, and heavy and continuous rain fell up to half an hour before midnight, when it descended in torrents and showed no signs of subsiding. (See Floods.)

The meteorological observations taken at Brisbane by the Government Observer, the Rev. Mr. Bliss, show that the rainfall was one of the heaviest for the time on record. The storm commenced at 7 p.m. on Thursday (31st January), and the rain ceased at 11 a.m. on the 1st February. During the interval—about sixteen hours—the amount of rain which fell was 8.41 inches, or an average of a little over 50 points per hour.

1st February.—Roma.—A terrific thunderstorm occurred, accompanied by a driving gale of wind and a copious fall of rain which lasted about an hour.

2nd February.—Dalby.—A heavy thunderstorm with rain and wind occurred.

3rd February.—Tremendous thunderstorm at Bowen. The rain and wind were most violent and did considerable damage to iron-roofed buildings.

7th February.—Roma.—Tremendous thunder, rain, and hailstorms occurred in and around Roma. Such heavy rain fell up country that for the first time in the past three years the Bunge-worogai Creek ran at the crossing place at Mr. Spencer's station, whilst for the first time in the last two years the Bungil Creek ran within 1 mile of Roma. (See Hailstorms, also Thunder and Lightning.)

22nd February.—Brisbane.—Rain during the night again filled the reservoir at Enoggera. The water began to rise about 11 p.m. and by 7 a.m. on 23rd the overflow was 1 inch in depth.

23rd February to 1st March.—Oxley Creek.—Some heavy rains occurred during the week.

7th to 13th March.—Taroom.—Steady and general rain fell.

10th March.—Roma.—About twenty hours steady rain occurred.

23rd March.—Cleveland Bay.—Tropical rainfall; floods all around; sugar plantation swamped.

25th March.—Warwick.—A very heavy thunderstorm, which startled the residents, burst over the town, and was followed by heavy rain.

27th March.—Roma.—One of the sharpest storms ever experienced in the locality occurred; thunder and lightning only moderate, but rain and hail very heavy. The town was flooded.

3rd to 5th April.—Ipswich.—Very heavy and almost continuous rain fell over the district.

9th April.—Clermont.—Heavy and continuous rains near the coast; rivers and creeks in flood, and roads almost impassable.

16th April.—Goodna.—Heavy rain on 16th; stock in good condition and feed plentiful.

23rd to 28th April.—Ipswich.—Heavy rain filled the water-holes and caused a slight freshet in the Bremer. On Friday night (26th) very heavy rain commenced, and continued to fall in torrents all the following day. The river rose with great rapidity. On Saturday night (27th) a terrific storm of wind and rain, which continued for several hours, passed over the town and a large part of the district, doing great damage to crops and gardens. (See Floods, also Windstorms.)

26th to 28th April.—Brisbane.—Heavy continuous rains, gales, and floods. (See Floods.)

26th April—

Upper Mary.—The heaviest downfall of rain experienced since '64 was ushered in by a thunderstorm. All up the river the mean height above high water-mark was from 14 to 15 feet. Cattle in fine condition; feed plentiful.

Maryborough.—Storm of thunder and lightning accompanied by heavy and continuous rain passed over the town.

27th April—

Logan.—Very heavy rainfall; hurricanes in evening. (See Windstorms.)

Dalby.—Heavy and continuous rain which lasted 30 hours.

9th May—

Oxley Creek.—Three days' almost incessant rain.

Taroom.—Very wet weather; creeks and rivers swollen and mails irregular in consequence.

20th May.—Brisbane.—Very heavy rain during last few days; rainfall for 24 hours ended 9 a.m. on 18th, 4.87 inches.

21st to 23rd May.—Clermont.—Very heavy rain.

19th June.—Heavy rain at Toowoomba.

21st June.—Warwick.—Heavy rains; river considerable height above usual level.

29th June.—Roma.—Great scarcity of meat during past fortnight; wet weather delayed the mustering of cattle on the runs.

20th September.—Warwick.—A heavy storm of thunder, lightning, hail, and rain lasted from 7 till 8.30 p.m.

3rd October.—Rockhampton.—Heavy thunderstorm occurred near Rosewood; water filled the creek and stopped work on the claims.

8th October.—Mackay.—Heavy gale from north-east. An immense quantity of rain fell; the river rose 23 feet at the rocks, and some damage was done to growing crops. The storm raged for about three hours, and was the heaviest experienced for some time.

6th November.—Brisbane.—Heavy thunderstorm and rain.

7th November.—Brisbane.—Thunderstorm with heavy rain.

9th November.—Brisbane.—Violent thunderstorm.

11th November.—Dalby.—Violent thunderstorm and heavy shower of hail.

18th November.—Brisbane.—Heavy thunderstorm with good deal of rain.

31st November.—Oxley.—Heavy storm of wind and rain.

4th December.—Oxley.—Heavy storm of wind and rain.

7th December.—Rockhampton.—Severe storm of wind and rain. Rain fell in torrents and penetrated almost every room in the town. The wind, which was accompanied by incessant thunder and lightning, blew in fierce gusts, and partially unroofed several houses. On 8th inst. another "burster" occurred, and a great quantity of rain fell.

7th December.—Roma.—Several hours' heavy rain daily for past eight days.

23rd December.—Brisbane.—Thunderstorm, with three hours' steady rain.

24th December.—Burnett.—Several thunderstorms with heavy rains.

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8th January—

Tingalpa.—Thunderstorm with heavy rain, which nearly filled waterholes.

8th to 10th January.—Warwick and Dalby.—Heavy thunderstorms and rains occurred; nearly 2 inches of rain recorded at Warwick.

11th January—

Brisbane.—Steady rain set in about 11 o'clock, and continued for some hours.

Rains general all over Toowoomba district; creeks running bank and bank.

Heavy rain at Gatton.

19th January.—Westwood.—*Rockhampton Bulletin*, 21st January:—Something like a waterspout discharged its contents on Sunday afternoon (19th) in Westwood and its neighbourhood. Some idea of the suddenness of the downpour may be formed from the fact that some men who were camped at Spring Creek, about 3 miles down the line from Westwood, state that the creek rose 14 feet in ten minutes. The mailman who passed Sebastopol on his way into Westwood states that the dust was blowing there, and on getting into Westwood between Gibb's Hotel and the Railway Station, the water on the road was up to the axles of the coach. At Spring Creek an immense body of water rushed with tremendous force against the railway bridge, which is of stone, 22 feet high and 20 feet wide. The force of the current was so great that one of the abutments was carried away, and blocks weighing 5 or 6 cwt. were carried more than 100 yards down the creek. The rails and sleepers alone were left. The passage of a train was, of course, rendered impracticable.

20th to 22nd January.—Toowoomba.—Very heavy rain occurred all over the district.

23rd January.—Tingalpa.—Perfect downpours of rain occurred over the district during the week.

12th to 22nd February.—Rolleston.—About ten days' continuous rain fell. (See Floods, 2nd March.)

13th to 20th February.—Tingalpa, 20th February.—Heavy rain fell almost without intermission during the week. Creeks very much swollen; roads in very bad state; travelling rather dangerous.

18th February.—Maryborough.—Rain fell for several days at the diggings. (See Floods.)

18th and 19th February.—Taroom.—Splendid fall of rain which lasted 36 hours occurred. (See Floods.)

21st February.—Toowoomba.—Heavy rain all through night; creeks rose; country around The Plains and Jondaryan stations a complete quagmire.

23rd and 24th February.—Toowoomba.—A heavy thunderstorm occurred on night of 23rd, and rain fell in torrents. Another tremendous downpour, which lasted for hours, took place during night of 24th.

24th February—

Ipswich.—Some very heavy thundershowers occurred in afternoon.

Brisbane.—A heavy thunderstorm occurred about 7 p.m.

Maryborough.—A heavy thunderstorm occurred during the night.

30th March.—Burketown.—The rainy season set in, and caused some very high floods. (See Floods.)

4th April.—Brisbane.—A thunderstorm of unusual violence broke over the town about 8 p.m. The forenoon of the day was very warm, and at 9 a.m. the thermometer in the shade stood at 76.5°; towards afternoon clouds gathered to the southward and eastward, and at about 4 p.m. there was an evident change of weather. The sand was flying fast and a dense cloud bank to the southward gave tokens of an approaching storm. A little before 8 p.m. strong gusts of wind gave notice that the storm was at hand, and in a few minutes the rain was pouring in torrents such as are only witnessed in tropical storms. A good deal of hail fell in some parts of the city, but it was of no exceptional size. During the storm the squalls of wind were of fearful violence and drove the rain through the roofs of many houses. The force of the wind was so great that the roofs and verandahs of several houses standing in exposed positions were blown off, while in the outskirts of the town several unprotected buildings were blown down. Limbs were torn off trees, and in some cases whole trees were uprooted. The rain was very heavy and fell in perfect sheets of water, and flooded some streets in parts to a depth of 12 or 18 inches. The storm only lasted about half-an-hour, and during that time the rain gauge at the Brisbane Meteorological station registered a rainfall of 80 points.

21st to 28th May.—Gympie.—Heavy rains occurred and greatly impeded mining operations.

6th June.—Brisbane.—Steady soaking rain reported from various parts of the colony.

15th to 19th June.—Toowoomba.—Very heavy rains.

20th June.—Nashville.—Miners flooded out of many of the old gullies.

18th to 20th July.—Brisbane.—Rain, apparently general; rainfall at Brisbane from 9 a.m. 18th to 9 a.m. 20th, 4½ inches.

19th and 20th July—

Mimosa Creek.—Heavy rain fell on 19th, and continued until sundown on 20th.

Gayndah.—Day and night of continuous rain.

21st July.—Goondiwindi.—Heavy rain throughout the district.

22nd July.—Maryborough.—The recent rains flooded many of the miner's claims; work stopped to a considerable extent.

26th August.—Dalby.—Heavy thunderstorm during the afternoon.

16th September.—Toowoomba.—Heavy thunderstorm during the evening; rain fell in torrents for half an hour.

24th October—

Brisbane.—Very heavy rain fell for three or four hours.

Maryborough.—Torrents of rain.

6th November—

Toowoomba.—Heavy and continuous rain.

Brisbane.—A heavy thunderstorm terminated in a very acceptable fall of rain, which continued for some hours.

Dalby.—Heavy storm on 5th; prolonged storm on 6th; Myall Creek full; still raining.

7th November.—Roma.—Very heavy rain fell at Roma, and also in some places to the north-west; the Bungil swollen.

24th November.—Rockhampton.—Rain fell for about two hours and extended to Gogango Creek; creek a banker.

16th December.—Dalby.—Thunderstorm from the south-west accompanied by heavy rain and high winds occurred in the evening.

16th and 17th December.—Toowoomba.—One of the heaviest thunderstorms experienced during the year occurred about 4.30 p.m. on 16th, and was accompanied by a very strong wind which did considerable damage to the fruit gardens. Very heavy rain fell during the whole of the night and continued until nearly mid-day on 17th.

18th December.—Bowen.—Thunderstorm accompanied by heavy rain.

20th and 21st December.—Bowen.—Heavy rain commenced on the evening of the 20th, and continued during the 21st.

31st December.—Warwick.—Four inches of rain fell in six hours—heaviest fall experienced for some months.

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15th January.—Maryborough.—Violent thunderstorm, accompanied by torrents of rain.

16th January.—Cape River, Townsville.—Heavy thunderstorm, gale, and rain; in less than fifteen minutes' time the river was impassable. (See Windstorms.)

21st January.—Brisbane.—A heavy thunderstorm occurred during the evening, accompanied by a perfect deluge of rain and a gale of wind; many buildings flooded, and in some cases heavy losses sustained. Three and a half inches of rain fell within an hour; heaviest rainfall so far recorded in the colony.

27th January.—Jimna.—Succession of thunderstorms, accompanied by heavy rain.

28th January.—Taroom.—Thunderstorms daily since the beginning of the month; the Dawson and its tributaries flooded.

29th and 31st January.—Surat.—Heavy rain; break up of drought.

5th February.—Maryborough.—Heavy rain every night for a week.

6th February.—Dalby.—Heavy thunderstorm.

14th to 16th February.—Logan and Albert district.—Almost continuous rain.

14th to 18th February.—Gympie.—Heavy and almost continuous rain; river swollen; communication with Kilkivan cut off.

15th February.—Toowoomba.—Heavy rain since the evening of the 13th; heaviest continuous downpour since April, 1867.

17th February—

Toowoomba.—Heavy and continuous rain accompanied by a gale of wind; creeks swollen.

Maryborough.—Seventy-two hours of almost continuous rain. So far as could be gathered from telegrams, &c., the rain was general along the entire eastern and southern coast, and far into the interior—even to Cooper's Creek and Lake Hope.

19th February.—Bowen.—Very wet weather for last three days.

20th February.—The Balonne.—Three days' steady downpour; river rose 10 feet. The rain stopped intended abandonment of stations on the lower creeks.

22nd February.—Maryborough.—Numerous heavy thunder-showers occurred over the district.

27th February.—Mary River.—Two or three days' steady rain.

4th March.—Norman, Gulf of Carpentaria.—Longest wet season experienced since settlement of the district.

5th March.—Warwick.—Heaviest thunderstorm for some years occurred during the evening; terrific storm of thunder and lightning, accompanied by continuous and heavy downpour of rain and hail; streets inches deep in water.

20th March.—Gayndah.—Constant and heavy showers of long duration; creeks swollen.

1st April.—Toowoomba.—Rain in torrents, heaviest fall for years; Ruthven-street like a sea and the Premier Bridge submerged several feet.

3rd April.—Charleville.—Heavy rain off and on for a fortnight.

8th April.—Maryborough.—Rain almost daily since the 20th March. (See Floods.)

10th April—

Rockhampton.—Very heavy rains. (See Floods.)

Brisbane.—Remarkably heavy rain, accompanied by thunder and lightning for some hours in the evening.

10th April (about)—

Goondiwindi.—Heavy and frequent rain throughout the district; river rose rapidly. (See Floods.)

Mary River.—No end of rain. (See Floods.)

14th to 17th June—

Brisbane.—Continuous rain; roads impassable; creeks swollen. Communication with Gympie cut off; mail coach washed away at the Durrambo lagoon and three horses drowned. The rainfall for four days amounted to 5.25 inches.

Steamers unable to leave Brisbane owing to tempestuous state of sea.

Heavy rain at Mackay.

21st September—

Dalby.—Heavy showers in district and in various parts of the colony during past week. Very heavy rains reported from Cumkillinbar, Jondaryan and other places; level country in parts covered with water.

Rockhampton.—Plenty of rain in most parts of the country. Heavy thunderstorm at Rockhampton on 21st.

2nd October.—Enoggera.—Terrific rain and hail storm occurred on the Enoggera ranges; nearly 4 inches of rain fell in 25 minutes; vines, melons, cotton plants, &c., mutilated beyond recovery.

5th October.—Brisbane.—Thunderstorm in the evening, followed by a steady downpour of rain.

7th October.—Warwick.—One of the most terrific rainstorms ever experienced set in, preceded by a duststorm.

10th and 11th October.—Brisbane.—Heavy rain.

16th October.—Donnybrook.—One of the most terrible thunderstorms witnessed in the Maranoa during the past four years passed over and around the town. Rain fell in torrents, accompanied by vivid and startling lightning, which broke down several large trees and killed a calf.

23rd November.—Brisbane.—A severe thunderstorm, accompanied by heavy rain, passed over the city. It commenced between 4 and 5 p.m., and the rain continued steadily until 9 p.m., after which there were showers until midnight. The Meteorological Observer stated that the rain, which amounted to 1½ inches, was the heaviest that had fallen in so short a time (seven hours) since the extraordinary and unprecedented rainfall of January 20th, when 3½ inches fell in an hour. At Toowoomba, the rainfall for 24 hours previous to 9 a.m., 22nd, amounted to 3.46 inches. According to telegraphic reports, the rain was general.

1st December.—Gehan's Flat, Cape River.—Rain for two days and nights; creeks swollen, and most of the waterholes full.

2nd December.—Toowoomba.—Heavy thunderstorms, accompanied by a very heavy fall of rain, general throughout the district.

2nd and 3rd December.—Dalby.—On the 2nd, a violent thunderstorm, which lasted half-an-hour, and was accompanied by torrents of rain and a high wind, passed over the town. Another storm occurred on the 3rd, when a large quantity of rain fell. This storm appeared to be very severe about Jondaryan and the Bunya Mountains. In the latter direction the flashes of lightning were very brilliant and frequent. Heavy rain reported between Toowoomba and Warwick.

3rd and 4th December.—Wide Bay and Burnett districts.—Violent thunderstorm, accompanied by hailstones as large as pigeons' eggs; rain, literally "sheets of water," fell during the greater part of the night. Wind blew with hurricane force; long avenues of trees blown down; terrific thunder and lightning. (See Windstorms.)

13th December.—Brisbane.—Violent thunderstorm, accompanied by heavy rain, and a high wind.

17th December—

Toowoomba—Violent thunderstorm, followed by the heaviest fall of rain and hail experienced in the district during the summer; terrific wind.

Brisbane.—Thunderstorm in the evening, and two hours' heavy rain.

Clermont.—Heavy thunderstorm at midnight, accompanied by a strong gale of wind and very heavy rain. The rain, which raised the level of the lagoon considerably, extended in the direction of Wolfgang and the Springs.

22nd December.—Allora.—Very heavy rains and violent storms experienced during the month; fencing washed away, and 400 sheep drowned.

23rd December.—Toowoomba.—Rain storm occurred, and shortly afterwards the water channels were covered with leeches.

26th December.—Brisbane.—Violent storm, accompanied by a heavy fall of rain; 65 points fell during the short time it lasted.

31st December.—Calliope.—Terrific thunderstorm, and heavy fall of rain.

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15th January.—Warwick.—The most terrific rainstorm ever witnessed in the district occurred about 5 p.m. It lasted an hour, and did considerable damage to property about the town. The rain, driven by a fierce wind from the south-west, deluged the streets, stores, and private houses in a few minutes; some buildings were blown down, whilst roofs were blown off others. The water in Campbell's Gully came down rapidly, and the Condamine rose some feet. The rainfall amounted to 3.47 inches.

18th to 22nd January.—Roma.—Heavy rain commenced on the 19th, and continued with but a few hours' cessation until the evening of the 22nd. The rain extended westward as far as the Barcoo, and possibly further.

29th January to 2nd February.—Brisbane.—Steady rain from the 29th January to 2nd February; road between Oxley and Woogaroo in very bad state; 1.08 inches of rain registered during the night of the 31st at Enoggera; and the water in the reservoir rose 4 inches in 24 hours.

29th January to 7th February.—Nebo.—Heavy rains and floods. (See Floods).

30th January—

Maryborough.—Rainfall for 48 hours ending 9 a.m., 30th, upwards of 3 inches.

Brisbane.—Rainfall for 24 hours ending 7 p.m., 30th, 1.75 inches.

30th January to 3rd February.—Rockhampton.—Stiff gale of wind from the south-east, accompanied towards evening of February by heavy rain; nearly 4 inches of rain fell during the night; wharves under water. Rainfall from 3 p.m. on 2nd to 9 a.m., 3rd, 4.05 inches; total from 30th January to 3rd February, 22½ inches.

31st January.—Maryborough.—The heavy rainfall caused a fresh in the river. (See Floods).

January.—Mackay.—Very heavy rains experienced since early part of month, with occasional intermissions of fine weather. (See Floods).

1st February—

Gympie.—Incessant rain since the 29th; river rose to the level of the Deep Creek Bridge; heavy floods expected.

1st and 2nd February.—The following letter, written by a passenger on the *Blackbird*, was published in the *Courier* of 9th February as illustrative of the severe weather experienced in the north:—

“Gladstone, 2nd February—We reached the offing here at daylight on Tuesday, 1st, thus making a very good run, considering the wind blew all round the compass, and heading us as often as not. There was such a tornado of wind, deluge of rain, and blinding mist, shutting out everything all round that we were obliged to anchor, and did not see our way in till 6 p.m. To-day the deluge continues, so there is no knowing how long we may be detained. The *Queensland* is detained at Rockhampton, and

the *Boomerang*, which left Sydney for this port direct on Tuesday, 25th January, is delayed here, so that she has done worse than we have.”

9th February—

Ipswich.—Heavy showers.

Brisbane.—Thunderstorms and extremely heavy rains.

10th February.—Gympie.—Heavy rain during the evening.

12th February.—Cunnamulla.—Rain fell at intervals during the past fortnight. The correspondent stated that on the evening of the 9th the rain fell for two hours as if poured out of a bucket, after which the plains looked like a vast lake of water.

24th February.—Nebo.—Continuous rains for past seven days; whole country flooded; no mail received from the north for past fourteen days; the Nebo Creek nearly as high as in 1864.

25th to 28th February.—Clermont.—Incessant rains, with strong gusts of wind; creeks swollen.

26th February to 1st March.—Warwick.—Violent wind, accompanied by steady rain.

27th February.—Steady and continuous rain at Brisbane and along the coast.

27th February to 1st March.—Dalby.—Wet weather, accompanied by cold wintry winds, set in on 29th, and continued until 1st March, when heavy showers fell in the evening and all through the night; roads reported to be very heavy between Dalby and Roma.

28th February—

Gympie.—Incessant Rain.

Rockhampton.—Rain set in in the morning; river rising owing to up country rains.

2nd March.—Gympie.—Heavy rain during the evening.

5th March.—Gympie.—Half a gale of wind, accompanied by incessant rain; water over Deep Creek bridge.

5th to 7th March.—Brisbane.—Heavy and continuous down pour; rainfall for 48 hours ending 9 a.m., 6th,—Brisbane, 2.70 inches; Goodna, 3.98 inches; Ipswich, 1.82 inches; Toowoomba, 1.06 inches. At Gympie, 5.72 inches registered in 48 hours. Heavy floods feared.

5th to 10th March.—Brisbane.—Weather unsettled for some weeks past; continuous downpour set in on 4th; immense rainfall in the basin of the Brisbane River; heaviest in parts near the coast.

During the twelve hours prior to 9 a.m. Wednesday (9th), 8.20 inches of rain fell, the greatest amount in so short a time on record for Brisbane.

The amounts recorded were as follows:—

	Inches.
9 a.m., 6th, for previous 24 hours ..	2.40
9 a.m., 7th, " " ..	4.00
9 a.m., 8th, " " ..	4.44
9 a.m., 9th, " " ..	9.65
9 a.m., 10th, " " ..	3.76
Total ..	24.25

The entire rainfall of the year 1865 was but 24.11 inches, and that of 1862, 28.27 inches; and the greatest fall during a month hitherto recorded was 15.28 inches, spread over nineteen days.

The rainfall was almost as heavy at Goodna and Ipswich as at Brisbane, and it did considerable damage in and about the city.

5th to 15th March.—Maryborough.—Total rainfall for ten days (about 5th to 15th) 34.35 inches; rainfall for 24 hours ending 9 a.m. 6th, 13.89 inches.

7th March.—Toowoomba.—Heavy rain.

14th and 15th March.—Brisbane.—Heavy rain.

6th April.—Logan and Albert district.—Steady rain set in; some thunder to eastward; cotton crops affected by excessive rains.

8th to 11th April.—Rockhampton.—Heavy rains.

16th May.—Beenleigh.—Heavy downfall of rain, every promise of continuance; fears entertained for cotton crops.

19th and 20th May.—Gympie.—Heavy and incessant rain.

30th May.—Mooloolah.—Incessant rain.

1st June.—Maryborough.—Heavy and continuous rains; streets one mass of mud and slush; swamps and bogs in all the by-ways.

1st June.—Clermont.—Weather again wet; mails delayed in consequence; roads reported to be in a very bad state; travelling almost impossible, especially over the Downs country.

2nd June.—Goondiwindi.—Rain; whole face of country covered with water.

14th July.—Ipswich.—Continuous rain.

14th and 15th July.—Drayton and Toowoomba.—Wild and boisterous weather during past three or four days; continuous rain. Heavy squalls of wind and blinding showers on the 14th.

21st July.—Mary River.—Thunderstorm accompanied by heavy downpour of rain.

19th August.—Brisbane.—Heavy rain at Warwick, Toowoomba, Condamine, Inglewood, Roma, Ipswich and Brisbane.

12th October.—Brisbane.—Steady downpour all day at Brisbane, Beenleigh, Ipswich, Toowoomba; unusually heavy at Dalby and Condamine.

17th October.—Toowoomba.—Most violent thunderstorm of the season; rain unusually heavy; streets flooded; rust amongst the wheat reported to be far more severe than in any previous season.

21st October.—Condamine.—Frequent thunderstorms. On the 18th one of unusual severity accompanied by rain and particularly vivid and close lightning occurred.

3rd November.—Condamine.—Severe thunderstorm; so heavy was the rain that in less than a minute the streets were flooded; lightning extremely vivid; creeks swollen.

10th November.—Warwick.—A great quantity of rain fell during past week between Pikedale and Bodumba; creeks bank and bank.

17th November—

Brisbane.—Very heavy rain at Brisbane, Ipswich and Warwick. (See Floods.)

Beenleigh.—Very heavy rains.

8th December.—Brisbane.—Heavy thunderstorm occurred, accompanied by heavy rain and a gale of wind. The storm lasted half an hour; almost continuous thunder with frequent and vivid lightning.

8th December.—Ipswich.—Heaviest thunderstorm of the year passed over the town in the afternoon, accompanied by a perfect deluge of rain.

Extract from Government Meteorological Observer's Report for 1870:—"The most remarkable meteorological feature during the year has been the great and unusual amount of rainfall, followed by disastrous effects in several parts of the colony. Fortunately such visitations are rare in Queensland, and nothing on record here can lead to the supposition that it is likely a repetition will occur, unless under similar unusual circumstances. The amount of rainfall for the year was over a third greater than the average of preceding years, the total fall for 1870 having been 79.06 inches as against an average of 48.89 inches for the previous 10 years; and the number of days on which rain fell 154, as against an average of 116.

1871.

6th January.—Rockhampton.—Heavy rain.

9th January.—Gympie.—Heavy rains; roads impassable.

16th January.—Ipswich.—Heavy rains; some of the country almost impassable.

21st to 24th January.—South Coast and East Darling districts.—Unusually heavy rains at Brisbane, Ipswich, Helidon, Goodna, Toowoomba, Dalby, Lytton and Caboolture. It was stated that the rainfall at the latter two places was the heaviest recorded in the colony. Roads impassable; river very high at Gympie.

28th January.—Brisbane.—Heavy rain reported from the Logan.

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19th February.—Ipswich.—A thunderstorm, which lasted an hour, occurred, accompanied by heavy rain.

25th February.—Ipswich.—Very severe thunderstorm, accompanied by heavy thunder, vivid lightning and a deluge of rain.

26th February.—Inglewood.—Thunderstorms accompanied by heavy rains.

1st March.—Rockhampton.—Fourteen inches of rain in three days; river rising. (See Floods.)

12th April.—Brisbane.—A violent thunderstorm occurred attended by very heavy rain. One vivid flash of lightning was instantaneously followed by a crash of thunder.

24th April.—Beenleigh.—Incessant rain.

24th to 28th April.—Oxley.—Nothing but rain.

1st May.—Logan and Albert.—Heavy rain for past week.

27th July.—Oxley Creek.—Two and a half days' rain.

8th August.—Brisbane.—A sharp storm of wind and rain of several hours' duration occurred during the evening.

17th and 18th August.—Maryborough.—Continuous rain at Tin-can Bay.

21st September.—Gilberton.—Twenty-four hours' downpour.

22nd September—

Oxley Creek.—Thunderstorm of two and a half hours' duration during the evening; heavy rain, high wind, vivid lightning, and loud thunder.

Ipswich.—A thunderstorm occurred during the evening, accompanied by rain and very vivid lightning.

Dalby.—Steady rain with thunder and lightning at intervals.

Roma.—Heavy rain; 2½ inches fell in six or eight hours.

30th September.—Brisbane.—Two smart thunderstorms with vivid, close lightning, and loud thunder, occurred. The storms, accompanied by heavy rain and hail, were very severe at both Ipswich and Toowoomba.

5th October.—Brisbane.—Heavy rain.

30th October.—Peak Downs.—Heavy storm.

19th November.—Goondiwindi.—A grand storm of rain, wind and thunder, which lasted for half an hour, occurred; deluge of rain.

26th November.—Brisbane.—A rather heavy thunderstorm broke over the city in the evening, accompanied by vivid lightning, loud thunder and heavy rain. Similar storm at Oxley Creek.

3rd December.—Inglewood.—Heavy thunderstorm, accompanied by a copious fall of rain and hail.

10th December.—Brisbane.—Thunderstorm, preceded by a fierce driving rain.

27th December (about).—Oxley.—Heavy rain, creeks swollen.

27th December.—Brisbane.—Heavy rain; 6.60 inches fell between 8 p.m. and 9 a.m. Lower parts of the town flooded; much damage done.

1872.

4th January.—Goondiwindi.—Four days' heavy rain.

5th January—

Heavy rains in Gulf of Carpentaria district.

Bundaberg.—Continuous rain commenced on the 3rd.

8th January—

Rockhampton.—Flood rains set in.

Bowen.—Heavy rain during last few days.

Continued rain for the last five days in the East and West Moreton districts; fears entertained of a flood.

9th January.—Gympie.—Continuous rain since 4th inst.; river high.

11th January.—Warwick.—Six days' steady rain.

12th January.—Heavy rain at Oxley.

13th January.—Toowoomba.—Heavy rain for several days.

17th January.—Bowen.—Very heavy rains.

18th January.—Georgetown.—Wet season set in; 2 inches of rain fell in three hours. (See Floods.)

22nd January (about).—Toowoomba.—Nothing but mud and rain; fruit trees damaged by incessant rains.

22nd January.—A thunderstorm passed over the country between Dalby and Toowoomba; heavy showers fell at Long Waterhole and Cumkillinbar.

25th January.—Oxley.—Heavy rain damaged potato crop.

2nd February—

Total rainfall at Normanton during January was nearly 9 inches; at the mouth of the Norman, $15\frac{1}{2}$ inches; at Carron Creek, $17\frac{1}{2}$ inches; and at the Gilbert River, $22\frac{1}{2}$ inches.

Charleville.—Scarcely a day without rain; a tremendous quantity of water fell in the district, especially towards east and north; teams unable to travel.

4th to 6th February.—Heavy rains in Darling Downs.

11th February.—Warwick.—Some severe thunderstorms.

19th February.—Logan and Albert district.—Continual series of heavy showers and strong gusts of wind for more than a week. Very heavy rain on 17th; Albert River rose fully 7 feet.

17th March.—Ipswich.—Heavy thunderstorms.

11th April.—Ipswich.—A thunderstorm passed over the town, accompanied by very heavy rain.

24th April.—Ipswich.—Thunderstorm with showers.

14th July.—Warwick.—Twelve hours' steady rain.

17th July.—Warwick.—Heavy fall of rain all day.

9th August.—Warwick.—Some very heavy showers.

31st August.—Inglewood.—Heavy downpour of rain.

16th September.—Ipswich.—A fine shower of rain accompanied by thunder and lightning occurred.

18th September.—Stanthorpe.—Heavy thunderstorm.

9th November.—Stanthorpe.—A violent thunderstorm which lasted about five hours broke over the town; rain fell without intermission.

11th November.—Rockhampton.—A terrific thunderstorm, accompanied by hail, wind and rain broke over the town; considerable damage done to several houses in different parts of the town by the violence of the wind.

13th and 14th November.—Ravenswood.—Thunderstorms with heavy rains; creeks flooded; Burdekin River rose 2 feet.

26th November.—Condamine.—Unusually heavy thunderstorm, accompanied by torrents of rain for two hours or more; roads in flooded state, creeks full.

29th November.—Rockhampton.—Heavy rain throughout the district.

30th November—

Toowoomba.—Weather during past week very broken; heavy showers frequent and sometimes prolonged. On 23rd and 24th there were heavy falls of rain, but the heaviest falls occurred on the 27th and 28th, when rain fell, at times in torrents, for two or three hours.

Springsure.—Three days' heavy rain; creeks high.

2nd December.—Severn River.—Series of thunderstorms and heavy showers, which caused river to overflow its banks.

3rd December—

Condamine.—Heavy rains during last few days. (See Floods.)

Heavy rains in various parts. Fears of floods at Gympie.

6th December.—Ipswich.—Heavy and continuous rain for a week; frequent thunder bursts; rivers and creeks up; roads almost impassable for traffic.

7th December.—Condamine.—Succession of more or less violent thunderstorms since 26th November. (See Floods.)

9th December—

Warwick.—One of the most severe thunderstorms of the season passed over the town; rain fell heavily for an hour; streets flooded. Recent heavy rains have done considerable damage to wheat crops, and greatly impeded harvest operations. Condamine and the various creeks and waterholes, which for some time were dry, commenced to run. Rain fell heavily in western districts. Water in creeks came down very suddenly at South Toolburra, and some miles of fencing were washed away. At Stanthorpe and all parts of the tin country heavy rain fell.

Gympie.—Heavy rain for several days; river bank high.

9th December (about)—Toowoomba.—Thunderstorm, with heavy rain.

Dalby.—Several nights of heavy and incessant rain. Thunderstorms of almost daily occurrence.

Stanthorpe.—Heavy thunderstorm, gale, hail, and rain; several trees blown down, and some of the frailer buildings damaged.

Inglewood.—Thunderstorms very prevalent during past ten days; McIntyre Brook flooded, and traffic retarded considerably.

14th December—

Stanthorpe.—Storms of rain, hail, thunder and lightning for more than a week.

Thunderstorms and heavy showers in Herbert district.

16th December.—Goondiwindi.—Heavy rain almost daily; succession of storms of wind and thunder; roads nearly impassable.

19th December.—St. George.—Rain every day for a fortnight; river a banker; traffic interrupted.

21st December.—Stanthorpe.—Heavy rain all day; creeks rising and impassable.

31st December.—Brisbane.—Heavy rain; total to 9 a.m., 4.55 inches.

1873.

15th January.—Very heavy rains in Rockhampton district (see Flood Notes).

17th January.—Heavy rains general in the north.

27th February.—Heavy thunderstorm at Stanthorpe.

17th June.—Brisbane.—After a long spell of dry weather, heavy general rain fell for some days.

18th June.—Weather cleared at Brisbane after a week's heavy rain.

6th December.—Heavy rains at Stanthorpe and district.

18th December.—Heavy rain in the north (see Flood Notes).

30th December.—Very heavy rains throughout the Southern and Western districts and a great part of the north.

1874.

2nd July.—Heavy rains at Port Curtis, Eastern Northern and Western Downs, Warrego, &c.

6th July.—Heavy rain in the North, South, West, and Condamine districts (see Flood Notes).

31st July.—Heavy rains fell in the north.

5th December.—5.12 inches of rain fell in 24 hours at Mackay.

1875.

12th February.—Very heavy rain, especially on the coast.

29th March.—Brisbane.—Usual Easter Monday Sunday school festival postponed on account of late heavy rains.

19th April.—Heavy rain at Copperfield (see Flood Notes).

11th July.—Renewed heavy rains and severe storms on the coast.

3rd August.—Heavy thunderstorms in the southern part of the State.

1876.

17th February.—Heavy rain at Rockhampton, Moore's dam on the north side of the town, swept away; 9 inches of rain fell in 12 hours.

11th April.—Heavy rains throughout the colony.

14th July.—Great rain, accompanied by thunderstorms, in the southern and western portions of the colony (see Flood Notes).

29th December.—Heavy rains in the Comet, Peak Downs, and Mackenzie districts.

1877.

18th January.—8.75 inches of rain fell at Cabookture.

22nd January.—Heavy rain at Dalby, and generally towards the west.

26th February.—31.50 inches of rain fell within a week at Townsville.

14th May.—Heavy storm of wind and rain at Brisbane.

1st October.—Brisbane.—A heavy thunderstorm with heavy rain occurred; telegraphic communication with north and west interrupted.

3rd October.—Heavy continuous rains on Downs between Warwick, Felton, Westbrook, East Prairie, and Cecil Plains.

19th November.—Great thunderstorm at Warwick, Gympie, and other places. (See Thunder and Lightning).

21st November.—Severe thunderstorms in the northern district.

22nd November.—Very heavy thunderstorm at Brisbane.

25th November.—Roma.—A very heavy thunderstorm occurred in the afternoon, and rain fell in torrents. Temperature in morning, 104° in shade. At 2.30 p.m. the storm broke, and lasted an hour. Several telegraph posts struck by lightning; limbs of trees strewn in all directions.

1st December.—Brisbane.—Rain and thunderstorm. Rain fell in torrents for about an hour; intense thunder and lightning; valuable horse killed by lightning.

4th December.—Ipswich.—Vivid lightning, accompanied by heavy rain.

25th December.—A fearful thunderstorm occurred at Dalby; very heavy rain between that place and Moraby; country flooded.

1878.

7th February.—Heavy thunderstorm at Warwick and other places adjacent to that town.

26th September.—Severe thunderstorm at Brisbane.

27th September.—Severe thunderstorm at Aramac, with destructive results.

1879.

1st January.—Brisbane.—New Year's Day very wet.

30th March.—Great rain at Cairns caused landslips and destruction of stores and houses. Farms were destroyed and many people lost all their property.

9th April.—Heavy rain somewhat interfered with the success of the evolutions at the volunteer encampments at Eagle Farm Racecourse, Brisbane, and near Maryborough and Rockhampton until the 11th, when clear, fine weather set in.

9th May.—Very heavy rain on the coast. Cofferdam at the Brisbane dry docks destroyed. Three men drowned whilst attempting to cross the Thompson River.

27th August.—Heavy rains throughout the colony. (See Flood Notes.)

22nd and 23rd December.—Terrible storms of wind and rain accompanied by thunder and lightning did considerable damage to property in many parts of the colony.

1880.

19th January.—Continuous rain fell at Thursday Island for eighteen days, with heavy gales.

3rd February.—Unusually heavy rains fell at Cooktown and in the north.

17th February.—Heavy rains in the north and west. (See Flood Notes.)

25th October.—A most severe storm of hail and rain which lasted half-an-hour occurred in Brisbane.

19th November.—An inch of rain fell in five hours at Aramac.

28th November.—Brisbane.—Severe storm of lightning, wind and rain.

1881.

28th March.—Heavy rains reported from all parts of the colony.

21st August.—Heavy thunderstorm passed over Brisbane; two hours rain.

11th November.—General fall of rain throughout the colony.

13th November.—Cloudy weather and heavy rain in Brisbane.

22nd December.—A storm of heavy rain, accompanied by much thunder and lightning, passed over Brisbane.

1882.

12th February.—Pleasant break in the weather after four days' continuous rain in Brisbane, and in many other parts of the colony.

25th March.—3 inches of rain at Rockhampton.

31st March.—3.12 inches of rain fell at Brisbane within an hour during the night.

16th April.—A thunderstorm accompanied by heavy rain passed over Ipswich.

17th July.—Thirty hours' steady rain reported from Dalby.

19th October.—A general fall of rain reported throughout the colony; 6 inches at Maryborough.

1883.

14th May.—A general rain reported throughout the colony; traffic in some places suspended in consequence.

27th September.—An unusually heavy thunderstorm passed over Brisbane, 0.75 inches of rain fell in half-an-hour.

13th October.—Very heavy rain reported from Normanton.

1884.

31st January.—Heavy rain at Mackay. (See Flood Notes.)

21st February.—24 inches of rain fell at Cooktown in 24 hours. (See Flood Notes.)

22nd February.—Townsville inundated, 11 inches of rain falling in as many hours.

3rd March.—Heavy rains at Charters Towers. (See Flood Notes.)

2nd December.—Heavy storm at Roma and Blackall; regular deluge of rain during a short period.

17th December.—Heavy rains at Hughenden and Normanton.

31st December.—New Year ushered in by heavy showers.

1885.

19th January.—Splendid rains at Normanton.

26th December.—General rain reported from country districts.

1886.

9th June.—Refreshing rains in the S.W. portion of the colony.

20th November.—3 inches of rain in two hours at Toowoomba; principal streets flooded.

1887.

12th January.—Heavy gale and rains over southern part of colony; an immense amount of damage done.

19th to 22nd January.—Very heavy rain over the Moreton and East Darling Downs divisions. 24-hour totals—Mundoolun, 17.95 inches; Redcliffe, 14.00 inches; Lytton, 12.85 inches. Creeks in flood and low-lying ground submerged. (See Floods.)

22nd to 28th February.—Heavy rains over country to the south of Winton, Alpha, Springsure, and Tewantin; 4.55 inches at Murweh on 27th. Rivers and creeks flooded. (See Floods.)

March.—Very heavy rains during the month at places in the North and South coast, Central Highland, and Upper Carpentaria divisions; 7.27 inches on 1st at Alpha. Rivers and creeks flooded in Central and South Coast districts. (See Floods.)

Auburn.—Wettest March since 1864.

Wyandotte.—Very rainy month; wettest season for seven years.

1st April.—71 inches of rain recorded at Cairns for the month of March.

July.—Nerang.—Much rain at beginning of month; 13.76 inches on 13th, 4.18 on 14th; country flooded.

August.—Cressbrook.—Rainy weather; creeks and rivers in flood.

13th August.—Heavy rain in neighbourhood of Brisbane. (See Floods.)

14th August.—Continued heavy rains at Bowen Park.

December.—Cardwell.—Wet season set in; grass and water in abundance.

Cooktown.—Very wet; rapid growth of vegetation.

Mackinlay.—Water and grass plentiful; stock in good condition.

Isisford.—Copious rain throughout district; the Barcoo bank high for some days.

Blackall.—Water and grass plentiful; stock in prime condition. No sign of effect of drought of past three years.

Central Highlands, Downs, and South Coast districts.—Water and grass plentiful.

9th December.—Splendid rains around Winton.

1888.

10th January.—Gales and heavy rains in the north.

26th January.—Splendid rains in most parts of the colony.

9th February.—Splendid and much needed rain around Toowoomba and Roma.

10th February.—Heavy rain in Central and Northern districts.

11th February.—Heavy rain all along the Coast districts.

12th February.—Over 6 inches of rain fell at Rockhampton in less than 24 hours.

16th April.—Very wet night for the Defence Force under canvas at Lytton.

26th February.—Heavy rain in Coastal districts.

2nd April.—Heavy showers in Brisbane.

11th November.—Splendid rains on Darling Downs and at Croydon.

29th November.—Two fires in Brisbane, caused by heavy rain damping bags of lime; little damage.

1889.

17th July.—Brisbane—Heavy rain fell during the passage of a cyclonic disturbance from the north-east, and the river rose subsequently to within a few inches of the flood mark of January, 1887.

1890.

15th January.—Heavy rains in the Upper Brisbane.

7th March.—Exceptionally heavy rains in Brisbane.

1891.

7th June.—Western districts almost impassable owing to rain.

8th June.—Heavy rains fell in most parts of the colony; hurricane about Brisbane.

1892.

20th January.—10.50 inches of rain in 24 hours at Cairns.

1893.

30th January.—Very heavy rainfall in South-East Coastal districts.

1st February.—Very heavy rains at head waters of the Brisbane River.

2nd February.—107.60 inches of rain fell at Crohamburst, Blackall Ranges, in 27 days.

11th February.—Heavy rains again at Woodford, and about the head of the Brisbane River.

9th May.—Heavy rains in the south-east.

29th May.—Heavy rain fell in western Queensland, and put an end to the disastrous drought.

June.—Brisbane—Heavy rain, due to a barometric depression, first noted on morning of 9th. Flood in river. Total rainfall for month, 11.03 inches; heaviest fall in 24 hours, 6.01 inches.

19th July.—Very heavy storm broke over Brisbane and suburbs.

12th November.—Splendid and much needed rain in North and West Queensland.

1894.

January.—During the first nineteen days, 34 inches of rain fell at Ingham.

17th January.—Heavy rains at Townsville; railway traffic interrupted; water 6 feet over the Burdekin Bridge.

17th April.—Heavy rains and floods in the Northern districts of the colony.

7th November.—Heavy rains reported from the north.

1902.

3rd October—

Goodna.—Heavy thunderstorm during night; creeks bank high; dam overflowed.

Esk.—Heavy rain; creek 4 feet high during night.

10th October.—Meringandan.—Thunderstorm, accompanied by heavy rain and hail.

11th October—

Highfields.—Heavy downpour, accompanied by a gale of wind and vivid lightning; torrents of rain for half-an-hour.

Stanthorpe.—Over half an inch of rain fell in half-an-hour at Stanthorpe, and 2 inches at Silver Spur in 20 minutes.

18th October.—Cleveland.—Heavy rain fell for some time during the evening.

25th October.—Gatton.—Eighty-four points of rain fell in 20 minutes.

30th October.—Upper Logan.—A heavy thunderstorm at Knupp's Creek caused a flood, which washed away some fences.

10th November.—Colinton.—Heavy thunderstorm, accompanied by very heavy hail; creeks all bank high; several crossings swept away.

13th November.—Ipswich.—A violent thunderstorm, accompanied by heavy rain, occurred.

16th November.—Winton.—A heavy storm occurred in the vicinity of the town; 1½ inches of rain fell in a few minutes.

8th December.—Forest Hill, near Laidley.—Heavy storm in night; 2 inches of rain fell in 25 minutes.

1903.

18th to 26th January.—Good rains in north and west of Queensland.

18th March.—Heavy rains and floods at Camooweal and Urandangie.

May.—Brisbane—Very heavy rain fell during first seven and again on last two days of the month; total, 11.81 inches; heaviest fall for month of May since 1876 (13.85 inches). A remarkable tropical storm passed over the south-eastern districts on the 31st, and heavy rain fell all day, whilst violent thunderstorms accompanied by hail and fierce squalls occurred at places during the night.

13th July.—Splendid rains in country.

17th September.—Big storm in Brisbane, and splendid rain throughout Queensland.

5th October.—Splendid rains in South and Central districts.

31st December.—Heavy rains at Croydon and Geraldton.

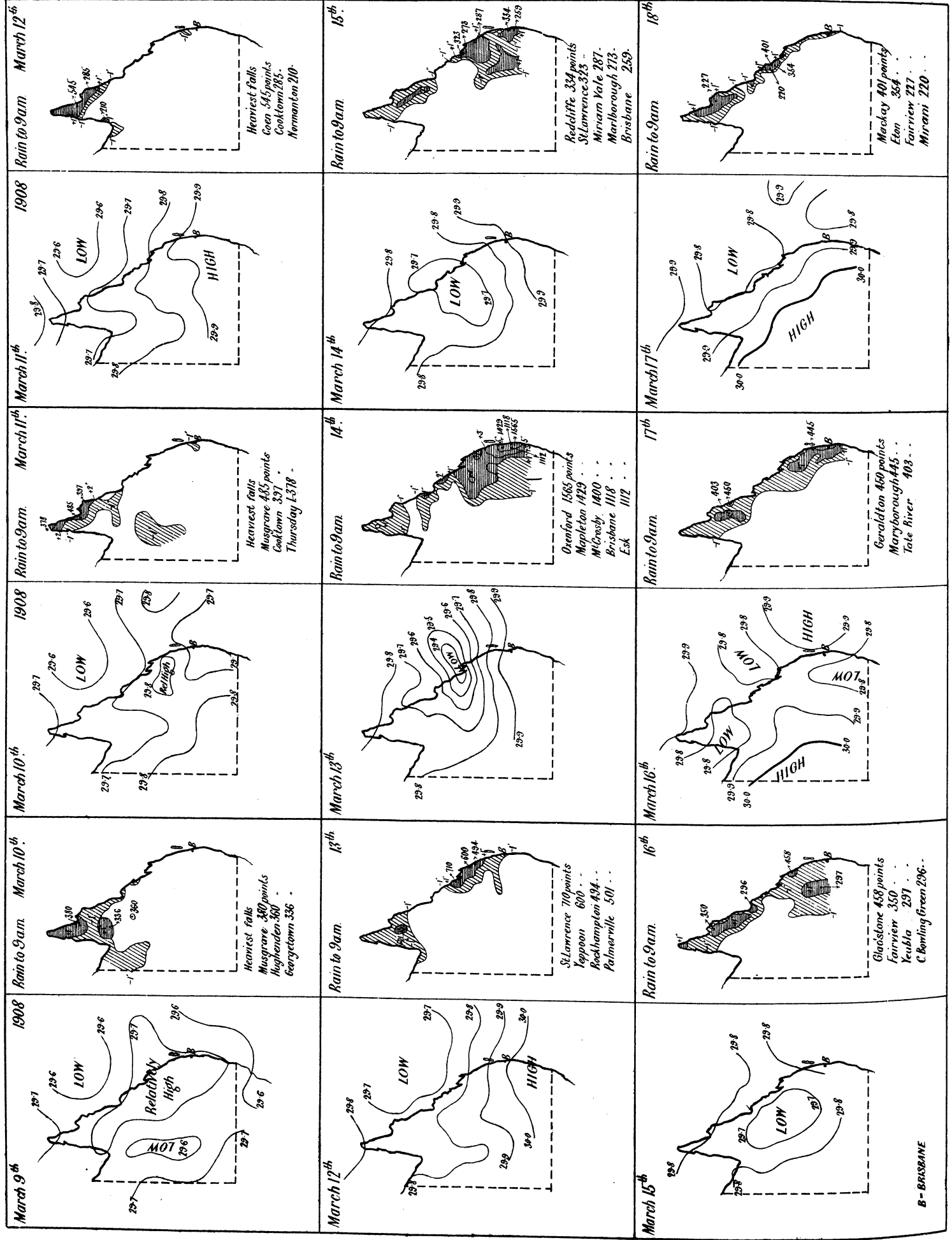
1905.

16th January.—Good rains throughout Queensland.

28th March.—Good rains throughout Queensland.

5th April.—Good rainfall on coast and in Darling Downs.

Charts showing Course of Tropical Rain-Storm over Eastern Queensland, March, 1908.



B - BRISBANE

9th October.—Good rains throughout Queensland.

7th December.—Storm in Brisbane; rain throughout Queensland.

1906.

2nd February.—5 inches of rain at Hughenden; drought in district broken.

3rd February.—Further splendid rains in Queensland.

27th February.—Heavy rain in and around Brisbane.

February.—Sea Hill—Total for month 15·98 inches; highest recorded during nine years.

1907.

17th February.—Heavy thunderstorms in south-eastern Queensland; man struck dead at Thornton, and horse killed at Toowoomba.

20th February.—Heavy rains caused stoppage of mails at Georgetown.

19th March.—Mails delayed in south-western Queensland by heavy rains.

17th December.—Heavy rains reported from all parts of State.

1908.

6th–14th January.—A monsoonal depression began to develop over the far north of the Northern Territory and Gulf of Carpentaria. It travelled across Peninsula on an east-south-easterly course, and caused some rather heavy rain in far north; developed intensity on reaching ocean but gradually receded from coast, though under its influence squally, showery weather continued along the Pacific slope until the 14th. Very heavy rain was registered between 9 a.m., 7th, and 9 a.m., 9th, the more important 24 hour totals being as follow:—853 points at Cairns, 500 at Cardwell, 439 at Fairview, 765 at Innisfail, 473 at Herberton, 565 at Ingham, 973 at Kuranda and 830 at Port Douglas to 9 a.m., 8th; 794 at Ayr, 1,130 at Bloomsbury, 605 at Bowen, 438 at Charters Towers, 736 at Clare, 575 at Townsville and 575 at Walkerston to 9 a.m., 9th.

29th–31st January.—A tropical disturbance approached the coast between Cooktown and Mackay, passed inland on a west-south-westerly course and apparently coalesced with a monsoonal depression over north-western quarter. Very heavy rain between Innisfail and Gulf and in Camooweal District. Most important falls:—1,176 points at Innisfail, 542 at Cairns, 473 at Georgetown, and 1,500 at Croydon during 24 hours ending 9 a.m., 30th; 890 at Camooweal to 9 a.m., 31st.

9th–13th February.—A monsoonal depression moved across Queensland from the north-western districts and passed out to sea through the South Coast division. Good rains attended its passage but there was an absence of gale conditions. The following were the only 24-hour totals of any note:—350 points at Booval, 330 at Caloundra, 377 at Dinmore, 295 at Esk, 310 at Gowrie Junction, 370 at Kannangur, 317 at Texas and 282 at Yandina to 9 a.m., 10th; 298 points at Anakie, 329 at Miriam Vale, 320 at Mount Morgan, and 594 at Double Island Point to 9 a.m., 11th.

20th–21st February.—Severe thunderstorms experienced on the Darling Downs and very heavy rain fell in places, notably 580 points at Clifton and 410 at Jimbour.

23rd February.—Heavy thunderstorm at Rolleston yielded 460 points of rain.

1st–6th March.—Monsoonal influences of pronounced type, connected with a depression which moved from the Gulf of Carpentaria and Northern Territory adjacent southwards into

South Australia and Western Victoria, affected practically the entire State. Heavy rain accompanied by severe thunderstorms fell over greater part of Central and Southern divisions. The most notable totals were as follow:—298 points at Banana, 402 at Degilbo, 622 at Kenilworth, 476 at Mapleton and 402 at Zillmere, to 9 a.m. 2nd; 307 at Bauhinia Downs, 383 at Yeppoon, 555 at Caloundra, 318 at Redcliffe to 9 a.m., 5th; 376 at Clermont and 322 at Jundah to 9 a.m., 6th:

7th–15th March.—Two tropical disturbances affected the entire coastline. The first approached the far northern coast on 6th, and caused rather heavy rain north from Townsville; passed on a south-easterly course at some distance from seaboard causing squally southerly winds and rough to high seas on south Queensland coast and north coast of New South Wales. The second disturbance approached the coast between Cooktown and Mackay on 8th, but the path of its centre recurved, and it moved south-eastwards parallel to the coast; on the night of the 12th it again moved towards the coast causing heavy gale conditions south from Mackay; on 13th the centre of the disturbance passed inland near Broad Sound, and afterwards traversed the south-eastern districts. More important 24 hour rainfall totals:—623 points at Collaroy, 494 at Rockhampton, 710 at St. Lawrence, 600 at Yeppoon to 9 a.m., 13th; 450 at Bogan-tungan, 400 at Capella, 413 at Mount Morgan, 403 at Walton, 1,040 at Beenleigh, 900 at Cape Moreton, 1,300 at Ernest Junction, 1,112 at Esk, 812 at Kenilworth, 406 at Kingaroy, 1,429 at Mapleton, 1,400 at Mount Crosby, 1,095 at Nerang, 1,565 at Oxenford, 930 at Rosewood, 788 at Landsborough, 500 at Woodford, and 1,118 at Brisbane to 9 a.m., 14th.

March.—Heavy rain in eastern half of Queensland and flood in Brisbane River.

Good rain fell over the eastern and south-eastern parts of Queensland during February, 1908, the fall in the latter portion of the State being above the average. Following on top of this wet period, a tropical storm struck the central coast in the neighbourhood of Broad Sound. The storm was accompanied by strong winds and gales and heavy rain, and the barometric reading at St. Lawrence fell from 29·78 in. at 9 a.m. on the 12th to 29·33 in. at 9 a.m. on the 13th. After striking the coast the storm travelled inland almost due west for about 300 miles, and then took a southerly course for about 250 miles, which brought the centre in the vicinity of Tambo, at 9 a.m. on the 15th, by which time heavy rain was falling over the whole of the south-eastern portion of Queensland.

For two days prior to the storm coming into immediate contact with the central coast the influence of its advancing side was felt in the form of heavy showers and strong squalls from the south-east on the far north-eastern seaboard. Heavy rain fell in the central coast districts during the 24 hours previous to 9 a.m. on the 13th. The rain continued on the 13th and 14th and resulted in very heavy falls being registered over the Peak and Darling Downs and the extreme south-eastern portion of the State. For the 24 hours ending 9 a.m. on the 14th the registration at Brisbane was 11 inches and 18 points, and for the 48 hours, to 9 a.m., 15th, it was 13 inches and 78 points. During the 48 hours ending 9 a.m. on the 15th the average fall at 27 stations distributed over the watershed of the Brisbane River was 9 inches and 59 points. This fall was sufficient to cause flooding at all the lower reaches of the river, and especially in the low-lying suburbs of Brisbane.

The river rose to 14 feet 6 inches on the gauge at the Port office and most of the wharves in the City were submerged.

The accompanying set of charts shows the course of the tropical storm which was responsible for this rain, and a table showing the total amounts of rainfall registered at 27 stations in the Brisbane River watershed during the 48 hours previous to 9 a.m., 15th, is given on the following page.

FLOOD IN BRISBANE RIVER, MARCH, 1908.

RAINFALL AT REPORTING STATIONS DURING THE 48 HOURS
PREVIOUS TO 9 A.M., 15TH MARCH.

	Inches.
Brisbane	13.77
Caboonbah	9.37
Booval	10.45
Crohamhurst	8.92
Crow's Nest	5.29
Dinmore	11.15
Engelsburg	5.96
Esk	12.15
Forest Hill	6.50
Gatton	4.99
Goodna	12.74
Grandchester	11.04
Harrisville	7.64
Helidon	6.77
Ipswich	9.30
Indooroopilly	15.58
Laidley	6.20
Lowood	8.25
Marburg	8.36
Mount Crosby	16.20
Murphy's Creek	6.69
Riverview	11.92
Rosewood	11.72
Rocklea	10.85
Spring Bluff	7.96
Sherwood	13.02
Woodford	6.20

16th-18th March.—A new tropical disturbance affected the coast north from Sandy Cape. Principal rainfalls 450 points at Geraldton, 302 at Fairview, 403 at Tate River, 418 at Walton, 445 at Maryborough to 9 a.m., 17th; 552 at Inkerman, 401 at Mackay to 9 a.m., 18th. The disturbance receded from the coastline on the latter date.

23rd-25th March.—A tropical disturbance approached the far northern coast between the Strait and Townsville, and passed across the Peninsula to the Gulf of Carpentaria, causing strong squalls and heavy rain north from Townsville, especially near Geraldton (Innisfail), where 1,401 points were registered during three days ending 9 a.m., 26th.

6th-9th April.—South-east gale conditions along sub-tropical coast due to rapid extension of vigorous high-pressure waves from southward; heavy rain in places, notably, 650 points at Mackay and 690 at Proserpine to 9 a.m., 8th; 415 at Flat Top Island; 295 at Walkerston, and 275 at Mackay to 9 a.m., 9th.

10th-12th April.—Tropical depression passed at some distance from Queensland coast on a south-east course; caused unsettled squally weather in south-eastern districts with fairly heavy rain, which extended over Darling Downs.

16th-17th April.—Monsoonal thunderstorms yielded heavy falls of rain in central-west and south-west. Blackall, 220 points; Albilbah, 197; Isisford, 144; Jundah, 217; Urundangie, 204; and Adavale, 165 points.

9th-11th May.—Heavy rain in connexion with electrical disturbance in coastal region south from Bundaberg. Principal 48-hour totals:—265 points at Caloundra, 300 at Dunwich, and 225 at Cleveland; 500 points were also registered at Innisfail during 24 hours ending 9 a.m., 10th. Heavy storm at Cape Moreton on 11th yielded a fall of 371 points.

17th-21st May.—A monsoonal rain storm passed across Queensland from the north-west to the south-east, and brought very beneficial rains to central districts and the south-eastern quarter generally. The following were the more important totals for the period:—128 points at Blackall; 158 at Bogantungan; 157 at Blackridge; 188 at Lochnagar; 95 at Long-

reach; 212 at Twin Hills; 138 at Winton; 212 at Beenleigh; 645 at Bulwer; 655 at Cape Moreton; 307 at Cooroy; 227 at Gundiah; 234 at Kenilworth; 249 at Nambour; 560 at Tewantin; and 164 at Brisbane.

17th-22nd July.—Widespread and in most cases beneficial rain over practically the whole State, except far north-west, west, and south-west, owing to operation of combined monsoonal and Antarctic influences and building up of intense high-pressure system over south Tasman Sea; the first-named most pronounced between the 17th and 19th.

31st July; 1st-2nd August.—Beneficial rain spell owing to monsoonal depression which moved southwards and eastwards from Northern Territory and passed out to sea through central coastal region of New South Wales. Practically the whole of sub-tropical Queensland received upwards of half-an-inch, the heaviest 24-hour fall having been 258 points at Bulwer to 9 a.m., 2nd.

5th and 7th August.—A tropical disturbance passed southwards near sub-tropical coast, and caused rain of a generally heavy nature throughout South Coast division south from the latitude of Bundaberg, also the Darling Downs; whilst light rain extended as far westwards as Eulo. Notable 24-hour registrations were 600 points at Tallebudgera; 516 points at Oxenford; 363 at Southport; and 241 at Killarney.

22nd August.—Thunderstorms on Darling Downs; the most important fall of rain was 165 points at Cabarlah.

9th-13th October.—General thunderstorm rain affected almost the entire State, though light and scattered in far north-west and south-west and along the southern border. Heaviest amounts:—230 points at Bowen, 250 at Geraldton, 402 at Kuranda, 275 at Proserpine, 270 at Alpha, 222 at Palmwoods, and 175 at Yandina during 24 hours ending 9 a.m., 12th; 470 at Rainworth, and 207 at St. Lawrence to 9 a.m., 13th.

15th-18th October.—General thunderstorm rain over western half and south-eastern quarter. Principal 24-hour totals:—280 points at Alpha, 371 at Aramac, 250 at Barcardine, 284 at Beta, 405 at Lochnagar, 230 at Rainworth, 134 at Cunnamulla, and 165 at Wyandra to 9 a.m., 17th; 234 at Rockhampton, and 153 at Gin Gin to 9 a.m., 18th.

8th-10th November.—Good thunderstorm rains throughout south-eastern quadrant and parts of north-west. Heaviest totals:—207 points at Urundangie, 302 at Bulwer, 282 at Cabarlah, 360 at Crow's Nest, 401 at Esk, 280 at Killarney, 362 at Murphy's Creek, 235 at Toowoomba, 220 at Woodford, 295 at Ipswich to 9 a.m., 9th; and 300 at Keppel Bay, 240 at Miriam Vale to 9 a.m., 10th.

20th-30th November.—Thunderstorm conditions affected practically all parts of the State in turn. The more notable 24-hour totals were:—310 points at Thursday Island and 315 at Wyandotte to 9 a.m., 22nd; 132 at Camooweal, 121 at Blackall, 148 at Jondaryan to 9 a.m., 23rd; 184 at Croydon, 377 at Normananton, 160 at Cooroy to 9 a.m., 24th; 295 at Albilbah, 338 at Charleville, 177 at Eidsvold, 194 at Morven, 151 at Yeulba to 9 a.m., 25th; 363 at Moreton, 297 at Walkerston, and 220 at Lowood to 9 a.m., 26th; 180 at Croydon, 196 at Mein, 260 at Rosedale, 286 at Booval, 218 at Mapleton, and 187 at Woombye to 9 a.m., 28th.

9th-13th December.—Thunderstorm wave passed across south Queensland. Principal rainfalls—224 points at Bundaberg, 273 at Cooran.

25th-27th December.—Beneficial thunderstorm rains in south-eastern districts. Heaviest falls for 48 hours:—210 points at Beenleigh, 180 at Cooroy, 190 at Degilbo, 390 at Kenilworth, 307 at Theebine.

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4th-10th January.—A tropical disturbance moving southwards on a course parallel to Queensland coast caused strong to high and squally S.E. to E. winds and rough to high sea with unsettled

showery weather, but no very heavy rain fell except between Torres Strait and Cardwell; 465 points at Innisfail during 24 hours ending 9 a.m., 5th.

11th-20th January.—A disturbance developed between Port Darwin and Thursday Island on 11th, and moved across northern part of Peninsula to the ocean, where it apparently filled up. Very heavy rain fell over the Peninsula, accompanied by fresh gales from N.E. and N., and later along the entire Pacific slope and south-eastern interior, with high S.E. winds and rough sea. The following are the more notable 24-hour totals:—460 points at Coen, 500 at Lucinda, 1,165 at Innisfail, 904 at Musgrave, 1,156 at Cairns, 1,000 at Molloy, 711 at Port Douglas to 9 a.m., 14th; 552 at Cairns, 910 at Innisfail, 405 at Cardwell, 590 at Halifax to 9 a.m., 15th; 328 at Collaroy, 340 at Nebo, 461 at St. Lawrence, 490 at Yeppoon to 9 a.m., 16th; 867 at Eton, 326 at Bustard Head, 432 at Gladstone, 348 at Raglan, 310 at Amby, 404 at Durah, 304 at Hawkwood, 327 at Miles, 305 at Mitchell, 375 at Taroom, 353 at Wondai, 339 at Yeulba to 9 a.m., 17th; 850 at Mirani (48 hours), 350 at Collaroy, and 310 at St. Lawrence to 9 a.m., 18th; 328 at Cape Bowling Green, 325 at Haughton Valley, 393 at Macrossan, 350 at Sellheim, 315 at Bustard Head, 348 at Gladstone, 504 at St. Lawrence, and 650 at Yambin to 9 a.m., 19th; 456 at Gin Gin, 410 at Maryborough, 522 at Mungar Junction, 450 at Yengarie to 9 a.m., 20th.

The heavy rain over the head waters of the Thompson River caused floods in that and other western rivers during this period and afterwards to the end of the month.

24th-31st January.—A disturbance operated off tropical coast during the whole of this period; heavy rain fell north from the Tropic, notably 670 points at Inkerman and 515 at Lucinda during the 48 hours ending 9 a.m., 25th. Heavy south-easterly gales on 30th and 31st between Cooktown and Cardwell—steamers delayed.

1st-3rd February.—A tropical disturbance moved southwards at some distance from Queensland coast, and caused squally weather with moderately heavy rain along sub-tropical seaboard, and very heavy—namely, 409 points—at Sandy Cape during 24 hours ending 9 a.m., 3rd.

8th February.—Charleville.—“The weather is still very close and hot, with areas of thunder clouds. Yesterday 28 points of rain fell here, but very heavy storms occurred in the vicinity of the town and along the Adavale-road. A remarkable escape from sudden death occurred yesterday evening. Mr. Edward Espie, hotelkeeper and butcher, of this town, with a companion, was at his selection, 5 miles down the river, when he was caught in a tremendous storm, which was accompanied by blinding rain, hail, and a hurricane of wind. Mr. Espie got behind a large tree for protection against the hailstones, and while he was there a heavy limb was blown from the tree, narrowly missing his head, and pinning his horse, which he was holding by the bridle, to the ground. After the storm abated, Mr. Espie, with the aid of four men, lifted the limb from the horse, which, strange to say, was uninjured, although stunned. A tank on Mr. Espie's selection which had not been filled for years ran over in a few minutes. Large numbers of trees were blown down by the storm.”

13th-24th February.—Pronounced monsoonal conditions affected practically the whole State, but especially the region between the Gulf country, the southern border, and south-east coast. Heavy thunderstorms experienced in various parts, accompanied by violent local blows, hail and heavy rain. Local floods, and considerable damage to buildings, &c., from lightning and wind occurred at many places, while, on the 19th, a man and horse were struck dead near Thargomindah; 296 points of rain were recorded in an hour and a quarter at Laidley on 23rd. Two storms occurred at Charleville on the 24th; a peculiarity of the second was that the rain which fell was of a brownish colour, and thickly impregnated with red dust, which polluted most of the rain water in the tanks of the town.

13th-24th March.—Under the influence of a monsoonal depression which moved from the vicinity of Port Darwin on the 13th

towards Central Queensland, and that of a disturbance which hung persistently off the tropical coast, the greater part of Queensland was visited by widespread precipitation, much of it of a very beneficial nature, but the heavy falls were chiefly confined to the Northern and Central divisions. The more notable registrations were those for the 48 hours ending 9 a.m., 15th, and the following day, viz.:—596 points at Cairns, 740 at Burketown, 187 at Boulia, 653 at Port Douglas, 507 at Floraville, and 262 at West Leichhardt, to 9 a.m., 15th; 728 at Innisfail, 210 at Croydon, 248 at West Leichhardt, 337 at Lucinda, 216 at Ayrshire Downs, and 257 at Kynuna to 9 a.m., 16th; 434 at Fairview to 9 a.m., 17th; 472 at Musgrave and 441 at Tate River to 9 a.m., 18th; 515 at Cardwell to 9 a.m., 19th; 319 at Cooktown and 428 at Musgrave to 9 a.m., 23rd.

16th-21st April.—A rain-spell began on far northern coast, under the combined influence of disturbances operating over the Gulf and off the north coast respectively, and a building up of high pressure over the south Tasman Sea, and extended over whole of State east from a line joining Burketown and Hebel. Very heavy falls in Geraldton district, and along and near sub-tropical coast. The following are the more notable totals for the spell:—620 points at Innisfail to 9 a.m., 17th; 659 at Bulwer, 460 at Dunwich, 875 at Redcliffe, 424 at Tewantin, and 490 at Sandgate during 24 hours ending 9 a.m., 19th; 243 at Booval, 270 at Crow's Nest, 220 at Grandchester, 264 at Marburg, 200 at Surat, 220 at Warra to 9 a.m., 21st; 230 at Mungar Junction and 240 at Tiaro to 9 a.m., 22nd.

25th-27th April.—General rain under combined monsoonal and antarctic influences over all that part of State lying south from line joining Camooweal and Rockhampton, except far central-west. No exceptionally heavy rain, but precipitation was of a generally beneficial nature.

29th-30th April.—Very heavy rain between Cairns and Innisfail; 631 points at former, and 810 at latter during 24 hours.

5th-6th May.—Heavy rain at Cape York, 293 points in 24 hours.

1st-3rd June.—Antarctic influences caused fairly general but mostly light rain throughout sub-tropical Queensland.

6th-9th June.—Tropical influences, working from Gulf of Carpentaria and ocean to north-east of Queensland coast, resulted in the formation of a disturbance which moved southwards near the eastern seaboard to a position off the south coast of New South Wales. The whole State participated in more or less beneficial rain, except the Gulf country, west and south-west. Totals exceeding 1 inch were registered in the eastern parts of the Central division.

24th-30th June.—A monsoonal depression passed across Queensland from Northern Territory, through sub-tropical coastal area to the Tasman Sea. The resultant precipitation affected the entire State, though only very light and scattered in far north-west, west, and south-west. Heaviest falls occurred in interior of Northern division, viz.:—207 points at Floraville, 150 at Hughenden and Pentland, and 318 at Donors Hill to 9 a.m., 26th. Some fairly good falls were registered between Adavale and the Darling Downs on the same date, such as 140 points at Adavale and 159 at Wyandra.

14th-17th July.—Combined tropical and Antarctic influences produced widespread rain over entire eastern half of State. Exceedingly beneficial falls were recorded in the south-eastern quadrant between 9 a.m., 15th, and 9 a.m., 17th.

23rd-26th July.—A rain-spell began to affect the far north of the Peninsula on the 23rd. It gradually extended southwards and, in conjunction with the northern edge of a vigorous Antarctic disturbance, caused general and in places heavy rain in the eastern halves of the Central and Northern divisions; the South Coast division and parts of the Darling downs and Maranoa divisions also participated, though the falls in the two latter were light and unimportant.

6th-31st August.—Remarkable succession of thunderstorms which yielded rainfall of a generally beneficial nature in all parts of the Central and Southern divisions.

10th September.—An extraordinary fall of rain took place at Highfields on Friday morning. Shortly before daybreak a thunderstorm broke over the district, and was succeeded by heavy showers. The land was covered with a sheet of water and the creeks and gullies ran strongly. Over 2 inches of rain were recorded.

15th-16th October.—General and useful monsoonal thunderstorm rains in south-east Queensland, including the Downs; falls ranged from a few points to a little over 2 inches.

17th October.—Cooroy—Severe wind, rain, and thunderstorm during night; 110 points of rain fell in about fifteen minutes.

25th October.—A fearful storm occurred at Geera on Monday afternoon, the 25th, in which a mob of sheep numbering 2,100, off the shears, and 500 woolly sheep, *en route* to Kitsuville, Alice—Jas. Cronin in charge—were caught in a place where a quantity of gidyea scrub had been cut out and burnt. The fires, extending along the roots, had made great holes, which were recently filled. The shorn sheep were very weak, and became bogged, and many were also found entangled in the brushwood. Twelve hundred and forty perished. There were no losses among the woolled sheep. Seven inches of rain fell during the storm.

25th-26th October.—Rosewood—Hailstorm, followed by exceptionally heavy rain, 5 inches registered in less than two hours. A sudden rise occurred in the Bremer River, which deposited dead fish all along its banks.

25th-28th October.—A monsoonal depression traversed Queensland from north-west to south-east and caused widespread and, in many instances, very beneficial rainfall, accompanied by pronounced electrical phenomena and hail, east from a line joining Camooweal and Hebel. The greatest 24-hour totals were 229 points at Stanwell and 228 at Miriam Vale to 9 a.m. 28th.

17th to 19th November.—Renewal of widespread thunderstorm conditions. All that part of the State lying between lines joining Burketown and Mungindi, and Normanton and Rockhampton, received general, and, in most cases, beneficial rain.

25th-30th November.—A great monsoonal rain storm began to affect the far north-west. Thereafter it extended eastwards and southwards and by the end of the month every part of the State had been visited by more or less beneficial rainfall. The following were the more notable 24-hour registrations:—339 points at Croydon, 209 at Cape Capricorn, 330 at Gracemere, 400 at Keppel Bay, 278 at Mt. Morgan, 539 at Pt. Alma, 477 at Sea Hill, 321 at Yeppoon, 425 at Double Island Point, 290 at Theebine, 180 at Tallebudgera, 320 at Cooroy, and 205 at Brisbane to 9 a.m., 29th.

1st-6th December.—A monsoonal depression of very marked intensity developed on 1st between Port Darwin and Thursday Island. It pursued a south-easterly course and passed out to sea between Cooktown and Broad Sound. Under its operation (aided by the extreme northern edge of an Antarctic disturbance) rain of a highly beneficial nature, associated with electric disturbance, affected all parts of the State except the far south-west. Most of the heaviest falls occurred in the Northern division, of which the following were the more important:—575 points at Cairns, 650 at Cardwell, 612 at Geraldton, 596 at Kuranda, and 385 at Port Douglas for the 24 hours ending 9 a.m., 3rd; 508 at Burketown, 412 at Donor's Hill, 704 at Floraville, 682 at Karumba, 633 at Kuranda, 620 at Molloy, 425 at Normanton, 580 at Port Douglas, 303 at Stamford, 182 at Clermont, and 235 at Gindie to 9 a.m., 4th; 400 at Ayr, 323 at Bowen, 422 at Cape Bowling Green, 478 at Donor's Hill, 333 at Georgetown, 210 at Karumba, 383 at Macrossan, 220 at Normanton, 452 at Ravenswood, and 370 at Wyandotte to 9 a.m., 5th; 668 at Bowen, 221 at Georgetown, 436 at Homestead, 491 at Inkerman, 310 at Mt. Garnet, and 284 at Wyandotte to 9 a.m., 6th.

17th December.—Cyclonic hailstorm at Moonmera, near Mt. Morgan; 280 points registered.

17th-23rd December.—A monsoonal disturbance began to affect the Peninsula on the 17th, and caused general precipitation in connexion with thunderstorms north from line joining Burketown and Townsville during 48 hours ending 9 a.m. 20th; most noteworthy totals:—621 points at Cooktown, 447 at Musgrave, 534 at Normanton, and 460 at Port Douglas.

Thereafter the disturbance moved steadily eastwards and had reached the ocean by the 23rd, causing very heavy rain in all eastern parts of the Northern Division, *e.g.*, 428 points at Townsville, 375 at Mirani, and 320 at Halifax, to 9 a.m., 21st; 624 at Mackay, 402 at Inkerman, 590 at Walkerston, 647 at Eton, 450 at Capella, and 350 at Ayr to 9 a.m., 22nd. With increased intensity it moved southwards, causing strong to high south-easterly winds and very heavy rain along the Pacific slope, light rain also affecting the eastern Downs. The following interesting totals were recorded during the 24 hours ending 9 a.m., 23rd, *viz.*:—1396 points at Mackay, 351 at Gladstone, 595 at Walkerston, and 660 at Yeppoon. Between 9 a.m., 23rd, and 9 a.m., 24th, no falls of an exceptional nature were recorded, the disturbance having receded from the coastline.

23rd-28th December.—Upper Mooloolah.—Rainfall for the five days ending 9 a.m. 28th, 28.80 inches.

24th-28th December.—A monsoonal depression over the north-west and a sudden "thrust" of anticyclonic waves northwards over south-east Queensland and ocean adjacent, caused remarkable precipitation in the sub-tropical coastal area, which resulted in serious floods in the Mary River and a threatened flood in the Brisbane River. The following are some of the principal registrations for the three-day period ending 9 a.m., 27th:—1,031 points at Gympie, 1205 at Woodford, 519 at Esk, 894 at Gundiah, 1,251 at Cooran, 800 at Cooroy, 1,916 at Mapleton, 1,680 at Nambour, 2040 at Landsborough, 1,210 at Kenilworth, 1,962 at Woombye, 1,655 at Yandina, and 516 at Nundah.

25th December (about).—Maroochydore, near Gympie.—Eighteen inches of rain fell in six hours.

29th December.—Rainfall at Crohamhurst for five days—23.55 inches.

30th December.—Good rains reported over greater part of State.

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1st to 16th January.—A monsoonal disturbance between Cambridge Gulf and Western Queensland, a tropical disturbance off the north coast, and a vigorous high pressure system over the Tasman Sea, combined their influences to cause rain in connexion with thunderstorms over almost the entire State. The intensity of the monsoonal disturbance culminated between the 12th and 14th, and, in that period, widespread and generally heavy rain visited the whole State, except the extreme south-west. The more striking 24-hour totals were:—311 points at Brisbane, 305 at Taroom, 339 at Esk, 624 at Dunwich, 375 at Dalby, 362 at Cambooya, 435 at Walsh River, 357 at Oakey, 1,013 at Cleveland, and 451 at Grandchester to 9 a.m. 13th; 382 at Inkerman to 9 a.m. 14th; 437 at Townsville, 395 at Mackay, 363 at Proserpine, and 368 at Goondiwindi to 9 a.m. 15th; 415 at Miles, 412 at Comet, 302 at Surat, 310 at Esk, 500 at Miriam Vale, 435 at Boonah, 473 at Laidley, 506 at Forest Hill, 658 at Redbank, 744 at Goodna, and 396 at Beaudesert, for the 48 hours ending 9 a.m. 17th. Creeks were flooded and rivers swollen in all directions, and considerable damage occurred on the railway lines.

19th January.—Harrisville.—A thunderstorm which proved to be the severest within the memory of local residents broke over the town about 4.40 p.m. on the 19th, and lasted for three-quarters of an hour. During that time, to the accompaniment of almost incessant thunder and very vivid lightning, 371 points of rain fell, which caused a local flood.

19th January.—Sandy Cape.—A storm on the 19th yielded 426 points of rain.

22nd-31st January.—A tropical disturbance began to affect Torres Strait on the 22nd. Thereafter it moved towards Cairns,

passed inland to Georgetown, and out to sea again between Townsville and the Tropic; and caused severe gale conditions, very heavy rain, high seas, and floods along the Pacific slope. Principal totals:—491 points at Innisfail, 582 at Kuranda, 790 at Port Douglas, 778 at Cairns, 405 at Moreton, 532 at Townsville, 735 at Thornborough, 700 at Reid River, 940 at Kuranda, 752 at Homestead, 540 at Collaroy, 685 at Mt. McConnell, 631 at Bloomsbury, 597 at Herberton, 934 at Mackay, 735 at Rockhampton, 600 at Rosedale, and 406 at Pialba.

2nd February.—Heavy rain at Innisfail, viz.:—607 points in 24 hours.

7th February.—Very heavy thunderstorm broke over Brisbane about 7.30 p.m., and rain fell in torrents for about half an hour; at Laidley, 95 points of rain fell in 15 or 20 minutes.

11th–13th February.—Thunderstorm spell which yielded rain of a highly beneficial nature east from a line joining Burketown and Hebel especially in the Central and South-eastern districts.

15th–16th February.—Very heavy rain fell owing to the approach of a tropical disturbance to the far northern coast; 563 points at Cairns, 847 at Atherton, 585 at Kuranda, and 605 at Innisfail.

17th–24th February.—Under the combined influence of a vigorous monsoonal disturbance between Port Darwin and north-western Queensland, and a tropical disturbance of moderate intensity off the far northern coast, heavy rain fell in the north-west and central districts and as far south as Windorah, and very heavy in the coastal region between Cairns and Mackay. The more notable totals were:—779 points at Floraville, 550 at Halifax, 585 at Cape Bowling Green, 622 at Bloomsbury, 480 at Mirani, for the 24 hours ending 9 a.m., 19th; 680 points at Cardwell, 463 at Donaldson, 425 at Winton, 541 at Halifax, for the 48 hours to 9 a.m., 21st; 510 at Cardwell, 498 at Ingham, 620 at Innisfail to 9 a.m., 22nd.

3rd–8th March.—A pronounced monsoonal disturbance passed from Cambridge Gulf to the south-eastern corner of the continent and caused bountiful precipitation over the entire State. The heaviest falls were registered between 9 a.m., 5th, and 9 a.m., 7th, on the north-east coast and in the Mitchell and Gregory districts, *e.g.*, 686 points at Ingham, 498 at Longreach, 485 at Isisford, 314 at Barcaldine, 204 at Blackall, and 258 at Windorah.

10th–12th March.—A tropical depression off the south-east coast caused widespread rain in the east and south-east, but especially between Townsville and Broad Sound, and severe gale conditions prevailed south from the former place. The following heavy falls were registered during the 24 hours ending 9 a.m., 12th, namely, 778 points at Bowen, 1,031 at Mackay, 963 at Proserpine.

18th–21st March.—A remarkable tropical disturbance moved inland from the ocean adjacent to north-east coast, and penetrated as far as the central-west; the centre then recurved and the disturbance passed out to sea again between Townsville and the Tropic. Under the operation of the disturbance the whole State was benefited by rain, which was of a truly torrential nature between the Central Railway and Maranoa division, and eastwards to the coast between Mackay and Bundaberg; principal totals:—682 points at Eton and 420 at Raglan to 9 a.m., 18th; 641 points at Rockhampton, 440 at Aramac, 530 at Barcaldine, 735 at Emu Park, 410 at Nebo, 760 at Mt. Morgan, 842 at Moonmera and 702 at Bogantungan to 9 a.m., 19th; 851 points at Rockhampton, 773 at Tambo, 485 at Mitchell, 494 at Blackall, 715 at St. Lawrence, 1,026 at Yeppoon, 645 at Augathella, and 480 at Gin Gin, for the 48 hours to 9 a.m., 21st.

21st–24th March.—A new disturbance approached the far northern coast and caused heavy weather, with very heavy rain between Torres Strait and Townsville. Principal rainfall totals were:—748 points at Innisfail to 9 a.m., 22nd; 585 points at Cairns and 452 at McDonnell to 9 a.m., 23rd; 625 points at Cooktown, 549 at Cardwell, 931 at Innisfail to 9 a.m., 25th (48 hours).

31st March.—Torrential rain at Coen—16.80 inches during three days ending 9 a.m., 2nd April.

6th–11th April.—Heavy rain on the coast between Cooktown and Cardwell; 20.12 inches at Innisfail during period. Fairly heavy rain also on Peninsula and in Gulf country.

17th–18th May.—Widespread but not very beneficial rain throughout western, central, south-west, and southern regions, owing to combined operation of monsoonal and Antarctic influences.

27th–28th May.—Heavy rain at Gilbert River; 310 points registered in 24 hours.

1st June.—General rain over Queensland.

16th July.—Heavy rain in west of Queensland.

10th December.—Heavy rains throughout the State. Ten inches of rain fell in 48 hours at Brisbane.

31st December.—Heavy rain in the north. Rainfall at Cairns for 48 hours—10.50 inches, Redlynch 16.50 inches, Kuranda 16.25 inches.

1911.

January.—Two monsoonal depressions of a very pronounced type traversed Queensland during January, the result being the wettest first month of the year since 1898, when in Brisbane the aggregate rainfall amounted to 1537 points. In the closing days of last year a disturbance developed off Port Darwin, and, having caused very heavy rain in the far north of Northern Territory, travelled in an eastward direction to the Gulf of Carpentaria, where it lodged, with practically no change of position, until the 5th. Up to that date the influence of the approaching rainstorm co-operated with a tropical disturbance to the north-east of Cooktown, and general heavy rain fell in consequence throughout the Peninsula and Northern Coast divisions, among the more notable registrations being 420 points at Fairview, 720 at Cairns and 1,164 at Port Douglas to 9 a.m. 2nd; 1,197 points at Cairns to 9 a.m., 3rd, and 700 at Ingham and 989 at Innisfail to 9 a.m., 4th. On the 5th the monsoonal storm began to move definitely on a south-easterly course till the centre reached the vicinity of Emerald whence it bore more and more southerly, finally passing into the north-eastern regions of the neighbouring State. Rain of a widespread and generally heavy nature attended the passage of this famous disturbance throughout the entire length of Queensland, and only that part of the State lying to the westward of a line joining Camooweal, Isisford, and Hungerford escaped substantial benefit. The registrations at many of the stations over which the centre of the disturbance passed were of a quite phenomenal and, in several instances, unprecedented nature; the following being a few of the more remarkable falls:—1,597 points at Cloncurry for the 48 hours ended 9 a.m., 9th; 3,536 at Granada (formerly Donaldson Telegraph Station, average annual rainfall 2,266 points) for the four days ending 9 a.m., 9th, of which 2,780 points fell during the 48 hours prior to 9 a.m. on the date mentioned, 800 at Ayr, 715 Walkerston, and 308 at Aramac to 9 a.m., 10th; 470 at Bluff, 385 at Beta, 307 at Blackall to 9 a.m., 11th; 715 at Grandchester, 441 at Toowoomba and 321 at Dirranbandi to 9 a.m., 12th. After the monsoonal storm ceased to operate in Queensland a few days of fine weather prevailed, during which light rain was registered at only a few stations on the Peninsula and parts of the south coast. On the 18th, however, fresh monsoonal influences manifested themselves, first affecting the Peninsula and then extending southwards through the eastern half of the State, but no rain of a very heavy nature fell except in the southern part of the Maranoa Division and on the extreme south-east coast, 400 points at Tallebudgera to 9 a.m. 20th and 653 at Yeulba to 9 a.m., 22nd, being the more notable 24-hour measurements. On the 22nd a new cyclonic storm of monsoonal origin began to take definite form between Port Darwin and Torres Strait, and, at the same time, a tropical disturbance approached the coastline from the north-east. Under the influence of these two disturbances, very unsettled weather prevailed during the last week of the period under review, and rain of a heavy and widespread nature fell throughout the State, except, as before, the far west and south-west, which received hardly any benefit. The following are

some of the more important 24-hour totals during this remarkable rain-spell:—Ingham 516 points, Proserpine 407 to 9 a.m., 24th; 780 points at Ayr, 835 at Bloombury, 605 at Bowen, 446 at Proserpine to 9 a.m., 26th; 680 at Yeppoon to 9 a.m., 27th; 425 points at Cooroy, 521 at Inskip Point, 516 at Kenilworth, 905 at Mapleton, 610 at Maryborough, 550 at Gindie to 9 a.m., 28th; 450 at Lochnagar to 9 a.m., 29th; 445 at Homestead, 491 at Pentland to 9 a.m., 30th; and 992 at Yeppoon, 415 at Saltern to 9 a.m., 31st.

The monthly totals exceeded the average all over the State except in the far west and south-west, and on parts of the Peninsula and Gulf country, the greatest variation being 25·97 inches at Ayr.—[From the *Australian Monthly Weather Report and Meteorological Abstract for January, 1911.*]

February.—Very heavy monsoonal rains on Queensland coast during first few days of the month. Phenomenal falls at Gladstone—18·83 inches fell in 24 hours to 9 a.m. on the 4th. Floods of more or less serious nature in the Fitzroy, Burnett, and Mary Rivers.

14th February.—Ten inches of rain fell in 2 hours 10 minutes at Dingo.

March.—Heavy rain, with short intermissions, all through the month in the Peninsula and North Coast divisions; heaviest over coastal area between Cooktown and Townsville. Cairns rainfall for the month was 1,597 points above the normal.

April.—Tremendous rains in North Queensland during the first few days of the month. Cairns received 27 inches, Innisfail 38, and Kuranda the colossal total of 61 inches in 3 days.

4th April.—Five inches of rain fell in two hours at Cloncurry.

August.—Heavy persistent monsoonal rainstorm from 19th to 26th, with cyclonic conditions along the coast, resulted in good rainfall over the south-eastern quarter of the State.

28th August.—Four distinct storms occurred in Brisbane, during which 54 points of rain were recorded.

19th November.—At Kynuna 4 inches of rain fell in 2 hours.

22nd to 30th November.—General monsoon rains, with severe local thunderstorms, throughout central Queensland.

2nd December.—Good rains reported from Central-western Queensland. Creeks, water-courses, and Thomson River all running strongly.

Heavy rain with lightning in Brisbane—50 points of rain fell in 10 minutes.

1912.

3rd January.—Good rains reported from many country districts.

7th January.—Good rains on South Coast and Darling Downs divisions.

12th February.—Good rains in Central and Western districts.

13th February.—Beaudesert—A violent storm, accompanied by hail, thunder, and vivid lightning, passed over the town and district about 3 p.m. The lower parts of the town were completely flooded. At Nindooimbah and Kerry, the fall was particularly heavy. Beaudesert rainfall, 90 points.

15th February.—Thunderstorms with rain in Western districts.

19th February.—Cloncurry railway line damaged by heavy rains.

21st February.—Good rains in the north and north-west.

2nd and 3rd March.—Torrential downpours occurred in Darling Downs and particularly along and near the coast south from Bundaberg. 11·40 inches at Mapleton for 48 hours, 9·26 at Woody Island, 8·88 at Landsborough, 8·83 at Woombye, 8·44 at Pialba, 8·06 at Caboolture, 7·93 at Inskip Point, 7·48 at Dunwich, 7·45 at Maryborough, 7·43 at North Pine, 7·31 at Woodford, 6·98 at Howard, and 5·40 at Brisbane.

7th March.—Heavy rain on coast between Cairns and Townsville—6·96 and 6·25 inches at Ingham and Halifax respectively.

11th March.—Useful rains on the Darling Downs and in the south-east.

12th March.—Splendid rains in the west. Exceptionally heavy rain at Ayr and Cloncurry. 5·28 inches at Port Douglas.

15th March.—Further heavy rains in Queensland; coach services delayed.

16th and 17th March.—A tropical disturbance brushed the far north-east coast, and caused heavy rain and rough seas. 10·45 and 10·37 inches of rain fell at Innisfail and Cooktown respectively.

27th March.—Rain fell in south-eastern Queensland.

March.—Windorah—Good channel fresh in Cooper's Creek during last three weeks of the month, due to rains on Barcoo and Thompson Rivers.

6th and 7th April.—Phenomenal rainfall on seaboard between Cooktown and Bowen, and between Cooktown and Townsville; principal amounts recorded 32·65 inches at Innisfail, 20·22 at Cardwell, 16·75 at Halifax and 11·84 at Ingham during the 48 hours ended 9 a.m., 8th. (Cyclone at Innisfail on 6th.)

11th April.—Another tropical disturbance produced 8·80 inches of rain at Innisfail.

17th April.—Useful rains in several parts of the State.

1st to 7th May.—A tropical depression off the seaboard caused good rain in the coastal districts, first affecting the far north. Heaviest falls recorded were 3·46 and 8·44 inches at Innisfail to 9 a.m., 3rd and 4th respectively.

10th to 23rd May.—Another tropical depression off the coast produced unsettled showery conditions north from the Tropic. Heaviest rain between the 16th and 21st was at Innisfail, 4·64, 4·20, 5·20 and 7·90 inches recorded to 9 a.m., 17th, 18th, 19th, and 20th respectively.

Total rainfall at Innisfail for May was 41·84 inches or 29·37 above the average. Phenomenal precipitation confined to that neighbourhood.

6th to 12th June.—A monsoonal depression from the north-west and a tropical depression off the north-east coast produced heavy beneficial rain throughout the State except only in the far west between Camooweal and Boulia. Torrential downpours occurred in the Central and Maranoa divisions and between Townsville and Pentland.

During the 48 hours ended 9 a.m., 10th, 11·62 and 11·35 inches were registered at Pine Hill and Bogantungan respectively—other large totals for that period being 8·50 inches at Balfe's Creek and 9·81 at Twin Hills.

15th June.—Welcome rains fell in the coastal districts.

21st to 24th June.—Further general rains over whole State except in the vicinity of Burketown. Heaviest falls for 48 hours ended 9 a.m., 23rd, were 5·20 inches at Winton, 3·67 at Longreach and 3·07 at Ayrshire Downs. Very heavy rain on coast between Cooktown and Cardwell for 48 hours ended 9 a.m., 24th; 7·60 inches at Innisfail, 7·04 at Kuranda, 7·03 at Port Douglas and 5·65 at Cairns.

26th to 30th June.—A third monsoonal depression caused general and beneficial rain over the whole State except the Peninsula, Carpentaria, and North Coast divisions. Heavy rain in the Maranoa and Warrego divisions.

June.—Emerald—Phenomenal rainfall of 11·78 inches; first heavy winter fall since 1886. All rivers and creeks in the central-west flooded; Nogo River, at one period, 42 feet above normal.

1st to 3rd July.—A monsoonal disturbance produced widespread and heavy rain over sub-tropical Queensland, particularly in the Central, Maranoa and Warrego divisions. Greatest falls—3·00 inches at Augathella, 2·72 at Morven, and 2·30 at Charleville to 9 a.m., 1st.

1·50 inches at Tambo, 1·34 at Blackall, and 1·31 at Lochnagar to 9 a.m., 2nd.

2·80 inches at Comet, 2·68 at Emerald, and 1·37 at Blackwater to 9 a.m., 3rd.

12th to 15th July.—Another monsoonal disturbance caused fairly heavy and general rain in all parts of the State except the Carpentaria and Peninsula divisions where very light rain fell at two or three stations only.

25th July.—Lord Howe Island—9.55 inches of rain—a record amount for 24 hours, and the bulk of which fell between midnight and 4 a.m.

21st October.—Good rains reported over nearly all the southern portion of the State.

26th and 27th October.—A monsoonal disturbance off the south-eastern coast caused heavy rain in the southern part of the South Coast division, 5.95 inches recorded at Bald Hill for 24 hours ended 9 a.m., Sunday 27th.

7th November.—Good rains reported in many districts throughout Queensland.

16th November.—Good rains on the north-west border.

26th November.—2.42 inches fell in 1 hour at Cooroy.

10th December.—Brisbane.—A series of thunderstorms, accompanied by heavy rain and some hail in places, passed over during the afternoon. A residence in South Brisbane and a shop in James-street, The Valley, were struck by lightning. At both places chimneys were damaged, and at the shop the gas pipes were also damaged and the gas ignited.

23rd December (about).—Barcaldine.—Splendid storm of rain and hail; 2.22 inches recorded.

26th December.—Heavy rainfall reported in the Western district.

1913.

1st to 4th January.—Very beneficial thunderstorms occurred between Gulf and sub-tropical coast, especially on Darling Downs and in South Coast division.

6th January.—Mackay.—Phenomenal rainfall during a thunderstorm; over 8 inches registered in less than four hours.

13th to 17th January.—A tropical disturbance approached the coast, and caused heavy gale conditions south from Townsville, also very heavy rain, especially heavy on and near the coast between the Tropic and Wide Bay. Shipping delayed; railway traffic interrupted; record flood at Baffle Creek, near Rosedale. Maximum 24-hour totals—Mackay, 710 points to 9 a.m. 13th; Yeppoon, 800 to 9 a.m. 14th; Keppel Bay, 667; Bustard Head, 913 to 9 a.m. 15th; Rosedale 1890, Pialba 1721, Bundaberg 1664, Gin Gin 1227, Howard 1133, Bustard 1102, Maryborough, 931 to 9 a.m. 16th; Miriam Vale 1580, Bustard Head 1493, Rosedale 1364, Bundaberg 1427, Childers 930 to 9 a.m. 17th; Gladstone 1033, Miriam Vale 800, and Port Alma 728 to 9 a.m. 18th.

20th January.—Warwick.—One of the heaviest storms ever experienced in the Freestone district occurred, and 410 points of rain fell in an hour.

22nd–23rd January.—A very marked monsoonal disturbance crossed the Peninsula, and caused heavy rain, also severe gale conditions between the Strait and Cardwell; 504 points recorded at Fairview, 715 at Cooktown, and 443 at Kuranda, during 24 hours to 9 a.m. 23rd. Washaway near Cooktown; water more than 2 feet over rails at Babinda; trains blocked at Aloomba.

29th–31st January.—A terrific tropical disturbance struck the coast between Cooktown and Cardwell during evening of 29th. Torrential rainfall; 820 points recorded at Innisfail to 9 a.m. 30th; 2091 at Innisfail, 1669 at Atherton, 1400 at Herberton, and 1394 at Cairns to 9 a.m. 31st. (See Floods and Windstorms.)

3rd February.—Cloncurry.—Heavy rain; train derailed between Selwyn and Duchess through subsidence caused by rain.

8th–17th February.—Widespread and beneficial rain occurred over the entire State, associated with the passage of a monsoonal disturbance from Cambridge Gulf through the Northern Territory, and along the western border of Queensland to South Australia. Floods in rivers in the inland parts of Northern and Central divisions.

19th February.—Aramac.—Tremendous rain and wind storm to the east of the town in the night; 160 points recorded at Aramac woolshed, and 150 at Politic.

22nd February.—Innisfail.—860 points of rain in 24 hours.

24th February.—Charleville district.—Heavy thunderstorm at Wagoning Station; 500 points of rain in 40 minutes.

21st–28th February.—General rain, due to two tropical storms. Very heavy fall between Mackay and Broad Sound on 26th and 27th. 2775 points at Sarina during 24 hours to 9 a.m. 26th; 1223 points at Sarina, and 1100 at Eton to 9 a.m. 27th. Very heavy rain also in Central districts; 530 points at Muttaborra, and 812 at Culloden for 24 hours to 9 a.m. 27th. Severe floods in Thompson, Barcoo, and other inland rivers.

7th–8th March.—Musgrave, 812; Atherton, 756; and Herberton, 520 points for 24 hours to 9 a.m. 8th.

17th–18th March.—Cardwell 960 points for 24 hours to 9 a.m. 17th; Innisfail 580 points to 9 a.m. 18th.

21st and 22nd March.—Heavy rain in the west and on the Downs.

24th March.—Cape York.—Thunderstorm and very heavy rain; 708 points during 24 hours ended 9 a.m. 24th.

29th–31st March.—Very heavy rain in Torres Strait; 846 points at Thursday Island during 48 hours ended 9 a.m. 31st.

4th to 6th April.—Two tropical disturbances, one from the Gulf and the other from the ocean to the north-east, joined over the eastern parts of central region, moved on a S.E. course, and passed over the extreme south-east on night of the 5th. Heavy rain fell on coast south from Townsville with strong S.E. to E. gales; whilst general rain occurred over central, far south-western, Warrego, Maranoa, and Darling Downs divisions; very heavy in Central division, and fairly heavy over southern mid-interior district.

Heaviest 24-hour totals:—Cape Bowling Green 589 points, Ayr 506, Inkerman 420, Walkerston 375, Townsville 396, Bowen 384, Mackay 383, to 9 a.m. 4th; Ingham 540, Jereena 343, Holmleigh 342, Muttaborra 292, Aramac 565, Jericho 347, Sandy Cape 275, to 9 a.m. 5th; St. George 279, Dirranbandi 254, Surat 272, Bollon 234, Tewantin 552, Cooroy 472, Yandina 530, Nambour 642, Mapleton 560, Landsborough 646, Petrie 476, Dunwich 586, Nudgee 450, Nerang 520, Tallebudgera 480, to 9 a.m. 6th.

9th to 11th April.—Heavy rain and severe gale conditions on coast south of Sandy Cape; 24-hour totals:—Tewantin 361, Woombye 310, Beenleigh 400, Nerang 354, and Tallebudgera 312 points to 9 a.m. 10th; Mapleton 483, Kenilworth 428, Eumundi 403, Cooroy 500, and Cooran 440 points to 9 a.m. 11th.

1st and 2nd May.—Heavy rain in the north. Totals to 9 a.m., 2nd—6.32 Flying Fish Point, 651 Kuranda, and 672 Innisfail.

9th–14th May.—Very beneficial rain occurred during the passage of a tropical disturbance from Mackay district to south-eastern Queensland, especially over Maranoa, northern Darling Downs, and southern South Coast divisions. Heaviest 24-hour totals ranged from 156 points at Mitchell to 360 at Rocklea.

22nd–24th May.—A monsoonal depression brought very beneficial rain over practically the whole of the south-eastern quadrant. Heaviest 48-hour totals ranged from 146 points at Roma to 485 at Childers.

29th May.—240 points of rain at Cape Moreton, and 220 at Cowan Cowan during 24 hours ended 9 a.m. 29th.

21st June.—A pronounced depression which formed between Townsville and Emerald, and moved rapidly towards the south-east, caused heavy rain throughout South Coast and Darling Downs divisions. Heaviest totals:—Bowen 406, Caloundra 320, Redcliffe 340, South Passage 388, Cleveland 348, Boonah 305, Ernest Junction 472, Tallebudgera 320, Allora 385, Emu Vale 308, Jondaryan 292, and Toowoomba 341 points.

24th–28th July.—A tropical disturbance of moderate intensity passed along the sub-tropical coast, and caused rain over the greater part of the south-eastern quadrant, especially southern half of South Coast division. Maximum amounts recorded in 48 hours:—Cowan Cowan 562, Tallebudgera 500, Nambour 486, Oxenford 423, and Sandy Cape 294 points.

26th and 27th September.—Monsoonal and antarctic influences (chiefly former) caused general rain over greater part of the Central and Southern divisions. The majority of falls in the South Coast division exceeded 100 points, while 457 points were recorded at Kenilworth. On the Downs the fall ranged from 31 points at

Goondiwindi to 225 at Killarney, and all apprehensions regarding the prospect of a good wheat harvest were set at rest.

25th–29th October.—Combined monsoonal and antarctic depressions caused thunderstorms and fairly general rain in North-West, Central, Southern, and South-Eastern districts, including the Far South-West. Very beneficial falls occurred in Warrego, Maranoa, Darling Downs, and southern South Coast divisions.

9th–12th December.—First beneficial thunderstorm spell of season affected most parts of the State east from a line joining Burketown and Hebel.

16th–22nd December.—Two monsoonal depressions moved across the State, and brought general and beneficial rain.

27th–31st December.—A tropical disturbance caused torrential rains over and near Torres Strait. Heaviest 24-hour totals :—Thursday Island 458, McDonnell 413, and Cape York 336 points to 9 a.m. 28th; Coen 278, Mein 594, Musgrave 507, Thursday Island 210 to 9 a.m. 29th; Musgrave 1137, Cooktown 693, Kuranda 545, Port Douglas 422 to 9 a.m. 30th; Coen 616, McDonnell 567, Mein 382, and Port Douglas 391 points to 9 a.m. 31st.

SHOWER OF ASHES.

1888.

10th April.—Brisbane.—News received that s.s. *Gympie* encountered a blinding shower of ashes, lasting two hours, near Thursday Island.

SNOW.

1874.

2nd October.—Great storms of wind, hail, rain, and snow occurred at and near Stanthorpe on 2nd, 3rd, and 4th October.

1882.

27th July.—Snow fell at Toowoomba, Warwick, and Stanthorpe; very slight fall observed by several people at Woolloongabba.

1888.

14th July.—Wallangarra—Snow fell in morning.

14th July.—Stanthorpe—Small flakes of snow in morning.

14th July.—Brisbane, July 17th—Severe cold weather and snow on the southern border. Passengers who travelled from Sydney and Brisbane at the end of last week state that prior to reaching Glen Innes (N.S.W.), the train passed through nearly 160 miles of country which was entirely hidden by snow, houses, fences, yards, &c., being covered. One passenger who had driven 18 miles across country to join the train reported that the snow lay 18 inches deep in places.

1889.

12th July.—Warwick—Slight fall of snow on the outskirts of town in early morning; intensely cold weather.

1895.

20th July.—Snow at Wallangarra and Dalveen. A local correspondent at Wallangarra wrote :—“A heavy fall of snow occurred during Saturday night (20th). On Sunday morning some inches of snow covered the ground, all buildings, trees, and fences. I have not seen so much snow at any time during the past 24 years.”

21st July.—Stanthorpe—Snowstorms during Sunday night (21st), and snow fell to a depth of 3 inches; coldest winter ever experienced. Ballandine and other places near the border also reported heavy falls of snow. A report from Toowoomba stated

—“Yesterday (21st) was one of the coldest days experienced this year, and snow fell about 8 miles on the Queensland side of the border.”

1896.

22nd June.—Dalveen—Heavy fall of snow during night.

22nd June.—Stanthorpe—Snow fell in most parts of the district.

21st–22nd July.—Stanthorpe—Heaviest fall of snow ever experienced in the district occurred during night of 21st and morning of 22nd. The fall began at 10 p.m. 21st, and ceased about 7 a.m. 22nd. In some places the snow was several inches deep.

22nd July.—Snow reported from Dalveen, Stanthorpe, Glenmore, Wallangarra, and the Toowoomba district. In the western portion of the Dalveen district, the snow on the ground was several inches deep.

22nd July.—Extracts from a letter by Jos. Johnson, Esq., State School, Sugarloaf (7 miles from, and some 400 feet higher than Stanthorpe) published in *Brisbane Courier* 25th July, 1896 :—

“ Snow 3 inches deep on the ground. Only once in the course of more than twenty years acquaintance with the neighbourhood have I found anything approaching the present severity, and that was in July last year, when more than 2 inches of snow lay on the ground I was informed, however, by a very old resident that some 30 years ago he saw snow lie for three days. ”

1897.

23rd July.—Toowoomba, 2.15 p.m.—Sleet and light snow fell for about ten minutes, and was followed by a heavy fall of snow which lasted about half an hour. When the fall ceased, streets, houses, trees, and fences, also Tick Hill and other portions of the range, were covered with snow. The night was one of the coldest experienced for years. A light fall of snow took place at Toowoomba many years ago.

23rd July.—Pittsworth.—Storm of sleet and hail experienced from 1 to 2 p.m., when snow fell for about fifteen minutes.

1898.

23rd July.—Heavy fall of snow at Toowoomba.

1899.

12th–13th June.—Heavy falls of snow during night of 12th and morning of 13th at Stanthorpe, and on parts of the highlands of New South Wales. Light falls of snow at Wallangarra, Toowoomba, and Dulong, also on the mountains at the head of Swan Creek. The fall at Stanthorpe was, it was stated, quite as heavy as the record one of three years ago.

3rd July.—Light fall of snow at Dalveen.

9th July.—Heavy fall of snow at Cunnamulla.

1900.

5th July.—Dalveen—Snow fell during the morning.

6th July.—Very cold throughout southern half of the State, especially in the south-east. Snowfalls reported from places on the Darling Downs, and it was snowing at 9 a.m. at Dalveen, Stanthorpe, and Wallangarra. Two light falls of snow occurred in the morning on a part of Middle Ridge, Toowoomba, but none fell in the town.

1901.

20th June.—Wallangarra—Light fall of snow.

28th and 29th July.—Snow on 28th at Killarney, Yangan, Charleville, Stanthorpe, Warwick, Toowoomba, Highfield, Dalby, Pittsworth, Longreach, and Winton, and further (but light) falls during early morning of 29th in eastern parts of the Darling Downs. The snowfall was general over the Darling Downs and south-eastern border districts, and was the heaviest ever experienced on the Downs.

1907.

16th June.—Glen Innes district (N.S.W.)—A slight fall of snow occurred in evening.

1910.

July.—Snow fell at Dalveen, Wallangarra, and other places.

THUNDER AND LIGHTNING.

1860.

November.—Brisbane.—Thunder and lightning at night frequently observed during the two closing weeks of the month.

December.—Brisbane.—Thunder and lightning frequently observed in the evenings.

1861.

January.—Brisbane.—Thunder and lightning frequently observed at night.

February.—Brisbane.—As in January, thunder and lightning occurred frequently at night, with showers.

18th October.—Heavy thunder and hail storms at Brisbane. Morning warm and misty, afternoon very hot, white cumulus clouds rising. Storm commenced at 5 p.m., and hail fell at 5.30. Strong wind from east backing to south. Thunder loud. The hail was followed by heavy rain, which lasted an hour, 1.45 inches being recorded. Barometer showed little change. Storm very severe about the same time at Ipswich, Gatton, Toowoomba, and Warwick.

November.—Brisbane.—Thunder and lightning frequent at night, accompanied by showers.

December.—Brisbane.—Much lightning at night. Oppressive weather, heavy clouds, and frequent showers.

25th December (about).—One of the men on Jingi Jingtation (near Dalby) was killed by lightning during the severe thunderstorms which occurred about the 25th.

1862.

22nd January.—Brisbane.—A severe storm, which came from the south-west, occurred on the evening of the 22nd. Heavy rain, loud thunder, and vivid lightning.

27th January (about).—Man paralyzed by lightning near Gladstone.

February.—Brisbane.—Lightning observed on several evenings, but unaccompanied by thunder or storms.

March.—Brisbane.—During last week of month electricity negative, with overcast weather, heavy rain, and frequent lightning at night.

2nd March (about).—Ipswich.—Man struck by lightning whilst sleeping under a tree.

April.—Brisbane.—Lightning on nights of 11th, 16th, 17th, 23rd, 29th, and 30th.

25th May.—Thunderstorm with much lightning passed over Brisbane and the Downs during the evening, and night; very severe at Toowoomba and Warwick.

May.—Brisbane.—Lightning at night. On 25th a severe storm occurred at Toowoomba and Warwick.

June.—Brisbane.—Storm from south-west on afternoon of the 22nd; strong wind, thunder, lightning, and heavy rain.

7th July.—Brisbane.—A storm of more than ordinary severity passed over Brisbane during the morning. The lightning and thunder followed each other in rapid succession until about 11 o'clock, when a flash, more vivid than any of its predecessors, was followed by a terrific peal of thunder. A house was struck by lightning, but no extensive damage was done.

July.—Brisbane.—Occasional lightning at night.

11th September.—Ipswich.—Heavy thunderstorm in the morning. The thunder rolled peal upon peal, accompanied by flashes

of vivid lightning, and a smart shower. The storm passed away to the north-east.

28th September.—Ipswich.—Thunderstorm broke over the town. Man struck dead by lightning while passing through the Peak Mountain Station; telegraph instruments damaged. Similar storm at Tenterfield.

September.—Brisbane.—Frequent lightning at night.

28th October.—Ipswich.—A young man travelling along the Warwick-road was struck dead, near the Mount Flinders Station, by lightning. His body was mangled, and his clothes torn to shreds.

October.—Brisbane.—Frequent lightning at night.

November.—Brisbane.—Thunder and lightning frequent at night.

December.—Brisbane.—Thunder and lightning frequent.

13th December.—Toowoomba.—House struck by lightning and slightly damaged.

14th December.—Toowoomba.—Terrific thunderstorm, lightning frightfully vivid and crashes of thunder quite deafening. Post Office struck by lightning but no damage sustained. Several trees struck, and some cattle killed by the lightning.

1863.

20th February.—Gayndah.—Thunder clouds over the district all the week; on the 20th, 150 hoggets were destroyed by lightning on the Ideraway run.

February.—Brisbane.—Much thunder and lightning.

June.—Brisbane.—Lightning frequent.

September.—Brisbane.—Heavy thunderstorm on the morning of the 3rd.

11th December.—Brisbane.—Lightning, chain, forked, and sheet, at short intervals.

1864.

22nd October.—Brisbane.—Working of telegraph lines interrupted owing to heavy thunder storms.

8th November—

Toowoomba.—A violent thunderstorm, accompanied by heavy rain occurred. The lightning was vivid and, for a time, very dangerous.

Warwick.—The Roman Catholic Chapel was struck by lightning and slightly damaged; whilst a tree in the police paddock was shivered into atoms.

24th November.—Brisbane.—No telegraph messages were transmitted owing to severe thunderstorms on the New South Wales and Queensland lines.

16th December.—Talgai Gold Fields.—One or two thunderstorms occurred during the week, which delayed the harvest.

19th December.—A violent thunderstorm occurred at Toowoomba. Man killed by lightning, which was extremely close and vivid.

1865.

6th January.—Brisbane.—Vivid lightning and heavy thunder; lightning partially destroyed stables at Four-mile Swamp, South Brisbane.

3rd December.—Warwick.—Thunderstorm; loud thunder and vivid lightning.

9th December.—Gin Gin.—During a heavy storm a valuable imported horse was struck by lightning and killed instantly.

16th December.—Gayndah.—Thunderstorm occurred. Towards Mundubbera the storm was terrific, and lightning did a great amount of damage to trees.

17th December.—A thunderstorm burst with fearful effect at the German Station (Brisbane). The lightning did a great deal of damage to various houses, and completely destroyed one house and its contents.

1866.

29th March.—Warwick.—Several bullocks killed by lightning, and a large tree shivered to splinters.

27th October.—Upper Mary.—Very severe thunderstorm ; lightning very dazzling.

8th November.—Clermont.—Tremendous wind and thunderstorm ; only few drops of rain fell.

9th November—

Brisbane.—Very heavy thunderstorm ; lightning very vivid and continuous ; thunder very loud. A house was struck by lightning but the damage was only trifling. Copious showers fell.

Ipswich.—A most violent storm broke over the town and caused considerable damage. Two houses were struck by the lightning, which was extremely vivid, and the Episcopalian Church was damaged.

A heavy thunderstorm passed over Dalby ; lightning very vivid ; rain lasted about two hours.

12th November.—Oxley Creek.—Thunderstorms of frequent occurrence ; some very violent in character ; very little rain.

23rd and 24th November.—Warwick.—Several heavy thunderstorms.

27th November (about).—Thunder and lightning terrific in Belyando district.

31st November.—Warwick.—One of the most violent thunderstorms ever experienced, occurred at about 1.45 p.m. The lightning was very vivid and thunder loud. A fierce storm of wind and rain followed.

1867.

7th February.—A tremendous storm occurred about 4 miles from Roma. Very vivid lightning and loud thunder ; trees shivered into splinters by lightning.

1868.

11th January—

Toowoomba.—Horse killed by lightning.

Ipswich.—Heavy thunder and vivid lightning. The lightning struck a large gum tree in Grammar School grounds and scattered fragments in all directions.

28th February.—Nashville.—Lightning struck a bullock-dray, ran along the yokes and chains, released the main chain and set the whole team of bullocks free.

17th and 18th August.—The masters of several vessels from the South reported that phenomenal displays of atmospheric electricity took place on the nights of 17th and 18th. When the schooner *Urania* was off Crowdy Head, about midnight on 17th, a heavy S.W. squall came on, and at 12.30 a.m. 18th, a "ball of fire" fell immediately over the vessel's stern, and exploded with a loud report. The steersman was killed by the shock ; his body showed no marks but appeared to be blackened. The flash that followed the explosion was so intensely brilliant, that the steward, who was lying in his berth below, declared he saw it through the seams of the deck. At the same moment the cabin was filled with smoke, which blackened papers that were lying about.

Captain Millman of the *Lady Young* reported that about 1 a.m. on 17th, whilst on a trip to Sydney, a "fire ball" was observed passing ahead of the ship. It was apparently so close that the officer of the watch altered his course to avoid it. When it burst the whole heavens seemed for the moment to be a blaze of light, and at the same time there was terrific thunder. Lightning and thunder continued at intervals throughout the night, and next day (18th) until about 8.30 when the weather cleared up.

25th October.—Rockhampton.—Heavy thunderstorm from the south ; lightning very vivid, accompanied by sharp claps of thunder almost deafening in their effect.

6th November.—Tingalpa.—A severe thunderstorm occurred on 6th, and lasted for some time ; some of the lightning flashes were remarkably vivid.

9th November.—Ipswich.—Very heavy thunderstorm during the afternoon ; a boy killed, and two houses destroyed by lightning.

17th December.—Brisbane.—A thunderstorm passed over Brisbane a few minutes before 1 a.m. ; the lightning was extremely vivid, and the flashes succeeded one another with remarkable rapidity.

1869.

22nd January.—Jimna.—Exceptionally loud, rattling thunder and vivid lightning occurred during the passage of a storm.

10th February—

Brisbane.—The past week was marked by a succession of thunderstorms which occurred with remarkable regularity every evening ; very vivid lightning at times.

Toowoomba.—Furious thunder and wind storm ; most vivid flashes of lightning, followed, for a considerable time, by peal after peal of thunder. (See Windstorms.)

5th March.—Warwick.—One of the heaviest thunderstorms experienced in the district occurred ; terrific thunder and lightning.

10th October.—Brisbane.—Thunderstorm accompanied by very vivid lightning occurred during the evening.

16th October.—Donnybrook.—Mitchell.—Thunderstorm, accompanied by a deluge of rain, and vivid and startling lightning passed over the town. Lightning flashed in all directions. It broke down several large trees on the banks of the river, and killed a calf at Camp Creek.

3rd and 4th December.—Wide Bay and Burnett districts.—Thunderstorm, considered the most violent experienced in the district, occurred ; continuous roll of thunder and incessant lightning for twelve hours ; rain and hail fell in sheets, and wind blew with hurricane force. (See Rainfall (Heavy) .)

10th December.—Gilberton.—Very severe lightning and heavy thunder ; many trees struck by lightning.

17th December.—Brisbane.—Thunderstorm in evening ; lightning peculiarly brilliant, and of a ribbon-like character.

31st December.—The Calliope.—Terrific thunderstorm ; the lightning was very vivid and struck several trees in the vicinity. One tree (a twisted iron-bark) was denuded of every bit of bark, and split in the direction of the grain, like a cork-screw.

1870.

15th January.—Toowoomba.—A terrific thunderstorm passed over the district in the evening. A man who took shelter under a tree was killed by lightning.

1871.

12th April.—Sandgate.—A very heavy thunderstorm passed over the town. Lightning struck a house, split the rafters, and set the roof on fire ; whilst some fowls that took shelter under the house were killed.

30th September.—Brookfield.—A great many trees struck by lightning during a storm.

26th November.—Ipswich.—During a thunderstorm two boys were struck by lightning and died shortly afterwards.

1872.

22nd January.—Condamine.—Thunderstorms of almost daily occurrence ; no rain.

26th November.—A heavy thunderstorm occurred at Stanthorpe ; no rain fell.

1875.

17th October.—Brisbane.—A thunderstorm of more than ordinary violence occurred, and lasted two hours ; lightning—sometimes very near—was startlingly vivid, and the peals of thunder almost deafening. A wooden house was struck by lightning and considerably damaged. Telegraphic communication interrupted for a time. A strong westerly wind, which blew at times with hurricane force, followed ; trees blown across the roads.

1876.

6th January.—Terrific thunderstorm at Warwick.

17th January.—Man killed by lightning at Victoria Park, Brisbane.

18th January.—Severe thunderstorm at Gladstone.
 22nd January.—A very severe storm of hail, thunder, lightning and wind at Brisbane; much property destroyed.
 18th, 24th, and 25th October.—Severe storms of thunder and lightning in Brisbane; one person killed, several others injured.
 Terrible storm of thunder, lightning and hail at Toowoomba and Warwick also on the 25th.

1877.

19th November.—Great thunderstorm at Warwick, Gympie, and other places. A girl killed by lightning.

21st November.—Severe thunderstorms in the northern districts.

22nd November.—Very heavy thunderstorm at Brisbane. A man killed by lightning.

27th November.—Cattle Creek—Residence of schoolmaster struck by lightning and considerably damaged; servant wounded in the head; two cats found dead under the house with zig-zag marks on their bodies.

31st December—Brisbane.—Year closed with a storm of thunder and lightning.

1878.

25th February.—Severe storm passed over Brisbane. A house in South Brisbane struck by lightning.

16th August—Brisbane.—Severe thunderstorms.

26th September.—Severe thunderstorm at Brisbane. Man killed by lightning at Kangaroo Point.

27th September.—Severe thunderstorm at Aramac, with destructive results.

26th October.—Severe storm at Brisbane. A house in Gregory-terrace struck by lightning.

1879.

23rd January.—Terrific thunderstorm passed over Brisbane and adjacent towns. The Wesleyan Church at Paddington was struck by lightning and burnt down.

21st February.—Heavy thunderstorm at Brisbane, during which there was an unprecedentedly magnificent rainbow, followed by a most gorgeous sunset.

24th June.—Wind storm, accompanied by thunder and lightning, at Brisbane.

26th November.—Furious gale at Townsville, with heavy thunder and lightning, much damage done.

1880.

28th November.—Severe storm of wind, lightning, and rain at Brisbane.

1883.

12th January.—A terrific thunder and wind storm lasting nearly an hour passed over Goondiwindi. Houses were unroofed, trees uprooted, and gardens destroyed.

28th January.—Heavy storm passed over Toowoomba. Houses were struck by lightning, and sheep killed by hailstones, some of which measured 3 by 2 inches.

1884.

12th January.—During a severe thunderstorm a ball of fire descended and burst in the courtyard of the Supreme Court, Brisbane.

31st December.—A man and his horse killed by lightning at Warwick.

1885.

14th November.—During a storm near Roma, four men were struck by lightning, and one was killed.

1886.

1st February.—Two men, 500 feet below the surface in the Day Dawn Mine, Charters Towers, struck insensible by lightning.

1887.

20th September.—Burnett Heads—A heavy thunder and lightning storm occurred. The lightning shattered one telegraph pole, and splintered three others.

1888.

21st January.—Telegraph Office near Bowen wrecked by a thunderbolt.

4th December.—Man killed by lightning near Winton.

20th December.—Two men killed by lightning at Dreghorn.

1889.

28th September.—Longreach Hotel, Brisbane, struck by lightning.

1891.

11th October.—Very severe thunderstorm at Brisbane.

17th November.—Violent thunderstorms on the Darling Downs.

1892.

12th January.—A wedding party at Dalby struck by lightning; and a man and two horses killed.

17th March.—Very severe storm about Brisbane; house struck by lightning and burnt at Bulimba.

30th December.—House struck by lightning at Indooroopilly.

1894.

1st December.—Shop in George-street, Brisbane, struck by lightning during heavy storm.

1900.

17th November.—Royal George Hotel, Fortitude Valley, struck by lightning.

1901.

17th December.—Mr. Bowtell, manager of Clifton Station, and two horses that he was driving were killed by lightning.

1902.

29th October.—Cunnamulla.—Heavy lightning storm passed over the town during the night.

23rd November.—Ipswich.—During a thunderstorm, lightning struck a house and scorched one of the walls.

1903.

11th June.—Townsville—The unusual experience of a thunderstorm in June occurred during the afternoon. The storm came from the north-west, and was accompanied by heavy thunder, which lasted for half an hour. An old resident stated that he had not witnessed a similar phenomenon since 1866. The thunderstorm was followed by a good soaking rainfall.

1907.

17th February.—Heavy thunderstorms in south-eastern Queensland. Man killed by lightning at Thornton, and horse killed at Toowoomba.

1909.

21st February.—Heavy thunderstorms in various parts of Queensland. Lightning killed man and horse at Thargomindah on 19th.

23rd February.—Laidley—Terrific storm occurred at 5 p.m., heaviest thunderclaps and most vivid lightning flashes experienced for some years; some stock killed by lightning in the Lockyer district.

23rd February.—Longreach—Heavy thunderstorm, with very vivid lightning and moderate rainfall, occurred over district during the night; lightning caused bush and grass fires.

24th February.—Heavy thunderstorms in many parts of Queensland.

27th March.—A terrific thunderstorm swept over Bundaberg and district on Saturday night and lasted about an hour; 174 points of rain; streets flooded for some time; very vivid lightning.

28th March.—Heavy thunderstorms at Bundaberg, Pittsworth, and other centres.

30th March.—Mr. H. R. Ashburn, of Locknagar, reported that a severe thunderstorm did considerable damage to station buildings, but that very little rain fell east from Barcaldine.

16th September.—Two severe thunderstorms in Brisbane. Lightning killed three horses and struck a tramcar.

22nd September.—Thunderstorms on coast between Townsville and Brisbane.

29th–31st October.—Capricious thunderstorms with light to moderately heavy rain, strong local blows and in places hail occurred in eastern Darling Downs and south-east coastal regions, associated at first with the passage of the extreme northern penumbra of an Antarctic disturbance and later with the eastward course of a pronounced monsoonal depression from Central Australia.

The Railway Commissioner received information yesterday afternoon (29th) from the guard of the mixed goods and passenger train which left Toowoomba at 1.55 for Roma, that a passenger named E. Potts was struck by lightning during the progress of a storm, when the train was just beyond Jondaryan. He escaped, however, with a severe shock, from the effects of which, it is stated, he is still suffering. A second passenger named Pedley was affected in a lesser degree. It is stated that such an incident has never been previously known in railway history in Queensland.

One of the most terrific dust storms that have been experienced for some years passed over the town of Winton early on Sunday morning, 31st October. The lightning flashes were exceptionally vivid and incessant, and the thunder continuous, resembling a close discharge of artillery. The wind assumed the velocity of a gale and created considerable alarm. Only 22 points of rain fell.

18th November.—Severe thunderstorm at Bald Hills. Presbyterian Church struck by lightning and burnt down.

21st–24th November.—General thunderstorms in south-eastern quadrant with heavy falls of rain in many places, under combined monsoonal and Antarctic influences. Terrific local blows and destructive hail accompanied many of the storms and near Muttaborra a man was struck dead by lightning.

At Cleveland on the 22nd the Anglican Church was struck by lightning and badly damaged.

23rd November.—Man and horse killed by lightning on Dabin out-station, 25 miles from Lake Elphinstone Station.

1910.

19th January.—Harrisville.—A thunderstorm, which proved to be the severest within the memory of residents, broke over the town about 4.40 p.m. on the 19th and lasted for three-quarters of an hour. During that time, to the accompaniment of very vivid and almost incessant thunder and lightning, no less a fall than 371 points of rain fell, and caused a local flood.

21st January.—A terrific storm passed over Aramac at 4 p.m. The wind blew with hurricane force and was accompanied by large hail. Several places unroofed and out-houses blown down. The lightning was most vivid. The rainfall amounted to 101 points.

6th–9th February.—Monsoonal electric disturbances of severe type in south-eastern quarter, and especially extreme south-east.

7th February.—A very heavy thunderstorm broke over Brisbane about 7.30 p.m. and rain fell in torrents for about half-an-hour, accompanied by a strong wind and frequent vivid lightning. Several telegraph lines at Parliament House and elsewhere in the city were fused. The top of a large silky oak tree in the Botanic Gardens was struck by lightning.

26th October.—During a thunder and wind storm the West Ipswich Railway Station collapsed owing to the high wind.

5th December.—Maryborough.—Series of violent thunderstorms; some accompanied by strong wind and heavy rain, and some dry storms—but all characterized by vivid lightning.

1911.

18th January.—Heavy thunderstorms on the Downs.

31st January.—Severe thunderstorm at Longreach.

4th May.—Severe thunderstorms with hail in south-eastern Queensland.

15th–16th October.—Remarkable series of thunderstorms in the South-east from 9 p.m. on 15th till evening of 16th.

2nd December.—Heavy rain with lightning in Brisbane.

5th December.—Six railway workers at Malbon, near Mount Elliot, struck by lightning and one killed.

16th December.—Severe thunderstorms occurred in south-eastern districts. (See Windstorms.)

27th December.—During a storm in the Pelican district, six milking cows were killed by lightning. At Mr. E. Nash's home-stead, a tree was struck close to the house, and members of the family who were on the verandah were temporarily blinded by the flash, and for a time suffered from shock.

1912.

6th January.—Severe thunderstorm at Bowen Downs, 20 trees in one paddock struck by lightning. Correspondent says heaviest lightning experienced during residence of 30 years.

8th January.—Severe thunderstorms on the Downs.

8th January.—Laidley.—A man and two horses were killed by lightning. Only one severe flash was seen by people in the vicinity of the occurrence.

24th January.—Dalby.—Heavy thunder, vivid lightning, and heavy rain.

13th February.—Beaudesert.—A violent storm accompanied by hail, thunder, and vivid lightning, passed over the town and district about 3 p.m. The lower parts of the town were completely flooded. At Nindooimbah and Kerry the fall was particularly heavy. Beaudesert rainfall, 90 points.

14th February.—Lightning killed 22 sheep at Westbourne, near Barcaldine.

29th March.—Heavy thunderstorms in many parts of the State.

14th August.—Thunderstorms with strong wind and some hail on Darling Downs and in south-eastern districts. Heavy thunderstorm in Brisbane during afternoon.

14th October.—Severe thunderstorms, preceded by heavy dust blows, occurred in Darling Downs and south coast divisions. (See Windstorms.)

20th–24th October.—Thunderstorms, and in places hail, in Maranoa, Darling Downs, and south coast divisions.

23rd and 24th October.—Mackay.—Thunder and vivid lightning accompanied the heavy fall of rain. Windows were broken by the thunder, and clothes lines and trees were struck by lightning. During the night of the 24th a flash of lightning struck a gas pipe in the kitchen of a house in Carlyle-street, travelled to the meter, wrenched it from its position, and ignited the gas. The fire was extinguished before much damage was done. The same flash struck a chimney of the next house, but no damage was done.

7th November.—Terrific thunderstorm occurred at Pelican Creek, about 4 miles from Aramac, with the result that the water came down in great force. Hundreds of fish, and also crayfish and shrimps, were washed up on the banks dead. Old identities state that such an incident has never before taken place.

8th November.—Severe monsoonal thunderstorms in the south-eastern districts, especially in the Darling Downs and southern part of South Coast division. At Nevilleton, near Clifton, two men and three horses struck by lightning. The horses were killed and the men were insensible for 40 minutes.

10th November.—Two boys struck by lightning at Aldingham, near Winton—one boy and his horse killed.

23rd November.—Thunderstorms of very severe type. Much damage resulted in metropolis from fierce westerly blow, heavy rain, and lightning.

25th November.—Gladstone—Heavy thunderstorm at 3 p.m. accompanied by a heavy blow, considerable damage done to buildings.

27th November.—On Bingera-road, near Bundaberg, a man and horse were struck by lightning.

7th December.—A heavy thunderstorm in the Marburg district; several trees were struck by lightning.

10th December.—At Sandgate, dazzling continuous lightning, heavy thunder, and hail occurred.

10th December.—Gladstone—Violent thunder and lightning storm in night, which lasted four hours.

11th December.—Severe storms in the south-eastern districts. In the metropolis the storm was accompanied by hail of unusual size; Brisbane General Hospital struck by lightning; many windows broken, tanks pierced, and gardens destroyed; building at Queensport unroofed. (See the *Australian Monthly Weather Report* for December, 1912, for full details.)

11th December.—Rockhampton—Stormy conditions; heavy shower with hail, thunder and lightning at 10.30 a.m. Unusually severe thunder showers with lightning and hail during the month.

23rd December.—Mayneside (Longreach district).—During the progress of a storm lightning struck a bough shed at the camp at the gum holes, occupied by an opaller. In addition to the camp, a waggonette and other articles were burnt, and the opaller estimated his loss at about £100.

24th December.—Vergemont (Longreach district).—A terrific storm occurred during the night. The lightning was exceptionally severe; one flash ran along the telephone wires, struck the wall of a house, and set fire to it, but the fire was speedily extinguished. Two gentlemen sitting on the verandah at the time were hurled out of their chairs. About half-an-hour later a large tree close to the house was also struck by lightning and shattered to pieces; 201 points of rain fell in a very short time, and the rain appeared to be heavier towards Mayneside. A big flood occurred in the Vergemont Creek.

24th December.—Nocatunga Station, Thargomindah—A severe storm completely destroyed the store and bachelor's quarters, and the house was struck by lightning. A number of men were in the storm at the time, but none were hurt. 92 points of rain.

28th December.—Winton.—A man was struck dead by lightning during a storm; second case of death by lightning, in the district, within two months.

1913.

6th January (about).—Barcaldine—Very heavy thunderstorms in parts of district. At Arney's Lane three horses were killed by lightning.

10th January.—Roma—Ten valuable dairy cows were killed by lightning during the recent storm.

14th January (about).—Cairns—During a storm in the Mulgrave district, lightning killed four bullocks, and fired 3 acres of cane.

20th January.—Inglewood—Severe storm at Moogoon Station a boy killed, and two men injured by lightning.

6th February.—Waterview, South Grafton—Man struck dead by lightning during a thunderstorm.

C.12734.—K

16th–19th February.—Violent thunderstorms occurred at many places in south-eastern Queensland, notably at Childers and Veresdale on 17th, Harrisville on 18th, and Laidley on 19th. On the last mentioned date a farmer was struck by lightning at Blenheim and killed.

26th–27th September.—Thunder and rain storms over central and southern districts, and at Miles a man was killed by lightning.

TIDAL WAVES.

1865.

26th March.—Rockingham Bay.—Extraordinary high tide occurred.

1866.

March—

Somerset (Extract from Dr. Haran's Reports).—High tides at irregular periods observed this month, when the S.E. winds blew with force for the first time since last October.

April—

Somerset.—High tides, at irregular periods, as usual.

1868.

15th August.—Brisbane.—A very unusual phenomenon occurred in Moreton Bay. Residents of Sandgate state that there were five tides during the day, the waves of which rose somewhat above the level of the highest spring tides, came in rapidly, and almost immediately receded. A boat was floated off the beach at Humpy Bong several hours before it could have floated off under ordinary circumstances. During the previous two or three nights the tides were unusually high. On the night of 16th the water rose within 6 inches of the shed on Harris' wharf. This great rise was all the more remarkable in view of the fact the "King tide" does not usually occur until a day or two after the full or change of the moon, and the moon in this instance did not change until the 18th. The tide was unusually high on the night of 17th also. These unusual tides were supposed to be the result of volcanic action, and it was stated that similar occurrences were reported from Port Jackson.

1877.

13th May.—A great tidal wave on the coast of Australia, affected harbours and rivers to a more or less degree, in conjunction with an earthquake in New Zealand.

1883.

7th February.—The tide at Southport rose higher than ever known before; much damage done to the road to Labrador.

1898.

8th May.—Highest tide ever known at Sandgate.

1908.

January—

Mackay.—King tides prevailed on the 5th, 6th, and 7th; highest for some considerable time.

Goodna.—River normal; at beginning of month water in river was salty, which is unusual.

February—

Tewantin.—Very high tides owing to so many freshes in river.

1911.

12th February.—Townsville:—The strong fresh in Ross River, together with the exceptionally high tide, caused the flooding of the low-lying portions of South Townsville.

WATERSPOUTS.

1867.

3rd April (about).—Oxley Creek.—During a squall, a dense black mass of cloud which hung over the river near the Five-mile Reach, was observed to descend, while at the same time the water of the river was drawn up, forming a waterspout upon a small scale. The phenomenon was accompanied by an extraordinary rushing noise, similar to that which is the precursor of a hailstorm, also by exceedingly heavy rain. The waterspout was observed to follow the upward course of the river for 2 or 3 miles.

1868.

6th December.—Cleveland Bay.—Strange phenomenon in the Bay. An immense body of water, about 20 feet in diameter, rose from the surface of the sea, foaming and dashing and breaking into a thousand fantastic forms, like breakers over some huge unseen rock. It was seen from a distance of 8 or 9 miles.

1872.

18th April (about).—Sandy Cape.—About 7 a.m. clouds began to form to windward, and a small waterspout suddenly hove in sight, and bore directly towards the lighthouse. When it was within a quarter of a mile of the shore, the wind changed to south-east, and the spout travelled off north-eastward until it reached the extremity of the Cape, where it appeared to draw up water and sand. In the meantime, a succession of spouts appeared to the north-east, and as many as nine were in sight at the same time. The spouts commenced with a base of apparently 30 feet, which quickly lessened to a spiral column about a foot in diameter, the end of which appeared to be connected to the clouds. When they broke, the sea was lashed into foam, and large jets of water forced high into the air.

1893.

17th February.—A waterspout seen between Dunwich and Redland Bay.

1910.

14th April.—Brisbane *Daily Mail*, 26th April, 1910.—On arrival of the S.S. *Peregrine* from Sydney yesterday, it was reported that on the last trip from this port to Sydney a remarkable waterspout of gigantic proportions was witnessed off the coast of New South Wales on Thursday afternoon, 14th instant. Captain W. T. C. Firth, the commander of the *Peregrine*, in describing the phenomenon, said:—"As the vessel was approaching Smoky Cape, the weather being fine and clear, a rain cloud appeared to the southward which on nearer approach proved to have three spouts attached. Two were in the shower, and one north of it. The two in the shower did not attain any great proportions, and disappeared after about six minutes. The one outside the shower, and to the north of it, had its apex in a cloud with about $1\frac{1}{2}^{\circ}$ elevation, and it was novel to observe the spout gradually descending towards the sea, where the water immediately under it was gathering into a confused heap, resembling a large coral rock or a condensed body of smoke in motion. As the spout descended into the confused body of water, which had risen about 40 feet or so, it appeared to draw the water still higher and send forth volumes of vapory spray

resembling steam. This continued, varying in shape, for about fifteen minutes, when the spout began to recede and the water beneath to subside. The spectacle was well worth witnessing, as the spout was about 1,500 feet high."

1912.

26th November.—Waterspout seen off Flat Top Island.

WINDSTORMS (HURRICANES, CYCLONES, HEAVY GALES, ETC.)

Tropical cyclones or hurricanes on the Queensland coast occur most frequently between the months of January and April, but occasionally they may appear as late as June.

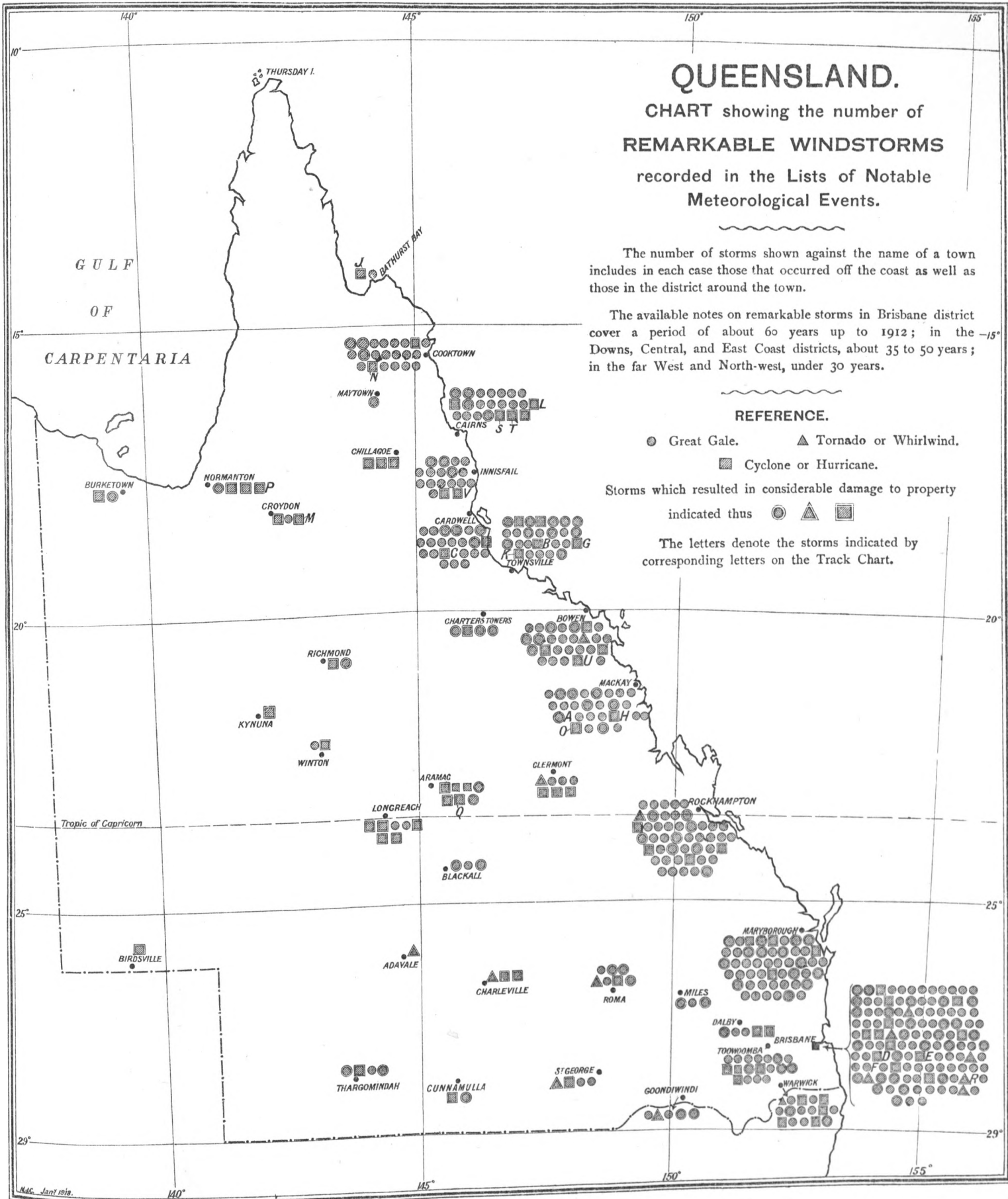
These storms appear to originate in the South Seas in latitude 8° or 10° south. They all take a parabolic course, and almost invariably strike the coast between 15° and 20° south latitude, in which zone they exhibit their most violent phases, but they not infrequently first present themselves as far south as Brisbane, travelling thence down the east coast as far as Sydney, and finally passing off into the Tasman Sea.

Many storms do not, however, cross the Barrier Reef, but recurve at some distance from the seaboard, and take a course very similar to those that reach the coast.

The rain from the storms is in all cases very heavy over the coastal and highland areas over which their influence extends.

The Admiralty Hydrographic Office, in 1897, published the following remarks and advice concerning tropical hurricanes on the Queensland coast:—

Tropical hurricanes on the coast of Queensland may be expected during the summer months, namely, December, January, February, March, and the early part of April. These storms appear to originate between latitudes 8° to 12° S., and between the meridians of 155° E. and 170° W. On reaching the Queensland coast they may strike the land at any point between latitudes 12° and 26° —that is, between Cape Grenville and Wide Bay. To the southward of latitude 26° S. these storms break up into heavy gales. If, during the summer months, and the early part of April, a heavy swell sets in from north-east, and there is little or no wind at the time, bad weather is certain, for the sea always is in advance of a cyclone. With the glass steadily falling, heavy rains, and murky sky, winds between south-south-east and east, a cyclone may be expected. These storms may extend some distance inland, but their centres do not often pass the coastal ranges, which appear to repel them, and they usually emerge from the coast between Broadsound and Cape Moreton. If the barometer is high over a considerable portion of the coast, the storm will recurve some distance off the land, and the wind will be from south-east to south. If, on the contrary, the barometer is low in front of the storm, it will blow home on the land as far as the coast range, and cause floods. When this happens the first of the gale will be southerly, the latter part northerly. The bearing of the storm centre will be at right angles with the waves line. Thus, on a fine day if there is a heavier sea than usual breaking on the beach, and it is coming from the north-east, if the direction remains the same or nearly so, and the barometer is not above 30 inches, the gale will blow home on the land, and the first signs of bad weather will not precede the gale by more than twelve hours, but if the direction of the swell changes to the eastward the storm is recurring, and the body of it will not reach the land. When the swell is from the east the storm centre is past; when there is any southing in the line of the swell the storm has passed. No matter how



QUEENSLAND.

CHART showing the number of
REMARKABLE WINDSTORMS
 recorded in the Lists of Notable
 Meteorological Events.

The number of storms shown against the name of a town includes in each case those that occurred off the coast as well as those in the district around the town.

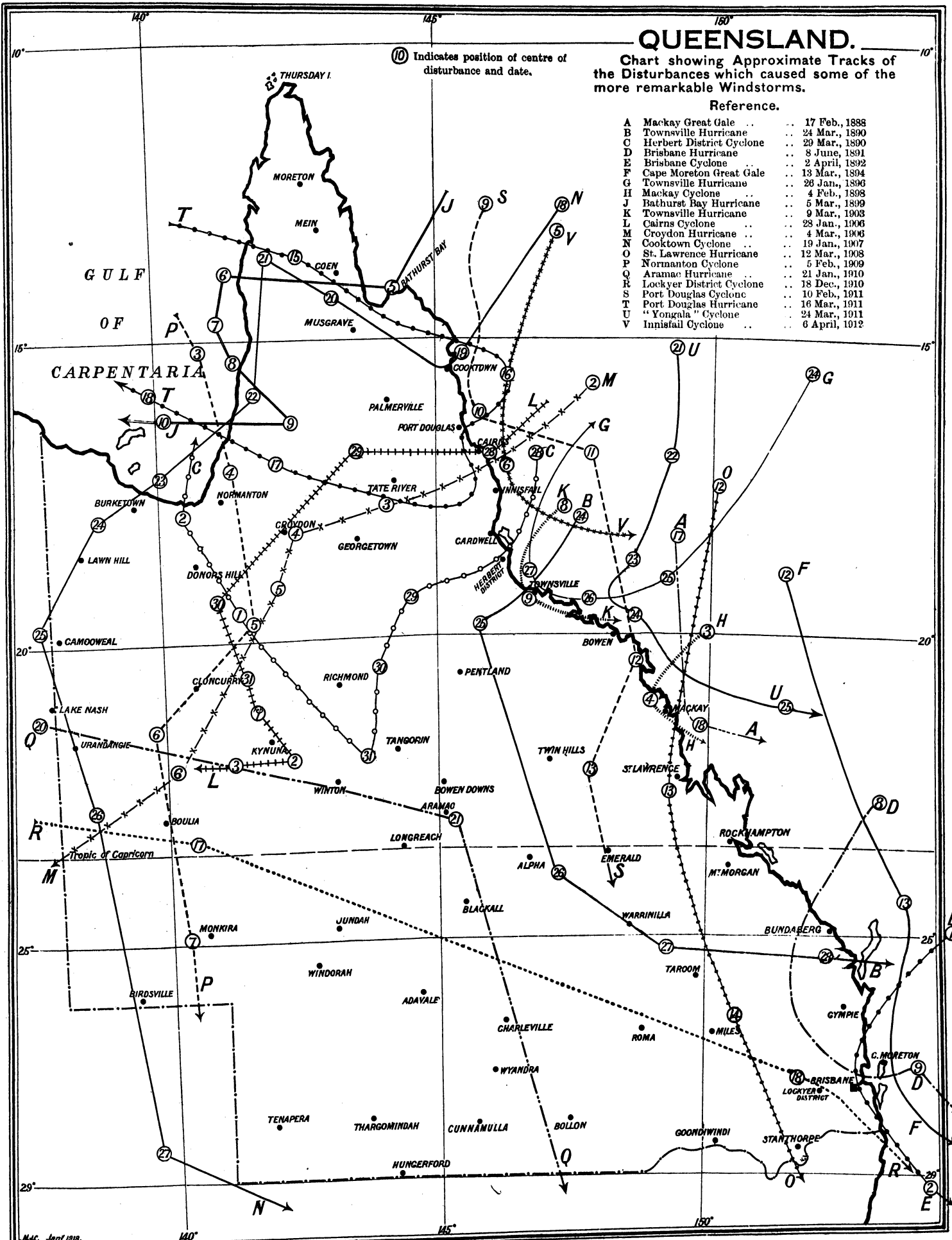
The available notes on remarkable storms in Brisbane district cover a period of about 60 years up to 1912; in the Downs, Central, and East Coast districts, about 35 to 50 years; in the far West and North-west, under 30 years.

REFERENCE.

- Great Gale. ▲ Tornado or Whirlwind.
- Cyclone or Hurricane.

Storms which resulted in considerable damage to property indicated thus ● ▲ ■

The letters denote the storms indicated by corresponding letters on the Track Chart.



threatening the weather signs may be, if the line of swell comes first from the southward, there will be only an ordinary south polar storm, with a low temperature.*

1861.

27th April.—During the afternoon a terrific squall passed over the Pilot Station at Moreton Island. It came from the S.S.W. and did much damage. Several buildings were unroofed, and trees were torn up by the roots.

1862.

24th to 28th February.—Severe wind storm at Prudhoe Island.

29th to 30th March.—Rockhampton.—A hard gale prevailed from the S.E. (See Rainfall (Heavy), also Floods.)

9th April.—Reference made in notes for 9th April (Pugh's Almanac) to tempestuous weather on coast between Sydney and Brisbane.

16th June.—Rockhampton.—Strong S.E. gale.

11th July.—The *Ben Bolt* hove to for 12 hours off Cape Manifold during a gale from the south-west.

19th July.—Low Bluff, near Laguna Bay.—Strong south and south-east winds. Owing to the strong tide and winds, the *Kirkdale* was driven ashore about 15 miles south of Low Bluff, and almost broken up by the force of the breakers.

24th July.—Brisbane.—A perfect hurricane occurred soon after 6 p.m. and lasted for more than half an hour. A few heavy drops of rain fell but not sufficient to lay the dust clouds which filled the air. The wind came from the west, and south-west and blew at intervals with great fury. Several houses were stripped of a good many of their shingles. During the storm a man on one of the ships in the Bay was swept overboard and drowned. The high winds and dust of the previous few days did a great deal of damage to the property of storekeepers in the main thoroughfares.

5th to 11th August.—The ship *Uncle Tom* arrived off Cape Moreton Light on the 5th and experienced a succession of strong westerly gales, accompanied by a rapid northerly current which drove it a considerable distance off the land. On the 11th when eight miles S. by E. of Cape Moreton the wind increased to a heavy gale from the N.N.W. during which the vessel laboured very heavily, and her fore top-gallant mast together with the top-mast was carried away.

24th to 26th August.—Gladstone.—Blowing very heavily; the *Policeman* from Port Denison to Sydney at anchor about a mile out, weatherbound for the time.

28th August.—Strong continuous gale from the south-east set in between Maryborough and Brisbane.

23rd September.—Vessel caught in equinoctial gales near the Solitary Islands (N.S.W. coast). The gales continued, and after arriving off Point Look-out, the vessel had twice to put back as far as Cape Byron.

3rd to 5th October.—The schooner *Fanny* left Sydney on the 2nd and experienced light easterly winds as far as Port Stephens; thence strong south and south-easterly gales to Cape Moreton.

10th and 11th October.—Gales along the coast from Clarence Head to Cape Moreton.

October.—Banana, 15th October.—A very severe whirlwind passed close to the town a few days ago. Its course through the

bush was marked by fragments of boughs and branches, and partly uprooted trees.

15th to 27th November.—Violent gales from the north and north-east, accompanied by a rapid adverse current, prevailed on the New South Wales and south-east Queensland coast. On the 19th the *Golden Spring* experienced a more than usually heavy gale and several sails were blown away.

15th December.—Brisbane.—Strong south-westerly gale.

1863.

24th January.—Rockhampton.—Heavy gale accompanied by rain occurred in the night; tents riven to rags or completely carried away.

24th and 25th January.—Gladstone.—Terrific wind.

24th to 26th January.—Heavy gale from E.N.E. at Brisbane.

6th February.—Gayndah.—One of the severest storms experienced in the district occurred, preceded by a fall of the barometer of nearly an inch in the course of a few hours. Rain fell in torrents, accompanied by a fierce wind. The storm was at its height about 8 p.m. Houses were unroofed, and trees levelled with the ground. Several persons sustained severe losses.

9th to 19th February.—Maryborough.—Very tempestuous weather experienced in the district during the past ten days. About the 9th strong south-east winds prevailed accompanied by copious rain. Wind increased in force on night of 12th and uprooted numbers of trees. During the night of 13th the wind rose to almost hurricane force and further heavy rain fell. Steamers experienced very rough weather at sea. On the 14th, 15th and 16th squalls accompanied by thunder occurred. A gale raged also at Wide Bay on the 13th.

11th and 13th February.—Heavy gales along Queensland coast.

13th February.—Brisbane.—Violent gale in the bay.

19th February.—Fearful gales on coast; floods throughout country.

21st February.—Warwick.—A tornado, and great deluge of rain occurred during the afternoon.

26th and 27th February.—Gayndah.—Furious wind accompanied by rain. Great damage done on the night of the 27th; large ironbark tree uprooted; canvas house torn to shreds; zinc roofs torn off, and fencing blown down. (See Floods.)

18th March.—Rockhampton.—Much damage done to shipping in Keppel Bay by gales.

20th March.—Heavy gale which did great damage on the coast and caused, in some cases, loss of life.

17th and 18th October.—Brisbane.—A very heavy storm occurred on the 17th, followed by a gale on the 18th.

18th October.—Gayndah.—A very heavy storm passed over during early morning; but no damage reported.

8th November.—Dalby.—Severe storm of wind and rain; several cottages unroofed and other damages inflicted.

11th November.—Condamine.—Heavy winds lately; many trees uprooted or broken.

11th December (about).—Nanango.—Hurricanes experienced lately; limbs of trees broken off, child injured at Collington station.

* Bulletin No. 9, pages 161-2, also wall sheet "Tropical Storms or Cyclones on the Queensland Coast," Commonwealth Bureau of Meteorology.

1864.

18th January.—Rockhampton.—Furious gales upon the coast to the north.

16th to 19th March.—Toowoomba.—Two stores in course of erection blown down.

17th to 19th March.—Gale at Brisbane and Ipswich.—(From the *Courier* files of 19th March to 22nd March, 1864).—“Very seldom indeed is the neighbourhood of Brisbane visited by a gale of wind of so lengthy a duration as that which commenced on Thursday night last (17th March) and terminated on Saturday. Finished and unfinished houses, stores, sheds, awnings and signboards, were blown down; roofs and portions of roofs carried away; trees and plants blown down and gardens devastated. Early on Saturday morning the awning in front of Mr. Camden’s shop was carried away, and simultaneously a new wooden house on Petrie-terrace was blown down. At South Brisbane a store belonging to Mr. Hockings shared a similar fate. Roofs innumerable were damaged; fences levelled, and wreckage of various kinds strewn the ground. Tremendous gales experienced off the coast on the 18th.”

18th March.—Toowoomba.—Heavy gale; torrents of rain; considerable damage done by wind and water. (See Rainfall (Heavy).)

Gladstone.—Perfect hurricane. Roads blocked with trees and branches of trees. (See Rainfall (Heavy).)

Cleveland.—Stone jetty swept away during a gale.

June–July.—Tremendous gales experienced off the coast.

15th December.—The steamer *Queensland* experienced a heavy squall accompanied by thunder and lightning, while on her way from Rockhampton to Brisbane.

20th December.—Brisbane.—No telegraphic communication beyond Warwick owing to the heavy storm on the 19th inst., which damaged the line between Warwick and Tenterfield.

22nd December.—A violent storm occurred at Gayndah and caused a great deal of damage. It commenced with a tremendous burst of wind, and raised a cloud of dust before it so intense as to hide from view any object at a distance of twenty yards. This was succeeded by another and even greater burst, which was accompanied by rain. The storm then became for a little while very violent. Scarcely a tenement escaped uninjured. The Roman Catholic Chapel was totally destroyed.

1865.

17th January (about).—Brisbane.—Very severe gales on coast. Steamers *Cawarra* and *Lady Young* forced to return to port on account of tempestuous weather encountered.

7th November.—Condamine.—Violent storm passed over township during the evening, and caused extensive damage to the frail roofs of many of the houses.

19th November.—Roper’s Creek, Peak Downs road.—Tremendous wind and hail; wind blew down branches of trees. (See Hailstorms.)

2nd December.—Warwick.—Hurricane, houses blown down, trees torn up by the roots. (See Hailstorms.)

3rd December.—Terrific gale at Goondiwindi.

16th December (about).—Rowbottom’s (Rockhampton).—Heavy storm raged with great violence; limbs of trees were scattered upon the roadway by the force of the wind.

16th December.—Severe wind-storm at Gladstone.

17th December.—Gladstone.—Heavy gale. *Lombard* forced to return to port.

20th December.—Storm of a whirlwind nature occurred at Murphy’s Camp, Sandy Creek. Branches torn off trees; road blocked.

1866.

23rd January.—Furious S.E. gale at Gladstone.

11th to 13th July.—Heavy winds and storms with rain at Toowoomba.

12th July.—The A.S.N. Company’s *Cawarra* wrecked off Newcastle (N.S.W.); one survivor out of 60 persons. Many other wrecks off the coast.

26th October.—Brisbane.—A very severe wind and rain storm occurred about 3 p.m. The rain fell in sheets and wind blew with hurricane violence for upwards of half an hour. Vivid flashes of lightning occurred during the storm, but the thunder was hardly audible. Some buildings were unroofed by the wind; on the Bowen Bridge-road a two storied wooden building was blown down, and at South Brisbane the coach was blown off the road and a man killed.

21st November.—Warwick.—Hurricane of wind and thick clouds of dust.

30th November.—Fierce storm of wind and rain at Warwick. Much damage caused by the wind; a large brick store in course of erection, almost totally destroyed.

27th October.—A terrific storm occurred at Brisbane; buildings were unroofed and the town flooded; loss of life occurred through the upsetting of Cobb’s coach at South Brisbane.

1867.

19th January.—Warwick.—Severe sudden storm accompanied by hail. The wind which blew a perfect hurricane, broke branches from trees and carried them a considerable distance. The storm extended over 10 miles of country. Hailstones of immense size.

24th January.—Goondiwindi.—A violent whirlwind occurred about 5 p.m.; houses were unroofed and trees destroyed. The storm lasted twenty minutes, and was accompanied by rain.

31st February to 3rd March.—Mackay.—Succession of heavy gales from E.S.E. with intervals of rain. Several small tenements were blown down, and the rain caused a freshet in the river.

2nd March.—Bowen.—Terrific gale blew with unabated violence for 24 hours. Many buildings unroofed, verandahs carried away, and windows smashed. All small craft and boats lying in the bay smashed by the violence of the surf. Jetty slightly damaged, also the barque *Ellesmere*. Great destruction of property in the neighbourhood.

3rd March.—Terrible gale at Townsville; much damage done to buildings.

4th March.—Rockhampton.—Weather very tempestuous all last week—raining, and blowing “great guns.”

8th March.—Cleveland Bay.—A strong gale from the W.S.W. prevailed in the morning, and at 12 o’clock the wind commenced to blow in fearful gusts, accompanied by heavy rain. The wind veered round to the S.S.W., and continued steadily to shift round the compass. At 2 p.m. the hurricane was at its greatest height; pieces of 8 feet galvanized iron were whisked away like feathers, and from 2 to 4 p.m. it was dangerous to walk the streets. Tents were blown down first, then roofs, and afterwards the houses. The town was a complete wreck. Rain fell in torrents.

29th March.—A severe gale, with hail, occurred at Roma ; much damage done.

21st April.—Gales and severe floods occurred at Brisbane and Ipswich, and caused loss of life ; houses unroofed ; new Victoria Bridge works damaged.

26th to 28th April.—Brisbane.—Heavy gales ; continuous rains and floods. (See Floods.)

27th April—

Ipswich.—Terrific storm of wind and rain, which continued for several hours, passed over the town and a large part of the district, and did great damage to crops and gardens. The wind seemed to blow from every point of the compass, but the fiercest gusts came from the south-east. Trees were uprooted in all directions, and some horses and cattle were killed or maimed by falling branches. The cotton-fields in some exposed localities presented a very lamentable appearance, with split and broken plants. Great damage done to the railway embankments.

Logan.—Regular hurricane during the night ; the wind uprooted and smashed trees in all directions.

Warwick.—Hurricane from south-east. Some of the gusts burst doors open, and tore verandah coverings into ribbons.

10th October.—Taroom.—A terrific storm visited the Dawson district, and did considerable damage to houses, huts, and humpies, also to the telegraph line. The thunder was very loud, and lightning vivid. The wind blew a hurricane from the west. A less violent storm occurred on the 11th inst.

7th December.—Rockhampton.—Wind and rain storm. (See Rainfall (Heavy) .)

1868.

7th January.—Heavy easterly gale at Toowoomba. Considerable damage among fruit trees and small shanties. Thermometer dropped rapidly from 100° to 65°.

11th January—

One of the strongest gales of wind, hail, and rain experienced for a long time occurred in Toowoomba district. Roofs of buildings were blown off, and trees uprooted. At Jondaryan, five trucks were blown off the line, and imbedded in the bank. Very vivid lightning, a horse killed by one flash.

Violent wind, accompanied by heavy rain, at Gatton. Roof of Gatton railway goods shed blown off, and numerous humpies destroyed. Trees and branches of trees blown across the railway line, and trains delayed in consequence.

4th April.—Violent wind, thunder, and very heavy rainstorm occurred at Brisbane. (See Rainfall (Heavy) .)

17th June.—Brisbane.—Bad weather at sea. The *Florence Irving* was forced to return to port.

9th November.—Brisbane.—A very heavy squall from the south-west occurred during the afternoon. For twenty minutes the wind blew with the force of a gale, and rain fell in torrents. Captain W. Cooley drowned whilst attempting to cross the river in the Bulimba ferry boat. Iron roof and railings of small tower on Treasury Hotel blown off ; part of roof of a saw-mill at Kangaroo Point blown over the river to the high ground on Bowen Terrace ; wooden house at Kangaroo Point lifted, and carried a few feet away, and another small wooden house blown over ; whilst several other houses in Brisbane and suburbs were damaged.

16th December.—Toowoomba.—Very strong wind did considerable damage to fruit gardens.

1869.

16th January.—Cape River, Townsville.—Heavy thunderstorm, gale, and rain. Many buildings unroofed, and tents blown down. (See Rainfall (Heavy) .)

22nd January.—Jimna.—The fiercest storm ever experienced in the locality occurred during the evening of 22nd. Every tree

in a track 7 or 8 miles long, and about 400 yards wide, was blown down. The storm was accompanied by loud thunder and vivid lightning.

28th January (about).—Jondaryan.—Terrific wind storm occurred near Jondaryan ; huge trees torn up bodily by the roots, and smaller trees and saplings snapped like twigs ; The west end of the engine-house at the wash-pool on the Jondaryan Station was completely blown in, and several sheets of corrugated iron blown from the roof.

10th February.—Toowoomba.—Furious storm, accompanied by lightning, thunder, and a gale of wind ; many buildings unroofed.

2nd October.—Enoggera.—Very violent hail and rain storm occurred on the Enoggera ranges during the evening. Rain fell in sheets—nearly 4 inches recorded in about twenty-five minutes.

9th November.—Brisbane.—Severe wind, thunder, hail, and rain-storm. For 2 or 3 miles on the Brisbane side of Cabbage Tree Creek the wind strewed the road with boughs and branches of trees, some of them 6 or 8 inches in diameter. In the bay, the wind blew for a short time with the force of a tornado.

2nd December.—Toowoomba.—A great storm swept over the country between Glenallan and Clifton, and occasioned considerable damage to the Warwick railway line.

3rd and 4th December.—Wide Bay and Burnett districts.—Wind blew with hurricane force ; long avenues of trees blown down. (See Rainfall (Heavy) .)

10th December.—Gilberton.—Terrific storm in afternoon, preceded by a small hurricane. Many stores unroofed ; courthouse-completely razed to the ground ; tents blown down, and torn to pieces. Very severe lightning and heavy thunder ; many trees struck by lightning. Heavy hail and rain, which caused water in rivers and creeks to rise rapidly.

1870.

15th January—

Gowrie Creek.—One of the most violent wind and hailstorms experienced in the district since the earliest days of settlement by white people occurred during the evening. Mr. R. F. Walker stated that the storm advanced swiftly from the south-west, and presented the appearance of a dull mass of fire. When it struck the settlement, it brought trees and large branches to the ground, and threatened to carry everything before it. Rain fell in torrents, and an extremely heavy fall of hail occurred. The hail was as large as hens' eggs, and ruined vegetable and corn crops, smashed windows, and even beat bark from the trees. The hurricane did not last more than ten or twelve minutes, and the width of its course was not more than a mile and a quarter, but the destruction done within that compass was complete. One house was totally destroyed, and two women occupants had barely time to escape with their lives. A new house was blown to pieces, and some of the iron roofing was afterwards found closely wrapped around a tree. The greatest amount of destruction occurred in hollows both on the leeward and windward sides, even in places usually considered quite safe from storms.

The course taken by the storm closely followed the Warwick railway line.

Warwick.—One of the most terrific wind and rain storms experienced in the district occurred during the day. It commenced about 5 p.m., and raged with appalling violence for about an hour. Buildings were unroofed and blown down. The wind-gauge registered a speed of over 100 miles an hour. The storm also raged with great violence at Glenallan, Eton Vale, Drayton, Toowoomba, and Gowrie. (See Rainfall (Heavy) .)

Kilkivan.—A very violent storm passed over the town and district. The roof of the court-house was blown off, and carried a considerable distance away ; two stores were blown

down, and a butcher's shop blown across the creek. The storm also visited Black Snake Reef, but was less violent there. The rain filled Mr. Hillcoat's dam.

30th January.—Bowen.—A cyclone raged during the afternoon and evening. It commenced with a frightful wind and blinding rain from the south-east, which afterwards chopped around to the north. Much damage done in the town; Assembly rooms and two houses blown down; old telegraph office unroofed; in Herbert-street all verandahs down, roofs partially stripped, and windows smashed. One man killed by the fall of his house. The amount of damage in the neighbourhood was greater than that caused by the storm of 1867.

1st February.—Gladstone.—Tornado of wind and deluge of rain. (See Rainfall (Heavy).)

20th February—

Townsville.—A terrific cyclone broke over the town. It commenced at 9 a.m. and continued until dark. The steamer *Black Prince* was blown on to the beach near the town and became a total wreck, but the crew were saved. The schooner *Wonder* was stranded at the same place. Nearly every house in the town more or less damaged; some houses completely unroofed; large trees in the bush torn up by the roots; all creeks and rivers flooded. Telegraph lines down on both sides of the town.

A terrific cyclone occurred at Cleveland Bay; much damage done to shipping, also to buildings, &c.

Bowen.—Heavy gale during night; telegraph line down. (See Floods.)

3rd March.—Maryborough.—Violent storms and heavy rains for past five days. A perfect gale of wind at times; both inward and outward steamers delayed.

1871.

7th January.—Port Denison.—Storms severe and frequent on the coast and over adjacent inland districts.

18th March.—Eight-Mile Plains.—Fences and trees torn up, and crops laid flat by a violent storm of short duration.

1872.

27th April.—A heavy gale with rain on the south coast.

20th July.—Maryborough.—A severe gale, the full force of which was confined within narrow limits, occurred.

9th September.—Stormy weather on coast; northern steamers detained at Maryborough.

6th December.—Inglewood.—Regular hurricane at Coolmunda; branches were torn off trees, sheets of bark floated about like feathers, and all rooms—even those in the best constructed buildings—drenched with water. Very large hailstones fell in some parts of the district.

1874.

22nd January.—A furious gale along the northern coast destroyed much property. The S.S. *Lord Ashley* was caught in it and almost wrecked.

25th February.—The ship *Southern Belle* encountered a furious gale off Frazer's Bay and narrowly escaped shipwreck. She was eventually towed into Keppel Bay on 5th March.

20th March.—Violent storm at Rockhampton.

18th July.—A fierce storm passed over Cardwell.

27th September.—An extraordinary hurricane of wind passed over part of the East and West Moreton districts. Some houses were destroyed and others unroofed.

29th December.—Sea on the coast highest on record for these shores. Force of wind, 326 miles in 24 hours.

1875.

27th January.—Frightful tempest throughout the southern part of the colony. A train proceeding to Warwick was blown off the line, and some of the passengers injured.

20th February.—Very heavy gales at sea.

1st March.—R.M.S. *Brisbane* experienced a very heavy gale on the voyage from Sydney. Both saloon and second-class cabins were flooded, the deck planks started, and several horses and sheep drowned.

10th March.—Further loss of life and wrecks of coasters reported.

16th March.—Gales on the coast very heavy.

17th March.—Weather exceedingly tempestuous.

26th March.—Gales on the coast and throughout the colony heaviest known for many years. *City of Brisbane* and other vessels that arrived off Cape Moreton compelled to put to sea several times for safety.

30th November.—Great storm of rain and wind at Goondiwindi, where the Presbyterian Church was blown out of perpendicular.

4th December.—A great whirlwind at St. George raised water of the river 100 feet, and caused much damage.

6th December.—Great storm of wind in the southern part of the colony, which caused heavy loss at many places; school at Pine Mountain destroyed.

A violent wind storm at Peak Downs caused much damage to property there.

1876.

10th January.—A heavy cyclone passed over Copperfield, and did great damage to property; National School levelled to the ground; thermometer fell from 108° to 77° in fifteen minutes.

Furious storm at Gympie; much damage to property.

11th February.—Very stormy weather on the coast.

17th February.—Severe gale at Townsville, which caused much damage in the town. Very heavy weather on the coast generally.

22nd February.—Terrific tornado at Bowen, which destroyed many houses. (On 26th February, £100 was forwarded from Brisbane to Bowen to assist in relieving losses caused by the tornado.)

21st March.—Heavy gale at Townsville; S.S. *Banshee* totally wrecked on Hinchinbrook Island—seventeen persons drowned.

11th April.—Very heavy gales on the coast.

18th June.—Violent hurricane at Cooktown.

14th July.—Very heavy gales and high seas on the coast; S.S. *City of Brisbane* twice attempted to enter Moreton Bay without success. Schooner *Zephyr* from Gladstone to Newcastle called at Moreton Bay for shelter, and narrowly escaped shipwreck in the bay.

18th to 20th July.—Exceedingly furious gales on the coast between Brisbane and Sydney.

25th July.—*Ville de Lille*, French barque, disabled by the late storms, put into Moreton Bay.

10th September.—Fierce gale on the coast; heaviest—to the southward—ever recorded; current of wind passing Sydney Observatory registered 153 miles per hour (100 miles considered a hurricane); numerous casualties reported.

12th September.—S.S. *Dandenong* wrecked off Cape Jervis (N.S.W.) with a loss of, at least, 40 passengers. The barque *Albert Williams* saved 40 passengers and landed them at Newcastle. S.S. *City of Melbourne* met the full force of the same gale and was nearly disabled. Four coasters totally wrecked and all hands lost.

23rd October.—A severe storm passed over Maytown, and unroofed several buildings.

1877.

18th January.—Fierce hurricane destroyed, in a few minutes, buildings and crops on Ackland Farm, near Toowoomba.

2nd February.—Fearful hurricane passed over Canongarie Creek and Albert River, and did great damage.

20th February.—Tremendous gale at Cooktown.

10th April.—Extraordinary whirlwind at Oxley, much damage done.

14th May.—Heavy storm of wind and rain at Brisbane.

7th December.—Great storm at Thargomindah; post office levelled to ground and several houses unroofed.

— December.—Disastrous storms at Brisbane and Ipswich (see Roma note, 7th December, 1879).

1878.

8th March.—Terrible cyclone at Cairns, much property destroyed.

3rd June.—Unprecedented heavy gales very general on the southern coast.

1879.

2nd January.—S.S. *Katoomba* in great danger at Cape Moreton during a very heavy gale, which caused the sandbanks to shift.

7th January.—Very heavy gales on coast, during which the S.S. *Macedon* grounded on the same bank as the *Katoomba*. Both vessels were subsequently floated off.

15th May.—Very heavy gale on the south-eastern coast; several casualties reported.

24th June.—Great storm of wind and rain, accompanied by thunder and lightning, commenced over Brisbane and surrounding districts, and developed on the 25th into a cyclone. Much damage done, especially to roofs of houses.

27th June.—Cyclone in southern Queensland; great damage.

27th August.—Roman Catholic church at Charters Towers blown down.

10th September.—Very tempestuous weather on the south-eastern coast.

18th November.—Terrible storm at Ipswich; much damage done.

26th November.—Furious gale at Townsville, with heavy thunder and lightning; much damage done.

7th December.—Fearful storms occurred at Roma similar to the disastrous visitations at Brisbane and Ipswich of December, 1877.

8th and 11th December.—Fearful storms, of hurricane strength occurred at Dalby.

1880.

26th January.—Very heavy gales, with much rain, prevailed along the coast from north to south for several days in succession. Several casualties reported.

28th November.—Brisbane.—Severe storm of lightning, wind, and rain.

1881.

5th November.—A sudden gale at Bundaberg damaged Cran's Sugar Refinery to the extent of £2,500.

1882.

2nd February.—Cyclone at Cardwell; considerable damage done.

26th March.—The floating beacon at the North Channel, Moreton Bay, broke adrift during a boisterous storm.

24th December.—Telegraphic communication with Sydney interrupted by boisterous weather.

1883.

10th November.—A terrific storm occurred at Toowoomba.

11th November.—A cyclone passed over Cressbrook.

1884.

30th January.—Severe hurricane at Bowen; nearly the whole town unroofed and many places completely wrecked; steamer *Fiado* blown aground near the jetty.

21st February.—Very heavy gale at Cooktown.

11th April.—Brisbane.—Stress of weather compelled the steamer *Currajong* to return to port in a damaged condition after an absence of four days.

7th December.—Terrific storm at Brisbane and Warwick; much damage done, especially at Warwick. A race-course train was damaged by collision with a tree which was blown down during the storm.

8th December.—Telegraphic communication interrupted by storms throughout the colony.

1885.

19th January.—Gale at Normanton; hospital unroofed.

26th November.—Tornado at Adavale; £2,000 worth of damage done.

1st December.—Whirlwind at Roma caused some damage to the Bank of New South Wales and other premises.

5th December.—Heavy storm prevented quarterly muster of Defence Force at Brisbane. The same storm caused serious damage in the Eight Mile Plains District.

1886.

17th December.—Heavy weather in Moreton Bay caused considerable delay to shipping.

1887.

21st January.—Heavy gale and rains over southern part of colony; immense amount of damage.

15th February.—Steamer *Laura* arrived at Brisbane from Sydney; most tempestuous weather encountered, and many horses lost during the voyage.

23rd February.—Bloomsbury.—Cyclone.

4th March.—Burketown.—Cyclone.

12th March.—Cyclone at Burketown killed five persons and damaged nearly every building in the town.

19th September.—Millaquin.—Thunderstorms and a brief hurricane occurred between 8 and 9 p.m. Mr. Nott, the proprietor of Windermere Plantation, reported that shortly before 9 p.m. the fury of the wind was such in his district that trees were torn up by the roots or snapped off short . . . doors and casements were blown open, and considerable other damage was done within an area of about one square mile.

9th and 12th October.—Gilbert River.—Large whirlwinds.

15th October.—Severe gale at Burketown did considerable damage to property.

October.—Barcaldine.—Whirlwinds occurred daily, and occasionally unroofed verandahs, etc. Temperature in shade on several days reached 100°.

1888.

10th January.—Gales in the north.

17th February.—Steamer *Geelong* ran ashore near Mackay during a heavy gale and two men were drowned. During the same gale the *You Yangs* lost her foremast and three anchors, several houses at Mackay were completely demolished.

4th April.—The *Lucinda*, with northern troops on board, forced to return to Brisbane owing to heavy weather.

26th October.—Terrific cyclone at Thargomindah.

11th December.—Convent school at Inverell (N.S.W.) levelled to the ground by a storm.

16th December.—Considerable damage done by a cyclonic storm near Toowoomba.

19th December.—Heavy storm near Rockhampton; Ulster Hotel unroofed.

22nd December.—A storm at Mt. Morgan wrecked the English Church and other buildings.

1890.

1st February.—Heavy storms along coast.

10th March.—Disastrous gale at Toowoomba.

24th March.—Hurricane at Townsville.

29th March.—Terrific cyclone on the Herbert.

15th December.—A severe storm occasioned a large amount of damage in Brisbane.

28th December.—Brisbane.—Violent storm, which blew down telegraph poles on Victoria Bridge.

1891.

8th January.—Schooner *Sybil*, from Moreton Bay to South Seas, dismasted during a heavy squall.

8th June.—Hurricane about Brisbane did considerable damage, and heavy rains fell in most parts of the colony.

1892.

2nd January.—Severe storm in coastal districts; numerous buildings and gardens about Brisbane damaged.

13th March.—A gale, with very heavy rain, occurred around Brisbane.

2nd April.—Cyclone at Brisbane blew down two churches and several buildings, and disabled the steamer *Bonito*.

10th November.—A severe hurricane did considerable damage at Longreach.

28th December.—A terrific cyclone at Normanton did considerable damage to the town.

1893.

15th January.—Free Methodist Church blown down at Downfall Creek, near Brisbane, during a severe storm.

21st January.—A very severe gale passed over Brisbane—wind attained a velocity of 65 miles per hour—several houses and many trees blown down.

22nd January.—Continuation of severe gale on Queensland coast.

1st February.—Rough weather on the coast.

17th February.—A tornado at Sandgate and Humpy Bong levelled a track a chain wide through the forest, lifted several boats bodily out of the water, and caused a couple of houses to collapse.

2nd April.—A cyclonic windstorm passed over Brisbane.

10th October.—A very severe storm did considerable damage in and around Warwick.

1894.

19th February.—An abnormally high tide occurred in the Brisbane River owing to prevailing gales.

13th March.—Main door of Cape Moreton lighthouse blown in by a strong gale of wind.

16th June (about.)—Cunnamulla.—Extract from the *Cunnamulla Argus* of 16th June.—“A cyclone occurred last week about 30 miles down the river. It left a clear track of up-rooted trees, broken limbs, and other *débris*, 300 yards in width, and must have blown with great violence. The grass was beaten down flat on the ground; portion of the rabbit-proof fence on the boundaries of Burrenbilla and Thurrulgoona stations were destroyed; the telegraph wire was blown off five poles; and the insulation cup from one pole was found 200 yards away. The cyclone was accompanied by hail.”

1896.

3rd January.—Fearful hurricane at St. George.

26th and 27th January.—Hurricane at Townsville.

The following report was obtained from the *Townsville Evening Star* of the 30th January, 1896 :—

“We have to thank Mr. C. S. Norris for the following valuable and interesting report on matters meteorological in Townsville during the past few days :—

For some time previous to Saturday, the 25th January, the weather had been very unsettled, with heavy squalls from east and south-east, and on 25th January, at 2 p.m., a gale was blowing from east-south-east, with heavy rain. The standard barometer then registered 29·737, with a falling tendency, and at 5.30 p.m. it had fallen to 29·689, and there was every indication of the approach of a hurricane. During the night the wind veered to the south-east, and increased in violence, and on Sunday morning, the 26th instant, a heavy gale was blowing from the south-east, with rain. The wind during this day increased to hurricane force, the barometer continuing to fall throughout the day, and registered as follows :—

9 a.m., 29·614	..	5 p.m., 29·319
11 a.m., 29·583	..	6 p.m., 29·289
2 p.m., 29·459	..	7 p.m., 29·287
3 p.m., 29·437	..	8 p.m., 29·281
4 p.m., 29·399	..	9 p.m., 29·273

The barometer then commenced to rise, and at 10 p.m. registered 29·323, and at 11 p.m. 29·347. After this time the barometer again fell, and at 12, midnight, registered 29·319.

On Monday, 27th instant, the barometer registered at 1 a.m. 29·291; 2 a.m. 29·262, which is the lowest reading recorded during the hurricane; at 3 a.m. the barometer rose slightly, and registered 29·265; at 4 a.m. 29·283; 5 a.m. 29·303; 6 a.m. 29·479. It continued to rise throughout the day, and at 2 p.m. registered 29·587, and at 9 p.m. 29·671.

On Tuesday, 28th instant, the barometer registered at 3 a.m. 29·643; 9 a.m. 29·695, and continued rising slightly during the day, but at 7 p.m. fell again, and registered 29·675, and at 12, midnight, 29·683.

On Wednesday, the 29th instant, the barometer continued rising throughout the day, and at 11 p.m. registered 29·725, and the hurricane had passed.

During the hurricane the wind commenced by blowing from the south-east at midnight on Saturday, the 25th instant, and continued blowing from that direction until Sunday night, 26th instant, at 9·45, when it veered rather suddenly to east and appeared to decrease somewhat in violence; but at midnight it again increased, and continued increasing from that time until 3 a.m. on Monday, 27th instant. Some of the squalls blew with terrific force and the wind then veered gradually to the north-east, from which direction it was blowing at 9 a.m. on the 27th, and continued to blow from that direction all day, with heavy

rain squalls. On Monday night there were some very heavy rain squalls from north-east and north which continued during the night, but the weather moderated on Tuesday morning.

The thermometer registered from 80 deg. to 82 deg. during the hurricane.

The readings of the barometer were exceptionally low and are the lowest that I have ever seen during the time that I have been observing in Townsville—over 17 years. The lowest reading of the barometer in the hurricane of 24th March, 1890, was 29·501, and the lowest reading during this hurricane was 29·262. All the readings were obtained from the standard barometer, and are all corrected for temperature and reduced to sea level.

During the hurricane the wind attained terrific force, especially during the afternoon and night of Sunday, the 26th instant, and early on Monday morning, the 27th instant; and I think that the force during some of the squalls was from 80 to 100 miles per hour, but it is impossible to give the exact force without an anemometer.

On Monday, 27th instant, at 4 p.m., my rain gauge, which holds 12 inches of rain, was overflowing, this being the rainfall for the previous 48 hours. At 4 p.m. on Tuesday, the 28th instant, the rainfall was 5·25, which makes a total rainfall of 17·25 inches from 4 p.m. on Saturday, 25th instant, to 4 p.m. on Tuesday, 28th instant, and I think the overflow from my rain gauge on Monday would be at least 3 inches, making in all 20·25 inches up to 4 p.m. on Tuesday.

This hurricane was no doubt very large in extent, extending probably from Mackay to Cairns, and I think the centre passed along the Barrier Reef, and probably struck the coast about Cardwell or Geraldton and passed inland."

21st December.—Heavy storm at Croydon.

1897.

28th December.—An unusually violent storm passed over Brisbane.

1898.

4th February.—A severe cyclone at Mackay did widespread damage.

19th December.—Terrible cyclone at Emu Park, Rockhampton.

1899.

22nd February.—Terrible storm at Mitchell.

5th March.—Terrible hurricane at Bathurst Bay, North Queensland. Pearling fleet destroyed; 300 lives lost.

12th April.—Cyclone at Barcaldine Downs did considerable damage.

1900.

3rd February.—Destructive hurricane at Birdsville.

10th March.—Terrific gale at Cape Melville.

8th April.—A terrible cyclone broke over Barcaldine.

25th November.—Whirlwind at Augathella did considerable damage.

1902.

27th March.—Southport.—Agreeable change in weather, and over half an inch of rain. A cyclone passed over during the afternoon and damaged one shop to some extent.

13th November.—Oakey.—A tornado on a small scale occurred during the afternoon of the 13th. The wind came up suddenly from the west, accompanied by great clouds of dust, so thick that

objects a few yards distant could not be seen; only a few points of rain fell. The storm seemed to break towards Biddeston.

28th November.—Longreach.—A tremendous wind storm occurred at Corona on 28th. The wind blew with cyclonic force; unroofed all buildings, except the new quarters; and rendered windmills useless. The storm was accompanied by rain and hail; rainfall, 2·00 inches.

12th December.—Cyclone at Brookville, much damage done to property.

1903.

9th March.—Terrible cyclone at Townsville and Bowen, much damage to property and ten lives lost.

9th March.—The following report was supplied by Mr. William Fowler, Meteorological Observer, Pilot Station, Townsville, under date 15th March, 1903:—"A disastrous cyclone occurred at Townsville on the 9th instant which very nearly wrecked the whole town. It was my day off on Sunday (8th), and I was taken by surprise at 6 a.m. on Monday morning to see the barometer reading 29·620 and still falling. I could see by the look of the weather we were in for a hurricane. At 9 a.m. I replaced the papers on all the instruments, and I have a very nice V on the barograph. That instrument is set at ·070 higher than the Kew standard barometer, so you will have a good idea what the true readings by our standard were at its lowest. I took readings down to 28·500, but the barometer went a lot lower than that. It was not safe to stay in the humpy afterwards, as everything was blown down off the hill just about that time. I am very glad to say that the instruments and observatory are alright, nothing broken or blown down.

The direction and force of the wind, also barometer readings, recorded by me at different times during the day (9th) are as follows:—

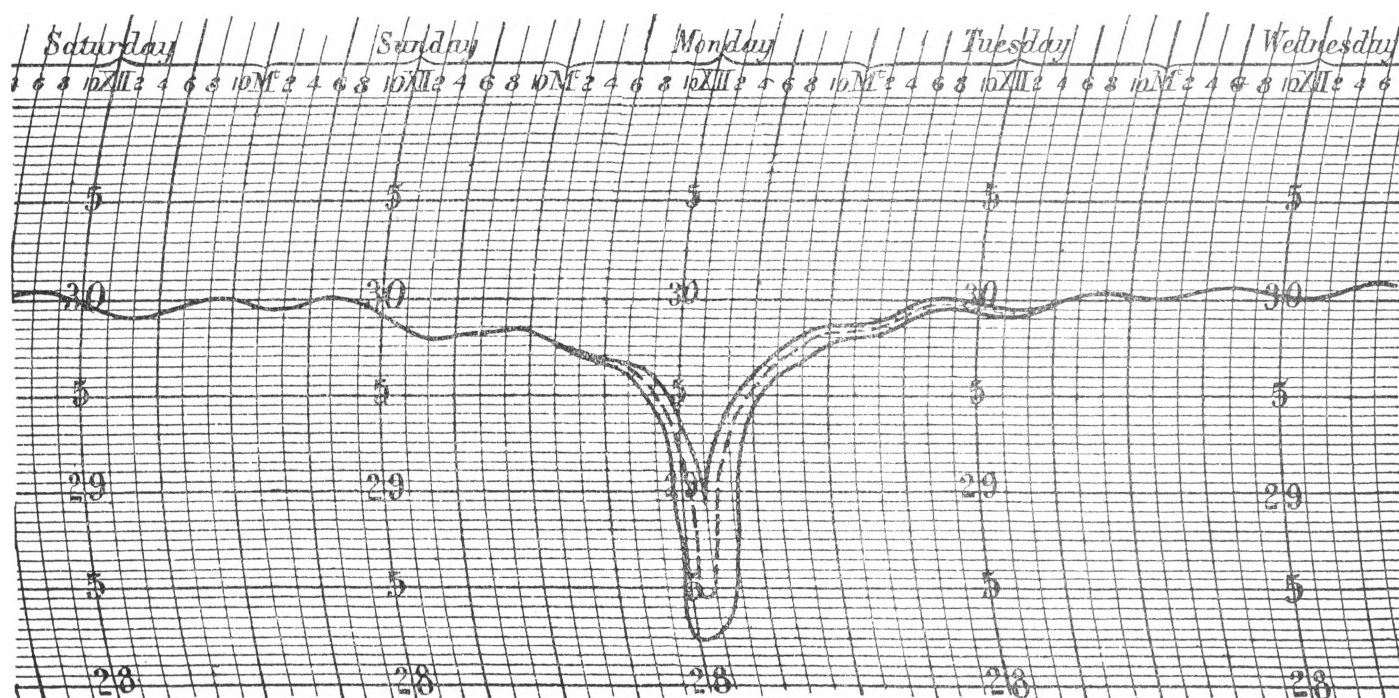
Wind.	Force.	Barometer.	Time.
S.S.W.	6	29·580	6.30 a.m.
S.S.W.	6	·458	9.0 "
S.S.W.	6	·448	9.30 "
S.S.W.	6	·392	10.0 "
S.S.W.	7	·340	10.20 "
S.W.	9	·334	10.30 "
S.S.W.	9	·300	10.35 "
S.W.	10	·298	10.40 "
S.W.	11	·268	10.55 "
S.W.	11	·258	10.57 "
S.W.	11	·248	11.2 "
S.W.	12	·236	11.6 "
S.S.W.	12	·226	11.10 "
S.S.W.	12	·218	11.15 "
S.S.W.	12	·200	11.18 "
S.W.	12	·170	11.25 "
S.S.W.	12	·136	11.35 "
S.S.W.	12	·102	11.45 "
S.S.W.	12	·050	11.55 "
S.S.W.	12	·030	12.5 p.m.
S.W.	12	28·988	12.15 "
S.W.	12	·960	12.30 "
S.W.	12	·930	12.45 "
S.W.	12	·914	12.50 "
S.S.W.	12	·770	2.0 "
S.S.W.	12	·698	2.5 "
South	12	·640	2.10 "
South	11	·500	2.15 "
S.S.E.	10	·562	3.0 "
E.N.E.	10	29·390	5.55 "

I had to leave after 2.15 p.m. to look after the women and children. The wind was variable after 2.15 p.m. from S.S.E. to E.N.E. We did not get a lot of rain, and most of it fell between 6.30 a.m. and 9 a.m. on the 10th. I looked at the gauge at 6 a.m., and I think there were about 3 inches; by 9 a.m. we had 6.270 inches."

A reproduction of the barograph trace made at the Townsville Pilot Station during the cyclone (named "Leonta") is given hereunder:—

Owing to the dampness the ink from the barograph pen spread over the paper and made a blot, the confines of which are indicated by the two continuous lines running from about 4 a.m. on the 9th to 4 p.m. on the 10th. The probable track of the pen is shown by the broken line.

ville. After 2 p.m. the wind gradually veered to south-east and moderated considerably, and the barometer commenced to rise; the calm centre of the hurricane was evidently then passing over Townsville. The wind continued to veer until it reached about due north, when it again commenced to blow with hurricane force, and very heavy rain squalls, the barometer, however, rising very rapidly, and at 8 p.m. it registered 29.641, being a rise of nearly 1 inch in the six hours. The wind continued to blow from the north with heavy rain squalls, and the barometer continued to rise and at 9 p.m. registered 29.719, from which it was evident that the hurricane was passing away, and after this hour the wind and squalls moderated considerably, and at 10.30 p.m. the barometer registered 28.800, and the wind had moderated to a gale with occasionally heavy rain squalls.



The following report was obtained from the *North Queensland Herald* of the 14th March, 1903:—

"Mr. C. S. Norris writes:—The weather in Townsville during Sunday, the 8th March, 1903, was very hot and unsettled; in the early morning there was a light breeze from the south, which continued until about noon, when there were very light airs from N.W. and S.E., towards 4 p.m. the breeze freshened and was steady from the north-west, which continued until 6 p.m. with a clear sky. After 6 p.m. the north-west breeze died away and clouds gathered from the east and south-east with very light airs from all directions. In the early morning of the 9th instant a moderate breeze was blowing from the south-west, which gradually increased to a fresh breeze at 9 a.m., with very ugly, threatening weather. At 9.15 a.m. the barometer registered 29.556, which was sufficient indication of a probable hurricane. The barometer continued to fall rapidly and the wind to increase with very heavy rain squalls from the south-west, and very thick weather. These squalls, in crossing the bay, lifted the spray to a considerable height, in many instances forming miniature water spouts. At 11 a.m., the barometer registered 29.305, and still falling, the wind increasing to hurricane force and still from the south-west. At 1.30 p.m. the barometer had fallen to 28.868 the wind still increasing in violence. About this time it was noticed that the water in the bay was blown out from the shore and the bare sand was seen for a considerable distance very much further than I ever saw it at the lowest spring tides. At 2 p.m. the barometer registered 28.617, which is by far the lowest reading ever recorded by me in Towns-

After this the weather gradually moderated. This hurricane is without doubt the heaviest experienced in Townsville for a considerable number of years, and although not of as long duration as "Sigma" hurricane of 26th and 27th January, 1896, it was more fierce, whilst it lasted about 12 hours. The lowest reading of the barometer during the hurricane "Sigma" was 29.262, as compared with 28.617, the lowest reading during this hurricane.

The thermometer ranged throughout the day and night from 80 degs. to 82 degs."

1st June.—Heavy storm in Brisbane district; some damage at Sandgate.

2nd September.—Cyclonic storm in eastern suburbs of Brisbane.

1905.

1st February.—Storms on coast; steamers delayed.

29th September.—Heavy storm at Brisbane; some warehouse stocks damaged.

29th November.—Heavy storm at Brisbane.

16th December.—Storm at Brisbane; some buildings damaged.

1906.

28th January.—Cyclone in the north; Cairns devastated.

4th March.—Hurricane in the north; Croydon wrecked.

1907.

19th January.—Destructive cyclone wrecked Cooktown. Amount of damage £20,000.

27th March.—Very heavy weather on the coast.

2nd November.—Cyclonic storm at Longreach.

1908.

January.—Gumbardo.—Whirlwinds very prevalent throughout the month, some of which were unusually large.

16th February.—Cyclone at Chillagoe; amount of damage about £1,000.

16th February.—Heavy cyclone at Barcaldine; many buildings collapsed; large number of houses unroofed or otherwise damaged.

4th March.—Heavy storms in Central district.

12th March.—Collaroy.—Heavy gale during the night. Forecast in newspapers very accurate. Collaroy got the brunt of the storm and appeared to be in the centre of it. Roofs blown off. Heavy rain; biggest flood for year and a half.

12th March.—St. Lawrence.—Heavy rain during the night, 710 points registered by 9 a.m. on 13th. The rain was accompanied by heavy wind which reached hurricane force. The barometer fell all day and through the night, and the following readings were recorded:—12th, 2 p.m., 29·750, 4 p.m., 29·732, 6 p.m., 29·712, 10 p.m., 29·600, midnight, 29·582; 13th, 4 a.m., 29·340, 6 a.m., 29·270, 7 a.m., 29·290, 8 a.m., 29·370, 9 a.m., 29·424, 10 a.m., 29·486. A few outhouses and fences were blown down, and some iron blown off a number of buildings. The storm was more violent north of St. Lawrence, much timber being blown down, and telegraph lines damaged in numerous places between St. Lawrence and Nebo.

12th March.—Marlborough.—Strong gale during the night. No damage done.

11th June.—Boisterous westerly winds in south-eastern quarter.

3rd and 4th August.—Boisterous westerly winds in south-eastern quarter.

17th October.—Cyclonic storm in west of Queensland. At West Longreach, wind of hurricane force and very vivid lightning was experienced. Some outhouses were wrecked by the wind, while boats moored in the river were filled and sunk by the rain. Over 2 inches of rain fell in less than 30 minutes.

20th December.—Severe storm at Harrisville. New Catholic Church greatly damaged.

1909.

4th January.—Normanton.—Spell of continued very hot oppressive weather. About 6.15 p.m. a cyclonic storm, accompanied by some hail, struck the end of the town nearest the Chinese quarters. The wind blew at a terrific rate, accompanied by clouds of dust, for about 20 minutes. One house was lifted bodily off its piles, but kept erect when it dropped, although the kitchen and outbuildings collapsed; none of the inmates were hurt. Other houses collapsed or were unroofed, and sheets of iron, buckets, tubs, and tanks were blown some distance away. The force of the wind was confined to one narrow track, otherwise the results might have been more disastrous. Light rain accompanied the storm.

30th and 31st January.—Heavy south-easterly gales between Cooktown and Cardwell; steamers delayed.

5th February.—Fierce cyclonic storm passed about 4 miles south of Normanton at 4.30 p.m. Path of storm about quarter of a mile in width; many trees blown down; six-roomed house blown off blocks and wrecked; kitchen of powder magazine blown away; no one injured.

12th February.—Severe whirlwind at Beaudesert tore iron sheeting from a shop verandah in Brisbane Street.

19th February.—Cunnamulla.—A heavy thunder, wind, hail, and rain storm occurred during the night. Wind of almost cyclonic force damaged several houses and wrecked numerous sheds and outbuildings. The amount of rain recorded in different parts of the town varied from 2·30 to 3·55 inches, most of which fell in about an hour.

19th February.—Thargomindah.—Terrific storm at 6 p.m., accompanied by dust, lightning, and heavy rain. The cyclonic wind caused damage to buildings throughout the town, several of which were partially unroofed, whilst many fences and trees were blown down; 160 points of rain fell.

23rd February.—Esk.—A severe storm of wind of cyclonic force, accompanied by hail, struck the country (about 7 miles stretch) between Esk and Ottaba; dozens of trees were uprooted, and large number of telegraph posts blown down.

28th September.—Heavy gale on coast.

17th October.—Cooroy.—Severe wind, rain, and thunder-storm during night; trees uprooted; tents blown to shreds; several buildings unroofed, and every house deluged. Roads blocked by fallen timber. No casualties reported.

31st October.—Aramac.—A cyclonic wind-storm, accompanied by terrific thunder and large hail, did considerable damage to property.

30th December.—Aramac.—A terrific storm occurred about 3 p.m., when the wind blew with hurricane force for 20 minutes. At the Marathon Hotel several sheets of iron were lifted and driven through the walls; many outhouses, fences, and trees blown down. Fifty-five points of rain.

1910.

21st January.—A terrific storm passed over Aramac at 4 p.m. The wind blew with hurricane force and was accompanied by large hail. Several places were unroofed and outhouses blown down.

28th January.—Cyclonic storms in north Queensland. Heavy gale and tremendous seas at Cairns; *Bombala* aground.

1st February.—Boisterous south-east to east winds continued along sub-tropical coast.

7th February.—Laidley.—A violent storm occurred about 6.30 p.m. Rain fell in torrents, and the wind blew from the south-west with hurricane force. The storm only lasted about ten minutes, but even in that brief period considerable damage was done. Large trees were uprooted or snapped off, and sheets of iron from roofs of buildings floated about in all directions. The Laidley Railway Station, Police Station, saw-mills, Cribb and Foote's warehouse, and numerous other places were partially unroofed; numerous shop windows were smashed by timber and iron, and great damage was done to store goods by the rain. Ninety-five points of rain fell during the storm.

This storm was also experienced at other centres in the Lockyer district with equally disastrous effects.

26th October.—During a thunder and wind storm, the West Ipswich Railway Station collapsed owing to the high wind.

4th November.—Cyclone of hurricane violence at Richmond. Much damage done, telegraph poles bent nearly double.

4th December.—General and severe wind and hail storms in eastern Queensland, south from the tropic. Considerable damage done by wind in suburbs of Brisbane, particularly at Kelvin Grove.

17th and 18th December.—Severe hail and wind storms at Wellcamp, Glencoe, and Laidley. (See Hailstorms.)

18th December.—Clarendon, Forest Hill.—A severe tornado, the track of which was about 2 miles wide, occurred, and swept everything before it; horses and cattle injured; houses, haysheds, &c., levelled, and much damage done to crops and implements. (See also note from Laidley, under Hailstorms.)

1911.

8th January.—Severe storm at Marburg caused considerable damage.

11th January.—Whole easterly gale prevailed on south-eastern coast.

18th January.—Cyclone in Winton district.

10th February.—Port Douglas reports:—"Cyclone on 10th; three buildings partially unroofed; sugar canes damaged."

16th March.—Terrific cyclone at Port Douglas, which also affected Cairns and Innisfail.

A tornado-like disturbance of the highest intensity suddenly swooped down on Port Douglas and its centre apparently passed almost right over the town; widespread devastation resulted; two lives were lost, and practically all the buildings in the town levelled.

CYCLONE AT CAIRNS.

16th March.—The following interesting report on the cyclone which passed along the north Queensland coast on the 16th was supplied by Mr. C. R. Boreham, the local observer for the Meteorological Bureau at Cairns:—

"Nearly all the conditions precedent to a cyclone were observable in Cairns on the morning of the 16th. Heavy rains had fallen during the night, and, with the high tides of the previous day, a heavy N.E. swell rolled in on the beach. On Wednesday night the barometer showed a slight fall, but nothing worth noting, being then 29·894, or nearly normal. Yesterday morning, however, the wind began to blow fitfully in gusts from the south-east, the rain recommenced, the sky was murky, and the wind as the day wore on came from the S.S.E.

There was no cause for alarm at 9 a.m., even though the force of the wind was increasing. The barometer showed 29·800, and nothing more than a blow was anticipated. Shortly afterwards, however, the violence of the wind increased to half a gale, but the barometer was not yet indicating unusual pressure. At noon the mercury showed 29·750, with the wind blowing now at an alarming rate. Two hours later a full gale was upon us, and literally sheets of water falling—barometer at 29·660. Great havoc was here wrought among the trees, while old wood and iron buildings were in a number of cases razed to the ground. At 3.30 p.m. a reading of the glass showed 29·638, still falling. At 4 p.m. it was 29·610, and a heavy squall raged. Ten minutes to 5 the reading was 29·590. The wind at this stage blew at intervals with terrific force, and the gale had developed into a hurricane, still from the south-east.

Cairns must now have been receiving its full dole of the storm, for a reference to the glass told of no further fall during the next twenty minutes or so. Five o'clock revealed the same reading, viz., 29·590. Henceforward a rise was noticeable, the figures as taken being—5·40 p.m., 29·608; 5·55 p.m., 29·616; 6·5 p.m., 29·620; 6·30 p.m., 29·630; 7·20 p.m., 29·660; 7·55 p.m., 29·734. At the last-mentioned time the wind had slackened somewhat, and now came from E.S.E.; squalls more especially characterized the weather conditions now, as opposed to the continuous rain of an hour or more ago.

At 9 p.m. the register showed 29·790, and 29·800 at half-past 9, having risen 0·210 inch in four and a half hours (5 p.m. to 9.30 p.m.).

The first blow of the cyclone, lasting the whole day from the south-east, had now passed, and the variable gusts and comparative calm that succeeded showed that the storm centre had been reached. An hour and a half before midnight this centre had passed, whereupon the wind veered round gradually, until it began to expend its fury again, this time from about N.W.

The torrential nature of the rainfall which accompanied the cyclone here may be judged from the fact that between 9 a.m. and 9 p.m. (twelve hours) 9 inches 12 points fell, making 12 inches 33 points for the thirty-six hours ending 9 p.m. (16th).

Total rainfall for the three months, 97·33 inches in sixty-two days, as against 63·37 in sixty-one days for the same period in 1910."

23rd and 24th March.—"Yongala" storm.—The following account of the storm that occurred at Flat Top Island during the 23rd and 24th March, 1911 (the date of the *Yongala* wreck) was taken from a report kindly supplied by Mr. W. Robertson, officer-in-charge of the Signal Station at Flat Top Island:—

There were no indications on the 23rd of a cyclone in the vicinity of Flat Top; there was no swell such as usually precedes a cyclone, and the glass was unusually high and steady for that time of the season; it was in fact a day on which no master need have hesitated to proceed on his voyage along the coast.

The *Yongala* was sighted from south at 7 a.m. on the 23rd, when the sky was three-quarter clouded, and the wind blowing a moderate breeze from the S.E. At 2 p.m. the same day the *Cooma* was sighted; by that time the wind had worked around to a strong east breeze, and steady, but not very heavy, rain was falling. The wind increased in force from then until 9 p.m., when it was blowing a moderate gale, whilst by midnight the force was from a fresh to a strong gale. By 9 p.m. the wind had veered to south-east, but did not at any time veer to the south of south-east.

At 4 a.m. on the 24th the wind and weather were the same as at midnight. About 7 a.m. the weather lifted a little, and the *Cooma* was sighted lying at Round Top about three-quarters of a mile from Flat Top. After 9 a.m. the wind veered to north-east, and that was the only sign of a cyclone during the whole of the blow; and Mr. Robertson thinks he is safe in stating that the force of the gale, even at its centre, was not strong enough to cause a vessel like the *Yongala* to founder inside the Barrier Reef.

The readings of the barometer on the 22nd, 23rd and 24th March, 1911, were as follow:—

	9 a.m.	3 p.m.	9 p.m.
22nd March	29·90	29·87	29·89
23rd "	29·90	29·83	29·88
24th "	29·86	29·86	29·94

The lowest reading for the month occurred at 3 p.m. on the 3rd, viz., 29·72 inches.

7th April.—Much damage done in Atherton by cyclonic storm.

12th November.—Hurricane from W.S.W. at Roma at 3 p.m.; many buildings unroofed.

19th November.—At Kynuna a cyclonic storm tore sheets of iron off two houses.

16th December.—Wind of hurricane force damaged buildings in Brisbane and Toowoomba districts.

30th December.—Claverton (Cunnamulla district).—A cyclonic storm occurred during the afternoon, when 150 points of rain fell. The terrific wind overturned a buggy containing two persons.

1912.

1st January.—Longreach.—A heavy storm occurred during the afternoon. The wind blew with hurricane force, and rain fell in torrents.

4th January.—Hebel.—A cyclone of unusual severity came from the north between 4 and 5 p.m. It was like a huge whirlwind, and became larger and larger bringing sand and rubbish with it as it came along. Some damage was done to dwellings. The cyclone also struck Ballandool station, where it blew down huts and tents.

5th January.—Roma.—The most violent—although shortlived—storm experienced for some years, occurred at midnight. It came from the south-west and was accompanied by continuous lightning and thunder. Several outbuildings were demolished in the town, while at Warroby, four miles distant, two dwellings were considerably damaged. Only 44 points of rain were recorded.

8th January.—Rosedale (near Longreach).—Cyclonic conditions obtained to-day, and scores of trees were snapped off by the force of the wind. Rain fell in torrents, 130 points being registered. The heavy rain extended over a belt of country five miles wide.

24th January.—Bergen (near Crow's Nest).—Wind of cyclonic force, and very heavy rain, experienced in the district, which did considerable damage to dwellings, sheds and outhouses. Two inches of rain fell. At Emu Creek, part of Broadfoot's mill was unroofed, and trees strewn in all directions.

24th January.—Miles.—A heavy thunderstorm and wind of hurricane force occurred during the night. Several trees were levelled, but no serious damage to property resulted; rainfall 60 points.

13th February.—Veresdale.—During a heavy thunderstorm in the afternoon rain fell in torrents, accompanied by exceptionally heavy wind. Several trees were uprooted, and some outhouses were blown down. A cow was killed by lightning.

14th February.—Tambo.—Cyclonic squalls occurred, accompanied by heavy rain and little hail. Rainfall 111 points.

20th February.—Cedar Vale (near Dalby).—A cyclonic storm destroyed two windmills, unroofed the men's cottage, damaged the woolshed, lifted and carried a tank away over the fences, and twisted fruit trees off their trunks.

1st March.—Gindie.—A heavy storm partially unroofed the station-mistress's house and the railway goods shed, whilst a barn on Mr. Daniells' farm was unroofed. Only slight damage done to the State Farm buildings.

16th March.—Beaudesert.—Violent cyclonic storm broke over Beaudesert and district. Rain fell in torrents, accompanied by vivid lightning.

6th and 7th April.—Innisfail.—A tropical disturbance off the north-east coast caused strong winds, rough seas, and heavy rain between Cooktown and Bowen. A cyclonic storm occurred at Innisfail on the 6th. It commenced about 4 p.m., the wind increasing in violence, and lasted till 11 p.m., accompanied by torrents of rain and terrific lightning. Captain White's house was wrecked, and a number of other buildings damaged. The cane crops also suffered from the storm. At the Goondi State School the back verandah was partly blown down, books destroyed and the whole building shifted 6 inches on the blocks.

22nd April.—*Brisbane Courier*.—The *Kulambangra*, 2,005 tons gross, in the command of Captain C. Mill-Menmuir, and owned by Lever's Pacific Plantations Limited, arrived unexpectedly in Brisbane yesterday. The vessel was on a voyage from the Solomon Islands to Sydney, when a series of terrific storms was encountered, and the ship, which should have arrived in Sydney on 17th April, was so seriously delayed that the coal supply ran short, and a course was shaped to Brisbane to replenish bunker supplies.

Captain Mill-Menmuir reported that the steamer left Gavatu on Friday, 12th April, the wind blowing from the west, and gradu-

ally increasing in velocity until on Saturday evening it reached the force of a gale.

The barometer fell rapidly, and later cyclonic conditions prevailed. The vessel's head was turned to the northward, but at midnight the wind moderated, and early on Sunday morning the vessel was again steered on a southerly course. The lull was only temporary, however, for the ship had not proceeded very far to the southward when the wind hauled round to the north-west and blew as hard as it had done a few hours previously. At 2 p.m. on Sunday there was another spell of moderate conditions, but at 4 p.m. the barometer fell to 29.30 in. and a strong gale brought up a heavy sea, against which the *Kulambangra* battled splendidly. The worst was yet to come, however, but the way the ship rode out the hurricane filled the captain and officers with admiration for her sea-going qualities. The barometer fell to 29.10 in., which Captain Mill-Menmuir understands is the lowest reading on record in that latitude. For hours the wind blew with hurricane force, accompanied by heavy pyramidal seas. The ship's head was again turned in a northerly direction, and from 7 to 10 o'clock that night the vessel was in the grip of a terrific hurricane. The *Kulambangra* was "hove to" until 4 p.m. on Monday, at which hour the barometer was 29.50 in. A southerly course was again steered, but on Tuesday the barometer fell to 29.20 in. Heavy rain squalls, thick dirty weather, a high north-west wind, and heavy seas were experienced until 10 p.m., when the wind veered to the north-east, and at daybreak on Wednesday last (17th) the weather was fine.

2nd May.—Proserpine.—Wind of hurricane force for about two hours during early morning; rain fell all over the district.

20th June.—Strong S.E. gale conditions with fierce squalls and high seas off Cooktown.

23rd and 24th June.—Very severe E. to N.E. gales and high seas on sub-tropical coast. Shipping delayed. Masters of vessels that subsequently arrived at Brisbane report that the night of the 24th was the worst they ever experienced.

14th July.—Lord Howe Island.—Whole gale—the most violent experienced for several years—lasted from 8 p.m. to midnight.

15th and 16th August.—A depression off the south-east coast caused heavy weather with strong southerly to south-easterly gales and rough to high seas south from Sandy Cape.

28th August.—Toowoomba.—Shortly after 1 o'clock a terrific storm passed over and heavy rain fell accompanied by wind of great velocity. Some damage was done to orchards, and part of a blacksmith's shop in Neil-street was unroofed. A strong wind and hail storm was experienced about the same time at Dalby.

5th September.—Very heavy duststorm at Thargomindah; wind blew very strongly from northward for a time.

22nd September.—Marked freshening of S.E. trade winds on far northern coast due to sudden extension of high pressure waves from southward; moderate gale force reached at Thursday Island.

4th October.—Texas.—A storm of hurricane strength from westward occurred at 2.30 p.m.; trees blown down, and other damage done.

St. George and other places along and near the southern border experienced heavy dust blows with little or no rain.

14th October.—Severe thunderstorms, preceded by heavy dust blows, occurred in Darling Downs and South Coast divisions. Considerable damage done at Gatton Agricultural College; sheds unroofed, and trees blown down at Crow's Nest, Helidon, Toogoolawah, Toowoomba, and other places; house blown over near Lowood and others unroofed in the same locality, whilst a terrific whirlwind completely wrecked W. Markwell's training stables.

17th October.—Winton.—A whirlwind of considerable force from the north-east passed about 2 p.m.; wires were blown off telegraph poles.

20th October.—Rockhampton.—Several large whirlwinds from the west, observed.

23rd and 24th October.—The rain storm which had been operating over the southern half of the State passed out to sea on night of the 23rd, and easterly winds reached strong gale force between Cape Moreton and Flat Top Island, with rough to high sea on the 24th.

8th November.—Heavy thunderstorms with hail and violent wind occurred during the night at Chinchilla, Baking Board, and Neilton (near Clifton). A large amount of damage done to buildings, trees, crops, &c.

9th November.—Blackall.—A terrific windstorm with hail occurred about 10 p.m. Although the storm lasted about 10 minutes only, many houses were unroofed, verandahs blown down, windows broken, and buildings in course of erection flattened out. No house escaped without some damage.

10th November.—Charleville.—A hurricane of wind accompanied by clouds of dust passed over during the afternoon. Large trees were uprooted and snapped off, and buildings were unroofed. Rain with heavy thunder and vivid lightning followed.

10th November.—Maneroo.—Terrific storm. Intensely vivid lightning, and for some time one continuous roll of thunder. The wind blew with hurricane force and damaged buildings, whilst rain fell in sheets. Towards the end of the storm hail fell for about five minutes.

10th November.—Hughenden.—A very heavy storm from south-west passed over at 5 p.m., accompanied by strong wind and heavy rain. At Nelia the Federal Pastoral Company's portable shearing plant was almost completely demolished, and a shearer was struck by lightning, but not fatally injured.

11th November.—A severe cyclonic blow occurred at Koorboora, near Chillagoe; considerable amount of damage done to buildings; top story blown off a new residence; 4 inches of rain fell during the storm.

15th November.—Thargomindah.—Heavy duststorm; gale during night.

23rd November.—A monsoonal depression formed over south-eastern interior and moved to the ocean. It caused thunderstorms of very severe type, and much damage resulted in Brisbane and suburbs, including Paddington, Soudan Estate, Torwood, Kelvin Grove and Albion, from the fierce westerly blow, heavy rain and lightning. Fifty points of rain fell at the Observatory in half an hour; the temperature dropped 14 degrees, and the barometer rose more than a tenth of an inch in a few minutes. This storm was experienced with various degrees of intensity in the Darling Downs and South Coast divisions.

24th November.—Severe cyclonic but shortlived storm occurred in afternoon at Bamford (Chillagoe district); many places were unroofed; very light rain fell.

26th November.—Cyclonic storm from southward, which lasted half an hour, passed over Laidley and vicinity at 1.15 p.m., accompanied by hailstones the size of pigeons' eggs.

26th November.—A severe dust storm broke over Charters Towers about 3 p.m.; several houses unroofed at Richmond Hill and Millchester. Telegraph lines to Townsville blown down near Sellheim, where the storm was very severe.

10th December.—Wondai.—A thunderstorm of a cyclonic nature, with terrific wind, heavy rain and light fall of hail,

occurred during the afternoon, and lasted about half an hour. A number of sheds were unroofed, and trees blown down; 98 points of rain registered.

10th December.—Sea Hill.—Wind and thunderstorm about 8 p.m.; cottage unroofed.

19th and 20th December.—Cyclonic storms occurred in the eastern half of Darling Downs and adjacent parts of south coast division, and more or less damage was done by the high winds, notably at Kilcoy (where 347 points of rain fell), Toogoolawah, Millmerran and Oakey.

23rd December.—A terrific storm of rain, heavy wind, and vivid lightning, passed over Aramac during the night. A portion of the top story of the Marathon Hotel was blown away; several iron telegraph poles were twisted, and the telegraph service interrupted.

23rd December.—Goondiwindi.—The heaviest windstorm for years occurred; a few houses unroofed.

24th December.—Langlo Crossing and Mount Morris cyclone.—The following report, dated 31st December, 1912, was received from Charleville:—

“Thunderstorms continue to occur in the vicinity of the town, the weather being extremely hot and muggy, with an overcast sky.

Referring to the recently reported severe storm at Langlo Crossing, the following report comes from Mount Morris Station, 20 miles from the Crossing. The narrator says:—“Never in my experience have I encountered such a terrific cyclone. The manager of the station, Mr. John O'Sullivan, was out on the run with eight stockmen, and all were returning to the head station. Mr. O'Sullivan was driving a buggy and pair and was accompanied by his son and the book-keeper. They were overtaken by the cyclone, which lasted about two hours. The ground for miles was thickly strewn with fallen timber, and the creeks and gullies rapidly overflowed. Mr. O'Sullivan took the horses from the buggy with much difficulty, they being almost mad with fright. So fierce was the cyclone that the buggy, which had the hood up, was carried by the wind a distance of 50 yards, with the boy still in it, and dashed against a wire fence. One of the stockmen was partially stunned owing to lightning striking a tree within a few yards of him. The track of the cyclone was from 8 to 10 miles in width, and the wind completely wrecked many miles of fencing, and blew over about 500 posts in the rabbit netting fence on the southern boundary of the run. There were from 3 inches to 4 inches of rain, and the Langlo River rose bank high.”

25th December.—Alroy (Longreach district).—A cyclonic storm occurred during the night, and a good deal of damage was done. The wind blew with terrific force and unroofed outhouses and uprooted trees for miles around. Rain fell in torrents, and 40 points were recorded in a very short time.

28th December.—Thargomindah.—Hurricane; trees and poles for electric light wires blown down.

30th December.—Charters Towers.—A sharp wind, hail, and thunder storm occurred between 6.30 and 7.30 p.m. The lightning was very vivid. Some damage was done to residences and outhouses; one residence unroofed.

1913.

8th-9th January.—A monsoonal disturbance caused moderately severe gale conditions south from Townsville.

13th-17th January.—A tropical disturbance caused heavy gale conditions and very heavy rain south from Townsville.

16th January.—Winton.—A terrific whirlwind occurred at 2.40 p.m. One building unroofed; sheets of galvanized iron and pieces of timber carried from 50 to 300 yards in a north-westerly direction.

20th-23rd January.—A tropical disturbance affected coast near Bowen, but recurved and moved away on an E.S.E. course. It caused heavy weather and high seas on coast south from Broad Sound.

22nd-23rd January.—A monsoonal disturbance caused severe gale conditions between the Strait and Cardwell.

29th-31st January.—A terrific tropical disturbance struck the coast between Cooktown and Cardwell during the evening of the 29th and caused great damage, especially at Cairns, Innisfail, and Yarrabah. In the Tully River, Maria Creek, and Liverpool Creek districts, about 90 per cent. of the banana crop was destroyed. The S.S. *Innamincka* was blown on to the Alexandra Reef near Port Douglas. Highest floods on record occurred at Innisfail, Cairns, and some other places. The gale moderated on the 31st. The storm system pursued a westerly course, and affected Port Darwin on the 4th February.

9th February.—(From reports published in the *Melbourne Age* and *Argus*.)—Nukualofa, Tonga, Fiji.—Terrific hurricane occurred; no lives lost, but heavy damage done to property. Reports indicated that the hurricane was of a local character, and confined mainly to Nukualofa; great damage done to the cocoa palms; schooner *Borealis* wrecked.

19th February.—Tremendous wind and rain storm at Aramac, and heavy storms also in other parts of Central districts.

25th February.—Easterly gale on coast between Townsville and the Tropic.

5th April.—Strong south-east to east gales on coast south from Townsville.

9th to 11th April.—Severe gale conditions (associated with rapidly increasing pressure) on coast south of Sandy Cape.

22nd and 23rd May.—Very unsettled weather with strong squally easterly to south-easterly winds on central coast.

24th May.—Strong gale, which veered from N.E. to N.W. and W. at Double Island Point.

21st November.—Sapphire town.—A terrific cyclone swept over the field. Houses unroofed, trees uprooted, and tents blown to ribbons.

22nd November.—Some thunderstorms with cyclonic blows occurred in Central Highlands division. At Emerald, many

houses were unroofed, and other damage was done by wind and heavy rain. Damage also done at Beaudesert and at Mulgowie in the Laidley district.

3rd December.—Maryborough.—Severe thunderstorms, with tornado-like squalls; some damage done to buildings; very little rain.

3rd December.—Alice Downs (between Charleville and Morven).—Cyclonic blow occurred; several houses unroofed.

5th December.—Elphinstone (near Clifton).—Cyclonic wind-storm; railway truck blown off line; several buildings partly unroofed; many outbuildings on farms levelled to the ground.

9th to 13th December.—Thunderstorms, accompanied in many instances by cyclonic blows and hail, occurred over the greater part of Queensland east from a line joining Burketown and Hebel.

16th December.—Winton.—Severe cyclonic blow. Considerable damage done.

19th December.—Charleville.—A windstorm of cyclonic nature passed over the town in the evening. A few houses were unroofed, and large limbs broken off trees.

26th December.—Selwyn.—A severe storm broke over the district in the afternoon. Much damage done to property; many dwellings unroofed, and some demolished; huge trees uprooted, and branches carried a considerable distance.

31st December.—A tropical disturbance caused strong gales, heavy rains, and exceptionally rough weather in and near Torres Strait. A week's boisterous weather at Thursday Island culminated on the 31st with the fiercest blow experienced for 14 years; schooner *Federal* driven ashore.

Summary for 1913—(Supplied by the Divisional Officer, Weather Bureau, Brisbane.)—The "Hurricane Season"—January to March was again fortunately of a comparatively mild nature. Certainly tropical storms visited the State rather frequently, especially during the opening month, but except for severe cyclonic blows and mountainous seas between Port Douglas and Cairns on the 30th, which caused the stranding of the S.S. *Innamincka* on Alexandra Reef—they passed without producing the disastrous results which so often attend their passage.

LIST OF RECORDED STORMS IN FIJI.

REPRINTED FROM "HURRICANES IN FIJI" BY C. H. KNOWLES, B.Sc. (LONDON)—BULLETIN No. 2 OF THE DEPARTMENT OF AGRICULTURE, FIJI.

Date.		Description.	Sources of Information.*	Part of Group Affected.	Direction of Travel.*	Lowest Readings of Barometers.†	
Year.	Month.						
1848	Jan.	Hurricane	T.				
1856	March	Great Cyclone	H.				
1866	March	Great Cyclone	H.				
1871	March	Violent Hurricane	H., T.	The whole group was affected. The centre was said to pass over the Western portion of the group			
1873	Dec.	Hurricane	H.	Taviuni and Eastern side of group, including most of the Lau Islands			
1875	Jan.	Hurricane	H., T., W.	The Northern portion of Viti Levu and the centre of the group. Levuka especially suffered severely	S. by W. (?) (W.)	29·40 Makogai	
1876	March	Cyclone	W.	The N.E. coast of Viti Levu	S. (?) (W.)		
1879	Dec.	Hurricane	H., T., W.	N.W. and W. of Viti Levu	S. (W.)		
1881	March	Strong Cyclone	W.	W. of Viti Levu	S.E. (W.)		
1882	Jan.	Strong Cyclone	W.	S.E. portion of Viti Levu	E.S.E. (W.)		
1883	Jan.	Hurricane	H.	E. side of group. Taviuni suffered severely			
1883	Feb.	Strong Cyclone	H., W.	Centre of group and Levuka. (H.) E. of E. coast of Vanua Levu	S.E. (W.)		
1886	Jan.	Strong Cyclone	W.	W. coast of Viti Levu	S.E. (W.)		
1886	March	Very severe Hurricane	H., T., W., G.	E. part of group. Taviuni and Lau. (W.)	S. by E. (W.) S.S.W. to Ngau, then S.S.E. (H.)	29·000 Suva (G.) 27·57 Buca Bay (H.) 28·87 Buca (H.) 28·76 Levuka (W.)	
1888	Feb.	Hurricane	W.	E. portion of group	S.E. (W.)	28·53	
1889	Jan.	Hurricane	T., W., S.	E. portion of group. Severe in Taviuni	S.S.E., then N.N.W. (W.)	29·51 Matuka (S.) 29·41 Levuka (W.)	
1890	Feb.	Cyclone	S.	Recorded in Lau only		29·51 Matuka (S.)	
1891	Feb.	Cyclone	S.	Recorded in Lau only		28·87 Vanuabalavu (S.)	
1892	Dec.	Cyclone	T., W., G.	N. coast of Vanua Levu	S.W. (W.)	29·354 Suva (G.)	
1895	Jan.	Severe Hurricane	T., W., S., G.	E. coast of Vanua Levu, Ovalau, Suva, Rewa	S.W. (W.)	28·80 Vanuabalavu (S.) 28·19 Levuka (W.) 28·248 Suva (G.) 29·24 Munia (S.)	
1899-00	Dec. 31, Jan. 1	Hurricane	T., S.	Recorded from Lau only			
1900	Feb.	†	S.	Recorded from Lau only		29·54 Munia (S.)	
1900	March	†	S.	Recorded from Lau only		29·54 Munia (S.)	
1901	Jan.	†	S.	Recorded from Lau only		29·62 Munia (S.)	
1901	March	Hurricane	T., W., G.	N.E. of Viti Levu, Ovalau, Wakaya, Ngau	S.E. (W.)	29·600 Suva (G.) 28·40 Levuka (W.)	Severe, but of short duration
1901	April	†	S.	Recorded from Lau only		29·48 Munia (S.)	
1903	Jan.	†	S.	Recorded from Lau only		29·45 Munia (S.)	
1903	April	Cyclone	W.	Lomaiviti	S.E. (W.)	29·36 Levuka	
1904	Jan.	Hurricane	T., W., H., S., G.	Lomaiviti and Buca (W.)	From N.W. (H.) N.W. and then S.E. (W.)	29·068 Suva (G.) 29·23 Munia (S.) 28·27 Levuka (W.) 29·056 Buca (H.) 29·21 Munia (S.) 29·64 Levuka (W.)	
1905	Jan. 6	Cyclone	W., S.	E. of group, Taviuni and Lau	S.S.E. (W.)	29·40 Levuka (W.)	
1905	Jan. 20	Cyclone	W., T.	Lau to Nadi	W. by S. (W.)	29·08 Munia (S.) 29·36 Levuka (W.)	
1908	Jan.	Hurricane	W., S.	Taviuni and Lau	S.S.E.	29·316 Suva (G.) 28·80 Suva (G.) 28·28 Levuka (W.) 29·28 Munia (S.)	
1908	March	Hurricane	G.	W. and S. of Viti Levu	S.S.E. (G.)		
1910	March	Hurricane	W., S., G.	Lau, Ovalau, Viti Levu	W. by S. (W.)		
1912	Jan.	Hurricane	W., S.	Vanua Levu, Taviuni, and part of Lau	E. by S.	29·10 Suva 29·08 Levuka 28·15 Taviuni 28·28 Labasa	
1913 §	Feb. 9	Hurricane	Melbourne Age and Argus	Nukualofa, Tonga			

* REFERENCES.—The letters in columns 3 and in parentheses in 4, 5, and 6 refer to the authorities as follow:—

T.—Almanac published by the *Fiji Times* newspaper, and giving the dates of storms.

H.—Papers by Mr. R. L. Holmes, taken from the Quarterly Journal of the Royal Meteorological Society; Vol. xiii, No. 61, January, 1887, and Vol. xxvi, No. 135, January, 1905.

W.—Captain W. Wilson, Harbor Master, Levuka.

S.—Mr. H. H. Steinmetz, Munia, Lau.

G.—Government Meteorological Observer (the Government Storekeeper up to end of 1905, the Supt. of Agriculture subsequently).

† The pressures given in this column for Suva, Buca, and Levuka are reduced to 32° F. and M.S.L. It is not known whether the other figures are readings or corresponding reduced pressures.

‡ These storms are referred to by Mr. Steinmetz as "gales." In some of them the wind was observed to shift, and they were, therefore, probably cyclones. They did not reach the severity of hurricanes. The other terms used in this column may be arranged in order according to extent and severity as follows:—Cyclone, strong cyclone, great cyclone, hurricane, severe hurricane, and very violent or very severe hurricane.

§ Details available of this hurricane are included in notes on Windstorms for 1913, page 159.

TABLE I.—RETURN SHOWING RECORDS OF ANNUAL RAINFALL (IN INCHES AND HUNDRETHS) AT ALL STATIONS IN QUEENSLAND, WITH THREE YEARS' AND UP TO FOURTEEN YEARS' RECORDS, 1899-1912 INCLUSIVE.

Table with columns for years 1899-1912 and a final column for 'Number of Years for Mean'. Rows are categorized by station names: PENINSULA (Booby Island, Thursday Island, etc.), CARPENTARIA (Lorraine, Monk Cutthbert, etc.), NORTH COAST (Chillagoe, Hambleton Mill, etc.), and HERBERT (Dunk Island, Ewan, etc.). Each year column contains 'Rain-fall' and 'Days' sub-columns.

(* Indicates Footnote.)

Booby Island—1908.—Record for the last five months only.
† Peninsula South.—All records from stations in this minor subdivision appear in Table II.
Mount Cuthbert—1908.—Record for the last four months only.
Riversleigh—1912.—Record of the number of days of rain for the last two months only.
Elnasleigh—1908.—Record for last two months only.
Lueknaw—1912.—No record of the number of days of rain for July.
Quambyook, Kynuna—1902.—Record for February, March, April, and May only.
1903.—Record for December only.
1907.—Record for the first six months only.
Stamford—1899.—Return for January incomplete.
1900.—No record for April, May, or June.
1912.—Record for first two months only.
Chillagoe—1902.—No record for January or February.
Hambleton Mill—1899.—No record for the first five months.
1902.—No record for May or the last six months.
1903.—Record for the last six months only.
Mount Garnett—1901.—No record for the first two months or for August.
1902.—Record for the last six months only.
Mount Molloy—1908.—Record for February and March only.
1909.—No record of the number of days of rain for April or May.
1910.—Record for January to August inclusive, approximate only, taken from new Observer's private diary; and no record of number of days of rain for the first five months.
Incomplete Annual Totals not used in determining Means.

South Mossman, Richmond Plantation—1911.—No record of the number of days of rain for the first five months.

Ewan—1903.—Record for the last two months only.
1904.—Record of the number of days of rain for the first three months only.
1905.—Record of the number of days of rain for the last six months only.
1907.—No record for the last three months.
1909.—No record for the first four months.
1909.—Record for the first five months only.
1910.—Record for the last three months only.
1911.—No record for April.

Townsville Pilot Station—1903.—No record for the last four months.
1906.—No record for the first three months.

TABLE I.—RETURN showing Records of Annual Rainfall (in Inches and Hundredths) at all Stations in Queensland, with Three Years' and up to Fourteen Years' Records 1899–1912 inclusive—continued.

(* Indicates Footnote.)

Names of Subdivisions, Minor Subdivisions, and Stations.	1899.		1900.		1901.		1902.		1903.		1904.		1905.		1906.		1907.		1908.		1909.		1910.		1911.		1912.		Mean.	Number of Years for Mean.				
	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.			Rain-fall.			
CENTRAL COAST.																																		
<i>East Central Coast.</i>																																		
Acacia Vale	43.75	65	32.02	47	50.21	64	7.98	29	38.87	46*	35.65	42	51.91	73	108.18	99	58.19	69	37.75	54	39.39	59	66.42	88	53.45	71	31.77	57	42.09	60	10			
Bron	3.23*	8*	25.64	62	52.56	57	19.94	38	52.10	77	35.65	42	51.91	73	108.18	99	58.19	69	37.75	54	58.57	78	56.09	81	48.22	49	31.40*	56*	52.64	65	13			
Flax Top Island .. .	10.51*	27*	26.44	86	35.43	97	18.99	72	45.28*	104*	37.55	72	55.58	103	75.92	128	44.54*	71*	59.74	53	62.18	95	73.32	103	48.47	65	30.08	83	46.04	65	13			
Mitrahorne .. .. .	.. .. .	.. .. .	36.25	81	61.80	106	22.75*	68*	69.75*	95*	39.72	62	54.18	79	107.26	99	46.12	76	6.69*	22*	62.31	95	80.44	92	68.50	64	34.23	60	37.58	77	14	
Prosper Estate .. .	.. .. .	.. .. .	11.13	29	24.15	43	8.18*	17*	91.18	..	50.86	..	70.07	102	116.80	142	57.08	91	68.16	103	49.69	33	30.44	68	62.31	64	40.68	64	56.54	77	14	
Prosperine, Central Hill ..	22.59*	38*	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .
Ravenwood Junction .. .	16.28*	35*	49.13	96	62.25	100	32.37	67	71.47	107	49.86	78	65.76	91	111.85	122	42.92	79	83.06	103	49.69	38	132.11	142	72.89	89	49.84	105	76.06	109	10			
Saripa	22.84*	35*	13.82	33	24.79	54	2.31*	22*	56.10*	43*	19.59	28	18.45	35	47.33	62	32.56	49	16.20	38	25.36	31	42.62	60	72.81	87	43.70	112	25.14	42	11			
Walfaston .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .
Woodstock		
<i>West Central Coast.</i>																																		
Bombandy .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	24.27	..	37.64	..	35.04	..	39.71	43	30.08	..	45.24	..	23.70	..	20.07	39	31.09	..	8
Conway, <i>via</i> Bowen .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	12.10	29	18.81*	30*	.. .. .	.. .. .	25.18	53	25.18	53	49.25	52	28.51	32	14.89	40	20.46	44	4
Hillgro	5.98*	15*	14.35	29	16.92	36	5.01	19	30.08	55	17.56	27		
Leura Station .. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	15.91	31	34.85	48	18.55*	26*	25.78	53	21.35	29	36.64	44	24.12	48	21.00	37	24.58	42	6
Mount McConnell .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	11.73	27	33.96	44	24.84	43	17.39	38	21.97	35	45.73	54	25.66	36	14.94	36	23.96	39	9
Queanton	8.07*	18*	17.14	38	26.31	53	2.81	16	14.26*	33*	25.87	35	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	.. .. .	17.39	38	23.23	58	34.52	59	24.17	37	19.69	25	21.93	40	13
Trafalgar Station, <i>via</i> Charters Towers		
Yacamunda		
CENTRAL.																																		
<i>Central Highlands.</i>																																		
Betha	13.44	48	12.82	38	14.79	41	3.09*	10*	12.73*	25*	27.28	47	17.72	36	38.99	56	30.16	46	27.15	56	11.99	41	28.58	43	23.44	34	19.30	26	22.14	43	12			
Black Ridge		
Bluff (formerly Walkom) ..	39.09	60	18.33	41	18.86	40	4.41*	10*	16.59*	29*	25.81	46	23.96	38	44.27	61	30.55	46	21.81*	50*	30.52	55	37.29	52	28.00*	18*	24.26*	30*	30.77	42	2			
Gull-la-ringo	28.78	48	14.95	36	17.07	38	10.29	17	21.03	29	23.30	28	14.64	21	30.40	45	28.75	29	23.05	32	25.88	38	28.35	40	23.25	34	28.69	34	22.75	34	14			
Northampton Downs, Out-station		
Ravenbourne Station		
Rewan		
Roche Creek		
<i>Central Lowlands.</i>																																		
Acacia Downs	
Arrihalah	
Camoola Park	
Corinda Station	
Twin Hills	15.89	26	9.35	25	9.12	24	2.09	13	17.76	34	15.22	45	18.39	26	37.64	57	22.92	42	14.45	35	27.09	41	29.25	43	19.14	40	17.77	27	18.29	34	14			
Wee Dunrobin	
Yalleroid	
WESTERN.																																		
<i>Upper Western.</i>																																		
Barclay Downs
Calton Hills	
Hamilton Downs	
Vergemont Station	
<i>Lower Western.</i>																																		
Annandale																																		

Table with 18 columns representing years (34-72 to 34-99) and 18 rows of station names (Klora, Gladstone, Llandilly, Gogango Cent, Railway, Many Peaks, Milton Station, etc.).

Acacia Vale—1903.—No record for the last six months. Eton.—1907.—May total taken from Mirani record. 1909.—December total taken from Mirani record. 1912.—Totals for the last three months obtained from telegraphic reports.

TABLE I.—RETURN showing Records of Annual Rainfall (in Inches and Hundredths) at all Stations in Queensland, with Three Years' and up to Fourteen Years' Records, 1899–1912 Inclusive—continued. (* Indicates Footnote.)

Table with 14 columns for years (1899-1912) and 2 columns for Rain-fall (Days, Mean). Rows list various Queensland stations such as Hillcrest, Howard, Ipswich, Kenilworth, Kingaroy, Maleny, Mannuon Creek, Mapleton, Miva, Mount Alford, Mount Gravatt, Mount Mee, Mirgon, Norman Park, Kudger, Nakinenda, One-mile, Gympie, Ormesby, Ormsion, Ormsion, Oxford, Paluba, Tampa, Riverview, Roostate, Rockliffe, South Passage, Tathong, Tully, Wehewah, Warkfield, Windera Creek, Winton, Woodwin, Zillmere, Darling Downs, East Darling Downs, Bell Railway Station, Doctor's Creek, Gladfield, Goombungee (Mr. J. E. Horn), Goombungee, Gowrie Junction, Hallford, Jondaryn, Kairi, Kairi, Kuyura, Lagoon Flat, Macalister, Macalister, Marrubidgee, Marrubidgee, Millmerran, Mount Irving, Oakay, Pelican, Silverpur, Turralin, Undercollie, Wondall.

Station	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	Total	Remarks
DARLING DOWNS.															
† <i>West Darling Downs.</i>															
‡ MARAKOA.															
SOUTH-WEST.															
‡ <i>Warrego.</i>															
Arabella Station	13.57	49	13.84	49	17.24	44	19.36	41	15.84	41	19.36	44	17.24	44	12.80
Balendool	18.12	45	18.12	45	17.54	44	19.36	41	15.84	41	19.36	44	17.24	44	15.84
Bearman	21.94	40	21.94	40	17.54	44	19.36	41	15.84	41	19.36	44	17.24	44	20.78
Bona Downs	11.90	23	11.90	23	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	23.44
Boothulla	13.69	50	13.69	50	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	14.35
Glencoe	15.40	46	15.40	46	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	11.43
Govrie Station, Charleville	15.33	24	15.33	24	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	11.43
Gundare	17.14	43	17.14	43	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	15.37
Hebel	17.04	51	17.04	51	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	23.20
Kilcours	12.03	33	12.03	33	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	15.51
Koe Nee	12.75	36	12.75	36	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	17.13
Tineburra Woolshed	17.69	29	17.69	29	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	12.13
Victoria Downs	18.49	34	18.49	34	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	21.36
Werrina	20.21	60	20.21	60	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	15.29
Yandarlo	16.86	40	16.86	40	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	23.14
Yarrowonga, near Charleville	18.74	49	18.74	49	16.09	39	16.77	41	14.61	28	16.77	41	14.61	28	17.04
<i>Far South-West.</i>															
Eroungella	12.58	22	12.58	22	13.98	32	16.08	54	8.63	26	31.65	54	16.08	32	17.46

Howard.—1900.—October total deduced from Chillers and Yengarie records. 1900.—Totals for March, April, and May obtained from telegraphic returns, and those for June, July, and August taken from Chillers records. 1901.—Totals for November and December deduced from Chillers and Yengarie records. 1903.—Totals for April, May, and June obtained from telegraphic returns.

Ingram, Woodhull—1909.—No record for the first four months. 1900.—No record for January. 1910.—No record for the first five months. 1912.—No record for the last two months.

Kia Ora, Goomet—1908.—No record for the first four months. 1900.—No record for October. 1910.—No record for the last five months. 1912.—No record for the last two months.

Manuen Creek.—1900.—No record for January. 1901.—No record for the last five months. 1903.—No record for the last five months.

Mapleton—1903.—No record for January. 1900.—No record for the last five months. 1910.—No record for the first five months.

Mount Alford—1911.—No record for the first three months. 1900.—No record for the first four months.

Mount Gravatt, near Brisbane—Records taken by S. Jackson Esq., Head Teacher, State School—1906.—Record for April only. 1909.—No record for the first three months. 1900.—No record for the first four months.

Mount Mee.—1900.—No record for the first three months. 1909.—No record for the first four months.

Murgon—1902.—No record for first four months. 1900.—No record for January and February. 1909.—No record for last three months; observations discontinued.

Kildesee.—1911.—Record for August, September, October, and November only. 1912.—Record for March, April, and May only.

Makinenda—1904.—Record for the first two months only. 1900.—No record for the last three months. 1903.—No record for the last four months.

Ormsby (formerly Cedar Pocket)—1909.—No record for the first six months.

Ormiston.—1900.—No record for May. 1902.—No record for December. 1903.—No record for the first five months.

Oxenford.—1900.—No record for January. 1902.—Record for January, February, March, and November only. 1903.—No record for the first five months.

Plalba.—1900.—January total obtained from telegraphic returns; February total taken from Woody Island records. 1902.—December total obtained from telegraphic returns. 1906.—No record of the number of days of rain for November. 1907.—Totals for November and December taken from Woody Island records. 1908.—No record for the last four months. 1911.—No record of the number of days of rain for July, August or October. 1900.—No record for the last three months only. 1902.—Record for the last six months only. 1903.—No record for the last five months. 1909.—No record for the first five months.

Readvale.—1907.—No record for January, February, or December. 1911.—Totals for last six months estimated from Englesburg and Boonah returns; no figures available for Roadvale. 1912.—Total for January estimated from Harrisville, Englesburg, Rosewood, and Ipswich returns.

Rocklea.—1899.—Record for the last five months only. 1903.—No record for April and May. 1900.—No record for January. 1901.—No record for January. 1903.—No record for January.

South Passages.—1899.—Record for the last five months only. 1910.—No record for the last five months.

Tallebudgera.—1899.—No record for the first five months. 1912.—Total for December obtained from telegraphic reports.

Winders Creek—1910.—Record for last three months only. 1900.—No record for the last three months only. 1909.—Record for December only.

Wooroolin—1910.—No record for the first three months. 1900.—No record for the first four months.

Zillmere—1899.—No record for the first four months.

Bell Railway Station—1910.—No record for January or February. 1900.—No record for January. 1909.—Record for last five months only. 1910.—No record for the last five months.

Govrie Junction.—1899.—Record for last five months only. 1910.—Total for August estimated from Oakley, Toowoomba, and Spring Bluff figures.

Hallford.—1909.—Record for November and December only. 1910.—No record of the number of days of rain for March. 1900.—No record for the first four months.

Jondaryan—1899.—No record for the first four months. 1900.—No record for the first two months. 1911.—No record for May.

Kaimkillenbun.—1900.—No record for the first two months. 1911.—No record for May.

Maianbar, Allora—1912.—No record of number of days of rain for first five months.

Macalister.—1902.—Record for March only. 1903.—Record for last four months only.

Marndull.—1900.—No record for January or February. 1902.—No record for first three months. 1903.—No record for first six months. 1905.—No record for May, June, July, August, or September. 1907.—No record for April, May, July, August, or September. 1910.—No record of number of days of rain for July.

Millingand—1910.—No record for the first five months.

Millmerran.—1900.—No record for January. 1901.—No record for March. 1903.—No record for January.

Mount Irving.—1899.—Record for November and December only. 1902.—No record for July, August, October, November, or December. 1903.—No record for January, February, or March.

Oakey—1899.—No record for January or February. 1903.—No record for the first six months. 1905.—No record for the first two months. 1907.—No record for the first four months, or September.

Turallin—1909.—No record for January, February, or May. 1900.—No record for the first five months.

Wondall—1910.—No record for the first five months.

† **West Darling Downs.**—All records from stations in this minor sub-division appear in Table II.

‡ **Maranoa.**—All records from stations in this subdivision appear in Tables II. and III.

Glencoe—1909.—No record for the first four months. 1910.—Record for the last three months estimated from Glencoe, Bundaleer, and Hungerford figures.

Govrie Station, Charleville—1912.—No record of the number of days of rain for the first three months.

Hebel.—1899.—Record for the last five months only. 1900.—No record for July. 1907.—No record for November.

Nee Nee.—Record for February, March, April, November, and December only. 1903.—No record for June.

Tineburra Woolshed.—1903.—No record of the number of days of rain for the last three months. 1910.—Record for the last three months estimated from Glencoe, Bundaleer, and Hungerford figures.

Werrina—1903.—Record for last three months only. 1900.—No record for the last six months only.

Yandarlo—1908.—Record for last six months only.

Eroungella—1911.—Record for the last two months only.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN SHOWING ANNUAL RAINFALL RECORDS (IN INCHES AND HUNDREDTHS) IN QUEENSLAND, 1879-1912 INCLUSIVE.

(* Indicates Footnote.)

Table with columns for Subdivisions and Minor Subdivisions, Stations, Year, Rain-fall (Inches and Hundredths), and Days. It is divided into PENINSULA—Peninsula North and PENINSULA—Peninsula South, with a separate section for CARPENTARIA—Lower Carpentaria.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued. (* Indicates Footnote.)

Table with columns for Subdivisions and Minor Subdivisions, Stations, Year, and various rainfall and days columns for locations: Cloncurry, Croydon, Donor's Hill, Eddington, Eulolo, Floraville, Fort Constantine, *Granada, Ilfley Station, Lawn Hill, Lilydale, MacKlinay, Manfred Downs.

Cape York—
1887.—Record for last four months only.
1894.—Record for first six months only.
Gooda Island, Torres Strait—
1887.—Record for July and last four months only.
Napoon, Batavia River—
1894.—December rainfall estimated from McDonnell and Moreton records.

†Somerset—continued.
1867.—Total for January to July inclusive, 63.33 in., 120 days.
1869.—Total for August to December inclusive, 4.29 in., 33 days.
Fairview—1890.—Record for last two months only.
Highbury—
1887.—No record for March, April, November, or December.

Canobie—continued.
1894.—No record for April.
1895.—Record for January and February only.
Donor's Hill—
1889.—No record for the first five months.
1901.—No record of number of days of rain for April.
Fort Constantine—
1900.—No record for the last four months.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	CARPENTARIA—Upper Carpentaria—continued.																											
	Moselle Downs.		Mount Emu.		Oak Park, Pentland.		Penola Downs.		Pentland.		Prairie.		Redcliffe, Hughenden.		Richmond.		Southwick.		Tamworth, Hughenden.		Tate River.		Telemon.		Telemon, Canterbury Creek.			
	Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	
1879	
1880	
1881	
1882	
1883	
1884	
1885	
1886	
1887	
1888	
1889	
1890	..	3.58*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	..	34.79*	45*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	..	7.10*	9*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1893	..	1.53*	8*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	..	6.67*	14*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1895	
1896	
1897	
1898	
1899	
1900	
1901	
1902	
1903	
1904	
1905	
1906	
1907	
1908	
1909	
1910	
1911	..	20.70	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1912	..	6.98	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Means	..	13.84	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
No. of years for Mean	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Millungera—
1890.—Record for April, May, and September only.
1893.—No record for the last three months.
1894.—No record for January, February, April, October, November, or December.
1896.—Record for the last six months only.
1899.—No record of number of days of rain for Dec.
Miranda Downs—
1890.—No record for the first four months.
1891.—Record for the first four months only.
1893.—Record for the last three months only.
1894.—No record for July or September.
1895.—Record for January, February, June, November, and December only.
1896.—Record for the first four and last three months only.
1907.—Record for the first six months only.
Morestone Downs—
1890.—Record for April only.
1893.—No record for the first three months, June, July, August, or September.
1894.—No record for April, May, June, July, August, or September.
1896.—No record for the first six months.
Normanton Hospital—
1893.—No record for January.
1907.—No record for March or December.
Burlleigh—
1890.—Record for April only.
1894.—Record for April, May, and June only.
1895.—Record for February and March only.
1896.—Record for the last six months only.
1902.—Record for January and February only.
Cambridge Downs—
1889.—No record of number of days of rain for February, March, or April.
1891.—Record for June and October taken from Richmond.
1892.—Record for last three months only.
1895.—Record for May computed from Richmond and Bunda Bunda returns.
1897.—Record for first five months only.
1907.—Record for Mar., Aug., and Sept. computed from Richmond and Bunda Bunda returns; no record of number of days of rain for April or May.
Cambridge-Lindow Selection—1897.—Record for first three months, and July only.
Christmas Creek—
1894.—Record for the last three months only.
1896.—Record for the last three months only.
Cuddeleigh Park—1911.—Record for Nov. and Dec. only.
Cumberland—
1887.—No record of number of days of rain for Oct.
1892.—November and December rainfall estimated from Georgetown and Gilbert River records.
1893.—January and February rainfall estimated from Georgetown and Gilbert River records.
Glendower—
1890.—Record for last four months only.
1891.—No record for the last five months.
1893.—No record for June.

Glendower—continued
1894.—Record for the first four months only.
1896.—Record for the last six months only.
Greenville, *via* Charters Towers—
1911.—Record for the last three months only.
Homestead—
1896.—No record for last five months.
1899.—No record for the last two months.
1900.—No record of number of days of rain for Nov.
1902 and 1903.—Totals for April, 1902 to May 1903, inclusive obtained from telegraphic returns.
Hughenden Station—
1893.—Record of the number of days of rain for the last three months only.
1896.—No record of the number of days of rain for the first three months.
Lammermoor—
1890.—Record for April, July, August, September, October and November only.
1891.—Record for Jan., Feb., Mar., and Oct. only.
1893.—Record for last three months only.
1894.—Record for last six months only.
1896.—Record for last six months only.
Lyndhurst—
1888.—Record of number of days of rain for January only.
1889.—Record of number of days of rain for November and December only.
1890.—Record for the last three months only.
1893.—Record for the last three months only.
1896.—Record for the last six months only.
1901.—No record of number of days of rain for February or December.
1904.—Record of number of days of rain for April and September only.
Marathon—
1890.—Record of the number of days of rain for the last five months only.
1891.—No record of the number of days of rain for the last six months.
1892.—Record of the number of days of rain for the first two months only.
1893.—Record of the number of days of rain for March and the last three months only.
1894.—No record of the number of days of rain for February, May, and June.
Maxwellton—
1885.—Record for December only.
1890.—Record for Mar. and the last three months only.
1891.—Record for January, February, and May only.
1893.—Record for the last three months only.
1894.—No record for the first three months.
1895.—Record for January, February, March, August, and December only.
1896.—No record for March.
1902.—Record of the number of days of rain for the first three months only.
1903.—Record of number of days of rain for September only.
Moselle Downs—
1890.—Record for the last four months only.
1891.—Record for the first six months only.

Moselle Downs—continued.
1892.—Record for Jan., Feb., Aug., and Sept. only.
1893.—Record for March only.
1894.—Record for the last six months only.
Oak Park, Pentland—
1893.—No record of number of days of rain for December.
1902.—No record of number of days of rain for March.
1904.—No record for December.
1907.—No record for November, also record of number of days of rain for December only.
Penola Downs—
1890.—No record for the first four months.
1892.—No record of number of days of rain for July, 1894.—No record for May to September inclusive, and no record of number of days of rain for Dec.
Pentland—
1887.—No record for November.
1888.—No record of number of days of rain for Feb.
1889.—No record for January, February, or April.
1891.—No record of number of days of rain for Sept.
1892.—Record for January, June, and last three months only.
1893.—No record for January, March, or April.
1896.—No record for July, August, or September.
Prairie—
1889.—Record for last two months only.
1893.—Record for January only.
1895.—Record for December only.
1899.—Record for May, June, and September calculated from Hughenden and Pentland.
1900.—Record for November calculated from Hughenden and Pentland.
1902.—No record of number of days of rain for January or December.
1903.—Record for the last four months only.
1904.—Record for the first three months, September, and December only.
Richmond—
1880.—Record for November and December only.
1897.—No record for November or December.
Southwick—
1890.—Record for March, April, May, June, and July only.
1901.—Record of number of days of rain for last three months only.
Tamworth—1901.—No record of the number of days of rain for December.
Tate River—
1890.—No record for January.
1912.—No record for December. Station closed.
Telemon—
1888.—Record of number of days of rain for the first four months only.
1889.—Record of number of days of rain for June, August, October, November, and December only.
1890.—Record for the first five months only.
1894.—Record for the last six months only.
1896.—No record for the first three months.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—*continued.*
 (* Indicates Footnote.)

Subdivisions and Minor Subdivisions	CARPENTARIA—Upper Carpentaria—continued.											NORTH COAST—Barron.																
	Stations ..	Telemon, Stewart Creek.	Torrens Creek.		Wando Vale.		Wyandette.		—		Atherton.		Bloomfield River.		Cairns.		Capo Grafton.		Evelyn, Herberton.		Glen Boughton.		Grassy Hill.		Harvey Creek.			
		Year.	Rain-fall.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	
1879		
1880		
1881		
1882	84.77	105	..	..	..	..	..	..	..	..	..	..	..	..
1883	58.46	145	72.24	118	..	..	..	..	..	..	..	..	..	..
1884	92.80	132	75.49	105	..	..	..	..	..	..	..	..	..	..
1885	79.40	180	108.19	180	..	..	..	..	..	..	..	..	..	..
1886	115.22	165	174.56	159	..	..	..	..	..	..	..	..	..	..
1887	61.42*	69*	137.33*	112*	..	..	..	..	..	..	..	..	..	..
1888	..	17.68	..	..	..	..	..	..	..	..	..	..	81.13	132	..	..	..	..	..	..	91.85	77*	..	..	..
1889	..	22.80	..	..	..	..	..	..	..	..	..	..	123.91	116	..	..	..	..	..	..	126.08	61*	..	..	..
1890	79.20	137	..	..	..	..	..	..	80.79*	59*	..	..	..
1891	134.06	144	..	..	..	..	..	..	..	..	..	..	..
1892	65.45	112	..	..	..	..	..	..	..	..	..	..	..
1893	22.62*	51*	..	..	18.94	53	..	..	..	50.20	94	..	..	..	..	..	..	31.83*	82*	..	..	..
1894	34.83	71	..	..	52.64	103	..	..	..	122.37	168	..	..	..	..	..	..	84.29	127*	..	..	..
1895	28.94	31	..	..	26.97	54	..	..	..	77.90	140	..	..	..	..	..	..	57.81	129	..	..	..
1896	26.58	58	..	..	..	21.19*	46*	..	..	..	..	..	..	88.18	167	..	..	..
1897	21.94*	39*	..	..	23.24	40	..	..	..	94.24	141	130.66	155	..	..	..	..	52.41*	82*	..	..	..
1898	5.09*	8*	..	..	20.11	51	..	..	..	66.51	138	..	..	..	..	..	..	..	..	..	..	..
1899	18.95*	36*	..	..	24.00	52	..	..	..	46.62	127	..	..	..	..	..	..	..	..	..	..	..
1900	12.00	28	..	..	15.94	23	..	..	..	83.54	132	..	..	..	..	..	..	108.81	121	..	..	..
1901	12.55	42	..	..	24.24	50	..	..	..	4.38*	47*	..	..	..	..	..	..	75.75*	..	..	..	..
1902	5.87	21	..	..	18.69	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1903	13.18	58	..	..	27.68	65	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1904	10.47	38	..	..	25.46	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	11.23	30	11.46	..	19.97	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1906	24.91	52	35.02	..	34.74	51	..	..	..	35.54	102	..	..	..	..	..	..	..	..	..	..	..
1907	21.74	47	31.20	..	29.59	45	..	..	..	61.50	158	..	..	..	..	..	..	..	..	..	..	..
1908	14.16	43	16.07	..	20.56	37	..	..	..	42.77	115	..	..	..	..	..	..	..	..	..	..	..
1909	39.62	47	22.41	..	25.66	42	..	..	..	42.76	125	..	..	..	..	..	..	..	..	..	..	..
1910	27.58	46	33.54	..	35.35	49	..	..	..	47.63	102	..	..	..	..	..	..	..	..	..	..	..
1911	29.09	27	27.52	..	29.98*	36*	..	..	..	81.57	127	..	..	..	..	..	..	..	..	..	..	..
1912	11.63	27	18.45	7*	..	..	..	..	..	76.44	77	..	..	..	..	..	..	..	..	..	..	..
Means ..	20.24	..	20.07	41	25.57	..	25.52	49	53.57	125	86.50	155	90.49	130	91.67	141	71.05	..	117.78	137	50.92	115	165.58	130
No. of years for Mean	2	..	18	18	9	..	18	18	11	11	4	4	30	30	6	6	2	..	4	2	17	17	16	14
Subdivisions and Minor Subdivisions	NORTH COAST—Barron—continued.																								NORTH COAST—Herbert.			
	Stations ..	Herberton.		Irvinebank (formerly Montalban).		Kamerunga State Nursery.		Kuranda.		Low Island.		Mareeba.		Mulgrave Mill, vid Nelson.		Port Douglas.		Thornborough.		Vilele.		Yarrabah.		—		Cape Bowling Green.		
		Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.		Rain-fall.	Days.	Rain-fall.	Days.
1879	64.09	95	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1880	98.82	86	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1881	40.12	95	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1882	37.02	108	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1883	42.41	82	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1884	76.61	74	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1885	74.35	125	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1886	..	49.00	114	..	..	..	..	..	..	86.53	122	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	..	47.31	97	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1888	..	32.84	87	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1889	..	45.39	103	13.75*	28*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1890	..	47.32	167	37.13	84	84.60	155	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	..	51.09	164	26.55	75	137.31	151	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	..	47.40	145	33.26	72	66.28	127	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1893	..	32.05	105	31.74	65	48.75	108	..	..	54.30*	98*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	..	77.59	175	57.11	103	125.66	154	..	..	124.04	165	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1895	..	44.30	136	39.69	79	84.65	134	..	..	58.71*	124*	37.47	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	..	45.97	107	30.20	59	96.24	127	10.07*	35*	75.60	131	32.58	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	..	34.47	100	27.84	64	52.16	125	52.91	134	60.07*	147*	22.80	43	49.41	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	..	46.13	99	39.85	80	73.74	129	83.00*	91*	57.94	124	34.54*	41*	71.07	..	..	..	..	..	..	..	..	..	..	..	..	..
1899	..	49.30	111	44.61	66	80.96	143	90.67	137	73.75	143	48.05	65	87.39	..	..	..	..	..	..	..	..	..	..	..	..	..
1900	..	25.85	72	16.93	48	74.47	126	64.88	121	50.95	138	22.30	54	59.13	..	..	..	..	..	..	..	..	..	..	..	..	..
1901	..	41.77	135	36.45	77	91.03	150	84.40	126	68.87	155	28.78	79	99.93	..	..	..	..	..	..	..	..	..	..	..	..	..
1902	..	25.60	87	21.10	58	49.02	125	50.86	95	32.15	111	..	..	30.14	..	..	..	..	..	..	..	..	..	..	..	..	..
1903	..	67.97	118	60.97	93	114.75	1																					

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	NORTH COAST—Herbert—continued.																												
	Clarke River.		Goondi.		Gunnawarra.		Halifax.		Hamleigh.		Ingham.		Innisfail* (formerly Geraldton).		Innishowen, Johnstone River.		Kangaroo Hills.		Lucinda (formerly Dungeness).		Macknade Plantation.		Mourilyan, Johnstone River.		Stoneleigh.				
	Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.		
1879	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1880	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1881	..	..	..	..	..	..	..	..	..	..	..	..	..	142.07	125	..	..	..	..	..	..	..	..	..	..	..	..
1882	..	..	..	..	..	..	..	..	..	..	..	..	..	101.62	197	..	..	..	..	..	..	..	..	..	..	..	..
1883	..	..	..	..	..	..	..	..	..	..	..	..	..	118.71	162	..	..	..	..	..	..	..	..	..	..	..	..
1884	..	..	..	..	..	..	..	..	..	..	..	..	..	123.02	163	..	..	..	..	..	..	..	..	..	..	..	..
1885	..	..	..	..	..	..	..	..	..	..	74.35	123	..	..	145.72	202	133.38	205	..	..	..	..	..	..	145.12	171	..	
1886	..	..	..	157.33	223	..	..	..	..	..	83.86	170	..	..	103.20	200	166.71	217	..	..	..	..	..	..	..	..	..
1887	..	..	..	148.51	162*	..	..	..	..	..	..	..	..	154.65	168	153.34	177	..	..	..	..	..	..	..	..	..	..
1888	..	..	..	106.92	135*	..	..	..	..	..	..	..	..	100.20	132	100.11	23*	..	..	..	..	..	..	..	..	..	..
1889	..	..	..	195.79	154*	..	..	..	..	..	..	..	..	197.12	127	202.16	161*	..	..	..	..	..	..	..	..	..	..
1890	..	..	..	111.73*	86*	..	..	..	..	..	..	..	..	141.30	168	130.91	185	22.77*	23*	..	..	..	..	..	..	..	..
1891	..	..	..	202.76	179	45.42	87	..	..	..	..	..	..	135.97	158	82.27*	43*	..	..	..	..	..	..	..	..	..	..
1892	..	..	..	143.68	161	25.50*	55*	..	..	..	..	..	34.71*	31*	134.10	136	..	..	..	..	16.65*	56*	73.59	118*	..	..	..
1893	..	..	..	113.31	140	9.90*	22*	..	..	..	..	..	70.84	88	111.14	101	..	..	..	..	109.93	91	76.32	101	..	..	21.81*	32*
1894	..	..	..	241.53	184*	51.97*	56*	..	..	..	..	..	179.41	126	211.24	184	..	..	..	..	178.23	147	188.22	175	..	..	24.62*	39*
1895	..	..	..	123.93	178	..	..	..	..	..	..	..	52.29	81	128.20	143	..	..	..	..	68.75	84	63.00	11	..	..	..	..
1896	35.84	59	35.72	60	162.38	188	..	..	..	..	..	..	42.17	94	155.50	159	..	..	1.00*	6*	111.03	113	117.13	70*	..	..	5.74*	14*
1897	27.50	46	24.45	52	140.04	169	..	..	..	..	..	..	48.26	99	103.78	159	..	..	..	..	72.81	107	73.52	133	..	..	36.61	55
1898	24.45	52	27.76	49	160.81	168	..	..	7.77*	20*	..	..	32.07	82	139.94	146	..	..	..	..	64.19	97	54.36	104	..	..	43.31	67
1899	14.10	28	17.71	49	201.81	209	..	..	82.73	70	..	..	84.47	73	152.50	147	..	..	..	..	70.93	99	81.07	92	..	..	68.62	64
1900	14.10	28	17.71	49	201.81	209	..	..	63.98	76	..	..	60.23	72	120.90	120	..	..	..	..	64.83	109	64.08	127	..	..	44.56	82
1901	17.71	49	8.11	26	76.24	148	14.81	..	129.15	106	..	..	114.30	108	177.54	163	..	..	..	..	104.29	104	131.11	154	..	..	51.63*	68*
1902	8.11	26	..	..	..	..	..	..	27.34	49	..	..	37.31	64	69.87	100	..	..	..	..	23.94	60	32.87	85	..	..	..	..
1903	38.15	68	18.42	33	149.91	159	35.95	..	158.51	97	..	..	131.39	124	187.32	149	..	..	..	..	147.70	104	146.33	166	..	..	..	..
1904	18.42	33	13.29	34	105.53	150	19.91	..	58.46	72	..	..	62.64	63	137.98	137	..	..	..	..	64.86	50	65.58	122	..	..	..	..
1905	13.29	34	36.48	59	179.08	182	40.13	..	55.89	93	..	..	51.26	95	98.68	129	..	..	..	..	58.39	79	52.29	114	..	..	..	..
1906	36.48	59	21.67	36	141.29	153	30.05	..	131.10	130	..	..	114.61	129	169.64	174	..	..	..	..	11.74*	93*	126.70	183	..	..	..	..
1907	21.67	36	18.40	32	155.74	176	26.65	..	98.34	106	..	..	89.80	106	146.05	156	..	..	..	..	96.92	94	87.71	152	..	..	..	..
1908	18.40	32	24.15	53	186.62	193	28.38	..	78.34	116	..	..	69.54	130	165.11	174	..	..	..	..	30.53*	23*	73.26	140	24.47*	53*	..	..
1909	24.15	53	88.81	56	204.82	188	50.39	..	90.09	77	..	..	79.54	140	193.39	184	..	..	..	..	..	..	..	..	..	..	..	..
1910	88.81	56	24.37	38	170.57	139	33.68	..	97.24	111	..	..	105.92	133	185.18	177	..	..	..	..	43.07	52	..	..	..	..	..	..
1911	24.37	38	25.63	36	115.41	165	14.68	..	81.57	122	..	..	96.86	96	170.57	131	..	..	..	..	20.03	33	..	..	..	..	..	..
1912	25.63	36	..	..	..	..	..	..	..	..	..	..	87.59	107	174.31	144	..	..	..	..	19.49	37	..	..	..	..	..	..
Means	24.81	45	154.88	171	30.59	56	89.17	99	79.11	147	80.53	101	149.20	154	136.89	196	30.53	41	88.35	96	90.43	160	150.25	175	52.68	67	..	..
No. of years for Mean	18	18	26	23	12	4	14	14	2	2	20	20	32	32	5	4	3	3	3	14	14	22	13	6	6	6	4

Torrens Creek—
1893.—Record for Jan. calculated from Hughenden.
1897.—Record for January, October, November, and December calculated from Prairie and Pentland.
1899.—Record for the last four months only.
1899.—Record for September calculated from Hughenden and Pentland.
Wando Vale—1912.—Record of the number of days of rain for the last six months only.
Wyandotte—
1891.—Record for October only.
1892.—Record for the last six months only.
1911.—Station closed on 30th April; record for the first four months only.
Atherton—
1896.—Record for January and the last five months only; also no record of the number of days of rain for August.
1899.—Record for the first three months only.
Bloomfield River—
1887.—Record for January, February, March, May, and June only.
Cairns—
1887.—No record for April.
Cape Grafton.—For yearly totals subsequent to 1900, see Yarrabah record.
Evelyn, Herberton—
1893.—No record for January.
1894.—No record of number of days of rain for March.
1896.—No record for November and December.
Glen Boughton—
1888.—Record of the number of days of rain for the first four months and November only.
1889.—No record of the number of days of rain for the first five months.
1890.—No record for January, February, March, October, November, or December.
1892.—Record for June, July, and August only.
1895.—Record for the first four months only.
1896.—No record for the first three months.
1897.—Record for the first three months only.
1899.—Record for March, April, May, June, and July only.
Grassy Hill—
1902.—Rainfall for the last three months taken from Cooktown records.
1903.—Rainfall for first five months taken from Cooktown records.
1904.—Rainfall for July taken from Cooktown records.

Harvey Creek—
1897.—January rainfall estimated from Geraldton and Goondi records. Record of number of days of rain for January only.
1898.—October, November, and December rainfall estimated from Geraldton and Goondi records. Record of number of days of rain for the last four months only.
1902.—October, November, and December rainfall estimated from Geraldton and Goondi records.
1903.—Rainfall for May estimated from Geraldton and Goondi records.
1904.—Rainfall from February to July inclusive estimated from Geraldton and Goondi records.
Irvinobank (formerly Montalban)—1899.—Record for November and December only.
Kuranda—
1896.—Record for last six months only.
1898.—January and February totals taken from Cairns record.
Low Island—
1893.—No record for June.
1895.—Rainfall for June and September estimated from Port Douglas records.
1897.—Rainfall for October estimated from Port Douglas records.
Mareeba—
1898.—No record for February or November.
1907.—Rainfall for March estimated from Thornborough records.
Port Douglas—
1911.—Rainfall for March and April taken from Richmond records.
Thornborough—
1888.—No record of the number of days of rain for December.
1889.—No record for the first four months or September.
Vilele—
1890.—Record for April only. No record of number of days of rain.
1892.—Record for the first three months only.
1894.—No record for May, June, July, Aug., or Sept.
Yarrabah—
1902.—Record for January and February only.
1906.—Record for last three months only.
1909.—No record for September or October.
Cape Bowling Green—1896.—Record for the last five months only.
Goondi—
1887.—No record of number of days of rain for Oct.
1888.—No record of number of days of rain for November.

Goondi—continued.
1890.—No record for March, and no record of number of days of rain for April, May, or June.
1894.—No record of number of days of rain for January.
Gunnawarra—
1892.—No record for June.
1893.—Record for the first three months only.
1894.—No record for June, July, August, or Sept.
Halifax—1895.—No record for the first five months.
Ingham—1892.—No record for January, and no record of number of days of rain for April, May, or June.
Innisfail (formerly Geraldton)—
Totals for 1881-5 appear in Rainfall Tables published in the Queensland Parliamentary Paper for 1886, under heading Johnstone River.
Innishowen—
1888.—Record of number of days of rain for June, July, and November only.
1889.—No record for January.
1891.—Record for the first two months only.
Kangaroo Hills—
1890.—Record for March, April, October, November, and December only.
1896.—No record for the first three months.
Lucinda—
1892.—No record for the first four months.
1906.—No record for August, September, or December.
1908.—No record for the first two or the last six months.
Macknade Plantation—
1890.—No record for the first four months, and record for November approximate.
1891.—No record of the number of days of rain for April, October, or November.
1892.—No record of the number of days of rain for December.
1895.—Record of the number of days of rain for January only.
1896.—No record of the number of days of rain for the first three months.
Mourilyan, Johnstone River—
1887.—Record for January only.
1908.—Record for the last six months only.
Stoneleigh—
1890.—No record for the first five months or July.
1891.—Record for the first four months only.
1893.—Record for March, April, and the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.
1901.—Record for the first six months only.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued.
(*Indicates Footnote).

Subdivisions and Minor Subdivisions		CENTRAL COAST—East Central Coast—continued.																									
		Mackay, "The Hollow."		Macrossan.		Mount Spencer.		Pine Mountain.		Plane Creek, Mackay.		Pleystowe, Mackay.		Reid River.		Saltbush.		Sellheim.		*Strathmore, Bowen.		Tierswoomba.		Toooloombah.			
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.			
1879			
1880			
1881	..	75.23	111	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1882	..	103.51	155	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1883			
1884			
1885	..	56.02	155	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1886	..	75.23	177	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	..	55.69	149	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1888	..	57.04	33*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1889	..	68.70	17*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1890	..	34.07*	52*	..	..	21.57*	25*	..	..	36.81	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	..	97.03*	121*	..	..	49.83*	98*	..	..	43.91	..	74.97	..	..	..	..	..	..	..	..	..	..	..	..
1892	..	30.79*	96*	..	..	14.87*	31*	..	..	..	..	40.94*	53*	..	..	..	..	..	..	..	..	..	..	..
1893	..	36.68*	71*	..	..	37.82*	78*	..	..	..	..	23.23*	46*	..	..	..	..	..	..	..	..	..	..	..
1894	..	67.82*	65*	..	..	53.02*	91*	..	..	..	..	24.17*	47*	..	..	..	..	..	..	..	..	..	..	..
1895	23.80*	24*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	..	13.31*	35*	..	..	1.99*	3*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	..	19.30*	28*	..	..	4.72*	17*	..	..	..	..	8.78*	37*	..	..	..	..	..	..	..	..	..	..	..
1898	18.80*	48*	..	..	..	..	40.06	97	..	..	..	..	..	..	..	..	..	..	..
1899	27.93	45	..	..	..	..	85.45	96	..	..	..	..	..	..	..	..	..	..	..
1900	15.83	27	..	..	..	..	73.82	91	..	..	..	..	..	..	..	..	..	..	..
1901	21.73	45	..	..	..	..	51.75	90	..	..	..	..	..	..	..	..	..	..	..
1902	1.48*	4*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1903	14.44*	28*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1904	25.91	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	16.88	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1906	35.57	42	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1907	24.15	24	..	..	..	..	121.80	148	..	..	..	..	..	..	..	..	..	..	..
1908	21.53	28	..	..	..	..	42.61	98	..	..	..	..	..	..	..	..	..	..	..
1909	23.24	37	..	..	..	..	77.80	94	..	..	..	..	..	..	..	..	..	..	..
1910	37.54	49	..	..	..	..	59.83	90	..	..	..	..	..	..	..	..	..	..	..
1911	26.43	32	..	..	..	..	95.35	124	..	..	..	..	..	..	..	..	..	..	..
1912	17.58	31	..	..	..	..	58.06	72	..	..	..	..	..	..	..	..	..	..	..
Means	..	70.20	150	24.04	36	41.04	56	40.36	..	77.22	..	69.06	100	38.58	58	25.64	45	34.59	57	31.15	63	31.76	49
No. of years for Mean	..	7	5	13	13	13	13	2	..	5	..	11	11	19	19	16	16	25	25	9	7	17	14

Victoria Mill, Herbert River—
 1895.—Record for last two months only.
 1896.—No record for January.
 1897.—No record for June, July, or August.
 1898.—No record for April, May, or June.
 1902.—Record for Jan., March, April, and May only.
 1903.—No record for first five months.
 1906.—No record for March or June.
 1907.—Record for first four months only.
 Ayr—1886.—Record for December only.
 Birrallee—
 1890.—Record for the last four months only.
 1892.—No record for April.
 Blenheim—
 1890.—Record for April and last three months only.
 1894.—No record for the last four months.
 1896.—No record for the first three months.
 Branscombe, Mackay—
 1893.—No record for the first three months.
 1894.—Record for January only.
 1896.—Record for the last six months only.
 1902.—No record of number of days of rain for March.
 1903.—Record for the first six months only.
 Bromby Park—1890.—No record for the first three months.
 Byerwen—1912.—Record of the number of days of rain for the last five months only.
 Clare—
 1895.—Record for the last six months only.
 1903.—Record for January and February calculated from Ayr.
 Coonyan, Yepoon—
 1890.—Record for the last five months only.
 1892.—Record for the last three months only.
 1893.—No record for February.
 1896.—No record for the first three months.
 Dotswood, *via* Ravenswood—
 1893.—Record for January, February, and last three months only.
 1894.—Record for the first five months and July only.
 1896.—Record for October and November only.
 Emu Park—
 1886.—Record for December only.
 1891.—No record of number of days of rain for Aug.
 Fanning River—
 1890.—No record for the first three months and no record of the number of days of rain for April.
 1891.—No record for July.
 1892.—No record for January, July, or August.
 1893.—No record for September.
 1895.—Record for January and February only.
 1896.—Record for the last six months only.
 Farleigh, Mackay—1893.—No record for January, February, March, August, September, October, November, or December.
 Glen Prairie—
 1890.—No record for the first three months.
 1891.—No record for December.
 1892.—Record for September only.
 1893.—Record for the last three months only.
 1894.—No record for the first six months.
 1895.—No record for the first three months.
 1896.—No record for the first three months.
 1903.—No record of the number of days of rain for the first five months.
 1907.—No record for June.
 1910.—Record for the first three months only.
 Observations discontinued.

Habana, Mackay—
 1893.—Record for April, May, June, and July only.
 1896.—Record for April, May, and June only.
 1897.—Record for January only.
 Haughton Valley—
 1902.—Record of number of days of rain for January, February and April only.
 1906.—Total for November taken from Ravenswood Junction records.
 1907.—Total for March taken from Ravenswood Junction records.
 Homebush—
 1890.—Record for April only.
 1893.—Record for April and the last six months only.
 1894.—Record for May and the last six months only.
 1895.—Record for the last two months only.
 1896.—No record for January or September.
 1897.—No record for December.
 1898.—No record for January or September.
 1902.—Record for January only.
 Inkerman—
 1887.—Sept. rainfall estimated from Ayr records.
 1888.—No record of the number of days of rain for May, June, August, or November.
 1891.—July rainfall estimated from Ayr records.
 1892.—Rainfall for the first three months estimated from Ayr records.
 1894.—May and June rainfall estimated from Ayr records.
 1896.—No record for the first six months.
 1901.—May rainfall taken from Clare records.
 1902.—Record for January and February only.
 1905.—No record of the number of days of rain for January or February.
 1907.—Record for January only.
 1912.—No record of the number of days of rain for July.
 Kulu, Mackay—
 1897.—Record for the first three months and December only. No record of the number of days of rain for December.
 1898.—November rainfall taken from Mackay Sugar Station records.
 1899.—December rainfall taken from Mackay Sugar Station records. No record of the number of days of rain for December.
 1902.—Rainfall for April, November, and December taken from Walkerston records.
 1903.—May rainfall taken from Walkerston records.
 Mackay, "St. Helens"—
 1888.—No record of the number of days of rain for March.
 1889.—No record of the number of days of rain for February or August.
 1890.—No record for the last five months.
 1892.—Record for the last three months only.
 1893.—Record for the last three months only.
 1894.—No record for the first five months.
 1896.—No record for the first three months.
 Mackay Sugar Experimental Farm—
 1900.—No record of the number of days of rain for the first seven months.
 1901.—Record for February only.
 Mackay, "The Hollow"—
 1888.—Record of the number of days of rain for January and February only.
 1889.—Record of the number of days of rain for May only.

1890.—Record for March, April, June, and the last three months only.
 1891.—No record for April or August.
 1892.—No record for January, April, or June.
 1893.—No record for May, July, August, or Sept.
 1894.—Record for the first four months only.
 1896.—No record for the first three months.
 1897.—Record for the first three months only.
 Macrossan—
 1896.—No record for the first six months.
 1897.—No record for the first six months.
 1898.—Rainfall for Nov. taken from Sellheim records.
 1902.—Record for the first four months only.
 1903.—No record for the first five months.
 Mount Spencer—
 1890.—No record for the first five months.
 1891.—No record for June or December.
 1892.—No record for January, February, March, June, November, or December.
 1893.—No record for July.
 1894.—No record for June.
 1895.—No record for April or the last five months, and no record of the number of days of rain for Feb.
 1896.—No record for the first six months.
 1911.—Record for the first three months only.
 Plane Creek, Mackay—
 1890.—Record for March, April, May, and June only.
 1896.—Record for April, May, June, July, and August only.
 Pleystowe, Mackay—
 1893.—No record for the first three months.
 1894.—No record for the first six months.
 1896.—No record for the first three months.
 Reid River—
 1893.—Record for February taken from Ayr.
 1902.—Record for Jan., Feb., and Dec. only.
 Saltbush—
 1890.—Record for April only.
 1893.—Record for the last three months only, and no record of number of days of rain for December.
 Sellheim—1896.—No record for the first six months.
 Strathmore, Bowen—
 Records for 1889 to 1892 inclusive taken from the New South Wales publication.
 1893.—Record for February, March, and the last three months only.
 Tierswoomba—
 1890.—Record for June, July, October, November, and December only.
 1891.—No record for May, June, July, Aug., or Sept.
 1893.—Record for the last three months only.
 1894.—Record for the last six months only.
 1895.—No record for the first three months.
 1896.—No record for the first six months.
 Toooloombah—
 1888.—No record of number of days of rain for January, April, or July.
 1889.—No record of number of days of rain for the first five months.
 1890.—No record for January, February, March, May, or November.
 1891.—No record for July or the last three months.
 1892.—Record for the last six months only.
 1893.—Record for the last three months only.
 1895.—No record for the first three months.
 1896.—No record for February or March.
 1902.—Record for the first five months only.
 1906.—Record for Jan., Feb., March, and May only.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions		CENTRAL—Central Highlands—continued.																								
		Bogantungan.		Bungaban.		Capella.		Comet.		Consuelo.		Cotherstone.		†Craven.		Dingo.		Duaranga.		Emerald.		Fernlees.		Gilmore.		Gindie State Farm.
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
1879																										
1880																										
1881																										
1882																										
1883																				14.30	41					
1884																				18.02	49					
1885													10.95	10					10.68	26						
1886		9.65*	15*										31.03	42					32.25	34						
1887		39.88	74										32.25	34					4.56*	10*						
1888		17.73*	29*	16.26									15.66						34.92	95						
1889		2.27*	7*	34.21									17.39						20.17	44						
1890		53.14	68	17.21*	46*								28.70						22.08	40						
1891		32.30	49	23.60*	42*														15.67*	22*						
1892		19.72	48	38.88	85														24.67	79						
1893		26.78	72	39.63*	89*														21.93	40						
1894		30.11	82	13.53*	34*														41.04	67						
1895		34.51	60																44.23	79						
1896		38.32	67	12.35*	26*														17.54*	42*						
1897		18.93	57	22.38	51														40.65	51						
1898		48.56	70	25.97	58	5.96*	7*												31.82	50						
1899		30.48	60	20.22	51	25.32*	52*												29.69	64						
1900		16.31	46	30.21	55	10.61	33												33.64	83						
1901		13.56	49	23.62	50	14.36	45												18.21	44						
1902		14.83*	29*			12.01	27												16.65	25						
1903		20.21	50			22.07	41												19.30*	35*						
1904		19.26	46			23.61	38												24.83	40						
1905		20.50	33			19.26	26												25.77	42						
1906		41.31	61			26.12	45												41.47	65						
1907		24.82	48			27.95	39												25.78	59						
1908		25.75	41			25.29	42												23.45	53						
1909		18.78	46			31.59	47												24.72	57						
1910		44.41	48			28.53	43												37.03	45						
1911		33.02	31			16.63	29												30.72	38						
1912		24.57	29			21.60	30												28.23	37						
Means	28.75	53	26.47	58	21.51	37	22.95	51	23.05	23.09	29	19.92	36	28.98	54	29.74	52	24.93	59							
No. of years for Mean	24	24	8	6	13	13	16	16	2		5	3	6	4	14	14	23	22	29	28					13	13

Torilla—
1890.—Record for May and June only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—No record for the first three months.
1898.—Record of number of days of rain for the last six months only.
Wandoo Station—1904.—Record for Feb., June, Nov., and Dec., but no days of rain for February.
Woodlands—
1888.—No record of number of days of rain for February, March, July, or September.
1890.—Record for the first three months only.
1891.—No record for April, June, or the last four months.
1892.—No record for January.
1893.—No record for September.
1898.—No record for the last two months.
1902.—No record for the last four months.
1903.—Record for July and August only.
Yaamba—1899.—No record for the first three months.
Yeppoon—1891.—No record for the first three months.

Balf's Creek—
1889.—Record for November and December only.
1890.—No record of number of days of rain for April.
1893.—Record for the first three months and July only.
1896.—Record for the last three months only.
1898.—No record for January, February, March, July, or August.

Croydon, St. Lawrence—
1890.—No record for January or February, and no record of number of days of rain for March, April, May, June, or December.
1896.—No record for the first six months.
1900.—No record for Sept., Oct., or Nov.

Dunrobin—
1890.—Record for May, June, August, September, and October only. No record of the number of days of rain for May, June, August, or September.
1893.—Record for the last three months only.

Grosvenor Downs—
1890.—Record for March, April, and the last four months only. No record of the number of days of rain for March or April.
1893.—No record for the last three months.
1894.—Record for the last six months only.
1895.—Record for the last six months only.
1896.—Record for the last six months only.

Hillgrove Station—
1904.—Record for the first four months only.
1911.—Observer absent during part of February; rainfall for that month estimated from totals recorded at surrounding stations.

Logan Downs—
1890.—Record for March and April only.
1894.—Record for the first five months only.
1896.—No record for the first six months.
1902.—Record for the first two months only.

St. Anne's—
1890.—No record for the first three months.
1891.—Record for January only.
1892.—Record for Sept., Oct., and Dec. only.
1893.—No record for April, June, or September.
1894.—No record for February, April, or May.
1895.—No record for March, April, or May.
1896.—No record for March or April.
1901.—Record of the number of days of rain for January and February only.
1902.—Record for January and February only.

Alpha—1886.—Record for December only.

Alpha Station—
1890.—Record for April and September only.
1893.—Record for the last three months only.
1894.—Record for the last six months only; also no record of number of days of rain for July.

Anakie—
1896.—Record for the last five months only.
1898.—No record for February or May.

Arcturus Downs—1888.—No record for the first three months, July, or December.

Banchory—
1890.—Record for the last three months only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.
1902.—Record for the first three months only.

Bauhinda Downs—
1890.—No record for the first four months, and no record of number of days of rain for October.
1893.—No record of number of days of rain for Jan.
1895.—No record for the first four months.

Blackwater—1895.—No record for the first four months.

Bogantungan—
1886.—Record for December only.
1888.—No record for October, and no record of the number of days of rain for November.
1889.—Record for the first two months only.

Bogantungan—continued.
1902.—Record for the last six months estimated from Anakie and Pine Hill records.

Bungaban—
1890.—No record for January, February, March, or November. No record of the number of days of rain for April.
1891.—No record for April, November, or December.
1893.—No record for November.
1894.—Record for the last six months only.
1896.—Record for the last six months only.

Capella—
1898.—Record for the last three months only.
1899.—No record for November.

Comet—
1887.—Record for the first two months only.
1895.—Record for May and the last five months only.
1911.—No record for April.

Craven—
1871.—Total rainfall, 14.96 in., 29 days.
1890.—Record for May and the last four months only.
1894.—Record for the last six months only.
1896.—No record for the first three months.

Dingo—
1896.—Record for August only.
1902.—No record for December.
1903.—No record for January, March, April, or May.

Duaranga—
1886.—Record for December only.
1890.—Record for the last four months only.
1895.—No record for the last two months.
1899.—No record for June, July, or October.
1902.—No record of the number of days of rain for the last two months.

Emerald—
1888.—No record of number of days of rain for March.
1890.—No record for October.

Fernlees—
1890.—No record for January, February, or the last three months. No record of the number of day of rain for March or April.
1893.—Record for April, May, and June only.
1912.—Record for the last four months only.

Gilmore—
1890.—Record for May, August, and September only.
1894.—No record for January or November.
1895.—Record for January, February, May, June, and September only.

Gindie State Farm—
1898.—Record for the last three months only.
1908.—No record for June, August, Nov., or Dec.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions		CENTRAL—Central Highlands—continued.																										
		Gordon Downs.		Juaundah.		Kilcummin.		Langlo Downs.		Lansdowne.		Lorne.		Mantuan Downs.		Meteor Downs.		Minerva Downs.		Minnie Downs.		Mount Playfair.		Narada Downs.		Northampton Downs.		
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.		
1879		
1880		
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1892		
1893		
1894		
1895		
1896		
1897		
1898		
1899		
1900		
1901		
1902		
Means		
No. of years for Mean		
Subdivisions and Minor Subdivisions		CENTRAL—Central Highlands—continued.																										
		Orion Downs.		Pearl Creek, Duaringa.		Pine Hill.		Rainworth.		Reedy Creek Station, vid Taroom.		Retro.		Rolleston (formerly Spottiswoode).		Surbiton.		Tambo Station.		Terrick Terrick.		Warrinilla.		Wealwangle.		—		
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
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1892	
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1897	
1898	
1899	
1900	
1901	
1902	
Means	
No. of years for Mean	

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—*continued*.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	CENTRAL—Central Lowlands.																										
	Aberfoyle.		Albilbah, Isisford.		Alice Downs.		Alice River.		*Aramac.		Avington.		Avon Downs.		Barcaldine.		Barcaldine Station.		Barenya.		Beaconsfield.		Bimbah.		Bowen Downs.		
	Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
1879	
1880	
1881	
1882	27.73	48	
1883	10.45	34	
1884	8.70	36	
1885	14.09	23	
1886	29.25	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	26.66	47	
1887	24.62	38	
1888	18.85	9*	
1889	30.86	44	
1890	..	23.59	9*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	37.11	66
1891	..	6.17*	9*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	38.01	70
1892	8.50*	34*	
1893	..	2.55*	9*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15.43	45
1894	..	6.61*	10*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	33.01	62
1895	17.52	45	
1896	22.55	39	
1897	11.00	30	
1898	26.75	33	
1899	9.28	26	
1900	7.22	20	
1901	9.63	26	
1902	7.06	19	
1903	11.80	43	
1904	16.70	40	
1905	10.92	29	
1906	12.07	19	
1907	33.93	54	
1908	18.03	36	
1909	15.10	39	
1910	25.39	50	
1911	17.72	57	
1912	22.34	43	
1912	20.59	34	
Means	19.70	40
No. of years for Means	29

Gordon Downs—
 1890.—No record for the first four months or November.
 1891.—Record for January, February, October, and November only.
 1892.—No record for October.
 1893.—No record for May, June, July, August, or September.
 1894.—No record for the first six months.
 1896.—No record for the first six months.
 1902.—Record for January and February only.

Juandah—
 1888.—No record of the number of days of rain for August or September.
 1889.—No record of the number of days of rain for March, April, May, or September.
 1890.—No record for February or July. No record of the number of days of rain for March or April.
 1895.—No record for February.
 1899.—Record for January and February only.
 1901.—No record for July.
 1902.—Record for the first four months only.

Kilcummin—
 1889.—Record of the number of days of rain for December only.
 1890.—No record for Jan., Feb., March, May, or July.
 1892.—No record for April, May, June, October, November, or December.
 1893.—Record for the last three months only.
 1896.—No record for the first three months.

Langlo Downs—
 1890.—Record for April, May, and June only. No record of the number of days of rain for April.
 1893.—Record for the last three months only.
 1894.—No record of the number of days of rain for July.
 1895.—No record for March, May, or September.
 1902.—Record of number of days of rain for January, February, and April only.

Lansdowne—1880.—Record for March, April, October, November, and December only.

Lorne—
 1890.—No record for January or February.
 1891.—No record for the last two months.
 1896.—No record for the first three months.
 1901.—No record of the number of days of rain for September, October, or November.
 1902.—Record for the first three months only.
 1912.—Record for the last five months only.

Mantuan Downs—
 1890.—Record for March, April, and July only.
 1896.—No record for the first three months.
 1903.—No record for the last six months.

Meteor Downs—
 1890.—No record for the first three months.
 1891.—Record for April only.
 1893.—Record for the first four months only.
 1894.—Record for the first two months only.

Minerva Downs—
 1888.—Record for the first two months only.

Minnie Downs—
 1890.—No record for the first four months, August, or December.

Minnie Downs—continued.
 1894.—Record for the last three months only.
 1896.—Record for the last six months only.
 1900.—No record for September.
 1902.—Record for the first two months only.
 Mount Playfair—1906.—No record for the last five months.

Narada Downs—
 1890.—No record for the first two months or April, and no record of number of days of rain for March, May, June, or July.
 1891.—No record for December, and no record of number of days of rain for October.
 1892.—No record for the last three months.
 1893.—Record for the last three months only.
 1894.—Record for the last six months only.
 1896.—No record for the first three months.
 1909.—Record for August, September, October, and November only.
 1910.—Record of the number of days of rain for the first seven months only.
 1911.—Record for the first six months only.

Northampton Downs—1894.—Record for the last six months only.

Orion Downs—
 1892.—No record of the number of days of rain for April.
 1899.—No record for March, November or December.
 1907.—No record for October.
 1909.—No record for December.

Pine Hill—
 1889.—Record for the last four months only.
 1890.—No record of number of days of rain for February.
 1899.—No record for April.
 1900.—No record for June or July.

Rainworth—1890.—Record for the last six months only.
 Reedy Creek Station, *via* Taroom—1912.—No record of the number of days of rain for the first three months.

Surbiton—
 1890.—No record for the first four months.
 1891.—No record for February, June, or December.
 1892.—No record for February or May.
 1894.—Record for March only.
 1895.—Record for January only.
 1900.—No record for the last two months.
 1904.—Record for February only.
 1911.—Record for the last five months only.

Tambo Station—1890.—Record for April only.

Terrick Terrick—
 1895.—No record for the first five months or July.
 1893.—No record of the number of days of rain for May.
 1904.—Record of the number of days of rain for January only.

Warrinilla—
 1890.—No record for the first five months, and no record of the number of days of rain for June or December.

Warrinilla—continued.
 1891.—No record of the number of days of rain for March or April.
 1892.—No record of the number of days of rain for March.
 Wealwandangie—1881.—No record for April, May, or June.

Aberfoyle—
 1890.—Record for the last three months only.
 1893.—Record for the last three months only.
 1894.—Record for the last six months only.

Albilbah, Isisford—1890.—Record for April, May, and June only. No record of the number of days of rain for May.

Alice Downs—
 1890.—Record for October and November only.
 1893.—Record for the last three months only.
 1894.—Record for the last six months only.
 1896.—Record for the last six months only.
 1900.—No record of number of days of rain for May to September inclusive.
 1902.—Record for January only.
 1903.—Record for August, September, November, and December only.
 1904.—No record for the first two months.
 1905.—No record for August or the last three months.

Alice River—1889.—Record for the last three months only.

Aramac—The total for the year 1885, viz., 8.31 in., was obtained from the New South Wales rainfall publication for 1886, which contains monthly details of the rainfall. The manager of Aramac Station states that the total for the year according to his records was 8.45 in., but he is unable to supply monthly details.

Avington—
 1890.—Record for April, May, and June only.
 1894.—Record for June only.

Avon Downs—
 1888.—Record for August, September, November, and December only.
 1890.—No record of number of days of rain or May and June.
 1899.—No record of number of days of rain for May.
 1901.—No record of number of days of rain for August or December.

Barcaldine—1886.—Record for December only

Barcaldine Station—
 1890.—Record for April only.
 1893.—Record for the last three months only.
 1896.—Record for the last six months only.
 1901.—Record for January only.

Beaconsfield—
 1894.—Record for the first three months only.
 1896.—No record for the first three months.
 1897.—No record of the number of days of rain for June.

Bowen Downs—
 1888.—Record of number of days of rain for May, August, November, and December only.
 1892.—No record for December.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879–1912 inclusive—continued.
(* Indicates Footnote.)

CENTRAL—Central Lowlands—continued.

Subdivisions and Minor Subdivisions	CENTRAL—Central Lowlands—continued.																											
	Cameron Downs.		Coreena.		Culloden.		Darr River Downs.		Delta.		Elgin Downs.		Emmet Downs.		Evesham.		Evora.		Highlands.		Home Creek, Barcardine.		Ilfracombe.		Isis Downs.			
Stations ..	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.		
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Means ..																												
No. of years for Mean																												

CENTRAL—Central Lowlands—continued.

Subdivisions and Minor Subdivisions	CENTRAL—Central Lowlands—continued.																											
	Isisford.		Jericho.		Kensington Downs.		Lanark.		Landsborough Downs.		Lochnagar.		Longreach.		Malvern Hills, Blackall.		Maneroo.		Mount Cornish.		Muttaborra.		Portland Downs.		Rockwood.			
Stations ..	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.		
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Means ..																												
No. of years for Mean																												

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879–1912 inclusive—*continued*.
(* Indicates Footnote).

Subdivisions and Minor Subdivisions	CENTRAL—Central Lowlands— <i>continued</i> .																										
	Rodney Downs.		Ruthven.		Saltern.		Saltern Creek.		Stainburn Downs.		Tangorin.		Tower Hill.		Uanda.		Wellshot.		Westland.		—		—		—		
	Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
1879
1880
1881
1882
1883
1884	6.06	12	5.81	29	..	..	..	..	..	..
1885	16.57	17	16.97	32	..	..	..	..	..	..
1886	25.14	53	25.92	52	..	..	..	..	..	..
1887	24.25	43	26.97	57	..	..	..	..	..	..
1888	7.00	22	9.66	21*	..	..	..	..	..	..
1889	20.06	39	16.98	50*	..	..	..	..	..	..
1890	4.34*	11*	27.41*	53*	..	..	..	..	..	..
1891	40.00	53	42.24	..	..	..	..	..	..	..
1892	11.42	24	12.80	20	..	..	..	..	..	..
1893	2.25*	7*	16.85	..	..	..	..	..	..	..
1894	12.49*	32*	35.11	45	..	..	..	..	..	..
1895	16.79	43	19.93	..	..	..	..	..	..	..
1896	3.64*	18*	4.28*	8*	..	..	..	..	..	..
1897	16.73	22	8.39	21	..	..	..	..	..	..
1898	19.20	21	17.28	31	..	..	..	..	..	..
1899	16.85	31	8.80	25	..	..	..	..	..	..
1900	7.04*	21*	4.82	30	..	..	..	..	..	..
1901	10.35*	13*	10.11	36	..	..	..	..	..	..
1902	7.47	17	7.21	24	..	..	..	..	..	..
1903	11.28*	28*	16.05	55	..	..	..	..	..	..
1904	12.89	40	16.25	40	..	..	..	..	..	..
1905	11.93	22	3.97	21	..	..	..	..	..	..
1906	31.75	47	31.63	55	..	..	..	..	..	..
1907	17.14	32	12.56	31	..	..	..	..	..	..
1908	17.36	38	16.99	38	..	..	..	..	..	..
1909	6.87*	26*	12.23	33	..	..	..	..	..	..
1910	18.28	43	15.38	43	..	..	..	..	..	..
1911	16.15	36	17.94	42	..	..	..	..	..	..
1912	13.71	28	15.79	33	..	..	..	..	..	..
Means	17.08	32	16.69	36	..	..	..	..	..	..
No. of years for Mean	21	21	27	22	..	..	..	..	..	..

Coreena—

1894.—No record for June.
1895.—No record for March or November.

Elgin Downs—

1890.—Record for June, July, August, September, and October only.
1892.—Record for the last three months only.

Highlands—

1889.—No record of the number of days of rain for the first five months.
1890.—No record for April or August.
1892.—Record for the last three months only.
1895.—No record for July, November, or December.
1900.—No record for the first four months or October.
1901.—No record for the last five months.

Home Creek, Barcardine—

1890.—Record for April only.
1893.—Record for the last three months only.
1896.—Record for the last six months only.

Ilfracombe—

1897.—Record for December only.
1899.—Record for the last five months only.

Isis Downs—

1890.—Record for April, May, and June only.
1894.—No record for May.
1895.—Record for the first three months only.
1896.—Record for the last six months only.
1897.—No record of number of days of rain for October.
1902.—Record for January and February only.

Jericho—

1896.—Record for the last four months only.
1898.—No record for February or March.
1899.—No record for April.
1902.—No record for the last four months.
1903.—No record for the first five months.

Kensington Downs—

1890.—Record for June and July only.
1894.—Record for the last three months only.
1896.—Record for the last six months only.
1903.—Record for the first five months only.

Lanark—

1890.—No record for January, February, or August; also no record of the number of days of rain for March or April.
1891.—Record for January only.
1894.—Record for the last three months only.
1896.—Record for the last six months only.
1903.—Record for July, August, September, October, and December only.

Lanark—*continued*.

1904.—Record for January only.
1905.—No record of number of days of rain for January, March, April, or July.
1906.—No record of number of days of rain for the last four months.

Lochnagar—

1894.—Record for February, March, April, and May only.
1899.—No record for the first two months.

Malvern Hills, Blackall—

1890.—Record for June only.
1896.—No record for the first three months.

Mount Cornish—

1887.—No record of the number of days of rain for April.
1888.—Record of the number of days of rain for the first four months only.
1899.—Record of the number of days of rain for April, May, and June only.
1900.—No record for the first three months, and no record of the number of days of rain for April or May.

1891.—

Record for the first five months only.
1892.—Record for the last five months only.
1896.—No record for January.
1902.—Record of the number of days of rain for the first three months only.
1903.—Record of the number of days of rain for July, August, September, November, and December only.
1908.—Record of the number of days of rain for February only.

Portland Downs—

1884.—Record for the last six months only.

Rockwood—

1887.—No record for the first three months.
1890.—Record for May, June, and the last four months only.
1891.—No record for August or September.
1892.—No record for August or September.
1893.—No record for September.
1894.—Record for the last three months only.
1896.—No record for the first or last three months.

Ruthven—

1890.—Record for April, May, and June only.

Saltern—

1890.—Record for April only.
1893.—Record for the last three months only.
1894.—No record for January, April, May, or June.

Saltern—*continued*.

1896.—Record for August, October, November, and December only.
1902.—Record for the first five months only.
1903.—No record for the first five months.

Saltern Creek—

1893.—Record of the number of days of rain for the last four months only.
1894.—No record of the number of days of rain for January, April, May, June, or July.
1896.—Record of the number of days of rain for August and the last three months only.

Stainburn Downs—

1890.—No record for the first three months.
1891.—No record for the first four months.
1893.—Record for the last three months only.
1896.—No record for the first six months.

Tangorin—

1902.—Record for the first three months and for May only.
1903.—No record for the first six months or September.

Tower Hill—

1890.—Record for May and the last three months only.
1891.—Record for the first two months only.
1892.—Record for the last five months only.
1902.—No record of the number of days of rain for the last two months.
1903.—Record of the number of days of rain for the last four months only.

Uanda—

1891.—Record for January and February only.
1894.—Record for April and the last three months only.

Wellshot—

1890.—Record for May, June, and July only.
1893.—Record for the last three months only.
1894.—No record for the first four months.
1896.—No record for the first six months.
1900.—No record for October and December.
1901.—Record for January, March, and May only.
1903.—No record for November or December.
1909.—Record for the first six months only.

Westland—

1888.—No record of number of days of rain for April or May.
1889.—No record of number of days of rain for August.
1890.—Record for the first six months only.
1896.—Record for the last five months only.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued.
 (* Indicates Footnote.)

Subdivisions and Minor Subdivisions	WESTERN—Upper Western.																											
	Ayrshire Downs.		Bimerah.		Brighton Downs Station.		Camooweal.		Carandotta.		Cork.		Corona Downs.		Dagworth.		Devon-court.		*Elderslie.		Hazelwood.		Katandra.		Kynuna.			
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.		
1879																												
1880																												
1881																												
1882									5.02*	26*																		
1883										9.64	20																	
1884										5.38	19																	
1885	10.21	55	11.36	17						11.72	37																	
1886	21.79	57	21.18	24						10.38	35																	
1887	18.39	57	27.83	24						22.15	43																	
1888	12.42	28	9.48	13						11.56	27	8.03	10	10.17	16													
1889	18.84	44	12.15	22						8.65	37	9.62*	11	11.58	18													
1890	26.11	59	32.42	33						10.09	42	5.31*	18*															
1891	35.87	37	40.11	35						10.44	40	21.05*	23*															
1892	11.82	27	10.31	14						9.50	29	4.25	19	8.04	17													
1893	17.90	36	11.84	20	6.78		10.10	28	3.60	23	6.26*	16*	12.68	13*	12.85	26	3.65*	16*	3.01*				14.26	39	12.47	37		
1894	30.85	60	27.84	34	20.99		25.12	64	19.02	39	25.56*	43*	36.83	20*	28.67	46	4.33*	12*	4.91*	13*			14.26	39	12.47	37		
1895	28.06	40	15.58	27	11.50		32.27	51	20.49	43	18.68*	30*	21.59	23*	26.31	35							17.98	42	29.06	52		
1896	13.65	43	14.99	27	7.56		13.48	51	14.68	33	11.51	27	14.50	12*	15.34	35	5.33*	12*	6.07*	17*			17.74	36	11.69	45		
1897	11.91	28	9.18	16	6.02		9.79	32	4.02	18	6.28	22	10.18	29	8.89	20	11.31	24	5.81	24			13.07	35	6.58	27		
1898	19.38	36	12.62	22	6.67		15.45	31	10.90	22	8.70	33	14.05	27	15.32	24	13.55	30	16.59	27			19.12	33	14.19	23		
1899	8.14	32	10.37	22	10.56		6.52	31	5.66	14	6.63	27	11.42	23	12.22	22	5.08	18	8.79	29			7.68	26	7.61	32		
1900	8.75	25	6.83	32	6.38		9.04	22	4.38	10	4.49	17	4.89	15	7.47	24	3.60	13	4.91	20			7.44	18	6.97	28		
1901	10.88	27	8.38	35	7.68		15.15	32	9.50	19	6.08	24	11.19	21	8.57	30	8.74	23	10.62	29			9.70	32	9.14	39		
1902	5.50	17	3.98	21	4.73		6.32	25	4.62	12	7.22	21	4.76	18	5.81	21	6.36	15	2.39*	9*			4.32	18	6.77	22		
1903	21.91	35	12.26	42	19.78		25.53	53	11.85	34	13.26	26	13.26	31	25.15	36	18.60	33	16.72	40			15.71	38	23.68	43		
1904	11.69	46	13.24	41	14.82		24.51	59	15.63	35	6.43	15	12.29	28	12.00	32	13.00	26					12.30	39	11.97	35		
1905	6.56	11	3.87	15	3.25		7.74	31	4.02	17	1.93	8	4.67	14	5.71	11	5.52	14					3.02	17	10.84	18		
1906	26.25	56	26.00	36	27.39		14.45	43	9.91	36	20.19	35	28.35	36	21.69	50	3.80*	10*					25.45	48	23.86	45		
1907	13.37	41	10.00	33	10.45		17.94	44	14.50	23	12.29	21	8.16	24	13.56	34							11.81	32	15.67	32		
1908	16.97	42	21.53	33	15.32		21.24	28	10.10	18	15.88	23	19.76	25	18.00	32							15.45	38	18.67	29		
1909	13.44	34	12.50	31	5.45		14.26	38	10.45	24	7.18	18	11.45	32	11.24	31							18.63	38	11.52	20		
1910	17.52	38	14.73	36	14.35		18.38	53	11.57	32	12.65	25	13.10	34	18.55	31	6.65*	15*	14.40				15.63	51	16.68	29		
1911	15.43	38	14.29	26*	7.87		19.20	44	7.52	18	11.70	22	16.81	33	14.03	34	25.09	30	18.23	34			18.90	40	19.43	33		
1912	12.79	28	13.72	18	11.43	9*	13.88	35	6.72	19	7.42	15	15.52	34	14.73	25	13.66	21	14.10	30			16.64	41	11.82	22		
Means	16.48	38	15.30	27	10.95		15.71	39	10.11	27	9.28	23	13.96	27	16.03	32	12.76	26	13.08	31			16.30	37	15.21	35		
No. of years for Mean	28	27	28	27	20		21	21	30	30	20	17	22	16	29	29	13	12	20	14			28	27	23	21		

Subdivisions and Minor Subdivisions	WESTERN—Upper Western—continued.																															
	*Lake Nash, S.A.		Llan-rheidol.		Manuka.		Noranside.		Oondooroo.		Rosebrook.		Sesbania.		Silsoe.		Undilla.		Urundangle.		Vindex.		Welford Lagoon.		Werna.							
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.				
1879																																
1880																																
1881																																
1882									24.98	39																						
1883																																
1884																																
1885																																
1886																																
1887																																
1888																																
1889																																
1890	12.69	33	8.96	13*	0.65*	1*	3.73	9*	15.46	23*	7.44		21.48		12.40		4.75*	9*					24.13	45	32.62*	43*						
1891	14.37	31	25.48	51*	33.04		1.51*	9*	13.07*	5*	6.11*						14.65*	23*	0.17*	2*			10.28		10.91	28						
1892	4.61	18	8.73*	7*	17.64				35.13	61								3.93*	10*					12.03		17.27*	43*					
1893	7.83	27	0.51*	5*	2.55*	10*	2.70*	8*	9.02*	23*	1.80*	5*																				
1894	30.72	39	23.63*	38*	8.08*	14*	4.05*		7.03*	17*	9.50*	5*					24.95*	9*	21.28	37			20.89		45							
1895	32.54	40	28.78*	40*	31.05*				26.22	47							22.28*	24*	22.29	34												
1896	11.41	28	8.20*	15*	5.27*	10*	7.69*	11*	4.53*	16*	4.23*	8*																				
1897	1.84	12	7.72	20	11.54	27	4.60	9	14.40	35																						
1898	6.59	23	18.60	26	16.43	29	15.96	20	18.37	34	14.33	21																				
1899	5.87	22	10.81	26	6.25	21	2.45	15	13.09	35	11.92	18																				
1900	5.96	23	4.16	13	6.05	11	2.67	11	5.68	23	4.00	11																				
1901	23.25	29	11.14	23	13.60	27	11.59	22	14.12	34	7.49	16																				
1902	6.65	18	6.23	24	5.41	8	1.84*	5*	4.68	23	5.42*	6*																				
1903	5.87*		17.61	36	17.79	37			11.91	45																						
1904	27.91	37	11.32	29	17.22	31			13.51	43																						
1905	3.78	9*	2.37	10	3.26	12			2.68	12																						
1906	16.25	22	19.48	45	25.07	47			28.70	56																						
1907	20.72	35	11.98	25	18.70	28			13.59	35																						
1908	7.32	14	14.09	24	24.88	35			17.86	39																						
1909	10.74	22	9.33	24	19.29	24		</																								

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879–1912 inclusive—*continued*.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	WESTERN—Upper Western—continued.										WESTERN—Lower Western.																
	West Leichhardt.		Winton.		Yelvertoft.		—		—		Birdsville.		Boullia.		Bulgroo.		Cluny.		Connemara.		Coorabulka.		Currawilla, vid Windorah.		Daroo.		
	Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
1879
1880
1881
1882
1883
1884	8.78	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1885	14.46	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1886	24.03	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	24.99	57	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1888	10.14	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1889	12.65	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1890	27.74	54	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	27.65	65	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	9.90	30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1893	..	0.97*	6*	11.95	38	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	..	25.11	52	30.42	56	18.42	52	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1895	..	37.80	42	20.17	46	26.39	54	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	..	14.81	35*	10.91	40	8.07*	27*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	..	9.19	24	9.20	28	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	..	15.41	32	10.00	28	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1899	..	5.46	24	12.82	27	2.39*	5*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1900	..	9.20	28	9.68	31	12.21	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1901	..	13.60	26*	12.02	27	12.02	36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1902	..	7.18	15	6.08	21	7.11	22	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1903	..	30.19*	42*	16.66	49	11.30*	24*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1904	..	21.61	38	12.53	41	19.12	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	..	4.12	8	3.41	21	7.52	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1906	..	16.19	36	25.22	58	15.35	46	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1907	..	18.95	35	9.59	36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1908	..	19.99	33	17.28	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1909	..	13.63	25	12.65	42	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1910	..	19.53	41	19.00	49	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1911	..	24.01	30	16.93	42	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1912	..	14.52	32	16.47	38	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Means	..	16.13	31	15.28	39	14.77	39	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
No. of years for Mean	..	18	16	29	29	8	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Bimerah—1911.—No record of the number of days of rain for March or December.
Brighton Downs Station—1912.—Record of the number of days of rain for the last five months only.
Camooweal—1891.—Record for the last two months only.
Carandotta—1882.—No record for first three months.
Cork—
1890.—No record for the first five months.
1891.—Record for the first four months only.
1893.—No record for the first three months.
1894.—No record for April, May, or June.
1895.—No record for the last three months.
Corona Downs—
1893.—Record of the number of days of rain for the last three months only.
1894.—Record of the number of days of rain for the last six months only.
1895.—No record of the number of days of rain for the first three months.
1896.—No record of the number of days of rain for the first six months.
Devoncourt—
1886.—Record for December only.
1888.—Record for January only.
1889.—Record of number of days of rain for June only.
1893.—Record for the last three months only.
1894.—Record for the last three months only.
1896.—Record for the last six months only.
1906.—Record for January and February only.
1910.—Record for April and the last five months only.
Elderslie—
1888–9–90.—Records taken from New South Wales publications.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—No record for the first three months.
1902.—Record for the first three months only.
Katandra—1887.—No record of the number of days of rain for the first four months.
Kynuna—
1890.—No record for the first three months.
1891.—Record for the first five months only.
1892.—No record for February, March, or April.
Lake Nash, S.A., 4 miles west of the Queensland Border—
1903.—Record for the last five months only.
1905.—No record of the number of days of rain for January, May, or June.

Lianrhoelid—
1890.—Record for the last five months only.
1891.—No record of the number of days of rain for September.
1892.—Record for the first two months only.
1893.—Record for the last three months only.
1894.—No record for May or June.
1895.—No record for August.
1896.—No record for the first three months.
Mannuka—
1888.—Record of number of days of rain for January and February only.
1890.—Record for July only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—No record for the first three months.
Noranside—
1890.—Record for the last three months only.
1893.—Record for the last three months only.
1894.—Record for the last three months only.
1896.—No record for the first three months.
1902.—Record for the first four months only.
Oondooroo—
1888.—No record of number of days of rain for the first five months.
1890.—No record for January, February, or the last five months; also no record of the number of days of rain for March or April.
1893.—Record for January, February, and the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.
1912.—Record for the last three months only.
Rosebrook—
1890.—Record for May only.
1893.—Record for January, February, and the last three months only.
1894.—Record for January and February only. No record of the number of days of rain for January.
1896.—Record for the last six months only.
1902.—Record for the first six months only.
Undilla—
1890.—Record for April, May, and the last three months only.
1891.—Record for January and February only.
1894.—No record for April, June, July, August, or September; also no record of the number of days of rain for the first three months.
1895.—No record for December.

Urandangie—
1891.—Record for November and December only.
1892.—No record for the first four months.
Welford Lagoon—
1887.—No record for September.
1889.—No record for October.
1894.—Record for the first three months only.
West Leichhardt—
1893.—Record for November and December only.
1896.—No record of number of days of rain for July.
1901.—No record of number of days of rain for April.
1903.—No record for January.
Yelvertoft—
1896.—Record for the first four months only.
1899.—Record for the last three months only.
1903.—No record for the first three months, September, or October.
Birdsville—
1893.—No record of the number of days of rain for December.
1896.—Record for January and July only.
Boullia—
1887.—No record for January.
1893.—No record of number of days of rain for June.
1895.—Records for the first four months destroyed by fire.
Bulgroo—
1889.—No record of the number of days of rain for January or the last four months.
1890.—Record for April only.
1893.—Record for the last three months only.
1894.—Record for the first two and last three months only.
1896.—Record for the last six months only.
1907.—No record for May, June, September, or October.
Connemara—
1888.—No record of number of days of rain for the first or last three months.
1889.—No record for the first five months or Dec.
1896.—Record for July only.
1902.—Record for January and February only.
Coorabulka—1912.—Record of the number of days of rain for the last five months only.
Daroo—
1889.—Record for May only.
1894.—No record for May, June, July, August, or September.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued. (* Indicates Footnote.)

Table with columns for Subdivisions and Minor Subdivisions, Stations, Year, Rain-fall, Days, and various regional locations like Diamantina Lakes, Glenormiston, Jundah, etc. Includes data for years 1879-1912 and means.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879–1912 inclusive—continued. (* Indicates Footnote.)

Table with columns for Subdivisions and Minor Subdivisions, Stations (Gracemere, Hawkwood, Invicta, Kolan River, Isis Junction, Kabra, Kroombit, Langmorn, Millaquin, Bundaberg, Miriam Vale, Molangool, Mount Morgan, Mount Perry, Netley, Rockhampton), and rows for years 1879-1912 and means.

Diamantina Lakes— 1891.—Record for July, August, and December computed from Llanthead and Boulla. 1892.—No record for June. 1893.—No record for April, July, August, or September.

Windorah— 1887.—No record for September. 1888.—No record of number of days of rain for January or June. 1890.—No record for January, February, October, or December.

Isis Junction— 1893.—Record for December only. 1898.—No record for July. 1899.—No record for March or October. Kabra— 1898.—No record for January, February, or April.

‡ Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued. (* Indicates Footnote.)

Table with columns for Subdivisions and Minor Subdivisions, Stations, Year, Rainfall, and Days. It is divided into two main sections: SOUTH COAST—Port Curtis—continued and SOUTH COAST—Moreton—continued. The table lists annual rainfall data for various stations from 1879 to 1912, including mean values and the number of years for which data is available.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued. (* Indicates Footnote.)

Table with columns for Stations (Caloundra, Capemba, Clayfield, Colinton, Coomera, Cooran, Cooroy, Coorparoo, Cooyar, Corinda, Cowal, Croyham, Crow's Nest) and rows for years 1879-1912. Each station has columns for Rain-fall and Days. Includes a 'Means' row and a 'No. of years for Mean' row.

Notes for various stations: Raglan, Riverston, Riverston Station, Rosedale, Stanwell, Yenda, Albion, Ascot, Ashwell, Bald Hills, Beaudesert, Beerburum, Biggenden, etc.

Notes for various stations: Boonara, Boondooma, Botanic Gardens, Brisbane, Brookfield, Buaraba, Buderim, Bulimba, Burpengary, Caboonbah, etc.

Notes for various stations: Caloundra, Capemba, Clayfield, Coomera, Cooran, Cooroy, Coorparoo, Cooyar, Corinda, Cowal, Croyham, Crow's Nest, etc.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records in (in Inches and Hundredths) Queensland, 1879-1912 inclusive—continued.
(* Indicates Footnote.)

Stations ..	SOUTH COAST—Moreton—continued.																										
	Kannangur (formerly Cressbrook).		Kilcoy.		Kilkivan.		Laidley.		Lake Clarendon, Gatton.		Landsborough.		Lolworth.		Lowood.*		Manly.		Marburg.		Mayne.		Milton.		Mooloolah.		
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	
1870	55·74	93	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1880	40·88	87	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1881	21·92	69	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1882	42·17	68	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1883	19·07	38	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1884	40·33	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1885	23·62	62	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1886	37·79	91	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	61·09	105	..	..	..	..	..	..	..	..	22·37*	62*	..	..	..	..	..	..	..	..	..	..
1888	25·09	79*	..	..	..	..	..	..	..	..	26·21	87	..	..	..	..	..	..	..	..	..	..
1889	42·30	76*	7·83*	22*	30·10	51*	..	..	..	..	38·32	125	..	..	..	..	..	..	..	..	27·25*	102*	
1890	..	41·35	106*	20·35*	51*	65·95*	113*	66·47	128	31·87*	53*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	..	37·07*	106*	37·29	104	45·82	94	38·99	105	31·48	100	..	..	..	..	..	..	..	..	..	..	..	..	..	113·41	183
1892	..	48·40	111	65·29*	83*	39·15	104	50·57	103	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67·75	162
1893	..	80·58	114	114·06*	112*	81·68	109	64·86	108	..	..	159·69	111	..	..	31·13*	71*	..	..	..	..	..	..	..	185·99	145
1894	..	39·70	106	53·11*	105*	41·09	115	38·02	106	..	..	91·29	126	..	..	40·30	121	..	..	..	..	..	..	..	..	..
1895	..	28·34	77	32·20	72	34·32	78	37·42	82	..	..	67·02	99	..	..	29·02	97	..	..	..	..	..	..	..	..	..
1896	..	45·56	80	49·73	91	35·38	73	31·76	86	..	..	69·07	103	..	..	37·80	93	..	..	..	..	..	..	..	..	..
1897	..	33·28	69	35·70	88	42·55*	89	33·53	57	..	..	61·92	98	..	..	35·84	94	..	..	..	..	..	..	..	..	..
1898	..	43·16	108	58·77	105	53·15	106	26·22	71	127·78	116	28·09	36	46·60	119	9·62*	18*	37·99	95	11·29*	30*	5·36*	7*	102·70*	77*
1899	..	28·31	98	32·28	112	30·63	94	37·36	75	58·72	124	21·77	33	37·00	98	37·50	95	32·98*	73*	19·63*	54*	33·93*	84*	66·84	114
1900	..	23·16	66	28·01	81	22·03	55	25·30	50	34·95	81	20·70	40	23·99	79	33·36	78	30·76	52	4·44*	19*	31·66	59	39·57	75
1901	..	31·45	70	34·11	92	31·89	68	35·01	56	65·74	69	13·02	12*	36·04	90	44·60	81	30·90	47	41·08	89	36·15	60	83·68	77
1902	..	15·37	39	18·23	65	13·66	45	16·38	41	15·29	32	13·56	46	5·51*	14*	11·32	28	15·47*	58*	4·58*	14*	22·82*	45*
1903	..	40·03	83	42·97	124	31·76	85	39·44	69	70·11	87	44·46	69	52·19	90	2·14*	10*	50·64	107	47·92	77	89·11	77
1904	..	33·28	75	36·19	105	30·21	72	30·58	71	55·37	74	30·67	64	37·57	65	10·42*	15*	32·79	90	30·92	70	67·94	65
1905	..	41·18	71	22·07	86	26·85	60	28·89	71	56·99	94	26·66	52	33·34	60	23·06	49	41·55	72	33·75	65	12·32*	9*
1906	..	39·34	96	43·21	129	41·78	90	35·04	96	65·87	92	32·60	63	43·89	79	36·84	79	43·71	92	45·08	84
1907	..	32·26	81	33·72	94	33·48	70	22·10	78	56·67*	73*	21·52	58	32·05*	68*	20·50	45	34·17	74	24·10*	59*
1908	..	40·84	92	42·68	92	31·37	88	32·95	74	58·62	66	37·06	60	46·26	72	32·26	62	42·61	58	46·70	68
1909	..	32·17	65	42·87	88	42·18	79	19·11*	52*	53·25	52	5·45*	15*	30·94	69	26·40	63	32·38	69	31·61	61
1910	..	35·16	54	35·28*	74*	28·54	82	44·01	87	54·22	68	30·74	49	49·80	69	34·67	71	45·18	65	48·19	57
1911	..	23·67	44	31·05*	58*	29·05	68	24·98	78	66·87	59	27·53	64	33·49	62	26·65	65	32·78	54	33·30	59
1912	..	33·96	58	25·02	58	23·54	59	32·49	70	48·38	57	32·27	67	37·77	63	33·33	64	44·75	88	38·84	60
Means	..	36·86	80	41·95	91	36·16	80	35·68	80	67·43	85	20·90	36	33·91	86	40·31	74	31·85	69	40·15	78	58·56	65	89·46	120
No. of years for Mean	..	23	22	22	21	33	31	22	22	19	19	4	3	23	23	12	12	16	16	11	11	11	11	10	10

Cryna—
1886.—Record for December only.
1888.—Record of number of days of rain for the first four months only.
1889.—No record of number of days of rain for the first four months.
1890.—Record for the first four months only.
1893.—Record for January, February, and the last three months only; record of the number of days of rain for January and February only.
1894.—Record for the last six months only.
1896.—Record for April, May, and June only.

Darra—
1894.—No record for January.
1899.—No record for January or March.
1900.—No record for the first four months, or for June or July.

Dinmore—
1894.—No record for January, also no record of the number of days of rain for February or March.
1898.—No record for June.
Double Island Point—1891.—No record for the first four months.

Dugandan—
1896.—Record for last five months only.
1902.—No record for July or the last four months.
1903.—No record for the first five months.
Dunwich—1892.—Record for Nov. and Dec. only.
Esk—1886.—Record for December only.

Eudlo—
1898.—No record for January or February.
1899.—No record for June, July, Nov., or Dec.
1900.—No record for January or February.
1902.—No record for March, June, July, or Sept.
1903.—No record for April.

Eumundi—
1898.—No record for January.
1905.—No record of the number of days of rain for April, May, or June.
1906.—No record of the number of days of rain for March or August.
1909.—No record for December.
1910.—No record for the first five months.

Fassifern—
1887.—Record for April taken from New South Wales publication.
1897.—Record for the first three months only.

Fernmount, Albion—
1888.—No record for the first two months.
1889.—No record for the last four months.

Fernvale—
1896.—Record for July, Aug., Sept., and Dec. only.
1898.—No record of the number of days of rain for March.
1902.—Record for the first two months and December only.
1903.—No record for the first five months.
1904.—No record for the last two months.

Forest Hill—
1894.—No record for January.
1901.—No record for March.
1902.—No record of number of days of rain for November.
1906.—No record of the number of days of rain for November.

Franklyn Vale—
1888.—Record of number of days of rain for January only.
1889.—No record of number of days of rain for the first four months.
1894.—No record for February to June inclusive.
1896.—No record for the first three months.
1901.—Record for the first three months and May only.

Gatton—1894.—No record for the first three months or June.
Gatton College—
1897.—Record for August, September, October, and November only.
1898.—No record for January, April, May, June, July, or August.
1899.—No record for June; and no record of the number of days of rain for July or November.
1902.—No record for April or May.

Gigoomgan—
1890.—No record for the first five months.
1891.—No record for March, April, or July.
1907.—No record for July.

Grandchester—1894.—No record for the first three months.

Harrisville—
1896.—Record for the last six months only; and no record of the number of days of rain for July.
1902.—Totals for March to September, also November and December, obtained from telegraphic returns; and returns for September and November completed from Engelsburg and Rosewood records.

Highworth, Nambour—
1895.—No record for the first four months.
1896.—Record for the first three and last two months only.
1897.—Record for January and March only; and no record of the number of days of rain for March.

Indooroopilly—
1889.—Record for April only.
1894.—No record for January.
1907.—No record for July.
1909.—No record for December.
1911.—No record of number of days of rain for the last six months.

Ipswich, Roderick-street—1897.—Approximate total only, and not used in determining the mean.

Kangaroo Point—
1888.—Record of number of days of rain for the last six months only.
1892.—No record for the last four months; and no record of the number of days of rain for May.

Kannangur (formerly Cressbrook)—
1890.—No record for January.
1905 and onwards.—Record taken at Kannangur.

Kilcoy—
1890.—No record for the first four months.
1892.—Totals for December taken from Woodford records.
1893.—Totals for January, February, and March taken from Woodford records.

Kilcoy—continued.
1894.—Totals for October and December taken from Woodford records; and no record of number of days of rain for June.
1910.—December rainfall completed from Woodford, Kannangur, and Caboonbah records.
1911.—April rainfall completed from Woodford, Kannangur, and Caboonbah records.

Kilkivan—
1888.—No record of the number of days of rain for August.
1889.—No record of the number of days of rain for September, October, or December.
1890.—No record for October; and no record of the number of days of rain for May.

Laidley—
1889.—Record for November and December only.
1909.—No record for February, March, or April.

Lake Clarendon, Gatton—
1889.—No record of the number of days of rain for January, April, or May.
1890.—Record for the first four months only.

Landsborough—
1892.—No record for the first five months.
1907.—No record for December.

Lolworth—1901.—No record of the number of days of rain for February or March.

Lowood—
From 1887 to 1901 inclusive the record was taken at the residence of Mr. Flewelle Smith; from that period to March, 1912, at the railway station, and for the remainder of 1912 at the post office.
1887.—No record for the first five months.
1893.—No record for February, March, and April. January figures approximate; gauge disappeared during gale.
1909.—Record for the first three months only.

Manly—
1898.—Record for the last three months only.
1902.—Record for the first four months only.
1907.—No record for April. No record of the number of days of rain for July.

Marburg—
1888.—Record for January, September, and October only.
1897.—No record for September or October.
1899.—No record for November.
1903.—Record for the first two months only.
1904.—Record for the last three months only.

Mayne—
1898.—Record for the last four months only.
1899.—Record for the first six months only.
1900.—Record for the last four months only.
1902.—Record for March only.

Milton—
1898.—Record for December only.
1899.—No record for April.
1902.—No record for March or the last seven months.
1907.—No record for February.

Mooloolah—
1888.—No record for January or February.
1898.—No record for January or August.
1902.—No record for September.
1905.—Record for January only.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879–1912 inclusive—continued. (* Indicates Footnote.)

Table with columns for Subdivisions and Minor Subdivisions, Stations, Year, and rainfall data for locations: Morning-side, Mount Brisbane, Mount Crosby, Mount Stanley, Mount Woot-tha, Mundoolun, Mungarr, Murarrie, Murphy's Creek, Nambour, Nanango, Nerang, New Farm. Includes a 'Means' row and 'No. of years for Mean'.

SOUTH COAST—Moreton—continued.

Table with columns for Subdivisions and Minor Subdivisions, Stations, Year, and rainfall data for locations: Normanby, Nundah, Oxley, Palmwoods, Peacheater, Petrie, Redbank, Redcliffe, Rosewood, Sandgate, Sherwood, South Brisbane, Southport. Includes a 'Means' row and 'No. of years for Mean'.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued. (* Indicates Footnote.)

Table with columns for Stations (Spring Bluff, Sunnybank, Tabragalba, Tambourine Mount, Taringa, Tewantin, Theebine, Tiaro, Toowong, Veresdale, Wolston) and rows for Years (1879-1912) and Means. Each station has columns for Rain-fall and Days.

Notes for various locations: Morningside, Mount Brisbane, Mount Crosby, Mount Stanley, Mount Woot-tha, Mungrah, Murarie, Nerang, New Farm, Nundah, Oxley, Palmwoods, Peachester, Petrie, Redbank Plains, Redcliffe, Rosewood, Sherwood, South Brisbane, Southport, Spring Bluff, Sunnybank, Tabragalba, Tambourine Mount, Taringa, Tewantin, Theebine, Tiaro, Toowong, Veresdale, Wolston. Each note describes specific rainfall records or station closures for certain years.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued. (* Indicates Footnote.)

Subdivisions and Minor Subdivisions		SOUTH COAST—Moreton—continued.																		DARLING DOWNS—East Darling Downs.								
		Woodford.		Woodlands near Marburg.		Woogaroo, Goodna.		Woombye.		Wynnum.		Yandina.		Yengarie.		Yerongpilly.		—		Allora.		Balgownie.		Ballandean.		Beauraraba.		
		Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	
1879																												
1880																												
1881																												
1882																												
1883																												
1884																												
1885																												
1886																												
1887		8.80*	8*		16.87*	46*										50.23	119											
1888		97.43	156		54.66	121										61.67	123											
1889		35.96	110		23.28	72										27.91	101											
1890		63.08	133		36.04	107										44.08	97*											
1891		81.60	149		56.79	127										61.87	145											
1892		47.29	123		33.33	105										14.35*	24*											
1893		59.73	119		51.63	108										23.12*	2*											
1894		115.79	136		72.96	111										162.32*	125*											
1895		50.92	117		36.90	118										57.22*	133*											
1896		48.75	90		35.69	87										81.48	130											
1897		69.70	89		38.04	96										62.93	128											
1898		51.16	94		34.52	86										81.77	120											
1899		95.92	135		42.14	98										11.10*	20*											
1900		40.42	143		38.46	98										42.82	138											
1901		38.45	99		27.78	67										20.55*	62*											
1902		47.52	98		36.07	66										68.63	105											
1903		18.55	68		18.21	57										4.90*	16*											
1904		58.42	109		36.15	108										18.80*	33*											
1905		45.30	87		31.38	97										22.52	38											
1906		30.69	86		27.77	70										41.38	27											
1907		49.62	121		36.43	111										14.20*	15*											
1908		35.78	103		24.52	95										3.28*	9*											
1909		47.71	109		29.72	31										86.60	89											
1910		32.90	80		42.72	70										60.88	72											
1911		58.27	83		27.24	58										48.44	54											
1912		47.74	65		31.82	76										29.00	59											
Means		54.26	107		36.24	89										40.57	80											
No. of years for Mean		26	26		28	28										13	12											

DARLING DOWNS—East Darling Downs—continued.

Subdivisions and Minor Subdivisions		DARLING DOWNS—East Darling Downs—continued.																											
		Beecah, Barambah.		Bengalla.		Blinkbonnie.		Bon Accord.		Bowenville.		Braeside, Dalveen.		Cabariah.		Callandoon, Goondiwindi.		Cambooya.		Cecil Plains.		Chinchilla.		Clifton.		*Copmanhurst.			
		Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.		
1879																													
1880																													
1881																													
1882																													
1883																													
1884																													
1885																													
1886																													
1887		31.59*	62*																										
1888					12.80																								
1889					25.78																								
1890					4.02*	12*																							
1891					34.84	138																							
1892		7.95*	10*		42.62	138																							
1893		51.70*	64*		45.53	121																							
1894		26.66*	76*		30.52	112																							
1895					26.65	91																							
1896					26.94	99																							
1897					34.11	94																							
1898					23.94	87																							
1899					32.14	108																							
1900					23.37	76																							
1901					27.43	79																							
1902					16.04	64																							
1903					31.53	97																							
1904					25.90	97																							
1905					25.51	75																							
1906					29.76	101																							
1907					25.07	78																							
1908					27.88	86																							
1909					27.76	78																							
1910					27.82	88																							
1911					22.00	70																							
1912					24.25	73																							
Means					19.34																								
No. of years for Mean					2																								

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundreths) in Queensland, 1879-1912 inclusive—continued.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	DARLING DOWNS—East Darling Downs—continued.																											
	Dalveen.		East Taigai.		Ellangowan.		Emu Vale, Neereecadah.		Eton Vale.		Gabbinbar.		Glengel, Inglewood.		Glengallan East.		Goomburra.		Goondiwindi.		Gowrie.		Hendon.					
	Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.			
1879 ..																												
1880 ..																												
1881 ..									20·07	46																		
1882 ..									30·14	73																		
1883 ..									21·48	65																		
1884 ..									27·71	94																		
1885 ..									23·45	67																		
1886 ..									40·15	109																		
1887 ..									37·62	109																		
1888 ..		12·72*	60*						16·90	55*																		
1889 ..		1·98*	10*						31·59	57*																		
1890 ..									34·34*	108*																		
1891 ..									19·39*	49*																		
1892 ..									33·89*	67*																		
1893 ..									44·64*	85*																		
1894 ..		7·88*	17*						31·18*	78*																		
1895 ..		30·73	66						22·98*	44*																		
1896 ..		38·20	84						21·89*	57*																		
1897 ..		50·83*	95*						32·66	57																		
1898 ..		7·14*	22*						25·83	74																		
1899 ..		37·26	102						30·45	77																		
1900 ..		81·89	68						23·24	64																		
1901 ..		32·72	72						82·93	58																		
1902 ..		19·34*	41*						4·30*	11*																		
1903 ..		37·89*	53*						38·94	59																		
1904 ..		35·86	71						25·46																			
1905 ..		37·88	55						23·43	49																		
1906 ..		39·87	75						31·81	77																		
1907 ..		6·25*	22*						27·93	67																		
1908 ..		16·99*	34*						27·79	52																		
1909 ..		33·15	104						23·21	47																		
1910 ..		36·66	86						32·95	59																		
1911 ..		33·17*	97*						23·44	54																		
1912 ..		38·28	73						3·29*	15*																		
Means ..		35·58	76						28·23	68																		
No. of years for Mean		15	15						23	20																		

Woodford.—1886.—Record for December only.
1909.—Totals for August and September obtained from telegraphic returns.

Woodlands, near Marburg.—1884.—No record for the first four months.

Woogaroo, Goodna.—1893.—Record for November and December only.

Woombie.—1898.—Record for last six months only.
1912.—No record of number of days of rain for Dec.

Wynnum.—1898.—Record for the last three months only.
1902.—Record for the first three months and Nov. only.

Yandina.—1892.—No record for the first six months.
1893.—No record for November or December.
1894.—No record for January.
1907.—No record for October.
1912.—December total estimated from Eumundi and Nambour figures.

Yengarie.—1889.—No record of number of days of rain for March.
1891.—Record for the last three months only.
1892.—No record for Jan., Mar., April, May, or June; also record of the number of days of rain for Feb. only.
1893.—No record for March or the last five months.
1897.—Record for April to August inclusive only.
1899.—Record for the last five months only.
1900.—No record for July or August.
1902.—Record for the first four months only.
1903.—Record for the last six months only.
1906.—Record for Jan., Feb., and Oct. only.
1907.—Record for July, August, September, and October only.

Yerongpilly.—1894.—No record for Jan., Feb., or Dec.; also no record of the number of days of rain for Sept.
1898.—No record for August.
1907.—No record for February.

Balgownie.—1890.—Record for May, June, and July only.
1893.—Record for the last three months only.
1894.—Record for the last three months only.
1896.—Record for the last six months only.
1900.—No record for August.

Ballandean.—1898.—Record for this year unreliable. Observer states: Records for first eight months of 1898 were not kept accurately, and probably more rain fell during that year than the year following.

Beeabah, Barambah.—Station dismantled in 1894. Gauge transferred to Barambah (South Coast, Moreton Division).
1887.—Record for the first six months only.
1892.—Record for January only.
1893.—No record for June or the last four months.
1894.—No record for May or June.

Bengalla.—1890.—Record for May and June only.
1896.—Record for the last six months only.

Braeside, Dalveen.—1888.—Record of number of days of rain for January and February only.
1899.—No record of number of days of rain for January or February.
1891.—No record for May.

Braeside, Dalveen—continued.
1892.—No record for March, July, August, September, or December.
1893.—Record for February and March only.
1894.—No record for the first three months.
1895.—Record for July, August, September, October, and November only.
1896.—No record for December.
1897.—No record for December.
1902.—Record for March only.
1908.—Record for February, March, June, July, August, and September only.
1910.—Record for the first three months estimated from Dalveen and Stanthorpe records; also no record of the number of days of rain for April, May, or June.

Cabarlah.—1912.—Record for January only. Rain gauge transferred to Gehan.

Cambooya.—1886.—Record for December only.
1907.—No record for November.

Chinchilla.—1889.—Record for the last six months only.
1890.—No record for September, Oct. or, or Nov.

Clifton.—1893.—No record for March or the last three months.
1894.—Record for Jan., Feb., March, and May only.
1896.—Record for the first three months estimated from Allora and Cambooya.
1898.—Total for October deduced from Cambooya and Allora records.
1900.—Total for September obtained from telegraphic returns, and total for October deduced from Cambooya and Allora records.
*Copmanhurst (about 4 miles N.N.E. of Texas Station)—1887.—No record for the first five months.
1888.—No record for April.
1890.—Record for the first five months only.
1908.—Observations discontinued. For totals for recent years, see Texas Station records.

Dalveen.—1887.—Record for March, April, May, July, and December only.
1888.—Record for January only.
1894.—Record for the last six months only.
1897.—Record for August calculated from Killarney and Stanthorpe.
1898.—Record for the last four months only.
1902.—Totals for April to December inclusive obtained from telegraphic returns.
1903.—Totals for January to August inclusive, and December obtained from telegraphic returns.
1907.—Record for last five months only.
1908.—No record for first five months.
1911.—Record for November and December calculated from Killarney, Stanthorpe, and Warwick.

Ellangowan.—1890.—Record for March only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.

Emu Vale, Neereecadah.—1885.—No record for September.
1896.—No record of the number of days of rain for August.
1902.—No record for October or January.
1903.—No record for January.

Eton Vale.—1888.—No record of number of days of rain for July or October.
1899.—No record of number of days of rain for March, April, July, or November.
1890.—No record for July or December.
1891.—No record for the last four months.
1892.—No record for May or June.
1893.—No record for July, August, or September.
1894.—No record for May or June.
1895.—No record for the first three months.
1896.—No record for the first three months.
1902.—Record for January and February only.
1912.—Record for the last three months only.

Gabbinbar.—1902.—Record for the first four months only.

Glengel, Inglewood.—1890.—No record for January or February; and no record of the number of days of rain for March, April, or December.
1891.—No record for December; and no record of the number of days of rain for October or November.
1892.—No record for June or December; and record of the number of days of rain for September, October, and November only.
1893.—No record for January, June, August, November, or December.
1896.—Record for the last six months only.
1902.—Record for February, March, and April only.

Glengallan East.—1888.—Record of the number of days for January only.
1889.—No record of the number of days for the first five months or October.
1890.—Record for January, February, March, October, November, and December only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1895.—No record for the first three months.
1896.—No record for the first three months.

Goomburra.—1888.—No record of the number of days of rain for the first two months.
1889.—Record of the number of days of rain for the last five months only.
1890.—Record for the first six months only.
1892.—No record for June or December.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last three months only.
1900.—Record for the last five months only.
1901.—No record for Jan. or the last three months.
1902.—Record for January only.

Goondiwindi.—1889.—No record of the number of days of rain for July.

Gowrie.—1886.—Record for December only.
1888.—No record of the number of days of rain for August, September, or October.
1895.—No record for June.
1897.—No record for November.
1902.—Record for the first three months only.

Hendon.—1898.—No record for the first two months.
1902.—Record for the first three months only.
1903.—No record for the first five months.
1910.—No record for March, April, May, or June.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879–1912 inclusive—*continued*.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	DARLING DOWNS— <i>East Darling Downs</i> — <i>continued</i> .																			DARLING DOWNS— <i>West Darling Downs</i> .							
	Texas.		Texas Station.		Toowoomba, "Ness Bank."		Vacy Plains.		Wallangarra.		Warra.		Warroo.		Western Creek.		Yagaburne, Goondiwindi.		—		Auburn.		Bullamon.		Coomrith.		
	Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
1879
1880
1881	..	18.77	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1882	..	27.42	83	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1883	..	27.56	69	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1884	..	21.84	64	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1885	..	28.16	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1886	..	39.17	71	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	..	28.21	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1888	..	15.43	30*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1889	..	25.63	64	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1890	..	40.63	83*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	..	30.43*	56*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	..	42.81	69	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1893	..	36.81	80	..	..	69.71	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	..	28.39	67	..	..	59.43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1895	..	21.46	65	..	..	34.98	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	..	28.17	61	..	..	38.42	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	..	33.35	67	35.05	52	38.55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	..	17.15	76	12.75*	39*	31.89	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1899	..	28.44	83	24.87*	42*	32.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1900	..	25.81	89	27.12	58	27.17	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1901	..	20.07	78	18.39	49	38.72	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1902	..	12.14	53	6.36*	27*	21.13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1903	..	32.56	78	22.98*	42*	41.20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1904	..	23.58	60	25.88	49	36.83	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	..	25.12	52	24.57	43	32.31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1906	..	26.10	70	24.35	60	47.68	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1907	..	27.61	81	10.68*	38*	35.24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1908	..	29.17	80	29.62	65	29.70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1909	..	29.83	73	29.70	57	39.39	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1910	..	30.54	78	30.22	62	41.24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1911	..	24.23	79	24.13	59	38.90	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1912	..	22.13	71	22.38	56	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Means	..	27.05	69	26.49	55	38.66	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
No. of years for Mean	..	31	29	11	11	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Hermitage State Farm—
1898.—Record for the last three months only.
1899.—Record for the first six months only.
1901.—No record of the number of days of rain for December.
1902.—Record for the first four months only.
1906.—No record for the last six months.
1907.—No record for the first six months.
Irvingdale—1894.—No record for January, July, or the last three months.
Jondowale—
1898.—No record for January or February.
1902.—Total for November obtained from telegraphic returns.
1903.—Total for April obtained from telegraphic returns.
Junction—
1890.—Record for April only.
1892.—No record for the first three months.
1901.—Record for the first five months only.
Killarney—
1889.—No record for Jan., Feb., May, June, or Sept.
1902.—No record for June, July, August, or Sept.
Kincora, Pittsworth—
1890.—Record for the first three months and August only; and no record of the number of days of rain for January or February.
1893.—Record for the last three months only.
1894.—No record for May or June.
1896.—Record for the last six months only.
1901.—Record for January only.
Lemon Tree—
1890.—Record for September only.
1893.—Record for the last three months only.
1894.—Record for the last six months only; and record of the number of days of rain for Sept. only.
1896.—Record for July, Aug., and Sept. only; and record of the number of days of rain for July only.
1899.—Record of the number of days of rain for January, February, and December only.
1900.—Record of the number of days of rain for the last three months only.
1902.—Record for the first three months only.
Logie Plains, Warra—
1890.—Record for June only.
1893.—Record for the last three months only.
Marmadilla—1896.—No record for the first six months.
Meriwa, N.S.W., 3½ miles south of the Queensland border—
1890.—Record for March and April only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.
Millbrook—
1888.—Record for November and December only.
1889.—No record of the number of days of rain for February.

1891.—Record for Jan. and Feb. only; and no record of the number of days of rain for Feb.
Mulgowan—
1896.—No record for November or December.
1902.—Record for the first three months only.
Pikedale—1889.—Record for the first five months only.
Pilton—
1890.—Record for March only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.
1903.—No record for August or December.
Pittsworth—
1886.—Record for December only.
1889.—No record for December.
1890.—No record for January, and no record of the number of days of rain for April.
Pratton—1898.—Record for last two months only.
St. Ruth—
1894.—Record for the last six months only.
1896.—No record for the first three months.
1905.—Record for the last four months only.
South Toolburra—
1890.—Record for March only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—No record for the first six months.
1900.—No record for December.
Strath-Elbess—
1887.—No record for the first four months or December.
1888.—Record for February, March, and April only.
1889.—Record for the last five months only.
1890.—Record for the first five months only.
1892.—Record for Aug., Sept., and Oct. only.
1893.—Record for the last three months only.
Talgai—
1890.—Record for March only.
1891.—Record for May and June only.
1892.—Record for the last three months only.
1894.—Record for the first four and the last three months only.
1895.—Record for April to August inclusive only.
1896.—No record for the first three months.
Texas—
1888.—No record of the number of days of rain for April, August, October, or November.
1890.—No record of the number of days of rain for April.
1891.—No record for July.
Texas Station—
1898.—No record for April or September.
1899.—No record for May or June.
1902.—No record for January, April, July, August, or November.
1903.—No record for July or August.
1907.—No record for February, March, May, June, or November.

Vacy Plains—
1890.—No record for January or February.
1891.—Record for the first six months only.
1892.—Record for the last five months only.
1894.—Record for the last three months only.
Wallangarra—
1888.—No record for the first three months.
1890.—No record for February or November.
Warra—
1888.—Record of number of days of rain for July, September, and October only.
1889.—No record of the number of days of rain for September or October.
1890.—Totals for February, April, and May estimated from Dalby and Chinchilla records.
1892.—No record for February, March, April, May, August, or December.
1894.—Totals for May, June, and July estimated from Dalby and Chinchilla; no record of the number of days of rain for September.
1902.—The number of days of rain is for the first three months and October only.
1906.—No record of the number of days of rain for November.
Warroo—
1892.—Record of the number of days of rain for August, September, October, and November only.
1893.—Record of the number of days of rain for the first six months only.
1896.—Record of the number of days of rain for the last six months only.
1905.—No record of the number of days of rain for March, June, July, August, or September.
1907.—No record of the number of days of rain for the first six months.
1908.—Record of the number of days of rain for the last three months only.
Western Creek—
1890.—No record of the number of days of rain for the first two months or April.
1900.—No record of the number of days of rain for the first six months.
Yagaburne, Goondiwindi—1894.—No record for Dec.
Auburn—
1888.—Record of the number of days of rain for the first three months only.
1893.—Record for the last three months only.
Coomrith—
1888.—Record for the first three months and December only.
1893.—No record of the number of days of rain for June.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—continued.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	DARLING DOWNS—West Darling Downs—continued.												MARANOA.															
	Dulacca.		Kooroon.		Miles.		*Mungindl.		Welltown.		—		Amby Downs.		Bendmere.		Bindango.		Blythdale.		Crystal Brook.		Eurella.		Forest Vale.			
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.		
1879	..	..	..	..	..	..	..	..	23.14	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1880	..	..	..	..	..	..	..	..	17.11	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1881	..	..	..	..	..	..	..	..	24.23	70	..	..	..	..	..	..	..	..	..	..	..	..	28.28	68	..	..
1882	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1883	..	..	..	..	..	..	..	..	25.26	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1884	..	..	..	..	..	..	..	..	19.69	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1885	..	..	..	..	..	..	..	..	16.71	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1886	..	..	..	..	..	..	..	..	33.52	71	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	..	..	..	..	..	..	..	..	30.58	71	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1888	..	..	..	..	..	..	..	..	10.29	33	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1889	14.28	66*	10.07	43*	16.12	59	..	..	27.69	48*	10.22	30*23	16.35	37*26	..	..	..	..	..	..	..	..	..	..	..	..
1890	34.11	66*	28.13	43*	45.78	116	..	..	38.76	44*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	34.48	66*	14.08	43*	30.65	81	..	..	29.88	67	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	29.47	74	19.70	33*	31.29	91	..	..	23.75	62	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1893	26.90	82	15.19	33*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	16.59*	38*	23.59*	70*	31.18	90	..	..	27.80	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1895	28.44*	51*	29.75*	64*	27.34	83	5.71*	34*	26.08	57*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	28.00	51	10.87*	34*	24.49	66	19.20	48	18.11	52	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	21.70*	60*	18.87	64	26.98	56	16.50	63	17.07	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	17.76	50	..	..	23.43	53	17.49	39	21.95	39	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1899	19.96	68	..	..	24.63	66	11.78	38	12.05	42	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1900	20.40	57	..	..	26.13	64	10.80*	44*	19.16	46	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1901	17.84	50	..	..	21.64	48	14.17	41	16.43	36	4.00*	13*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1902	16.17*	43*	..	..	19.44	58	12.95	48	14.45	36	15.36	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1903	9.66*	38*	..	..	15.35	41	6.62	31	5.60	23	3.42*	9*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1904	28.22	22*	..	..	37.04	71	27.11	60	31.39	59	16.88*	19*	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	..	..	..	..	24.85	68	21.82	56	17.01	39	17.08	44	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1906	..	..	..	..	19.48	40	16.01	50	23.92	35	17.30	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1907	..	..	..	..	37.13	81	21.00	70	19.03	46	43.08	83	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1908	..	..	..	..	19.97	72	21.21	69	23.15	16*	28.48	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1909	..	..	..	..	22.66	65	23.83	55	22.96	36	21.73	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1910	..	..	..	..	27.09	84	24.09	57	20.76	50	24.29	53	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1911	22.05	53	16.89*	32*	38.22	79	20.08	52	29.46	37	28.02	58	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1912	25.94	47	19.21	50	27.63	51	14.75	36	17.15	50	22.52	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Means	23.74	59	20.32	59	27.10	71	18.03	51	22.07	48	23.76	46	26.81	..	22.42	63	29.10	47	21.90	53	24.79	57
No. of years for Mean	12	9	5	3	28	23	17	17	33	29	12	10	2	..	15	14	23	17	28	28	28	27

Subdivisions and Minor Subdivisions	MARANOA—continued.																											
	Glennearn, Surat.		Merivale.		Mitchell.		Mount Hutton, Roma.		Muckadilla.		Murra Murra.		Norindoo.		Redford, Mitchell.		St. George.		Surat.		Thomby Station, St. George.		Wallumbilla.		Waroonga.			
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
1879	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1880	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1881	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1882	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1883	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1884	..	..	..	..	27.02	47	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1885	..	..	..	..	12.10	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1886	..	..	..	..	38.70	72	53.49	84	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	3.95*	5*	..	..	24.68	45	10.74*	24*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1888	10.70*	10*	..	..	12.81	29	12.55	14*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1889	23.08	15*	31.12	..	23.07	65	33.36	16*	..	..	6.00	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1890	6.34*	11*	12.94*	21*	44.01	92	3.94*	21*	..	..	25.85	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	..	..	29.41*	61*	34.82	83	..	..	32.61*	58*	15.13*	30*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	..	..	26.27	57	19.11	65	..	..	21.57	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1893	4.70*	4*	29.81	89	23.51	67	3.10*	13*	30.10*	47*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	24.54*	40*	31.86*	48*	36.53	79	30.53*																					

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879–1912 inclusive—continued.
(* Indicates Footnote.)

Subdivision and Minor Subdivisions	MARANOA—continued.										SOUTH-WEST—Warrego.															
	Warrong.		Weribone, Surat.		Westgrove.		Woomblebank.		Yeulba.		—		—		Ambathala Station.		Angellala Downs.		Augathella.		Avondale.		Bendee Downs.		Biddenham.	
	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
1879
1880
1881
1882
1883	16.52	44	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1884	21.40	59	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1885	14.39	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1886	40.14	73	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	37.08	73	..	..	..	..	..	29.04	59	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1888	36.01	61	..	..	..	..	..	14.76	42	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1889	14.32*	36*	12.47	..	..	..	..	10.78	..	..	..	12.45	..	..	..	..	..	..	..	..	..	..	..	..
1890	29.23	62*	30.62	..	..	..	..	15.95	..	..	..	19.40	..	..	..	..	..	..	..	..	..	..	..	..
1891	18.76*	52*	17.24*	34*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	34.37	56	13.93*	11*	15.40*	19*	..	34.84	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1893	6.59*	29*	..	..	13.37*	34*	..	23.62	72	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	3.44*	11*	9.91*	33*	3.49*	..	..	36.26	67	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1895	10.44*	19*	34.60	72	8.52*	20*	..	33.72	78	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	27.46	52	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	22.45	61	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	19.08	33	18.43	53	17.43	26	..	24.05	46	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1899	15.04	36	27.18	65	19.92	49	..	17.48	49	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1900	16.90	42	17.02	65	13.34	43	..	20.22	66	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1901	18.39	34	15.37	49	15.79	31	..	21.43	51	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1902	16.31	40	18.51	50	16.47	48	..	13.03	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1903	1.61*	8*	15.45	41	5.75*	21*	..	10.39	28	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1904	32.56	77	22.10	..	..	30.65	71	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	26.67	62	23.52	62	..	24.64	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1906	20.61	43	19.83	55	..	19.41	41	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1907	40.30	61	38.67	81	..	42.47	57	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1908	13.79*	26*	26.09	69	..	31.17	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1909	34.32	44	25.65	64	..	25.70	38	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1910	24.11	48	24.76	48	26.50	59	..	23.99	59	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1911	38.03*	59*	29.83	44	37.09	53	..	31.50	68	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1912	22.72*	44*	26.61	43	33.91	48*	..	29.04	59	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1912	24.08*	33*	..	..	27.86	51	..	20.84	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Means	27.24	46	24.63	46	26.06	57	..	22.89	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
No. of years for Mean	4	4	13	12	18	15	..	15	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Dulacca—
1890.—No record for January or February.
1893.—No record for February, March, or April.
1894.—No record for February.
1896.—No record for January.
1901.—No record for December.
1902.—No record for July.
1903.—No record of the number of days of rain for February, April, June, November, or December.
Kooroon—
1890.—No record for the first three months or Aug.
1891.—No record for the last five months.
1892.—Record for the last four months only.
1893.—No record for the last three months.
1894.—No record for July or December.
1895.—Record for February, March, April, and the last three months only.
1910.—No record for the first five months.
Mungindi—
Up to December, 1901, records were kept by the Queensland Post and Telegraph officer, and from 1902 onwards by the New South Wales officer.
1894.—Record for the last six months only.
1899.—No record for February.
Welltown—
1889.—No record of the number of days of rain for June or the last five months.
1890.—No record of the number of days of rain for the first three months.
1894.—No record of the number of days of rain for August.
1907.—Record of the number of days of rain for the first three months and July only.
Amby Downs—
1900.—Record for the last five months only.
1902.—Record for the first five months only.
1903.—No record for the first five months or July.
Bindango—
1888.—No record for September or December.
1889.—No record of the number of days of rain for March, April, September, October, or December.
1890.—Record for January only.
1892.—No record for the first three months, October, or November.
1893.—Record for January and February only.
1894.—No record for January.
1895.—No record for February or June.
Crystal Brook—
1890.—No record for Jan., Feb., or Nov.
1892.—Record for the last five months only.
1895.—Record for the first six months only.
1896.—Record for the last six months only.
Eurella—
1890.—No record for Feb., Mar., or Nov.; also no record of the number of days of rain for April or May.
1891.—No record for August.
1893.—No record for April, June, or July; also no record of the number of days of rain for Dec.

Glennearn, Surat—
1887.—Record for the last three months only. No record of the number of days of rain for Oct. or Nov.
1888.—Record for the first four months only.
1889.—Record of the number of days of rain for March and May only.
1890.—Record for Aug., Sept., and Oct. only.
1893.—Record for the last three months only.
1894.—No record for May or June.
1896.—No record for the first three months.
Merivale—
1890.—Record for April, July, August, September, and December only; and no record of the number of days of rain for April.
1891.—Total for Jan. taken from Merivale old station.
1894.—No record for March.
1895.—Record for Feb., Mar., May, and Nov. only.
1896.—No record for the last three months or August.
1897.—No record for Mar., Apr., July, Aug., or Dec.
1901.—No record for March.
1902.—Record for first two months only.
1908.—No record for first six months.
Mitchell—1886.—At Mitchell Downs, the total for the year was 39.14 inches on 87 days. (No other totals available from Mitchell Downs.)
Mount Hutton, Roma—
1887.—Record for Jan., Feb., April, May, and Nov. only.
1888.—Record of the number of days of rain for February and April only.
1889.—Record of the number of days of rain for June, September and October only.
1890.—Record of the number of days of rain for May and June only.
1893.—Record for the last three months only.
1894.—No record for April, May, or June.
Muckadilla—
1891.—Totals for January and February estimated from Mitchell and Roma records.
1893.—Total for March estimated from Yeulba and Morven records.
1895.—Totals for April and August estimated from Mitchell and Roma records.
1899.—Total for September estimated from Mitchell and Roma records.
1901.—Total for April estimated from Mitchell and Roma records.
1902.—Record for the first three months and May only.
1903.—Record for the last three months only.
Murra Murra—1890.—No record for the first three months, August, November, or December.
Redford, Mitchell—
1890.—No record for the first five months, August, or September.
1891.—Record for the first five months only.
1892.—No record for the first three months.
1894.—Record for the last three months only.

Redford, Mitchell—continued.
1895.—No record for the first three months, June, or August.
Thomby Station, St. George—1900.—No record for October or December.
Wallumbilla—
1897.—Record for the last four months only.
1898.—Total for April estimated from Yeulba and Roma records.
Waroonga—
1889.—No record of number of days of rain for December.
1890.—No record for September or November.
1892.—Record for August, September, October, and November only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
Warrong—
1892.—Record for March to August inclusive only.
1910.—Totals for the last three months taken from Mitchell records.
1911.—Total for May estimated from Forest Vale, Mitchell, and Woomblebank records.
1912.—Totals for February, March, July, and December estimated from Forest Vale, Mitchell, and Woomblebank records.
Weribone, Surat—
1888.—No record for July.
1889.—No record of number of days of rain for February or December.
1890.—No record for the first four months.
1893.—Record for the last three months only.
1894.—Record for the last three months only.
1902.—Record for the first four months only.
Westgrove—
1890.—No record for January, February, March, October, or November; also no record of the number of days of rain for April.
1891.—Record for January only.
1892.—No record for the first six months.
1893.—No record for Feb., March, May, or June.
1895.—No record for January, April, May, or June.
1896.—No record for June.
1907.—Record for the first five months only.
1911.—No record of the number of days of rain for April, May, July, or August.
Woomblebank—
1891.—Record for the first three months only.
1893.—Record for the last three months only.
1894.—Record for the last six months only; no record of the number of days of rain for August or November.
1896.—Record for the last six months only.
1902.—Record for the first six months only.
Angellala Downs—1912.—Record for the last three months only.
Augathella—1889.—No record for January or February.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879—1912 inclusive—continued. (* Indicates Footnote.)

Table with columns: Subdivisions and Minor Subdivisions, Stations (Bierbank, Bindegango, Bollon, Boorara, Bundaleer, Burenda, Caiwarro, Charlotte Plains, Claverton Downs, Coongoola, Cowley, Cubbie Station, Cunnamulla), Year, Rainfall, Days. Includes a 'Means' row and 'No. of years for Means' row.

SOUTH-WEST—Warrego—continued.

Table with columns: Subdivisions and Minor Subdivisions, Stations (Currawinya, Curri-willinghi, Dillalah, Dirran-bandi, Doondi, Drysdale Ponds, Dynevov Downs, Eulo, Fernlee, Gumbardo, Humeburn, Hungerford, Morven), Year, Rainfall, Days. Includes a 'Means' row and 'No. of years for Mean' row.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879—1912 inclusive—*continued*.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions		SOUTH-WEST— <i>Warrego</i> — <i>continued</i> .																				
Stations ..	Mount Alfred.	Mount Morris.	Murweh.	Nive.	Noorama.	Oakwood, Augathella.	Quilberry, Charleville.	Rosevale.	Thuruloona.	Tyrconnell Downs.	Wangarilla.	Whyenbah.	*Woolerina.									
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.		
1879 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1880 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1881 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1882 ..	..	..	..	..	..	29*33	64	..	..	..	..	..	..	..	..	..	..	..	..	..
1883 ..	..	..	..	14*12	41	10*07	38	14*45	29	..	..	..	..	..	..	..	..	..	..	12*11	21	
1884 ..	..	..	..	13*14	50	12*95	32	9*21	25	..	..	..	..	..	..	..	..	..	..	9*40	21	
1885 ..	..	..	..	11*76	40	13*86	31	12*65	30	..	..	..	..	..	..	..	..	..	..	9*09	42	
1886 ..	..	..	3*73*	8*	28*82	70	36*06	49	21*45	46	..	..	..	..	..	..	..	..	..	27*60	78	
1887 ..	..	..	15*13*	43*	21*67*	61*	23*03	41	25*31	43	..	..	..	..	..	..	..	..	..	23*31	47	
1888 ..	..	..	9*88	9*	10*71*	33*	8*00	23	9*47	21	12*48	..	..	..	..	..	..	..	..	8*78*	36*	
1889 ..	..	..	21*94	..	26*00	41	27*33	59	23*30	47	29*62	..	..	..	..	..	..	..	..	26*18	67	
1890 ..	..	..	23*33*	14*	0*58*	..	51*21	81	30*03	61	..	..	..	..	..	..	..	..	..	32*22*	64*	
1891 ..	31*63	35	29*82*	37*	31*13	41	32*83	58	31*55	48	..	..	..	..	..	..	..	..	..	9*19*	15*	
1892 ..	11*80	30	5*38*	20*	14*99	36	21*89	48	11*55	32	..	..	..	..	..	..	..	..	..	13*70*	36*	
1893 ..	9*11	32	3*80*	14*	5*89*	9*	19*34	44	14*02	35	..	..	9*31*	15*	..	..	9*41	23	..	..	26*15*	61*
1894 ..	28*95	41	8*82*	30*	9*54*	35*	46*37	67	20*94	42	..	..	16*29*	37*	..	..	15*88	45	..	..	6*23*	26*
1895 ..	14*55	23	17*86	..	16*93	44	18*30	49	16*33	19	..	..	6*02*	9*	24*30*	69*	11*19	22	..	..	8*00	22
1896 ..	17*66	27	5*14*	16*	3*87*	12*	18*01	50	15*50	34	..	..	..	..	16*80*	49*	15*24	28	..	..	12*95	33
1897 ..	15*76	23	13*41	33	15*72	38	14*31	40	12*60	28	..	..	..	..	..	..	12*53	26	..	..	14*08	18
1898 ..	11*03	23	12*65	27	12*19	32	10*76	49	17*39	26	..	..	..	..	..	..	11*28	20	..	..	10*60	22
1899 ..	6*36	14	9*99	35	8*83	20	12*32	50	8*67	27	..	..	0*02	25	..	..	7*56	24	..	..	8*29	26
1900 ..	6*42	22	9*01	35	8*79	17	13*71	41	5*45	20	12*94	37	11*28	30	..	..	4*52	25	..	..	9*56	37
1901 ..	8*20	20	13*78	34	9*11	27	15*81	26	13*35	34	14*06	37	8*66	27	..	..	11*90	28	..	..	4*98	27
1902 ..	8*08	14	8*88*	24*	8*95	19	13*29	18	5*16	25	13*16	35	8*03	24	..	..	4*06	21	..	..	6*37	17
1903 ..	20*15	33	14*99	52	18*06	43	19*42	37	17*57	33	17*69	52	20*56	39	..	..	13*75	42	..	..	12*92	30
1904 ..	21*68	36	18*08	43	20*62	34	20*52	33	21*71	35	21*89	47	22*95	42	..	..	13*57	38	..	..	8*59	25
1905 ..	7*13	21	12*83	35	10*01	37	15*04	25	10*04	36	13*73	39	8*43	34	..	..	9*74	31	..	..	6*15	21
1906 ..	30*00	44	33*85	60	27*56	54	31*42	57	23*96	53	34*45	67	37*10	52	..	..	18*80	42	..	..	18*05	37
1907 ..	9*01	18	13*27	..	13*67	46	20*90	49	13*97	39	16*38	53	14*84	39	..	..	11*56	24	..	..	12*33	30
1908 ..	18*15	22	18*94	38	16*72	53	16*12	30	11*18	33	16*10	53	18*57	39	..	..	10*15	37	..	..	12*32	29
1909 ..	12*50	23	13*41	26	14*28	50	19*44	43	23*66	39	16*70	48	15*48	38	..	..	16*95	47	..	..	10*17	31
1910 ..	14*11	23	21*53	32	19*12	56	33*50	52	12*13	44	32*74	59	17*38	48	..	..	15*00	40	..	..	11*70	36
1911 ..	11*42	24	17*99	30	18*78	50	15*07	36	14*75	40	22*76	55	21*03	38	..	..	2*80*	8*	..	..	12*91	26
1912 ..	8*02	16	12*21	15	10*45	40	18*39	28	8*28	23	20*27	36	8*61	19	9*16	20	7*69	18	..	..	4*82	16
Means ..	14*62	26	15*87	35	16*24	41	21*85	43	15*86	35	19*67	48	15*86	35	..	..	11*94	31	..	..	10*27	27
No. of years for Mean	22	21	18	14	24	24	31	31	30	30	15	13	14	14	..	..	22	20	..	..	18	18

Bierbank—
1889.—No record of number of days of rain for January.
1894.—Totals for Oct. and Nov. calculated from Gumbardo, Dillalah, Charleville, Adavale, and Eulo.
1896.—Record for the last six months only.

Bindelbango—
1890.—No record for the first three months or Sept.
1911.—No record for June.

Bollon—1903.—Record for the last five months only.

Boorara, Thargomindah—
1890.—Record of the number of days of rain for March, July, Aug., Oct., Nov., and Dec. only.
1898.—Record of the number of days of rain for November and December only.
1894.—Record of the number of days of rain for October and December only.
1896.—No record of the number of days of rain for the first three months.

Bundaleer—
1890.—Record for April, May, and June only.
1892.—No record for July, Aug., Sept., Nov., or Dec.
1893.—Record for June and the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.

Burenda—
1886.—Record of the number of days of rain for December only.
1887.—No record of the number of days of rain for November.
1890.—No record of the number of days of rain for June.
1891.—No record for November.
1892.—No record of the number of days of rain for August.
1894.—No record for Sept., Oct., or Nov.
1895.—No record for the last five months.
1896.—No record for the first three months.

Charlotte Plains—1888.—No record of number of days of rain for the first three months.

Claverton Downs—
1891.—Record for the first four months only.
1892.—Record for September and October only.
1894.—Record for the last six months only.
1895.—Record for the first three months and July only.

Cowley—1894.—Record of the number of days of rain for January, May, and June only.

Cubbie Station—
1898.—No record of the number of days of rain for March, April, May, September, or October.
1899.—Record of number of days of rain for May only.

Cubbie Station—continued.
1902.—Record for February, March, April, November, and December only.
1903.—Total for June estimated from Dirranbandi and Hebel records.

Dirranbandi—1888.—Record for December only.

Doondi, St. George—
1890.—Record for April and the last three months only. No record of the number of days of rain for April.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.

Drysdale Ponds—
1888.—Record for March, April, and May only.
1889.—Record of number of days of rain for June and the last five months only.
1890.—Record for January, February, April, and November only.
1891.—No record for the last five months.
1892.—No record for the first three months.

Dynevor Downs—
1888.—Record of number of days of rain for January only.
1889.—No record of the number of days of rain for the first three months, October, or December.
1890.—No record for the first two months, July, August, or September.
1891.—Record for March, April, and May only.
1893.—Record for the last three months only.
1900.—Record of the number of days of rain for September and December only.
1901.—No record of the number of days of rain for September or November.

Fernlee—
1890.—Record for the last three months only.
1892.—No record for March, November, or December.
1893.—Record for the last three months only.
1894.—Record for March and the last three months only.
1896.—Record for the last six months only.

Gumbardo—1902.—Record for the first three months only.

Humeburn, Charleville—1890.—Record for April only.

Hunzerford—
1908.—Record of the number of days of rain for the first three and last three months only.

Morven—1886.—Record for December only.

Mount Alfred—1911.—No record of the number of days of rain for March.

Mount Morris—
1886.—Record for December only.
1887.—Record for the first six months and December only.
1888.—Record of the number of days of rain for January only.
1890.—Record for the first three months only. No record of the number of days of rain for March.
1891.—Record for the first five months only.
1892.—Record for May, June, July, and August only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.
1902.—No record for June, July, August, or Sept.

Murweh—
1887.—No record for April.
1888.—No record for December.
1890.—Record for April only.
1893.—Record for the last three months only.
1894.—Record for the last six months only.
1896.—Record for the last six months only.

Quilberry, Charleville—
1893.—No record for the last three months.
1894.—No record for the first three months.
1895.—Record for the first three months only.

Rosevale—
1895.—No record for January.
1896.—Record for the first six months only.
1911.—Record for the last two months only.

Thuruloona—1890.—No record for January, February, April, or the last three months; and no record of the number of days of rain for March.

Whyenbah—
1888.—No record for October or November.
1890.—No record for November.
1891.—Record for April, May, August, and September only. No record of the number of days of rain for August.
1892.—Record for March, April, May, and the last three months only.
1893.—No record for March or September.
1894.—No record for the first six months.
1895.—No record for February or March.
1899.—Record for the first three months only.
1901.—No record for April.
1903.—Record for January only.
1904.—Record for the last two months only.

Woolerina—
The totals for 1883 to 1896 inclusive were obtained from the New South Wales rainfall publications.
1906.—Record for the first five months, August, and September only.

Incomplete Annual Totals not used in determining Means.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879–1912 inclusive—*continued*.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	SOUTH-WEST— <i>Warrego</i> — <i>continued</i> .								SOUTH-WEST— <i>Far South-west</i> .																	
	Wyandra.		Yarron Vale.		Yowah, Eulo.		—		Adavale.		Ardoch.		Boondoon.		Chastleton, Thargomindah.		Clyde.		Comongin South.		Congie.		Durham Downs, Cooper's Creek.		Eulbertie.	
Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
1879
1880
1881
1882
1883
1884
1885
1886	20.08	36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	29.76	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1888	9.18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1889	6.57	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1890	21.85	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	13.19*	4*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	5.19*	11*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1893	8.51	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	4.45*	11*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1895
1896	2.86*	9*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	2.53*	12*	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	11.28	38	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1899	8.41	22	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1900	8.43	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1901	8.97	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1902	6.43	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1903	20.53	49	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1904	22.03	54	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905	8.45	39	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1906	31.43	62	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1907	10.22	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1908	14.24	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1909	15.61	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1910	17.70	45	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1911	16.28	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1912	10.23	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Means	13.88	37	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
No. of years for Mean	15	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Wyandra—1897.—Record for the last two months only.
Yarron Vale—
1890.—Record for March, April, and June only.
No record of the number of days of rain for April.
1892.—Record for the last four months only.
1896.—Record for the last six months only.
1901.—No record for February.
1902.—Record for the first four months only.
1911.—Record for the last two months only.
Yowah, Eulo—
1890.—No record for the first three months; and no record of the number of days of rain for April or May.
1894.—Record for the last three months only.
1896.—Record for April, May, and June only.
Adavale—
1889.—No record for January or February.
†1912.—Total for December made up from telegraphic reports.

Ardoch—
1890.—Record for March only.
1894.—Record for the last three months only.
1896.—Record for the last six months only.
Boondoon—1894.—Record for the last five months only.
Chastleton, Thargomindah—
1890.—Record for April and May only.
1894.—Record for the first six months only.
1895.—Record for the first five months only.
Clyde—
1890.—Record for April only.
1903.—Record for March, April, and May only.
Congie—
1892.—Record for October only.
1893.—Record for the last three months only.
1896.—No record for the first three months, July, or December. No record of the number of days of rain for April, May, or June.

Durham Downs, Cooper's Creek—
1893.—Record for the last three months only.
1896.—Record for the last six months only.
Eulbertie—
1889.—No record of the number of days of rain for January or February.
1890.—No record for February or March.
1891.—No record for August or September.
1893.—Record for the last three months only.
1894.—Record for the last three months only.
1896.—Record for the last six months only.
1900.—Record for the first six months only.
1901.—No record for March, April, May, June, August, or December.

TABLE II.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1879-1912 inclusive—*continued.*
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	SOUTH-WEST— <i>Far South-West</i> —continued.																													
	Kyabra.		Milo.		Mount Howitt.		Mount Margaret.		Narylleo.		Nocatunga.		*Onepah Station (New South Wales).		Orient.		Sparta Downs.		Tenapera.		†Thargomindah.		Tickalara, Wompah.		Tobermory.		—			
	Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	
1879		
1880		
1881		
1882	20.26	40	..	..	..	..	..
1883	7.67	19	..	..	..	..	..
1884	8.97	30	..	..	..	..	..
1885	18.55	28	..	..	..	..	..
1886	14.46	35	..	..	..	..	..
1887	23.18	46	..	..	..	..	..
1888	..	7.51	..	7.24	..	5.43	..	9.20	..	3.09	..	22.72	38	..	..	..	..	..	..	..	..	7.44	19*	..	..	..	..	..
1889	..	12.67	..	17.56	11*	9.83	..	11.98	22*	15.99	..	12.90	..	5.01*	21*	13.62	..	..	..	..	..	11.02	40	..	..	..	5.62	..	
1890	0.30*	2*	2.31*	..	5.80*	11*	8.22*	15*	8.85*	..	2.75*	8*	13.97	62	3.11*	9*	8.52*	32*	18.21	49	7.50*	17*	9.78*	14*	..		
1891	34.26	42	..	..	..	..	..	..	15.53*	..	17.92	26	21.98	50	9.26*	15*	11.65*	23*	21.63	45	7.93*	5*	10.94*	11*	..		
1892	10.48	23	..	..	..	..	..	..	..	..	6.87	15	..	..	..	..	..	..	5.83	22	15.03	34	..	..	..
1893	8.19	23	6.76*	7*	..	..	..	..	..	..	9.83	18	2.40*	4*	..	..	..	..	10.42	37	7.82	32	..	..	..
1894	5.15*	14*	2.62*	7*	6.11*	11*	..	..	9.68*	23*	9.89	22	2.02*	14*	..	..	..	..	10.74	33	12.74	41	1.10*	2*	4.24*	6*	
1895	6.14*	..	8.63	..	..	..	..	..	5.79	11	..	..	..	..	..	..	7.69	23	..	..	..	..	..	..
1896	2.73*	10*	3.09*	..	11.16	17*	1.57*	12*	2.01*	13*	5.81	12	2.92*	9*	..	..	..	..	2.10*	10*	11.17	31	3.33*	2*	..	..
1897	11.09	..	..	..	11.21	6*	..	..	7.18	17	6.14	11	10.36	10	..	..	..	..	9.27	10	9.05	20	8.20	..	..	..
1898	12.92	29	7.24	6	8.09	..	..	..	8.38	22	7.29	17	10.06	19	..	..	..	..	8.72	12	14.56	31	10.62	9	..	..
1899	11.55	28	6.57	10	6.55	..	..	..	5.89	19	6.92	10	6.19	13	..	..	..	..	3.37	13	7.19	26	3.90	10	..	..
1900	5.56	17	2.53	..	1.70	4	..	..	2.22	12	6.90	17	3.42*	14*	..	..	..	..	2.52	15	4.37	41	4.90	14	..	..
1901	10.87	23	7.40	9	6.17	..	..	..	4.28	16	4.76	13	..	..	..	..	..	..	3.73	16	5.87	27	3.68	12	..	..
1902	5.13	16	..	..	10.07	..	..	..	0.95*	1*	9.24	10	..	..	..	..	..	..	6.41	12	7.42	19	..	..	..	..
1903	16.43	32	..	..	14.45	..	..	..	..	..	11.65	21	..	..	..	..	..	..	..	..	11.36	37	..	..	..	..
1904	13.35	29	..	..	9.04	..	..	..	..	..	4.37	7	..	..	..	..	..	..	..	..	10.27	35	..	..	..	..
1905	5.64	20	..	..	3.91	..	..	..	..	..	1.46	6	..	..	..	..	..	..	..	..	4.89	23	..	..	..	..
1906	25.58	43	..	..	21.83	..	..	..	..	..	9.09	11	..	..	..	..	..	..	..	..	20.18	43	..	..	..	..
1907	9.59	22	..	..	8.96	22	..	..	..	..	9.83	10	..	..	..	..	..	..	..	..	10.16	35	..	..	..	..
1908	11.67	30	..	..	17.94	29	..	..	..	..	7.49	13	..	..	..	..	..	..	..	..	12.63	32	..	..	..	..
1909	9.11	20	..	..	9.05	16	..	..	..	..	3.77	12	..	..	..	..	..	..	..	..	11.32	43	..	..	..	..
1910	21.32	34	..	..	17.53	23	..	..	..	..	6.27	9	..	..	..	..	..	..	..	..	13.95	29	..	..	..	..
1911	..	1.87*	7*	9.68	24	5.96	19	7.77	19	..	..	..	..	6.89	11	..	..	..	..	..	..	..	..	13.18	25	..	..	..	..
1912	..	7.50	11	..	..	5.26	16	6.38	12	..	..	..	..	6.70	6	..	..	..	..	..	..	..	..	5.57	22	..	..	..	..
Means	..	9.23	..	13.11	27	6.28	12	10.08	18	9.54	..	8.55	21	7.49	13	12.84	31	..	..	..	..	7.23	19	11.86	32	6.26	11	9.05	..
No. of years for Mean	..	3	..	20	17	8	5	20	7	2	..	8	6	22	22	7	5	10	9	31	30	5	4	2

Kyabra—1911.—Record for the last two months only.
Milo—
1889.—Record of the number of days of rain for April and May only.
1890.—Record for March only.
1894.—Record for the last three months only.
1896.—No record for the first three months.
Mount Howitt—
1890.—Record for April only.
1893.—No record for April, July, August, September, or October. No record of the number of days of rain for November or December.
1894.—Record for April only.
1895.—No record for the first three months.
1896.—No record for the first six months.
Mount Margaret—
1889.—Record of the number of days of rain for April, May, June, November, and December only.
1890.—Record for April and May only.
1894.—Record for the last three months only.
1896.—No record of the number of days of rain for the first three months.
1897.—Record of the number of days of rain for the first three months only.

Narylleo—
1890.—Record for April, May, June, Oct., and Nov. only. No record of the number of days of rain for April.
1896.—Record for the last six months only.
Nocatunga—
1890.—No record for the first three months or December.
1891.—Record for the first six months only.
1894.—No record for June.
1896.—Record for the last six months only.
1902.—Record for the first two months only.
Onepah Station (N.S.W.)—
This station is in New South Wales, 1 mile from the Queensland border.
1899, 1890.—Totals given for these years are incomplete, and are from Wompah (Qld.), about 3 miles from Onepah Station.
Orient—
1893.—Record for the first three months only.
1894.—Record for the last three months only.
1896.—Record for the last six months only.
1900.—No record for the last four months.

Sparta Downs—
1890.—Record for June, July, and the last three months only.
1891.—Record for the first four months only.
Tenapera—
1890.—No record for the first three months.
1891.—No record for the last three months.
1896.—Record for the last six months only.
Thargomindah—
†For totals for years prior to 1882, see Thargomindah Station record, page 206.
1888.—No record of number of days for September.
Tickalara, Wompah—
1890.—Record for May and the last three months only.
1891.—Record for the first two months only.
1894.—Record for the last three months only.
1896.—No record for the first three months. Record of the number of days of rain for August and October only.
Tobermory—
1890.—No record for the first five months.
1891.—Record for the first two months only.
1894.—Record for the last three months only.

TABLE III.—RETURN SHOWING ANNUAL RAINFALL RECORDS (IN INCHES AND HUNDREDTHS) IN QUEENSLAND, 1840-1912 INCLUSIVE.

(* Indicates Footnote.)

Subdivisions and Minor Subdivisions ..	CARPENTARIA—Lower Carpentaria.										CARPENTARIA—Upper Carpentaria.								NORTH COAST.—Barron.				
	Green Creek.		Gilbert River.		Karumba (formerly Kimberley).		Normanton.		Sweet's Island.		Georgetown.		Mt. Surprise (formerly Junction Creek).						Cooktown.				
	Year.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
1840
1841
1842
1843
1844
1845
1846
1847
1848
1849
1850
1851
1852
1853
1854
1855
1856
1857
1858
1859
1860
1861
1862
1863
1864
1865
1866
1867
1868
1869	59.61	70	..	..	..	..	..	..	..	..	..	..	..	..
1870	22.78	48	..	..	..	..	..	..	..	..	..	..	..	..
1871
1872	29.05	68	..	..	35.26	68	..	..	..	..	..	..	..	..	..	..
1873	..	28.33	50	79.23	73	46.22	64	43.95	75	..	..	49.75	70	39.72	62	..	..	..	..	..	..	..	..
1874	..	36.06	77	47.74	87	46.80	78	41.56	72	..	..	50.31	82	32.48	70	..	..	..	..	91.07	132	..	..
1875	..	42.10	51	35.05	55	47.00	46	54.98	70	..	..	46.93	59	53.05	72	..	..	..	..	82.12	120	..	..
1876	..	35.43	45	44.44	60	20.41	40	41.63	46	..	..	46.36	82	48.09	70	..	..	..	..	75.70	82	..	..
1877	..	48.35	55	33.72	60	31.87	38	30.17	65	..	..	39.50	67	27.79	57	..	..	..	..	63.15	109	..	..
1878	..	29.88	44	33.20	44	21.93	41	27.69	50	..	..	33.22	70	37.65	59	..	..	..	..	49.68	141	..	..
1879	..	42.80	68	37.53	59	44.63	70	45.25	74	..	..	38.19	87	39.85	74	..	..	..	..	86.88	113	..	..
1880	..	36.97	31	37.00	42	33.03	69	37.06	67	..	..	26.96	57	16.61	38	..	..	..	..	106.02	154	..	..
1881	..	36.02	46	29.79	42	39.89	40	43.37	53	..	..	24.95	64	18.17	46	..	..	..	..	89.77	143	..	..
1882	..	50.20	62	46.58	70	46.91	58	43.15	63	..	..	40.83	71	50.55	89	..	..	..	..	60.03	151	..	..
1883	..	31.50	39	32.45	45	29.72	26	32.89	34	..	..	27.34	42	23.96	46	..	..	..	..	64.48	129	..	..
1884	..	21.18	40	31.40	32	18.13	31	13.94	31	..	..	27.27	39	40.43	40	..	..	..	..	94.23	106	..	..
1885	..	40.41	46	33.52	42	27.49	50	30.05	56	..	..	42.48	34	19.01	48	..	..	..	..	62.69	141	..	..
1886	..	37.28	57	45.40	62	33.59	59	37.98	57	..	..	46.94	64	35.41	75	..	..	..	..	110.49	146	..	..
1887	..	39.23	88	42.42*	71*	38.65	63	36.79	70	..	..	39.99	71	31.76	69	..	..	..	..	75.39	129	..	..
1888	..	22.97	50	25.72*	49*	22.20	39	29.18	46	..	..	23.26	37	25.39	44	..	..	..	..	48.63	112	..	..
1889	..	40.29	53	29.80	53	25.09	41	36.45	55	..	..	33.17	54	43.99	65	..	..	..	..	56.70	111	..	..
1890	..	33.03	59	41.70	75	41.79	72	47.71	72	..	..	30.85	70	64.58	84	..	..	..	..	64.32	124	..	..
1891	..	46.10	81	46.83	82	55.50*	35*	54.25†	64†	..	..	50.71	84	48.34	97	..	..	..	..	69.57	157	..	..
1892	..	19.36	42	19.14	50	21.03	27	21.34	30	..	..	17.81	47	15.99	56	..	..	..	..	53.08	111	..	..
1893	..	4.74*	20*	27.79	55	23.02	39	18.55	39	12.58*	29*	25.80	59	24.36	55	..	..	..	..	52.32	83	..	..
1894	48.06	74	60.00	78	60.24	76	14.34*	22*	54.81	92	46.91	110	..	..	..	..	115.75	154	..	..
1895	31.70	61	43.90	39	47.93	49	50.02	46	31.45	54	32.28	63	..	..	..	..	55.22	127	..	..
1896	39.07	52	36.99	73	41.77	68	53.29*	56*	53.12	64	43.86	56	..	..	..	..	74.62	135	..	..
1897	18.24	38	31.22	45	37.41	42	2.88*	5*	25.46	48	23.78	60	..	..	..	..	44.10	121	..	..
1898	30.77	47	30.43	51	39.54	51	..	..	36.05	59	28.91	61	..	..	..	..	67.33	142	..	..
1899	27.51	43	26.76	45	29.30	44	..	..	24.82	55	25.07	66	..	..	..	..	58.35	128	..	..
1900	19.39	27	18.68	38	27.65	43	..	..	24.43	40	13.91	38	..	..	..	..	44.42	135	..	..
1901	39.01	49	34.51	50	41.56	50	..	..	29.82	60	19.75	49	..	..	..	..	62.92	152	..	..
1902	21.25	29	6.57*	19*	18.16	27	..	..	22.51	37	9.53	37	..	..	..	..	36.13	122	..	..
1903	34.64	50	16.86*	20*	54.58	63	..	..	37.68	68	36.14	63	..	..	..	..	123.15	144	..	..
1904	28.67	44	38.05	57	35.75	45	..	..	27.27	66	19.48	49	..	..	..	..	57.99	122	..	..
1905	17.07	25	17.54*	29*	32.14	41	..	..	12.41	37	15.87	29	..	..	..	..	51.28	129	..	..
1906	36.28	55	25.06	50	36.53	48	..	..	30.53	62	33.07	52	..	..	..	..	66.99	144	..	..
1907	34.94	55	37.10	41	35.98	45	..	..	35.31	79	32.62	55	..	..	..	..	98.06	132	..	..
1908	15.07	40	26.28	37	41.93	48	..	..	26.87	54	18.91	39	..	..	..	..	71.20	135	..	..
1909																					

TABLE III.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1840-1912 inclusive—*continued.*
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions	CENTRAL COAST—East Central Coast— <i>continued.</i>										CENTRAL—Central Highlands.													
	Marlborough.		Nebo.		Ravenswood.		St. Lawrence.		—		Clermont.		Huntley.		Listowel Downs.		Springsure.		Tambo.		Taroom.		—	
	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
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1865																	14*21*	14*						
1866																	17*93							
1867																	24*18							
1868																	15*47							
1869																	39*05							
1870																	44*83*	69*					34*84*	91*
1871																	15*05	41					25*37	70
1872																	17*04	55					26*73	64
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1874																								
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Means																								
Number of years for Means																								

Marlborough—1870.—No record for January.
Nebo—1870.—No record for first three months.
Ravenswood—1886.—Record for December only.
St. Lawrence—
1870.—No record for first two months.
1887.—No record of the number of days of rain for October.
1891.—No record of the number of days of rain for November.
†1896.—Record for the first three months approximate only.
Clermont—1870.—No record for first four months.
Huntley—
1890.—No record for the first four months.
1891.—Record for the first three months only.

Huntley—*continued.*
1894.—Record for the first five months only.
1896.—No record for the first three months.
1900.—No record of the number of days of rain for June.
1902.—Record for the first four and last two months only.
Listowel Downs—
1890.—Record for April and the last three months only. No record of the number of days of rain for April.
1891.—Record for the first five months only.
1894.—Record for the last three months only.
1896.—Record for the last six months only.

Listowel Downs—*continued.*
1902.—Record of the number of days of rain for the first four months only.
1903.—No record of the number of days of rain for the first five months.
Springsure—
1865.—No record for October.
1870.—No record for September.
Tambo—
The rainfall for 1886 at Tambo Station, 1½ miles from the local post office, was 40.63.
1886.—Record of the number of days of rain for December only.
1890.—No record of the number of days of rain for Dec.
Taroom—1870.—No record for January.

Incomplete Annual Totals not used in determining Means.

TABLE III.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1840-1912 inclusive—continued. (* Indicates Footnote.)

Table with columns for Subdivisions and Minor Subdivisions, Stations, Year, and various locations: Cleveland, Enoggera Reservoir, Goodna, Gympie, Helidon, Ipswich, Lytton, Maryborough, St. Helena, Woody Island. Each location has columns for Rain-fall and Days. The table lists annual rainfall records from 1840 to 1912, including a 'Means' row and a 'Number of years for Means' row.

Cleveland—
1870.—No record for January.
1891.—No record for March.
1906.—No record for March or December; and no record of the number of days of rain for October.
1907.—No record for March, April, or the last three months.
1908.—Record for the first four, and the last three months only. No record of number of days of rain for April.
Enoggera Reservoir—
1890.—No record for March.
1911.—No record for August.
Goodna—
1888.—No record of number of days of rain for March or July.

Goodna—continued.
1889.—No record for October or November.
1890.—No record for March.
1893.—No record for January, February, or October.
1899.—No record for the last five months.
Helidon—
1870.—No record for first three months.
1887.—No record for the first three months, May, July, or September; and no record of number of days of rain for October or December; also no record taken from the 1st to the 20th July.
1888.—No record for January or the last four months.
1890.—Record for January and March only.
1891.—No record for the first two months.
1892.—No record for April, June, July, or Aug.; and no record of number of days of rain for January.

Helidon—continued.
1893.—No record for April or the last two months; and no record of the number of days of rain for January.
1899.—No record for October.
1901.—No record for May.
1902.—No record for January; and no record of number of days of rain for February, March, May, June, July, and August.
Lytton.—1903.—No record for the last four months.
Maryborough.—1870.—No record for January.
St. Helena.—1887.—No record for the first four months.
Woody Island—
1870.—No record for January.
1886.—Record for December only.

Incomplete Annual Totals not used in determining Means.

TABLE III.—RETURN showing Annual Rainfall Records (in Inches and Hundredths) in Queensland, 1840-1912 inclusive—*continued*.
(* Indicates Footnote.)

Subdivisions and Minor Subdivisions ..	MARANO.								SOUTH-WEST— <i>Warrego</i> .								SOUTH-WEST— <i>Far South west</i> .							
	Mount Abundance Station.		Roma.		—		—		Beechal.		Beechal Downs.		Charleville.		—		—		Norley.*		†Thargomindah Station.		—	
	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.	Rain-fall.	Days.
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1869
1870	38·23*	88*
1871	13·26	62
1872	21·41	59
1873	28·01	..	33·62	41	15·46	32	16·51*	25*	
1874	30·04	..	26·14	39	25·42	43	16·02	43	
1875	18·89	..	23·03	45	..	..	..	..	..	19·51	36	..	..	..	..	..	..	..	..	7·22*	18*	
1876	22·93	..	14·64	30	..	..	..	..	..	10·62	18	..	..	..	..	..	..	..	..	..	..
1877	18·39	..	10·08	31	..	..	..	..	..	9·72	20	..	..	..	..	..	..	..	..	..	..
1878	13·61	..	19·20	43	..	..	..	..	..	14·80	37	..	..	..	..	..	..	..	..	..	..
1879	26·78	..	27·82	55	..	..	..	..	..	24·61	50	..	..	..	..	..	..	..	..	9·15*	21*	
1880	20·37	..	18·06	34	..	..	..	..	..	15·48	28	..	..	..	..	..	..	..	..	10·17	11	
1881	14·82	..	21·72	42	..	..	..	..	..	18·27	45	..	..	..	..	..	..	..	..	7·52	14	
1882	23·13	..	28·94	69	..	..	..	..	..	30·55	63	..	..	..	..	..	..	..	..	16·12	28	
1883	10·40	..	15·08	52	..	..	..	..	..	16·97	42	..	..	..	..	..	..	..	..	6·90	18	
1884	16·97	..	20·30	52	..	..	..	..	..	13·89	52	..	..	..	..	..	..	..	..	6·87	21	
1885	11·64	..	15·15	39	..	..	..	..	..	10·77	43	..	..	..	..	..	..	..	..	17·74	32	
1886	39·08	..	40·76	86	..	..	..	..	..	32·25	73	..	..	..	..	..	..	..	..	11·37	29	
1887	28·00	..	27·20	57*	..	..	..	..	..	22·62	73	..	..	..	..	..	..	..	..	22·63	33	
1888	8·86	..	12·90	23*	..	..	..	..	..	10·62	33	..	..	..	..	..	..	..	..	6·90	15	
1889	29·47	..	32·25	78	..	..	..	..	..	29·12	72	..	..	..	..	..	..	..	..	13·52	31	
1890	45·17	..	60·07	99	..	..	..	..	..	47·32	96	..	..	..	..	..	..	..	..	20·34	32	
1891	37·79	..	39·81	78	..	..	..	..	..	38·05	67	..	..	..	..	..	..	..	..	18·67	26	
1892	20·96	..	31·26	74	15·56	57
1893	31·68	..	12·82*	24*	..	..	..	..	..	12·98	47	..	..	..	..	..	..	..	..	11·64	20	
1894	32·32	..	35·42	79	..	..	..	..	..	38·72	77	..	..	..	..	..	..	..	..	20*	..	
1895	24·95	..	27·69	56	..	..	..	..	..	18·71	53	..	..	..	..	..	..	..	..	5·16	24	
1896	16·33	..	21·87	61	..	..	..	..	..	25·20	60	..	..	..	..	..	..	..	..	9·47	15*	
1897	16·87	..	17·86	55	..	..	..	..	..	18·82	31	..	..	..	..	..	..	..	..	9·27	21	
1898	14·21	..	18·15	73	..	..	..	..	..	8·91	38	..	..	..	..	..	..	..	..	11·32	28	
1899	14·92	..	14·79	60	..	..	..	..	..	7·97	46	..	..	..	..	..	..	..	..	12·50	..	
1900	18·49	..	20·95	51	..	..	..	..	..	8·31	43	..	..	..	..	..	..	..	..	7·00	35	
1901	17·77	..	13·64	51	..	..	..	..	..	12·49	38	..	..	..	..	..	..	..	..	3·49	32	
1902	9·98	..	9·66	29	..	..	..	..	..	10·51	37	..	..	..	..	..	..	..	..	6·59	24	
1903	28·51	..	26·57	58	..	..	..	..	..	20·86	54	..	..	..	..	..	..	..	..	5·32	26	
1904	22·01	..	19·73	52	..	..	..	..	..	22·84	53	..	..	..	..	..	..	..	..	6·12	13*	
1905	16·95	..	17·28	53	..	..	..	..	..	10·78	49	..	..	..	..	..	..	..	..	2·89*	10*	
1906	38·58	..	36·79	72	..	..	..	..	..	31·50	70	..	..	..	..	..	..	..	..	1·16	5	
1907	24·00	..	23·01	64	..	..	..	..	..	18·17	60	..	..	..	..	..	..	..	..	17·44	31	
1908	23·60	..	27·17	45	..	..	..	..	..	18·45	55	..	..	..	..	..	..	..	..	7·62	17	
1909	29·20	..	29·79	60	..	..	..	..	..	17·39	53	..	..	..	..	..	..	..	..	16·83	21	
1910	27·01	..	31·76	63	..	..	..	..	..	29·10	59	..	..	..	..	..	..	..	..	10·00	21	
1911	29·37	..	26·66	64	..	..	..	..	..	19·75	45	..	..							

TABLE IV.—TABLE SHOWING ANNUAL RAINFALL TOTALS (IN INCHES AND HUNDREDTHS) AT ADELAIDE, BRISBANE, HOBART, MELBOURNE, PERTH, AND SYDNEY.

(* Indicates Footnote.)

Year.	Adelaide (South Australia).		Brisbane (Queensland).		Hobart (Tasmania).		Melbourne (Victoria).		Perth (West Australia).		Sydney (New South Wales).	
	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
1840	24.23	99	29.32	..	13.95	..	22.57*	..	..	..	68.52	150
1841	17.96	93	49.31	..	23.60	..	30.18*	..	..	..	76.31	142
1842	20.32	122	23.81	..	..	..	31.16*	..	..	..	48.32	137
1843	17.19	104	51.67	..	13.43	..	21.54*	..	..	..	62.78	168
1844	16.88	136	63.20	..	26.25	..	30.75*	..	..	..	70.66	157
1845	18.83	125	39.09	..	16.68	..	23.93*	..	..	..	62.01	132
1846	26.89	114	31.43	..	21.96	..	30.53*	..	..	..	43.83	139
1847	27.61	109	24.50*	..	14.46	..	30.18*	..	..	..	42.81	142
1848	19.74	114	42.59	..	23.62	..	38.15*	..	..	..	59.17	137
1849	25.44	110	17.88*	..	33.52	..	44.25*	..	..	..	21.49	140
1850	19.56	84	12.48*	..	14.51	..	26.93*	..	..	..	44.88	157
1851	30.86	128	..	..	17.98	..	31.90*	..	..	..	35.18	142
1852	27.44	118	..	..	23.62	..	..	..	..	..	43.79	145
1853	27.08	128	..	..	14.52	..	..	..	..	..	46.12	130
1854	15.35	105	..	..	30.54	..	..	..	..	..	29.29	136
1855	23.15	124	..	..	18.25	131	21.32*	89*	..	..	52.86	138
1856	24.93	118	..	..	22.73	152	29.76	134	..	..	43.31	116
1857	22.15	105	..	..	17.14	113	28.90	138	..	..	50.96	135
1858	21.55	107	43.00	..	33.07	129	26.01	158	..	..	39.59	139
1859	14.85	95	35.00	..	23.31	159	21.82	156	..	..	42.01	137
1860	19.67	119	54.63	144	21.05	142	25.38	133	..	..	82.76	180
1861	24.04	147	69.45	155	28.19	..	29.16	159	..	..	59.36	157
1862	21.85	119	28.27	98	21.72	..	22.08	139	..	..	23.99	108
1863	23.68	145	68.83	146	40.67	..	36.42	165	..	..	47.08	152
1864	19.75	121	47.00	114	28.11	..	27.40	144	..	..	69.12	185
1865	15.51	108	24.11	52	23.07	..	15.94	119	..	..	36.15	140
1866	20.11	116	51.18	142	23.55	..	22.41	107	..	..	36.90	156
1867	19.05	112	61.04	112	22.27	..	25.79	133	..	..	59.56	140
1868	19.99	113	35.98	110	18.08	..	18.27	120	..	..	42.98	161
1869	14.74	117	54.39	114	23.87	..	24.58	129	..	..	48.00	150
1870	23.84	119	79.06	154	27.53	..	33.77	129	..	..	64.47	179
1871	23.25	137	45.45	119	18.25	131	30.17	125	..	..	52.27	141
1872	22.66	146	49.22	131	31.76	160	32.52	136	..	..	37.12	151
1873	21.00	139	62.02	133	23.43	157	25.61	134	..	..	73.44	176
1874	17.23	127	38.71	135	24.09	138	28.10	134	..	..	63.60	173
1875	20.21	157	67.03	162	29.25	181	32.87	158	..	..	46.25	153
1876	13.43	110	53.42	130	23.63	..	24.04	134	28.73	100	45.69	156
1877	24.95	135	30.28	119	20.82	..	24.10	124	20.48	103	59.66	147
1878	22.08	112	56.33	134	29.76	..	25.36	116	39.72	143	49.77	129
1879	20.69	130	67.30	157	21.07	..	19.28	127	41.34	106	63.19	167
1880	22.48	142	49.12	134	27.46*	82*	28.48	147	31.79	116	29.51	142
1881	18.02	135	29.39	117	22.09*	81*	24.08	134	24.78	101	41.09	163
1882	15.70	134	42.62	121	30.69	127	22.40	131	35.68	109	42.28	112
1883	26.76	161	32.22	114	24.05	160	23.71	130	39.65	122	46.92	157
1884	18.74	138	43.49	136	21.55	171	25.85	128	31.96	92	44.04	159
1885	15.89	133	26.85	112	28.29	176	26.94	123	33.44	110	39.91	145
1886	14.42	141	53.66	152	21.39	189	24.00	128	28.90	89	39.43	152
1887	25.70	164	81.54	242	24.21	174	32.39	153	37.52	105	60.16	190
1888	14.55	131	33.08	143	18.45	151	19.42	123	27.83	117	23.01	182
1889	30.87	143	49.36	155	30.80	180	27.14	125	39.96	123	57.16	186
1890	25.78	139	73.02	162	27.51	173	24.24	140	46.73	126	81.42	184
1891	14.01	113	41.68	143	23.25	160	26.73	126	30.33	93	55.30	200
1892	21.53	137	64.98	146	18.62	121	24.96	124	31.23	122	69.26	189
1893	21.49	129	88.26	147	27.46	146	26.80	140	40.12	145	49.90	209
1894	20.78	134	44.02	143	27.39	151	22.60	138	23.72	103	38.22	188
1895	21.23	130	59.11	105	25.40	121	17.04	131	33.01	123	31.86	170
1896	15.17	121	44.97	121	21.61	135	25.16	124	31.50	103	42.40	157
1897	15.42	119	42.53	115	20.45	153	25.85	117	27.17	106	42.52	136
1898	20.75	116	60.06	131	20.40	164	15.61	102	31.76	118	43.17	143
1899	18.84	119	38.85	141	20.68	170	28.87	116	32.40	107	55.90	174
1900	21.68	133	34.41	110	19.14	135	28.09	139	36.61	124	66.54	170
1901	18.01	124	38.48	110	25.11	147	27.45	113	36.75	122	40.10	149
1902	16.02	123	16.17	87	21.85	151	23.08	102	27.06	93	43.07	180
1903	25.47	134	49.27	136	25.86	139	28.43	130	35.69	140	38.62	173
1904	20.31	117	33.23	124	22.41	139	29.72	128	34.35	125	45.93	158
1905	22.23	131	36.76	108	32.09	168	25.64	129	34.61	116	35.03	145
1906	26.51	127	42.85	123	23.31	155	22.29	114	32.37	121	31.89	160
1907	17.78	125	31.46	119	25.92	167	22.26	102	40.12	132	31.32	132
1908	24.56	125	44.01	125	16.50	149	17.72	130	30.52	106	45.65	167
1909	27.69	138	34.06	111	27.29	170	25.86	171	39.11	107	32.45	177
1910	24.62	116	49.01	133	25.22	205	24.61	167	37.02	135	46.91	160
1911	15.99	127	35.21	123	26.78	193	36.61	168	23.38	108	50.24	155
1912	19.57	116	41.30	114	23.14	181	20.37	157	27.85	123	47.51	172
Means	21.04	124	46.70	130	23.58	155	25.51	133	33.11	114	48.27	155
Number of yrs for Means	74	74	63	53	70	42	57	57	37	37	73	73
1913 (total)	18.16	102	40.81	115	19.36	165	21.17	157	38.28	141	57.70	141

ADELAIDE—
34° 56' latitude S., 138° 35' longitude E.
Records from 1840 to 1860 inclusive taken by the late Sir George Kingston, at his residence, West Terrace. Records for 1861 and onwards taken at the Observatory.
Total for 1839 was 19.84, days 102. This is included in the Mean for 74 years.

BRISBANE—
27° 28' latitude S., 153° 2' longitude E.
The names of the Official Observers from whose records the Brisbane totals were compiled will be found on page 33.
1847.—No record for May, August, or October.
1849.—No record for May, June, or December.
1850.—Record for first four months only.

HOBART—
42° 53' latitude S., 147° 20' longitude E.
1880 and 1881.—Rainfall for Mount Nelson, 2 miles south of Hobart.

MELBOURNE—
37° 50' latitude S., 144° 58' longitude E.
1840 to 1851.—Some slight doubt attaches to the records for these years, and to the site upon

MELBOURNE—continued.
which they were taken, hence they are not referred to in the discussion on the rainfall of Melbourne.

1852 (Jan.) to 1855 (March) inclusive.—No record kept.
1855.—Record from April to December inclusive, but no record of number of days of rain for April and May.
June, 1863, to December, 1907 inclusive.—Record taken at the Melbourne Observatory, Government Domain Grounds.

1st January, 1908, to date.—Record taken at the Royal Society's Grounds, Victoria-street, under the direction of the Commonwealth Meteorologist.

PERTH—
31° 57' latitude S., 115° 52' longitude E.

SYDNEY—
33° 51' latitude S., 151° 13' longitude E.
Average rainfall for 52 years (from 1859 to 1910 inclusive), 47.95 in.; days, 157. Observations were begun at South Head, 5 miles east of Sydney, in April, 1840; an average fall for January, February,

SYDNEY—continued.
and March has been added to complete the year. These observations extend from 1840 to 1855. Observations were begun in Sydney in 1856. The difference in the rainfall at the two places is very slight. From 1859 onwards, observations have been taken at the Sydney Observatory, Flagstaff Hill. Rain observations were begun at Parramatta in 1823, and, with some interruptions, carried on to end of 1833; from these, and the average difference in rainfall at the two places, the rainfall at Sydney for corresponding years has been computed. (See pages iv. and v., New South Wales publication for 1894.)

	Parramatta.	Sydney, derived from Parramatta.
1823	35.30 inches	48.00 inches
1832	36.36 "	49.06 "
1833	35.94 "	48.64 "
1834	28.26 "	40.96 "
1835	24.36 "	37.06 "
1836	57.87 "	70.57 "
1837	30.82 "	43.52 "
1838	22.94 "	35.64 "

Incomplete Annual Totals not used in determining Means.

TABLE V.—SUPPLEMENTARY RETURN SHOWING RAINFALL TOTALS (IN INCHES AND HUNDREDTHS) IN QUEENSLAND FOR YEAR 1913.

(* Indicates Footnote.)

Names of Subdivisions, Minor Subdivisions, and Stations.	1913.		Names of Subdivisions, Minor Subdivisions, and Stations.	1913.		Names of Subdivisions, Minor Subdivisions, and Stations.	1913.	
	Rainfall.	Days.		Rainfall.	Days.		Rainfall.	Days.
PENINSULA.			NORTH COAST.			CENTRAL COAST—continued.		
<i>Peninsula North.</i>			<i>Barron.</i>			<i>East Central Coast—continued.</i>		
Booby Island	56.48	89	Atherton	95.13	116	Reid River	46.46	70
Cape York (formerly Paterson) ..	89.91	123	Cairns	105.27	117	St. Lawrence	51.46	95
Coen	66.37	110	Chillagoe	50.45	77	Sarina	126.66	*59
Mapoon, Batavia River	86.26	98	Cooktown	106.33	136	Sellheim	36.86	58
McDonnell	86.71	136	Glen Boughton	117.16	104	Strathmore, Bowen	40.76	47
Mein	63.51	137	Grassy Hill	71.60	94	Tooolombah	*34.78	*60
Moreton	58.50	105	Hambledon Mill	104.93	117	Walkerston	79.21	53
Thursday Island	82.87	130	Harvey Creek	190.50	140	Wandoo Station	40.75	70
Thursday Island Residency	80.15	130	Herberton	66.26	95	Woodhouse	42.56	66
<i>Peninsula South.</i>			Irvinebank (formerly Montalbion) ..	57.74	99	Woodstock	44.40	62
Fairview	56.43	69	Kamerunga State Nursery	106.94	122	Yaamba	46.73	73
Laura	56.82	93	Kuranda	123.23	94	Yeppoon	114.46	52
Maytown	68.76	81	Low Island	96.00	124	<i>West Central Coast.</i>		
Musgrave	80.95	91	Mareeba	52.94	70	Balfe's Creek	32.96	47
Palmerville	82.62	97	Mount Garnet	49.67	90	Bombandy	*25.93	*53
Walsh River	39.02	46	Mount Molloy	55.71	49	Charters Towers	30.55	67
CARPENTARIA.			Mulgrave Mill, <i>vid</i> Nelson	91.93	95	Conway, <i>vid</i> Bowen	25.23	56
<i>Lower Carpentaria.</i>			Port Douglas	84.12	117	Hillgrove Station	30.93	70
Augustus Downs	28.47	31	South Mossman, Richmond Planta- tion	107.13	133	Leura Station	28.48	49
Bunda Bunda	*21.84	*46	Thornborough	41.98	60	Logan Downs	25.47	45
Burketown	20.38	35	Yarrabah	124.29	113	Mount McConnell	20.07	40
Canobie	12.17	23	<i>Herbert.</i>			Queenton	31.12	62
Cloncurry	18.23	34	Cape Bowling Green	53.59	85	Trafalgar Station, <i>vid</i> Charters Towers	34.47	63
Croydon	31.23	66	Cardwell	104.03	109	CENTRAL.		
Donor's Hill	22.68	46	Cashmere .. .. .	.. .. .	.. .. .	<i>Central Highlands.</i>		
Eddington	16.67	41	Clarke River	29.64	54	Alpha	19.07	41
Eulolo	14.38	37	Dunk Island, Brammo Bay	146.48	120	Anakie	27.99	50
Floraville	14.02	47	Ewan .. .. .	.. .. .	.. .. .	Bahinia Downs	29.62	38
Gilbert River	34.60	63	Goondi	180.10	150	Beta	18.71	42
Granada	17.30	39	Gunnawarra	37.10	55	Blackall	21.37	45
Ifley Station	*20.04	*29	Halifax	93.16	119	Blackwater	10.80	51
Karumba (formerly Kimberley) ..	25.94	46	Ingham	91.18	113	Bluff (formerly Walton)	30.43	59
Lawn Hill	12.48	42	Innisfail (formerly Geraldton) ..	167.86	149	Bogantungan	30.51	44
Lorraine	18.77	53	Kangaroo Hills	27.55	38	Capella	28.98	65
MacKinlay	11.95	20	Lucinda (formerly Dungeness) ..	87.47	113	Clermont	31.84	58
Manfred Downs	18.90	39	Macknade Plantation	92.66	102	Comet	24.39	44
Millungera	18.58	36	Mourilyan, Johnstone River	157.22	157	Craven	*7.40	*29
Miranda Downs	27.41	29	Mourville Pilot Station	50.33	90	Cullin-la-ringo	25.31	54
Mostone Downs	10.99	34	Valley of Lagoons	31.14	71	Dingo	29.88	61
Mount Cuthbert	17.80	31	Victoria Mill, Herbert River	98.58	98	Duarina	31.90	51
Normanton	50.23	60	CENTRAL COAST.			Emerald	31.92	68
Riversleigh	18.27	31	<i>East Central Coast.</i>			Fernlees	25.99	56
<i>Upper Carpentaria.</i>			Acacia Vale	46.91	75	Gladie State Farm	25.17	52
Afton Downs	27.31	42	Alexandra	85.65	84	Gordon Downs	29.92	45
Belford, Maxwellton	17.43	31	Ayr	54.30	69	Huntley	20.65	44
Cambridge Downs	14.89	32	Birralee .. .. .	.. .. .	.. .. .	Juandah	25.80	50
Carpentaria Downs	24.84	71	Bloomsbury	61.40	93	Landsdowne	21.18	46
Chudleigh Park	25.84	54	Bowen	46.13	79	Listowel Downs	22.60	43
Cumberland	26.03	69	Byerwen	28.78	58	Lorne	*24.12	*45
Einasleigh	23.26	125	Clare	43.82	48	Mantuan Downs	24.17	63
Georgetown	29.96	63	Collaroy	43.37	84	Meteor Downs .. .. .	.. .. .	.. .. .
Glenbervie Station	16.88	46	Dotswood, <i>vid</i> Ravenswood .. .. .	.. .. .	.. .. .	Narada Downs	24.01	55
Greenvale, <i>vid</i> Charters Towers ..	20.80	47	Emu Park	70.45	71	Northampton Downs	24.18	39
Homestead	27.46	43	Eton	73.53	51	Northampton Downs, Out-station ..	*18.93	*29
Hughenden	21.40	44	Farleigh, Mackay	93.20	92	Orion Downs	24.14	59
Hughenden Station	20.07	40	Flat Top Island	78.42	87	Pearl Creek, Duaringa	34.27	52
Lammermoor	21.21	37	Haughton Valley	39.43	60	Pine Hill	22.00	53
Lucknow	11.46	35	Inkerman	23.22	*19	Rainworth	27.73	65
Lynnhurst	28.71	53	Islandholme	43.42	78	Ravensbourne Station	24.52	52
Marathon	24.52	55	Kalamia, Lower Burdekin	59.02	73	Reedy Creek Station, <i>vid</i> Taroom ..	30.57	62
Maryvale	23.74	64	Keppel Bay	51.43	86	Rewan	31.78	61
Maxwellton	13.91	32	Kuluhi, Mackay	96.30	105	Roche Creek	29.01	78
Moselle Downs	*7.12	*26	Mackay	93.31	105	Rolleston (formerly Spottiswoode) ..	24.12	58
Mount Surprise (formerly Junction Creek)	27.95	80	Mackay Sugar Experimental Farm ..	85.46	107	Springsure	23.45	76
Oak Park, Pentland	28.40	70	Marlborough	38.25	45	Surbiton	30.34	59
Pentland	24.34	47	Mount Spencer	75.30	59	Tambo	20.64	56
Prairie	20.51	41	Nebo	31.21	67	Taroom	27.18	59
Richmond	19.56	50	Pioneer Estate	49.67	60	Terrick Terrick	22.57	46
Spring Creek	33.48	69	Plane Creek, Mackay	132.95	*59	Warrinilla	*9.07	*19
Stamford	22.55	*26	Pleystowe, Mackay	81.92	110	Sarina.—No record of number of days of rain for March, April, or May.		
Torrens Creek	23.52	49	Proserpine, Central Mill	81.66	110	Tooolombah.—No record for October or November.		
Wando Vale	24.48	44	Ravenswood	27.80	64	Bombandy.—No record for last five months.		
			Ravenswood Junction	31.89	51	Craven.—No record for first five months.		
						Lorne.—No record for June.		
						Northampton Downs Out-station.—Record for the first four months only.		
						Warrinilla.—Record for the first two months only.		

Bunda Bunda.—December figures estimated from Manfred Downs, Cambridge Downs, and Nicholls.
Ifley Station.—No record for December.
Moselle Downs.—No record for first three months.
Stamford.—No record of number of days of rain for December.

Inkerman.—No record of the number of days of rain for last six months.

Plane Creek, Mackay.—No record of the number of days of rain for January.

TABLE V.—SUPPLEMENTARY RETURN SHOWING RAINFALL TOTALS (IN INCHES AND HUNDREDTHS) IN QUEENSLAND FOR YEAR 1913—*continued.*

(* Indicates Footnote.)

Names of Subdivisions, Minor Subdivisions, and Stations.	1913.		Names of Subdivisions, Minor Subdivisions, and Stations.	1913.		Names of Subdivisions, Minor Subdivisions, and Stations.	1913.	
	Rainfall.	Days.		Rainfall.	Days.		Rainfall.	Days.
CENTRAL—continued.			SOUTH COAST.			SOUTH COAST—continued.		
<i>Central Lowlands.</i>			<i>Port Curtis.</i>			<i>Moreton—continued.</i>		
Acacia Downs	26.16	44	Banana	27.28	84	Cowan Cowan (formerly Bulwer) ..	66.90	132
Albilbah, Isisford	13.81	30	Bundaberg	30.57	92	Crohamburst	77.74	159
Alice River	29.53	45	Burnett Heads	67.77	94	Crow's Nest	26.41	104
Aramac	33.30	44	Bustard Head	77.90	107	Dunmore	29.94	61
Arrilalah	13.00	35	Byrnestown	36.70	83	Double Island Point	63.62	156
Avon Downs	*9.20	*9	Calliope, Gladstone	*15.02	*24	Dunwich	02.59	72
Baraldine	25.27	54	Camboon	24.07	70	Engelsburg	29.21	93
Bimbah	21.68	35	Cape Capricorn	54.99	82	Enoggera Railway Station	*42.00	*69
Bowen Downs	28.46	47	Childers	62.93	101	Enoggera Reservoir	47.44	114
Cameron Downs	17.49	32	Childers Mill	56.23	100	Ernest Junction	61.36	76
Camoola Park	22.70	32	Dallarnil, <i>vid</i> Biggenden	*10.91	*28	Esk	78.45	71
Coreena	*4.58	*6	Degilbo	42.25	77	Eumundi	70.55	122
Corinda Station	34.32	40	Didcot	39.06	41	Forest Hill	24.44	54
Darr River Downs	18.79	33	Eidsvoid	37.23	71	Gatton	24.78	65
Elgin Downs	24.14	69	Fairymead Plantation, <i>vid</i> Bunda- berg	76.98	108	Gatton College	24.36	74
Evesham	17.34	32	Gatcombe Head	52.51	84	Gatton	47.70	108
Evora	26.78	44	Gayndah	40.57	79	Gatton	68.26	70
Ilfacombe	18.00	35	Gin Gin	62.69	105	Glass Mountains	48.00	83
Isisford	20.46	40	Gladstone	52.22	105	Gold Creek Reservoir	44.55	109
Jericho	25.75	43	Goodwood	61.74	81	Goodna	34.90	80
Landsborough Downs	23.77	32	Graemere	42.29	56	Gordon Brook	24.24	76
Lochnagar	28.25	42	Hawkwood	29.63	71	Grandchester	27.24	62
Longreach	20.34	45	Invicta, Kolan River	76.25	82	Gympie	55.39	93
Malvern Hills, Blackall	20.79	41	Isis Junction	58.15	60	Harrisville	52.39	113
Maneroo	17.73	33	Kabra	36.52	59	Harrison Vale	27.76	75
Mount Cornish	26.88	39	Klora, Gladstone	49.61	88	Hatton Vale	23.73	40
Muttaburra	24.75	41	Llandilla, Gogango, Central Rail- way	30.40	43	Hillcrest	32.33	64
Portland Downs	20.87	39	Many Peaks	48.06	72	Howard	64.44	118
Ruthven	18.73	41	Millaquin, Bundaberg	80.95	92	Indooroopilly	39.63	85
Saltern	21.21	39	Milton Station, <i>vid</i> Gladstone	47.52	70	Ingram, Woodhill	32.89	64
Saltern Creek	22.19	44	Miriam Vale	71.28	70	Inskip Point	86.46	142
Tangorin	21.30	38	Moonmera	36.00	48	Ipswich	27.64	81
Tower Hill	21.54	34	Mount Morgan	39.22	78	Ipswich Pumping Station	30.36	86
Twin Hills	26.09	60	Mount Perry	44.36	81	Ipswich, Roderick-street	29.64	80
Uanda	22.90	33	Port Alma	54.56	77	Kanungur (formerly Crossbrook)	27.26	71
Wee Dunrobin	23.43	55	Raglan	54.56	90	Kenilworth	55.99	93
Wellshot	19.00	46	Reid's Creek	36.36	75	Kia Ora, Goomeri	29.46	76
Westland	17.44	50	Riverston Station, near Gladstone	47.92	74	Kilcoy	33.23	70
			Rockhampton	52.15	91	Kilkivan	38.54	58
			Rosedale	89.54	83	Kingaroy	24.51	75
			Sandy Cape	58.30	132	Ladley	23.29	67
			Sea Hill	52.18	83	Landsborough	60.36	85
			Stanwell	40.30	65	Lowood	23.10	68
			Westwood	32.72	63	Maleny	79.75	143
						Manly	44.58	67
						Manuau Creek	74.12	113
						Mapleton	26.68	78
						Marburg	63.64	96
						Maryborough	41.36	94
						Mayne	41.48	64
						Milton	47.23	71
						Miva	76.09	134
						Montville	31.83	77
						Mount Alford	31.15	50
						Mount Brisbane	32.75	86
						Mount Crosby	40.28	88
						Mount Gravatt, near Brisbane	63.12	103
						Mount Mee	90.69	145
						Mount Woot-tha	33.65	84
						Mundoolun	60.02	93
						Mungari	39.87	82
						Murarie (formerly Moorarree)	33.41	61
						Murgon	10.63	40
						Murphy's Creek	73.69	115
						Nambour	29.12	101
						Nanango	62.30	98
						Nerang .. .. .	..	..
						New Farm .. .. .	..	..
						Normanby .. .. .	..	..
						Nudgee	*23.73	*38
						Nukinenda	31.68	49
						Nundah	43.10	98
						Ornesby (formerly Cedar Pocket)	50.75	125
						Oxenford	55.40	68
						Oxley	32.66	70
						Palmwoods	71.68	91
						Peacheater (formerly Dunnira)	79.90	143
						Petrie (formerly Pine River North)	48.23	73
						Pialba	63.43	82
						Pimpana	54.03	95
						Pinkenba	44.78	82
						Redbank	30.02	61
						Redcliffe	49.13	83
						Riverview	27.71	61
						Roadvale	27.32	42

Avon Downs.—Record for January only.

Coreena.—Record for November and December only.

Manuka.—No record of the number of days of rain for October or December.

Currawilla, *vid* Windorah.—No record for last two months.

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Calliope, Gladstone.—No record for the first three months.

Dallarnil, *vid* Biggenden.—Record for last four months only.

Blackbutt.—Record for the first six months only.

Brookfield.—No record of the number of days of rain for January.

Cowan Cowan (formerly Bulwer).—Records prior to March, 1913, taken at Bulwer about three miles north of Cowan Cowan.

Enoggera R.S.—September figures estimated from Nundah, Mayne Junction, and Brisbane.

Nudgee.—No record for January, February, March August, September, or December.

TABLE V.—SUPPLEMENTARY RETURN SHOWING RAINFALL TOTALS (IN INCHES AND HUNDREDTHS) IN QUEENSLAND FOR YEAR 1913—continued.

(* Indicates Footnote.)

Names of Subdivisions, Minor Subdivisions, and Stations.	1913.		Names of Subdivisions, Minor Subdivisions, and Stations.	1913.		Names of Subdivisions, Minor Subdivisions, and Stations.	1913.	
	Rainfall.	Days.		Rainfall.	Days.		Rainfall.	Days.
SOUTH COAST—continued.			DARLING DOWNS—continued.			SOUTH-WEST—continued.		
<i>Moreton—continued.</i>			<i>East Darling Downs—continued.</i>			<i>Warrego—continued.</i>		
Rocklea	40.28	71	Jondowale	22.64	48	Avondale	17.44	40
Rosewood	28.93	65	Kaimkillenbun	24.18	67	Ballandool	18.37	53
St. Helena	42.10	65	Killarney	22.46	76	Beechal	13.70	34
Sandgate	48.89	100	Kuyura, <i>vi t</i> Macalister	19.81	47	Beechal Downs .. .. .	.. .. .	.. .. .
Sherwood	36.74	79	Lagoon Flat	18.33	37	Riddenham	26.45	49
South Passage	58.67	62	Lemon Tree	*16.85	*39	Bierbank	15.24	28
Southport	54.67	99	Leyburn	19.04	48	Bindebango	*24.61	*43
Spring Bluff	30.28	70	Macalister	17.71	26	Boatman	25.50	54
Sunnybank, South Coast Railway	36.70	63	Maianbar, Allora	24.97	74	Bollon	*24.30	*48
Tabragalba .. .. .	.. .. .	.. .. .	Malakoff	19.45	38	Bonus Downs	27.22	40
Tallebudgera	62.49	82	Marnhull	23.37	64	Boorara, Thargomindah	8.44	19
Tambourine Mount	59.76	144	Meringandan	21.69	47	Boothulla	18.06	33
Tarlinga	*31.17	*55	Millbrook .. .. .	.. .. .	.. .. .	Bundaleer	16.98	40
Tewantin	*75.35	*91	Millmerran	25.50	56	Burenda	28.63	61
Theoburn (formerly Kilkivan Junction)	48.82	79	Mount Irving	17.11	35	Calwarro	7.95	24
Tiaro	52.64	98	Oakey	19.17	66	Charleville	26.81	60
Toogoolawah	29.82	82	Pelican	23.03	80	Charlotte Plains	16.94	40
Toowong (formerly Bowen Park)	42.24	72	Pikedale .. .. .	.. .. .	.. .. .	Coongoola	13.80	35
Versdale	29.40	74	Pilton .. .. .	.. .. .	.. .. .	Cowley	18.75	38
Wakefield	25.28	88	Pittsworth	20.78	70	Cubbie Station	22.28	37
Winders Creek	28.35	103	Pratten	18.57	57	Cunnamulla	15.45	41
Wondal	29.59	70	St. Ruth	21.14	43	Currawinya	10.11	28
Woodford	52.89	94	Silverspur	22.99	71	Curriwillinghi .. .. .	.. .. .	.. .. .
Woodlands, near Marburg	28.77	84	South Toolburra .. .. .	.. .. .	.. .. .	Dillalah	*19.11	*26
Woody Island	58.87	114	Stanthorpe	24.63	61	Dyranbandi	22.58	51
Woogaroo, Goodna	38.91	89	Talgal	21.52	61	Dynevor Downs	*10.80	*28
Woombye	69.62	90	Texas	24.52	68	Eulo	13.11	25
Wooroolin	26.52	65	Texas Station	24.45	54	Fernlee	16.76	28
Wynnum	42.55	74	Toowoomba	31.89	99	Glencoe	15.74	46
Yandina	75.08	91	Turalin	22.88	40	Gowrie Station, Charleville	28.04	52
Yengarie .. .. .	.. .. .	.. .. .	Umbercollie	21.41	61	Gumbardo	16.66	33
Yerongpilly	38.95	79	Wallangarra	28.51	74	Gundare	24.73	46
Zillmere	47.26	80	Warra	20.43	54	Hebel	17.22	44
DARLING DOWNS.			West Darling Downs.			Far South-West.		
<i>East Darling Downs.</i>			<i>Maranoa.</i>			<i>Adavale</i>		
Allora	25.81	68	Bullamon	20.01	51	Ardoch	20.30	45
Balgownie	23.12	30	Coomrith	21.14	46	Comongin South	9.72	29
Ballandean	22.02	62	Dulacca	22.30	61	Durham Downs, Cooper's Creek	12.76	28
Bell Railway Station	*20.58	*50	Kooroon	19.70	52	Eroungella	18.68	24
Blinkbonnie	26.86	69	Miles	20.60	61	Kyabra	12.88	24
Bon Accord	18.85	59	Welltown	24.89	49	Milo	17.45	20
Bowenville	17.71	81	MARANOA.			Mount Howitt	8.92	21
Braeside, Dalveen	22.65	80	Amby Downs	23.19	49	Mount Margaret	12.45	25
Cambooya	21.10	67	Crystal Brook .. .. .	.. .. .	.. .. .	Norley	8.07	18
Canning Downs	24.42	64	Eurella	22.76	52	Orient	5.42	23
Cecil Plains	20.01	63	Forest Vale	25.72	52	Thargomindah	10.84	31
Chinchilla	20.71	60	Merivale	22.75	54	Tobermory .. .. .	.. .. .	.. .. .
Clifton	22.54	60	Mitchell	27.83	71	<i>Bindebango.—No record for July.</i>		
Condamine Plains	20.80	43	Mount Abundance Station	23.22	51	<i>Bollon.—August record lost. Rainfall estimated from Bindebango and Fernlee.</i>		
Dalby	22.13	59	Muckadilla	26.30	52	<i>Dillalah.—No record for January.</i>		
Dalveen	33.22	82	Redford, Mitchell .. .. .	.. .. .	.. .. .	<i>Dynevor Downs.—No record for November.</i>		
Doctor's Creek	20.91	41	Roma	21.50	57	<i>Wyandra.—No record for the last three months.</i>		
Durah	23.01	72	St. George	19.25	60	<i>Yarron Vale.—No record for November or December.</i>		
East Talgai	21.85	56	Surat	26.18	51	<i>Durham Downs, Cooper's Creek.—No record of the number of days of rain for November or December.</i>		
Emu Vale, Nereeadah	22.33	71	Wallumbilla	22.93	47			
Eton Vale .. .. .	.. .. .	.. .. .	Warrong	*5.97	*13			
Gladfield	29.45	70	Weribone, Surat	21.86	39			
Gleng, Inglewood	20.02	48	Westgrove	33.03	63			
Glengallan East	23.99	63	Woomblebank	23.47	63			
Goombungee	18.40	56	Yeulba	20.81	38			
Goombungee (Mr. J. F. Horn)	18.20	66	SOUTH-WEST.					
Goodiwindi	26.41	68	<i>Warrego.</i>					
Gowrie Junction	19.08	40	Ambathala Station	19.90	*26			
Halliford	21.99	28	Angellala Downs	*23.17	*39			
Hendon	18.50	39	Arabella Station	25.56	37			
Hermitage State Farm	26.41	54	Augathella	28.32	61			
Inglewood	20.92	59	WARRONG.					
Irvingdale	18.27	45	<i>Warrong.—No record for the last four months.</i>					
Jimbour	18.09	50	<i>Ambathala Station.—Record of the number of days of rain for the first four months only.</i>					
Jondaryan	18.74	58	<i>Angellala Downs.—March to June (inclusive) figures estimated from Gundare and Morven.</i>					
Jondaryan Station	18.92	45						

Tarlinga.—No record for the last three months and no record of the number of days of rain for October.
 Tewantin.—October and November estimated from Cooroy and Eumundi.
 Bell R.S.—No record for the last two months.
 Lemon Tree.—No record for January.

Warrong.—No record for the last four months.
 Ambathala Station.—Record of the number of days of rain for the first four months only.
 Angellala Downs.—March to June (inclusive) figures estimated from Gundare and Morven.

Bindebango.—No record for July.
 Bollon.—August record lost. Rainfall estimated from Bindebango and Fernlee.
 Dillalah.—No record for January.
 Dynevor Downs.—No record for November.
 Wyandra.—No record for the last three months.
 Yarron Vale.—No record for November or December.
 Durham Downs, Cooper's Creek.—No record of the number of days of rain for November or December.

TABLE VI.—RETURN SHOWING ANNUAL RECORDS (IN INCHES AND HUNDREDTHS) AT RAINFALL STATIONS RECENTLY ESTABLISHED IN QUEENSLAND—NOT INCLUDED IN THE FOREGOING RETURNS.

(* Indicates Footnote.)

Names of Subdivisions, Minor Subdivisions, and Stations.	1911.		1912.		1913.		Names of Subdivisions, Minor Subdivisions, and Stations.	1911.		1912.		1913.	
	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.		Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
PENINSULA.							NORTH COAST—continued,						
<i>Peninsula North.</i>							<i>Herbert.</i>						
Merluna	*80.25	*84	Banyan .. .. .	..	..	*1.06	*4	182.80	149
Moa Island	*4.37	*43	62.22	94	*83.40	*168	Corduroy .. .. .	..	..	..	..	*97.88	*135
Utinga Plantation	*1.93	*7	80.72	136	Flying Fish Point	*13.85	*55	110.49	177	146.94	159
<i>Peninsula South.</i>							<i>Kirrama</i>						
Strathleven	*10.38	*16	59.84	95	Oak Hills .. .. .	..	..	..	..	*65.87	*85
CARPENTARIA.							<i>Ollera Creek</i>						
<i>Lower Carpentaria.</i>							<i>Silkwood</i>						
Consentes, Julia Creek	*7.18	*18	Townsville Hospital .. .. .	..	..	..	..	132.39	64
Gilliat	13.60	38	13.02	28	..	..	..	..	*6.92	*22	
Julia Creek	*2.11	*15	14.32	45	CENTRAL COAST.						
Nicholls	*2.90	*11	15.25	39	<i>East-Central Coast.</i>						
Oorindi	13.69	27	Blue Mountain .. .. .	..	..	..	..	*20.97	*88
Trubanaman	*7.55	*11	62.36	56	Cremona .. .. .	..	..	..	..	*13.25	*25
Turn Off Lagoon	*7.01	*16	22.74	43	Ermelo .. .. .	..	..	..	..	*14.56	*18
Waterloo Station	40.40	..	Eton Vale, Bowen .. .. .	..	..	*3.29	*15	36.03	79
<i>Upper Carpentaria.</i>							<i>Eungella</i>						
Bundoran	15.15	..	Gumlu .. .. .	..	..	..	..	39.06	72
Merlin, Prairie	22.09	32	Hampden .. .. .	..	..	..	..	*25.00	*41
Nelia	*13.35	*31	Mount Chalmers	*63.43	*64	48.36	61	75.49	77
Nonda	17.85	36	Mount Hillalong .. .. .	..	..	..	..	27.78	51
Ottona	*2.57	*12	29.83	68	The Caves .. .. .	..	..	*23.34	*37	54.20	71
Wollaston	*2.51	*10	27.67	70	West-Central Coast.						
Woodbine	*8.26	*17	Batheaston	24.77	38	21.07	41	33.47	58
NORTH COAST.							<i>Pagingo Station</i>						
<i>Barron.</i>							<i>Ukalunda</i>						
Aloomba	*5.36	*27	67.38	108	119.26	112	CENTRAL.						
Ayton	*6.49	*33	90.20	139	<i>Central Highlands.</i>						
Babinda	*18.53	*49	151.85	175	*172.85	*95	Blair Athol .. .. .	..	..	..	..	*6.83	*16
Barrine	*3.69	*10	43.06	141	*67.18	*67	Coorada .. .. .	..	..	*0.00	..	26.87	60
Goldsborough	*2.45	*12	40.76	121	102.60	124	Glentana	*8.01	*30	27.67	59	20.36	66
Kairi State Farm	*13.69	*37	Tolliness .. .. .	..	..	..	..	30.66	53
Kulara	*10.63	*46	86.61	120	Westquarter .. .. .	..	..	17.15	41	26.70	54
Mossman, Central Mill	112.17	126	Woleebee Creek .. .. .	..	..	*6.79	*22	21.76	50
Point Archer	*10.08	*71	68.91	153	Central Lowlands.						
Ravenshoe	*19.54	*81	Bowie .. .. .	..	..	..	..	32.30	51
Staneyhill Farm, Atherton	*8.07	*21	Bulliwallah .. .. .	..	..	*0.71	*3	30.82	66

Merluna—1913.—Totals for May to September inclusive estimated from Moia and Moreton records.

Moa Island—

1911.—No record for the first four months.

1913.—Total for the first twelve days of January taken from Thursday Island record.

Utinga Plantation—1912.—Record for the last three months only.

Strathleven—1912.—Record for the last four months only.

Consentes—Julia Creek—1913.—No record for the first three months.

Julia Creek—1912.—No record for the first five months.

Nicholls—1912.—Record for the last five months only.

Trubanaman—1912.—No record for the first three months.

Turn Off Lagoon—1912.—No record for February or March.

Nelia—1913.—Totals for January and February compiled from Nonda and Julia Creek records.

Ottona—1912.—Record for last two months only.

Wollaston—1912.—Record for the last six months only.

Woodbine—1913.—No record for the first three months.

Aloomba—1911.—No record for the first five months.

Ayton—1912.—Record for the last four months only.

Babinda—

1911.—No record for the first five months.

1913.—No record for May or the last five months.

Barrine—

1911.—Record for the last five months only.

1913.—Record for the first five months only.

Goldsborough—1911.—No record for the first six months.

Kairi State Farm, 1913.—No record for the first four months.

Kulara, 1912.—No record for the first five months.

Point Archer, 1912.—No record for the first five months.

Ravenshoe, 1913.—No record for the first three months.

Staneyhill Farm, Atherton, 1913.—Record for the last two months only.

Banyan—1912.—Record for December only.

Corduroy—1913.—No record for January.

Flying Fish Point—1911.—No record for the first five months.

Kirrama—1913.—No record for October.

Oak Hills—1913.—No record for the first three months.

Ollera Creek—1912.—Record for the last two months only.

Silkwood—1912.—Record for September only.

Townsville Hospital—1913.—Record for the last three months only.

Blue Mountain—1913.—No record for the first four months, and no record of the number of days of rain for December.

Cremona—1913.—No record for first five months.

Ermelo—1913.—Record for last six months only.

Eton Vale, Bowen—1912.—Record for last three months only.

Hampden—1913.—No record for first four months.

Mount Chalmers—1911.—Total for January estimated from Emu Park, Yeppoon

Gracemere and Yaamba records.

The Caves—1912.—No record for first four months.

Ukalunda—1913.—No record for April.

Blair Athol—1913.—Record for last six months only.

Coorada—1912.—Record for December only.

Glentana—1911.—No record for first four months.

Woleebee Creek—1912.—Record for last three months only.

Bulliwallah—1912.—Record for last two months only.

Mount Douglas—

1912.—Record for last two months only.

1913.—No record of number of days of rain for April or May.

Tiree—1912.—Record for last five months only.

TABLE VI.—RETURN SHOWING ANNUAL RECORDS (IN INCHES AND HUNDREDTHS) AT RAINFALL STATIONS RECENTLY ESTABLISHED IN QUEENSLAND—NOT INCLUDED IN THE FOREGOING RETURNS—*continued.*

(* Indicates Footnote.)

Names of Subdivisions, Minor Subdivisions, and Stations.	1911.		1912.		1913.		Names of Subdivisions, Minor Subdivisions, and Stations.	1911.		1912.		1913.	
	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.		Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
WESTERN.						SOUTH COAST— <i>continued.</i>							
<i>Upper Western.</i>						<i>Moreton—continued.</i>							
Baratria	19.61	33	Dipuying, Frazer Island ..	..	..	..	..	12.09	*31
Bushy Park	*5.24	*6	Goomerl .. .. .	..	..	*4.81	*14	33.85	92
Corona	*2.69	*9	Hillview .. .. .	..	..	*12.65	*26	32.02	58
Friezland	*9.49	*12	13.88	15	19.32	26	Kabunga .. .. .	..	..	*12.33	*33	30.90	110
Happy Valley, Winton	13.30	27	14.88	31	Laravale .. .. .	..	..	*6.48	*13	31.35	50
Leswalt	*18.98	*17	Lockrose .. .. .	..	..	32.00	50	18.08	24
Melrose	*1.58	*8	18.02	47	Maroon	*7.78	*28	36.05	95	31.76	76
Moscow	*11.74	*24	Merlwood	*2.49	*13	25.79	52	30.56	58
Olio	11.06	18	11.05	31	Moore	*5.00	*28	..	..	34.34	77
Oondooroo (M. Gilmore)	*6.14	*10	17.40	27	Nanango, The Grange ..	*1.04	*6	29.32	75	28.41	84
Rochdale	*3.36	*12	Rathdowney .. .. .	..	..	*11.85	*28	28.98	71
Siberia	*12.50	*16	Ross Creek .. .. .	..	..	..	..	*4.71	*21
Whitewood	23.37	28	Tarome	*1.71	*10	30.69	76	32.73	60
<i>Lower Western.</i>						<i>Darling Downs.</i>							
Bluff Station	*1.55	*7	<i>East Darling Downs.</i>						
Canterbury	*0.70	*2	*9.27	*13	Alva, Kaimkillenbunt ..	*17.82	*56	25.07	69	24.18	67
Durrle	*0.66	*3	Baking Board Siding ..	*5.87	*19	28.23	69	25.57	79
Jedburgh	12.68	42	Benever	*5.73	*47	24.35	79	20.71	81
Roseberth	*1.67	*11	Bismarck .. .. .	..	..	*7.07	*24	21.65	65
Tanbar	8.98	*16	Canaga .. .. .	..	..	*15.98	*39	20.82	68
Thunda	*6.94	*20	14.77	38	Canning Creek .. .. .	..	..	22.72	59	21.11	51
SOUTH COAST.						<i>East Darling Downs.</i>							
<i>Port Curtis.</i>						<i>East Darling Downs.</i>							
Annandale Farm, Calliope	56.92	94	Alva, Kaimkillenbunt ..	*17.82	*56	25.07	69	24.18	67
Bajool	*23.72	*33	47.53	61	Baking Board Siding ..	*5.87	*19	28.23	69	25.57	79
Bin Bin	*2.88	*9	35.92	76	Benever	*5.73	*47	24.35	79	20.71	81
Binjour Plateau	26.62	44	35.96	52	Bismarck .. .. .	..	..	*7.07	*24	21.65	65
Boynedale	*12.08	*18	51.41	72	Canaga .. .. .	..	..	*15.98	*39	20.82	68
Byrnestown Rifle Range	*6.90	*23	35.99	95	Canning Creek .. .. .	..	..	22.72	59	21.11	51
Mount Larcombe	*10.58	*25	50.02	77	Eudora .. .. .	..	..	..	..	26.81	98
Mundubbera	*7.28	*20	21.71	59	37.03	91	Formartin .. .. .	..	..	..	..	18.47	52
North Kolan	*10.20	*19	66.37	89	Gehan .. .. .	..	..	*8.93	*21	27.01	69
Wallaville	54.75	90	Greenmount .. .. .	..	..	27.85	83	21.01	82
Warron, State Farm	*12.81	*23	Happy Valley, Oakey ..	..	..	*13.74	*44	22.23	46
Waterloo, Yandaran	*26.38	*33	Killara .. .. .	..	..	..	..	*19.86	*48
Wetheron	*7.40	*13	31.34	47	31.29	50	Kooroongarra .. .. .	..	..	*6.37	*24	*18.35	*33
<i>Moreton.</i>						<i>East Darling Downs.</i>							
Amamoor Creek	47.23	106	Kuyura Woolshed .. ..	..	..	27.79	57	19.76	49
Bauple	66.66	120	Millglen .. .. .	..	..	*6.92	*24	19.87	52
Booyal	*6.45	*25	53.16	99	Morna Lea .. .. .	..	..	..	..	24.64	80
Brisbane, Bowen Hills	*28.91	*52	*33.99	*46	Omanama	*7.27	*27	18.97	42	14.27	38
Brisbane, Newmarket	*7.43	*16	Quinalow .. .. .	..	..	*4.12	*8	20.31	51
Brisbane, Samford	*18.45	*37	43.32	70	Tara	*9.36	*37	23.18	46	19.33	40
Brisbane, Wooloowin	40.93	98	Thulimbah	*9.75	*57	33.33	85	28.07	92
Cinnabar, Neygoonby	*9.62	*22	30.98	66	Tummaville .. .. .	..	..	*9.71	*28	23.45	70
Colton	*20.13	*43	63.07	69	Victoria Hill School ..	..	..	*9.31	*28	19.37	60
Coulstown Lakes	*6.53	*22	38.74	70	Yangan .. .. .	..	..	21.09	57	22.78	56
..	Yarranvale .. .. .	..	..	..	..	*12.39	*39

Bushy Park—1913.—No record for first three months.

Corona—1913.—No record for first five months

Friezland—1911.—No record for first five months.

Leswalt—1913.—No record for January.

Melrose—1912.—Record for last four months only.

Moscow—1913.—No record for January.

Oondooroo (M. Gilmore)—1912.—Record for last four months only.

Rochdale—1913.—Record for last five months only.

Siberia—1913.—No record for January.

Bluff Station—1913.—No record for first five months.

Canterbury—1912.—Record for last two months only.

1913.—No record for October.

Durrle—1913.—No record for first five months.

Roseberth—1913.—Record for last six months only.

Tanbar—1913.—No record for number of days of rain for April.

Thunda—1912.—No record for first five months.

Bajool—1912.—No record for first five months.

Bin Bin—1912.—Record for last two months only.

Boynedale—1912.—Record for last three months only.

Byrnestown Rifle Range—1912.—Record for last three months only.

Mount Larcombe—1912.—Record for last five months only.

Mundubbera—1911.—Record for last four months only.

North Kolan—1912.—Record for last four months only.

Warron State Farm—1913.—No record for first four months.

Waterloo, Yandaran—1913.—Record for May, June, and last four months only.

Wetheron—1911.—Record for last three months only.

Booyal—1912.—Record for last four months only.

Brisbane—Bowen Hills—

1912.—No record for first five months.

1913.—No record for last four months.—Station closed.

Brisbane—Newmarket—1913.—Record for last four months only.

Brisbane—Samford—1912.—Record for last five months only.

Cinnabar—Neygoonby—1912.—Record for last five months only.

Colton—1912.—No record for first three months.

Coulstown Lakes—1912.—Record for last five months only.

Dipuying—Frazer Island—1913.—Record for last five months only.

Goomerl—1912.—Record for last two months only.

Hillview—1912.—Record for last five months only.

Kabunga—1912.—Record for last five months only.

Laravale—1912.—Record for October and November only.

Lockrose—1911.—Record for last six months only.

Maroon—1911.—Record for last two months only.

Merlwood—1911.—No record for first five months.

Nanango—The Grange—1911.—Record for December only.

Rathdowney—1912.—Record for last four months only.

Ross Creek—1913.—Record for last two months only.

Tarome—1911.—Record for last two months only.

Woolooga—

1912.—No record for first three months.

1913.—No record for January, February, or April; total for June estimated from Miva and Kilkivan records.

Woombye (F. Fairley)—1912.—No record for January.

Yarraman—1913.—Record for June and last four months only.

†Alva, Kaimkillenbunt.—Total for March to December, inclusive, 1910, 24.92 inches, 56 days.

1911.—No record for May.

Baking Board Siding—1911.—Record for the last three months only.

Benever—1911.—No record for the first five months.

Bismarck—1912.—Record for the last four months only.

Canaga—1912.—No record for the first five months.

Gehan—1912.—Record for September, October, and November only.

Happy Valley—Oakey—1912.—No record for the first five months.

Killara—1913.—No record for the first four months.

Kooroongarra—1912.—Record for the last four months only.

1913.—No record for April or the last four months.

Millglen—1912.—Record for the last four months only.

Omanama—1911.—No record for the first four months.

Quinalow—1912.—Record for June only.

Tara—1911.—No record for the first three months.

Thulimbah—1911.—No record for the first five months.

Tummaville—1912.—No record for the first four months or June.

Victoria Hill School—1912.—Record for the last five months only.

Yarranvale—1913.—No record for the first three months.

TABLE VI.—RETURN SHOWING ANNUAL RECORDS (IN INCHES AND HUNDREDTHS) AT RAINFALL STATIONS RECENTLY ESTABLISHED IN QUEENSLAND—NOT INCLUDED IN THE FOREGOING RETURNS—*continued*.

(* Indicates Footnote.)

Names of Subdivisions, Minor Subdivisions, and Stations.	1911.		1912.		1913.		Names of Subdivisions, Minor Subdivisions, and Stations.	1911.		1912.		1913.	
	Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.		Rainfall.	Days.	Rainfall.	Days.	Rainfall.	Days.
DARLING DOWNS—<i>continued</i>.							SOUTH-WEST.						
<i>West Darling Downs.</i>							<i>Warrego.</i>						
Casinya	*8.51	*22	Angellala Railway Station ..	..	..	*3.38	*13	24.37	42
Dulacca Experimental Station	*7.19	*21	Brigalow .. .. .	..	..	..	..	*6.15	*18
Gurulmundi	26.40	65	Glendilla .. .. .	..	..	*1.49	*4	*11.50	*19
Loretta	*10.49	*25	28.45	62	Maribyrnong .. .. .	..	..	*12.32	*20	27.12	60
Talwood	*5.54	*20	19.54	36	Mille .. .. .	..	..	17.33	41	26.54	64
Thallon	*2.36	*8	18.50	36	Mount Alfred Bore .. .. .	..	..	*0.87	*5	*16.59	*22
The Gums, Tara	*3.08	*10	19.85	64	Mungallala .. .. .	..	..	*2.66	*10	21.77	37
Totara	*3.25	*11	Rosevale Bore .. .. .	..	..	*8.45	*15	14.21	22
Turnalla	27.37	67	The Lake, Cane Grass .. .. .	..	..	..	..	*4.53	*6
Undulla Creek	*5.75	*23	24.18	58	Westgate .. .. .	..	..	*4.04	*13	26.27	48
							Yourangle .. .. .	..	..	22.37	38	22.04	50
							<i>Far South-West.</i>						
							Balbon Plains .. .. .	..	..	..	..	11.44	22
							Gilpippie .. .. .	..	..	..	..	8.57	17
							Noccundra Station .. .. .	..	..	..	..	*1.06	*3
							Pininderry Creek .. .. .	..	..	*3.38	*6	10.26	23
MARANOA.													
Kilmorey	*13.11	*37							
Lauriston	*6.43	*16	21.48	67							
Roma State Farm	*11.12	*35							

Casinya—1913.—No record for the first five months.

Dulacca Experimental Station—1913.—Record for the last five months only.

Loretta—1912.—Record for the last five months only.

Talwood—1912.—Record for the last five months only.

Thallon—1912.—Record for August, September, November, and December only.

The Gums—Tara—1912.—Record for the last two months only.

Totara—1913.—Record for the last three months only.

Undulla Creek—1912.—Record for the last four months only.

Kilmorey—1913.—No record for the first four months.

Lauriston—1912.—Record for the last four months only.

Roma State Farm—1913.—No record for the first four months.

Angellala Railway Station—
1912.—Record for the last three months only.

Brigalow—1913.—No record for the first four months.

Glendilla—

1912.—Record for the last five months only, and no record of the number of days of rain for August or October.

1913.—Record for the first four months only. Station closed.

Maribyrnong—1912.—No record for the last two months.

Mount Alfred Bore—

1912.—Record for the last four months only.

1913.—Record for the first six months only; observations discontinued.

Mungallala—1912.—Record for the last four months only.

Rosevale Bore—1912.—No record for the last two months.

The Lake, Cane Grass—1913.—Record for the last six months.

Westgate—1912.—Record for the last three months only.

Noccundra Station—1913.—No record for the first five months.

Pininderry Creek—1912.—Record for the last two months only.

QUEENSLAND MONTHLY RAINFALL TABLES.

The following tables show the monthly and annual amounts (in inches and hundredths) at 137 representative stations in Queensland for the entire period for which monthly records are available, up to the end of 1912, together with the mean for each month and for the year.

In the headings of the tables the name, and (in brackets) number, of the minor subdivision of the State in which a station is situated is given, so that the locations of the stations may be readily found on the accompanying chart.

The heights above mean sea level available are included; † indicates height of cistern of barometer at station, and § the height of the rails at the local railway station.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
CAPE YORK—Peninsula North (27).													
Height above M.S.L., 88 feet.†													
1887	13.05	11.64	25.76	4.08	1.22	0.71	0.54	0.04	0.16	0.00	0.25	3.59	61.94
1888	10.47	13.02	6.28	4.90	0.70	0.28	0.52	0.06	0.13	0.15	6.65	7.30	50.46
1889	13.90	11.07	8.03	10.17	2.75	0.44	0.66	0.59	0.23	0.09	3.30	3.76	54.99
1890	22.79	13.57	7.81	7.94	1.04	1.03	0.25	0.62	0.11	0.19	1.69	3.24	60.28
1891	11.56	10.53	16.47	5.43	3.06	5.14	0.75	0.02	0.28	6.24	1.45	7.29	68.22
1892	16.84	21.05	8.37	10.49	0.90	1.71	0.95	0.44	0.68	0.03	4.27	3.58	69.31
1893	8.13	24.91	*6.37	*8.62	8.96	*1.00							
1894	16.97	23.29	16.87	11.90	0.58	0.87	1.29	1.11	0.05	0.15	0.16	0.13	78.37
1895	13.45	14.78	9.25	8.49	0.33	0.38	2.18	0.09	0.01	1.08	3.82	6.82	60.68
1896	13.27	27.06	20.11	24.86	0.48	0.82	0.46	0.88	0.12	0.02	0.88	9.72	98.68
1897	12.62	10.89	22.69	9.20	2.00	0.40	0.53	0.05	0.90	0.55	0.65	3.35	64.03
1898	9.18	8.43	4.25	3.90	3.21	0.05	0.00	0.79	0.49	0.01	2.11	0.72	33.14
1899	15.41	22.20	18.73	9.03	3.22	1.48	0.95	0.07	0.08	0.70	1.54	1.54	74.90
1900	*8.83	*9.96	*26.09	0.49		*0.71	*1.17	*0.24	*0.00	*0.00	*0.00	*1.63	
1901	11.28	8.62	15.22	9.19	2.79	1.97	1.23	0.46	0.29	0.10	1.35	15.41	67.31
1902	11.69	24.48	12.45	14.57	1.64	0.89	0.28	0.22	0.00	0.45	0.14	5.41	72.20
1903	13.58	13.41	4.93	8.16	0.99	2.49	0.83	0.57	0.02	0.00	0.00	0.00	39.98
1904	12.59	8.01	5.22	8.90	2.78	1.48	0.36	0.04	0.00	0.06	5.47	15.53	60.44
1905	25.41	3.85	10.21	19.70	3.10	1.08	0.52	0.10	0.60	0.77	0.56	4.92	64.82
1906	13.02	10.94	18.89	8.30	2.44	0.49	0.68	0.08	0.00	0.56	3.59	1.36	60.40
1907	25.41	5.48	14.17	7.38	9.01	0.90	0.86	0.53	0.00	0.90	7.37	17.29	90.20
1908	19.20	10.49	17.37	25.32	1.94	0.63	0.72	0.72	1.02	0.74	1.42	11.89	91.55
1909	9.47	14.27	13.10	9.65	1.17	0.48	0.58	0.21	0.09	0.02	0.00	0.31	49.35
1910	12.97	7.86	18.42	1.67	0.45	1.78	0.58	0.22	0.07	0.02	0.72	2.22	46.93
Mean for 22 years	14.78	13.63	13.39	9.55	2.14	1.13	0.72	0.36	0.24	0.58	2.15	5.70	64.47
COEN—Peninsula North (27).													
Height above M.S.L., ... feet.													
1887		*13.48	*9.53	*3.41	*0.36	*0.04	*0.07		*0.00	*1.14	*0.09	*9.52	
1888	17.65	12.76	3.42	0.44	0.40	0.08	0.05	0.00	0.00	0.00	0.08	2.39	37.27
1889	6.14	15.53	2.88	0.93	0.84	0.00	0.15	0.13	0.27	0.80	4.27	1.15	50.20
1890	17.17	8.48	8.65	7.57	1.02	0.61	0.03	0.08	0.00	0.09	1.07	2.40	37.56
1891	10.43	14.86	3.54	3.95	0.85	0.12	0.17	0.01	0.00	5.20	0.64	6.97	46.14
1892	13.31	2.73	12.12	3.48	1.03	0.59	0.06	0.11	0.02	0.97	3.64	4.26	39.64
1893	8.25	12.40	6.72	0.22	1.12	0.04	0.25	1.75	0.02	0.05	7.37	6.91	71.59
1894	8.98	11.84	13.72	22.16	0.24	0.29	0.03	0.00	0.00	0.16	0.81	1.82	38.24
1895	6.80	8.45	6.93	12.56	0.14	0.28	0.29	0.00	0.00	0.10	0.73	0.23	47.87
1896	14.35	21.58	5.94	4.48	0.16	0.03	0.09	0.18	0.08	0.00	0.21	7.42	32.51
1897	6.28	3.88	13.40	0.34	0.15	0.02	0.73	0.00	0.00	0.00	0.43	2.38	48.02
1898	13.84	5.91	23.32	2.03	0.00	0.00	0.11	0.00	0.01	0.00	1.37	35.89	
1899	16.08	6.12	10.19	1.54	0.17	0.00	0.41	0.00	0.03	0.29	1.00	3.59	21.40
1900	13.28	1.42	0.78	0.63	0.01	0.11	0.26	0.00	0.02	1.25	0.00	0.31	56.28
1901	8.71	23.71	11.70	3.13	1.79	0.55	0.00	0.02	0.00	0.00	0.40	4.40	22.98
1902	4.56	7.11	6.24	0.07	0.00	0.13	0.07	0.00	0.00	0.14	3.72	7.63	61.50
1903	16.31	6.00	11.88	14.83	0.39	0.22	0.37	0.01	0.00	0.06	0.02	6.16	37.88
1904	6.06	9.52	7.17	8.37	0.49	0.00	0.03	0.00	0.00	0.00	0.27	0.65	30.22
1905	13.41	10.65	1.89	0.94	0.20	0.21	0.00	0.00	0.10	0.07	15.75	6.12	39.73
1906	4.56	8.40	3.42	0.50	0.37	0.34	0.10	0.09	0.17	0.31	5.23	9.41	57.69
1907	22.80	9.85	4.37	2.76	1.76	0.92	0.04	0.07	0.13	0.08	2.18	2.33	66.18
1908	20.04	6.06	28.65	5.05	1.25	0.02	0.33	0.11	0.13	0.08	4.19	6.04	61.06
1909	19.30	4.50	10.00	0.68	0.30	1.90	0.76	0.19	0.00	1.33	2.04	12.21	80.01
1910	13.01	22.27	8.65	19.23	0.79	0.17	0.00	0.00	0.00	0.00	0.95	5.04	64.55
1911	9.26	30.78	10.83	7.28	0.00	0.06	0.35	0.00	0.00	0.00	0.32	1.66	25.10
1912	9.86	2.80	7.07	0.28	0.21	2.02	0.13	0.36	0.00	0.39	0.32		
Mean for 25 years	12.02	10.90	8.94	4.94	0.54	0.35	0.19	0.12	0.05	0.63	2.59	4.71	45.98
MCDONNELL—Peninsula North (27).													
Height above M.S.L., 190 feet.†													
1887										*0.10	*0.00	*0.27	*12.63
1888	28.38	19.55	12.51	2.53	1.62	0.57	0.39	0.00	0.10	0.00	0.29	2.51	62.45
1889	11.94	18.65	4.82	3.08	0.63	0.58	0.43	0.16	0.18	0.06	6.60	10.80	57.93
1890	34.67	17.71	9.79	14.34	1.83	1.09	0.47	0.48	0.28	0.00	5.76	5.83	92.23
1891	18.00	18.19	4.79	5.59	0.78	0.10	0.25	1.55	0.00	0.00	2.60	5.52	57.37
1892	21.83	2.52	12.53	3.83	0.64	2.08	0.06	0.00	0.01	0.11	1.13	11.30	57.84
1893	13.32	17.46	6.91	3.75	1.70	0.38	1.32	1.46	0.01	0.36	3.56	8.67	58.90
1894	18.35	27.15	7.03	10.62	5.07	0.58	0.39	0.55	0.04	0.16	5.34	7.74	83.02
1895	21.59	16.30	13.52	10.49	0.55	0.42	0.61	0.33	0.00	0.42	2.50	2.27	69.23
1896	19.09	29.45	10.54	7.09	0.47	0.47	0.27	1.62	0.00	0.08	0.23	0.09	69.40
1897	10.32	15.83	6.47	2.92	0.15	0.14	1.07	0.20	0.00	0.21	0.42	10.21	48.50
1898	9.64	27.37	25.68	9.04	1.05	0.67	0.42	0.51	0.22	0.10	0.04	2.75	59.29
1899	14.92	10.53	19.99	10.01	0.24	0.16	0.29	0.04	0.07	0.01	0.50	3.20	26.01
1900	10.35	5.58	2.91	1.59	0.50	0.42	0.29	0.59	0.00	1.80	0.76	7.81	52.19
1901	15.07	12.72	7.69	3.75	1.50	0.65	0.24	0.19	0.01	0.91	0.02	8.34	65.81
1902	8.76	29.93	15.01	1.16	0.42	0.36	0.70	0.20	0.00	0.12	0.20	9.99	73.20
1903	18.79	10.24	20.24	7.57	2.01	1.21	0.26	0.42	0.17	0.12	2.29	9.99	73.20
1904	17.65	16.75	19.19	12.57	0.61	0.30	0.12	0.13	0.03	0.12	0.12	15.91	83.50
1905	16.91	11.61	3.67	3.09	0.41	2.41	0.48	0.30	0.00	0.07	0.08	3.98	43.51
1906	12.30	13.66	9.73	1.71	1.18	0.33	0.59	0.24	0.08	0.09	15.52	5.56	60.99
1907	33.19	8.53	9.59	6.57	1.87	1.29	0.47	0.04	0.22	0.64	2.31	7.85	72.57
1908	19.34	12.40	19.39	2.93	2.46	0.21	0.85	0.24	0.00	0.22	5.57	1.51	65.12
1909	21.64	10.69	17.73	0.93	4.04	1.21	0.81	0.87	0.15	1.96	7.42	9.27	76.72
1910	17.78	14.47	22.99	9.98	2.14	0.43	0.26	0.64	0.35	2.47	3.03	15.10	89.64
1911	12.78	31.74	6.29	6.44	0.66	0.32	0.47	0.12	0.02	0.23	1.77	4.98	65.87
1912	12.05	6.30	9.98	3.90	0.71	1.25	0.51	0.37	0.22	0.01	0.94	7.26	43.50
Mean for 25 years	17.55	16.00	11.96	5.32	1.33	0.71	0.48	0.45	0				



QUEENSLAND.

Chart showing location of the Stations named in the Monthly Rainfall Tables.

Reference.

27	Peninsula North..	} Peninsula
28	Peninsula South..	
29	Lower Carpentaria	} Carpentaria
30	Upper Carpentaria	
31	Barron ..	} North Coast
32	Herbert ..	
33	East-central Coast	} Central Coast
34	West-central Coast	
35	Central Highlands	} Central
36	Central Lowlands	
37	Upper Western ..	} Western
38	Lower Western ..	
39	Port Curtis ..	} South Coast
40	Moreton ..	
41	East Darling Dns.	} Darling Downs
42	West Darling Dns.	
43	Maranoa ..	} Maranoa
44	Warrego ..	
45	Far South-west ..	} South-west

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for MEIN—Peninsula North (27). Height above M.S.L., 400 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1887-1912, Mean for 25 years.

Table for MORETON—Peninsula North (27). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1887-1912, Mean for 25 years.

Table for THURSDAY ISLAND—Peninsula North (27). Height above M.S.L., 17 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1883-1912, Mean for 23 years.

Table for FAIRVIEW—Peninsula South (28). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1890-1912, Mean for 22 years.

Table for MAYTOWN—Peninsula South (28). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1884-1912, Mean for 29 years.

Table for MUSGRAVE—Peninsula South (28). Height above M.S.L., 300 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1887-1912, Mean for 25 years.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for PALMERVILLE—Peninsula South (28). Height above M.S.L., 689 feet. †. Includes monthly and annual rainfall data for years 1889-1912 and mean for 23 years.

Table for BURKETOWN—Lower Carpentaria (29). Height above M.S.L., 27 feet. †. Includes monthly and annual rainfall data for years 1886-1912 and mean for 26 years.

Table for CLONCURRY—Lower Carpentaria (29). Height above M.S.L., 633.5 feet. †. Includes monthly and annual rainfall data for years 1884-1895 and mean for 23 years.

Continued in next column.

Table for CLONCURRY—Lower Carpentaria (29)—continued. Includes monthly and annual rainfall data for years 1896-1912 and mean for 29 years.

Table for CROYDON—Lower Carpentaria (29). Height above M.S.L., 386 feet. †. Includes monthly and annual rainfall data for years 1889-1912 and mean for 24 years.

Table for DONOR'S HILL—Lower Carpentaria (29). Height above M.S.L., 100 feet. †. Includes monthly and annual rainfall data for years 1889-1912 and mean for 23 years.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for GILBERT RIVER—Lower Carpentaria (29). Columns: Year, Jan., Feb., Mar., Apr., May, June, July, Aug., Sept., Oct., Nov., Dec., Annual. Rows: 1873 to 1912 and mean for 38 years.

Height above M.S.L., ... feet.

Table for NORMANTON—Lower Carpentaria (29). Columns: Year, Jan., Feb., Mar., Apr., May, June, July, Aug., Sept., Oct., Nov., Dec., Annual. Rows: 1872 to 1912 and mean for 41 years.

Height above M.S.L., 36 feet.†

Mean for 41 years ..

Table for LAWN HILL—Lower Carpentaria (29). Columns: Year, Jan., Feb., Mar., Apr., May, June, July, Aug., Sept., Oct., Nov., Dec., Annual. Rows: 1889 to 1912 and mean for 15 years.

Height above M.S.L., ... feet.

Mean for 15 years ..

Table for MACKINLAY—Lower Carpentaria (29). Columns: Year, Jan., Feb., Mar., Apr., May, June, July, Aug., Sept., Oct., Nov., Dec., Annual. Rows: 1886 to 1912 and mean for 26 years.

Height above M.S.L., ... feet.

Mean for 26 years ..

† Total for November 1891, approximate only.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table with 13 columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Subtitle: CUMBERLAND—Upper Carpentaria (30). Height above M.S.L., ... feet.

Table with 13 columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Subtitle: HUGHENDEN—Upper Carpentaria (30). Height above M.S.L., 1072 feet.†

Table with 13 columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Subtitle: GEORGETOWN—Upper Carpentaria (30). Height above M.S.L., 990 feet.†

Table with 13 columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Subtitle: MOUNT SURPRISE (FORMERLY JUNCTION CREEK)—Upper Carpentaria (30). Height above M.S.L., ... feet.

† Totals computed from Georgetown and Gilbert River records. * Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for PENTLAND—Upper Carpentaria (30). Height above M.S.L., 1318 feet. Includes monthly rainfall data from 1885 to 1912 and a mean for 23 years.

Table for CAIRNS—Barron (31). Height above M.S.L., 16 feet. Includes monthly rainfall data from 1882 to 1912 and a mean for 30 years.

Table for RICHMOND—Upper Carpentaria (30). Height above M.S.L., 697 feet. Includes monthly rainfall data from 1889 to 1912 and a mean for 22 years.

Table for COOKTOWN—Barron (31). Height above M.S.L., 17 feet. Includes monthly rainfall data from 1874 to 1912 and a mean for 37 years.

Table for TATE RIVER—Upper Carpentaria (30). Height above M.S.L., ... feet. Includes monthly rainfall data from 1890 to 1912 and a mean for 21 years.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for HARVEY CREEK—Barron (31). Height above M.S.L., 55 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1897 to 1912 and Mean for 15 years.

Table for HERBERTON Barron (31). Height above M.S.L., 2,890 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1886 to 1912 and Mean for 27 years.

Table for PORT DOUGLAS—Barron (31). Height above M.S.L., 12.5 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1884 to 1912 and Mean for 29 years.

Table for THORNBOROUGH—Barron (31). Height above M.S.L., — feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1881 to 1912 and Mean for 29 years.

Table for CARDWELL—Herbert (32). Height above M.S.L., 21 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1871 to 1912 and Mean for 41 years.

† Totals computed from Geraldton and Goondi records. || Totals taken from Richmond record.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

CLARKE RIVER—Herbert (32). Height above M.S.L., — feet. Table with 13 columns (Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual) and 20 rows (1895-1912, Mean for 18 years).

INGHAM—Herbert (32). Height above M.S.L., — feet. Table with 13 columns (Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual) and 20 rows (1892-1912, Mean for 20 years).

INNISFAIL—Herbert (32). Height above M.S.L., 19 feet. Table with 13 columns (Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual) and 20 rows (1886-1912, Mean for 27 years).

TOWNSVILLE—Herbert (32). Height above M.S.L., 73 feet. Table with 13 columns (Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual) and 20 rows (1870-1912, Mean for 42 years).

VALLEY OF LAGOONS—Herbert (32). Height above M.S.L., — feet. Table with 13 columns (Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual) and 20 rows (1872-1912, Mean for 33 years).

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for AYR—East-central Coast (33). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1886 to 1912, Mean for 26 years.

Table for BLOOMSBURY—East-central Coast (33)—continued. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 881 to 1912, Mean for 40 years.

Table for BIRRALUE—East-central Coast (33). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1890 to 1912, Mean for 21 years.

Table for BOWEN—East-central Coast (33). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1870 to 1912, Mean for 41 years.

Table for BLOOMSBURY—East-central Coast (33). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1870 to 1880.

Continued in next column.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

MACKAY—East-central Coast (33).
Height above M.S.L., 35.5 feet.†

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1870	..	..	..	..	..	..	..	..	..	..	..	..	..
1871	30.02	4.05	8.01	3.56	2.15	2.41	0.00	0.75	2.27	7.00	8.85	4.72	68.79
1872	13.33	11.22	3.41	1.44	2.64	1.48	0.46	0.44	0.20	0.05	4.63	11.77	51.07
1873	15.83	4.97	7.56	4.91	2.21	3.89	1.55	1.26	0.83	0.22	0.22	8.72	52.17
1874	14.78	10.56	13.10	1.05	6.28	2.04	3.42	0.00	0.20	2.60	1.45	1.64	58.94
1875	20.18	19.31	7.10	25.53	9.24	4.05	1.30	0.07	0.10	0.00	0.12	3.00	90.50
1876	11.74	5.85	16.27	3.95	8.73	5.62	0.60	0.00	0.00	2.45	1.27	6.09	62.57
1877	5.91	12.02	31.90	3.95	0.00	2.59	0.74	0.32	0.67	0.15	5.36	4.83	68.44
1878	3.96	7.05	41.68	1.74	4.83	5.90	0.37	0.52	1.86	3.14	3.64	11.69	86.38
1879	22.86	9.60	19.08	15.69	2.17	1.47	1.35	3.84	1.72	4.90	0.52	0.41	83.61
1880	10.20	28.06	4.34	19.29	1.79	1.78	8.25	0.00	0.88	3.05	6.67	10.61	94.92
1881	1.36	13.68	23.06	15.11	3.69	0.51	0.00	0.97	1.57	0.00	1.52	0.18	61.65
1882	1.79	8.74	35.07	5.34	1.29	5.00	5.57	0.00	0.07	7.99	3.54	10.51	84.91
1883	7.30	12.93	14.48	6.88	6.65	0.68	0.04	0.00	0.00	6.63	14.16	2.13	71.88
1884	13.19	27.02	10.13	2.47	2.12	1.81	1.62	0.05	1.29	0.06	3.61	9.30	72.67
1885	5.86	1.97	9.76	13.97	2.83	1.87	0.18	0.46	0.99	0.24	0.04	9.05	47.82
1886	2.21	3.99	9.01	7.43	4.00	5.87	8.48	2.30	8.99	0.59	5.03	17.66	75.56
1887	3.07	7.96	18.80	13.01	0.47	2.00	0.41	0.92	4.29	0.00	1.11	9.92	58.96
1888	0.95	40.64	1.80	2.24	0.66	0.62	0.06	0.39	0.38	0.22	1.57	2.85	52.38
1889	3.23	6.90	12.54	14.34	5.15	0.94	4.04	1.08	1.68	1.02	9.14	11.48	72.44
1890	39.74	9.99	24.31	7.96	7.16	1.82	2.88	0.83	6.07	0.00	1.34	12.56	115.26
1891	31.14	12.78	19.73	6.78	10.56	6.91	0.66	1.23	0.92	2.58	0.25	3.84	96.78
1892	10.26	2.26	5.34	2.76	6.98	3.56	2.28	0.16	8.82	8.68	1.07	2.58	54.75
1893	2.72	14.84	7.81	0.16	3.53	4.30	1.33	8.01	0.51	0.06	0.91	8.25	52.43
1894	20.29	8.57	20.58	22.50	7.72	5.60	1.24	0.68	1.32	1.23	9.04	11.95	110.72
1895	10.69	30.78	5.59	7.28	4.92	0.53	0.44	0.12	0.90	0.15	0.10	3.57	65.07
1896	21.31	32.32	3.62	3.76	2.68	3.33	0.62	0.25	0.21	0.06	1.43	1.79	71.38
1897	8.35	1.38	7.40	1.33	3.19	2.14	2.08	1.35	0.33	2.65	5.67	10.75	46.62
1898	19.47	48.72	19.70	3.21	1.20	0.43	0.44	1.11	2.64	0.47	0.22	2.09	99.50
1899	11.32	9.69	18.05	9.19	4.74	0.00	2.29	2.37	1.33	0.19	0.49	7.65	67.91
1900	20.88	0.65	4.12	2.40	2.89	2.00	3.25	0.74	1.19	0.48	1.22	6.88	45.60
1901	24.85	8.99	10.13	6.80	1.32	0.25	1.07	5.14	2.29	1.35	1.85	0.71	64.75
1902	3.78	8.43	4.41	6.73	1.26	2.33	0.54	0.80	0.00	0.17	0.35	7.71	36.51
1903	10.45	6.47	13.51	1.48	6.75	2.49	2.53	0.59	0.44	1.54	0.86	5.52	61.63
1904	16.74	3.17	5.09	5.24	3.61	0.93	0.12	0.04	8.14	8.07	0.00	1.52	53.27
1905	29.89	4.73	3.77	13.19	2.17	1.82	0.95	0.66	0.97	0.08	2.63	0.70	61.56
1906	13.58	9.88	14.57	2.87	11.87	3.85	0.68	0.93	4.35	2.63	1.80	12.93	79.94
1907	2.72	6.42	8.01	1.58	6.09	5.04	0.27	0.25	0.12	0.12	5.76	9.70	46.08
1908	9.51	3.83	17.81	14.79	3.22	1.29	1.65	0.71	2.27	1.80	2.57	0.02	59.47
1909	15.00	1.36	9.00	2.59	2.33	2.05	4.13	0.74	0.73	2.88	3.18	25.57	69.56
1910	35.31	9.73	24.77	6.18	3.85	5.70	1.14	0.48	4.32	0.07	2.67	2.25	96.47
1911	30.52	13.10	14.47	3.14	0.77	0.22	0.43	0.21	0.03	0.93	0.17	0.41	64.40
1912	2.73	7.93	6.01	3.56	3.42	5.51	0.86	0.33	0.02	7.28	3.06	1.93	42.64
Mean for 42 years ..	13.79	11.72	13.12	7.08	4.03	2.69	1.65	1.03	1.86	2.02	2.01	6.62	68.52

MARLBOROUGH—East-central Coast (33).
Height above M.S.L., ... feet.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1870	..	..	..	..	..	..	..	..	..	..	..	..	..
1871	7.99	17.41	0.91	0.31	1.52	0.86	0.13	0.27	0.61	3.59	5.55	4.65	43.80
1872	9.32	5.30	0.84	0.00	2.34	1.32	0.65	0.99	0.04	0.46	7.65	6.54	35.86
1873	7.73	8.97	3.20	0.49	0.20	3.01	1.40	2.38	0.89	0.00	2.86	4.09	35.13
1874	7.37	1.60	9.32	1.40	1.69	3.07	4.53	0.00	3.13	0.91	3.04	7.50	43.56
1875	2.97	24.58	2.48	10.36	2.95	0.19	2.16	0.00	0.00	0.89	1.77	4.78	53.04
1876	7.44	5.03	4.66	1.40	8.21	4.70	0.00	0.06	1.42	0.55	2.93	3.17	39.51
1877	3.04	0.75	0.12	0.00	0.31	0.34	0.00	0.00	2.70	0.00	1.00	0.91	9.17
1878	0.40	8.48	5.83	0.00	3.28	2.87	0.00	0.09	2.32	5.05	1.65	9.90	39.87
1879	3.22	3.91	11.65	3.36	2.53	2.77	1.16	3.73	0.68	0.76	2.30	1.95	38.02
1880	1.50	8.62	1.71	2.68	0.00	0.56	2.45	0.00	0.42	1.61	3.71	2.43	25.69
1881	2.96	2.85	12.32	4.84	1.37	0.30	0.28	0.00	5.32	2.00	1.30	0.94	34.48
1882	0.02	7.50	20.97	2.18	0.00	9.03	6.00	0.00	0.70	7.52	1.67	4.96	60.49
1883	3.39	3.08	4.20	0.00	6.46	0.00	0.00	0.00	0.00	1.70	1.35	3.21	28.39
1884	6.77	6.15	5.29	1.20	2.04	2.52	0.40	0.00	0.21	0.20	3.57	6.20	34.55
1885	5.04	0.43	2.44	0.49	2.18	0.65	0.06	0.30	0.91	0.33	1.04	5.11	18.92
1886	4.69	3.82	0.11	3.02	1.35	7.96	4.40	1.15	3.07	3.19	5.28	8.10	45.64
1887	2.24	9.94	6.12	4.03	0.16	0.87	1.33	4.40	0.91	0.10	1.61	6.59	38.30
1888	0.32	20.21	0.02	0.09	0.22	0.26	0.00	0.08	1.10	1.35	3.10	2.60	38.35
1889	2.69	2.67	5.86	6.34	2.16	1.61	3.05	1.13	1.11	1.60	8.44	6.37	42.93
1890	31.50	8.83	22.39	2.52	3.52	4.05	1.79	0.65	3.70	1.23	1.53	4.98	87.29
1891	23.09	3.18	2.21	1.21	3.35	6.30	0.70	1.50	0.30	1.98	0.10	4.74	48.66
1892	3.62	4.91	3.27	1.00	2.61	0.54	1.09	1.29	1.26	7.20	4.82	11.02	42.72
1893	4.39	18.94	3.91	2.20	3.23	4.58	1.11	5.98	1.65	1.26	3.09	4.09	54.43
1894	10.59	2.90	5.52	4.22	1.48	5.42	0.00	0.61	2.54	2.12	2.58	3.55	41.53
1895	12.13	2.47	0.40	1.80	0.70	0.15	2.03	0.00	1.25	0.85	1.01	4.48	27.27
1896	30.65	11.07	1.52	0.57	0.11	4.61	0.55	1.24	0.00	0.05	3.59	0.90	54.86
1897	3.69	5.24	1.61	0.02	0.38	0.76	1.44	1.36	0.46	6.90	1.16	3.92	26.94
1898	8.47	21.09	7.42	0.39	0.78	1.20	0.10	0.38	1.90	0.76	1.85	1.45	45.29
1899	11.82	7.63	3.02	4.34	2.82	0.77	1.55	2.70	1.27	0.92	1.93	12.72	51.49
1900	4.52	0.40	2.75	0.64	1.67	1.10	1.42	1.10	0.75	1.42	0.04	0.07	15.88
1901	1.10	4.26	8.67	2.43	0.82	0.27	0.17	3.47	1.26	4.00	0.07	0.41	28.73
1902	2.18	0.22	0.63	0.67	0.00	0.00	0.09	0.07	0.09	0.04	0.04	9.32	13.35
1903	3.55	1.10	3.03	2.25	6.20	0.54	3.40	0.74	0.72	2.22	10.26	3.35	37.36
1904	5.55	2.60	3.38	11.54	0.63	1.09	0.00	0.00	0.46	1.88	0.27	2.99	30.39
1905	10.83	0.68	0.97	4.00	0.18	0.87	0.00	0.30	1.09	0.20	3.66	4.58	27.36
1906	7.52	12.70	9.69	0.09	4.38	0.33	0.00	1.48	5.43	1.64	1.70	3.95	48.91
1907	5.94	1.74	6.61	0.50	1.05	3.19	0.90	0.27	0.00	0.03	3.87	6.20	33.28
1908	4.35	7.00	10.44	1.98	0.50	1.65	0.60	2.63	0.64	1.19	0.93	0.63	32.54
1909	9.02	5.89	3.71	1.00	0.07	2.16	3.00	0.87	1.20	2.43	4.02	3.93	37.30
1910	16.33	0.87	13.03	0.51	1.40	2.68	1.60	0.00	1.66	0.95	6.19	3.69	48.91
1911	13.20	15.67	5.56	1.04	0.60	0.00	0.10	0.49	0.00	1.35	0.09	0.59	38.69
1912	0.32	3.13	2.24	3.76	3.63	7.51	1.50	0.23	0.00	3.53	2.38	4.35	32.58
Mean for 42 years ..	7.23	7.08	5.31	2.16	1.89	2.22	1.22	0.99	1.29	1.83	2.73	4.40	38.35

† 1873 to 1885 inclusive—No record.

‡ Figures apparently duplicated; they are, however, copies of those originally published in the Queensland Statistical Register.

* Not used in determining these means.

NEBO—East-central Coast (33).
Height above M.S.L., 24 feet.‡

Year.	January.	
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QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-headers for St. LAWRENCE—East-central Coast (33) and CHARTERS TOWERS—West-central Coast (34).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-headers for GROSVENOR DOWNS—West-central Coast (34) and ALPHA—Central Highlands (35).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-headers for BLACKALL—Central Highlands (35) and CHARTERS TOWERS—West-central Coast (34).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-headers for CHARTERS TOWERS—West-central Coast (34) and CHARTERS TOWERS—West-central Coast (34).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-headers for BLACKALL—Central Highlands (35) and CHARTERS TOWERS—West-central Coast (34).

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
CLERMONT—Central Highlands (35).													
Height above M.S.L., 870 feet. ‡													
1870	..	..	..	..	..	..	..	..	..	..	..	..	..
1871	4.99	7.97	1.42	0.00	2.77	0.02	0.88	0.00	1.73	3.65	5.04	1.30	29.55
1872	7.15	4.10	0.46	0.00	1.64	1.13	0.39	1.54	0.16	0.80	4.45	3.89	26.23
1873	8.06	3.06	2.37	1.08	0.00	3.02	0.21	0.58	0.06	0.00	1.37	4.12	24.83
1874	7.76	1.41	1.75	4.30	1.25	1.50	6.52	0.00	3.08	2.18	4.93	3.55	38.03
1875	2.48	8.85	2.85	6.42	4.07	2.20	0.41	1.51	0.00	0.18	2.99	0.88	32.84
1876	12.37	9.84	2.86	2.15	6.91	2.06	0.16	0.00	1.28	0.28	1.25	2.73	42.47
1877	10.46	0.61	6.81	0.37	0.41	0.44	0.40	0.00	1.85	0.00	2.25	2.67	26.05
1878	0.25	5.66	3.11	0.00	6.81	2.56	0.58	0.00	1.37	0.45	1.09	6.82	28.70
1879	1.34	3.44	11.59	2.55	2.12	2.88	3.40	1.18	0.88	2.75	2.46	2.74	37.31
1880	1.65	12.53	0.42	6.41	0.00	0.38	1.65	0.00	0.22	1.04	4.46	2.57	31.25
1881	1.27	3.35	10.36	2.04	0.28	0.16	0.50	0.03	0.56	0.00	1.38	2.98	21.04
1882	3.10	8.31	15.88	2.80	1.03	3.64	4.45	0.17	0.28	3.71	4.33	1.36	21.04
1883	0.13	3.02	1.92	0.00	3.18	0.00	0.00	0.20	0.00	3.58	0.32	2.98	51.00
1884	4.35	3.05	3.61	0.00	0.62	0.18	0.00	0.15	0.00	0.40	1.73	9.39	23.40
1885	0.83	1.93	0.18	0.00	0.00	0.65	0.00	0.00	0.20	0.00	0.06	1.87	5.45
1886	5.12	0.70	0.48	1.80	0.57	7.01	2.67	1.38	4.22	2.69	1.87	9.06	38.77
1887	5.23	5.09	7.25	1.42	0.55	0.59	1.42	2.63	0.85	0.01	1.15	4.69	30.91
1888	2.62	7.35	0.00	0.00	0.21	0.00	0.00	0.28	0.02	1.10	2.00	4.25	17.81
1889	4.01	0.58	1.76	4.81	2.01	0.99	2.10	0.03	2.07	1.32	6.30	6.78	31.76
1890	11.75	6.85	9.29	1.28	3.68	2.06	0.42	0.85	4.12	1.68	0.11	7.08	49.17
1891	11.37	7.49	5.26	1.84	2.06	4.06	0.02	1.09	0.32	1.68	0.65	2.80	38.14
1892	3.69	1.00	0.58	1.71	0.00	0.24	1.67	0.00	0.06	3.12	2.33	2.11	18.31
1893	1.67	3.35	1.57	4.44	1.22	2.80	0.82	4.37	0.31	1.07	0.60	1.76	23.98
1894	4.59	5.53	2.28	3.94	2.26	4.04	0.00	1.08	3.28	3.38	0.22	2.23	32.83
1895	4.74	1.96	0.00	1.41	0.91	0.00	1.93	0.02	0.32	0.96	1.60	5.11	18.96
1896	9.99	16.85	0.33	0.21	0.41	0.78	1.45	1.91	0.13	0.00	1.33	34.27	31.22
1897	6.25	0.83	2.30	0.00	0.00	3.32	0.11	1.20	0.14	2.54	4.73	2.80	21.22
1898	12.62	14.85	1.31	0.16	0.50	0.76	0.26	0.10	2.80	0.19	0.28	3.57	37.40
1899	7.99	3.12	5.12	2.11	1.93	0.05	1.63	2.18	0.25	1.25	1.42	0.32	27.35
1900	3.97	0.79	1.88	1.76	2.41	0.96	2.65	0.73	0.42	0.00	0.27	0.37	16.91
1901	3.68	1.67	1.83	2.30	0.82	0.44	1.25	1.22	1.40	0.39	0.00	1.73	16.82
1902	2.61	0.04	0.23	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.90	3.47	7.36
1903	0.61	2.86	1.51	0.34	3.75	0.12	0.24	0.73	0.66	2.36	3.13	1.70	18.01
1904	5.09	2.78	2.20	3.09	1.08	0.67	0.00	0.00	0.00	1.54	3.49	1.60	21.52
1905	7.29	0.17	0.73	6.75	0.06	0.75	0.28	0.00	0.00	0.65	2.10	0.60	19.38
1906	2.81	11.11	4.89	0.00	3.07	0.08	0.00	1.65	7.28	2.82	1.77	1.82	37.30
1907	1.82	2.51	6.24	0.16	0.18	2.86	1.03	0.02	0.11	0.33	2.45	6.59	24.30
1908	1.69	7.94	10.27	1.41	1.36	0.63	0.36	0.63	0.84	3.03	1.04	0.65	29.55
1909	4.92	2.25	2.29	3.93	0.31	2.06	1.89	1.10	0.04	0.43	3.24	9.11	31.57
1910	8.78	1.10	8.71	0.09	0.00	3.27	1.18	0.00	1.28	2.46	2.00	4.06	33.83
1911	10.08	5.71	5.17	1.18	0.31	0.00	0.62	0.03	1.12	0.00	2.92	2.92	25.09
1912	0.00	0.62	3.40	0.49	1.65	12.09	1.93	0.00	0.00	1.61	1.30	0.69	23.78
Mean for 42 years ..	5.05	4.58	3.57	1.78	1.51	1.72	1.08	0.69	1.03	1.35	1.91	3.30	27.57

DUARINGA—Central Highlands (35).

Height above M.S.L., 274 feet. ‡

1886	..	..	..	..	..	..	..	..	..	..	..	..	..
1887	4.13	2.47	7.14	5.03	0.58	1.16	0.97	2.53	1.66	0.73	2.28	6.24	34.92
1888	0.97	12.01	1.90	0.38	0.47	0.09	0.00	0.12	0.36	2.38	1.49	0.00	20.17
1889	2.25	1.05	4.59	6.75	1.27	0.62	2.87	0.84	1.54	0.00	0.00	0.00	22.08
1890	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	5.95	1.29	2.06	0.52	3.92	4.26	0.71	0.06	0.47	2.88	0.45	2.10	24.67
1892	2.72	1.91	1.60	0.00	0.00	0.28	0.00	0.00	0.00	3.22	1.35	10.85	21.93
1893	2.25	8.35	4.05	2.19	1.12	5.29	2.49	7.91	1.68	1.16	2.39	2.16	41.04
1894	13.78	2.17	5.81	4.39	2.59	3.25	0.00	1.09	2.66	1.32	1.51	5.66	44.23
1895	8.80	2.05	0.61	3.07	0.39	0.03	1.23	0.15	0.90	0.26	..	..	..
1896	12.89	19.44	1.04	1.43	1.14	0.75	1.10	1.23	0.00	0.74	0.89	40.65	..
1897	4.20	5.69	3.32	0.00	0.34	2.13	1.07	1.73	3.28	4.60	1.67	3.09	31.12
1898	8.17	25.25	8.62	0.25	0.60	6.21	1.70	1.77	2.41	0.00	0.50	1.83	57.31
1899	9.85	3.03	4.86	1.65	2.60	..	..	..	..	..	..	..	..
1900	3.90	0.00	1.60	1.40	1.50	1.00	2.90	0.90	1.05	1.10	0.30	0.66	16.31
1901	0.20	3.35	1.66	3.21	1.48	0.40	1.90	3.18	1.46	0.70	0.30	1.35	19.10
1902	1.30	0.52	1.63	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.30	3.41	7.86
1903	2.62	1.02	2.90	0.10	3.49	0.50	3.42	0.33	1.66	2.99	7.89	5.45	31.87
1904	6.80	1.38	2.15	6.03	0.67	1.13	0.00	0.00	0.19	1.34	2.86	2.75	25.25
1905	8.71	1.12	0.80	5.40	0.07	0.74	0.00	0.08	0.54	2.51	2.48	2.44	24.35
1906	5.34	6.88	4.03	0.46	3.18	0.21	0.00	1.82	5.58	2.11	2.48	2.94	35.13
1907	7.25	6.88	4.83	0.00	1.10	4.25	1.04	0.62	0.00	1.48	4.54	13.40	44.48
1908	2.08	9.08	10.26	1.53	0.85	0.32	0.27	1.40	0.21	0.41	0.66	1.76	28.83
1909	4.87	2.63	2.11	1.51	0.00	1.24	2.22	2.65	0.89	0.47	1.34	6.71	26.64
1910	8.96	1.35	12.06	0.06	0.00	2.65	1.20	0.00	0.49	1.87	5.32	2.15	36.11
1911	12.51	5.58	3.81	0.40	0.20	0.00	0.55	0.00	0.78	0.00	3.08	2.68	26.91
1912	0.00	2.09	2.22	1.05	1.68	6.62	2.63	0.00	0.00	6.60	0.04	0.00	22.93
Mean for 23 years ..	5.30	5.29	3.93	1.83	1.10	1.87	1.15	1.25	1.14	1.65	1.70	3.44	20.74

EMERALD—Central Highlands (35).

Height above M.S.L., 588 feet. ‡

1883	..	..	..	..	..	..	..	..	..	..	..	..	..
1884	0.31	3.40	2.99	0.00	2.33	0.00	0.00	0.25	0.00	3.76	0.90	0.36	14.30
1885	0.96	4.81	3.51	0.01	1.00	0.23	0.15	0.19	0.11	0.27	3.11	3.67	18.02
1886	2.54	4.00	0.63	0.00	0.13	0.41	0.02	0.09	0.12	0.02	0.28	2.44	10.68
1887	0.22	1.68	1.60	1.05	0.89	7.21	2.27	1.63	3.45	2.93	1.93	7.78	32.64
1888	2.25	5.98	4.75	3.95	0.55	0.82	1.12	2.59	0.60	0.35	0.56	4.27	27.89
1889	1.54	7.23	2.26	0.00	0.28	0.00	0.00	0.27	0.26	0.65	1.93	0.40	14.82
1890	1.12	0.17	2.26	5.63	1.92	0.81	2.83	0.61	0.88	0.78	4.63	7.51	29.15
1891	7.70	6.19	13.37	0.93	2.70	1.69	0.83	1.87	4.11				

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for TAMBO—Central Highlands (35). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1877-1912, Mean for 31 years.

Table for SPRINGSURE—Central Highlands (35). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1865-1912, Mean for 44 years.

Table for TAROOM—Central Highlands (35). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1870-1912, Mean for 37 years.

Table for WARRINILLA—Central Highlands (35). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1890-1912, Mean for 22 years.

† No record for 1879, 1880, 1881, or 1885.

‡ No monthly totals available for 1880 to 1884 inclusive.

¶ No record for 1875 or 1876.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for ALICE RIVER—Central Lowlands (30). Height above M.S.L., 988 feet. Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual. Rows: 1889-1912, Mean for 23 years.

Table for ARAMAC—Central Lowlands (36). Height above M.S.L., — feet. Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual. Rows: 1880-1912, Mean for 33 years.

Table for BARCALDINE—Central Lowlands (36). Height above M.S.L., 869 feet. Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual. Rows: 1886-1897, Mean for 21 years.

Continued in next column.

Table for BARCALDINE—Central Lowlands (36)—continued. Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual. Rows: 1898-1912, Mean for 20 years.

Table for CAMERON DOWNS—Central Lowlands (36). Height above M.S.L., — feet. Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual. Rows: 1888-1912, Mean for 25 years.

Table for ELGIN DOWNS—Central Lowlands (36). Height above M.S.L., — feet. Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Annual. Rows: 1890-1912, Mean for 21 years.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for ISISFORD—Central Lowlands (36). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1885-1912, Mean for 28 years.

Table for LONGREACH—Central Lowlands (36). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1883-1912, Mean for 20 years.

Table for MUTTABURRA—Central Lowlands (36). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1885-1912, Mean for 28 years.

Table for WESTLAND—Central Lowlands (36). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1887-1912, Mean for 22 years.

Table for AYRSHIRE DOWNS—Upper Western (37). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1885-1912, Mean for 28 years.

Table for BIMERAH—Upper Western (37). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1885-1912, Mean for 28 years.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

CAMOOWEAL—Upper Western (37).
Height above M.S.L., 758 feet. †

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1891	..	..	..	..	..	..	..	..	..	..	..	..	..
1892	1.41	2.13	0.50	0.00	1.15	0.00	0.00	0.00	0.00	2.11	1.95	0.25	0.58
1893	0.07	0.87	3.05	0.00	0.53	0.18	0.13	3.48	0.00	0.21	0.64	0.04	10.10
1894	5.39	4.23	8.87	0.11	0.00	1.56	0.00	0.00	0.52	0.93	0.30	3.21	25.12
1895	16.16	7.60	0.07	0.00	0.30	0.02	3.13	0.00	0.00	0.01	4.42	0.56	32.27
1896	1.06	3.15	1.23	1.16	0.26	0.00	1.14	0.00	0.13	0.21	0.27	4.87	13.48
1897	0.72	4.26	0.19	0.00	0.00	0.66	0.00	0.00	0.19	1.05	0.21	2.51	9.79
1898	3.83	7.75	0.27	0.00	0.47	0.34	0.00	0.62	1.22	0.00	0.02	0.93	15.45
1899	1.67	2.80	0.73	0.18	0.00	0.00	0.00	0.14	0.00	0.45	0.23	1.06	6.52
1900	3.34	0.10	0.63	0.00	0.39	0.13	3.23	0.00	0.87	0.00	0.17	0.18	9.04
1901	1.11	2.01	9.86	0.77	0.00	0.02	0.00	0.08	0.03	0.01	0.20	1.06	15.15
1902	1.86	2.19	0.16	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.88	1.21	6.32
1903	1.92	2.51	12.25	0.54	0.04	0.00	0.00	0.00	0.27	0.43	1.33	6.24	25.53
1904	4.53	10.12	1.52	0.05	1.15	0.16	0.00	0.00	0.00	4.68	0.12	2.18	24.51
1905	1.24	0.86	0.33	0.00	0.06	2.11	0.00	0.00	0.02	0.08	0.93	2.11	7.74
1906	2.59	4.68	0.21	0.35	0.00	0.10	0.00	0.00	0.66	0.51	1.98	3.37	14.45
1907	5.66	4.38	0.00	0.02	0.10	0.20	0.29	0.00	0.00	0.79	0.07	6.43	17.94
1908	10.71	1.76	2.14	2.05	0.00	0.00	0.00	0.00	0.00	0.95	1.78	1.85	21.24
1909	0.78	1.95	3.12	3.51	0.35	0.60	0.00	1.12	0.00	0.19	1.62	1.02	14.26
1910	3.92	4.38	3.06	0.90	0.02	1.76	0.02	0.00	0.02	0.13	1.37	2.80	18.38
1911	2.15	2.02	4.27	2.13	0.00	0.00	0.34	0.00	1.12	0.24	5.03	1.90	10.20
1912	0.37	5.04	0.49	0.03	0.00	2.00	0.25	0.00	0.00	0.00	5.22	0.48	13.88
Mean for 21 years	3.36	3.55	2.52	0.56	0.23	0.47	0.11	0.26	0.24	0.62	1.37	2.12	15.71

CARANDOTTA—Upper Western (37).
Height above M.S.L., ... feet.

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1882	..	..	..	..	..	..	..	..	..	..	..	..	..
1883	0.00	7.73	0.00	0.00	1.63	0.33	6.10	0.26	0.00	1.49	0.39	0.82	9.64
1884	0.22	0.27	2.60	0.37	0.00	0.03	0.00	0.00	0.03	0.12	1.25	0.49	5.38
1885	3.22	0.47	5.43	0.16	0.52	0.00	0.00	0.00	0.12	0.00	0.19	1.61	11.72
1886	0.87	0.00	0.00	0.26	0.35	0.28	0.89	0.31	0.33	0.28	0.49	2.92	10.38
1887	0.75	4.07	8.17	0.02	0.17	0.23	0.04	2.79	0.00	0.00	0.58	5.33	22.15
1888	6.55	2.62	0.00	0.00	1.29	0.00	0.00	0.28	0.09	0.00	0.00	0.73	11.56
1889	3.07	0.48	0.00	0.58	2.30	1.08	0.00	0.02	0.00	0.14	0.45	0.53	8.65
1890	2.94	0.51	0.09	1.31	0.04	1.53	0.02	0.38	1.61	0.48	0.15	1.03	10.09
1891	1.47	2.15	0.22	2.29	0.65	1.87	0.00	0.00	0.16	1.41	0.12	1.10	10.44
1892	0.02	1.45	0.12	0.03	0.75	0.00	0.00	0.00	0.57	0.77	0.46	0.11	4.25
1893	0.34	0.22	0.02	0.03	0.57	0.16	0.09	0.97	0.00	0.06	0.73	0.40	3.60
1894	0.08	1.74	10.95	0.47	0.00	0.49	0.00	0.32	2.12	0.48	0.40	1.97	19.02
1895	8.65	4.05	0.00	0.11	0.95	0.13	2.34	0.00	0.03	0.00	3.54	0.69	20.49
1896	1.26	1.62	0.00	0.39	0.00	0.00	0.67	0.00	0.30	0.18	3.66	3.00	14.68
1897	0.30	0.98	0.00	0.00	0.00	0.95	0.00	0.00	0.08	1.43	0.02	0.26	4.02
1898	1.40	6.45	0.00	0.00	0.00	0.17	0.00	0.08	2.08	0.00	0.22	0.50	10.90
1899	0.56	2.39	2.25	0.09	0.00	0.42	0.00	0.00	0.00	0.04	0.00	0.56	6.66
1900	2.22	0.12	0.00	0.00	0.00	0.00	1.32	0.00	0.67	0.00	0.00	0.05	4.38
1901	0.05	0.93	0.90	2.82	0.00	0.27	0.00	2.01	0.49	0.00	0.00	0.03	9.50
1902	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.58	2.02	0.60	4.62
1903	0.57	0.00	6.39	0.26	0.12	0.00	0.00	0.01	0.26	0.60	0.13	3.51	11.85
1904	3.17	3.51	3.68	0.38	2.13	0.00	0.00	0.00	0.10	2.11	0.03	0.52	15.63
1905	0.42	0.63	0.23	0.00	0.00	0.38	0.00	0.95	0.00	0.35	1.63	0.33	4.02
1906	0.45	1.13	0.00	0.00	0.00	0.00	0.00	0.27	1.41	0.41	0.44	5.80	9.91
1907	2.67	3.94	0.00	0.10	0.30	0.08	0.00	0.00	0.20	0.15	0.73	6.33	14.50
1908	0.25	1.76	2.13	3.16	0.00	0.00	0.00	0.00	0.00	1.28	0.52	1.00	10.10
1909	0.04	0.78	4.76	1.29	0.00	1.23	0.00	1.76	0.00	0.25	0.30	0.04	10.45
1910	0.91	1.22	4.57	1.70	0.40	0.81	0.26	0.00	0.00	0.22	0.33	1.15	11.57
1911	0.45	0.25	0.57	0.75	0.00	0.00	0.65	0.00	0.50	0.00	3.78	0.57	7.52
1912	0.28	2.98	0.50	0.00	0.00	1.07	1.53	0.01	0.10	0.00	0.25	0.00	6.72
Mean for 30 years	1.46	1.80	1.78	0.67	0.35	0.45	0.27	0.43	0.39	0.40	0.77	1.34	10.11

KYNUNA—Upper Western (37).
Height above M.S.L., 682 feet. †

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1890	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	10.82	8.66	2.00	1.11	2.52	0.00	0.23	0.00	0.16	1.59	0.16	0.09	..
1892	0.60	0.16	2.62	0.09	1.41	0.14	1.46	1.28	0.02	0.00	3.56	1.13	12.47
1893	3.33	9.27	10.39	2.34	0.00	3.33	0.00	0.02	0.98	1.99	0.13	3.26	35.04
1894	2.92	12.46	1.32	0.92	2.03	0.02	2.98	0.00	0.09	0.21	4.72	1.39	29.06
1895	0.93	2.97	0.32	0.61	0.00	0.00	2.20	0.00	0.16	0.00	2.02	2.48	11.69
1896	2.16	0.45	0.10	0.00	0.00	0.52	0.00	0.00	0.14	1.31	0.00	1.90	6.58
1897	2.86	6.19	0.02	0.00	0.45	0.71	0.00	0.59	0.47	0.03	1.75	1.09	14.19
1898	3.52	0.68	1.57	0.25	0.00	0.00	0.89	0.13	0.00	0.08	0.46	0.03	7.61
1899	2.29	0.97	0.53	0.00	0.38	0.04	2.23	0.00	0.11	0.00	0.26	0.16	6.97
1900	1.13	1.35	3.52	0.90	0.57	0.12	0.00	0.05	0.49	0.10	0.26	0.65	9.14
1901	2.04	0.98	0.38	0.00	0.00	0.00	0.00	0.00	0.18	0.00	1.14	2.05	6.77
1902	1.57	0.45	4.20	2.50	0.45	0.00	0.01	0.00	0.38	1.15	0.32	12.65	23.68
1903	1.80	3.28	0.24	0.04	3.13	0.19	0.00	0.00	0.00	1.94	0.04	1.31	11.97
1904	2.37	1.66	2.05	2.61	0.04	0.26	0.00	0.00	0.00	0.00	0.57	1.28	10.84
1905	4.37	4.15	5.94	0.00	0.00	0.00	0.00	0.00	0.25	0.62	0.38	6.19	23.86
1906	1.72	4.89	0.05	0.00	1.17	0.61	0.39	0.00	0.00	0.36	0.89	5.59	15.67
1907	0.21	6.66	1.27	2.00	1.43	0.00	0.12	0.05	0.00	2.19	0.80	3.94	18.67
1908	0.38	0.71	6.89	0.78	0.00	1.02	0.00	0.53	0.00	0.00	0.00	1.21	11.52
1909	3.06	3.58	0.20	0.00	0.61	0.61	0.96	0.00	0.64	0.00	5.18	2.16	16.68
1910	4.93	2.66	0.00	2.98	0.00	0.00	0.16	0.30	0.07	0.33	6.05	1.95	19.43
1911	1.04	1.95	1.54	0.00	0.00	4.95	0.73	0.00	0.41	0.00	0.00	1.20	11.82
Mean for 20 years	2.16	3.27	2.16	0.82	0.55	0.63	0.61	0.15	0.31	0.52	1.43	2.57	15.18

LLANRHEIDOL—Upper Western (37).
Height above M.S.L., ... feet.

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1890	..	..	..	..	..	..	..	..	..	..	..	..	..
1891	10.13	4.71	3.76	2.49	1.67	1.74	0.06	0.00	1.47	0.47	0.10	1.33	25.48
1892	8.21	0.52	..	..	..	..	..	..	..	..	..	..	..
1893	..	..	..	..	..	..	..	..	..	..	..	..	..
1894	1.15	8.43	7.36	1.95	..	..	..	..	..	..	..	..	..
1895	0.66	6.54	1.16	0.00	1.78	0.60	2.95	0.20	0.82	1.30	0.00	2.42	..
1896	..	..	..	..	..	..	..	..	..	..	..	..	..
1897	1.50	0.88	0.00	0.00	0.00	1.08	0.00	0.00	0.20	0.41	1.29	4.85	..
1898	2.68	12.03	0.00	0.00	0.00	0.12	0.00	0.56	1.57	0.07	0.00	1.57	18.60
1899	0.89	6.95	1.10	0.69	0.00	0.04	0.62	0.39	0.00	0.00	0.13	0.00	10.81
1900	1.49	0.00	0.55	0.00	0.19	0.00	1.82	0.00	0.00	0.00	0.06	0.05	4.16
1901	1.27	0.83	4.94	1.49	1.32	0.09	0.00	0.20	0.32	0.41	0.27		

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

BIRDSVILLE—Lower Western (38).
Height above M.S.L., ... feet.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1892	0.16	0.95	0.31	0.00	1.58	0.00	0.05	0.00	0.00	0.96	0.09	0.00	4.10
1893	0.30	0.00	0.18	0.02	2.65	0.37	0.00	0.81	0.00	0.00	0.72	1.81	6.86
1894	0.10	0.16	0.00	2.75	0.00	0.32	0.00	0.70	0.15	0.52	0.00	1.50	6.20
1895	..	..	..	..	..	..	..	..	..	..	..	..	..
1896	*1.21	..	..	..	..	..	*0.04	..	..	..	..	..	..
1897	..	..	..	..	..	..	..	..	..	..	..	..	..
1898	0.00	2.02	0.76	0.00	0.00	0.97	0.00	0.00	0.25	0.00	0.00	0.85	4.85
1899	0.00	0.70	0.20	0.00	0.00	0.35	0.00	0.63	0.00	0.00	0.08	0.00	1.96
1900	1.50	0.04	0.09	0.00	0.12	0.12	0.27	0.02	0.03	0.13	0.03	0.04	2.39
1901	0.73	1.72	0.07	0.00	0.00	0.69	0.00	0.76	0.00	0.00	0.00	0.00	5.97
1902	0.68	1.67	0.12	0.00	0.00	0.00	0.00	0.00	0.04	0.40	0.14	3.05	..
1903	3.19	0.00	2.62	0.20	0.00	0.00	0.08	0.13	0.08	0.38	1.02	3.81	11.51
1904	0.72	5.10	0.00	2.15	2.40	0.00	0.00	0.45	1.52	0.00	0.00	0.00	12.34
1905	0.58	0.00	0.13	0.31	0.25	0.72	0.00	0.11	0.00	0.00	0.00	0.00	2.10
1906	0.80	0.14	2.62	0.00	0.00	0.22	1.83	0.00	0.42	0.10	0.10	0.15	6.38
1907	9.04	0.00	0.53	0.00	0.44	1.45	0.08	0.30	0.20	0.25	0.90	2.85	16.04
1908	1.39	0.00	3.29	1.11	0.00	0.00	1.20	0.00	0.35	0.17	0.18	7.99	..
1909	0.00	0.12	1.10	0.20	0.00	0.60	0.00	0.89	0.00	0.22	0.00	3.13	..
1910	1.80	0.29	0.00	0.13	0.00	1.21	1.55	0.06	1.95	0.08	0.25	0.72	8.04
1911	0.15	0.00	0.00	0.00	0.00	0.00	2.08	0.18	0.00	0.02	6.41	0.37	9.21
1912	0.11	1.57	0.40	0.00	0.00	0.86	0.62	0.00	0.00	0.00	1.03	0.00	4.59
Mean for 18 years ..	1.18	0.82	0.69	0.38	0.41	0.44	0.43	0.26	0.20	0.24	0.63	0.69	6.37

BOULIA—Lower Western (38).
Height above M.S.L., 478 feet.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1886	0.07	0.00	0.01	0.91	0.13	0.45	1.32	4.09	0.03	0.32	0.31	7.04	14.68
1887	..	*3.01	*13.88	*0.78	*0.31	*0.54	*0.06	*2.38	*0.00	*0.06	*3.41	*1.01	..
1888	0.50	2.26	0.00	0.00	1.24	0.00	0.00	0.00	0.12	0.00	0.08	0.67	4.37
1889	0.51	0.59	0.02	0.19	3.08	0.75	0.00	0.05	0.03	0.67	0.40	0.20	6.49
1890	8.35	1.87	0.32	1.12	1.38	2.35	0.06	0.23	1.15	0.28	0.00	1.36	18.47
1891	3.62	2.01	0.55	3.13	0.41	2.20	0.04	0.00	0.53	1.06	0.15	0.34	14.01
1892	1.30	2.78	0.03	0.00	0.05	0.00	0.00	0.00	0.84	0.41	0.26	5.67	..
1893	0.52	0.00	0.92	0.00	0.84	0.16	0.00	1.96	0.00	0.01	1.03	0.71	6.15
1894	0.45	3.48	12.19	2.47	0.00	0.00	0.00	0.34	2.09	2.46	0.02	2.24	25.74
1895	..	..	..	..	*0.27	*0.68	*1.57	*0.00	*0.19	*0.00	*2.59	*0.00	..
1896	1.23	5.27	0.00	4.21	0.00	0.00	0.40	0.00	0.32	0.00	0.55	4.02	16.00
1897	0.25	1.69	0.01	0.00	0.00	0.84	0.00	0.00	0.05	0.79	0.38	1.30	5.31
1898	2.07	3.09	0.00	0.02	0.00	0.46	0.00	0.02	0.81	0.04	0.11	0.35	6.97
1899	0.35	3.87	1.91	0.00	0.00	0.35	0.08	0.00	0.00	0.00	0.07	0.00	6.63
1900	1.26	0.22	0.16	0.00	0.09	0.05	1.27	0.06	0.54	0.17	0.00	0.04	3.86
1901	0.20	1.49	2.95	0.38	0.00	0.28	0.00	0.00	0.05	0.01	0.01	0.41	21.45
1902	1.31	2.02	0.00	0.00	0.00	0.04	0.00	0.08	0.13	0.14	3.25	2.01	8.98
1903	0.37	0.00	2.73	0.00	0.00	0.00	0.25	0.00	0.33	0.25	1.91	0.61	13.45
1904	5.57	8.89	0.17	0.34	3.03	0.00	0.00	0.00	0.00	2.91	0.00	0.19	21.32
1905	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.08	0.40	0.00	0.00	0.08	0.95
1906	3.09	0.74	4.54	0.00	0.12	0.00	0.46	0.00	1.86	0.66	0.51	1.96	13.94
1907	1.65	1.49	0.00	0.00	0.84	0.36	0.70	0.07	0.00	0.22	0.12	5.05	10.50
1908	0.31	4.23	2.41	3.10	0.07	0.00	0.00	0.00	0.00	1.16	0.14	0.19	11.61
1909	0.05	0.62	2.83	0.78	0.00	0.17	0.00	0.14	0.00	0.37	0.06	0.01	6.03
1910	1.39	1.46	3.05	0.09	0.08	0.61	0.43	0.03	0.24	0.94	0.55	1.43	10.30
1911	0.13	1.25	0.14	0.87	0.00	0.00	0.67	0.11	0.22	0.08	4.08	0.03	7.58
1912	0.00	1.54	2.90	0.25	0.00	1.42	2.08	0.00	0.07	0.00	1.52	1.04	10.82
Mean for 25 years ..	1.39	2.05	1.52	0.70	0.46	0.42	0.31	0.36	0.35	0.55	0.63	1.53	10.27

COORABULKA—Lower Western (38).
Height above M.S.L., ... feet.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1898	1.14	3.22	0.00	0.00	0.00	0.56	0.00	0.15	0.31	0.00	0.08	0.00	5.46
1899	0.42	0.60	1.83	0.00	0.00	0.51	0.00	0.00	0.10	0.33	0.00	0.34	3.79
1900	1.62	0.00	0.00	0.00	0.00	0.18	0.80	0.04	0.00	0.00	0.00	0.00	2.98
1901	0.00	1.41	1.36	0.00	0.00	0.30	0.00	0.36	0.00	0.00	0.00	0.00	3.43
1902	0.25	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	2.61	0.58	3.66
1903	0.96	0.00	1.30	0.00	0.00	0.00	0.00	0.65	0.31	0.00	4.59	7.81	..
1904	3.39	3.80	0.75	0.20	3.09	0.00	0.00	0.20	2.65	0.00	0.75	14.83	..
1905	0.00	0.27	0.07	0.00	0.00	0.00	0.05	0.00	0.07	0.21	0.05	0.79	..
1906	4.99	3.26	1.09	0.00	0.22	0.00	0.53	0.07	2.10	1.23	0.23	1.60	15.32
1907	1.63	0.23	0.04	0.00	0.60	0.38	0.50	0.04	0.00	0.33	0.17	3.45	7.37
1908	0.62	3.86	3.18	1.77	0.00	0.00	0.00	0.00	0.12	0.06	0.09	10.77	..
1909	1.01	0.05	1.39	1.97	0.00	0.33	0.00	0.00	0.11	0.16	0.00	8.11	..
1910	1.62	0.74	2.78	0.52	0.35	0.85	0.56	0.00	0.86	0.32	0.40	1.00	9.08
1911	0.27	0.23	0.00	1.82	0.00	0.00	0.19	0.29	0.09	0.00	2.61	0.00	5.00
1912	0.00	4.13	0.85	0.00	0.00	2.84	1.83	0.00	0.04	0.00	0.63	1.01	11.33
Mean for 15 years ..	1.19	1.47	0.97	0.42	0.28	0.40	0.37	0.27	0.29	0.35	0.50	0.84	7.35

DIAMANTINA LAKES—Lower Western (38).
Height above M.S.L., ... feet.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1890	7.08	0.55	0.48	1.93	1.63	3.85	0.00	0.00	1.02	1.02	0.03	2.16	19.76
1891	3.93	4.44	5.60	3.45	0.13	2.50	0.05	0.00	0.10	0.42	0.77	0.62	22.01
1892	*1.19	*0.32	*0.05	*0.00	*0.59	..	*0.00	*0.00	*0.02	*0.80	*0.53	*0.42	..
1893	0.33	0.20	3.51	0.11	1.12	0.83	0.00	1.81	0.02	0.01	0.26	0.09	8.29
1894	0.17	3.13	7.45	2.87	0.00	1.11	0.00	0.26	1.48	0.49	0.26	0.51	17.73
1895	1.07	1.56	0.39	0.02	1.89	0.27	0.86	0.00	0.37	0.31	1.66	0.00	8.40
1896	1.81	1.53	0.06	2.57	0.06	0.00	0.17	0.00	0.34	0.00	0.26	0.66	7.46
1897	1.00	0.91	0.39	0.00	0.00	1.45	0.00	0.00	0.15	0.82	0.56	1.46	6.74
1898	1.25	7.91	0.59	0.01	0.02	0.15	0.00	0.46	0.79	0.20	0.14	0.00	11.52
1899	3.92	1.96	4.78	0.41	0.00	0.00	0.00	0.20	0.00	0.00	0.69	0.00	11.96
1900	2.40	1.60	0.00	0.00	0.00	0.22	1.02	0.00	0.00	0.00	0.00	0.15	5.39
1901	0.60	0.28	2.95	0.00	0.20	0.00	0.00	1.04	0.00	0.00	0.00	0.00	5.07
1902	0.91	1.59	0.00	0.04	0.00	0.06	0.00	0.23	0.00	0.00	2.59	1.29	6.71
1903	0.50	0.15	6.70	1.10	0.35	0.00	0.35	0.00	0.75	0.45	0.00	10.20	20.55
1904	7.59	2.42	2.40	0.65	5.28	0.15	0.00	0.00	0.00	4.05	0.00	4.02	26.56
1905	0.50	0.55	0.00	0.15	0.58	0.00	0.00	0.00	0.00	0.22	0.00	0.00	2.00
1906	7.06	7.93	5.70	0.00	1.12	0.00	0.38	0.00	1.96	1.94	0.00	0.53	25.62
1907	3.80	0.00	1.24	0.00	0.00	0.16	0.93	0.00	0.00	0.00	0.00	4.35	10.48
1908	0.15	7.35	6.96	2.47	0.00	0.00	0.47	1.35	0.00	2.90	0.00	1.00	22.65
1909	0.00	0.00	4.20	0.65	0.00	0.00	0.00	2.34	0.00	0.62	0.00	0.00	7.81
1910	1.75	1.97	2.74	0.38	0.60	0.17	0.64	0.60	0.77	0.61	0.71	0.00	10.94
1911	0.51	1.31	0.00	3.19	0.00	0.00	0.43	0.22	0.07	0.00	3.80	0.95	10.48
1912	0.24	1.81	0.00	0.00	0.00	2.50	2.74	0.00	0.00	0.00	0.64	0.30	8.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

WINDORAH—Lower Western (38).
Height above M.S.L., 390 feet.†

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1887	*2.00	*4.24	*14.85	*0.03	*0.04	*0.44	*0.89	*1.52	..	*2.09	*2.61	*0.87	..
1888	..	*3.64	*0.22	*0.00	*2.74	..	*0.00	*0.00	*0.20	*0.00	*0.13	*0.00	..
1889	1.66	0.10	0.22	3.40	4.14	1.30	0.00	0.39	0.04	0.71	3.41	0.35	15.72
1890	..	*1.32	*2.37	*4.37	*2.04	*0.75	*0.00	*1.22	..	..	..	..	..
1891	5.50	2.31	3.42	6.57	1.06	1.19	0.29	0.04	0.20	0.50	0.20	0.33	21.61
1892	4.76	0.16	0.10	0.00	3.37	0.35	0.00	0.00	0.01	2.03	1.54	0.30	12.62
1893	0.75	0.02	4.13	0.12	0.34	2.31	0.00	1.89	0.73	0.10	2.64	0.24	13.07
1894	0.46	2.61	4.08	4.53	0.30	1.14	0.03	0.97	0.95	0.71	0.00	2.76	18.54
1895	2.47	3.20	0.90	0.29	1.09	0.48	0.00	0.00	0.73	1.18	0.16	1.38	11.88
1896	1.38	1.34	0.54	1.77	0.14	0.00	0.10	0.01	0.00	0.11	1.17	0.27	6.83
1897	0.89	0.23	0.16	0.00	0.00	1.57	0.03	0.00	0.83	1.66	0.00	0.58	5.95
1898	1.25	6.68	0.11	0.00	0.00	2.86	0.00	0.59	1.05	0.03	0.12	0.16	12.85
1899	1.48	3.42	1.00	0.00	0.00	0.31	0.31	0.56	0.01	0.00	0.16	0.05	7.90
1900	0.91	0.00	0.90	0.00	0.13	0.55	1.23	0.03	0.05	0.00	0.04	0.11	3.60
1901	1.02	0.18	0.60	1.53	0.68	0.42	0.49	1.29	0.15	0.04	0.36	0.03	7.15
1902	0.27	0.21	0.02	0.00	0.00	0.13	0.00	0.41	0.08	0.05	2.76	2.00	5.91
1903	3.12	0.00	1.59	0.61	2.73	0.00	0.59	0.18	0.98	0.82	0.76	7.34	18.72
1904	0.86	2.64	1.89	0.15	2.91	0.20	0.05	0.00	0.13	2.37	0.12	2.10	13.42
1905	0.26	0.26	0.07	0.88	0.39	0.00	0.32	0.16	0.01	0.03	0.47	0.56	3.99
1906	2.29	7.39	5.20	0.00	0.21	0.17	2.06	0.06	1.65	1.56	0.57	4.06	25.22
1907	0.45	0.79	0.92	0.30	0.21	0.40	0.43	0.18	0.00	0.88	0.65	4.11	9.12
1908	0.32	1.14	3.53	2.00	0.00	0.05	1.61	0.65	0.00	0.96	1.26	1.54	13.06
1909	0.50	0.91	0.76	1.23	0.03	0.69	0.00	4.91	0.00	0.20	0.11	0.05	9.39
1910	3.33	3.15	3.01	3.53	0.25	2.02	1.80	0.36	0.42	0.49	1.34	1.69	21.39
1911	0.46	0.37	0.52	0.24	0.06	0.01	0.11	0.12	0.17	0.00	4.02	0.98	7.06
1912	0.02	0.76	1.53	0.09	0.01	1.78	1.99	0.00	0.00	0.14	0.14	0.92	7.38
Mean for 23 years ..	1.50	1.65	1.58	1.18	0.78	0.78	0.50	0.55	0.36	0.62	0.96	1.38	11.84

BUNDABERG—Port Curtis (39).
Height above M.S.L., 45 feet.†

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1883	7.52	4.61	1.26	1.23	3.07	0.00	0.29	1.09	0.30	3.52	0.24	1.91	25.09
1884	3.17	5.53	5.02	1.82	4.92	1.61	2.01	0.00	0.12	1.24	10.48	2.30	38.31
1885	2.37	2.88	3.43	0.46	1.94	5.95	0.04	0.38	5.15	0.48	1.19	4.90	29.17
1886	6.80	6.08	1.01	2.71	2.11	0.82	3.81	1.81	4.01	3.00	4.93	10.84	53.93
1887	7.06	11.52	13.36	6.74	0.42	0.29	5.27	5.12	4.40	0.64	6.11	3.71	64.64
1888	1.84	19.65	0.36	1.39	0.89	1.33	0.00	0.60	0.13	1.41	1.94	5.16	34.60
1889	0.77	2.24	7.83	3.01	3.98	0.58	7.57	2.47	1.79	0.76	5.45	5.61	47.96
1890	7.97	4.68	13.98	2.63	4.47	1.88	1.90	0.45	1.81	1.23	2.50	3.72	47.22
1891	7.74	0.72	2.49	3.89	3.67	13.31	1.52	2.97	1.26	2.17	3.11	7.95	50.80
1892	7.27	0.11	12.59	3.44	4.88	2.06	0.82	1.60	0.45	6.00	1.50	13.53	55.15
1893	22.70	32.10	9.65	2.23	2.07	14.79	1.86	4.20	0.52	0.89	1.56	0.31	92.88
1894	19.92	2.71	9.48	4.03	5.05	4.34	0.00	0.37	2.01	2.27	1.62	3.48	55.28
1895	22.87	7.31	0.79	4.59	1.50	0.01	2.04	0.10	3.04	1.74	2.65	11.06	57.70
1896	6.03	25.16	1.08	0.76	2.31	1.12	0.74	1.03	0.10	0.53	4.16	2.20	45.22
1897	5.47	3.43	3.92	0.30	2.48	1.74	7.92	0.51	3.33	4.64	1.11	5.88	40.73
1898	27.54	9.41	20.44	0.39	2.04	1.98	0.16	4.13	2.76	1.81	2.70	3.44	76.80
1899	11.31	7.26	3.76	4.13	2.92	1.42	2.33	2.62	1.67	1.60	0.06	7.62	46.70
1900	4.63	0.86	1.86	1.15	3.97	1.46	5.20	1.14	1.56	3.05	1.06	1.28	27.22
1901	2.34	2.61	3.17	10.27	1.14	0.74	2.01	5.59	1.80	2.18	1.28	0.00	33.13
1902	6.33	0.76	1.99	0.43	0.02	0.00	0.07	0.13	0.31	1.24	0.65	1.38	13.80
1903	0.97	2.60	6.05	0.38	11.55	0.33	5.98	0.88	3.55	0.43	3.25	9.97	45.94
1904	3.18	0.85	4.26	5.64	1.32	0.86	0.51	0.62	0.48	3.32	0.16	5.16	26.86
1905	10.67	2.17	3.35	0.31	4.26	1.10	0.71	0.17	0.95	2.37	0.95	6.74	45.75
1906	6.92	9.92	1.90	1.17	8.44	2.01	0.03	1.86	10.90	1.57	0.97	3.85	49.54
1907	3.29	3.90	12.81	0.38	3.08	4.49	0.87	0.43	0.00	1.70	2.90	2.99	36.84
1908	4.77	4.38	5.78	4.13	0.67	0.36	0.71	1.56	1.10	2.39	0.73	3.34	29.90
1909	6.52	3.70	5.08	1.54	0.67	1.51	5.65	1.66	0.98	0.41	3.55	2.99	34.24
1910	11.81	2.43	9.20	0.31	0.19	6.17	2.10	1.16	2.33	0.70	8.21	1.58	45.19
1911	21.05	9.75	4.31	2.46	0.56	0.00	0.37	1.15	0.00	2.36	1.30	2.98	46.29
1912	3.96	2.47	6.51	0.00	1.33	10.23	1.75	0.78	0.22	4.74	3.14	1.01	36.14
Mean for 30 years ..	8.70	6.89	5.89	2.79	2.86	2.95	2.14	1.52	1.90	2.04	2.65	4.57	44.40

BANANA—Port Curtis (39).

Height above M.S.L., ... feet.

1871	4.28	2.09	1.41	0.00	2.98	0.13	0.17	0.35	1.72	4.18	3.71	1.33	22.85
1872	6.24	3.33	2.24	0.63	0.90	1.46	0.68	1.61	0.48	0.91	4.20	7.49	30.63
1873	5.70	5.26	1.85	0.84	0.00	7.54	0.45	2.35	1.11	0.00	2.44	6.10	36.92
1874	8.72	1.87	2.28	0.53	3.08	2.63	3.48	0.41	2.54	2.51	1.24	2.13	26.92
1875	4.08	9.12	2.33	2.60	4.68	1.67	0.65	0.45	0.22	3.58	1.27	0.59	31.24
1876	6.68	2.84	2.68	1.85	5.27	2.03	0.24	0.00	0.51	1.28	1.18	2.87	27.43
1877	4.74	0.00	0.79	0.62	0.95	0.44	0.17	0.11	0.14	4.38	4.04	4.40	20.78
1878	2.67	6.71	1.96	0.00	5.62	1.73	1.37	0.00	2.89	2.05	0.54	4.19	29.73
1879	2.57	2.05	3.36	3.37	3.22	2.66	5.60	4.02	3.59	1.81	3.36	3.58	39.19
1880	3.22	7.47	2.01	4.38	0.10	0.00	1.69	0.00	3.51	4.20	3.45	5.22	35.25
1881	2.54	3.64	3.07	0.37	0.92	0.05	0.00	0.30	3.07	1.80	2.70	2.35	20.31
1882	1.30	3.98	2.78	1.26	0.57	4.86	2.60	0.48	1.31	6.33	1.12	2.34	28.93
1883	3.60	3.11	5.57	0.19	3.25	0.00	0.20	0.43	0.00	2.25	0.87	0.78	20.25
1884	2.09	3.33	1.94	0.27	0.29	1.72	0.45	0.38	1.25	0.95	7.82	6.31	25.80
1885	3.64	4.01	5.14	0.20	0.27	0.85	0.00	0.05	1.20	1.15	0.57	1.50	18.58
1886	2.23	1.23	0.40	1.47	0.74	6.91	3.32	3.31	1.87	0.92	3.93	6.06	33.09
1887	3.96	3.27	6.21	3.20	0.57	0.32	2.58	2.26	1.04	0.71	0.82	3.40	28.34
1888	2.20	8.67	0.25	0.00	0.44	0.00	0.00	0.55	0.06	0.52	0.33	3.50	16.42
1889	2.23	2.16	3.61	6.02	1.70	0.70	4.41	0.25	1.42	1.86	0.66	6.15	37.46
1890	5.57	4.03	12.62	0.34	1.38	1.85	2.40	2.17	2.90	1.68	1.10	4.01	40.11
1891	6.56	1.81	1.59	0.20	2.61	4.75	1.90	2.49	0.21	4.47	1.81	5.01	38.41
1892	4.49	1.24	2.71	3.36	2.72	0.84	1.40	0.08	2.52	5.09	2.17	4.12	30.74
1893	5.10	7.51	5.04	3.80	0.64	7.70	2.47	2.98	0.03	1.28	2.78	1.30	40.63
1894	6.60	3.50	5.72	2.05	2.69	1.94	0.00	0.75	3.82	4.59	6.67	4.86	48.18
1895	8.78	2.41	0.00	2.21	1.09	0.00	1.72	0.03	0.71	1.72	1.66	5.38	25.71
1896	6.14	10.48	0.56	0.72	0.66	0.57	1.67	0.73	0.03	0.46	1.71	1.05	24.78
1897	3.43	2.51	3.95	0.00	0.47	1.48	1.26	1.34	5.40	4.56	1.46	3.85	29.71
1898	10.56	4.79	2.90	0.03	0.49	1.83	0.60	1.86	2.82	0.82	1.15	1.91	28.76
1899	6.23	1.92	1.62	1.16	3.23	0.33	1.67	2.91	1.57	0.99	3.05	5.18	29.81
1900	1.23	0.07	2.58	0.56	1.47	1.77	4.41	1.53	1.19	0.57	0.67	0.66	16.61
1901	0.45	2.15	6.24	0.91	1.51	0.75	1.89	2.63	1.76	1.50	0.50	0.67	20.96
1902	1.90	1.16	1.32										

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
GAYNDAH—Port Curtis (39).													
Height above M.S.L., 342 feet.†													
1870	3.85	2.34	1.60	0.02	1.02	0.51	1.53	0.45	0.92	3.69	3.87	1.90	21.75
1871	4.23	4.51	2.42	0.30	0.30	1.95	0.89	0.82	0.72	1.40	6.13	4.02	27.73
1872	4.32	5.95	5.48	0.42	0.10	6.22	0.07	0.06	0.23	1.87	3.75	6.16	34.57
1873	5.05	0.90	3.53	2.14	1.17	2.03	4.91	0.16	1.66	0.99	1.70	1.45	25.89
1874	3.05	16.19	1.21	1.92	5.22	1.81	2.93	0.25	1.17	3.27	3.73	5.41	46.18
1875	4.77	5.29	1.50	1.24	6.09	2.80	2.80	0.25	1.17	3.27	3.73	2.72	33.82
1876	5.87	0.00	0.00	0.56	2.20	0.98	0.21	0.52	0.68	2.95	2.78	1.80	19.60
1877	4.13	6.10	1.18	0.05	2.79	1.90	0.33	0.92	3.16	1.61	3.94	5.91	32.08
1878	2.56	1.52	6.13	1.30	2.04	0.18	0.69	9.59	3.20	3.74	4.47	4.85	40.18
1879	1.15	7.77	1.50	5.01	0.38	0.00	0.57	0.00	1.25	6.50	1.07	5.09	37.82
1880	4.46	1.83	1.36	0.32	0.32	0.00	0.25	0.08	5.55	1.15	2.00	2.35	19.67
1881	0.50	2.35	1.35	0.90	0.10	8.00	0.00	0.00	0.25	0.00	0.00	0.55	13.80
1882	4.50	3.25	3.50	0.00	0.75	0.00	1.25	1.56	1.00	1.14	3.14	3.91	24.23
1883	1.25	7.96	1.50	0.35	0.00	0.00	0.00	0.00	1.25	2.15	1.09	4.12	18.14
1884	0.88	3.82	1.52	0.00	0.37	1.72	1.25	1.56	1.00	1.14	3.14	3.91	24.23
1885	1.51	1.80	1.73	0.92	1.92	4.59	3.31	4.23	3.06	2.72	3.28	2.44	31.56
1886	6.61	10.88	8.06	2.12	0.29	0.13	2.65	1.27	1.44	2.84	1.58	5.80	44.57
1887	3.70	11.86	0.00	0.11	0.56	0.00	0.00	1.13	0.25	0.76	3.22	6.23	27.92
1888	0.47	1.27	2.26	3.96	5.12	0.39	6.68	1.51	1.05	1.23	5.05	4.29	33.28
1889	14.22	4.80	8.51	1.01	1.96	1.70	0.41	1.44	3.52	0.46	3.18	3.91	24.23
1890	7.77	0.14	0.73	1.90	1.60	2.00	1.49	2.44	1.21	3.31	1.58	6.73	30.95
1891	3.13	0.52	7.03	2.17	1.25	1.63	2.99	0.29	0.12	7.27	3.28	6.48	35.26
1892	5.77	20.56	4.38	4.19	1.90	6.62	3.66	3.06	1.13	0.83	5.14	0.58	57.82
1893	7.38	0.10	3.53	3.75	3.71	2.92	0.00	0.00	4.07	2.35	3.23	2.59	34.43
1894	12.86	0.16	1.34	2.31	0.32	0.00	1.14	0.00	1.25	0.64	2.08	4.16	27.26
1895	4.51	6.41	1.11	0.12	0.54	0.03	1.31	0.44	0.13	0.00	2.56	2.83	19.99
1896	2.39	4.33	3.96	0.00	0.00	1.97	2.38	1.19	2.38	4.31	0.56	8.06	31.43
1897	9.02	3.90	10.34	0.16	1.76	1.72	0.29	1.25	3.18	1.25	1.67	1.43	35.97
1898	7.44	1.45	1.01	1.45	1.26	1.30	0.86	3.34	1.24	2.71	4.59	7.37	34.02
1899	2.52	2.07	1.11	1.22	2.57	0.88	3.36	1.42	3.28	3.21	1.84	0.08	23.56
1900	1.22	2.10	4.22	3.97	0.97	2.32	2.29	1.49	1.91	2.39	0.04	0.38	23.30
1901	2.54	0.50	0.99	0.81	0.29	0.00	0.00	0.05	0.64	2.10	2.08	3.37	13.38
1902	0.77	2.08	2.30	0.06	6.33	0.21	2.81	1.06	2.62	4.37	3.03	5.12	30.79
1903	7.01	3.83	2.97	1.63	1.23	0.93	0.99	0.41	0.27	2.49	0.67	2.36	22.79
1904	11.34	0.82	1.61	4.06	1.07	0.42	0.54	0.25	0.30	2.38	1.93	5.58	30.30
1905	2.81	9.65	8.06	0.51	5.10	0.48	0.22	2.34	5.14	2.25	4.25	2.82	41.43
1906	3.00	1.91	6.89	0.00	2.65	3.00	1.21	0.53	0.40	0.34	4.65	6.84	31.42
1907	1.22	9.13	11.32	0.66	0.34	0.65	0.80	2.43	0.95	1.58	2.00	0.71	31.79
1908	8.13	2.69	1.16	1.66	0.33	3.19	3.46	2.73	0.20	2.13	3.45	3.19	32.32
1909	5.49	2.55	4.91	0.13	0.00	5.70	0.64	0.02	2.83	2.32	4.48	3.75	32.82
1910	9.93	5.20	1.77	1.31	0.65	0.10	0.75	1.26	0.67	3.77	0.30	3.53	29.14
1911	2.34	1.82	5.24	0.16	0.69	4.75	1.95	0.68	0.30	2.84	2.03	5.06	27.86
1912	2.34	1.82	5.24	0.16	0.69	4.75	1.95	0.68	0.30	2.84	2.03	5.06	27.86
Mean for 42 years ..	4.66	4.29	3.33	1.31	1.65	1.84	1.55	1.31	1.53	2.46	2.84	3.84	30.61

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
HAWKWOOD—Port Curtis (39).													
Height above M.S.L., ... feet.													
1885	1.20	4.30	0.66	0.66	0.57	1.84	0.21	0.26	1.43	1.06	0.95	2.67	15.81
1886	1.18	0.42	0.83	1.12	3.24	5.61	4.00	2.89	2.93	1.17	2.06	2.50	28.00
1887	3.53	5.56	14.46	1.33	0.56	0.09	2.88	3.09	1.77	0.76	0.30	2.33	36.71
1888	2.88	8.41	0.59	0.44	0.10	0.00	0.00	1.64	0.55	0.44	4.78	3.45	23.23
1889	1.16	1.79	5.14	3.37	5.26	1.00	5.36	0.92	2.99	0.53	1.98	2.96	32.46
1890	12.16	5.33	5.56	0.91	2.27	1.71	1.75	0.45	2.02	1.33	0.48	4.96	33.93
1891	6.18	0.06	0.92	3.85	2.62	4.99	1.77	1.92	0.65	1.62	3.30	7.58	35.46
1892	1.85	0.37	9.00	3.28	3.56	1.79	1.88	0.27	1.25	5.03	4.39	5.57	38.74
1893	5.55	20.20	2.98	1.58	1.56	6.56	1.99	2.50	0.45	0.46	2.53	1.38	49.74
1894	6.40	2.20	3.89	2.43	1.45	2.15	0.00	1.08	2.21	4.63	1.44	2.55	20.43
1895	13.46	1.43	0.06	2.95	1.14	0.00	0.73	0.10	0.15	1.88	4.05	2.52	28.47
1896	5.48	5.71	1.15	0.41	0.50	0.12	3.44	0.43	0.35	0.39	3.73	6.93	28.64
1897	2.82	0.67	4.36	0.00	0.68	1.68	3.34	0.92	2.90	5.27	0.43	5.71	28.78
1898	8.90	3.06	4.16	0.31	1.54	1.79	0.18	0.44	4.48	1.08	2.63	1.91	30.48
1899	5.75	1.09	2.30	2.00	1.47	0.63	0.76	2.59	1.33	0.79	3.80	2.18	24.69
1900	1.73	3.41	2.84	2.18	3.45	1.22	2.73	2.00	3.82	0.58	1.92	4.02	29.00
1901	2.05	0.77	4.37	3.63	1.41	2.26	2.36	2.41	1.71	1.38	0.82	0.45	23.62
1902	0.19	0.73	0.18	1.77	0.03	0.00	0.00	0.00	0.00	0.89	0.99	4.79	12.39
1903	2.53	1.65	1.95	0.59	8.27	0.09	3.70	1.06	2.31	3.98	2.79	1.89	30.81
1904	5.45	3.46	2.34	1.58	3.13	0.69	0.80	0.63	0.66	1.70	3.47	2.93	26.84
1905	7.46	0.66	3.35	1.38	3.49	0.84	0.47	0.38	0.26	1.74	3.41	4.85	25.29
1906	3.30	8.50	5.52	0.05	1.58	0.99	0.50	3.19	4.48	0.84	1.28	4.78	35.01
1907	5.59	1.41	3.33	0.49	2.32	3.20	0.88	0.07	0.56	1.37	5.95	4.60	29.79
1908	1.87	4.44	5.23	1.25	0.09	0.56	0.53	1.79	1.98	0.40	5.01	2.65	24.98
1909	4.92	4.66	2.20	1.55	1.11	2.33	3.83	3.85	0.39	1.92	3.16	4.54	33.46
1910	6.19	1.32	2.89	0.00	0.16	5.25	2.13	1.89	0.69	2.44	4.73	5.48	30.50
1911	8.33	3.21	1.43	0.79	0.34	0.00	0.51	1.21	0.35	2.35	0.66	2.89	22.07
1912	1.32	0.59	3.35	0.07	0.36	6.53	2.37	0.77	0.23	2.64	1.12	1.37	20.72
Mean for 28 years ..	4.58	3.43	3.40	1.43	1.86	1.93	1.68	1.36	1.57	1.78	2.64	3.56	29.22

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
GLADSTONE—Port Curtis (39).													
Height above M.S.L., 13 feet. †													
1872	12.62	5.95	3.37	0.00	1.88	0.68	0.89	0.15	0.33	0.83	13.57	3.89	44.16
1873	3.65	8.46	4.97	0.98	0.02	8.76	0.17	1.57	1.08	0.16	3.56	7.51	40.89
1874	5.63	1.64	4.56	1.50	0.90	2.83	8.59	0.58	2.12	0.68	0.00	2.08	30.70
1875	3.46	21.22	5.16	6.73	2.62	0.18	1.48	0.00	1.10	1.08	0.81	1.80	45.14
1876	9.04	3.72	6.24	2.05	4.02	4.16	1.48	0.50	0.80	0.75	1.56	2.90	34.32
1877	13.51	1.08											

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

† SANDY CAPE—Port Curtis (30).
Height above M.S.L., 330 feet †

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1871	18.05	6.80	3.63	1.85	3.79	2.41	1.89	0.61	2.00	5.16	2.85	0.84	49.38
1872	12.56	8.38	4.50	2.67	4.44	2.27	0.85	2.08	0.68	2.21	10.93	4.44	56.01
1873	3.24	4.54	12.63	4.33	0.69	14.94	0.71	4.10	1.93	0.80	0.30	5.60	53.31
1874	14.77	1.44	9.36	9.56	1.16	4.26	7.29	0.66	6.39	0.77	1.92	5.88	63.46
1875	2.35	12.73	15.71	4.70	8.44	5.79	4.57	1.20	1.94	1.36	1.85	1.33	62.47
1876	2.84	7.01	2.70	6.20	9.72	3.20	4.20	3.10	2.37	1.31	3.28	5.58	51.51
1877	8.14	3.23	2.69	4.60	2.29	4.05	4.34	0.57	0.19	2.11	1.98	1.04	35.23
1878	3.45	5.50	4.05	2.67	4.20	3.02	0.73	0.04	2.69	1.63	2.54	11.44	41.96
1879	7.86	5.80	3.88	5.03	5.21	5.65	3.15	8.65	4.80	1.34	0.53	4.20	56.10
1880	5.41	8.12	4.26	9.04	3.64	1.80	6.06	0.11	6.31	1.16	2.09	9.47	57.47
1885	1.92	0.65	4.32	4.66	7.22	7.43	0.95	0.72	1.90	1.34	0.19	5.05	36.35
1887	..	..	..	..	..	0.75	4.65	4.51	4.19	0.27	5.53	1.37	..
1888	2.22	31.92	3.01	5.15	2.60	3.14	0.81	1.07	1.64	0.73	1.00	5.18	58.47
1889	2.94	0.72	16.76	7.94	3.46	0.47	10.21	5.23	4.04	0.94	2.66	8.26	63.63
1890	7.45	6.67	12.80	8.18	5.23	3.86	3.64	2.28	1.34	1.89	5.66	2.53	61.53
1891	6.61	1.68	3.92	4.58	2.85	2.62	1.78	2.68	2.26	1.90	1.38	4.50	36.76
1892	1.99	0.67	17.49	2.39	11.86	2.29	1.52	1.59	2.76	2.32	2.73	6.98	54.59
1893	12.02	25.35	11.87	3.59	1.38	9.18	2.87	4.74	0.84	0.63	2.39	1.38	76.24
1894	14.65	2.35	10.51	2.95	3.60	5.26	0.24	1.49	3.60	5.20	1.15	2.39	53.39
1895	14.60	2.68	3.41	6.75	4.10	2.02	5.76	2.43	2.36	0.36	1.31	7.03	52.81
1896	4.14	10.62	1.50	3.04	4.45	2.30	2.74	4.04	0.76	0.27	2.76	0.84	37.46
1897	2.29	4.84	4.15	0.24	2.16	6.15	2.82	1.85	5.04	2.66	0.31	9.39	42.40
1898	8.52	8.54	22.32	1.45	3.64	3.24	2.04	4.87	3.68	1.38	2.49	2.60	64.77
1899	14.29	8.04	5.55	11.25	7.61	8.02	6.01	3.91	3.33	1.14	0.21	2.80	72.16
1900	10.36	1.06	6.47	1.98	8.74	3.34	5.08	1.66	0.63	2.81	0.84	1.98	44.95
1901	2.28	6.50	6.90	4.28	6.17	2.98	5.62	5.86	0.43	1.45	0.72	2.24	45.43
1902	2.65	0.90	1.58	2.03	2.71	1.70	0.44	1.57	0.49	1.09	0.67	2.10	17.93
1903	0.10	3.96	7.06	1.54	5.75	0.99	6.04	3.23	3.37	1.40	11.11	4.92	49.52
1904	1.64	1.14	4.28	13.35	3.88	2.31	1.31	0.51	0.65	2.57	0.34	2.16	34.14
1905	11.57	0.97	0.71	9.95	8.11	1.35	0.81	0.57	3.02	2.70	1.86	6.57	48.19
1906	2.99	5.08	2.74	1.43	5.76	4.82	0.55	2.20	10.03	1.06	1.24	4.78	44.90
1907	2.69	4.78	8.03	3.35	8.11	13.30	2.48	0.84	0.95	1.26	7.57	4.08	57.24
1908	7.09	10.22	6.52	4.06	4.88	0.97	2.31	1.79	1.81	1.20	6.26	0.86	47.97
1909	6.86	5.71	1.06	1.92	1.09	2.77	4.97	6.63	2.57	0.56	1.48	2.13	35.75
1910	13.49	3.50	12.63	3.35	1.20	9.23	2.15	1.10	1.73	2.12	5.23	2.80	56.53
1911	8.30	9.62	11.90	3.77	0.67	1.63	1.39	2.09	0.19	3.82	0.67	0.26	44.31
1912	3.79	1.68	5.59	1.63	10.34	8.12	4.08	2.97	0.12	2.06	3.39	0.97	44.74
Mean for 36 years ..	6.84	6.20	7.12	4.54	4.75	4.36	3.12	2.42	2.47	1.78	2.60	4.05	50.25

‡ WESTWOOD—Port Curtis (39).
Height above M.S.L., 501 feet.‡

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1870	..	..	11.12	5.00	3.07	5.00	3.50	9.41	2.93	1.10	3.96	7.44	3.99
1871	4.03	8.03	1.20	0.78	1.21	0.00	0.00	0.23	2.23	6.63	1.72	0.86	26.97
1872	7.82	5.67	3.16	0.75	1.66	2.04	0.60	0.27	0.20	0.63	9.93	7.85	42.47
1873	8.32	4.05	1.90	0.25	0.08	9.88	0.45	2.41	0.27	0.00	3.37	7.62	38.60
1874	9.97	1.83	2.59	1.48	1.36	3.39	6.23	0.22	3.48	1.93	0.97	2.68	36.13
1875	2.13	18.57	2.93	7.21	1.74	1.63	4.63	0.52	0.53	1.55	1.03	2.95	44.99
1876	2.60	6.18	2.71	2.17	4.78	3.30	0.00	0.00	0.63	3.75	2.92	2.43	31.56
1877	6.12	0.00	1.75	0.33	4.76	0.00	0.13	0.00	0.13	4.49	1.79	3.18	14.62
1878	6.26	7.90	2.33	0.18	4.62	4.70	0.11	0.52	2.72	3.81	2.79	5.90	41.70
1879	1.80	3.83	3.53	2.70	1.92	1.91	2.90	5.22	2.40	2.35	0.74	1.82	30.62
1883	0.50	2.29	5.76	0.13	2.90	0.00	0.09	0.47	0.02	0.78	1.12	3.44	17.10
1884	1.61	3.85	2.39	0.35	1.90	2.43	0.23	0.28	0.58	0.61	2.88	4.20	21.40
1886	2.73	3.28	0.31	2.31	1.00	8.31	3.60	2.41	2.87	1.06	3.48	4.43	36.39
1887	3.45	6.21	8.37	3.04	0.59	1.37	2.22	1.68	1.80	0.60	1.57	7.20	37.90
1888	0.30	11.63	0.84	0.06	0.07	0.07	0.03	0.23	0.15	1.42	1.53	0.22	16.49
1889	1.81	2.65	3.59	4.06	0.87	1.11	3.75	1.03	1.58	1.35	3.63	3.45	29.48
1890	12.73	7.51	12.14	1.20	5.09	2.85	2.44	0.32	3.56	1.57	1.88	5.32	56.61
1891	7.00	1.89	1.73	1.05	2.79	3.82	1.09	1.17	0.53	3.50	0.56	2.26	27.68
1892	2.71	2.00	0.92	3.24	2.82	0.30	1.52	0.09	2.01	5.11	1.52	6.79	29.03
1893	6.59	15.63	4.15	4.86	1.18	7.20	2.32	4.52	1.77	0.52	2.14	1.94	52.82
1894	11.85	2.17	4.97	3.39	1.71	2.93	0.00	1.81	2.77	2.02	1.64	9.09	44.35
1895	5.35	1.43	0.08	0.58	0.41	0.09	2.38	0.00	1.17	1.00	0.35	5.64	18.48
1896	13.66	12.09	0.51	1.14	0.22	1.81	1.05	1.24	0.01	0.10	2.22	1.60	35.65
1897	5.64	2.06	1.36	0.00	0.37	1.50	2.06	1.30	2.26	3.14	0.46	6.39	26.54
1898	7.31	13.18	4.35	0.29	1.44	0.94	0.28	0.33	2.76	0.64	0.70	1.43	33.59
1899	14.33	3.51	2.70	2.79	3.68	0.32	1.77	5.11	1.55	0.96	3.92	6.71	46.75
1900	1.46	0.47	0.93	1.53	0.26	0.00	0.80	0.75	0.71	0.78	0.37	1.62	9.68
1901	0.09	3.57	1.13	2.24	0.98	0.61	1.75	1.95	1.50	3.99	0.02	0.62	18.48
1902	2.57	1.78	0.87	0.62	0.00	0.00	0.01	0.05	0.04	0.03	0.05	3.80	9.82
1903	2.30	0.85	0.66	3.64	3.27	0.10	2.87	0.80	0.49	0.03	6.72	6.26	27.79
1904	10.49	2.28	4.58	4.99	0.44	0.75	0.00	0.00	0.09	2.59	1.75	1.27	29.23
1905	12.88	1.44	1.38	6.35	2.51	0.91	0.07	0.17	1.33	1.28	2.03	1.68	32.03
1906	4.84	5.02	4.56	1.84	3.72	0.27	0.00	1.58	4.01	0.37	0.72	2.06	28.99
1907	1.84	3.47	6.29	0.00	0.19	3.41	1.05	0.15	0.01	0.99	3.96	4.89	26.34
1908	2.17	9.24	5.69	2.54	0.80	0.62	0.34	0.65	0.49	1.95	2.47	0.70	27.66
1909	4.83	1.19	1.65	1.49	0.00	1.79	1.77	2.26	0.64	0.62	4.39	5.25	25.88
1910	7.10	0.00	10.00	0.26	0.63	3.39	1.60	0.00	3.32	1.01	6.17	4.02	37.50
1911	5.39	8.92	2.26	0.52	0.46	0.00	1.31	1.22	0.09	2.75	0.00	5.42	27.34
1912	0.16	1.42	3.68	1.12	2.24	10.13	2.81	0.18	0.00	3.25	1.88	1.38	28.25
Mean for 38 years ..	5.32	4.93	3.16	1.87	1.60	2.21	1.40	1.11	1.33	1.71	2.26	3.81	30.71

† No monthly totals available for 1881, 1882, 1883, 1884, and 1886.
‡ 1880, 1881, 1882, and 1885 no record.

BRISBANE—Cape Moreton (40).
Height above M.S.L., 137 feet.†
(See Appendix II, page 275.)

CAPE MORETON—Moreton (40).
Height above M.S.L., 360 feet.‡

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1869	..	..	..	..	..	..	..	..	..	..	..	..	..
1870	5.97	6.79	27.57	4.49	11.61	3.91	8.20	3.70	2.01	2.83	6.07	4.17	87.83
1871	5.47	8.30	8.62	8.64	1.26	3.97	1.55	1.26	1.84	5.75	5.04	14.00	60.70
1872	16.08	4.57	13.42	2.18	1.47	3.12	6.40	3.24	1.60	2.02	6.86	14.27	75.23
1873	5.34	4.16	11.23	4.21	3.87	13.23	4.96	7.65	1.13	1.68	8.00	7.48	73.14
1874	9.30	1.67	3.62	12.04	2.72	4.57	7.90	0.59	1.13	5.80	2.41	4.74	56.49
1875	3.82	16.23	11.54	4.79	11.81	2.43	6.17	1.54	4.83	3.88	1.56	2.27	70.87
1876	4.30	10.82	1.89	12.54	18.32	8.04	4.37	2.60	3.63	3.09	2.59	4.46	76.55
1877	6.71	1.59	4.01	5.80	2.75	7.07	11.27	2.08	2.78	3.50	3.85	1.58	53.89
1878	8.90	8.73	5.93	3.58	10.83	1.36	0.16						

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for DOUBLE ISLAND POINT—Moreton (40). Height above M.S.L., 304 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1891-1912, Mean for 21 years.

Table for ESK—Moreton (40). Height above M.S.L., 366 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1886-1912, Mean for 26 years.

Table for GYMPIE—Moreton (40). Height above M.S.L., 309 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1870-1904, Mean for 35 years.

Table for GYMPIE—Moreton (40)—continued. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1905-1912, Mean for 43 years.

Table for IPSWICH—Moreton (40). Height above M.S.L., 64 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1870-1912, Mean for 43 years.

Table for KILKIVAN—Moreton (40). Height above M.S.L., 461 feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1879-1912, Mean for 31 years.

Continued in next column.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Laidley—Moreton (40). Height above M.S.L., 335 feet. Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Data rows from 1889 to 1912, plus a mean for 22 years.

Maryborough—Moreton (40). Height above M.S.L., 27 feet. Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Data rows from 1870 to 1912, plus a mean for 42 years.

Mundoolun—Moreton (40). Height above M.S.L., ... feet. Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Data rows from 1881 to 1893, plus a mean for 42 years.

Continued in next column.

Mundoolun—Moreton (40)—continued. Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Data rows from 1894 to 1912, plus a mean for 32 years.

Nanango—Moreton (40). Height above M.S.L., 1,182 feet. Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Data rows from 1882 to 1912, plus a mean for 31 years.

Southport—Moreton (40). Height above M.S.L., 16 feet. Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Data rows from 1881 to 1912, plus a mean for 32 years.

† Record approximate only; gauge tampered with.

* Not used in determining these means

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
ALLORA—East Darling Downs (41).													
Height above M.S.L., ... feet.													
1883 ..	11·67	4·95	0·50	1·50	1·57	0·07	0·70	0·54	2·32	3·35	0·36	1·78	29·31
1884 ..	0·68	0·60	0·22	1·70	1·98	2·67	2·59	1·07	1·66	2·79	3·85	0·87	20·68
1885 ..	1·37	3·39	2·50	1·11	0·65	2·26	0·31	0·09	1·47	0·25	2·57	3·92	19·89
1886 ..	2·77	1·78	3·23	2·35	4·08	2·86	2·23	3·68	3·48	4·00	4·65	0·64	35·75
1887 ..	9·56	4·17	2·53	0·62	0·30	1·94	4·25	3·34	1·35	0·97	3·89	8·09	35·00
1888 ..	2·87	3·36	0·15	0·00	0·16	0·00	0·00	0·92	1·16	0·47	1·17	5·89	16·15
1889 ..	1·23	1·85	2·05	4·24	5·31	1·27	3·50	1·54	1·76	0·34	2·59	4·66	30·14
1890 ..	6·58	1·69	8·85	2·84	4·83	3·19	0·73	0·05	1·15	0·17	0·17	3·20	34·65
1891 ..	18·02	0·95	3·15	5·04	3·26	1·93	0·48	1·25	0·00	0·37	0·24	0·16	34·65
1892 ..	4·14	2·65	5·20	4·81	2·31	2·41	2·35	1·88	4·64	7·23	4·13	3·62	45·37
1893 ..	2·92	14·75	1·60	2·53	0·57	6·82	2·46	1·36	1·00	1·68	2·04	1·56	40·19
1894 ..	6·23	2·21	1·81	1·33	1·00	1·88	0·18	1·26	2·73	3·38	3·78	3·40	29·19
1895 ..	5·17	1·23	1·58	1·76	0·44	0·00	0·95	0·74	1·50	1·91	5·49	6·00	26·77
1896 ..	1·99	3·90	3·17	1·31	0·77	1·01	3·38	0·53	1·37	1·12	4·53	4·50	25·78
1897 ..	3·30	0·90	3·19	0·00	0·18	1·30	3·37	2·38	3·23	4·09	0·33	7·05	29·32
1898 ..	5·72	1·06	0·52	0·02	1·07	1·45	0·24	1·90	3·19	2·65	0·87	2·66	21·35
1899 ..	4·61	2·35	0·41	4·45	0·96	1·86	2·22	1·16	2·79	2·25	1·36	3·36	27·78
1900 ..	2·04	4·55	2·21	0·80	3·62	1·02	2·00	1·45	1·93	0·11	2·74	2·35	24·82
1901 ..	1·80	0·27	6·18	3·77	0·82	3·13	1·01	3·82	1·71	3·68	1·79	1·72	29·70
1902 ..	2·47	0·65	6·43	0·16	0·15	0·37	0·07	1·38	0·56	1·96	2·10	1·47	14·17
1903 ..	0·47	1·58	2·27	1·10	7·34	0·09	4·76	2·52	4·19	2·80	2·89	1·49	31·50
1904 ..	2·45	2·76	4·86	2·51	2·79	0·14	2·04	0·27	2·99	1·61	1·59	1·68	25·69
1905 ..	1·94	2·03	5·38	2·25	2·63	1·01	0·50	0·90	0·99	3·08	1·77	4·03	26·51
1906 ..	2·43	3·86	4·64	0·09	0·35	0·76	0·81	2·78	2·80	3·03	2·34	6·05	29·85
1907 ..	3·68	3·75	4·19	0·51	2·14	1·64	1·15	1·22	0·00	0·90	4·95	2·53	26·66
1908 ..	0·45	5·15	7·09	1·25	0·12	0·69	0·83	2·30	2·43	3·33	3·78	1·65	28·07
1909 ..	0·77	1·44	0·62	2·52	0·87	1·39	1·58	1·40	1·89	2·37	1·61	4·10	20·56
1910 ..	5·73	2·31	2·29	0·58	0·33	3·51	1·49	0·38	1·84	2·74	3·21	3·41	27·82
1911 ..	6·17	1·58	3·13	0·62	1·21	0·04	0·98	0·98	0·83	2·79	2·46	0·27	21·06
1912 ..	2·12	3·17	4·83	0·11	0·00	5·09	2·22	1·29	1·56	3·22	1·88	4·54	30·03
Mean for 30 years ..	4·03	2·82	2·90	1·76	1·72	1·73	1·65	1·47	1·95	2·29	2·53	3·09	27·94

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
DALBY—East Darling Downs (41).													
Height above M.S.L., 1,173 feet.													
1870 ..	2·40	1·28	3·79	1·01	2·93	2·21	1·60	2·57	0·51	4·68	6·18	1·88	31·04
1871 ..	2·92	1·77	0·99	0·31	0·91	0·68	1·47	0·90	1·24	3·27	2·64	0·72	17·82
1872 ..	3·05	4·16	1·73	0·05	0·21	1·78	1·37	0·74	2·69	1·44	6·15	0·99	32·56
1873 ..	5·72	0·56	4·35	0·35	0·00	6·18	0·00	3·03	0·70	0·60	5·82	3·00	30·25
1874 ..	1·62	0·70	6·60	0·65	0·80	2·24	5·90	0·00	1·00	0·20	4·30	3·28	21·38
1875 ..	3·40	3·58	2·16	0·50	3·35	0·65	3·35	0·10	1·72	1·70	1·45	3·52	25·48
1876 ..	1·90	3·05	1·70	1·45	2·10	1·43	5·68	0·14	0·72	0·79	3·34	2·24	24·24
1877 ..	0·25	1·97	1·08	1·42	0·77	0·04	0·20	1·59	1·99	0·36	0·18	0·70	10·55
1878 ..	0·56	8·26	0·53	0·00	0·57	0·36	1·07	0·43	3·83	2·11	0·25	3·00	20·97
1879 ..	2·45	3·26	4·59	2·77	3·61	3·45	2·86	6·76	5·81	4·48	4·36	9·62	50·02
1880 ..	0·16	0·55	1·81	2·13	0·91	0·00	0·02	0·00	2·63	2·69	2·44	1·78	19·62
1881 ..	5·83	1·89	0·95	0·05	0·33	0·21	0·00	0·32	3·28	1·37	2·23	2·05	18·41
1882 ..	4·04	4·90	0·00	2·59	0·49	2·00	1·55	0·22	0·74	5·66	0·63	4·44	27·50
1883 ..	2·64	3·09	1·93	0·72	1·52	0·17	0·60	0·95	0·12	2·01	1·72	1·79	17·26
1884 ..	0·73	3·21	0·75	0·40	0·84	1·30	4·28	0·00	1·29	1·94	2·78	0·91	18·43
1885 ..	2·22	6·48	1·69	0·03	0·80	2·16	0·02	0·30	0·75	1·96	0·62	2·63	19·66
1886 ..	3·89	1·60	1·51	1·38	2·24	3·92	2·72	4·25	2·55	2·29	2·02	1·34	29·71
1887 ..	2·29	2·43	4·72	1·71	0·26	0·38	3·66	3·25	2·75	1·50	1·34	2·94	27·23
1888 ..	0·95	8·34	2·20	0·00	0·01	0·10	0·29	0·38	0·83	0·26	6·27	5·23	21·26
1889 ..	0·72	0·45	3·51	3·26	3·39	1·53	6·47	2·23	4·10	0·67	3·08	2·62	32·03
1890 ..	8·74	4·72	13·47	1·76	1·59	1·09	0·43	0·60	2·42	3·20	0·42	3·38	41·82
1891 ..	6·37	1·46	0·54	1·94	2·36	2·53	2·65	2·68	3·35	0·92	2·19	7·01	34·00
1892 ..	1·73	0·20	5·69	3·26	1·78	0·57	1·72	0·64	2·84	2·18	3·34	4·55	28·50
1893 ..	4·82	14·31	1·36	4·17	2·37	6·43	1·30	1·99	1·31	2·10	2·20	0·50	42·86
1894 ..	2·71	0·93	6·19	1·48	0·78	0·74	0·00	0·62	3·14	4·60	4·09	2·26	27·54
1895 ..	8·67	0·00	0·26	2·12	0·86	0·03	1·25	0·40	1·29	1·25	3·06	7·49	26·68
1896 ..	2·40	4·98	1·00	1·83	0·70	0·50	4·33	0·32	0·63	1·52	4·27	2·03	24·60
1897 ..	1·67	0·92	3·98	0·00	0·00	2·43	4·54	0·90	2·40	6·64	0·19	9·90	33·57
1898 ..	5·95	0·65	1·27	0·01	0·95	0·60	0·30	0·63	2·84	1·72	1·25	2·06	18·23
1899 ..	6·72	1·94	0·57	2·79	1·20	1·33	1·67	1·09	1·20	1·44	1·84	2·89	24·68
1900 ..	0·41	6·31	2·80	2·46	2·54	1·29	1·78	1·34	1·67	0·00	1·77	3·37	25·74
1901 ..	2·89	0·44	4·77	3·12	1·12	3·59	2·83	2·81	1·11	4·09	0·15	0·42	27·34
1902 ..	1·65	0·20	0·30	2·00	0·00	0·15	0·00	0·41	0·70	3·12	2·79	3·19	14·53
1903 ..	1·28	1·22	4·89	1·33	6·00	0·03	3·78	2·30	3·30	3·12	6·30	1·19	34·74
1904 ..	1·88	3·20	4·74	0·40	4·69	0·27	2·63	0·24	3·01	1·07	2·59	2·15	26·87
1905 ..	3·40	0·74	5·46	3·09	2·19	0·25	1·15	0·66	0·14	2·27	1·60	5·67	26·62
1906 ..	4·15	4·43	5·15	1·81	0·66	0·87	1·58	2·78	2·65	2·96	2·12	5·67	34·83
1907 ..	5·60	1·34	3·72	0·20	2·26	2·35	0·87	0·71	0·15	0·69	5·18	1·44	24·51
1908 ..	0·17	5·97	7·66	0·11	0·30	0·63	0·14	1·80	1·13	2·55	3·65	1·56	25·67
1909 ..	1·46	3·55	0·99	2·28	0·44	1·87	1·19	3·13	0·47	1·92	2·13	2·45	21·88
1910 ..	10·88	1·33	3·87	0·05	0·00	5·71	1·42	0·64	2·11	3·96	4·07	3·29	37·33
1911 ..	8·18	2·24	3·20	0·76	0·91	0·00	0·68	0·43	0·50	3·45	1·99	1·46	23·80
1912 ..	1·76	2·58	3·61	0·00	0·00	4·76	1·86	1·14	0·87	3·30	1·98	1·18	23·04
Mean for 43 years ..	3·28	3·02	2·94	1·34	1·39	1·60	1·88	1·31	1·82	2·23	2·60	3·21	26·62

GOONDIWINDI—East Darling Downs (41).

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
Height above M.S.L., 720 feet.													
1879 ..	1·26	3·10	6·67	3·95	5·52	2·63	2·51	4·61	5·51	1·49	0·65	2·80	40·70
1880 ..	0·75	5·83	2·53	2·47	0·65	0·40	0·25	0·00	0·24	2·24	2·04	1·05	1·70
1881 ..	3·90	2·00	1·53	0·00	1·05	0·24	0·00	1·20	2·78	0·72	2·94	0·26	16·62</

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
STANTHORPE—East Darling Downs (41). Height above M.S.L., 2,656 feet.‡													
1873 ..	2.90	1.17	0.00	0.00	0.00	0.15	1.07	2.21	0.68	1.69	3.31	11.56	24.74
1874 ..	3.50	1.00	0.76	2.78	0.08	0.45	4.20	0.20	4.80	1.42	3.08	0.27	22.54
1875 ..	0.50	9.16	3.06	3.66	2.66	0.60	2.86	0.53	0.21	3.59	1.43	1.11	20.37
1876 ..	0.59	8.85	1.94	2.22	3.58	2.73	1.25	0.00	1.17	1.67	0.51	0.70	20.21
1877 ..	0.09	0.00	1.27	0.60	2.13	0.90	0.98	0.93	1.55	2.54	2.31	1.55	19.85
1878 ..	0.97	11.25	1.15	0.63	2.09	0.75	1.60	1.54	5.33	2.23	6.52	6.15	40.21
1879 ..	1.51	1.02	7.24	5.72	6.25	2.42	0.41	14.36	9.29	3.47	5.33	9.18	72.20
1880 ..	0.51	5.02	4.79	3.61	4.74	0.65	0.57	0.05	9.12	4.10	5.13	2.04	40.33
1881 ..	4.80	0.58	1.71	0.42	1.30	0.56	0.00	4.85	4.51	4.46	1.06	0.22	24.56
1882 ..	3.67	5.45	0.33	2.45	1.50	4.96	2.42	2.81	0.00	8.16	1.32	5.02	38.61
1883 ..	7.79	11.88	0.15	1.23	1.99	0.00	0.42	2.10	1.66	4.06	2.23	1.68	35.19
1884 ..	0.63	1.98	0.52	0.15	2.04	2.43	1.43	0.25	1.78	1.35	4.07	1.74	18.41
1885 ..	3.81	3.19	2.11	0.71	0.28	3.09	0.20	0.10	1.94	1.42	2.59	6.37	25.81
1886 ..	5.18	2.11	2.53	3.52	5.65	2.57	3.63	5.39	2.27	4.20	2.72	1.62	41.48
1887 ..	10.20	4.44	1.88	1.09	0.98	2.14	2.81	3.67	1.38	1.31	2.75	3.70	30.35
1888 ..	*2.92	*3.83	*3.63	*0.08	*0.20	*0.07	*0.01	*1.06	*1.41	*1.47	*6.53	..	..
1889 ..	3.44	2.51	0.61	5.01	3.36	3.08	5.87	2.20	1.97	0.59	1.99	1.41	32.04
1890 ..	4.54	0.27	12.26	1.33	1.52	1.56	0.91	0.36	2.80	3.60	2.96	4.19	45.30
1891 ..	8.11	3.95	1.15	0.92	1.52	4.47	1.90	2.44	3.63	1.89	3.14	3.10	36.22
1892 ..	1.54	1.53	5.10	6.95	2.36	2.16	2.20	1.12	4.43	7.16	4.44	4.55	43.54
1893 ..	5.70	8.35	2.20	3.64	3.25	5.94	1.10	1.16	0.26	2.19	4.84	0.07	38.70
1894 ..	6.12	1.33	6.91	1.91	1.26	2.90	0.92	0.63	2.54	4.27	1.79	2.33	32.91
1895 ..	8.69	1.65	0.02	0.23	0.90	0.08	1.53	0.87	1.27	2.42	5.58	5.31	28.55
1896 ..	4.95	7.06	1.31	1.49	0.83	0.90	3.05	0.59	1.57	1.55	4.09	7.49	33.48
1897 ..	3.22	1.97	6.65	0.00	0.14	1.22	2.28	2.42	4.27	2.44	0.50	12.70	37.81
1898 ..	4.71	2.76	1.39	0.27	0.84	1.75	1.34	1.64	2.65	1.39	1.00	1.39	21.13
1899 ..	6.09	2.88	0.43	2.53	1.20	1.36	3.11	1.08	1.63	1.36	0.86	3.22	25.75
1900 ..	2.02	4.81	1.87	1.70	3.17	1.22	2.26	1.50	3.98	0.23	2.17	2.16	27.69
1901 ..	1.94	0.80	3.95	2.13	0.77	2.74	1.52	4.22	1.42	2.93	2.22	1.67	20.31
1902 ..	3.17	0.51	0.56	0.10	0.87	0.78	0.15	0.94	0.95	2.29	3.98	1.75	16.05
1903 ..	0.23	1.59	0.95	1.18	0.87	0.74	4.71	1.98	0.07	3.45	4.45	2.59	34.81
1904 ..	3.29	1.33	0.57	0.71	4.11	0.66	2.64	0.34	1.85	3.08	1.92	5.00	31.40
1905 ..	0.04	0.37	5.20	2.64	1.63	1.01	0.63	1.77	0.28	3.48	1.94	4.43	26.51
1906 ..	6.21	2.82	3.18	2.00	0.77	0.45	1.44	3.37	4.29	2.90	2.49	4.89	34.81
1907 ..	4.33	3.30	5.08	1.68	1.70	2.44	1.06	0.13	1.30	5.03	3.46	3.15	26.67
1908 ..	0.60	6.25	3.46	0.83	0.25	1.19	1.37	3.79	2.39	1.01	4.43	2.11	26.67
1909 ..	0.72	3.85	1.75	2.35	1.84	1.62	1.75	3.31	2.32	3.36	4.35	2.80	29.72
1910 ..	4.58	3.69	2.71	0.70	2.05	0.34	3.48	0.51	1.29	1.26	2.20	5.04	28.93
1911 ..	5.96	3.69	2.31	0.70	2.05	0.34	3.48	0.51	1.29	1.26	2.20	5.04	28.93
1912 ..	3.06	1.57	3.85	0.00	0.30	4.67	2.74	1.63	1.83	2.69	1.40	2.19	25.95
Mean for 39 years ..	3.78	3.58	2.82	1.78	1.91	1.80	2.08	2.17	2.58	2.74	2.92	3.43	31.50

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
WARWICK—East Darling Downs (41). Height above M.S.L., 1,485 feet.‡													
1865 ..	4.03	2.67	0.00	1.71	0.91	1.20	1.46	0.50	0.45	2.00	0.60	0.50	10.03
1866 ..	0.00	2.58	0.43	0.15	2.23	2.13	2.14	1.15	0.48	2.01	3.18	7.96	24.44
1867 ..	5.24	10.64	4.17	9.05	3.10	4.53	0.40	6.13	3.03	2.32	1.35	3.10	53.26
1868 ..	6.14	4.93	0.06	0.19	0.52	2.75	3.29	1.80	0.32	3.03	2.04	3.10	28.17
1869 ..	4.06	5.86	5.64	1.40	1.62	1.38	0.79	0.67	2.76	0.70	5.57	40.46	
1870 ..	5.60	1.15	4.70	0.74	2.82	2.66	1.51	5.24	1.01	4.28	3.56	1.77	35.04
1871 ..	1.38	5.52	2.42	2.62	0.78	0.45	1.64	0.55	0.60	2.24	4.41	2.86	25.56
1872 ..	1.57	0.88	0.78	0.25	0.00	1.36	2.32	1.16	2.37	3.04	2.84	7.31	23.88
1873 ..	3.46	1.92	5.31	1.10	0.00	9.88	1.83	3.24	1.10	1.56	2.45	12.35	44.20
1874 ..	4.06	2.65	1.77	2.15	0.49	1.61	3.58	0.09	3.65	2.06	1.98	2.32	25.81
1875 ..	1.71	5.91	1.76	1.87	2.00	0.56	2.68	0.19	1.67	2.97	2.91	0.86	25.09
1876 ..	1.99	3.53	1.05	2.20	4.35	2.15	4.64	0.11	2.66	2.96	0.61	2.07	28.32
1877 ..	7.79	0.16	1.10	0.91	1.42	0.68	0.48	0.32	1.43	2.61	3.47	1.70	22.07
1878 ..	0.89	6.81	0.81	0.11	2.47	0.48	0.13	1.77	3.63	1.57	0.96	4.74	23.87
1879 ..	1.28	0.88	11.32	6.51	3.01	1.25	2.49	5.26	4.48	0.63	1.77	4.43	43.11
1880 ..	0.28	3.93	3.77	2.93	0.73	0.55	0.21	0.03	3.25	1.61	3.07	0.80	21.36
1881 ..	5.27	1.41	1.37	0.56	0.54	0.15	0.00	1.26	3.85	1.23	1.20	1.47	18.31
1882 ..	3.35	3.66	0.69	1.95	0.62	1.60	2.10	0.87	0.72	5.78	1.97	4.53	27.84
1883 ..	5.94	5.70	0.50	1.34	1.42	0.00	0.58	0.95	0.02	3.69	1.36	1.44	22.94
1884 ..	0.45	1.56	0.36	0.77	3.06	2.49	2.28	0.88	1.16	2.77	4.43	0.85	21.06
1885 ..	1.68	3.40	2.32	0.80	0.48	2.43	0.46	0.03	0.68	0.00	2.90	4.70	19.97
1886 ..	3.96	2.07	3.41	3.23	3.96	2.69	2.20	3.08	3.48	3.88	4.73	0.44	38.45
1887 ..	9.95	4.20	2.11	0.43	0.73	1.58	4.18	3.78	1.50	1.10	1.38	2.38	32.62
1888 ..	0.65	4.36	1.76	0.06	0.44	0.03	0.04	0.90	1.73	1.12	1.98	3.12	16.19
1889 ..	2.78	2.42	3.28	3.47	3.63	1.77	3.86	2.35	2.05	0.44	3.73	7.85	37.63
1890 ..	6.04	11.59	5.49	1.23	2.11	0.87	0.50	0.21	3.37	1.79	1.57	5.62	40.39
1891 ..	9.12	1.86	1.26	1.44	1.30	3.94	1.95	1.78	2.03	2.10	1.70	4.05	34.88
1892 ..	4.45	1.76	5.23	4.35	1.48	1.31	2.20	1.06	4.44	6.62	1.39	3.30	37.59
1893 ..	3.44	12.70	2.80	3.62	0.57	5.08	2.41	1.32	0.62	3.41	3.56	0.27	39.80
1894 ..	9.17	1.92	2.09	0.40	1.56	2.31	0.18	0.66	2.13	5.85	3.35	3.14	33.70
1895 ..	7.18	0.61	0.02	1.54	0.74	0.02	0.70	0.31	1.43	2.44	4.25	4.03	23.87
1896 ..	3.07	7.28	1.84	1.44	0.84	0.48	3.76	1.02	1.16	0.67	3.65	0.51	25.72
1897 ..	2.95	1.30	3.34	0.00	0.08	1.78	3.56	2.06	4.04	2.39	0.09	10.67	32.26
1898 ..	4.61	1.86	0.96	0.00	2.05	1.98	0.35	1.81	2.51	1.42	1.89	0.63	20.07
1899 ..	6.07	2.19	1.16	4.13	1.03	1.53	2.44	1.00	1.99	2.42	1.67	3.83	29.52
1900 ..	1.84	4.19	1.93	1.01	3.31	1.23	1.99	1.11	2.72	0.13	2.02	2.50	23.98
1901 ..	2.90	0.26	5.56	2.91	0.82	3.47	1.57	5.74	2.95	3.12	1.19	0.71	30.30
1902 ..	3.48	0.65	0.55	0.00	0.15	0.63	0.20	0.93	0.43	2.96	2.87	4.61	17.47
1903 ..	0.68	2.59	2.13	0.73	8.02	0.10	5.45	2.43	3.41	4.89			

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-sections for MILES—West Darling Downs (42) and WELLTOWN—West Darling Downs (42).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-sections for FOREST VALE—Maranoa (43) and FOREST VALE—Maranoa (43).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-sections for FOREST VALE—Maranoa (43)—continued and MITCHELL—Maranoa (43).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-sections for MITCHELL—Maranoa (43)—continued and ROMA—Maranoa (43).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Includes sub-sections for ROMA—Maranoa (43)—continued and ROMA—Maranoa (43).

Continued in next column.

† Amounts recorded at Yeulba, about 37 miles east of Roma.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for SURAT—Maranoa (43). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1881-1912 and Mean for 32 years.

Table for ST. GEORGE—Maranoa (43). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1881-1912 and Mean for 32 years.

Table for YEULBA—Maranoa (43). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1884-1891 and Mean for 32 years.

Continued in next column.

Table for YEULBA—Maranoa (43)—continued. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1892-1912 and Mean for 29 years.

Table for AUGATHIELLA—Warrego (44). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1889-1912 and Mean for 23 years.

Table for BOLLON—Warrego (44). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1885-1912 and Mean for 27 years.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for CHARLEVILLE—Warrego (44). Height above M.S.L., 965 feet.†. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1874 to 1912, Mean for 35 years.

Table for CUNNAMULLA—Warrego (44). Height above M.S.L., 629 feet.†. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1879 to 1912, Mean for 34 years.

Table for COWLEY—Warrego (44). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1884 to 1912, Mean for 29 years.

Table for CURRAWINYA—Warrego (44). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1881 to 1912, Mean for 32 years.

† No monthly totals available for 1877 to 1880 inclusive.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—continued.

Table for DIBRRANBANDI—Warrego (44). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1888-1912, Mean for 24 years.

Table for EULO—Warrego (44). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1886-1912, Mean for 27 years.

Table for HUNGERFORD—Warrego (44). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1884-1903, Mean for 27 years.

Continued in next column.

Table for HUNGERFORD—Warrego (44)—continued. Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1904-1912, Mean for 29 years.

Table for NIVE—Warrego (44). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1882-1912, Mean for 31 years.

Table for NOORAMA—Warrego (44). Height above M.S.L., ... feet. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Annual. Rows: 1883-1912, Mean for 30 years.

* Not used in determining these means.

QUEENSLAND MONTHLY RAINFALL TABLES—*continued.*

ADAVALE—*Far South-West* (45).
Height above M.S.L., 750 feet. †

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1889	*2.68	*2.32	*4.12	*1.30	*0.11	*1.18	*0.58	*0.85	*3.06	*0.68	..
1890	..	6.58	1.69	8.85	2.84	4.83	3.19	0.73	0.05	1.15	1.37	0.17	3.20
1891	..	18.02	0.95	3.15	5.04	3.26	1.93	0.48	1.25	0.00	0.17	0.24	0.16
1892	..	3.35	0.13	0.89	0.00	1.20	0.56	0.26	0.00	0.14	3.88	0.95	0.20
1893	..	0.06	0.00	1.26	0.25	1.39	0.52	0.05	1.68	0.00	0.91	2.43	0.91
1894	..	0.16	7.82	5.99	2.58	0.98	3.92	0.01	0.91	0.60	0.91	0.55	2.94
1895	..	2.17	2.67	1.17	0.29	2.85	0.34	1.11	0.04	0.92	0.77	2.05	2.34
1896	..	0.12	9.64	0.59	1.43	0.18	0.00	6.50	0.00	0.02	0.00	2.47	0.65
1897	..	0.96	1.23	2.22	0.00	0.03	4.57	0.00	0.00	0.34	0.38	0.10	1.24
1898	..	2.22	5.22	0.43	0.26	0.49	0.60	0.06	0.35	0.94	0.33	0.00	0.00
1899	..	3.59	1.51	2.39	0.00	0.00	0.44	0.51	0.73	0.13	0.84	0.31	0.04
1900	..	3.74	0.43	0.94	0.00	0.25	0.30	0.54	0.12	0.35	0.00	0.00	1.18
1901	..	0.10	0.48	3.44	2.30	1.85	0.58	0.95	0.79	0.30	0.37	1.04	0.00
1902	..	1.67	0.06	0.09	0.00	0.00	0.00	0.00	0.42	0.03	0.00	1.97	1.88
1903	..	2.34	0.00	1.19	0.16	2.32	0.00	2.19	0.99	3.10	0.40	0.86	2.71
1904	..	4.61	1.78	1.66	0.50	3.40	0.54	0.17	0.00	0.21	2.15	0.23	1.23
1905	..	0.39	0.77	0.50	1.53	1.59	0.00	0.18	0.27	0.00	0.45	0.10	0.95
1906	..	1.55	6.12	4.75	0.00	0.50	0.00	2.17	0.00	3.84	3.00	1.90	2.95
1907	..	0.75	0.00	2.45	0.88	0.05	0.47	0.83	0.53	0.00	1.07	0.73	3.12
1908	..	0.27	1.90	1.27	1.65	0.00	0.23	1.16	0.52	0.00	1.81	1.43	3.13
1909	..	1.31	2.31	0.38	1.13	0.02	3.15	0.00	3.76	0.00	0.00	0.00	0.74
1910	..	1.01	1.37	5.09	0.52	0.18	3.08	1.54	0.18	0.19	0.72	2.79	1.23
1911	..	1.71	3.49	0.02	0.55	0.43	0.00	0.29	0.14	0.10	0.00	2.17	1.42
1912	..	0.00	0.71	0.86	0.00	0.00	2.00	2.83	0.07	0.00	0.84	0.28	1.12
Mean for 23 years ..	2.46	2.19	2.16	0.95	1.12	1.15	0.72	0.56	0.54	0.89	0.99	1.45	15.18

† THARGOMINDAH—*Far South-West* (45).

Height above M.S.L., 402 feet. †

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1879	*0.48	*1.15	*1.22	*0.95	*1.61	*1.99	*0.59	*1.16	..	..
1880	..	1.50	6.61	0.00	1.45	0.00	0.00	0.00	0.61	0.00	0.00	0.00	10.17
1881	..	0.50	0.35	0.58	0.00	2.76	0.00	0.00	0.05	2.26	0.00	1.02	0.00
1882	..	9.20	3.62	0.00	0.00	0.84	0.55	0.41	0.31	0.00	0.93	2.86	1.54
1883	..	0.00	3.27	1.06	0.00	1.78	0.05	0.00	0.66	0.00	0.69	0.16	0.00
1884	..	0.25	0.03	0.05	1.50	1.06	0.85	0.07	0.41	0.15	0.59	3.81	0.20
1885	..	5.97	0.48	1.78	0.62	1.10	0.87	0.00	0.00	0.65	0.02	0.22	6.86
1886	..	0.00	0.00	0.00	0.05	0.17	1.00	2.21	1.43	0.00	1.15	1.59	6.86
1887	..	1.00	5.71	2.61	0.33	0.08	0.92	0.93	2.83	0.00	0.46	5.17	3.14
1888	..	2.05	4.09	0.02	0.00	0.85	0.00	0.00	0.17	0.00	0.20	0.06	7.44
1889	..	0.54	0.15	0.42	2.14	2.53	1.25	0.64	1.25	0.13	0.97	1.00	11.02
1890	..	5.70	0.61	2.32	0.92	2.69	0.97	0.22	0.02	1.83	1.61	0.11	1.21
1891	..	9.05	1.16	1.79	2.72	3.57	2.30	0.02	0.02	0.55	0.02	0.00	0.43
1892	..	0.85	0.05	0.35	0.00	5.81	0.61	0.59	0.00	0.75	0.68	0.34	0.00
1893	..	0.00	0.00	1.03	1.07	1.13	1.36	0.00	2.11	0.00	0.13	0.99	0.00
1894	..	0.78	2.38	1.44	2.58	0.10	1.56	0.02	0.63	0.63	1.79	0.00	0.83
1895	..	0.76	1.48	0.00	0.00	0.64	1.47	0.01	0.02	1.66	0.92	0.77	0.96
1896	..	0.30	3.07	0.00	0.14	0.22	0.18	0.33	0.03	0.01	0.52	2.49	2.88
1897	..	1.89	2.11	0.66	0.00	0.00	2.12	0.05	0.00	0.82	0.96	0.00	0.94
1898	..	4.34	4.98	0.00	0.00	0.00	1.56	0.00	0.73	0.37	1.00	0.05	1.53
1899	..	1.21	0.87	1.44	0.39	0.04	0.87	0.16	1.65	0.23	0.08	0.25	0.00
1900	..	1.89	0.00	1.27	0.32	0.06	0.19	0.72	0.05	0.11	0.15	0.05	0.06
1901	..	0.07	0.46	0.16	1.17	0.21	0.25	1.01	2.36	0.11	0.00	0.07	0.00
1902	..	0.00	0.13	0.03	0.02	0.00	0.00	0.00	0.54	0.00	0.93	2.13	3.64
1903	..	0.84	0.00	0.67	1.37	0.84	0.10	1.42	0.15	0.81	0.22	0.74	4.20
1904	..	1.10	1.32	0.63	0.28	0.52	0.01	0.13	0.02	0.28	3.48	0.00	2.50
1905	..	0.65	0.00	0.71	0.42	0.38	0.34	0.44	0.00	0.05	0.79	0.51	0.40
1906	..	5.79	5.31	3.24	0.00	0.78	0.64	0.12	0.12	2.13	1.50	0.37	0.18
1907	..	1.98	0.00	0.99	0.13	0.07	1.52	0.69	0.41	0.27	0.00	0.36	3.74
1908	..	2.42	0.97	1.96	2.38	0.03	0.04	0.77	0.38	0.00	2.61	0.52	1.45
1909	..	0.23	2.27	0.27	0.75	0.21	1.70	0.09	3.47	0.06	0.42	1.47	0.38
1910	..	2.40	0.00	1.63	0.89	0.67	3.12	0.93	0.06	0.07	0.19	3.32	0.67
1911	..	0.10	4.03	0.00	0.00	0.59	0.05	0.43	0.00	0.06	0.00	6.47	1.40
1912	..	0.00	0.14	0.29	0.00	0.00	1.46	1.08	0.06	0.05	0.11	0.57	1.81
Mean for 33 years ..	1.89	1.60	0.80	0.68	0.90	0.82	0.40	0.60	0.45	0.85	1.14	1.46	11.68

† Monthly totals for 1879, 1880, and 1881, obtained from Thargomindah Station records.

MOUNT MARGARET—*Far South-West* (45).
Height above M.S.L., ... feet.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1888
1889
1890	*2.10	*2.67	*1.04	..	..	..	..	..	..	*1.93
1891	*1.64	*4.16	..	..	..	..	..	..	..	*0.03
1892	*3.71
1893	*8.63
1894	*11.16
1895	*8.09
1896	*6.55
1897	*11.21
1898	*8.09
1899	*6.55
1900	*1.70
1901	*6.17
1902	*10.07
1903	*14.45
1904	*9.04
1905	*3.91
1906	*21.83
1907	*8.96
1908	*17.94
1909	*9.05
1910	*17.53
1911	*7.77
1912	*6.88
Mean for 11 years ..	1.20	1.63	0.66	0.56	0.34	0.88	0.68	0.52	0.20	0.41	1.22	1.23	9.53

1888, 1895, 1899, 1902, 1906—No monthly totals available.
1891 to 1893 inclusive—No record.
1889, 1890, 1894, 1896, 1897, 1901.—Complete monthly totals not available.

ONEPAH—*Far South-West* (45).

Height above M.S.L., ... feet.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.
1891	..	4.56	6.24	4.78	4.05	1.50	1.10	0.00	0.14	0.87	0.02	0.61	0.05
1892	..	0.00	0.07	0.00	0.05	1.14	0.07	0.05	0.00	0.11	4.35	1.03	0.00
1893	..	0.00	0.00	0.08	0.37	3.17	1.46	0.00	1.53	0.00	0.21	3.01	0.00
1894	..	0.49	0.00	0.28	4.37	0.00	1.00	0.00	2.22	0.00	0.99	0.03	0.51
1895	..	0.52	2.00	0.06	0.00	0.60	0.60	0.00	0.00	0.00	1.17	0.90	0.00
1896	..	0.23	1.62	0.00	2.00	0.00	0.00	0.40	0.16	0.00	0.00	1.40	0.00
1897	..	2.00	0.00	1.20	0.00	0.00	1.55	0.00	0.00	0.45	0.84	0.00	0.10
1898	..	0.00	1.77	1.47	0.00	0.							

APPENDIX I.

R E T U R N

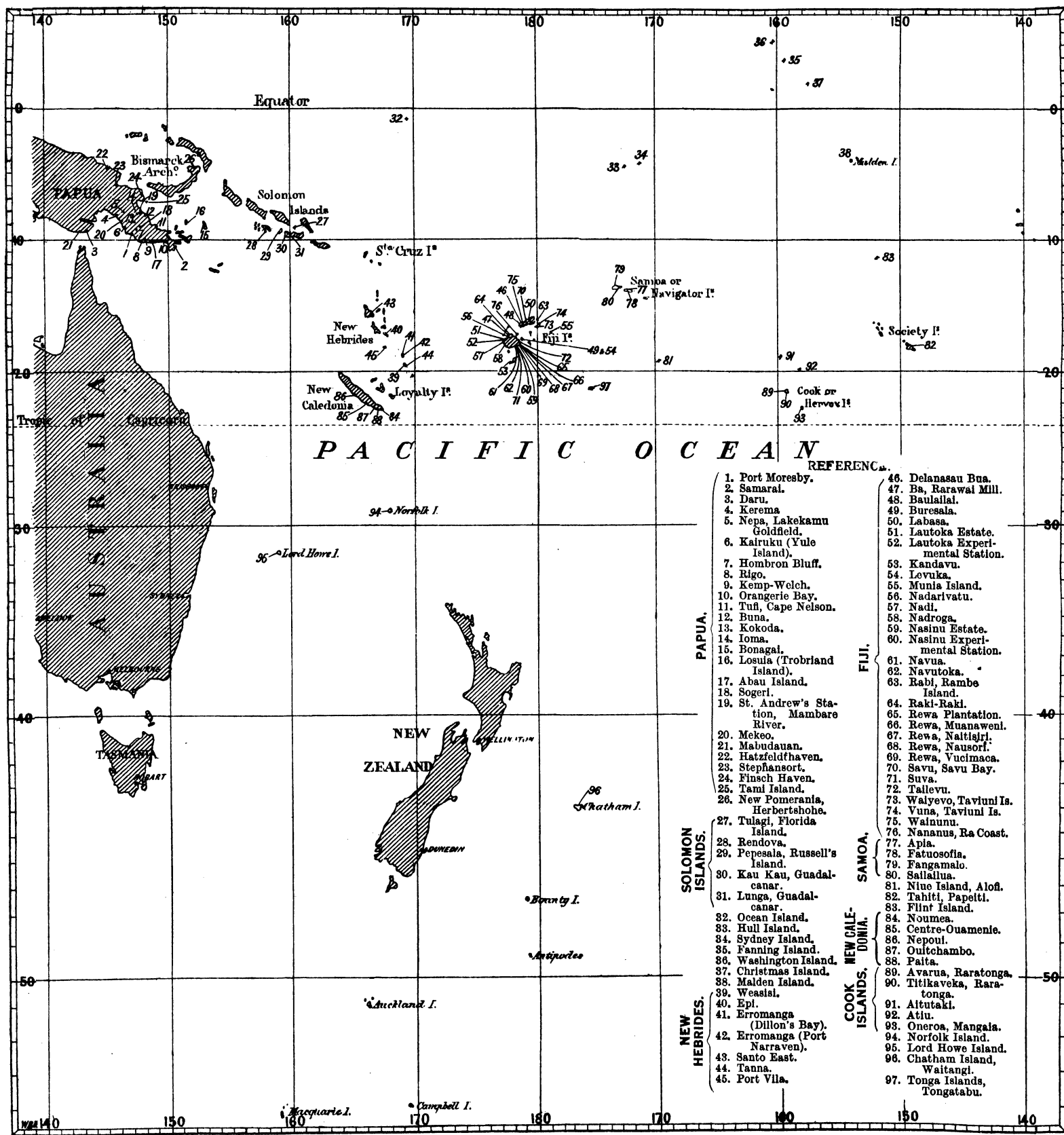
SHOWING

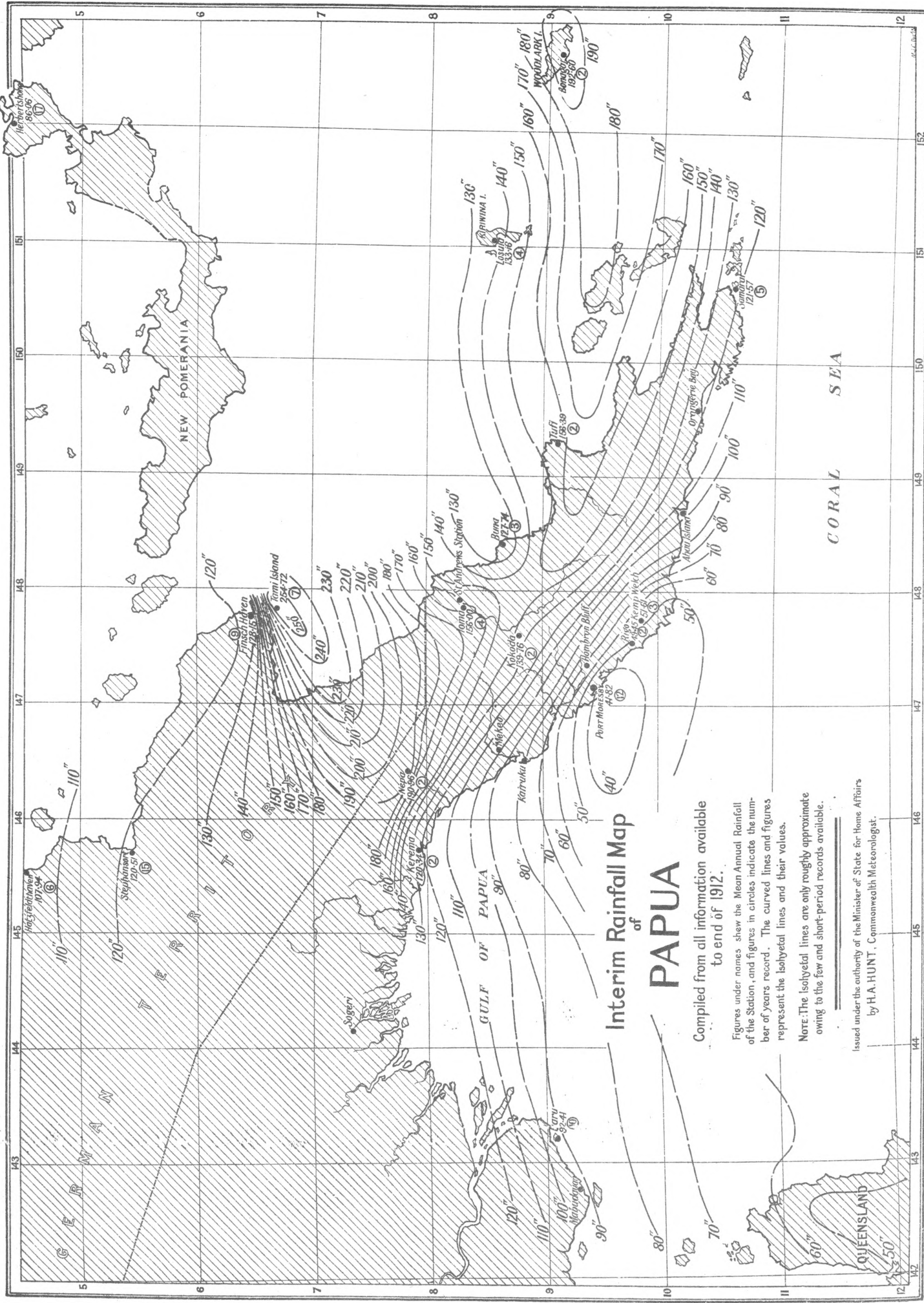
MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA

AND

SOME ISLANDS IN THE SOUTH PACIFIC.

Chart showing Location of Stations named in the Rainfall Tables for Papua and Islands in the South Pacific.





Interim Rainfall Map of PAPUA

Compiled from all information available
to end of 1912.

Figures under names show the Mean Annual Rainfall
of the Station, and figures in circles indicate the num-
ber of years record. The curved lines and figures
represent the isohyets lines, and their values.

Note: The Isohyet lines are only roughly approximate
owing to the few and short-period records available.

Issued under the authority of the Minister of State for Home Affairs
by H.A. HUNT, Commonwealth Meteorologist.

Scale 1" = 25 Miles.

NEW GUINEA RAINFALL.

[Extract from a chapter on Papua by J. H. P. Murray, Lieutenant-Governor and Chief Judicial Officer for Papua, published in "Australasia," Volume V., of *The Oxford Survey of the British Empire*.]

" A lofty range of mountains occupies the centre of the island (New Guinea). Coming right down to the water's edge at the eastern end this range, further west, retreats from the sea, leaving towards the coast, as the Dutch boundary is approached, a wide expanse of flat country drained by the enormous rivers which are fed by the continual rains of the interior.

Of these rivers, the Fly is the largest; according to the calculations of Sir William MacGregor, it sends down a volume of water equal to 180,000,000 gallons in 24 hours. The Fly rises somewhere near the point where the three territories of British, German, and Dutch New Guinea meet, and runs into the sea towards the western end of the Gulf of Papua; in its estuary it widens out to an expanse of more than 50 miles. To the east of the Fly is the Bamu, a river of no great size which apparently loses itself in the swamps of the interior; then come the Turama and the Omati, and further on the large and intricate river systems of the Kikori and the Purari, with their curiously involved water-ways and channels intersecting the low-lying mangrove flats through which they flow.

" The Purari is the last of the huge rivers of the gulf; there are, indeed, other large rivers, such as the Vailala close by, but none of them has anything like an equal volume of water; and further to the east the mountains come closer to the coast and leave no room for large water-courses or deltas like those of the Purari and the Kikori. One river, indeed, the Venapa, which runs into Galley Reach about 35 miles to the west of Port Moresby, suggests the delta country of the gulf, for the mangrove flats are there, and the cross channels and the intricate windings; but it is all on a smaller scale. Even before the Venapa is reached, the character of the country has changed, for near Yule Island, 65 miles to the west of Port Moresby, the 'dry belt' begins, and it continues for about 100 miles along the coast to the neighbourhood of the Kemp Welch River.

This dry belt extends into the interior as far as the mountains. Speaking generally, the rainfall increases with the distance inland, but even on the coast some places are much drier than others. Port Moresby is, probably, the driest of all, and has perhaps, barely two-thirds of the rainfall of Galley Reach or the Kemp Welch. Although to the east and to the west of the dry belt the country has an abundant rainfall and a luxuriant vegetation, the general aspect of the dry belt during the season of the south-east trade winds, except in a few favored spots, is that of Australia in a drought. But this is only true of the south-east season, for no sooner have the rains of the north-west monsoon arrived, than the dry belt becomes covered with a garment of green, grass and herbage shooting up almost as soon as the rain touches the ground."

[Extract from *Handbuch der Klimatologie*, Volume II., by Dr. Julius Hann, Professor at the University of Vienna.]

" The position of the coasts in regard to the direction of the prevailing winds is really the decisive factor for the annual rain period, and on this account contrasting conditions appear at small distances apart. Finsch Harbor has its rainy season during the time of the south-east trades, and has a dry summer (maximum rainfall in July and August, minimum in January).

The places on the same coast situated a little further to the north-west—Stephansort, Konstantin Harbor, and Hatzfeld Harbor—have an opposite rain period, which occurs during the rule of the north-west monsoons (or summer rains) and a dry 'winter,' if one could so call it, during the south-east trade. Dore Harbor, still further to the north-west, has a similar chief rain period, and a second small rain season in July and August. Hatzfeld Harbor also shows a small increase of rain in July, but this is somewhat uncertain on account of the shortness of the time of observations.

Finsch Harbor is situated on the east coast, with high mountains in the background, and is also open to the south-east trade, but is protected from the north-west monsoon; on the contrary, the Astrolabe Bay (Stephansort, Konstantin Harbor) is protected from the south-east trade by mountains and open to the north and north-east. So the opposing periods of rainfall are readily explained.

Freidrich Wilhelm Harbor, on the opposite side of the Astrolabe Bay, which faces the east (the coast runs from south to north) has a more even rainfall the whole year through (maximum in November, then April and May, minimum in July.)

" The Tami Islands have the greatest rainfall, 254.72 inches (seven year's records), then Deinzerhohe, 200.79 inches (six years). (For details see Dr. Hans Meyer, *The German Colonial Kingdom*.)

Herbertshohe, on the Gazelle Peninsula (Neupommern), has a much smaller rainfall than the Astrolabe Bay.

The south coast of New Guinea (Port Moresby) is drier than the North Coast, yet two years' observations at Mabudauan (Daru Island, 9° 9' S. 142° 4' E.) give 74.52 inches; December to February, 24.29 inches; March to May, 19.92 inches; June to August, 10.94 inches; September to November, 19.37 inches; and one year's at Samarai (10° 37' S. 150° 40' E.), 126.38 inches.

A. B. Meyer has collected observations concerning the winds on the north-west coast of New Guinea (Met. Z. 1882, page 59). At Andei, at the foot of the Afrak Mountains (about 1° S. 134° E.), east winds and greater dryness are generally the rule from May to November (52 rainy days); from December to April, south-west and north-west winds and rain (86 rainy days).

On the whole north coast the thunderstorms as well as the rains appear to happen chiefly in the night time. The daily period of rainfall on the north coast of New Guinea is characterized by the prevalence of the night rain, as the following means (mainly two yearly) show. (Night, 6 p.m. to 6 a.m.)

—	Konstantin Harbor.	Freidrich Wilhelm Harbor.	Erima.	Stephen's Place.	Sattelberg.	Herbert's Height.
Night ..	Inches. 94.49	Inches. 116.93	Inches. 93.31	Inches. 92.21	Inches. 111.81	Inches. 31.10
Day ..	24.02	20.08	9.45	23.23	86.22	42.52

The Gazelle Peninsula has, however, a predominating rainfall by day.

On the Sattelberg (3182.4 feet), near Finsch Harbor, 142.13 inches of rain fall (November till April, 37.01 inches; May to October, 105.12 inches); while at its foot, at Simbang (Finsch Harbour coast) 172.83 inches fall (November to April, 44.09 inches; May to October, 128.74 inches). The times of rain here are also the opposite to those of the Astrolabe Bay.

In regard to thunderstorms, which are not, as a rule, very frequent, it is remarkable, that, although there is a uniform yearly thunderstorm period, they are generally less frequent during the time of the trade winds (May to October, Sattelberg 2, and Simbang 9 days of thunder, November to April, 30 and 57 days respectively.)

In the year 1895, a great drought set in in the Astrolabe Bay, which continued during 1896. The drought was also great in Java in 1896. At the same time severe forms of malaria appeared (as was the case at Finsch Harbor under similar conditions in 1891).

The years when the trade wind sets in violently always suffer from dryness. A weak trade wind is accompanied by great rainfall."

Concerning the rain conditions of New Guinea in general,* Warburg remarks:—

"The view that the times of rain in the south coast are quite opposed to those of the north coast is not everywhere quite

* *The Conditions of Vegetation in New Guinea*, by O. Warburg, Berlin.

proved. Finsch Harbor, although on the north side, has its main rain time during the summer and autumn months of the northern hemisphere. The local direction of the coast is the determining factor. The south side is poorer in rain than the north side, and the parts of New Guinea lying opposite to Cape York—the regions of Torres Strait and Fly River—appear to be the driest."

R. Parkinson gives the following information in regard to the climate of Bismarek Archipelago, especially Neupommern (or New Britannia):—

"Mean temperature in $4^{\circ} 20' S.$, $152\frac{1}{2}^{\circ} E.$, $77.7^{\circ} F.$; mean yearly extreme, 96.1° and 65.8° ; and number of rainy days, 181.

The months during which rain occurs most frequently are December to April (probability of rain, 0.59), and months of least frequency, May, June, and October. From the middle of April to the middle of October, the south-east trade blows, and during the remainder of the year the north-west monsoon—which brings violent thunderstorms and big rain spouts—prevails. The morning hours till 10 or 11 are the hottest, then the sea breeze comes and moderates the heat; the evenings are pleasant and refreshing." (Met. Z. 1887, page 181).

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS (IN INCHES AND HUNDREDTHS) FOR PAPUA, AND SOME ISLANDS IN THE SOUTH PACIFIC.†

Most of the records are for short periods only; but complete records for fairly long periods are given for the following stations:—

- Port Moresby, Papua (14 years),
Tulagi, Solomon Islands (15 years),
Malden Island (17 years),
Suva, Fiji (28 years),
Apia, Samoa (18 years),
Fatuosofia, Samoa (13 years),
Papeiti, Tahiti (12 years),
Noumea, New Caledonia (39 years),
Avarua, Rarotonga (14 years),
Norfolk Island (21 years),
Lord Howe Island (12 years),
Waitangi, Chatham Islands (19 years).

The figures that appear in brackets, after the name of each station, refer to the locality of station on the accompanying chart.

Table for PORT MORESBY—PAPUA (1). Includes columns for months (January to December), Rain-fall, and Days. Data rows from 1891 to 1913, with a mean for 14 years.

Record for January, 1891, to June, 1901, obtained from Annual Reports on British New Guinea. Record for July, 1902, onwards, obtained from Papua Government Gazettes.

SAMARAI—Papua (2).

Table for SAMARAI—Papua (2). Includes columns for months (January to December), Rain-fall, and Days. Data rows from 1891 to 1913, with a mean for 6 years.

Record for April, 1891, to March, 1892, obtained from Annual Reports on British New Guinea. Record for January, 1910, to May, 1911, from monthly returns.

Table for DARU—Papua (3). Includes columns for months (January to December), Rain-fall, and Days. Data rows from 1894 to 1913, with a mean for 10 years.

1898—October total incomplete. No observations taken from 1st to 3rd, or from 24th to 31st. For July, 1894, to June, 1902, the record was obtained from Annual Reports on British New Guinea.

KEREMA—Papua (4).

Table for KEREMA—Papua (4). Includes columns for months (January to December), Rain-fall, and Days. Data rows from 1909 to 1913, with a mean for 2 years.

Record obtained from Papua Government Gazettes.

NEPA LAKEKAMU GOLDFIELD—Papua (5).

Table for NEPA LAKEKAMU GOLDFIELD—Papua (5). Includes columns for months (January to December), Rain-fall, and Days. Data rows from 1910 to 1913, with a mean for 3 years.

Record obtained from Papua Government Gazettes.

† See also addendum—Tables and Notes from German New Guinea, page 281.

* Not used in determining these means.

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
KAIRUKU (YULE ISLAND)—Papua (6).														
1908..							0.43	1.27	3.16	0.90	1.74	4.29	..	..
1909..	16.47	7.67	8.50	2.54	1.86	1.90	1.59	1.44	4.52	1.45	6.65	5.00	59.50	..
1910..									0.18	0.20	2.08	2.44	..	..
1911..	3.96	19.02	6.26	4.80					0.17	3.24	0.06	1.99	..	..
1912..		6.94			2.50	0.18	0.72		0.60	0.38	7.79	0.61	..	..
1913..	13.43	8.93	13.92	7.50	3.39	0.42	0.00	0.08	2.40	0.06	1.56	3.72	55.41	128
Mean for 2 years	14.95	8.30	11.21	5.02	2.63	1.16	0.80	0.76	3.46	0.75	4.10	4.36	57.50	..

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
HOMBRON BLUFF—Papua (7).														
1910..														
1911..	14.27	15.23	6.41	5.70	4.18	1.82		0.76	5.50	2.04	1.18	8.59	..	..
1912..	20.07	3.20	5.60		2.83	3.64	0.72	0.65	0.56	2.06	4.58	6.98	..	..
1913..	19.79	9.18	15.09	5.22	5.03	1.24	0.06	2.15	3.45	0.72	0.67	7.88	70.48	147

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
RIGO—Papua (8).														
1908..							0.52	2.00	5.69	2.52	3.36	1.33	..	..
1909..	3.29	2.40	21.07	2.44	2.42	2.08	2.42	0.02	4.45	2.29	4.06	3.23	50.22	111
1910..	12.20	6.87	6.61	4.28	2.42	8.07	0.20	1.16	1.31	1.45	1.70	2.41	48.68	91
1911..	3.05	3.86	3.92	6.61	0.19	1.50	0.20	0.41	3.82	0.30	0.74	..	..	..
1912..	12.99	1.23							0.04	5.24	1.51	..	..	..
1913..	12.83	9.00	9.08	4.58	6.06	0.86	0.12	0.56	1.75	0.43	0.44	7.09	52.89	128
Mean for 3 years	9.44	6.12	12.26	3.77	3.63	3.67	0.91	0.58	2.50	1.39	2.07	4.26	50.60	110

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
KEMP-WELCH RIVER GOVERNMENT PLANTATION—Papua (9).														
1908..							2.63	11.23	4.32	7.28	5.80	..	..	..
1909..	4.48	2.59	12.84	7.46	4.55	2.72	5.18	0.02	2.61	2.65	7.86	4.83	57.79	138
1910..	10.72	9.35	4.74	12.35	3.42	6.16	0.66	1.36	4.63	2.69	5.54	6.59	68.21	138
1911..	6.63	6.12	7.08	7.60	0.92	0.77	0.05	2.40	2.66	1.41	..	2.63	..	..
1912..	9.70	2.96	2.69	0.65	3.35	1.71	0.27	0.54	0.40	0.80	3.38	2.37	28.92	77
1913..	13.33	5.90	14.57	6.03	3.49	0.70	0.07	0.64	1.72	1.16	0.00	6.78	54.39	106
Mean for 4 years	9.55	5.20	8.71	6.62	3.70	2.82	1.55	0.84	2.34	1.83	4.20	5.14	52.30	115

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
ORANGERIE BAY GOVERNMENT PLANTATION—Papua (10).														
1911..	12.70	0.94	5.83	8.17	6.59	3.35	4.36	3.82	2.47	0.66	3.72	8.16	60.77	..
1912..	3.33	9.36	3.42	7.28	4.58	7.58	4.00	3.50	3.82	6.26	0.00	6.34	50.47	128
Mean for 2 years	8.01	5.15	4.62	7.73	5.59	5.47	4.18	3.66	3.14	3.46	1.86	7.25	60.12	..

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
TUFI, CAPE NELSON—Papua (11).														
1908..							12.83	5.99	10.41	11.77	10.57	20.27	..	..
1909..	18.28	..	..	..	..	..	7.50	12.89	5.10	6.27	..	..	199.50	..
1910..	32.54	12.48	26.65	8.55	17.99	16.30	4.62	19.61	17.06	5.80	25.50	12.49	..	..
1911..	11.60	51.55	21.81	7.61	14.95	6.13	0.60	1.30	..	..	13.68	8.80	..	..
1912..	12.70	27.26	21.17	2.13	2.43	9.99	1.44	2.95	1.09	6.00	17.48	8.54	113.18	160
1913..	..	13.42	8.08	20.42	6.96	17.14	..	0.02	0.00	2.55	3.09	12.35	..	..
Mean for 2 years	22.62	19.87	23.91	5.34	10.21	13.15	3.03	11.28	9.08	5.90	21.49	10.52	150.39	..

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
BUNA—Papua (12).														
1908..														
1909..	10.70	13.51	17.67	13.93	..	..	..	5.44	4.70	7.50	11.35	16.87	..	..
1910..	15.18	15.46	17.43	7.57	13.56	13.25	3.43	14.61	5.38	0.42	32.79	19.72	167.80	..
1911..	11.74	7.30	7.63	15.33	11.19	8.16	0.21	2.09	11.34	8.62	6.75	14.75	105.11	119
1912..	5.97	23.90	16.08	7.03	9.94	8.44	1.58	5.51	2.16	7.93	7.50	14.27	110.31	144
1913..	7.53	17.75	12.77	12.60	2.41	..	2.37	0.11	3.94	3.64	10.91	15.34	..	..
Mean for 3 years	10.96	15.55	13.71	9.98	11.56	9.95	1.74	7.40	6.29	8.66	15.68	16.25	127.74	132 (2 yrs.)

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
KOKODA—Papua (13).														
1908..														
1909..	23.30	9.67	13.69	9.75	11.95	10.44	4.94	6.91	13.53	15.27	10.97	17.51	147.93	251
1910..	18.30	12.99	..	10.68	8.90	12.68	3.66	..	9.50	10.19	25.16	17.66	..	..
1911..	17.99	3.06	9.01	8.51	..	11.08	3.37	9.91	14.33	0.65	12.41	16.39	..	..
1912..	8.28	21.36	17.95	13.35	12.01	6.10	7.10	3.44	4.91	7.97	17.47	11.63	131.59	164
1913..	6.64	31.38	8.96	21.81	12.10	6.38	6.07	7.80	..	9.74	..	..	110.88	..
Mean for 2 years	15.79	15.52	15.82	11.55	11.08	8.27	6.02	5.18	9.22	11.62	14.22	14.58	130.13 (3 yrs.)	208 (2 yrs.)

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
IOMA—Papua (14).														
1908..						7.73	5.60	..	12.87	14.14	23.45	..	..	..
1909..	21.27	20.20	23.55	9.29	7.82	7.89	6.85	6.07	13.67	14.38	14.72	14.64	165.35	196
1910..	18.56	19.47	19.77	11.64	8.02	5.59	2.22	2.65	5.52	3.28	27.71	21.22	145.65	..
1911..	22.12	15.00	9.28	1.02	10.25	5.35	1.34	3.55	17.51	21.40	22.74	12.70	142.76	174
1912..	9.62	2.90	21.20	11.70	13.75	12.31	14.00	1.12	16.22	10.70	23.33	24.40	170.25	150
1913..	14.36	15.19	7.04	25.79	10.36	8.09	20.99	3.04	12.56	10.00	23.52	159.94	..	..
Mean for 4 years	17.89	14.39	19.70	8.41	9.06	7.79	6.23	3.35	13.23	14.60	22.13	18.24	156.79 (5 yrs.)	173 (2 yrs.)

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.			
													Rain-fall.	Days.		
BONAGAI—Papua (15).																
1908..						10.60	16.35	19.99	11.32	14.68	..	..	..	..
1909..	18.82	22.10	18.40	15.93	15.63	7.87	13.23	23.33	24.11	13.24	6.37	19.56	183.11	262
1910..	22.46	10.85	17.83	16.27	7.99	7.87	13.23	23.33	24.11	13.24	6.37	19.56	183.11	262		
1911..	8.43	28.13	20.70	30.72	6.47	9.45	15.04	11.44	46.33	7.04	4.55	13.79	202.09	247		
1912..	24.40	8.88	17.28	3.32	9.65	14.31	12.68	7.45	11.02	4.56	12.91	..	..	..
1913..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mean for 2 years	15.45	19.49	19.27	23.50	7.23	8.66	14.14	17.39	35.22	10.14	5.46	16.68	192.60	255		

Record obtained from Papua Government Gazettes.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.
LOSUIA, TROUBIAUD ISLANDS—Papua (16).														
1908..						0.80	11.15	15.83	14.27	8.35	..	..	..	..
1909..	21.34	19.74	20.82	7.97	1									

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	
													Rain-fall.	Days.

ST. ANDREW'S STATION, MAMBARE RIVER—Papua (19).

Lat. 8° 21' 58" S., Long. 147° 52' 23" E., Altitude 100 feet.

1901..	9.38	7.83	18.85	15.84	9.54	6.32	5.95	4.68	13.28	7.97	21.78	20.44	..	..
1902..	23.26	16.19	20.71	13.93	8.05	2.26	1.90	4.37	6.80	2.59	12.89	..	..	..
1903..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Record obtained from Papua Government Gazettes.

MEKEO—Papua (20).

1891..	3.54	10.34	†0.05	†1.59	0.77	†0.75
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† 1891.—June—Record from 24th to 28th only.
September—No record from 1st to 14th inclusive.
November—Record from 1st to 16th only.

MABUDAUAN STATION—Papua (21).

1890..	..	..	..	..	..	3.75	†2.00	†1.75	0.25	0.60	1.65	..	..	..
1891..	11.24	5.20	4.64	10.48	..	..	6.77	3.49	3.58	†2.93	3.12	2.09	..	..
1892..	†0.08	12.76	..	..	..	..	..	..	..	..	..	..	..	..

† 1890.—August—Record from 4th to 11th, and from 14th to 17th approximate.
September—No record for first seven days.
1891.—October—Record from 4th to 18th approximate.
1892.—January—Total approximate only.

† HATZFELDTHAVEN—GERMAN NEW GUINEA (22).

Lat. 4° 24' S., Long. 145° 11' E.

Mean for 6 years	16.07	13.78	10.04	14.61	4.92	3.11	7.05	3.54	4.69	6.26	12.09	11.78	107.94	..
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† Authority—Hydrographic Office Reports.

† STEPHANSORT—German New Guinea (23).

Mean for 15 years	17.68	15.95	17.31	12.32	8.66	4.02	2.83	2.68	5.24	6.26	12.72	14.84	120.51	..
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† FINSCH HAVEN—German New Guinea (24).

Mean for 9 years	2.80	2.91	5.28	8.90	12.83	17.32	18.74	18.62	12.72	14.60	9.57	3.86	128.15	..
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† TAMI ISLAND—German New Guinea (25).

Annual Mean for 7 years	254.72
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† HERBERTSHÖHE—NEW BRITAIN (26).

Lat. 4° 20' S., Long. 152° 16' E.

Mean for 17 years	10.04	7.91	11.33	7.72	5.28	4.57	6.10	5.83	5.51	4.49	6.18	11.10	86.06	..
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† Authority—Hann's *Handbuch der Klimatologie*.TULAGI—SOLOMON ISLANDS¹ (27).

Lat. 9° 5' S., Long. 160° 8' E.

1897..	9.51	28.55	27.89	6.67	4.19	..	4.86	..	9.94	10.53	*2.91	*5.66	*11.03	..
1898..	14.27	12.04	17.47	20.48	8.85	1.26	24.27	8.33	10.92	11.21	7.89	8.07	147.89	..
1899..	12.20	9.09	13.43	2.23	5.83	3.20	3.24	3.01	5.41	9.12	10.62	10.83	82.32	..
1900..	10.93	12.40	10.85	17.59	10.69	5.53	13.24	10.35	15.90	7.97	11.91	133.85	..	..
1901..	18.31	27.76	22.39	8.53	4.55	7.85	9.02	14.70	6.25	6.65	6.83	9.86	142.70	..
1902..	3.96	14.12	10.73	5.98	3.84	7.99	7.79	14.23	10.03	10.39	10.69	16.76	116.26	105
1903..	14.78	17.61	23.49	6.75	10.81	2.12	4.32	3.91	5.53	7.01	3.35	6.00	110.68	188
1904..	5.62	21.20	4.62	0.50	1.57	4.73	2.46	2.94	5.74	5.62	7.15	10.14	72.49	130
1905..	9.09	7.53	18.33	11.53	5.30	5.04	7.00	2.80	5.09	9.47	6.35	6.93	95.66	220
1906..	16.72	8.51	12.67	3.71	9.72	3.92	0.71	3.34	5.18	7.41	10.73	15.41	107.33	247
1907..	20.99	24.87	8.01	7.25	6.68	11.07	10.81	4.87	8.43	3.84	15.51	17.55	130.28	266
1908..	13.33	14.06	37.47	9.97	4.65	7.89	5.90	4.72	4.48	7.54	7.96	13.78	131.81	243
1909..	21.70	16.90	17.55	13.42	8.95	4.56	3.82	9.04	7.81	4.95	8.73	13.38	135.81	256
1910..	9.18	33.31	12.50	5.50	12.22	6.07	4.30	7.39	13.68	7.59	2.26	2.14	116.68	208
1911..	14.08	6.27	9.36	6.81	6.24	7.88	4.14	7.08	5.53	10.59	8.13	4.30	90.36	222
Mean for 15 years	12.97	16.56	16.45	7.73	7.40	5.94	7.15	7.64	7.72	8.50	9.02	11.47	118.54	218 (10yrs)

Record supplied by the Resident Commissioner. The following remarks in reference to the rainfall, &c., recorded during the seven years, 1898 to 1904 inclusive, were published in the Commissioner's Report for 1905—

† It will be gathered from the table that the months from December to March, the season of the north-west monsoon, are the wettest, and that the months of April to September, the season of the south-east trade wind, are those during which less rain falls. No period of the year can, however, rightly be called a dry season. June appears to be the month when least rain is to be expected.

The septennial average for July is affected by the abnormal rainfall for that month recorded during the year 1899, when about 17 inches of rain fell in two days. This appears to have been an altogether exceptional phenomenon.

The comparatively small total for the year 1900 is remarkable when compared with the annual totals for the remainder of the septennial period.

The south-east trade wind season may be said to set in during March or April, and to continue until November.

During the months from November to March, long periods of calm weather are experienced, varied by westerly and north-westerly winds, which sometimes blow with considerable force, but cyclonic storms, such as prevail during this season in more southerly latitudes, are unknown in the Solomons.

In the absence of proper instruments it has been impossible to keep any record of temperature or barometrical observations, but it is hoped that it may be possible to furnish these in future. A thermometer on the verandah at the Government Residence at Tulagi, about 220 feet above sea level, has never recorded a lower night temperature than 73° F., and during the cooler months, June to September, rises to about 86° to 88° during the day.

During the hot months, December to February, a temperature of 92° has occasionally been observed on calm days when the heat has not been tempered by a breeze off the sea.

It would be most interesting and valuable if observations of the tides could be taken by means of a self-registering tide gauge. The rise and fall of these at Tulagi and at most places in the Solomons is very irregular and perplexing. Generally speaking, there is only one tide in the twenty-four hours."

RENDOVA—Solomon Islands (28).

Lat. 8° 24' S., Long. 157° 19' E.

1906..	..	..	..	..	..	..	..	*9.13	*8.72	*10.64	*5.81	..	..	..
1907..	34.32	11.88	26.02	4.45	14.30	13.37	11.19	8.53	17.44	28.66	12.00	10.13	192.38	..
1908..	24.17	21.83	23.99	9.26	6.53	18.67	8.08	18.68	8.64	14.17	17.16	18.20	189.47	..
1909..	19.78	23.00	30.04	11.18	14.77	9.30	23.35	15.55	11.83	22.68	26.43	26.98	239.89	..
1910..	15.22	13.50	22.66	20.13	22.41	11.08	6.75	23.22	12.49	16.20	12.45	20.35	196.46	..
1911..	20.40	32.83	23.55	13.90	7.30	19.45	22.15	11.10	18.46	12.95	12.30	10.83	205.22	..
1912..	20.15	17.45	20.00	23.04	13.91	7.30	13.70	13.55	11.60	20.30	14.00	5.85	180.94	..
Mean for 6 years	22.34	20.92	24.38	13.66	13.22	13.20	14.22	15.11	13.41	19.16	15.72	15.41	200.73	..

Record supplied by Lever's Pacific Plantations Ltd., Sydney.

PEPESALA—Solomon Islands (29).

1906..	..	..	..	*4.52	*12.32	*6.57	*1.73	*1.37	*3.81	*5.56	*8.53	*5.44	..	..
1907..	33.75	13.70	19.27	2.03	8.56	4.36	4.75	3.15	8.66	6.61	10.11	17.82	133.06	..
1908..	32.20	14.62	11.91	5.94	8.57	20.25	9.53	5.96	8.14	8.95	11.61	11.50	140.30	..
1909..	15.45	12.90	23.03	8.94	5.00	9.20	5.89	6.22	2.65	7.90	9.79	22.56	134.53	..
1910..	10.03	17.62	16.80	11.29	9.80	6.44	4.18	2.52	4.71	8.53	9.76	18.02	119.70	..
1911..	17.41	35.48	18.30	12.80	15.14	7.64	6.51	10.26	9.19	10.19	2.49	4.52	149.93	..
1912..	14.31	6.79	26.25	6.80	4.11	3.09	2.69	3.75	5.88	11.24	5.18	3.93	94.02	..
Mean for 6 years	20.54	16.87	20.00	7.97	8.53	8.50	5.59	5.31	6.57	8.90	8.16	13.07	130.10	..

Record supplied by Lever's Pacific Plantations Ltd., Sydney.

* Not used in determining these Means.

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Table for KAU KAU—Solomon Islands (30). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1908-1912, Mean for 4 years.

Record supplied by Lever's Plantations Ltd., Sydney.

Table for LUNGA—Solomon Islands (31). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1906-1912, Mean for 5 years.

Record supplied by Lever's Plantations Ltd., Sydney.

Table for OOMA—OCEAN ISLAND (32). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1903-1912, Mean for 9 years.

Record supplied by the Pacific Phosphate Co., Ltd., Melbourne.

Table for HULL ISLAND (33). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1909-1912, Mean for 4 years.

Record supplied by Dr. J. B. Treusch, Pacific Cable Station, Fanning Island.

Table for WASHINGTON ISLAND, via FANNING ISLAND (36). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1910-1912, Mean for 4 years.

Record supplied by Mr. Jas. Greig, Acting Manager for Fanning Island and Washington Island Estate, and forwarded through the Deputy Commissioner, Fanning Island.

Table for CHRISTMAS ISLAND (37). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1910-1912, Mean for 4 years.

See page 256.

Table for MALDEN ISLAND (38). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1890-1912, Mean for 17 years.

MALDEN ISLAND (38).

Lat. 4° 1' S., Long. 154° 58' W.

Table for MALDEN ISLAND (38) data. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1890-1912, Mean for 17 years.

Record from March, 1890, to June, 1909, supplied by the Meteorological Office, London, which office formerly received returns from the representative, on the island, of Messrs. Grice, Sumner and Co., Melbourne. Since the latter date, however, the observations at the island have been under the supervision of the Commonwealth Meteorological Bureau, and returns have been forwarded direct to the Bureau.

Table for WEASISI—NEW HEBRIDES (39). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1885-1894, Mean for 8 years.

WEASISI—NEW HEBRIDES (39).

Lat. 19° 28' S., Long. 169° 23' E.

Table for WEASISI—NEW HEBRIDES (39) data. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1885-1894, Mean for 8 years.

† Total rainfall for the two months June and July was 7.90.

‡ Total rainfall for the two months June and July was 4.22.

§ Total rainfall from 26th May to end of July was 4.00.

|| Rain gauge overflowed in early part of August. Observer states about 3.00 inches lost—this is included in 16.31.

Table for EPI—New Hebrides (40). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1905-1912, Mean for 7 years.

EPI—New Hebrides (40).

Lat. 16° 48' S., Long. 168° 30' E.

Table for EPI—New Hebrides (40) data. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1905-1912, Mean for 7 years.

Record supplied by H. Roxburgh, Esq., Epi.

Table for ERROMANGA, DILLON'S BAY—New Hebrides (41). Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1905-1912, Mean for 6 years.

ERROMANGA, DILLON'S BAY—New Hebrides (41).

Lat. 18° 47' S., Long. 168° 58' E.

Table for ERROMANGA, DILLON'S BAY—New Hebrides (41) data. Columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total (Rain-fall, Days). Rows: 1905-1912, Mean for 6 years.

Record supplied by S. O. Martin, Esq., Dillon's Bay.

* Not used in determining these means.

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Table for ERROMANGA, PORT NARRAVEN—New Hebrides (42). Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1906-1912, Mean for 6 years.

Record supplied by E. O. Schmitz, Esq., Port Narraven.

Table for SANTO EAST—New Hebrides (43). Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1905-1912, Mean for 8 years.

Record supplied by Rev. E. McKenzie, Hog Harbour, Santo East.

Table for SANTO, ST. PHILIP'S BAY.—New Hebrides (—). Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1906-1912.

† Incomplete total. Observer on furlough for six months. Record supplied by Rev. W. Mackay, "Terevin," St. Phillip's Bay, Santo.

Table for TANNA—New Hebrides (44). Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1905-1912, Mean for 6 years.

Record supplied by Rev. T. McMillan, M.A., Whitesands, Tanna. ‡ 1910.—Total for March approximate only.

Table for PORT VILA—New Hebrides (45). Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1906-1910.

Record obtained from Annales du Bureau, Central Météorologique de France.

Table for IIRIKI, EFATE, New Hebrides (—). Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1905-1912, Mean for 5 years.

Record supplied by H.D.M. Resident Commissioner, Vila, New Hebrides.

Table for WALA, New Hebrides (—). Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1905-1908.

† Record for October, 1905, to April, 1906, taken at Uripla, an island 8 miles south of Wala.

Table for MALAPOA, NGUNA ISLAND, New Hebrides (—). Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1910-1912.

Record supplied by N. J. Ussher, Esq., Malapoa. † Approximate.

Table for DELANASAU, BUA—FIJI (46).†. Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1871-1913, Mean for 14 years.

Total rainfall for 1886 to 1901 inclusive (except year 1888) is 1394.75 inches. Number of days, 4,102. Record prior to September, 1900, supplied by R. L. Holmes, Esq., F.R. Met. Soc., and since that month by L. N. Anderson, Esq.

Table for BA (RARAWAI MILL)—Fiji (47). Columns: Year, Jan, Feb, Mar, Apr, May, June, July, Aug, Sept, Oct, Nov, Dec, Rain-fall, Days, Total. Rows: 1908-1911, Mean for 16 years.

* Not used in determining these means. † Mean (which is for period prior to 1911) supplied by the Department of Agriculture, Fiji. ‡ Supplementary records from Fiji stations appear on pages 237 and 253.

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Table header for monthly rainfall records, including columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Rain-fall, and Total Days.

NAVUTOKA—Fiji (62).

Table for NAVUTOKA—Fiji (62) showing rainfall data for years 1908 to 1911 and mean for 8 years.

RABI (RAMBE ISLAND)—Fiji (63).

Table for RABI (RAMBE ISLAND)—Fiji (63) showing rainfall data for years 1908 to 1911 and mean for 6 years.

RAKI-RAKI—Fiji (64).

Table for RAKI-RAKI—Fiji (64) showing rainfall data for years 1908 to 1911 and mean for 26 years.

REWA PLANTATION—Fiji (65).

Table for REWA PLANTATION—Fiji (65) showing rainfall data for years 1883 to 1911 and mean for 230 years.

MUANAWENI (REWA)—Fiji (66).

Table for MUANAWENI (REWA)—Fiji (66) showing rainfall data for years 1908 to 1911 and mean for 13 years.

NAITASIRI (REWA)—Fiji (67).

Table for NAITASIRI (REWA)—Fiji (67) showing rainfall data for years 1908 to 1911 and mean for 12 years.

NAUSORI (REWA)—Fiji (68).

Table for NAUSORI (REWA)—Fiji (68) showing rainfall data for years 1908 to 1911 and mean for 16 years.

VUCIMACA (REWA)—Fiji (69).

Table for VUCIMACA (REWA)—Fiji (69) showing rainfall data for years 1908 to 1911 and mean for 16 years.

Table header for monthly rainfall records for SAVUSAVU BAY, including columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Rain-fall, and Total Days.

SAVUSAVU BAY—Fiji (70).

Table for SAVUSAVU BAY—Fiji (70) showing rainfall data for years 1908 to 1911 and mean for 4 years.

SUVA—Fiji (71).

Lat. 18° 7' S., Long. 178° 25' E.

Table for SUVA—Fiji (71) showing rainfall data for years 1882 to 1913 and mean for 23 years.

TAILEVU—Fiji (72).

Table for TAILEVU—Fiji (72) showing rainfall data for years 1909 to 1911 and mean for 2 years.

WAIYEVO (TAVIUNI)—Fiji (73).

Table for WAIYEVO (TAVIUNI)—Fiji (73) showing rainfall data for years 1908 to 1911 and mean for 4 years.

TAVIUNI ISLAND (VUNA)—Fiji (74).

Table for TAVIUNI ISLAND (VUNA)—Fiji (74) showing rainfall data for year 1883 and mean for 177 years.

* Not used in determining these means.

† Mean (which is for period prior to 1911) supplied by the Department of Agriculture, Fiji.

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Total Rain-fall, Total Days. Includes data for WAINUNU (VANUA LEVU)—Fiji (75) and NANANUS (RA COAST)—Fiji (76).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Total Rain-fall, Total Days. Includes data for APIA (SONGI)—SAMOA (77).

This year was said to be an unusually dry one at this station.

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Total Rain-fall, Total Days. Includes data for FATUOSOFIA—Samoa (78).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Total Rain-fall, Total Days. Includes data for FANGAMALO—Samoa (79) and SALAILUA—Samoa (80).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Total Rain-fall, Total Days. Includes data for ALOFI—NIUE ISLAND (81).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Total Rain-fall, Total Days. Includes data for PAPEITI, TAHITI—SOCIETY ISLANDS (82).

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, Total Rain-fall, Total Days. Includes data for FLINT ISLAND (83).

* Not used in determining these means. † Mean (which is for period prior to 1911) supplied by the Department of Agriculture, FIJI. ‡ Apia, Fatuosofia, Fangamalo, and Salailua records obtained from Das Klima von Samoa, von Otto Tetens und Franz Linke.

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Table with columns: Year, January, February, March, April, May, June, July, August, September, October, November, December, Total Rain-fall, Days.

† NOUMEA—NEW CALEDONIA (84). Lat. 22° 16' S., Long. 160° 27' E., Altitude 30 feet.

Main data table for Noumea, New Caledonia, showing monthly and annual rainfall records from 1860 to 1910.

† CENTRE-OUAMÉNIÉ—New Caledonia (85). Lat. 21° 48' S., Long. 165° 58' E.

Main data table for Centre-Ouaménie, New Caledonia, showing monthly and annual rainfall records from 1905 to 1910.

† NÉPOUI—New Caledonia (86). Lat. 21° 18' S., Long. 164° 59' E.

Main data table for Népoui, New Caledonia, showing monthly and annual rainfall records from 1902 to 1908.

† 1906.—April total doubtful.

† OUITCHAMBO—New Caledonia (87). Lat. 21° 52' S., Long. 160° 3' E., Altitude 125 feet.

Main data table for Ouitchambo, New Caledonia, showing monthly and annual rainfall records from 1903 to 1910.

† 1906.—Total for June doubtful.

† PAITA—New Caledonia (88). Lat. 22° 7' S., Long. 166° 23' E., Altitude 82 feet.

Main data table for Païta, New Caledonia, showing monthly and annual rainfall records from 1903 to 1910.

† AVARUA, RAROTONGA—COOK ISLANDS (89). Lat. 21° 12' S., Long. 159° 47' W.

Main data table for Avaruā, Rarotonga, Cook Islands, showing monthly and annual rainfall records from 1899 to 1912.

† TITIKAVEKA, RAROTONGA—Cook Islands (90). About Lat. 21° 12' S., Long. 159° 47' W.

Main data table for Titikaveka, Rarotonga, Cook Islands, showing monthly and annual rainfall records from 1907 to 1911.

† AITUTAKI—Cook Islands (91). Lat. 18° 52' S., Long. 159° 40' W.

Main data table for Aitutaki, Cook Islands, showing monthly and annual rainfall records from 1907 to 1911.

* Not used in determining these means. † The records for Noumea, Païta, Centre-Ouaménie, Ouitchambo, and Népoui were obtained from "Annales du Bureau Central Météorologique de France." ‡ The records for Avaruā, Titikaveka, and Aitutaki were supplied by The Director, Meteorological Office, Wellington, N.Z.

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.		
													Rain-fall.	Days.	
														§ ATIU—Cook Islands (92).	
														Lat. 19° 59' S., Long. 158° 6' W.	
1909..	..	..	..	2.56	3.17	2.43	0.15	5.20	6.88	5.61	12.74	4.62	..	..
1910..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1911..	3.72	2.94	..	..	..	..	..	..	..	..	..	..	..	..
														§ ONEROA MANGAIA—Cook Islands (93).	
														Lat. 21° 55' S., Long. 157° 56' W.	
1907..	9.02	18.87	7.80	6.48	3.13	4.23	5.36	2.20	9.60	2.98	9.08	3.09	82.92	..	
1908..	10.63	7.35	13.61	7.57	5.89	7.48	8.98	1.66	3.97	4.15	2.50	7.54	81.31	..	
1909..	..	..	..	2.47	3.09	4.77	1.65	7.14	11.85	5.78	8.10	11.43	..	..
1910..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1911..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mean for 2 years	9.83	13.11	10.71	7.03	4.51	5.86	7.16	1.93	6.78	3.57	5.79	5.82	82.12	..	

NORFOLK ISLAND (94).

Lat. 29° 4' S., Long. 167° 58' E.

1890..	2.25	7.42	0.72	9.56	6.79	7.39	4.23	9.01	5.34	3.72	2.53	1.79	60.75	148
1891..	1.66	1.05	4.24	3.42	4.59	4.81	14.02	18.21	3.56	4.43	8.17	6.60	74.76	188
1892..	7.56	6.33	4.51	1.70	8.04	14.81	8.54	9.71	1.84	5.84	1.76	6.02	77.26	149
1893..	8.08	16.16	2.31	0.67	3.23	5.79	4.87	6.16	7.33	3.77	1.56	5.94	63.72	82
1894..	1.56	5.76	4.19	5.79	2.34	4.89	7.39	5.62	2.34	1.83	0.84	1.30	43.85	180
1895..	0.47	8.48	4.07	0.94	5.85	7.66	4.83	7.86	2.95	1.35	2.88	1.10	48.44	164
1896..	11.29	6.55	3.45	2.69	5.17	3.92	3.20	4.61	3.11	3.34	2.60	7.15	57.08	178
1897..	5.81	11.78	9.10	8.61	7.20	3.57	7.08	4.76	2.00	3.24	3.23	2.58	68.94	192
1898..	1.96	7.03	2.41	3.00	6.79	6.56	8.15	7.40	2.17	2.17	0.64	0.20	48.48	172
1899..	0.24	1.35	3.78	5.57	7.81	4.00	4.55	5.48	3.78	2.18	2.03	1.02	41.79	170
1900..	2.76	2.43	3.18	2.66	4.11	8.04	4.42	4.22	3.09	3.06	1.38	1.86	41.26	144
1901..	0.62	1.85	5.65	5.53	6.07	3.52	5.87	5.53	2.70	2.94	0.43	0.83	41.54	155
1902..	0.54	6.97	0.43	6.07	3.96	6.70	7.34	3.60	5.93	7.41	4.91	6.75	60.61	176
1903..	2.47	12.16	4.38	4.27	2.19	3.94	12.51	4.30	3.24	2.00	0.30	1.43	53.19	154
1904..	0.47	3.09	0.28	1.06	3.77	8.58	4.49	3.70	3.54	2.58	2.58	3.93	33.07	129
1905..	0.58	2.05	3.05	2.00	5.99	2.07	7.96	4.63	8.82	3.13	1.26	2.20	43.74	121
1906..	3.53	4.66	4.11	4.50	1.64	7.62	6.23	2.98	1.54	3.56	2.46	8.89	51.12	149
1907..	0.74	5.56	8.98	0.98	1.98	9.52	5.49	5.48	2.62	1.54	9.35	14.23	66.52	153
1908..	9.00	5.88	1.63	4.25	8.78	5.03	4.15	5.65	8.23	1.93	1.10	0.29	55.97	123
1909..	8.01	3.03	10.04	4.49	7.33	8.42	9.57	2.84	1.11	7.92	9.39	1.49	73.64	168
1910..	5.22	5.56	1.69	4.03	8.54	3.98	3.91	4.41	4.96	3.82	0.21	2.14	48.47	124
1911..	0.87	0.95	2.35	4.79	5.57	1.16	3.88	..	..	..	..	..	..	..
Mean for 21 years	3.56	5.96	3.91	3.89	5.34	5.99	6.60	5.98	3.82	3.42	2.84	3.73	55.06	153

Record supplied by the late Doctor P. H. Metcalfe, Deputy Chief Magistrate, Norfolk Island.

§ The records for Atiu, Oneroa, and Waitangi were supplied by the Director, Meteorological Office, Wellington, N.Z.

* Not used in determining these means.

† HULL ISLAND (33).

West point of Island—Lat. 4° 30' S., Long. 172° 13' 10" W.

From 1st May, 1903, to 30th April, 1904	..	..	..	..	..	..	..	..	..	..	..	..	..	41.80 inches
From 1st May, 1904, to 30th August, 1904	..	..	..	..	..	..	..	..	..	..	..	..	..	19.57 "
From 1st September, 1904, to 30th June, 1905	..	..	..	..	..	..	..	..	..	..	..	..	..	94.01 "
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	155.38 "

† SYDNEY ISLAND (34).

Lat. 4° 27' S., Long. 171° 15' W.

From 13th February, 1904, to 12th November, 1904	..	..	..	..	..	..	..	..	..	..	..	..	..	38.02 inches
From 13th November, 1904, to 30th June, 1905	..	..	..	..	..	..	..	..	..	..	..	..	..	53.08 "
Total	..	..	..	..	..	..	..	..	..	..	..	..	..	91.10 "

† Record supplied by Lever's Pacific Plantations Limited, Sydney, and includes all available figures.

LORD HOWE ISLAND (95).

Lat. 31° 32' S., Long. 159° 4' E.

1886..	..	4.01	3.31	14.58	5.63	3.89	3.49	4.95	10.77	5.29	3.90	6.92	..	..
1887..	11.45	9.10	3.14	9.59	2.55	10.56	6.74	4.27	5.70	5.18	4.66	2.77	75.71	188
1888..	3.07	0.93	3.95	2.72	3.07	3.89	7.51	0.50	4.20	4.10	0.55	4.72	39.21	141
1889..	2.30	1.90	1.34	2.98	10.79	7.30	8.44	6.14	5.16	2.22	11.48	3.95	64.00	212
1890..	0.38	2.72	4.17	2.90	3.27	10.35	5.69	9.15	5.28	3.80	6.93	3.95	58.59	201
1891..	7.91	3.28	8.17	2.62	5.34	15.25	8.73	3.65	5.03	10.05	2.08	4.20	76.31	242
1892..	2.35	1.99	16.74	5.87	4.74	7.34	6.30	6.68	4.40	8.18	5.70	9.08	79.27	233
1893..	6.58	13.28	1.63	12.32	4.38	6.18	5.57	3.85	4.11	5.78	3.96	1.76	69.40	213
1894..	8.88	7.43	13.41	1.98	6.53	3.11	4.52	3.82	6.10	1.42	1.29	3.85	62.34	232
1895..	2.34	9.47	5.17	5.89	6.32	6.74	4.96	16.17	..	1.37	3.96	11.98	..	..
1896..	0.94	..	..	..	..	..	..	..	..	..	..	..	..	..
1897..	3.48	2.18	9.54	6.71	3.93	10.25	3.16	6.32	2.14	6.57	2.81	10.26	67.35	..
1898..	3.82	6.05	4.07	11.00	6.73	9.34	9.98	7.73	3.58	3.39	4.93	6.96	77.58	..
1899..	5.51	3.16	1.56	8.68	3.81	7.68	12.10	12.16	3.17	10.69	2.33	3.91	74.76	..
1900..	..	5.42	4.79	10.73	4.61	7.14	3.12	6.10	9.76	5.57	6.21	0.68	..	..
1901..	1.91	1.10	2.39	2.83	3.67	7.31	4.31	4.89	8.08	4.71	1.12	1.52	43.84	..
1902..	6.88	3.51	3.02	9.09	..	..	11.44	4.67	..	10.38	1.23	9.05	..	..
1903..	2.61	5.12	..	..	..	..	..	..	..	..	..	..	..	..
1904..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1905..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1906..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1907..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1908..	..	..	1.47	3.28	5.99	5.09	3.97	4.86	6.26	3.21	2.05	2.23	..	..
1909..	4.51	5.47	4.68	12.22	8.15	10.59	8.82	6.69	9.82	4.43	8.46	6.47	90.31	171
1910..	11.38	9.66	14.77	4.07	7.31	9.67	13.27	2.22	7.29	11.62	8.21	13.35	112.32	187
1911..	7.97	2.76	6.92	7.37	6.94	7.10	7.55	3.81	6.07	5.17	3.61	0.68	65.95	166
1912..	3.23	3.25	2.87	4.03	4.46	5.04	19.54	6.85	6.23	2.94	2.76	3.92	65.17	168
Mean for 16 years	5.30	4.64	6.21	6.12	5.35	8.19	8.26	5.54	5.40	5.64	4.43	5.08	70.16	186 (12 yrs.)

Record supplied by Mrs. E. M. Kirby, Lord Howe Island.

† No returns for 19th, 20th, or 26th to 31st inclusive.

‡ Returns for 1st to 9th inclusive missing.

§ WAITANGI—CHATHAM ISLANDS (96).

Lat. 43° 52' S., Long. 176° 42' W., approx.

1893..	0.51	3.64	3.42	2.17	2.53	6.74	5.08	3.44	3.35	2.31	3.90	3.10	40.25	..
1894..	2.13	3.63	2.51	1.34	3.26	4.27	5.93	4.34	2.34	4.45	3.34	0.47	35.01	..
1895..	2.35	3.46	1.63	3.21	4.04	4.25	4.12	2.02	1.54	2.08	3.65	1.63	34.48	..
1896..	1.99	1.02	7.07	2.86	3.09	1.04	4.62	2.30	2.33	2.32	2.35	0.68	32.17	..
1897..	1.85	1.67	2.68	2.71	2.46	1.03	2.96	1.81	2.03	1.92	1.73	1.44	24.29	

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.	
	Rain-fall.	Days.											Rain-fall.	Days.

SUPPLEMENTARY TOTALS AND MEANS FROM FIJI RAINFALL STATIONS,

SUPPLIED THROUGH THE COURTESY OF HIS EXCELLENCY SIR ERNEST BECKHAM SWEET-ESCOTT, K.C.M.G., GOVERNOR OF FIJI, RECEIVED TOO LATE FOR INCLUSION IN THE FOREGOING TABLES:—

BA (BARAWAI MILL)—Fiji (47).

1911..	39.33	32.01	15.09	1.78	1.14	3.15	0.73	10.62	3.06	1.52	9.68	3.46	121.57	107
1912..	12.08	5.65	9.94	0.26	9.39	0.00	0.00	5.49	0.99	1.68	5.35	5.24	56.07	97
1913..	12.98	17.40	12.66	6.37	0.13	0.07	1.69	2.17	1.33	4.93	5.15	10.84	75.72	99
Mean for 19 years	12.57	17.98	11.96	7.32	3.42	2.09	1.60	2.81	2.16	3.13	4.36	8.61	78.01	122 (8 yrs.)

BAULAILAI (VANUA LEVU)—Fiji (48).

1911..	21.20	22.80	14.85	7.55	1.90	3.51	1.25	1.55	0.57	2.75	4.75	3.80	86.48	96
1912..	19.70	3.60	3.40	1.44	6.10	0.12	0.00	1.30	4.40	0.30	1.20	18.20	57.76	67
1913..	11.40	13.40	17.40	3.00	0.00	0.00	4.55	1.60	0.55	2.80	5.35	1.40	61.45	70
Mean for 8 years	15.30	11.72	16.28	7.63	4.03	1.60	1.63	2.17	2.16	2.59	6.44	9.54	81.09	86 (7 yrs.)

† BURESALA (OVALAU)—Fiji (49).

1911..	14.07	13.85	13.98	4.50	7.02	0.32	0.75	3.29	3.53	3.50	12.45	2.70	79.06	162
1912..	12.42	8.20	5.33	5.54	19.60	3.79	0.82	8.95	12.50	2.36	7.56	14.35	101.42	70
Mean for 5 years	9.67	12.61	12.38	9.29	12.03	4.79	2.40	4.25	8.70	6.91	10.08	7.91	101.02	..

† Observations discontinued after 1912.

LABASA—Fiji (50).

1911..	33.22	29.98	19.12	4.40	2.49	3.08	1.07	1.12	2.41	1.25	4.60	6.16	108.90	128
1912..	7.78	0.75	3.34	2.14	7.35	0.09	0.54	2.01	4.59	0.80	2.16	11.19	42.74	99
1913..	8.22	10.76	26.20	1.03	1.37	0.30	1.62	1.34	0.85	3.12	10.87	7.11	72.59	121
Mean for 19 years	13.05	13.96	13.46	7.85	4.20	1.73	1.70	1.78	2.71	3.12	5.07	9.12	77.75	122 (7 yrs.)

LAUTOKA ESTATE—Fiji (51).

1911..	12.30	26.56	13.54	4.41	3.79	1.39	0.74	7.58	2.01	0.55	3.76	2.36	78.99	105
1912..	10.22	7.25	5.32	0.88	11.23	0.09	0.00	3.69	0.59	0.82	4.24	3.06	47.39	77
1913..	10.86	12.03	7.32	4.71	0.01	0.19	5.14	1.33	1.42	6.61	5.17	4.18	58.97	99
Mean for 13 years	8.96	13.04	10.61	4.67	4.04	1.63	1.64	2.38	1.69	2.93	3.59	6.29	61.92	116 (8 yrs.)

LAUTOKA EXPERIMENT STATION—Fiji (52).

1911..	14.45	23.83	12.03	4.05	3.68	1.38	1.50	7.41	1.55	1.71	6.21	1.94	80.64	87
1912..	13.02	6.00	7.15	0.37	11.95	0.00	0.00	4.74	0.41	0.49	5.13	4.59	53.85	68
1913..	11.81	11.48	8.18	5.25	0.00	0.28	4.16	2.11	2.69	5.65	3.93	2.88	57.92	89
Mean for 7 years	10.70	14.24	10.77	5.58	4.62	1.28	1.87	3.53	2.33	3.10	4.88	4.09	67.15	90

KANDAVU—Fiji (53).

1911..	11.12	15.36	10.82	5.45	4.56	3.10	4.37	9.46	4.33	4.94	2.55	1.71	78.27	121
1912..	7.76	3.93	7.47	1.77	11.03	2.12	0.49	3.98	5.33	0.11	2.63	9.04	56.16	131
1913..	5.97	4.71	9.61	3.82	2.49	1.64	7.51	2.49	4.28	12.01	3.79	6.16	64.48	132
Mean for 7 years	7.11	10.21	9.46	5.47	6.48	2.91	4.57	7.73	4.57	6.18	4.92	5.66	75.27	123

LEVUKA—Fiji (54).

1911..	14.07	11.65	14.53	3.03	4.14	6.02	2.51	2.51	2.76	4.68	6.10	2.01	74.01	169
1912..	12.56	5.17	5.17	3.48	12.05	1.52	0.79	3.97	3.35	1.03	4.44	8.72	62.70	168
1913..	10.72	3.86	8.40	9.20	1.21	1.35	5.79	6.78	3.29	6.55	6.49	9.23	72.87	137
Mean for 19 years	10.72	10.51	12.88	9.74	6.60	4.47	3.55	6.02	4.88	5.91	9.17	9.23	93.68	196

MUNIA ISLAND (LAU)—Fiji (55).

1911..	20.06	12.01	8.79	3.92	7.73	7.81	0.77	2.68	2.22	2.53	2.03	3.45	74.06	135
1912..	10.45	3.39	8.40	4.40	7.80	2.19	0.38	4.09	1.34	4.15	2.00	7.21	56.40	137
1913..	3.33	10.30	20.48	2.44	2.40	0.52	4.27	1.27	2.16	8.98	2.59	6.73	65.47	169
Mean for 18 years	8.78	8.04	8.83	7.70	5.67	3.80	2.65	3.47	3.23	4.78	6.34	6.75	70.08	153 (7 yrs.)

NADARIVATU—Fiji (56).

1911..	32.72	39.07	26.16	4.29	5.07	7.04	1.68	13.60	2.54	4.73	11.74	7.34	155.98	173
1912..	24.26	4.66	18.47	1.52	14.92	0.45	0.09	5.92	1.61	2.20	7.92	16.42	98.44	161
1913..	25.27	15.49	41.24	9.32	3.85	1.25	1.26	5.92	5.02	5.08	12.92	13.94	141.46	167
Mean for 13 years	26.08	24.53	24.39	8.09	6.66	2.89	2.86	5.51	3.04	4.67	7.93	13.36	130.00	193 (7 yrs.)

NADI (NAVAKAI)—Fiji (57).

1911..	9.05	24.57	14.66	7.77	2.07	1.14	1.60	8.42	0.88	1.04	6.30	2.24	74.34	102
1912..	7.49	4.25	6.77	0.49	8.28	0.00	0.70	3.81	0.58	0.96	3.51	6.32	43.16	81
1913..	7.16	10.87	10.49	7.27	0.68	0.23	4.23	1.22	1.34	4.70	2.39	4.18	53.71	90
Mean for 12 years	8.51	11.71	9.29	3.89	2.92	1.77	2.01	2.74	1.81	2.27	3.48	6.21	56.61	..

NADROGA—Fiji (58).

1911..	13.42	14.89	15.50	2.50	14.27	2.48	0.50	7.20	0.59	0.59	5.64	4.55	82.13	132
1912..	8.95	3.02	7.68	9.90	9.44	2.56	0.48	4.58	1.91	2.23	4.11	7.77	62.65	112
1913..	5.52	6.93	10.25	5.19	1.51	0.63	4.26	5.57	3.18	3.89	9.00	..	..	..
Mean for 7 years	8.60	8.53	10.19	6.48	6.41	2.95	1.95	4.42	1.65	3.27	5.63	..	..	..

NASINU ESTATE—Fiji (59).

1911..	18.87	15.23	19.61	9.04	8.38	6.92	6.45	4.92	5.12	4.15	16.63	4.30	119.62	182
1912..	13.89	8.02	13.90	7.05	23.73	6.02	1.03	7.42	6.71	3.42	5.66	24.94	126.49	160
1913..	9.30	7.45	19.45	5.95	2.43	2.50	17.17	3.87	6.29	11.14	10.43	14.89	120.87	176
Mean for 19 years	11.76	12.60	15.94	11.21	11.48	5.97	5.18	7.62	6.57	7.70	9.69	13.01	118.73	181 (8 yrs.)

NASINU EXPERIMENT STATION—Fiji (60).

1911..	22.23	13.61	20.94	9.25	8.41	5.75	6.17	5.10	4.81	3.99	17.93	3.41	121.60	228
1912..	17.69	8.67	13.90	5.14	30.54	4.78	1.67	6.98	7.64	3.42	5.66	24.97	126.49	251
1913..	7.69	8.22	20.75	5.49	2.29	1.81	23.69	4.91	6.90	8.55	10.17	14.10	114.57	243
Mean for 7 years	12.86	13.14	16.48	7.79	14.56	6.32	7.11	6.31	5.84	9.11	14.24	14.29	128.00	250 (7 yrs.)

NAVUA—Fiji (61).

1911..	20.48	16.44	18.38	12.06	13.94	7.57	5.84	4.32	4.24	9.33	14.73	7.44	134.77	216
1912..	21.17	9.55	9.08	8.21	20.41	4.64	1.59	7.02	7.02	3.97	4.75	24.71	122.12	231
1913..	10.44	12.80	18.14	10.50	8.17	3.34	10.25	3.11	11.56	12.00	9.61	11.91	121.83	213
Mean for 29 years	15.52	12.54	16.32	15.61	13.41	7.47	5.65	9.77	8.52	11.20	13.24	14.95	144.20	223 (8 yrs.)

RABI (RAMBE ISLAND)—Fiji (63).

1911..	47.71	26.45	11.69	13.48	11.54	4.31	8.10	5.15	4.25	9.10	12.93	8.60	163.46	240
1912..	21.97	7.12	10.14	9.27	17.95	5.49	0.18	5.25	8.42	1.12	6.55	9.92	103.36	181
1913..	13.57	15.56	33.60	4.79	3.73	1.36	3.16	4.36	9.23	12.00	7.77	8.74	117.87	199
Mean for 9 years	21.00	14.39	21.49	16.07	14.86	6.41	4.84	7.85	6.29	8.35	12.63	17.85	152.02	223 (8 yrs.)

† Tables given on pages 251 to 254.

RETURN SHOWING MONTHLY AND ANNUAL RAINFALL RECORDS FOR PAPUA AND SOME ISLANDS IN THE SOUTH PACIFIC—continued.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.		Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual.	
													Rain-fall.	Days.														Rain-fall.	Days.

SUPPLEMENTARY TOTALS AND MEANS FROM FIJI RAINFALL STATIONS, ETC.—continued.

RAKI RAKI—Fiji (64).															SAVU SAVU BAY—Fiji (70).														
1911..	25.09	35.22	10.80	7.22	3.17	5.43	1.36	3.53	3.28	3.58	8.42	8.36	115.46	130	1911..	31.87	17.06	6.50	6.91	17.52	7.63	7.90	3.80	3.30	3.35	9.87	9.36	125.07	109
1912..	15.07	2.68	4.52	2.58	8.17	0.52	0.00	5.03	2.76	0.37	7.64	10.17	59.51	136	1912..	16.87	5.55	7.37	4.90	20.82	4.49	2.97	4.64	3.57	4.06	8.51	13.60	97.35	141
1913..	5.88	17.00	13.28	3.15	0.31	1.52	2.30	3.73	4.76	4.41	4.63	3.12	69.09	126	1913..	11.97	10.11	20.02	3.89	4.29	2.32	7.54	1.82	5.62	6.82	9.07	19.27	102.74	174
Mean for 29 years	12.05	14.74	12.55	9.73	5.15	2.36	1.69	3.07	2.10	3.36	5.48	7.89	80.17	123 (8 yrs.)	Means for 7 years	16.82	10.85	16.67	6.97	9.85	5.61	4.66	3.54	6.70	6.37	9.15	13.18	110.37	145 (6 yrs.)
MUANAWENI (REWA)—Fiji (66).															WAIYEVO (TAVIUNI)—Fiji (73).														
1911..	21.87	17.23	15.41	5.42	8.20	7.34	1.91	5.55	4.53	10.71	26.79	4.52	129.48	197	1911..	31.59	23.84	6.15	6.94	6.95	3.86	0.98	3.60	4.61	7.53	6.64	7.21	109.90	169
1912..	23.30	11.52	8.63	8.64	25.65	3.16	0.74	7.70	6.30	2.95	6.86	23.12	128.57	195	1912..	16.59	8.28	3.05	4.18	19.53	1.17	0.15	5.19	3.82	1.48	13.83	11.39	88.66	129
1913..	12.98	15.94	26.85	3.14	2.33	1.51	7.85	2.70	7.78	11.26	8.81	15.20	121.35	227	1913..	14.32	11.07	28.38	0.00	0.90	0.00	1.12	0.00	0.50	6.85	7.65	4.60	75.39	69
Mean for 16 years	16.43	17.35	17.96	13.41	9.35	5.86	4.61	8.18	6.64	7.98	12.09	16.36	136.21	214 (8 yrs.)	Mean for 7 years	14.89	14.35	14.91	8.65	8.29	3.28	0.79	4.06	5.26	6.41	10.57	11.05	102.51	162
NAITASIRI (REWA)—Fiji (67).															WAINUNU (VANUA LEVU)—Fiji (75).														
1911..	19.28	17.90	18.34	7.01	10.11	7.12	3.22	5.12	5.37	8.60	25.52	5.65	133.24	194	1910..	10.19	16.97	42.56	12.62	13.52	7.77	3.20	6.72	20.56	14.06	20.74	25.03	193.94	242
1912..	19.02	12.71	9.42	3.18	32.05	4.76	0.84	7.18	8.75	3.41	8.20	25.21	139.73	209	1911..	37.24	27.09	18.07	8.27	13.01	7.92	7.38	3.03	5.57	9.99	6.54	9.85	153.96	215
1913..	10.75	16.68	30.94	9.21	2.12	2.16	11.91	3.26	11.64	11.76	11.37	15.15	136.95	216	1912..	20.58	6.61	13.83	8.43	18.28	3.00	1.09	4.47	5.03	3.22	11.23	18.97	114.72	208
Mean for 15 years	15.53	16.01	17.25	11.34	10.87	5.53	3.90	8.09	7.23	7.90	12.43	16.70	132.78	214 (8 yrs.)	Mean for 34 years	19.67	18.13	18.78	15.97	11.72	6.47	5.72	6.52	8.93	11.02	11.92	15.75	150.60	..
NAUSORI (REWA)—Fiji (68).															MOKOGAI—Fiji (—).														
1911..	20.71	11.45	19.48	6.68	10.06	5.36	3.29	4.23	3.06	3.77	17.54	3.04	108.67	..	1912..	9.86	3.24	6.62	4.36	10.01	1.52	0.20	3.19	5.84	1.53	2.39	9.48	58.24	133
1912..	12.51	8.53	8.66	2.55	30.30	3.68	0.60	6.14	7.59	2.49	5.79	23.47	112.31	226	1913..	4.39	5.46	15.69	3.72	0.67	0.51	3.00	3.27	4.86	4.48	7.08	9.15	62.25	146
1913..	8.40	17.57	17.60	5.40	2.31	1.88	25.65	4.00	8.37	11.65	7.68	16.09	126.50	229	Mean for 3 years	8.04	3.98	9.64	4.15	6.90	3.07	1.34	2.81	3.86	2.44	4.02	7.00	57.25	132
Mean for 19 years	11.46	12.27	14.24	10.66	9.49	5.44	4.30	6.29	5.82	6.89	8.42	11.98	107.27	..	ROTUMAH—Fiji (—).														
VUCIMACA (REWA)—Fiji (69).															1911..	21.15	26.92	7.78	7.43	12.85	9.25	3.69	8.78	6.55	9.62	13.89	19.13	147.04	..
1911..	23.61	9.86	16.50	4.97	3.21	5.40	4.30	4.71	4.64	2.78	16.67	2.73	99.38	131	1912..	14.72	13.05	4.71	17.49	15.46	6.65	4.98	17.63	9.45	22.80	18.42	6.99	152.25	..
1912..	11.81	7.11	8.39	2.51	29.73	3.04	0.94	5.89	8.38	1.74	4.73	26.28	110.55	138	1913..	15.65	23.42	14.60	4.46	6.30	10.16	11.64	7.37	11.27	12.18	5.17	2.53	123.75	..
1913..	7.62	10.31	16.10	3.50	2.17	2.81	20.71	3.28	7.07	11.17	7.81	12.91	105.46	158	Mean for 9 years	14.58	16.91	14.65	9.78	12.26	7.72	7.12	7.16	7.12	10.09	10.67	11.19	129.25	..
Mean for 19 years	10.72	11.69	13.94	9.97	8.97	5.28	4.53	6.20	5.66	6.59	8.09	11.36	103.00	172 (8 yrs.)															

ADDITIONAL FIJI RECORDS obtained from data supplied by R. L. Holmes, Esq., F. R. Met. Soc. :—

KADE, BUA—Fiji (—).															NABUNI, SAVU SAVU CENTRAL—Fiji (—).														
1880..	..	..	..	..	..	..	..	..	..	..	..	..	87.03	100	1884..	..	..	..	..	..	..	..	..	..	..	..	105.45	154	
1881..	..	..	..	..	..	..	..	..	..	..	..	..	122.59	170	1885..	..	..	..	..	..	..	..	..	..	..	..	121.01	207	
1882..	..	..	..	..	..	..	..	..	..	..	..	..	102.84	160	1886..	..	..	..	..	..	..	..	..	..	..	..	117.40	203	
1883..	..	..	..	..	..	..	..	..	..	..	..	..	86.63	148	1887..	..	..	..	..	..	..	..	..	..	..	..	148.43	241	
1884..	..	..	..	..	..	..	..	..	..	..	..	..	73.92	100	1888..	15.48	23.20	18.75	30.07	8.47	7.65	7.21	4.78	10.69	24.61	7.21	5.45	163.57	240
1885..	..	..	..	..	..	..	..	..	..	..	..	..	60.34	139	Mean	..	..	..	..	..	..	..	..	..	..	..	131.17	209 (5 yrs.)	
1886..	..	..	..	..	..	..	..	..	..	..	..	..	94.98	122	ALPHA ESTATE, TAVIUNI—Fiji (—).														
1887..	..	..	..	..	..	..	..	..	..	..	..	..	111.09	165	1882..	..	..	..	..	..	..	..	..	..	..	..	..	110.55	..
1888..	16.08	14.88	12.58	21.29	5.42	5.55	2.60	4.62	8.01	15.05	2.30	1.13	109.51	142	1883..	..	..	..	..	..	..	..	..	..	..	..	..	183.11	..
Mean	..	..	..	..	..	..	..	..	..	..	..	..	94.33	138 (9 yrs.)	1884..	..	..	..	..	..	..	..	..	..	..	..	..	107.91	..
WAILALAI, BUA—Fiji (—).															1885..	..	..	..	..	..	..	..	..	..	..	..	..	122.22	..
1888..	16.36	11.59	12.44	22.37	5.70	6.89	1.20	3.74	5.01	9.93	1.88	1.13	98.24	134	1886..	..	..	..	..	..	..	..	..	..	..	..	..	136.58	..
MASUSUTEA ESTATE, WAINUNU (VANUA LEVU) —Fiji (—).															1887..	..	..	..	..	..	..	..	..	..	..	..	..	144.37	..
1880..	..	..	..	..	..	..	..	..	..	..	..	..	135.43	..	1888..	20.61	35.60	20.85	24.43	17.38	6.56	8.90	3.90	15.01	36.63	8.23	8.34	206.44	..
1881..	..	..	..	..	..	..	..	..	..	..	..	..	157.54	..	Mean	..	..	..	..	..	..	..	..	..	..	..	..	144.37 (6 yrs.)	..
1882..	..	..	..	..	..	..	..	..	..	..	..	..	116.88	..	WAKAYA—Fiji (—).														
1883..	..	..	..	..	..	..	..	..	..	..	..	..	127.78	..	1880..	..	..	..	..	..	..	..	..	..	..	..	..	106.74	221
1884..	..	..	..	..	..	..	..	..	..	..	..	..	100.21	..	1881..	..	..	..	..	..	..	..	..	..	..	..	..	104.52	222
1885..	..	..	..	..	..	..	..	..	..	..	..	..	120.90	..	1882..	..	..	..	..	..	..	..	..	..	..	..	..	60.52	162
1886..	..	..	..	..	..	..	..	..	..	..	..	..	130.09	..	1883..	..	..	..	..	..	..	..	..	..	..	..	..	70.75	146
1887..	..	..	..	..	..	..	..	..	..	..	..	..	187.57	..	1884..	..	..	..	..	..	..	..	..	..	..	..	..	70.41	115
1888..	17.40	25.97	15.22	33.51	14.80	9.04	12.62	5.74	14.65	24.63	3.62	6.37	183.57	..	1885..	..	..	..	..	..	..	..	..	..	..	..	..	46.74	142
Mean	..	..	..	..	..	..	..	..	..	..	..	..	140.00 (9 yrs.)	..	1886..	..	..	..	..	..	..	..	..	..	..	..	..	55.66	155
															1887..	..	..	..	..	..	..	..	..	..	..	..	..	97.85	195
															1888..	5.23	10.72	6.53	19.02	3.85	5.14	5.37	2.56	6.84	13.19	3.76	2.00	84.21	221
															Mean	..	..	..	..	..	..	..	..	..	..	..	..	77.49 (9 yrs.)	174

APPENDIX II.

MONTHLY AND YEARLY
METEOROLOGICAL ELEMENTS AND NORMALS
OF
BRISBANE.

Lat., 27° 28' S.; Long., 153° 2' E. Height above mean sea level, 137 feet. Least distance from coast, 10 miles.

* E.S. MacDonnell, Govt Observer, Manager of Havel's Jewellers Shop in Queen St where Nissen's now is. His Residence was Wickham Terrace where Dr Lockhart Gibson afterwards lived.

Dr F.J. Barton, M.O. in charge, Old Hospital in George St. afterwards took over Ambrose Eldredge's Chemist Shop in Queen St near present Woolworth's (1862?)

1858-59. Previous. Pugh states "records of rainfall can be obtained from N.S.W Govt Gazette" ¹⁸⁶⁰

NOTE.

Rain records were started at Brisbane in January, 1840, but, unfortunately, a break occurs between 1847 and 1860, and all efforts (such as searching through old *Government Gazettes*, old publications, and newspapers) have failed to reveal the missing figures, if any existed. Notwithstanding this break, a splendid record of 62 complete years is available.

The record shows that 1893 had the greatest annual total, with 8826 points, and 1902 had the least, with a total of only 1617 points. The highest total for one month was 4039 points, in February, 1893, and next to that was 3404, in March, 1870. The greatest fall in 24 hours was 1831 points, on 21st January, 1887.

The record was obtained from observations made by, or at the direction of, the officials named hereunder:—

From 1840 to 1850 (April), inclusive	..	..	Captain J. C. Wickham, Government Resident. <i>(at Newstead House)</i>
From 1850 (May) to 1857, inclusive	..	..	No record available.
From 1858 to 1862, inclusive	..	..	Dr. F. J. Barton, Meteorological Observer.
1863	..	..	Albert Barton, Esq., Meteorological Observer.
From 1864 to 1865, inclusive	..	..	The Superintendent of Telegraphs <i>(Mr Cracknell) William St. Dr Lang's</i>
From 1866 to 1868 (August), inclusive	..	..	Rev. John Bliss, Government Meteorologist. <i>Old Church grounds?</i>
From 1868 (September) to 1886, inclusive	..	..	* Edmund MacDonnell, Esq., Government Meteorological Observer. <i>(1)</i>
From 1887 to 1903 (June), inclusive	..	..	C. L. Wragge, Esq., F.R. Met. Soc., Government Meteorologist. <i>(2)</i>
From 1903 (July) to 1907, inclusive	..	..	J. B. Henderson, Esq., Hydraulic Engineer. <i>(3)</i>
From 1908 (January) onwards	..	..	H. A. Hunt, Commonwealth Meteorologist.

Climatological data are only available since January, 1887, when Stevenson's screens were installed at Wickham Terrace. Information regarding climatological records prior to that date could not be obtained.

The bulbs of the dry and wet bulb thermometers are 4 feet from the ground, and the terrestrial minimum is exposed on a dull black board. Earth temperatures are taken by means of tubes sunk in the ground to the required depths. About 3 or 4 inches of water is in the bottom of the tubes, and an ordinary thermometer, with a small bucket attached, is lowered and left until it registers the temperature of the water in each tube.

All records have been made at Wickham Terrace.

H. A. HUNT,
Commonwealth Meteorologist.

- (1) ~~Edmund MacDonnell (?) Postmaster lived in old G.P.O. next to old gaug. on site of old Town Hall~~
R. Gauge perhaps kept in yard between Queen St + Burnett Lane, Queen St.
- (2) 1887. C. L. Wragge had observatory near gaug's ladder, on site of present Trades Hall.
- (3) J. B. Henderson, gauge probably at Post's office yard, lower Edward St?
- (4) 1866-68. Rev. John Bliss } ^{wind gauge,}
 } ^{thermometer on}
 } gauge in Rectory Gardens, now site of Executive Gardens (William St + George St).
- Sept 68-1886. Ed. MacDonnell, gauge at old Weather Bureau office, ^{originally on} site of private boxes in Elizabeth St.
later, office was shifted upstairs on front verandah G.P.O.; but gauge?
- 1864. Mr Cracknell, gauge in yard of old E.H.T.O. William, originally Dr Lang's Church.
- 66-68 Bliss, site, moved gauge to Rectory grounds, gauge 2' from ground. ^{site of present Post Office entrance.}

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MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE.

BAROMETER.

TABLE I.

MEAN BAROMETER DEDUCED FROM $\frac{9a + 3p}{2}$
(Corrected and reduced to 32°F., M.S.L., and Standard Gravity).

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	29.800	29.825	29.947	30.053	30.042	29.947	30.061	30.144	29.975	29.977	29.978	30.018	29.981
1888	29.896	29.914	29.952	30.196	30.127	30.151	30.055	30.102	30.106	30.038	29.954	29.946	30.036
1889	29.932	29.928	30.011	30.112	30.073	29.983	30.086	30.068	30.002	30.033	29.879	29.809	29.989
1890	29.913	29.924	29.914	30.036	30.103	29.983	30.013	30.050	29.992	29.883	29.871	29.873	29.955
1891	29.847	29.860	29.988	30.087	30.200	29.913	30.043	30.081	30.058	29.998	29.962	29.827	29.989
1892	29.874	29.937	29.802	29.948	30.090	30.104	30.087	29.953	29.935	29.951	29.895	29.791	29.930
1893	29.730	29.748	29.971	29.991	30.053	29.975	30.024	30.117	29.973	29.889	29.901	29.849	29.925
1894	29.710	29.871	29.926	30.066	30.053	30.026	30.040	30.048	30.021	30.052	29.984	29.954	29.985
1895	29.781	29.802	29.927	30.084	30.135	30.106	30.034	30.056	29.978	30.043	29.972	29.836	29.906
1896	29.823	29.805	29.961	30.016	30.078	29.990	29.958	30.078	30.098	30.071	30.019	29.978	30.006
1897	29.839	29.844	29.895	30.062	30.051	30.094	30.116	30.036	30.016	29.937	29.981	29.918	30.004
1898	29.758	29.855	30.017	30.005	30.047	30.094	30.082	30.106	30.081	29.950	29.872	29.871	29.978
1899	30.004	29.994	30.032	30.056	30.080	29.998	30.116	30.056	30.170	30.041	29.915	29.968	30.007
1900	29.836	29.895	29.958	30.052	30.191	30.056	30.102	30.108	30.095	29.990	29.975	29.935	30.006
1901	29.813	29.876	29.976	30.034	30.136	30.148	30.102	30.108	30.095	30.024	30.127	29.884	30.036
1902	29.920	29.894	29.905	30.016	30.095	30.189	30.169	30.151	30.012	29.980	30.033	29.865	30.017
1903	29.885	29.781	29.943	30.062	30.130	30.082	30.052	30.134	29.907	30.023	29.975	29.825	29.966
1904	29.910	29.896	30.020	30.126	30.026	30.045	30.095	30.131	30.023	30.013	29.955	29.960	30.002
1905	29.916	29.954	29.947	30.043	30.133	30.152	30.102	30.122	29.950	29.909	29.959	29.880	30.004
1906	29.787	29.923	29.897	30.016	30.145	30.134	30.063	30.136	30.022	30.005	29.904	29.961	30.017
1907	30.002	29.826	29.866	30.044	30.132	30.058	30.076	30.016	30.067	29.974	29.966	29.869	29.984
1908	29.889	29.858	29.950	30.006	30.048	30.096	30.123	30.070	30.051	30.088	30.024	29.886	30.017
1909	29.834	29.918	29.923	30.086	30.088	30.064	30.043	30.093	29.960	29.994	29.957	29.848	29.978
1910	29.871	29.868	29.949	29.952	30.088	30.112	30.078	30.110	30.025	30.023	29.953	29.775	29.984
1912	29.874	29.984	29.910	30.040	30.132	30.163	30.005	30.094	29.938	30.004	29.961	29.895	30.000
Means, 26 years	29.866	29.893	29.951	30.043	30.096	30.061	30.061	30.087	30.024	29.906	29.960	29.884	29.993

TABLE II.

HIGHEST READING OF THE BAROMETER
(Corrected and reduced to 32°F., M.S.L., and Standard Gravity).

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	29.994	30.138	30.218	30.231	30.230	30.383	30.345	30.399	30.202	30.310	30.221	30.218	30.399
1888	30.200	30.078	30.307	30.448	30.337	30.447	30.343	30.300	30.353	30.289	30.283	30.168	30.448
1889	30.209	30.143	30.302	30.303	30.492	30.204	30.337	30.471	30.237	30.357	30.114	30.067	30.492
1890	30.102	30.053	30.206	30.247	30.272	30.324	30.241	30.261	30.268	30.214	30.178	30.250	30.324
1891	30.087	30.133	30.254	30.252	30.434	30.304	30.389	30.407	30.434	30.408	30.276	30.150	30.484
1892	30.076	30.111	29.961	30.245	30.319	30.406	30.320	30.207	30.184	30.205	30.117	30.131	30.406
1893	30.094	30.066	30.198	30.116	30.354	30.280	30.264	30.505	30.213	30.152	30.131	30.122	30.505
1894	29.942	30.221	30.184	30.192	30.224	30.361	30.345	30.317	30.336	30.257	30.216	30.140	30.361
1895	29.953	30.134	30.269	30.370	30.390	30.327	30.302	30.304	30.339	30.314	30.239	30.050	30.390
1896	30.185	30.086	30.147	30.348	30.337	30.284	30.298	30.452	30.300	30.298	30.164	30.131	30.452
1897	30.155	30.143	30.342	30.245	30.354	30.406	30.346	30.257	30.302	30.129	30.225	30.217	30.406
1898	30.077	30.001	30.117	30.312	30.411	30.444	30.468	30.481	30.201	30.234	30.213	30.134	30.481
1899	30.044	30.098	30.212	30.247	30.340	30.297	30.500	30.381	30.398	30.418	30.334	30.183	30.500
1900	30.164	30.166	30.232	30.329	30.360	30.240	30.310	30.234	30.342	30.309	30.128	30.192	30.360
1901	30.062	30.157	30.147	30.313	30.370	30.391	30.453	30.428	30.407	30.304	30.339	30.117	30.453
1902	30.170	30.088	30.290	30.308	30.380	30.434	30.505	30.350	30.295	30.374	30.301	30.191	30.505
1903	30.209	30.101	30.136	30.295	30.346	30.446	30.394	30.404	30.290	30.307	30.271	30.044	30.446
1904	30.177	30.077	30.173	30.246	30.350	30.240	30.370	30.354	30.253	30.322	30.214	30.151	30.370
1905	30.160	30.170	30.281	30.336	30.333	30.450	30.344	30.399	30.277	30.315	30.219	30.161	30.450
1906	30.169	30.123	30.175	30.250	30.361	30.457	30.340	30.453	30.244	30.250	30.193	30.109	30.457
1907	30.072	30.160	30.159	30.249	30.385	30.354	30.417	30.281	30.340	30.288	30.230	30.130	30.417
1908	30.149	30.083	30.147	30.255	30.342	30.382	30.463	30.322	30.280	30.319	30.154	30.125	30.463
1909	30.144	30.116	30.150	30.225	30.387	30.373	30.270	30.361	30.253	30.255	30.185	30.184	30.387
1910	30.226	30.148	30.277	30.302	30.386	30.402	30.281	30.450	30.301	30.370	30.293	30.049	30.450
1911	30.105	30.090	30.220	30.245	30.316	30.450	30.357	30.371	30.274	30.252	30.213	30.043	30.459
1912	30.175	30.235	30.062	30.355	30.367	30.415	30.348	30.390	30.284	30.269	30.143	30.115	30.415

TABLE III.

LOWEST READING OF THE BAROMETER
(Corrected and reduced to 32°F., M.S.L., and Standard Gravity).

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	29.514	29.275	29.737	29.364	29.779	29.692	29.761	29.879	29.611	29.638	29.616	29.675	29.275
1888	29.606	29.760	29.454	29.932	29.857	29.815	29.676	29.784	29.838	29.758	29.667	29.504	29.454
1889	29.521	29.578	29.726	29.805	29.668	29.534	29.608	29.577	29.735	29.717	29.541	29.534	29.521
1890	29.626	29.423	29.490	29.649	29.897	29.736	29.849	29.710	29.734	29.534	29.618	29.531	29.423
1891	29.672	29.654	29.207	29.779	29.877	29.551	29.811	29.811	29.684	29.679	29.524	29.476	29.207
1892	29.619	29.657	29.499	29.204	29.791	29.568	29.744	29.598	29.498	29.602	29.634	29.477	29.204
1893	29.044	29.374	29.492	29.498	29.669	29.303	29.831	29.625	29.651	29.624	29.631	29.352	29.044
1894	29.472	29.499	29.227	29.832	29.823	29.777	29.726	29.654	29.646	29.747	29.722	29.720	29.227
1895	29.404	29.603	29.833	29.752	29.944	29.684	29.779	29.738	29.707	29.737	29.573	29.527	29.404
1896	29.789	29.697	29.625	29.748	29.799	29.724	29.570	29.587	29.808	29.653	29.743	29.794	29.570
1897	29.513	29.553	29.495	29.802	29.830	30.052	29.784	29.830	29.626	29.696	29.629	29.480	29.513
1898	29.478	29.441	29.579	29.705	29.588	29.873	29.723	29.715	29.832	29.398	29.478	29.524	29.478
1899	29.283	29.834	29.854	29.670	29.776	29.684	29.561	29.663	29.646	29.651	29.283	29.535	29.283
1900	29.754	29.778	29.756	29.684	29.650	29.609	29.594	29.630	29.758	29.633	29.613	29.500	29.609
1901													

TEMPERATURE.

TABLE IV.
MEAN MAXIMUM SHADE TEMPERATURE.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	85.1	81.7	81.7	77.3	70.9	65.7	67.7	69.5	73.6	79.9	79.9	80.9	76.2
1888	84.3	82.0	82.5	76.4	73.1	70.7	70.3	72.7	75.4	80.1	85.5	85.0	78.2
1889	87.6	88.2	83.2	77.7	72.9	68.3	67.3	70.4	75.7	78.9	81.5	86.2	78.2
1890	82.1	81.4	79.7	75.8	71.8	69.2	65.3	70.4	76.0	83.4	82.8	84.2	76.9
1891	84.7	83.5	79.6	76.7	71.8	68.8	67.0	69.6	73.2	77.8	82.5	86.0	76.8
1892	85.1	86.5	82.2	76.1	71.9	68.4	68.0	71.7	73.5	79.0	82.6	86.7	77.6
1893	84.4	79.8	78.4	77.6	74.1	66.0	67.7	69.8	75.9	82.0	83.6	86.5	77.1
1894	84.1	83.5	79.8	77.6	72.2	69.6	68.4	71.8	73.1	78.2	83.4	82.0	77.0
1895	83.4	83.9	82.0	78.4	74.8	71.3	66.2	75.2	77.0	81.3	82.0	86.9	78.5
1896	88.0	82.6	83.1	80.9	74.0	68.9	66.6	70.2	76.1	81.8	78.5	82.6	77.8
1897	85.1	86.3	84.0	82.2	76.1	70.9	71.3	72.0	75.8	80.1	83.7	82.1	79.1
1898	82.4	82.0	80.6	79.8	70.9	68.9	69.9	69.8	77.1	81.7	86.3	83.7	77.8
1899	88.1	82.1	83.0	78.4	73.6	68.1	65.9	68.5	73.2	77.1	84.9	84.8	77.3
1900	82.7	86.2	84.0	79.7	72.3	69.5	66.8	73.3	75.4	83.2	84.1	87.1	78.7
1901	88.1	83.6	82.4	77.3	73.0	66.7	66.3	70.1	76.9	78.6	80.9	86.2	77.5
1902	88.9	87.0	84.2	80.5	75.9	75.1	71.1	71.5	77.5	81.1	83.4	88.7	80.4
1903	90.0	87.7	83.4	81.2	72.3	69.5	68.7	69.7	75.5	76.9	78.5	86.0	78.3
1904	85.5	88.6	82.6	76.4	73.5	67.9	67.7	72.0	76.9	79.2	85.9	85.0	78.3
1905	85.3	85.3	85.1	78.6	73.3	69.8	68.4	71.9	76.4	76.8	84.0	85.8	78.4
1906	85.1	83.1	80.3	81.8	74.7	70.8	70.8	71.9	73.8	78.6	83.6	83.6	78.0
1907	84.5	85.4	82.6	81.7	73.8	68.3	69.1	73.6	77.9	81.8	80.8	84.5	78.7
1908	83.9	86.0	83.2	78.9	74.8	66.9	68.1	69.6	75.1	78.6	81.8	87.2	77.8
1909	85.2	85.0	82.5	79.8	75.3	70.0	66.8	70.3	75.6	80.9	83.4	85.2	78.3
1910	85.1	84.5	80.4	78.8	76.7	70.1	68.8	73.3	77.0	79.5	80.6	87.4	78.5
1911	83.9	81.6	83.0	81.2	74.0	70.5	70.2	70.9	77.2	78.5	85.3	91.9	78.9
1912	88.6	88.6	83.8	81.7	76.4	71.3	68.0	72.4	80.2	80.0	83.3	86.7	80.1
Mean, 26 years	85.4	84.5	82.2	78.9	73.5	69.3	68.2	71.2	75.8	79.8	82.7	85.5	78.1

TABLE V.
MEAN MINIMUM SHADE TEMPERATURE.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	70.1	68.4	69.1	62.8	52.9	48.4	48.8	51.1	53.7	58.6	61.1	64.9	59.2
1888	66.5	68.5	63.4	60.9	54.3	50.0	47.4	48.7	55.0	60.4	63.8	67.9	58.9
1889	68.0	68.7	67.5	64.2	59.7	50.8	51.5	51.9	55.6	59.5	64.8	68.9	60.9
1890	67.7	68.1	67.1	61.1	56.0	53.4	46.3	47.2	55.7	60.5	63.1	65.9	59.3
1891	70.7	66.8	65.0	61.6	55.5	49.9	48.1	49.1	53.0	58.1	63.5	66.3	59.0
1892	67.5	67.8	68.3	60.2	57.6	50.8	49.6	49.1	54.8	61.6	63.4	67.0	59.8
1893	67.0	69.4	65.0	59.6	54.4	50.1	48.5	53.9	53.7	60.9	64.7	66.5	59.5
1894	69.6	68.8	67.8	63.0	53.6	48.3	45.7	48.6	52.7	60.3	64.7	64.8	59.0
1895	70.1	67.7	63.7	60.9	54.1	48.6	44.5	46.5	53.3	61.4	63.8	68.2	58.6
1896	70.8	70.5	65.1	61.6	55.0	47.7	44.7	48.0	52.8	61.0	62.5	66.0	58.9
1897	68.1	67.8	65.4	59.7	52.1	55.3	50.3	52.0	56.3	61.9	62.5	65.8	60.0
1898	69.0	69.5	67.3	62.2	52.1	51.8	47.4	51.1	56.3	58.9	66.5	65.4	59.9
1899	70.8	66.3	66.2	61.8	53.8	51.8	48.4	49.8	56.2	57.4	63.6	67.8	59.6
1900	67.0	69.3	67.3	60.2	56.5	52.6	46.8	50.0	53.7	58.7	65.1	68.6	59.6
1901	69.0	68.5	67.9	61.3	56.8	49.0	47.3	50.7	57.1	59.2	63.4	67.2	59.8
1902	70.4	69.8	64.4	58.9	53.5	50.8	49.7	49.3	54.2	61.2	64.2	70.0	59.7
1903	69.0	70.5	69.8	62.4	56.1	50.7	51.0	54.9	58.0	60.7	68.3	60.1	60.1
1904	68.0	67.3	66.4	63.3	57.2	48.5	48.5	54.3	61.2	65.1	67.5	69.5	59.5
1905	69.3	68.9	67.2	63.3	57.2	50.0	44.4	49.2	51.3	57.2	63.6	67.9	59.1
1906	69.4	69.1	66.6	61.8	55.1	52.3	47.1	49.2	57.4	60.2	62.1	67.2	59.8
1907	69.2	68.4	67.0	59.3	56.7	54.9	46.4	46.8	54.0	61.5	65.0	69.0	59.8
1908	67.8	66.6	66.0	64.1	57.7	45.7	48.2	50.6	54.4	56.5	63.8	67.8	59.4
1909	66.8	67.1	65.7	61.4	54.7	53.3	48.0	52.6	55.1	61.2	65.5	67.9	59.9
1910	70.1	67.5	66.4	61.4	58.0	52.8	49.5	51.4	58.3	59.1	63.3	68.5	60.5
1911	69.1	67.9	65.9	60.2	53.6	47.8	48.0	49.6	54.5	59.7	66.1	71.4	59.5
1912	69.2	69.1	66.4	61.9	54.6	55.3	50.7	50.7	52.9	59.7	64.8	66.7	60.2
Mean, 26 years	69.0	68.5	66.5	61.5	55.3	50.6	47.9	49.9	54.6	59.8	64.0	67.5	59.6

TABLE VI.
MEAN SHADE TEMPERATURE DEDUCED FROM $\frac{\text{Max.} + \text{Min.}}{2}$.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	77.6	75.0	75.4	70.0	61.9	57.0	58.2	60.3	63.6	69.2	70.5	72.9	67.7
1888	75.4	75.2	73.0	68.6	63.7	60.4	58.8	60.7	65.2	70.2	74.6	76.4	68.6
1889	77.8	78.4	75.4	71.0	66.3	59.6	59.4	61.2	65.6	69.2	73.2	77.6	69.6
1890	74.9	74.8	73.4	68.4	63.9	61.3	56.0	58.8	65.8	72.0	73.0	75.0	68.1
1891	77.7	75.2	72.3	69.2	63.6	59.4	57.6	59.4	63.1	68.0	73.0	76.2	67.9
1892	76.3	77.2	75.2	68.2	64.8	59.6	58.8	60.4	64.2	70.3	73.0	76.8	68.7
1893	76.2	74.6	71.7	68.6	64.2	58.0	58.1	61.8	64.6	71.4	74.2	76.5	68.3
1894	76.8	76.2	73.8	70.3	62.9	59.0	57.0	60.2	62.9	69.2	74.0	73.4	68.0
1895	76.8	75.8	72.8	69.6	64.4	60.0	55.4	60.8	65.2	71.4	72.9	77.6	68.6
1896	79.4	76.6	74.1	71.2	64.5	58.3	55.6	59.1	64.4	71.4	70.5	74.8	68.3
1897	76.2	77.0	74.7	71.0	64.1	63.1	60.8	62.0	64.4	71.4	74.4	74.0	69.6
1898	76.2	75.8	74.0	71.0	61.5	60.4	58.6	60.4	66.0	71.0	74.4	74.6	68.8
1899	79.4	74.2	74.6	70.1	63.7	60.0	57.2	59.2	64.7	67.2	74.2	76.8	68.4
1900	74.8	77.8	75.6	70.0	64.4	61.0	56.8	61.6	64.6	71.0	74.6	77.8	69.2
1901	78.6	76.0	75.2	69.3	64.9	57.8	56.8	60.4	66.5	68.9	72.2	76.7	68.6
1902	79.6	78.4	74.3	69.7	64.7	63.0	60.4	60.4	65.8	71.2	73.8	79.4	70.1
1903	80.0	79.1	76.6	71.8	64.2	59.0	59.7	60.4	65.2	67.4	69.6	77.2	69.2
1904	76.8	78.0	74.5	69.8	64.4	56.9	58.1	60.2	65.6	67.4	75.5	76.2	68.9
1905	77.3	77.1	76.2	71.0	65.2	59.9	58.4	60.6	63.8	67.0	73.8	76.8	68.8
1906	77.2	76.1	73.4	71.8	64.9	61.6	59.0	61.2	65.6	69.4	72.0	75.4	69.0
1907	76.8	76.9	74.8	70.5	65.2	61.6	57.8	60.0	65.6	71.6	72.9	76.8	69.2
1908	75.8	77.8	75.0	71.5	66.1	58.3	58.2	60.1	68.0	71.6	72.8	76.5	68.6
1909	78.0	76.0	74.1	70.6	65.0	61.6	57.4	61.4	65.4	71.0	74.4	76.6	69.1
1910	77.6	76.0	73.4	70.1	67.4	61.4	59.2	62.4	67.6	69.3	72.0	78.0	69.5
1911	76.5	74.8	74.4	70.7	63.8	59.2	59.1	60.2	65.8	69.1	75.7	81.6	69.2
1912	78.9	78.8	75.1	71.8	65.5	63.3	59.4	61.6	66.6	69.8	74.0	76.7	70.1
Mean, 26 years	77.2	76.5	74.3	70.2	64.4	60.0	58.1	60.6	65.2	69.8	73.4	76.5	68.8

MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE—continued.

TEMPERATURE—continued.

TABLE VII.

ABSOLUTE HIGHEST SHADE READINGS.

Year.	January.	Date.	February.	Date.	March.	Date.	April.	Date.	May.	Date.	June.	Date.	July.	Date.	August.	Date.	September.	Date.	October.	Date.	November.	Date.	December.	Date.	Year.
1887 ..	92.5	15	92.6	4	88.4	1	84.1	4	79.4	5	75.0	4	77.0	22	76.5	17	80.7	22, 23	90.6	16	90.7	12	88.0	26	92.6
1888 ..	90.3	21	92.7	7	96.8	16	85.7	13	78.8	5	80.4	19	75.8	9	82.9	27	88.0	30	90.4	27	99.3	15	94.5	10	99.3
1889 ..	96.0	5	94.6	23	91.5	22	85.9	1	82.8	12	75.5	30	76.0	30	78.6	21	85.7	29	87.6	6	95.0	5	94.0	3	96.0
1890 ..	88.6	4	90.8	3	86.1	12	81.8	2	76.1	1	76.7	11	75.1	21	78.1	28	85.6	28	94.0	14	93.6	25	95.6	30	95.6
1891 ..	90.9	3	88.8	19	89.9	3	86.9	16	81.4	18	74.3	10	72.3	27	75.0	17	82.7	10	88.9	31	90.6	12	95.9	14	95.9
1892 ..	90.3	1	97.9	12	95.5	16	83.9	10	78.1	12	75.5	7, 16	74.5	17	81.1	14, 30	86.0	27	93.2	12	94.8	26	99.5	8	99.5
1893 ..	98.0	10	89.4	19	84.6	2	85.2	8	84.5	2	69.2	6	77.9	25	78.5	30	84.1	15	101.4	18	90.4	20	105.9	26	105.9
1894 ..	90.6	1	90.3	22	86.1	7	82.2	4	79.2	2	76.8	1	72.7	30	82.4	11	81.2	1	89.5	8	99.6	17	91.9	29	99.9
1895 ..	90.4	5	92.9	19	89.0	1	85.2	5	82.1	19	78.4	1	76.2	15	86.2	28	83.5	3	93.0	9	91.7	1	92.2	17	93.0
1896 ..	94.2	22	91.2	2	88.0	27	95.2	9	86.0	4	76.9	23	77.1	7	78.0	25	83.5	2	86.8	23	83.3	15	88.7	29	95.2
1897 ..	90.2	23	96.3	25	95.0	17	88.0	13	88.8	18	78.7	23	78.9	20	83.7	30	83.2	23	94.8	2	95.5	5	87.0	14	96.3
1898 ..	90.3	1	91.8	17	89.0	12	87.3	4	78.5	4	74.8	16	83.4	28	78.4	16	88.3	23	100.0	27	105.4	13	95.2	16	105.4
1899 ..	97.5	18	89.2	28	95.2	1	88.0	7	83.7	4	75.3	7	70.3	15	73.3	31	80.4	24	100.1	11	95.1	21	92.2	15	100.1
1900 ..	90.5	21	95.1	21	92.3	3	93.0	15	83.8	9	80.4	24	77.7	25	86.2	29	84.9	22	98.1	9	90.2	18	99.0	13	99.0
1901 ..	98.5	15	90.9	2	89.6	5	82.8	14	81.8	10	74.9	17	74.8	21	77.2	18	84.5	22	86.2	15	88.1	18	102.6	19	102.6
1902 ..	108.9	14	95.7	3	90.8	25	88.7	7	80.8	8	79.5	19	78.4	20	76.0	22	87.2	8	97.2	24	90.0	9	97.1	22	108.9
1903 ..	101.8	5	97.7	23	90.9	14	95.2	5	77.5	1	76.0	16	75.8	3	79.4	18	84.0	29	86.1	26	83.9	11	99.0	14	101.3
1904 ..	98.2	4	101.9	11	93.0	8	90.0	1	80.6	24	73.1	12	74.1	27	80.0	25	90.2	20	90.7	28	104.0	19	97.1	27	104.0
1905 ..	102.4	2	97.0	6	89.2	27	85.1	14	82.3	8	77.5	6	74.1	21	80.5	21	87.4	14	89.2	27	96.8	27	96.8	27	102.4
1906 ..	95.2	8	89.7	13	85.4	29	87.2	3	82.4	13	81.5	6	78.2	7	83.3	23	85.5	13	89.3	12	91.1	13	98.9	3	98.9
1907 ..	94.5	6	96.2	17	90.0	16	88.2	8	83.0	8	75.0	11	74.6	22	87.5	28	89.2	29	94.8	10	89.5	27	91.2	10	96.2
1908 ..	89.5	28	96.9	15	93.9	10	87.2	1	84.6	6	74.5	10	77.3	21	74.6	22	85.0	26	85.1	5	86.2	27	101.8	9	101.8
1909 ..	99.0	1	92.2	21	94.5	26	89.7	5	79.6	4	79.5	20	76.5	25	77.5	24	87.2	30	94.5	29	92.4	17	93.0	16	99.0
1910 ..	95.1	16	99.0	5	91.8	2	83.5	28	83.1	12	78.6	9	77.4	2	81.3	18	84.3	18	91.9	3	94.7	25	100.7	16	100.7
1911 ..	96.0	8	93.6	16	93.7	14	90.7	25	78.7	4	78.8	19	76.8	7	75.6	14	82.0	30	89.1	11	92.8	9	104.6	16	104.6
1912 ..	96.3	17	93.6	13	90.8	31	89.8	2	82.3	14	77.8	14	76.8	7	80.5	28	95.2	16	90.0	9	89.8	3	95.9	8	96.3

TABLE VIII.

ABSOLUTE LOWEST SHADE READINGS.

Year.	January.	Date.	February.	Date.	March.	Date.	April.	Date.	May.	Date.	June.	Date.	July.	Date.	August.	Date.	September.	Date.	October.	Date.	November.	Date.	December.	Date.	Year.
1887 ..	64.2	8	62.3	12	63.5	20	55.1	29	44.5	24	41.9	8	40.4	11	37.4	6	44.5	11	50.6	12	54.9	16	59.5	9	37.4
1888 ..	61.0	8	64.1	2	59.1	31	56.4	19, 27	43.5	31	39.4	23	39.5	23	40.2	6	46.8	4	54.6	6	56.9	2	59.4	3	39.4
1889 ..	61.8	11	61.8	9	61.8	27	55.6	10	53.0	27	41.6	29	37.2	2	41.5	15	45.5	3	49.1	8	60.2	16	64.9	31	37.2
1890 ..	62.8	2	63.7	9	60.5	16, 17	55.4	16	50.1	20	42.6	20	36.2	14	38.9	9	43.8	10	51.5	18	54.9	19	57.0	16	36.2
1891 ..	66.2	28	62.4	23	60.1	19	53.0	30	47.0	11	40.5	23	39.8	5	42.8	14	44.8	12	40.4	3	57.2	8	62.1	21	39.8
1892 ..	62.7	26	61.6	23	62.4	30	53.0	15, 16	47.9	4	39.7	24	41.1	25	41.0	6	48.3	18	51.0	3	57.2	13	61.1	22	39.7
1893 ..	58.8	4	61.2	3	58.2	10	49.8	5	45.5	20	39.0	21	39.3	5	41.7	8	44.9	11	52.9	14	59.4	23	58.2	30	39.0
1894 ..	64.2	22	62.7	16	63.7	17	53.5	23	45.7	24	41.0	19	36.1	12	39.4	9	45.2	11	54.6	1	57.2	22	57.5	3	36.1
1895 ..	63.2	10	61.7	2	55.6	30	52.8	30	44.7	28, 29	40.8	26	36.4	8, 20	40.5	3	44.2	24	54.1	3	56.6	4	58.4	23	36.4
1896 ..	61.2	30	65.3	4	55.2	31	54.7	12	49.3	26	38.5	16	35.1	2	38.3	4	40.7	1	50.0	1	56.9	10	62.2	24	36.1
1897 ..	60.4	12	61.7	14	56.8	11	51.4	30	42.9	8	47.9	11	43.4	14	43.6	7	45.7	3	49.5	12	55.3	4	59.4	7	42.9
1898 ..	61.6	24	63.1	26	63.5	31	55.4	23	43.3	23	40.1	27	41.4	21	41.3	3	49.7	7	51.5	30	56.7	1	58.9	10	40.1
1899 ..	64.4	16	61.4	2	59.7	26	54.3	29	41.3	24	43.3	26	40.2	3	37.5	9	49.6	7, 8	43.3	3	51.8	1	61.5	18	37.5
1900 ..	63.4	19	64.6	12	64.2	23	48.6	17	47.3	14	44.5	28	37.5	2	40.3	22	46.6	3, 4	51.4	7	67.7	21	63.4	27	37.5
1901 ..	62.8	29	63.8	4	61.9	3	50.4	26	48.0	31	41.3	23	38.8	31	38.6	1	48.4	6	50.6	1	54.7	9	60.4	8	38.6
1902 ..	65.8	1	64.2	13	65.4	28	49.2	30	47.5	11	41.7	23	42.5	26	39.6	14	47.7	16	55.1	26	56.8	7	62.9	3	39.6
1903 ..	63.2	16	64.4	18	64.3	18	53.4	28	46.3	29	39.1	23	40.2	6	43.3	2	46.4	9	51.4	3	56.3	23	63.6	8	39.1
1904 ..	62.5	9	58.7	10, 11	61.3	4	55.8	27	49.6	20	38.7	27	39.2	1	41.0	2	43.4	3	52.4	1	60.5	10	61.8	25	38.7
1905 ..	63.7	25	63.8	11	63.9	1	58.7	28	49.9	12	40.3	15	37.2	25	43.0	18	42.1	2	51.1	1	48.5	2	60.7	8	37.2
1906 ..	61.6	16	65.2	7	60.3	31	51.4	29	48.3	17	39.0	25	36.5	19	43.2	13	44.2	4	51.5	5	51.5	6	60.7	26	36.5
1907 ..	64.7	1	62.2	23	67.4	29	50.2	23	48.8	26	46.6	19	40.4	13	39.4	23	46.4	4	54.1	9	56.0	9	64.5	24	39.4
1908 ..	64.2	13	63.8	29	60.5	25	54.5	27	48.3	16	36.3	29	39.1	6	40.4	19	44.6	16	44.5	1	58.0	1	59.6	5	36.3
1909 ..	60.0	25	61.0	9	60.0	13	52.2	30	47.9	5	44.4	26	40.6	23	41.5	7	44.0	2	50.7	5	55.4	7	59.4	23	40.6
1910 ..	63.9	2, 4	64.0	1, 24	60.0	15	58.8	20	50.6	9	43.2	7	41.0	8	43.5	6	51.4	4	44.5	12	55.4	2, 3	65.2	20	41.0
1911 ..	65.4	1, 4	63.2	28	60.6	31	50.8	29	41.4	31	40.6	2	38.4	28	38.3	2	47.1	4	53.4	26	54.4	5	63.4	24	36.4
1912 ..	62.3	19	65.2	4	62.4	31	54.3	24	42.6	28	47.5	1	42.8	17	42.6	31	45.6	20	49.6	7	60.4	20, 30	58.4	13	42.6

MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE—continued.

TEMPERATURE—continued.

TABLE IX.

ABSOLUTE RANGE OF SHADE TEMPERATURE.

Year.	January	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	28.3	30.3	24.9	29.0	34.0	33.1	36.6	39.1	36.2	40.0	35.8	28.5	55.2
1888	38.3	28.6	37.7	29.3	35.3	41.0	36.3	42.7	41.2	35.8	42.4	35.1	59.9
1889	34.2	32.8	29.7	30.3	29.8	33.9	38.8	37.1	40.2	38.5	34.8	29.1	58.8
1890	25.8	27.1	25.6	26.4	26.0	34.1	38.9	39.2	41.8	42.5	38.7	38.6	59.4
1891	24.7	26.4	29.8	33.9	34.4	33.8	32.5	32.2	37.9	39.5	33.4	33.8	56.1
1892	27.6	36.3	32.9	30.9	30.2	35.8	33.4	40.1	37.7	42.2	37.6	33.4	59.8
1893	39.2	28.2	26.4	35.4	39.0	30.2	38.6	36.8	39.2	48.5	31.0	47.7	66.9
1894	26.4	27.6	22.4	28.7	33.5	35.8	36.6	43.0	36.0	34.9	42.4	34.4	63.5
1895	27.2	31.2	33.4	32.4	37.4	37.6	39.8	45.7	39.3	38.9	36.1	33.8	56.6
1896	33.0	25.9	29.8	40.5	36.7	38.4	41.0	39.7	42.8	36.8	26.4	26.5	59.1
1897	29.8	34.6	38.2	36.6	45.9	30.8	35.5	41.1	37.5	45.3	44.7	27.6	53.4
1898	28.7	28.7	25.5	31.9	35.2	34.7	42.0	37.1	38.6	48.5	48.7	36.3	65.3
1899	33.1	27.8	35.5	33.7	42.4	32.0	30.1	35.8	30.8	56.8	43.3	30.7	62.6
1900	27.1	30.5	28.1	44.4	36.0	35.9	40.2	45.9	38.3	46.7	32.5	35.6	61.5
1901	35.7	27.1	27.7	32.4	33.8	33.6	36.0	38.6	36.1	35.6	33.4	42.2	64.0
1902	43.1	31.5	34.4	39.5	33.3	37.8	35.9	36.4	39.5	42.1	33.2	34.2	69.3
1903	38.1	33.3	26.6	41.8	31.2	36.9	35.6	36.1	37.6	34.7	27.6	35.4	62.2
1904	35.7	43.2	31.7	34.2	31.0	34.4	34.9	39.0	46.8	38.3	43.5	35.3	65.3
1905	38.7	33.2	26.2	28.4	32.4	37.2	36.9	37.5	45.3	38.1	48.3	36.1	65.2
1906	33.6	24.5	25.1	35.8	34.1	42.5	41.7	40.1	41.3	39.9	39.6	38.2	62.4
1907	29.8	34.0	32.6	38.0	36.2	28.4	34.2	48.1	42.8	40.7	33.5	26.7	56.8
1908	25.3	33.1	33.4	32.7	35.8	38.2	38.2	34.2	41.3	40.6	28.2	42.2	65.5
1909	39.0	31.2	34.5	37.5	31.7	35.1	35.9	36.0	43.2	43.8	37.0	33.6	58.4
1910	31.2	35.0	31.8	34.7	32.5	35.4	36.4	37.8	32.9	44.7	39.3	37.5	59.7
1911	30.6	30.4	33.1	39.9	37.3	38.2	40.4	37.3	34.9	35.7	38.4	41.2	68.2
1912	34.0	28.4	28.4	35.5	39.7	30.3	34.0	37.9	49.6	40.4	29.4	39.5	53

TABLE X.

NUMBER OF TIMES THE SHADE DAY TEMPERATURE REACHED 90° OR OVER, AND 100° OR OVER, AND THE NIGHT TEMPERATURE FELL TO 40° OR UNDER

Year.	January.		February.		March.		April.		May.	June.	July.	August.	September.	October.		November.		December.		Year.			
	90° or over.	100° or over.	90° or over.	100° or over.	90° or over.	100° or over.	90° or over.	100° or over.	40° or under.	40° or under.	40° or under.	40° or under.	90° or over.	90° or over.	100° or over.	100° or over.	90° or over.	100° or over.	90° or over.	100° or over.	90° or over.	100° or over.	40° or under.
1887	3	..	1	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	6	..	1	4
1888	2	..	4	..	1	..	..	..	..	1	2	..	..	1	..	6	..	..	..	20	..	1	1
1889	10	..	9	..	3	..	..	..	..	..	..	..	..	..	1	..	5	..	28	..	..	..
1890 .. .. .	..	..	2	..	..	..	..	..	..	..	3	1	..	5	..	2	..	6	..	15	..	..	4
1891	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	..	7	..	12	..	1	1
1892	4	..	5	..	1	..	..	..	..	..	..	..	..	2	..	5	..	7	..	24	..	..	..
1893	7	..	..	..	..	..	..	..	..	..	1	..	..	3	1	1	..	6	1	17	1	3	2
1894	1	..	2	..	..	..	..	..	..	..	1	..	..	..	..	3	..	2	..	8	..	2	6
1895	2	..	1	..	..	..	..	..	..	..	6	..	..	..	..	3	..	5	..	13	..	6	6
1896	10	..	1	..	..	..	3	..	..	4	8	3	..	2	..	..	..	..	..	14	..	15	..
1897	2	..	6	..	5	..	..	..	..	..	..	..	..	1	1	..	..	..	..	15	..	..	..
1898	1	..	2	..	..	..	..	..	..	..	..	..	..	4	1	3	1	..	..	12	2	3	3
1899	8	..	..	..	3	..	..	..	..	..	..	3	..	1	1	4	..	1	..	17	1	1	3
1900	1	..	3	..	2	..	1	..	..	..	3	..	..	4	..	2	..	5	..	18	..	..	3
1901	11	..	3	..	..	..	..	..	..	..	1	1	..	..	..	..	..	5	2	19	2	2	2
1902	10	..	8	..	1	..	1	..	..	..	..	1	..	2	..	1	..	12	..	35	1	1	1
1903	15	3	8	..	1	..	2	..	..	1	..	..	..	..	..	..	..	4	..	30	3	3	..
1904	9	..	9	2	2	..	1	..	..	2	..	..	..	1	..	..	..	7	..	34	2	2	..
1905	5	2	3	..	..	..	..	..	..	..	4	..	..	..	..	..	..	4	..	19	..	4	5
1906	4	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	6	..	1	1
1907	3	..	3	..	1	..	..	..	..	..	4	..	..	..	1	..	..	3	..	14	..	5	1
1908	4	..	9	..	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..	17	1	1	8
1909	7	..	2	..	1	..	..	..	..	6	2	..	..	..	..	..	..	5	1	15	..	..	..
1910	6	..	1	..	1	..	..	..	..	..	..	..	..	1	1	..	..	3	..	17	..	..	..
1911	6	..	1	..	4	..	1	..	..	..	..	..	..	1	..	1	..	11	1	27	3	..	..
1912	12	..	10	..	1	..	..	..	..	..	4	1	..	..	..	..	..	5	..	36	3	5	5
Totals	142	6	93	2	30	0	9	0	0	17	43	14	4	33	3	54	2	132	8	497	20	74	..
Means, 26 years	5.5	0.2	3.6	0.1	1.2	..	0.3	..	..	0.7	1.7	0.5	0.2	1.3	0.1	2.1	0.1	5.1	0.3	19.1	0.8	2.8	..

MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE—continued.

TEMPERATURE—continued.

TABLE XI.
MEAN WET BULB AT 9 A.M.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	71.3	70.2	71.6	65.7	55.9	49.9	51.5	54.9	57.4	63.0	64.6	66.6	61.9
1888	69.1	71.1	68.2	63.0	57.0	52.1	50.1	52.8	59.0	63.8	66.8	70.2	61.8
1889	68.9	70.3	70.0	66.3	61.4	51.9	58.7	55.0	60.1	63.3	68.4	71.8	63.5
1890	70.0	71.2	71.0	63.7	59.5	56.0	49.5	51.9	59.4	64.7	67.0	69.6	62.8
1891	72.7	69.1	67.6	64.0	59.1	52.5	51.1	53.4	57.1	63.5	66.5	70.0	62.4
1892	70.2	69.7	70.0	64.2	60.7	54.1	53.0	52.5	59.1	65.4	67.4	69.8	63.0
1893	69.8	71.3	68.0	62.8	58.0	52.6	51.7	57.4	58.1	65.0	68.3	68.6	62.6
1894	71.5	70.4	69.6	65.7	56.9	52.6	49.1	52.4	57.3	64.6	70.4	68.5	62.4
1895	73.2	72.6	68.3	64.5	58.4	52.8	48.1	53.0	59.1	65.5	65.9	71.5	62.7
1896	75.5	72.9	69.5	65.2	59.6	50.7	48.4	53.8	60.0	69.3	65.8	69.8	63.4
1897	70.6	71.1	68.7	63.5	55.5	57.2	53.8	55.5	61.1	67.2	69.9	69.2	63.6
1898	72.6	71.1	68.9	64.7	54.8	54.4	51.2	55.1	62.1	64.4	60.7	60.5	63.2
1899	74.6	69.3	68.6	64.2	57.9	54.3	52.0	54.5	61.2	62.9	68.0	71.6	63.3
1900	71.1	72.3	71.0	64.0	53.3	55.2	50.0	54.6	59.5	64.4	68.1	70.8	63.3
1901	71.3	70.8	71.0	64.3	60.1	51.6	50.5	54.6	62.0	62.8	66.7	69.2	62.9
1902	70.7	71.3	66.6	63.2	58.3	55.6	53.8	54.4	58.6	63.6	67.5	72.5	63.1
1903	70.7	71.6	71.6	64.8	58.6	51.0	53.7	55.5	60.0	63.2	64.3	71.1	63.1
1904	70.9	69.7	69.1	65.4	60.4	51.5	53.5	55.2	60.2	66.0	70.1	71.3	63.6
1905	73.0	72.4	69.9	66.0	59.0	53.2	49.6	53.2	54.3	59.9	66.2	71.5	63.2
1906	71.6	71.5	69.3	65.8	59.3	56.1	51.1	54.4	60.2	64.7	66.0	68.9	63.2
1907	70.9	70.3	69.0	63.4	59.0	56.5	50.5	52.3	59.6	65.4	66.5	70.8	62.9
1908	70.7	71.7	69.3	66.4	59.8	49.7	50.6	54.4	59.1	61.1	67.2	70.0	62.5
1909	68.4	69.8	68.8	63.3	58.3	55.2	51.0	55.6	58.9	64.4	67.9	70.1	62.6
1910	71.9	70.1	68.5	64.9	61.0	55.4	51.3	56.0	62.9	62.9	65.7	72.1	63.6
1911	70.9	70.7	69.1	63.5	58.0	50.7	52.0	54.1	60.3	63.7	68.8	72.5	62.9
1912	70.0	71.1	69.3	64.4	57.5	56.9	52.9	55.1	57.0	63.4	68.4	70.0	63.0
Means, 26 years	71.3	70.9	69.3	64.5	58.6	53.5	51.3	54.3	59.4	64.2	67.4	70.3	62.9

TABLE XII.
MEAN MAXIMUM WET BULB.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1900	..	..	..	..	..	..	..	..	..	..	74.0	75.1	..
1901	74.4	72.8	73.5	67.0	64.0	56.9	55.8	59.8	66.4	67.8	70.6	73.7	66.9
1902	75.2	75.4	70.9	66.8	64.5	61.6	60.2	59.4	63.3	67.7	71.2	75.7	67.7
1903	74.5	75.6	74.5	69.8	63.5	58.3	50.2	60.6	63.9	66.2	68.0	73.7	67.4
1904	74.1	73.5	72.1	68.7	65.9	58.5	58.3	61.4	63.8	69.5	72.5	74.3	67.7
1905	74.4	74.7	73.1	69.5	63.8	60.1	56.3	59.5	59.7	64.2	70.6	74.3	66.7
1906	74.8	74.4	72.2	70.0	64.1	60.9	58.3	60.3	64.6	68.2	69.5	72.5	67.5
1907	74.0	73.8	72.4	68.0	63.7	60.9	58.3	59.1	63.8	68.8	69.9	74.3	67.2
1908	73.2	75.6	73.4	69.9	65.6	58.7	57.7	59.8	63.0	64.5	70.3	73.5	66.9
1909	71.4	72.4	71.9	68.4	63.3	60.5	56.8	60.6	63.2	68.5	72.0	73.8	66.9
1910	75.2	73.5	71.9	68.7	66.1	61.6	57.4	62.1	66.6	66.6	68.7	75.0	67.8
1911	73.9	73.0	72.1	68.5	62.8	57.7	58.1	59.6	64.4	67.2	72.9	76.8	67.2
1912	74.3	74.2	72.9	69.9	63.4	62.4	58.3	61.0	62.5	67.2	72.5	73.4	67.7
Means, 12 years	74.1	74.1	72.6	68.8	64.2	59.7	58.0	60.3	63.8	67.2	70.7	74.2	67.3

TABLE XIII.
MEAN MINIMUM WET BULB.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1900	..	..	..	..	..	..	..	..	..	..	62.7	66.0	..
1901	65.9	65.9	66.2	58.6	54.6	45.8	44.6	48.4	55.2	56.2	60.6	63.8	57.2
1902	65.9	66.6	61.4	56.7	51.7	48.8	47.3	46.8	51.1	53.2	62.6	67.3	57.0
1903	65.0	67.0	67.8	60.1	53.5	45.7	47.9	48.5	52.9	55.4	57.9	65.4	57.3
1904	64.7	63.0	63.7	60.4	55.7	44.9	46.5	47.1	51.5	53.8	62.9	64.7	57.0
1905	67.1	66.5	64.7	60.9	54.3	47.1	41.9	46.3	45.6	53.1	60.1	64.8	58.0
1906	66.9	66.8	64.4	59.3	52.6	50.1	45.6	47.5	54.7	58.1	59.2	64.4	57.5
1907	66.5	65.3	64.3	56.5	53.7	51.8	44.2	43.7	51.5	58.5	61.9	66.1	57.0
1908	65.2	67.2	64.5	61.9	54.3	43.1	45.5	47.4	51.3	53.7	61.5	64.8	56.7
1909	63.2	64.4	63.6	58.3	52.1	50.6	45.4	50.0	52.1	58.2	63.1	65.4	57.2
1910	67.9	65.9	65.0	60.6	56.8	51.3	46.5	50.4	57.4	57.0	60.9	66.3	58.8
1911	67.1	66.6	64.6	58.4	52.2	44.9	46.2	48.8	53.5	57.8	64.2	67.9	57.7
1912	66.0	67.1	65.0	60.0	52.7	53.3	49.1	49.3	50.1	57.6	63.7	64.7	58.2
Means, 12 years	66.0	66.0	64.6	59.3	53.7	48.1	45.9	47.8	52.2	56.9	61.6	65.5	57.3

TABLE XIV.
MEAN WET BULB, DEDUCED FROM MAXIMUM AND MINIMUM WET BULB READINGS.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1900	..	..	..	..	..	..	..	..	..	..	68.4	70.6	..
1901	70.2	69.4	69.9	63.1	59.3	51.4	50.2	54.1	60.8	62.0	65.6	68.8	62.1
1902	70.6	71.0	68.2	61.8	58.1	55.2	53.8	53.1	57.2	63.0	66.9	71.5	62.4
1903	69.3	71.3	71.2	65.0	58.5	52.0	54.1	54.6	58.4	60.8	63.0	66.6	62.4
1904	69.4	68.3	67.9	64.6	60.8	51.7	52.4	54.3	57.7	64.2	67.7	69.5	62.4
1905	70.8	70.6	68.9	65.2	59.1	53.6	49.1	52.0	52.7	58.7	65.4	69.6	61.4
1906	70.9	70.6	68.4	64.7	58.4	55.5	52.0	53.9	59.7	63.2	64.4	68.5	62.5
1907	70.9	69.6	68.4	62.3	58.7	56.4	51.3	51.4	57.7	63.7	65.9	70.2	62.2
1908	69.2	71.4	69.0	62.3	60.0	49.9	51.6	53.6	57.2	59.1	65.9	69.2	61.8
1909	67.3	68.4	67.8	63.4	60.7	55.6	51.1	55.9	57.7	63.4	67.6	69.6	62.1
1910	71.6	69.7	68.5	64.7	61.5	56.5	52.0	56.3	62.0	61.8	64.8	70.7	63.3
1911	70.5	69.8	68.4	63.5	57.5	51.3	52.2	54.2	60.0	62.5	68.6	72.4	62.5
1912	70.2	70.7	69.0	65.0	58.1	57.9	53.7	55.2	56.3	62.4	68.1	69.1	63.0
Means, 12 years	70.1	70.1	68.6	64.1	59.0	53.9	52.0	54.1	58.0	62.1	66.2	69.9	62.3

MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE—continued.

TEMPERATURE—continued.

TABLE XV.
ABSOLUTE MAXIMUM WET BULB.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1900	..	..	..	..	..	..	..	..	..	..	84.3	83.1	..
1901	83.1	78.2	77.3	75.7	..	66.3	63.0	66.7	76.5	75.1	76.9	85.2	85.2
1902	84.0	81.9	76.1	73.0	71.3	69.6	65.1	64.1	72.1	76.1	77.8	81.4	84.0
1903	83.1	83.9	77.0	79.1	71.6	62.6	69.2	67.7	71.9	73.9	75.0	80.8	83.9
1904	83.6	82.7	79.6	76.8	73.1	66.4	65.8	66.8	71.4	80.1	79.9	82.1	83.6
1905	84.0	82.7	78.0	73.9	71.8	68.4	62.0	65.2	69.8	70.3	77.0	81.0	84.0
1906	80.9	79.3	77.3	75.3	69.4	68.3	65.3	69.9	72.9	79.8	77.0	78.2	80.9
1907	80.4	79.9	78.0	80.0	68.0	69.7	63.7	64.7	69.0	75.3	76.3	82.0	82.0
1908	78.8	82.8	78.0	75.8	72.8	71.5	70.0	68.0	69.0	71.5	75.1	78.6	82.8
1909	80.3	77.7	79.2	75.4	66.9	67.9	68.3	70.2	71.0	75.8	78.8	79.3	80.3
1910	83.5	81.0	79.7	71.4	70.1	68.2	66.8	66.6	72.5	76.0	77.4	80.9	83.5
1911	79.9	80.4	79.7	75.1	68.1	64.5	65.5	65.0	69.9	75.2	78.2	84.2	84.2
1912	80.5	79.5	76.9	78.8	68.1	67.4	66.5	67.5	71.8	75.5	78.3	79.8	80.5

TABLE XVI.
ABSOLUTE MINIMUM WET BULB.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1900	..	..	..	..	..	..	..	..	..	..	54.5	59.6	..
1901	57.4	61.5	60.0	46.4	44.7	37.4	36.3	36.1	44.0	42.1	53.1	56.2	36.1
1902	58.7	61.8	50.0	44.1	46.0	37.0	37.4	39.0	42.0	50.9	55.2	61.0	37.0
1903	58.2	57.9	61.3	47.5	43.0	37.3	37.0	40.7	43.0	47.1	49.3	60.9	37.0
1904	59.0	53.8	58.1	54.1	48.2	36.8	37.3	39.8	41.0	48.5	58.4	59.3	36.8
1905	60.1	61.9	59.4	55.9	46.0	37.8	35.0	38.2	37.2	45.0	42.3	54.3	35.0
1906	58.2	61.9	56.8	47.8	45.3	37.3	35.9	39.1	41.0	44.1	48.3	55.2	35.9
1907	62.9	58.0	53.1	46.1	41.9	41.2	36.9	36.1	44.7	46.3	49.2	61.8	36.1
1908	58.0	59.8	58.7	50.7	41.3	34.6	36.5	38.2	39.1	41.3	55.5	57.2	34.6
1909	55.4	57.2	56.6	47.8	45.8	41.0	39.5	38.2	42.0	44.9	53.9	56.3	38.2
1910	61.2	61.2	58.7	58.2	49.0	40.6	40.4	40.9	51.4	40.5	52.5	60.7	40.4
1911	62.7	62.7	55.0	48.7	39.9	37.5	34.9	37.6	44.7	48.7	51.7	55.0	34.9
1912	59.9	61.3	59.3	49.4	40.4	45.1	41.0	39.7	42.5	44.3	55.2	52.9	39.7

TABLE XVII.
MEAN HUMIDITY* AT 9 A.M. (0 to 100%)

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	67	73	80	77	74	76	75	80	65	60	60	60	70
1888	64	75	67	72	75	71	67	65	63	54	54	63	66
1889	58	57	73	77	80	72	77	73	69	62	67	66	69
1890	72	80	85	74	82	80	73	72	64	56	58	63	71
1891	68	64	73	73	85	73	75	69	66	65	58	58	69
1892	63	62	75	79	82	81	78	66	69	68	59	60	69
1893	65	82	77	75	78	76	80	79	61	62	58	52	68
1894	65	67	77	75	72	74	68	65	63	68	71	68	69
1895	79	75	73	75	78	76	75	68	63	60	58	66	69
1896	72	82	71	71	75	71	70	69	69	70	64	65	70
1897	59	64	67	60	64	77	73	70	66	72	63	67	67
1898	77	71	70	70	68	78	68	75	71	56	58	64	68
1899	69	69	66	72	69	71	74	73	76	66	56	65	68
1900	67	68	71	69	69	69	70	68	69	56	56	55	65
1901	60	69	79	72	78	75	74	72	69	58	58	54	66
1902	55	60	56	63	68	71	73	66	59	54	57	61	61
1903	53	61	73	68	74	68	76	75	65	64	61	59	66
1904	62	55	68	74	80	73	72	73	61	63	56	64	67
1905	69	69	64	74	72	72	68	66	47	52	53	61	67
1906	67	73	73	69	74	77	68	67	71	64	56	62	68
1907	68	67	70	66	73	79	75	67	59	59	61	62	66
1908	66	68	73	75	75	74	76	71	62	54	60	58	66
1909	59	68	71	68	70	77	74	77	66	59	58	57	65
1910	67	66	72	74	73	82	69	75	74	60	60	62	69
1911	67	78	75	69	73	67	74	76	70	64	58	54	67
1912	56	62	73	68	67	78	75	73	50	56	59	60	64
Means, 26 years	65	69	72	71	74	75	73	71	65	61	59	61	67

* Old table used prior to 1912 which makes figures about 3 per cent. higher than new table.

TABLE XVIII.
MEAN HUMIDITY, DEDUCED FROM MAXIMUM AND MINIMUM DRY AND WET BULB.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1900	..	..	..	..	..	..	..	..	..	..	70	65	..
1901	62	69	73	68	70	63	63	65	67	64	67	63	66
1902	59	65	62	61	65	60	63	60	51	60	67	63	62
1903	55	64	74	66	69	59	68	67	64	65	66	64	65
1904	66	57	68	72	79	67	67	67	60	69	63	68	66
1905	69	69	66	70	68	65	60	60	48	59	61	65	62
1906	70	73	74	65	65	67	61	61	70	63	63	67	66
1907	68	65	69	60	66	71	64	56	59	61	66	69	64
1908	69	69	70	71	68	64	63	64	61	58	67	62	65
1909	60	65	69	65	62	66	64	66	61	63	66	67	64
1910	71	69	74	70	69	72	60	67	69	62	64	66	69
1911	71	75	70	64	67	57	62	65	64	66	66	60	65
1912	63	65	72	68	62	70	67	64	49	63	72	66	65
Means, 12 years	65	67	69	67	68	65	64	64	61	63	66	65	65

MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE—*continued.*TEMPERATURE—*continued.*

TABLE XIX.

SOLAR RADIATION (MEAN MAXIMUM).

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year
1887	146.0*	143.3	142.5	136.2	121.8	114.8	115.0	121.4	131.7	141.6	143.8	145.4	133.6
1888	148.7	138.3	143.2	133.9	124.6	119.4	119.5	124.6	133.4	138.4	142.6	147.2	134.5
1889	150.5	148.2	140.0	128.2	118.9	115.6	114.3	123.5	134.7	139.5	146.1	147.8	133.9
1890	140.2	138.5	131.7	129.2	122.0	118.1	110.7	121.2	129.6	137.5	142.8	142.2	130.3
1891	140.6	141.8	134.2	126.6	121.8	114.8	114.0	119.9	125.6	134.2	139.4	140.4	129.8
1892	144.6	143.0	130.8	136.1	116.9	111.4	113.9	118.7	123.4	128.4	139.1	141.8	128.2
1893	138.3	121.7	127.7	126.2	120.2	108.5	109.3	115.5	127.4	135.0	137.9	140.8	125.7
1894	137.6	136.9	129.5	126.5	117.4	111.8	114.1	118.6	120.9	131.0	135.7	136.5	126.4
1895	132.9	136.6	134.1	127.4	120.2	115.8	107.7	120.2	124.4	132.4	137.0	139.4	127.3
1896	139.3	130.7	137.2	129.7	121.9	111.9	111.0	119.0	126.3	132.9	131.7	139.0	127.6
1897	139.6	140.0	134.4	129.4	117.2	113.0	112.7	115.9	125.7	129.2	136.8	129.4	126.9
1898	131.3	130.7	126.8	127.2	116.0	110.7	114.8	117.5	123.7	129.7	135.2	135.0	124.9
1899	139.1	132.0	131.5	122.0	116.7	111.0	111.2	114.9	122.4	128.4	134.8	135.5	125.0
1900	137.3	136.4	133.4	127.1	115.7	112.8	108.0	118.0	125.6	132.8	136.5	139.4	126.9
1901	138.8	133.3	126.8	123.7	117.1	105.5	111.9	121.0	133.7	136.6	142.4	144.3	127.9
1902	147.4	144.8	139.8	134.2	124.2	118.3	118.4	122.5	126.6	138.1	142.7	148.1	133.8
1903	146.8	144.4	138.9	132.6	118.5	118.2	115.2	117.8	131.8	137.1	139.5	148.4	132.4
1904	146.1	146.1	137.3	124.5	112.7	115.6	116.9	124.0	131.4	134.5	144.4	143.4	131.4
1905	143.5	146.7	143.8	132.6	123.2	116.1	116.6	124.5	129.1	130.2	140.5	152.9	133.3
1906	145.8	135.7	135.7	137.3	123.9	120.2	120.0	120.9	128.0	138.2	142.4	138.2	132.2
1907	139.9	140.9	136.9	135.2	124.2	113.5	120.5	128.7	134.8	139.6	141.8	145.2	133.4
1908	148.0	147.4	137.5	137.8	128.1	119.5	118.9	122.8	131.2	134.6	142.4	148.1	134.7
1909	142.5	143.5	139.4	132.6	126.2	115.4	112.7	119.4	131.9	138.5	143.3	145.5	132.6
1910	145.6	148.4	135.9	136.6	127.2	117.0	116.7	120.9	134.6	135.6	141.5	143.8	133.6
1911	138.1	138.4	136.5	132.0	124.2	120.6	120.2	121.5	128.5	135.0	141.2	147.2	132.0
1912	148.7	148.2	135.7	132.1	127.9	117.5	117.0	127.2	135.2	136.2	146.2	149.3	135.1
Means, 26 years	142.2	139.8	135.4	130.3	121.1	114.9	114.7	120.8	128.9	134.8	140.3	142.9	130.5

* Computed from observation from 14th to 31st only.

TABLE XX.

SOLAR RADIATION (ABSOLUTE HIGHEST READINGS).

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	156.6	156.7	160.0	148.7	139.4	127.2	129.9	137.6	143.1	153.4	157.0	154.9	160.0
1888	156.6	158.1	153.8	141.1	140.8	128.0	128.8	140.7	141.8	146.7	152.0	154.8	158.1
1889	162.7	155.8	156.0	146.0	134.0	130.9	134.4	134.2	142.8	156.5	162.3	159.5	162.7
1890	157.3	150.7	146.5	144.9	132.9	126.5	124.7	129.1	139.8	153.0	147.9	156.0	157.8
1891	159.6	152.8	147.7	140.4	133.0	125.4	124.2	131.0	135.1	146.5	151.8	148.0	159.6
1892	153.9	154.3	147.9	139.3	129.8	123.5	126.8	124.9	138.6	145.0	147.0	153.5	153.9
1893	149.8	150.3	146.0	134.4	130.7	118.5	128.2	132.2	138.1	146.9	147.2	155.1	155.1
1894	148.4	146.9	142.3	138.1	125.9	121.8	123.3	126.6	131.8	142.0	154.8	150.0	154.8
1895	146.8	146.0	145.0	138.9	129.8	130.0	119.8	130.9	130.9	139.0	150.1	148.7	150.1
1896	153.0	148.5	146.2	141.8	133.0	124.4	123.7	127.2	135.9	142.9	137.9	145.5	153.0
1897	150.8	151.9	142.0	138.7	128.1	124.6	123.1	129.1	132.8	140.6	142.8	147.0	150.8
1898	147.9	144.2	139.8	135.0	125.0	124.0	123.1	128.2	131.1	142.8	149.5	141.2	149.5
1899	145.0	143.1	142.1	135.6	126.8	120.8	119.2	126.8	133.8	137.0	144.0	148.0	148.0
1900	147.4	146.9	141.3	137.3	127.5	122.8	119.2	130.4	133.5	142.1	144.4	147.0	147.4
1901	147.3	143.9	144.0	136.0	128.9	122.0	123.2	131.3	149.0	147.5	151.6	156.0	150.0
1902	156.7	151.7	150.0	141.2	133.7	126.7	124.2	135.1	137.0	149.0	154.2	154.0	156.7
1903	157.0	153.3	154.7	142.5	130.0	131.2	122.2	132.6	155.5	145.3	155.5	158.0	158.0
1904	157.0	157.0	150.2	140.3	137.9	129.1	125.6	132.0	138.5	144.8	157.1	155.7	157.1
1905	156.8	153.9	152.1	147.0	135.2	133.0	126.8	139.4	138.3	142.6	152.6	152.9	156.8
1906	159.0	157.0	148.2	145.0	137.3	133.9	130.3	132.0	142.4	147.7	151.3	158.0	159.0
1907	153.0	153.4	157.8	143.8	135.8	125.4	127.1	139.3	144.0	147.9	153.2	157.8	157.8
1908	157.4	162.7	150.8	150.1	139.8	131.3	131.7	135.1	139.7	145.7	156.4	156.2	162.7
1909	156.3	155.8	150.7	146.7	135.4	127.1	129.1	135.3	140.8	150.8	153.8*	156.1	156.1
1910	156.8	165.2	155.3	145.0	147.0	130.3	126.3	138.3	146.4	150.8	154.4	157.2	165.2
1911	158.8	152.9	151.3	142.0	135.5	127.8	130.8	134.9	136.0	142.9	152.0	157.0	158.8
1912	157.8	157.8	150.9	142.3	137.8	132.4	133.3	136.2	146.2	145.0	155.3	156.7	157.8

* This is the highest for 19 days only, as there was no record for 11 days (14th to 24th), during which the highest shade temperature occurred.

TEMPERATURE—continued.

TABLE XXI.

TERRESTRIAL RADIATION (MEAN MINIMUM).

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	66.6	63.9	65.5	57.7	45.9	40.0	40.5	44.2	45.6	49.2	55.0	59.3	52.8
1888	61.4	65.0	55.6	54.3	46.7	39.8	36.0	39.9	46.5	52.1	56.4	61.9	51.5
1889	60.1	61.0	62.6	59.4	53.3	41.7	43.7	42.7	47.2	52.3	60.2	64.7	54.1
1890	63.5	65.5	64.8	56.1	51.2	47.1	37.1	38.4	46.9	50.6	55.5	59.9	53.0
1891	67.3	62.7	62.2	56.5	51.2	42.9	41.2	42.1	46.0	52.4	57.9	61.8	53.7
1892	62.7	61.6	64.7	55.2	52.3	44.0	42.4	40.4	48.8	57.0	57.6	61.6	54.0
1893	63.5	67.6	62.1	54.4	48.1	43.6	42.0	47.7	45.3	56.5	60.9	62.3	54.5
1894	66.4	66.0	64.9	60.0	48.9	43.6	38.6	42.2	47.4	55.5	60.2	60.6	54.6
1895	67.6	63.7	59.8	56.4	48.8	41.7	37.4	39.2	46.7	56.8	59.8	64.1	53.5
1896	67.2	68.1	60.8	55.4	49.2	39.7	39.3	41.2	45.1	53.9	58.6	63.0	53.5
1897	63.8	63.3	59.1	52.1	43.8	48.8	40.0	44.4	49.3	56.8	60.3	60.8	53.5
1898	65.9	65.4	62.4	56.8	46.0	45.8	39.2	43.6	49.6	52.1	62.1	60.3	54.1
1899	66.0	62.1	61.1	56.5	46.8	44.4	40.4	41.2	50.2	51.8	57.2	62.0	53.3
1900	62.4	64.3	62.3	53.3	49.6	44.2	38.9	42.6	45.8	51.1	59.7	63.6	53.2
1901	64.3	64.1	64.1	54.8	51.2	42.9	40.0	44.0	49.8	52.8	58.4	61.9	54.0
1902	65.9	64.9	57.9	53.1	46.3	43.5	42.6	42.2	47.2	55.6	59.6	65.4	53.7
1903	64.3	66.0	65.5	56.3	49.8	40.6	44.7	44.3	48.1	51.3	55.4	63.3	54.1
1904	62.9	61.3	62.1	58.2	52.1	39.1	40.9	41.0	46.4	55.3	59.7	62.1	53.4
1905	64.8	63.9	62.0	58.3	50.7	43.1	36.8	42.4	42.8	49.7	57.3	63.4	52.9
1906	65.2	65.5	62.6	56.6	50.1	47.1	41.9	46.0	53.8	55.8	56.3	62.7	54.5
1907	65.2	63.9	62.6	52.7	50.2	48.4	39.6	39.6	47.6	56.0	60.5	64.6	54.2
1908	63.1	65.4	62.6	59.5	52.2	39.4	42.1	44.4	47.7	50.5	59.0	63.0	54.1
1909	62.3	62.0	61.6	55.8	48.6	48.1	41.6	47.1	48.3	55.3	60.5	64.0	54.8
1910	66.0	63.3	62.9	57.3	52.9	47.8	43.0	45.3	53.8	54.0	58.6	64.3	55.8
1911	65.4	64.3	62.0	54.3	47.0	40.4	41.4	43.8	49.1	54.7	61.5	67.4	54.3
1912	65.0	64.7	62.2	56.8	48.9	50.3	44.8	44.5	47.0	55.9	61.0	62.5	55.3
Means, 26 years	64.6	64.2	62.2	56.1	49.3	43.8	40.6	42.9	47.8	53.7	58.8	62.7	53.9

* Computed from observation from 14th to 31st only.

TABLE XXII.

TERRESTRIAL RADIATION (ABSOLUTE LOWEST READINGS).

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	..	53.7	58.4	47.4	35.4	31.4	29.6	29.1	33.4	38.2	48.0	51.4	29.1
1888	56.2	59.2	49.5	48.0	34.0	25.4	24.6	29.7	32.3	42.5	49.1	53.7	24.6
1889	52.4	49.3	55.0	48.0	41.3	32.1	27.3	31.0	30.4	34.9	53.0	57.7	27.3
1890	57.1	59.7	57.5	45.9	41.7	34.4	23.9	29.4	33.3	37.0	47.0	51.0	23.9
1891	61.2	57.0	54.9	47.2	39.0	33.9	32.4	32.0	36.5	43.4	51.0	56.4	32.0
1892	57.0	56.3	53.9	41.4	37.7	27.2	29.2	32.9	39.4	46.0	50.1	54.1	27.2
1893	49.9	57.9	51.4	43.8	37.6	29.1	28.1	33.1	35.9	47.6	53.9	50.5	28.1
1894	58.7	60.6	56.4	48.5	37.7	35.9	30.2	32.8	36.0	44.3	49.9	49.1	30.2
1895	57.7	54.3	49.4	48.4	40.3	32.0	27.8	33.0	34.9	47.8	51.8	53.6	27.8
1896	59.8	61.7	51.8	46.6	44.6	30.0	26.9	30.4	34.1	40.1	50.0	55.9	26.9
1897	53.5	55.3	46.4	39.3	29.8	39.2	31.9	33.9	38.0	41.0	51.5	54.7	29.8
1898	56.2	56.1	55.9	49.8	35.0	34.5	29.0	31.8	41.9	41.1	52.3	49.5	29.0
1899	57.9	56.1	55.1	47.0	32.2	32.5	27.1	27.1	40.1	36.9	45.1	54.2	27.1
1900	55.9	56.8	56.7	37.0	38.8	33.7	27.0	30.0	38.2	43.2	50.8	56.0	27.0
1901	56.9	59.0	56.4	40.3	39.6	31.8	29.0	30.7	36.5	40.1	49.1	51.4	29.0
1902	58.1	58.9	48.0	41.0	37.7	29.0	33.9	31.0	34.2	48.1	50.5	57.0	29.0
1903	57.0	57.9	58.0	41.1	34.2	32.0	31.2	33.0	36.9	41.1	47.1	56.1	31.2
1904	55.3	50.0	47.2	43.7	43.7	30.4	28.4	32.9	32.9	44.7	54.4	55.4	28.4
1905	57.1	57.2	56.2	50.8	39.0	31.9	27.6	35.6	32.2	40.8	38.8	53.2	27.6
1906	55.1	58.2	53.0	42.0	42.1	34.7	32.2	36.8	38.3	40.8	43.7	54.1	32.2
1907	60.0	56.8	52.0	40.8	37.9	37.6	29.2	30.4	39.1	48.1	48.3	58.1	29.2
1908	58.2	57.8	56.1	47.0	41.0	28.3	30.2	32.0	34.3	36.3	53.2	54.0	28.3
1909	53.8	55.1	54.8	45.0	40.4	35.0	33.8	33.1	36.3	44.1	49.9	57.4	33.1
1910	58.9	58.1	55.2	52.2	45.8	35.1	34.4	36.1	46.3	35.1	49.0	57.8	34.4
1911	60.1	59.0	54.0	43.1	32.9	32.0	29.9	32.2	39.0	44.6	47.1	58.3	29.9
1912	57.1	59.8	56.8	45.8	36.1	41.0	35.0	35.0	38.9	44.7	54.5	50.0	35.0

MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE—continued.

TEMPERATURE—continued.

TABLE XXIII.

TEMPERATURE OF SOIL AT DEPTH OF 1 FOOT.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	63.4	70.5	74.9	77.6	..
1888	..	81.5	78.8	77.3	71.2	64.9	59.5	58.4	59.8	66.1	73.5	79.3	71.0
1889	..	84.2	84.8	79.8	72.3	67.0	60.1	59.5	61.6	66.3	71.7	76.6	72.1
1890	..	78.6	79.9	75.1	71.0	65.6	62.5	58.4	59.8	60.9	74.5	77.5	70.5
1891	..	81.9	80.7	76.1	72.6	65.9	59.2	56.6	59.2	64.8	70.0	78.7	70.6
1892	..	83.4	83.5	78.1	71.1	66.0	60.4	58.8	59.8	65.6	73.1	78.9	71.8
1893	..	79.9	77.1	75.1	70.9	67.7	60.7	58.0	62.1	65.8	73.0	78.6	70.8
1894	..	80.2	79.5	75.9	72.7	65.8	60.1	56.9	60.0	65.0	71.0	78.1	70.3
1895	..	80.2	78.0	77.6	73.2	67.2	61.2	56.8	59.9	66.5	74.0	77.6	71.1
1896	..	80.1	79.6	77.7	75.1	68.0	59.8	56.5	60.1	67.5	76.1	75.5	71.8
1897	..	81.7	81.6	79.4	76.1	68.3	63.7	60.4	62.3	67.8	73.3	79.8	72.8
1898	..	78.2	78.4	76.1	72.7	64.4	61.3	58.3	61.3	68.1	74.7	80.9	71.3
1899	..	83.5	78.5	79.2	72.8	67.7	60.9	57.5	60.0	65.8	71.0	78.2	82.8
1900	..	79.6	81.2	79.1	72.7	65.5	59.9	55.5	60.3	66.2	74.1	80.0	84.4
1901	..	84.5	81.2	77.5	72.5	66.7	58.8	56.9	60.9	68.4	73.3	78.1	83.6
1902	..	86.2	84.0	80.9	75.0	67.9	64.1	60.9	62.2	66.5	74.0	77.9	83.5
1903	..	85.6	82.4	80.0	74.3	65.9	58.9	58.9	60.2	65.6	70.1	74.2	81.4
1904	..	82.2	83.6	78.7	70.4	64.8	56.9	57.0	60.2	67.7	73.3	81.1	82.0
1905	..	82.9	81.8	81.8	73.9	67.2	60.7	57.0	61.1	65.8	70.5	78.8	82.2
1906	..	82.5	79.7	74.6	74.7	67.4	61.6	58.9	61.9	66.0	71.6	77.0	81.2
1907	..	81.0	81.3	78.6	74.8	67.6	62.0	57.6	59.6	68.0	74.4	77.6	82.3
1908	..	79.9	81.4	76.8	73.9	67.5	59.4	57.7	60.4	67.3	71.6	77.6	82.3
1909	..	83.0	80.5	77.4	73.4	66.1	61.5	57.7	61.1	66.7	75.5	80.3	83.8
1910	..	82.0	81.0	77.6	73.3	69.8	61.9	58.9	62.6	69.5	72.9	76.3	82.4
1911	..	82.1	76.3	77.7	74.0	66.5	60.7	59.6	60.9	68.5	72.8	80.5	86.8
1912	..	86.6	84.9	79.7	77.4	70.0	64.9	60.2	62.5	69.9	78.2	80.1	82.4
Means, 25 years	..	82.3	80.8	77.9	73.3	66.9	60.8	58.0	60.8	66.9	73.0	78.4	81.9
													71.7

TABLE XXIV.

TEMPERATURE OF SOIL AT DEPTH OF 2 FEET.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	64.1	70.9	75.7	78.0	..
1888	..	81.5	79.6	78.1	72.6	67.3	61.4	60.0	60.9	66.8	73.6	79.1	71.9
1889	..	84.4	85.2	81.1	73.8	68.7	62.2	60.8	62.8	67.1	71.8	76.7	81.4
1890	..	79.4	77.0	75.9	72.4	67.0	64.0	58.2	61.0	67.0	74.1	77.6	79.0
1891	..	82.3	81.5	77.6	74.2	68.5	61.9	58.8	60.5	65.4	70.1	78.3	81.0
1892	..	83.5	84.2	79.9	72.5	67.5	62.9	60.5	61.1	65.8	72.4	78.5	83.3
1893	..	81.8	77.7	76.1	72.5	69.6	62.9	59.6	62.5	66.0	72.3	77.9	80.5
1894	..	80.3	80.0	77.1	73.8	68.1	62.6	59.0	61.0	66.5	70.4	77.3	78.8
1895	..	80.4	78.4	78.4	74.5	69.5	63.7	59.5	60.9	66.7	73.0	77.6	80.2
1896	..	85.4	80.6	78.5	76.7	70.5	63.4	59.0	61.1	67.5	75.3	76.2	79.0
1897	..	81.9	82.3	80.8	77.6	71.3	66.2	63.3	64.0	68.5	73.1	79.6	80.1
1898	..	78.9	79.0	77.1	74.4	67.0	63.4	60.3	62.4	68.4	74.0	80.6	81.0
1899	..	83.5	79.4	80.0	75.0	70.4	64.0	60.0	61.8	66.5	71.8	78.2	83.6
1900	..	80.4	82.3	80.9	75.5	69.2	63.5	58.8	62.4	67.4	74.9	81.0	85.3
1901	..	86.4	83.7	79.5	75.5	69.6	62.4	59.6	62.4	69.0	74.1	78.8	83.8
1902	..	87.0	85.3	83.1	77.7	71.3	66.9	63.9	64.3	68.5	76.5	80.1	83.7
1903	..	87.1	83.9	82.2	77.5	69.8	62.8	61.5	62.5	67.1	71.3	75.3	82.0
1904	..	83.4	85.1	81.1	73.4	67.9	61.0	59.8	62.6	69.0	72.2	81.7	83.1
1905	..	84.2	83.8	83.7	76.8	70.6	64.3	60.8	63.4	67.6	71.6	79.2	83.3
1906	..	83.8	81.1	76.8	76.8	70.9	65.1	61.9	64.1	67.3	72.4	78.9	82.5
1907	..	82.0	83.2	80.7	77.3	71.1	65.5	61.2	62.5	69.8	75.2	78.1	82.2
1908	..	81.0	83.2	78.6	76.3	70.5	63.2	60.4	62.6	68.6	72.7	78.4	82.8
1909	..	84.4	82.6	79.4	75.7	69.1	64.2	60.8	62.8	67.8	75.8	80.9	84.6
1910	..	83.3	82.4	79.5	75.3	72.3	65.0	61.8	64.5	70.5	74.2	77.4	82.9
1911	..	83.8	77.8	79.3	76.3	69.5	63.5	62.3	62.4	68.6	73.1	80.0	86.1
1912	..	86.4	85.3	81.1	78.8	72.3	67.4	62.8	63.9	69.9	75.4	80.1	82.4
Means, 25 years	..	83.1	81.8	79.5	75.3	69.6	63.7	60.6	62.4	67.7	73.2	78.6	82.2
													73.1

MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE—continued.

TEMPERATURE—continued.

TABLE XXV.

TEMPERATURE OF SOIL AT DEPTH OF 4 FEET.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	..	..	..	..	..	..	..	..	63.9	68.7	73.7	76.4	..
1888	79.0	79.1	77.7	74.0	69.5	64.6	62.6	62.2	66.1	71.4	76.2	79.7	71.8
1889	82.2	83.1	81.2	75.8	71.3	65.6	62.9	64.0	66.5	70.3	75.0	79.1	73.1
1890	79.0	76.9	76.1	73.7	69.1	66.4	61.2	61.6	66.0	71.7	76.0	77.2	71.2
1891	80.7	80.5	78.2	75.1	70.8	65.4	61.5	61.8	65.2	68.8	75.7	78.8	71.9
1892	81.9	82.7	80.7	73.0	69.5	65.8	62.8	62.5	65.5	71.3	76.2	80.8	72.8
1893	80.5	77.8	76.3	73.5	72.0	65.6	61.9	63.1	65.7	69.9	75.4	78.1	71.6
1894	79.3	79.0	77.2	75.8	69.9	65.5	62.1	62.2	64.9	68.7	74.4	77.0	71.3
1895	78.6	76.6	77.8	75.1	71.4	66.5	62.8	62.1	66.0	70.5	75.5	78.0	71.7
1896	82.2	80.3	78.7	77.0	73.0	67.2	62.4	62.3	66.5	72.3	75.3	77.1	72.9
1897	80.8	81.0	80.3	77.9	73.6	68.9	65.9	65.4	67.8	71.9	77.4	79.0	74.2
1898	78.3	78.6	77.2	75.0	70.3	66.1	63.1	63.4	67.1	71.6	77.8	79.1	72.3
1899	81.3	79.8	79.6	77.0	72.7	67.5	63.3	63.2	66.3	70.4	75.2	80.7	73.1
1900	79.3	81.0	80.7	77.1	72.4	67.2	62.2	63.8	67.0	72.4	78.0	82.2	73.6
1901	84.3	83.5	79.8	77.5	72.3	66.7	63.0	63.5	67.7	72.4	76.4	80.9	74.0
1902	84.1	83.8	82.7	79.2	74.0	70.2	66.7	65.9	68.2	73.0	76.7	80.5	75.4
1903	85.7	82.9	82.6	78.3	72.7	66.3	63.7	63.8	66.6	70.3	74.0	79.3	73.8
1904	81.6	83.5	81.4	75.4	73.7	64.8	62.7	63.5	67.9	72.4	78.7	80.9	73.8
1905	82.7	82.5	82.7	78.3	73.2	67.7	64.1	64.4	67.2	70.4	76.5	80.9	74.2
1906	81.9	81.2	77.6	76.7	73.1	67.8	64.2	64.9	67.1	70.8	76.7	80.7	73.6
1907	80.5	82.1	80.5	77.8	73.3	68.3	64.0	63.7	68.5	73.3	76.2	80.4	74.0
1908	76.6	82.3	78.8	77.2	72.6	66.6	62.7	63.9	67.6	71.7	76.7	80.2	73.1
1909	82.8	81.9	79.6	77.1	71.4	67.1	63.9	63.9	67.1	73.5	78.4	82.1	74.1
1910	81.8	81.6	80.0	76.0	73.8	68.3	64.4	65.1	69.4	72.8	75.7	80.3	74.1
1911	82.8	78.3	79.0	77.1	72.0	66.6	64.6	63.6	67.3	71.2	76.6	82.1	73.4
1912	83.8	83.7	80.9	79.0	73.9	69.5	65.4	64.6	68.6	73.5	77.4	79.8	75.0
Means, 25 years	81.3	81.0	79.5	76.4	72.1	66.9	63.3	63.5	67.0	71.5	76.3	79.8	73.2

TABLE XXVI.

TEMPERATURE OF SOIL AT DEPTH OF 6 FEET.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	..	..	..	..	..	..	..	..	64.2	67.7	72.1	74.9	..
1888	77.6	78.3	77.0	75.0	71.5	67.2	64.8	63.8	66.3	69.8	73.8	77.5	71.9
1889	79.8	81.0	80.6	76.7	72.7	68.2	65.3	65.1	66.6	69.8	73.5	76.6	73.0
1890	78.2	76.4	76.2	74.4	70.9	68.3	64.2	63.0	65.5	69.7	73.8	75.7	71.4
1891	78.7	79.0	78.3	75.6	72.7	68.2	64.4	63.4	65.0	67.7	72.7	76.1	71.8
1892	79.6	80.6	78.8	75.6	71.6	68.2	64.9	64.1	65.6	69.5	75.1	78.0	72.6
1893	79.1	77.7	76.5	74.0	71.5	67.6	64.1	64.0	65.8	68.9	73.4	76.0	71.6
1894	78.0	78.0	77.2	75.2	72.0	67.7	64.4	63.6	65.2	68.1	72.6	75.4	71.4
1895	77.0	76.9	77.2	75.6	73.1	68.7	65.2	63.5	66.1	69.4	74.0	76.2	71.9
1896	79.9	80.3	78.2	77.5	74.3	69.8	65.3	64.0	66.4	71.0	74.3	75.9	72.2
1897	78.6	79.9	79.5	77.9	74.9	71.0	68.2	66.8	67.9	70.8	75.1	77.8	74.0
1898	77.6	77.8	77.2	75.5	71.7	68.2	65.6	64.7	66.8	70.1	75.3	77.5	72.3
1899	79.4	79.2	78.9	77.4	73.9	70.0	66.1	64.5	66.7	69.5	73.0	77.7	73.0
1900	78.3	79.5	79.9	77.6	74.3	69.6	65.0	64.8	66.8	70.9	75.6	79.6	73.5
1901	82.1	82.3	79.8	78.0	74.2	69.9	65.3	64.6	67.3	71.2	74.7	77.9	73.9
1902	81.5	82.3	81.9	79.5	75.7	72.4	69.1	67.6	68.3	71.5	74.9	78.2	75.2
1903	82.4	81.6	81.8	79.0	73.7	69.7	66.6	65.3	66.6	69.2	72.2	75.9	73.7
1904	78.8	80.8	80.6	76.8	72.5	68.1	64.3	64.7	67.1	70.5	75.3	78.7	73.2
1905	80.4	80.7	81.3	79.1	75.0	70.5	67.1	65.9	67.1	69.6	73.5	77.8	74.0
1906	79.6	79.8	77.7	76.6	74.5	70.0	66.6	66.1	67.2	69.6	73.9	77.7	73.3
1907	78.6	80.0	79.8	77.9	75.0	70.8	66.8	65.3	67.8	71.6	74.8	77.8	73.8
1908	78.3	80.3	78.6	77.4	74.3	69.8	65.5	65.0	67.0	70.2	74.0	77.2	73.0
1909	80.3	80.1	79.1	77.6	73.3	69.2	66.3	65.5	66.9	71.3	75.2	78.8	73.6
1910	79.5	80.1	79.5	76.5	74.8	71.0	67.4	66.4	68.7	71.5	74.0	77.7	73.9
1911	81.0	78.2	78.1	77.2	73.9	69.5	67.3	65.6	67.1	70.1	73.7	78.1	73.3
1912	80.8	81.7	80.6	79.1	75.7	72.1	68.6	66.5	68.2	71.9	74.9	77.4	74.8
Means 25 years	79.4	79.7	79.0	76.9	73.5	69.4	65.9	65.0	66.8	70.1	74.1	77.3	73.1

MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE—continued.

RAINFALL.

TABLE XXVII. RAINFALL AND NUMBER OF WET DAYS.* 100 points = 1 inch.

Table with columns for Year, January, February, March, April, May, June, July, August, September, October, November, December, and Year Totals. Each month column contains Amount Points and Days. Includes mean values for 62 years.

* Note 1866. "No observations having been recorded for January & February 1866, the average rainfall of 11 years for those months has been inserted".

The names of the Official Observers from whose records this table was compiled will be found in the preface note. * NOTE.—Total and means of wet days are for 53 years only. † Figures for these years not included in means. ‡ Dew.

89. 609. 3, 301 181 548 4226 331 3500

MONTHLY AND YEARLY METEOROLOGICAL ELEMENTS AND NORMALS OF BRISBANE—*continued.*

RAINFALL—*continued.*

TABLE XXVIII.

GREATEST RAINFALL IN 24 HOURS.

100 points = 1 inch.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Heaviest for Year.		
	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.	Amount— Points.	Date.
1870	965	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	965	9th March	
1871	660	28th December	
1872	..	1:50	..	..	..	..	0:12	..	..	0:15	..	..	..	..	0:60	..	0:53	..	0:70	..	0:90	..	..	..	455	29th December	
1873	410	17	..	..	..	..	..	..	..	..	..	..	..	410	17th June	
1874	231	31	..	..	..	..	..	..	..	..	..	231	31st July	
1875	748	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	748	24th February	
1876	354	15th July	
1877	354	15	..	..	..	..	..	..	258	18	..	258	18th November	
1878	410	14	410	14th December	
1879	562	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	562	9th May	
1880	293	22	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	293	22nd February	
1881	..	272	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	272	11th January	
1882	385	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	385	1st April	
1883	295	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	295	14th May	
1884	316	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	316	3rd May	
1885	280	17	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	280	17th February	
1886	446	16th November
1887	..	1831	21	114	17	191	24	82	17	90	30	11	11	328	13	489	12	102	12	122	31	119	18	144	26	1831	21st January
1888	..	75	24	305	26	15	24	67	5	61	21	17	6	1	18	37	14	154	15	25	17	156	28	148	14	305	26th February
1889	..	43	21	94	23	111	25	294	17	64	7	50	6	354	16	168	3	160	21	195	20	186	23	128	7	354	16th July
1890	..	288	23	162	23	338	7	386	23	42	3	32	16	16	10	38	1	196	21	73	24	97	10	176	18	386	23rd April
1891	..	137	15	39	10	120	12	25	2	166	29	308	11	118	10	193	10	78	14	106	11	191	21	98	8	308	11th June
1892	..	300	12	90	26	677	13	333	20	84	17	209	14	42	31	37	26	52	23	177	16	142	10	170	25	677	13th March
1893	..	361	21	836	16	181	31	97	15	131	31	601	9	67	30	226	22	43	3	105	1	111	26	56	18	836	16th February
1894	..	438	22	54	12	286	14	74	20	94	18	165	23	2	29	20	20	248	2	30	7	119	3	160	17	438	22nd January
1895	..	574	26	172	10	24	10	213	8	77	25	Nil	..	23	18	52	13	82	23	78	31	257	17	236	24	574	26th January
1896	..	199	29	397	9	117	20	26	9	98	20	21	7	119	7	115	22	99	25	119	4	156	2	111	3	397	9th February
1897	..	81	3	95	16	294	1	4	1	54	31	62	10	229	25	97	21	134	21	135	14	154	1	302	28	302	28th December
1898	..	437	10	366	10	518	20	49	28	210	1	72	2	19	8	105	31	57	11	95	2	190	27	274	18	518	20th March
1899	..	254	11	73	7	224	10	86	11	128	27	146	18	187	9	35	22	43	26	58	21	81	16	205	28	254	11th January
1900	..	378	8	354	13	79	29	86	1	166	22	96	21	180	21	57	14	45	16	7	22	142	17	16	4	378	8th January
1901	..	192	21	134	21	409	10	240	21	93	2	106	8	52	6	158	25	73	29	98	10	32	17	47	17	409	10th March
1902	..	71	27	78	8	54	27	5	20	34	2	4	25	14	5	40	31	52	28	159	11	83	30	56	10	159	11th October
1903	..	54	12	181	15	90	20	56	20	426	31	23	26	285	14	137	7	179	14	117	5	124	5	63	9	426	31st May
1904	..	120	24	52	24	283	30	166	3	84	14	31	12	89	28	19	7	75	26	34	21	89	26	118	18	283	30th March
1905	..	433	15	148	13	125	29	140	3	55	2	14	22	19	1	34	26	121	29	82	14	178	29	526	7	528	7th December
1906	..	241	9	377	28	102	12	31	5	221	23	65	17	18	30	195	30	101	29	97	25	33	13	75	21	377	28th February
1907	..	73	20	133	8	201	12	12	15	283	31	100	28	20	27	34	18	8	26	32	25	106	17	80	19	283	31st May
1908	..	49	13	207	12	1118	14	81	12	112	19	6	21	25	5, 8	166	2	27	6	77	26	140	9	80	28	1118	14th March
1909	..	68	17	137	25	66	1	171	19	51	16	66	80	162	16	92	24	85	17	91	16	205	29	205	25	205	25th December
1910	..	310	13	262	13	120	16	36	9	18	7	404	2	20	5	14	2, 10	74	7	97	21	180	12	439	12	439	12th December
1911	..	290	12	93	13	120	27	34	18	48	11	3	20	124	15	54	29	67	24	130	19	61	28	106	3	290	12th January
1912	..	136	6	72	9	438	3	36	18	6	4	223	25	65	3	40	15	29	19	150	21	79	24	165	12	438	3rd March

CLOUD AND PHENOMENA.

TABLE XXIX.

MEAN CLOUD, DEDUCED FROM ($\frac{\text{9 a.m.} + 3 \text{ p.m.}}{2}$).
Scale (0-10): 0 = clear, 10 = overcast.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	5.5	7.5	7.2	5.9	4.4	4.2	4.4	5.3	4.2	4.3	6.2	6.9	5.7
1888	5.7	7.1	3.9	6.0	5.2	3.8	2.9	2.7	4.5	5.1	4.0	5.5	4.7
1889	5.1	5.0	6.6	7.3	6.2	4.9	5.4	4.7	4.7	5.6	7.1	6.6	5.3
1890	8.3	8.0	8.1	6.1	6.0	4.8	4.7	3.5	4.2	3.0	5.2	6.3	5.7
1891	7.2	6.3	6.9	6.9	6.0	3.3	4.2	3.3	4.3	5.8	5.2	4.6	5.3
1892	5.2	5.3	6.3	5.1	5.9	4.0	4.6	3.4	5.4	5.5	5.0	5.0	5.1
1893	6.2	8.7	7.3	4.9	4.6	5.1	5.0	5.6	3.1	4.2	5.7	4.7	5.4
1894	7.2	6.5	7.4	5.8	3.8	3.4	1.6	3.7	4.4	5.6	5.4	6.6	5.1
1895	7.3	5.5	4.8	5.5	4.4	3.7	3.5	1.9	2.3	4.0	5.1	6.0	4.5
1896	4.6	8.1	4.0	4.6	4.0	2.7	2.8	3.2	3.1	2.9	5.7	5.0	4.8
1897	5.0	5.0	3.7	2.2	3.5	5.4	3.7	4.4	4.3	4.3	4.1	7.3	4.4
1898	7.4	7.4	6.3	4.1	4.4	5.2	3.2	5.3	4.0	2.5	4.5	4.6	4.9
1899	5.8	6.1	6.1	5.3	4.0	4.7	5.1	3.9	5.9	4.7	4.0	5.1	5.1
1900	6.0	4.9	5.1	4.3	5.6	3.9	3.5	2.7	3.1	2.4	3.9	4.3	4.1
1901	4.8	6.2	6.2	4.9	5.3	4.4	4.5	4.7	3.4	3.7	5.5	4.7	4.0
1902	5.7	5.0	3.8	3.6	3.3	3.2	3.6	3.4	2.4	4.0	4.6	5.4	4.0
1903	4.5	5.8	7.0	4.5	5.5	3.4	3.8	4.9	4.1	5.3	6.1	6.6	5.1
1904	6.6	4.2	7.1	7.2	6.8	3.4	4.1	3.3	3.0	6.1	4.2	5.6	5.1
1905	6.2	6.0	4.8	6.4	5.6	4.4	2.0	3.1	2.7	3.8	3.9	4.9	4.5
1906	5.9	7.1	6.4	4.1	4.3	4.1	3.1	3.8	1.8	5.7	5.4	6.3	4.9
1907	7.0	7.8	6.4	3.4	5.7	5.8	3.3	2.0	3.3	4.6	5.9	5.4	5.1
1908	6.4	6.3	5.4	6.1	4.8	4.0	5.0	4.0	4.2	4.7	5.6	5.6	5.8
1909	5.5	5.2	5.7	4.6	3.8	5.2	4.2	6.1	5.0	4.6	6.8	5.4	5.6
1910	6.8	6.0	7.9	5.4	5.2	5.2	4.3	4.1	5.0	4.6	6.8	5.4	5.6
1911	6.9	7.1	5.4	3.5	4.0	3.5	3.8	4.5	3.3	5.4	4.9	4.2	4.7
1912	5.5	5.8	6.1	4.1	3.6	6.3	4.4	5.5	1.7	4.0	5.2	4.5	4.7
Means, 26 years	6.2	6.2	6.0	5.1	4.9	4.3	3.9	4.0	3.8	4.5	5.2	5.6	5.0

TABLE XXX.

NUMBER OF DAYS THUNDER.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	5	1	..	2	..	..	..	3	1	5	5	1	23
1888	1	1	..	..	..	..	..	..	1	4	4	4	18
1889	2	5	..	..	..	..	..	..	2	3	6	4	22
1890	..	1	1	2	..	..	..	..	4	3	7	11	29
1891	1	..	..	..	..	..	1	1	3	7	4	9	26
1892	6	5	3	..	..	..	..	3	4	4	4	9	38
1893	5	2	2	2	..	..	1	..	2	6	6	6	32
1894	4	3	..	..	..	2	..	2	6	2	3	4	26
1895	4	1	..	1	..	..	1	1	4	3	9	7	31
1896	2	2	5	1	..	..	1	..	2	2	..	6	21
1897	4	4	2	..	..	..	..	1	6	8	4	6	35
1898	1	1	..	..	..	..	..	1	3	..	9	7	22
1899	2	1	..	..	..	..	1	1	4	4	5	1	19
1900	3	2	2	2	..	2	..	1	3	2	3	2	22
1901	4	2	..	..	..	..	..	2	1	6	2	3	20
1902	5	5	1	..	..	..	..	2	3	8	6	4	34
1903	..	6	..	..	1	..	..	..	5	4	6	3	21
1904	2	..	1	2	..	1	1	2	2	5	6	6	26
1905	..	2	2	1	..	..	..	2	3	4	5	6	27
1906	3	4	5	2	1	..	1	..	7	8	6	6	38
1907	3	8	3	..	..	..	..	2	..	3	5	1	31
1908	..	5	1	4	1	..	2	2	3	3	2	5	28
1909	2	5	2	2	1	..	..	2	2	3	5	5	29
1910	7	4	..	1	1	1	2	2	4	3	4	9	38
1911	5	1	1	..	1	..	1	4	3	7	5	6	34
1912	3	7	9	..	..	..	..	3	4	4	6	8	44
Means, 26 years	2.8	3.0	1.5	0.9	0.3	0.2	0.5	1.4	3.2	4.3	4.7	5.4	28.2

TABLE XXXI.

NUMBER OF DAYS LIGHTNING.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	13	2	5	4	..	3	1	..	2	0	10	1	50
1888	2	2	3	1	2	2	3	4	2	9	10	12	52
1889	6	8	1	1	1	2	2	3	7	3	9	7	50
1890	..	2	2	3	1	1	..	5	6	7	9	12	48
1891	1	3	1	1	1	1	2	1	5	10	8	11	45
1892	9	6	1	1	1	2	4	6	7	9	8	13	69
1893	7	5	2	6	2	2	5	2	7	11	13	6	68
1894	6	3	4	3	3	5	1	6	7	6	6	5	54
1895	4	1	2	3	1	2	4	4	6	6	10	13	56
1896	2	4	7	6	3	1	3	4	4	5	2	12	53
1897	5	8	6	1	1	1	..	3	9	12	8	10	59
1898	4	2	..	1	4	..	4	3	5	2	13	9	47
1899	3	2	1	1	..	3	2	4	4	5	11	4	40
1900	1	6	1	3	4	4	..	2	6	3	3	4	37
1901	6	4	3	2	..	..	..	4	2	7	4	4	36
1902	7	7	3	1	3	1	2	4	3	8	6	3	53
1903	..	7	..	..	1	1	1	..	6	4	2	8	25
1904	2	..	1	1	..	1	1	3	4	6	6	6	30
1905	..	2	3	2	5	..	1	4	6	5	6	6	38
1906	3	5	5	4	..	1	2	4	4	8	8	3	42
1907	5	11	5	1	3	1	2	6	10	4	8	6	50
1908	..	10	1	7	2	3	4	6	7	4	8	10	65
1909	1	9	4	1	5	3	3	6	7	6	8	15	68
1910	11	6	4	5	5	1	2	3	8	8	7	11	71
1911	13	2	5	5	5	2	8	6	6	10	9	10	76
1912	3	9	13	4	5	..	3	5	8	5	11	14	80
Means, 26 years	4.4	4.6	3.3	2.6	2.2	1.6	2.1	3.6	5.4	6.6	7.7	8.3	52.4

PHENOMENA.

TABLE XXXII.

NUMBER OF DAYS SOLAR HALO.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	1	..	..	1
1888	0
1889	0
1890	..	1	..	..	..	..	..	..	..	..	..	1	2
1891	1	1
1892	0
1893	..	1	..	1	..	2	..	..	..	..	..	..	5
1894	..	1	2	2	1	1	..	..	..	..	..	2	9
1895	..	1	..	..	..	..	..	..	..	..	..	..	1
1896	0
1897	..	1	..	..	2	..	..	..	..	..	..	..	4
1898	..	1	..	..	..	..	..	..	..	..	..	..	1
1899	0
1900	0
1901	1	..	..	..	..	..	..	..	..	..	..	..	1
1902	0
1903	0
1904	0
1905	1	1	..	..	..	..	1	..	3
1906	0
1907	1	..	..	..	..	..	..	..	..	..	..	..	1
1908	1	..	..	..	..	..	..	..	..	1
1909	1	..	0
1910	..	1	1	..	..	..	..	..	..	..	1	..	3
1911	1	..	..	..	..	..	..	..	..	1	..	..	2
1912	4	..	1	..	..	..	..	..	..	1	6
Means, 26 years	0·3	0·2	0·3	0·1	0·2	0·1	..	..	..	0·1	0·1	0·2	1·6

TABLE XXXIII.

NUMBER OF DAYS LUNAR HALOS.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	..	..	..	..	..	1	..	2	1	..	..	1	5
1888	..	1	..	..	..	..	..	..	..	..	..	..	1
1889	..	..	..	1	..	..	..	..	..	..	2	2	5
1890	..	..	..	2	4	1	..	1	1	..	..	..	9
1891	..	..	1	..	1	..	..	..	..	2	..	1	5
1892	..	..	..	..	..	..	..	..	..	1	..	..	1
1893	..	1	1	1	2	1	..	1	..	..	..	..	7
1894	..	..	1	2	..	1	1	1	..	..	..	2	7
1895	..	..	..	..	1	..	1	..	..	1	1	..	4
1896	..	..	..	..	..	..	..	..	..	..	..	..	0
1897	..	..	..	..	2	..	1	..	..	..	..	..	3
1898	1	..	..	2	2	1	..	1	..	..	..	2	7
1899	..	..	..	..	..	..	1	..	..	..	..	..	1
1900	1	1	1	..	..	..	..	..	..	..	1	1	5
1901	..	..	1	..	..	2	1	..	..	2	..	1	7
1902	..	2	..	1	1	..	..	..	..	..	1	1	6
1903	..	2	..	..	..	1	..	..	..	..	..	..	3
1904	..	..	..	..	..	..	..	..	..	..	..	..	0
1905	..	..	..	..	..	1	..	..	..	..	..	..	1
1906	..	..	..	..	..	..	..	..	..	..	..	1	1
1907	..	..	..	..	2	..	..	..	..	..	..	..	2
1908	1	..	..	2	..	2	..	1	1	1	..	..	8
1909	1	4	2	4	3	..	1	1	1	1	..	2	17
1910	1	2	..	1	2	1	1	3	..	..	3	..	14
1911	..	..	..	2	1	1	..	1	..	..	..	..	5
1912	..	..	1	..	1	1	..	..	..	2	..	..	5
Means, 26 years	0·3	0·3	0·3	0·6	0·9	0·5	0·3	0·4	0·1	0·4	0·3	0·5	4·9

PHENOMENA—continued.

TABLE XXXIV.

NUMBER OF DAYS DEW.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.		
1887	..	6	2	5	8	8	12	8	9	8	2	3	71		
1888	..	14	7	10	10	14	11	12	9	6	1	..	99		
1889	..	1	..	..	3	6	11	4	7	3	..	1	41
1890	2	4	7	16	9	4	4	4	..	..	58		
1891	1	5	..	1	1	1	..	..	..	..	9		
1892	8	2	3	..	2	1	..	..	..	11		
1893	3	10	12	9	4	3	2	..	..	53		
1894	3	4	9	15	4	8	8	..	..	61		
1895	2	5	10	7	2	6	8	3	5	58		
1896	15	8	7	..	6	6	8	7	3	53		
1897	6	7	4	..	5	4	..	1	..	55		
1898	11	3	10	10	1	6	10	..	1	58		
1899	1	5	3	4	10	5	4	..	4	52		
1900	4	11	4	3	1	1	1	..	85		
1901	2	3	5	3	2	2	3	2	..	25		
1902	8	12	3	2	..	..	..	..	..	28		
1903	2	5	4	..	..	1	..	..	..	22		
1904	10	8	2	..	2	1	..	..	..	17		
1905	9	4	12	13	3	2	2	1	3	52		
1906	2	18	15	7	6	2	4	..	..	77		
1907	7	16	5	4	3	3	4	1	..	77		
1908	2	4	15	10	5	2	1	1	2	62		
1909	11	11	22	11	8	16	9	5	..	59		
1910	7	17	22	13	21	19	12	..	1	130		
1911	6	11	18	22	12	18	9	..	1	153		
1912	6	3	15	18	17	15	11	6	11	148		
Means, 26 years	2.6	2.7	4.9	8.3	9.8	7.0	7.5	5.7	4.1	1.2	1.4	61.0

TABLE XXXV.

NUMBER OF DAYS FOG.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.			
1887	1	2	1	2	1	1	1	..	..	9			
1888	1	4	6	1	..	2	..	..	16			
1889	2	4	2	2	..	..	..	..	11			
1890	5	4	9	6	1	..	..	..	25			
1891	1	1	1	3	..	2	..	..	..	8			
1892	1	2	3	5	2	2	..	..	13			
1893	1	2	5	5	3	3	..	1	1	25			
1894	2	..	..	1	3	1	..	..	..	9			
1895	2	3	5	4	4	1	..	..	..	22			
1896	3	1	1	1	..	..	7			
1897	3	4	4	2	2	1	2	..	..	19			
1898	4	2	2	2	..	..	21			
1899	1	1	4	3	4	2	3	1	1	11			
1899	1	2	1	2	..	2	1	..	..	8			
1900	1	1	2	1	1	..	..	..	..	8			
1901	5	1	2	..	..	1	1	11			
1902	1	1	2	2	1	1	..	..	..	7			
1903	2	2	4	4	2	..	..	..	15			
1904	1	2	3	5	4	4	..	1	..	15			
1905	2	..	..	..	..	..	2	..	..	14			
1906	1	1	2	2	2	..	1	..	..	25			
1907	3	5	3	4	2	7	4	..	1	30			
1908	2	3	2	6	3	4	1	..	..	29			
1909	4	4	4	1	5	4	..	..	..	27			
1909	5	1	11	3	3	2	..	..	..	40			
1910	4	7	7	1	12	6	..	..	..	40			
1911	9	11	7	4	7	3	4	..	..	53			
1912	1	1	10	4	10	..	1	..	2	33			
Means, 26 years	0.2	0.4	0.9	1.8	2.7	3.5	2.9	3.4	2.0	1.0	0.3	0.2	19.3

PHENOMENA—*continued.*

TABLE XXXVI.
NUMBER OF DAYS FROST.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	1	..	..	..	..	1
1888	0
1889	1	..	..	..	..	..	1
1890	1	..	..	..	..	..	1
1891	0
1892	0
1893	3
1894	3
1895	4	..	..	..	..	..	..	23
1896	7	..	10	..	..	..	..	20
1897	9	3	1	..	..	..	9
1898	6	3	..	..	..	..	10
1899	1	7	2	..	..	..	..	1
1900	1	..	7	3	..	..	..	..	11
1901	1	..	..	..	..	..	..	1
1902	0
1903	0
1904	0
1905	3	5	..	2	..	..	..	10
1906	1	10	1	..	..	..	..	12
1907	3	6	..	..	..	..	9
1908	6	2	3	..	1	..	..	12
1909	7	5	1	..	..	..	13
1910	7	1	..	..	..	..	8
1911	7	8	13	2	..	..	..	..	30
1912	1	..	..	..	2	..	..	..	3
Means, 26 years	0·4	1·2	3·6	1·5	0·2	..	..	..	6·9

TABLE XXXVII.
NUMBER OF DAYS HAIL.

Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
1887	1	..	1
1888	0
1889	1	1	2	1	5
1890	2	..	..	2	4
1891	1	..	..	1
1892	2
1893	1	..	..	..	..	..	..	..	1	1	3
1894	3
1895	1	..	..	..	1
1896	1
1897	1	..	..	..	..	..	..	..	..	..	..	..	1
1898	1	1	..	3
1899	1	1	..	2	1	5
1900	1	..	1
1901	0
1902	1
1903	1	..	..	..	..	1
1904	..	1	..	..	..	..	..	..	..	..	..	..	0
1905	2
1906	2	..	..	..	0
1907	3
1908	1	..	1	1	..	0
1909	0
1910	1	..	..	..	..	..	..	..	1	..	2	1	4
1911	1	..	..	..	1	2
1912	1	..	..	..	3	4
Means, 26 years	0·1	..	..	..	..	..	..	0·2	0·3	0·2	0·4	0·5	1·7

ADDENDUM TO APPENDIX I.

METEOROLOGICAL RECORDS FROM GERMAN NEW GUINEA.

The following notes and tables were obtained from records kept by Dr. Bredemann, Curator at the Botanic Gardens, Rabaul, copies of which (received from the Administrator) were forwarded, on 31st January, 1915, to this Bureau, by the courtesy of the Acting Secretary to the Department of Defence:—

RAINFALL AT RABAU.

(In Inches and Hundredths.) — Indicates no record.

Year.	January.			February.			March.			April.			May.			June.			July.			August.			September.			October.			November.			December.		
	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.	6 a.m.	6 p.m.	Total.			
1913 ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.28	0.32	0.58	0.10	0.68	4.60	3.11	7.71	6.27	6.77	13.04
1914 ..	2.50	9.18	11.68	9.49	3.33	12.82	4.34	3.72	8.06	3.90	0.96	4.86	2.03	1.49	3.57	0.28	0.52	0.80	..	0.10	0.10	0.14	0.39	1.03	—	—	—	0.26	0.36	0.62	0.33	1.97	2.30	—	—	—

NUMBER OF DAYS WITH THUNDERSTORMS (a), AND DAYS WITH LIGHTNING ONLY (b), AT RABAU, DURING PORTIONS OF THE YEARS 1913 AND 1914.

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Rabaul (a) ..	—	—	—	—	—	—	—	—	..	5	10	6	
1913 (b) ..	—	—	—	—	—	—	—	—	2	4	3	8	
Rabaul (a) ..	8	1*	11	17	5	2	..	..	—	..	10	—	
1914 (b) ..	12	1*	13	9	8	1	..	..	—	..	2	—	

The sign — — indicates that observations were not recorded.

* Incomplete; no observations recorded from 1st to 25th, officials absent.

TABLE SHOWING THE NUMBER OF EARTHQUAKES OBSERVED AT RABAUŁ DURING PORTIONS OF THE YEARS 1913 AND 1914.

* Denotes earthquakes ranging from strong to very severe. (·) Signifies that continuous observations were not recorded. — Indicates no observations recorded.

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Rabaul, 1913	Day and Hour.	Day and Hour.	Day and Hour.	Day and Hour.	Day and Hour.	Day and Hour.	Day and Hour.	Day and Hour.	Day and Hour.	Day and Hour.	Day and Hour.	Day and Hour.
	3rd, 4.30 a.m. 7th, 1 p.m. 12th, 8.55 p.m. 28th, 3.10 p.m.	(·)	4th, 9.45 p.m. 5th, 4.45 p.m. 18th, 12.30 p.m.* 25th, 11.40 p.m.*	5th, 6.20 p.m.*	2nd, 1.40 p.m. 19th, 3.45 a.m. 2.46 p.m. 4.46 p.m. 5.32 p.m. 3.25 p.m. 9.20 p.m.; longest carillon tremor, 10.26 a.m.	25th, 11.40 p.m.	4th, 8 p.m. 5th, 6.30 a.m.	—	—	9th, 1.30 p.m. 14th, 8.10 p.m. 16th, 5.15 p.m. 22nd, 5.40 p.m. 24th, 1 p.m. 27th, 1.15 a.m. 28th, 10.40 p.m., 10.40 a.m. 29th, 2 a.m.	11th, 2.30 p.m. 16th, 5.15 p.m. 18th, 4.15 p.m.	10th, 8.10 a.m. 14th, 4.55 p.m. 17th, 12.40 a.m., 12.45 p.m., 3.30 a.m. 30th, 9.10 p.m.
Rabaul, 1914											19th, 6 p.m.*	—

NOTES ON METEOROLOGICAL OBSERVATIONS MADE IN GERMAN NEW GUINEA DURING THE YEAR 1912.

(Prepared by Dr. H. Marquardsen.)

On the coast of Kaiser-Wilhelmsland, the north-west monsoon prevailed from January until the end of April, 1912. From then until October the trade winds were experienced, and in the last month of the year the north-west monsoon again appeared. The trade winds brought only limited rain to the coastal fringe of Kaiser-Wilhelmsland. The total rainfall for the year at Eitape, Nubia, and Modilon is therefore considerably less than in the preceding year. A little more to the south-east the rain was more abundant, as it is in all years. Thus the stations on Astrolabe Bay and Huon Gulf, whose chief period of rainfall is comprised in those months, experienced in the year covered by this report no difference in the normal total rainfall. Particular interest attaches to the first inland station (established by Dr. Behrmann of the Geographical Section of the Kaiserin-Augusta River Expedition) at Malu, that has now for a period of one and a half years taken observations close to the newly-established mission station of Tamburi, on the Kaiserin-Augusta River. The rainfall at Malu from 17th March until 31st December, 1912, reached a total of 87.29 inches. If one fills in the missing period by taking the rainfall at Eitape and Nubia, a result of between 145.43 inches and 147.72 inches is obtained. In round numbers this is 146.5 inches for the year in a season that according to previous observations was exceptionally dry. The interior of New Guinea had during this period heavy rains—very much heavier than was experienced on the coast. The chief rains, as on the coast, are accompanied by north-west winds.

On the islands of the Bismarck Archipelago and at Nauru the rainfall in the year covered by the report exceeds that of the previous year. Some of the islands show extraordinary differences. The Island of Saipan (the station being known as Garapan) suffered from a lack of rain bordering on a drought from January until June, 1912. The total for the year in that case reached 70.71 inches, as against 115.12 inches in the previous year. The records for Yap (100.67 inches, as compared with 141.18 inches for the previous year), Palau, and Kusaie also show reductions in rainfall.

On the list of thunderstorms, the station of Malu stands out with a remarkable score. At that station 146 were recorded on the 289 observation days—actually more than one-half being thunderstorm days. As far as the records of any station shows, the interior of New Guinea, in consequence of these thunderstorms and the heavy rainfall is covered entirely with luxuriant vegetation, forests, and swamps.

The earthquake table shows that the inner edge of Huon Gulf provides the strongest and the most frequent tremors of the earth's crust. The observations taken at the new station of Mangawa, at the Island of Umboi, show that the earthquakes which starts from this edge (Malolo) frequently travel across the peninsula north of Huon Gulf, and expend themselves on both sides of Vitiaz Straits. Instances of this occurred on 13th, 18th, and 19th July, and 9th and 15th September. On the 20th April at 11.30 a.m. an earthquake made itself felt from Malolo to the Witu Islands (Station Lama).

The island possessions have been lightly treated in the matter of storms during the past year. Only Palau reports the occurrence of a typhoon on 26th November, at 10 p.m., which blew down some of the houses and destroyed some coconut plantations. On 2nd April a storm similar to a typhoon passed over Truk at night, but no particulars are available as to the damage done.

TABLE SHOWING MONTHLY RAINFALL TOTALS AND MAXIMUM AMOUNTS IN TWENTY-FOUR HOURS RECORDED AT STATIONS IN GERMAN NEW GUINEA DURING 1912, TOGETHER WITH ANNUAL TOTALS FOR 1911.

(In Inches and Hundredths.) — Indicates no record.

Table with columns for Station, January, February, March, April, May, June, July, August, September, October, November, December, Annual Totals (1912, 1911). Sub-sections include KAISER WILHELMSLAND and BISMARCK ARCHIPELAGO.

REMARKS.

Malu is the chief station of the Kaiserin-Augusta River Expedition. The observations there commenced on 17th March, at 6 a.m. At Modillon from 10th to 24th November, on account of sickness, no records were obtained. At Erima from 27th to 31st July, and during the month of August, no records were obtained, or at Constantinhafen from 1st to 17th February. At Deinzerhöhe the rain gauge on 1st February was full, and had evidently overflowed.

GERMAN NEW GUINEA.

NUMBER OF DAYS WITH THUNDERSTORMS (a), AND DAYS WITH LIGHTNING ONLY (b), DURING THE YEAR 1912.

Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
Malu .. (a)	---	---	9	14	14	16	15	19	16	9	18	16	146
(b)	---	---	4	4	..	..	2	3	..	..	3	6	22
Sattelberg .. (a)	---	---	5	4	..	7	..	2	6	2	16	8	50
(b)	---	---	..	8	2	7	5	1	4	3	8	9	47
Peterhaven .. (a)	4	5	2	5	7	15	11	4	6	10	20	11	100
(b)	..	4	4	3	3	1	..	2	1	4	4	3	29
Kaewieng .. (a)	---	---	---	8	8	5	3	6	1	15	7	13	..
(b)	---	---	---	..	..	..	4	..	1	..	4	..	..
Garapan .. (a)	..	..	..	..	..	2	5	5	1	3	..	..	16
(b)	..	..	..	..	..	1	3	2	3	2	..	..	11
Palau .. (a)	2	1	..	3	2	10	5	5	7	7	7	4	53
(b)	1	1	..	4	2	4	6	3	4	5	4	2	36
Yap .. (a)	..	..	..	..	..	..	..	..	6	1	2	..	9
(b)	..	..	..	..	..	1	1	1	6	3	4	..	16
Truk .. (a)	..	..	..	..	..	2	3	..	2	3	..	1	11
Jaluit .. (a)	---	---	---	---	---	1	2	---	..	2	1	..	..
(b)	---	---	---	---	---	..	..	..	..	..	3	2	..
Nauru (Government Station) .. (a)	---	---	---	---	---	---	1	1	1	1	2	2	..
(b)	---	---	---	---	---	---	2	2	1	6	..	..	..
Arubo .. (a)	1	3	1	..	..	..	..	1	1	1	1	2	11
(b)	3	3	1	..	..	..	..	1	1	1	2	..	12

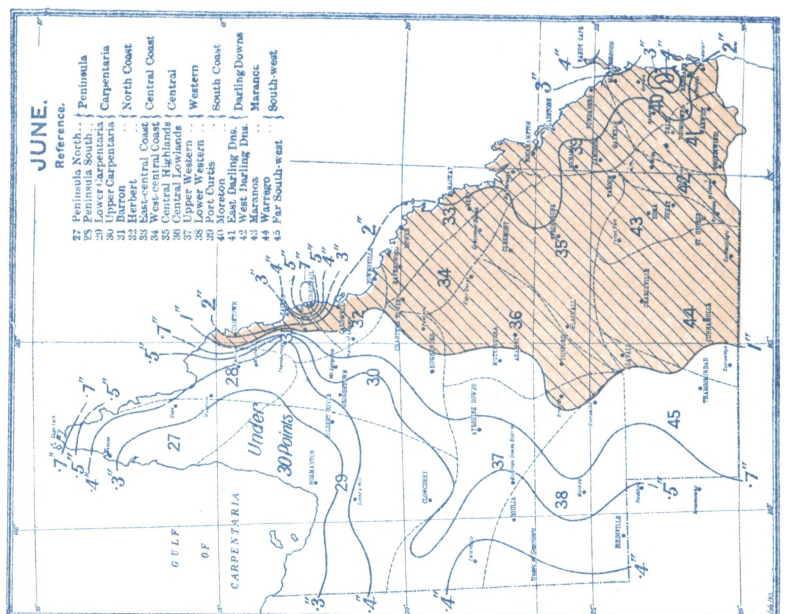
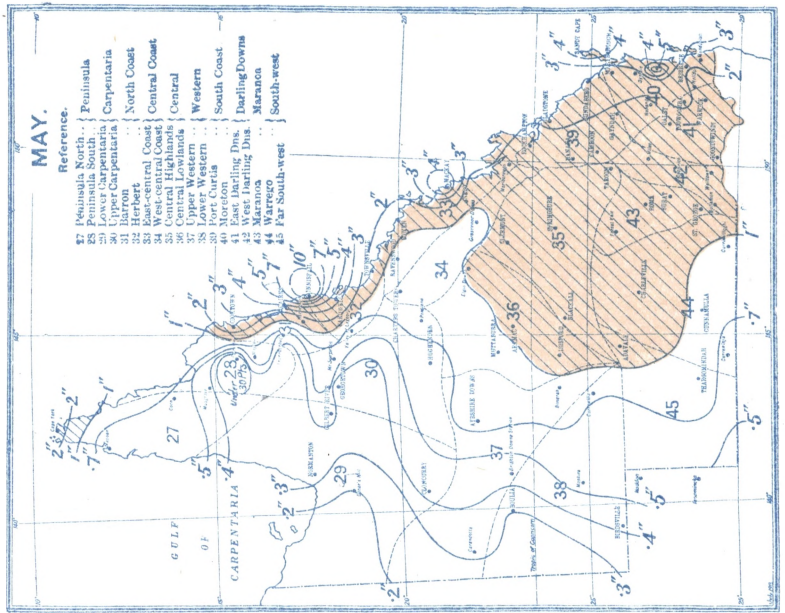
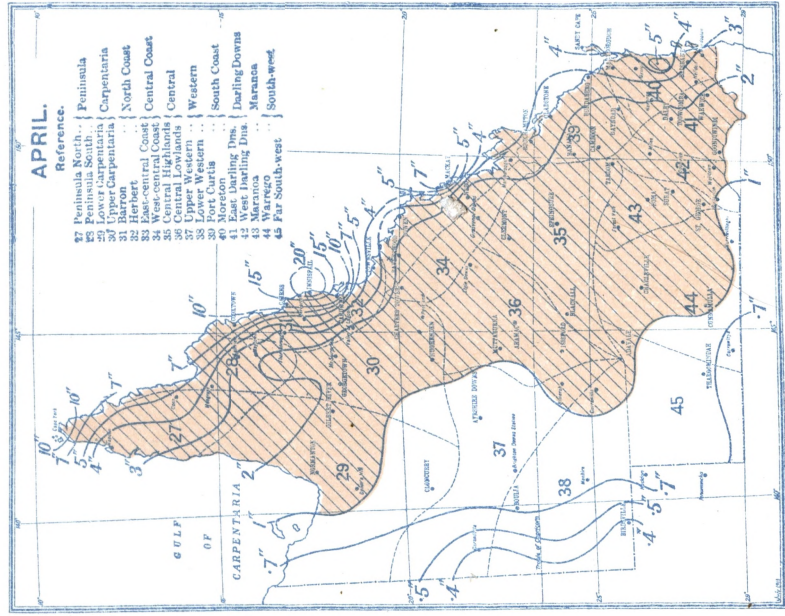
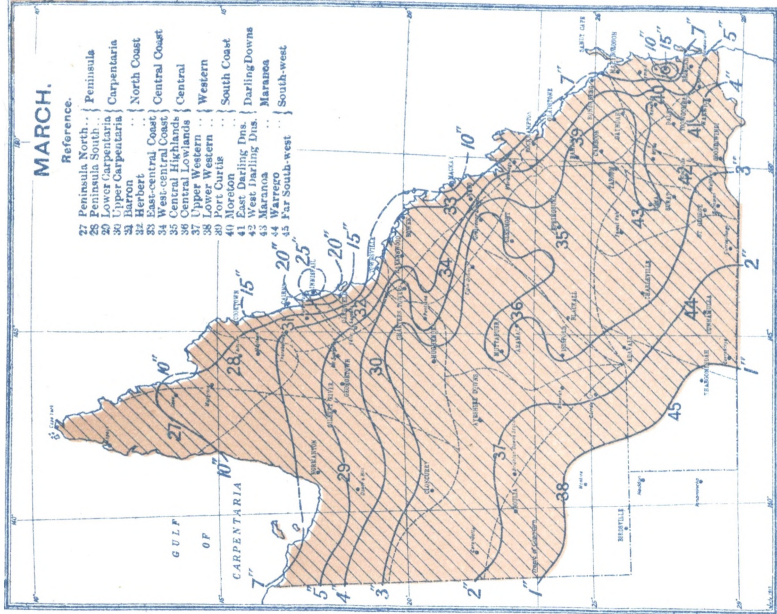
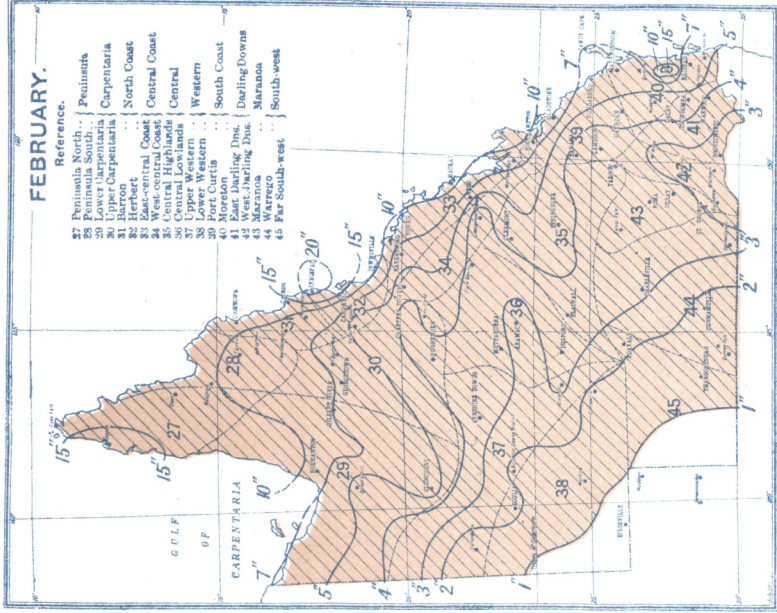
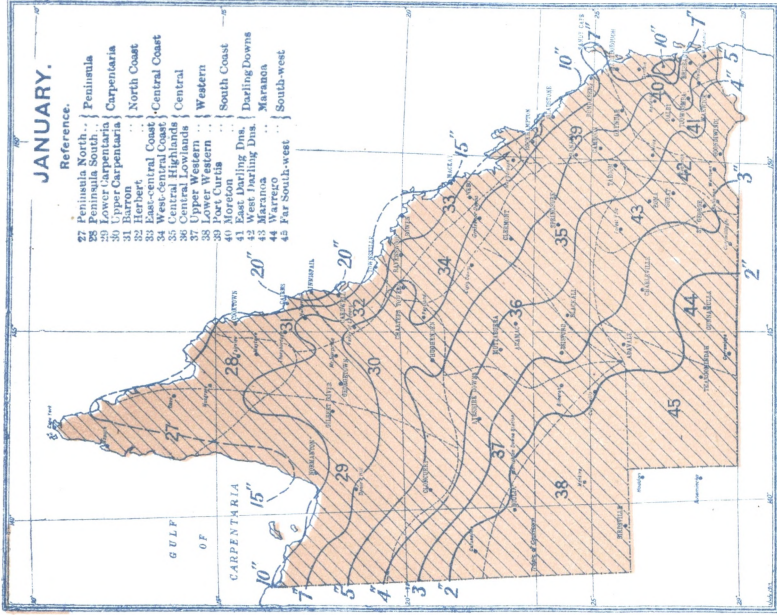
The sign — — indicates that during these months observations were not recorded, and that the statistics are not complete.

NUMBER OF EARTHQUAKES OBSERVED IN THE GERMAN POSSESSIONS IN NEW GUINEA DURING THE YEAR 1912.

* Denotes earthquakes ranging from strong to very severe. () Signifies that continuous observations were not recorded. — Indicates no observations recorded.

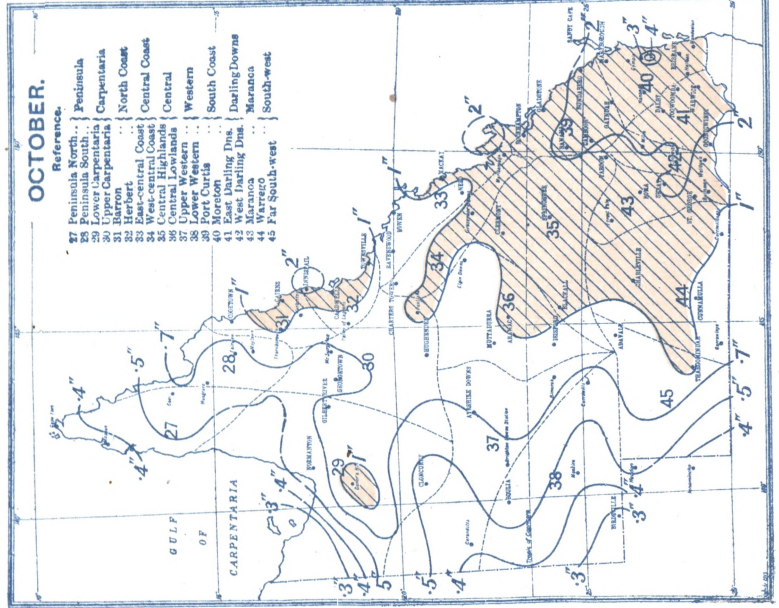
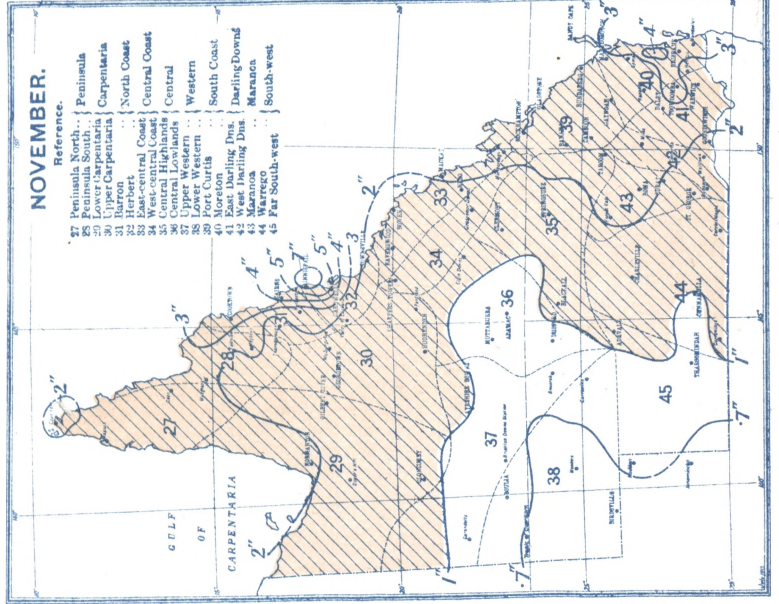
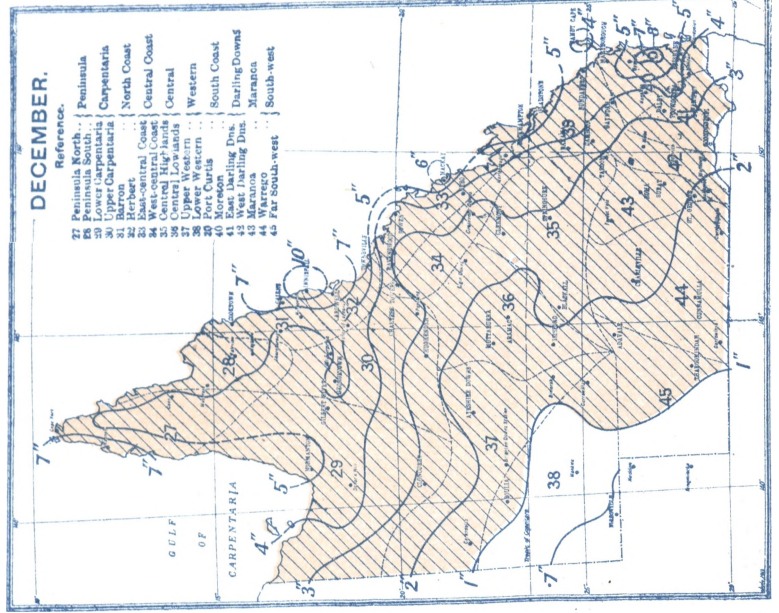
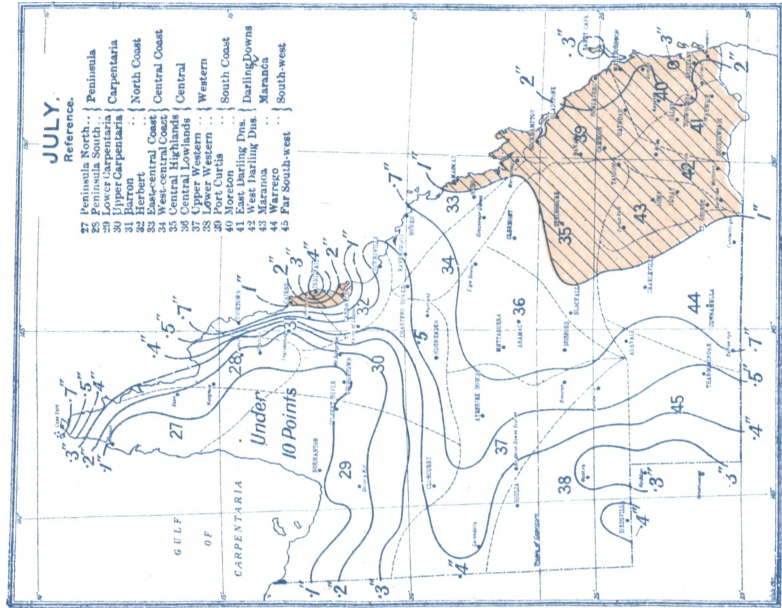
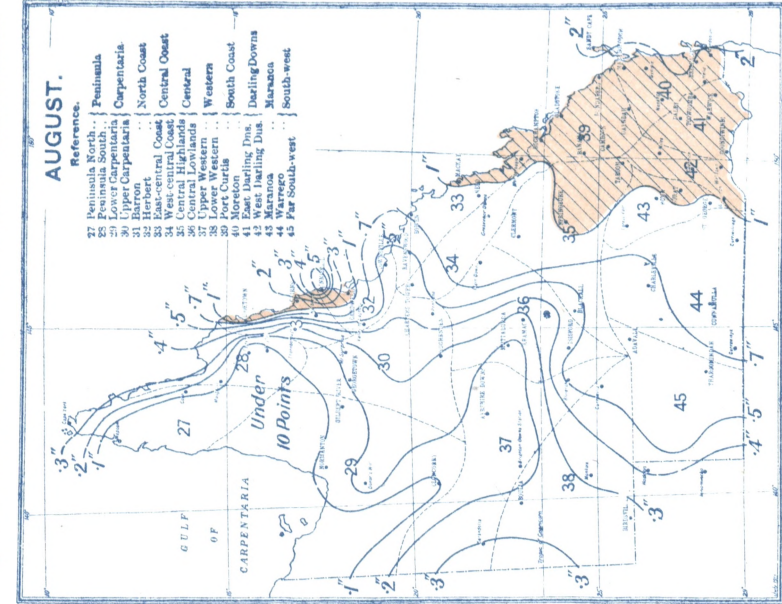
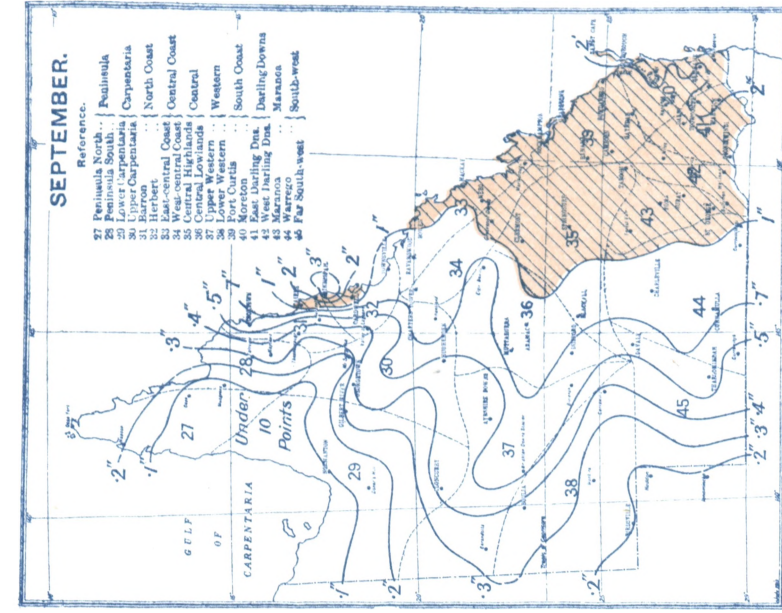
Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Bitape ..	()	()	()	()	()	()	()	()	()	()	()	()
Malu ..	—	—	18th, 4 a.m., E. to W.	()	30th, 9.55 p.m.	4th, 6.45 p.m.	26th, 11.50 a.m., 5.15, 8.5, and 8.10 p.m.	12th, 12.25 p.m., 14th, 7.45 p.m.	22nd, 11.15 a.m.	()	14th, 4.10 p.m., 21st, 3.35 a.m., 24th, 10.25 a.m., 4.10 p.m.	17th, 10.45 a.m.
Erirua ..	()	()	()	()	()	()	()	()	()	()	()	()
Constantihafen ..	()	()	()	()	()	()	()	()	()	()	()	()
Sialum ..	20th, 1.45, 6.10 p.m., 7.15 a.m.* 29th, 1.25 p.m.* 16th, 1.30 p.m.* 20th, 2 and 6.30 p.m.* and 6.30 p.m.* 29th, 6 and 7 a.m.*	4th, 9.35 p.m., 26th, 6.35 a.m. 25th, 7.30 a.m.	30th, 11.35 p.m.* 2nd, 12 p.m., 23rd, 8 p.m., 29th, 11 p.m.	25th, 7 p.m., 26th, 4 p.m.	30th, 6.25 a.m.	2nd, 2.30 p.m.	18th, 1.15 p.m., 19th, 12.25 p.m.	()	9th, 12.30 p.m.* 15th, 8.30 p.m.*	()	()	()
Fingshafen ..	17th, 1.30 p.m., 20th, 2 and 6.15 p.m., 21st, 10 p.m., 29th, 7.20 p.m.	25th, 3.45 p.m., 26th, 6.30 a.m.	9th, 2 a.m., 23rd, 7.45 p.m., 29th, 10.30 p.m.	3rd, 4 a.m., 20th, 11.30 a.m.	5th, 8 a.m.	22nd, 10 a.m.	13th, 3 a.m.* 18th, 2 and 5 p.m.	6th, 1 p.m., 8th, 9.30 p.m., 10th, 9 p.m.	9th, 1.30 p.m., 15th, 8.30 p.m.	()	27th, 5.30 p.m.	15th, 9.30 a.m., 16th, 10 p.m.
Heidebach ..	—	—	23rd, 7.50 p.m., 28th, 4 p.m., 29th, 11 p.m.	1st, 12 p.m., 19th, once three times	5th, 8 a.m.	22nd, twice in morning	22nd, 12 p.m., 16th, 12 p.m., 25th, 1 p.m.*	8th, 9.30 p.m.	9th, 1.27 p.m., 15th, 8.10 p.m., N. to S.	()	26th, 6.20 a.m., N. to S.	6th, 11 p.m., Two shocks
Sattelberg ..	—	—	26th, night* 18th, 4 p.m., 20th, 7 a.m., 21st, 1 p.m., 22nd, 5.30 a.m., 29th, 11.30 p.m.*	3rd, 1 a.m.,* 6.15 p.m.* 14th, 6.30 p.m., 20th, 11.30 a.m., 21st, 3 p.m., 23rd, 6.15, 9.15, and 9.45 p.m., 26th, 4.15 p.m.	()	()	()	()	()	()	()	()
Deinzerhöhe ..	2nd, 6.15 p.m., 9th, 4 a.m., 17th, 1.30 p.m.* 21st, 2 and 7.15 p.m., 29th, 7.30 a.m.*	19th, 1.25 p.m., 4th, 9.45 p.m.	26th, night* 18th, 4 p.m., 20th, 7 a.m., 21st, 1 p.m., 22nd, 5.30 a.m., 29th, 11.30 p.m.*	3rd, 1 a.m.,* 6.15 p.m.* 14th, 6.30 p.m., 20th, 11.30 a.m., 21st, 3 p.m., 23rd, 6.15, 9.15, and 9.45 p.m., 26th, 4.15 p.m.	()	()	()	()	()	()	()	()
Malolo ..	—	—	20th, 1.15 a.m.,* E. to W. 21st, 1.10, 4, and 5 a.m., 30th, 11.35 a.m.*	3rd, 6 p.m.	31st, 4.15 p.m.	10th, 6.17 and 6.22 a.m., E. to W.	26th, 8.25 a.m.	25th, 5 p.m., E. to W.	23rd, 2.15 a.m.*	()	()	()
Morobe ..	17th, 1.15 p.m.* 20th, 1.50 p.m.* 29th, 7 a.m.	—	—	—	—	—	—	—	—	—	—	—
Mangawa ..	—	—	—	—	—	—	—	—	—	—	—	—
Peterhafen ..	20th, 1.45 p.m., 20th, 1.30 a.m.	2nd, morning* 5th, morning*	—	—	—	—	—	—	—	—	—	—
Lams ..	3rd, afternoon	—	—	—	—	—	—	—	—	—	—	—
Herbertsböhe ..	11th, morning	—	—	—	—	—	—	—	—	—	—	—
Bakuranga ..	16th, —	—	—	—	—	—	—	—	—	—	—	—
Namatani ..	3rd, 8.25 p.m., N. to S.	1st, 7.30 a.m., N. to S., 16th, 7.35 p.m., N. to S.	()	()	()	15th, 1.55 and 2.25 a.m., 16th, two	26th, 10.10 a.m., 27th, 12 p.m., 28th, 4.10 a.m., 26th, 9.16* and 10.45 a.m., 12.55 and 3.14 p.m., 4.10 and 5.15 p.m., 28th, 8.40 p.m., 30th, 8.40 p.m., 31st, 5.40 a.m., 9th, 8.10 p.m., E. to W.	1st 5.18 p.m.	8th, 5 p.m.*	17th, 8.15 p.m.	8th, 10.45 a.m., S. to N.	
Garapan ..	—	—	—	—	—	—	—	—	—	—	—	—
Palau ..	—	—	—	—	—	—	—	—	—	—	—	—

QUEENSLAND MEAN MONTHLY RAINFALL.

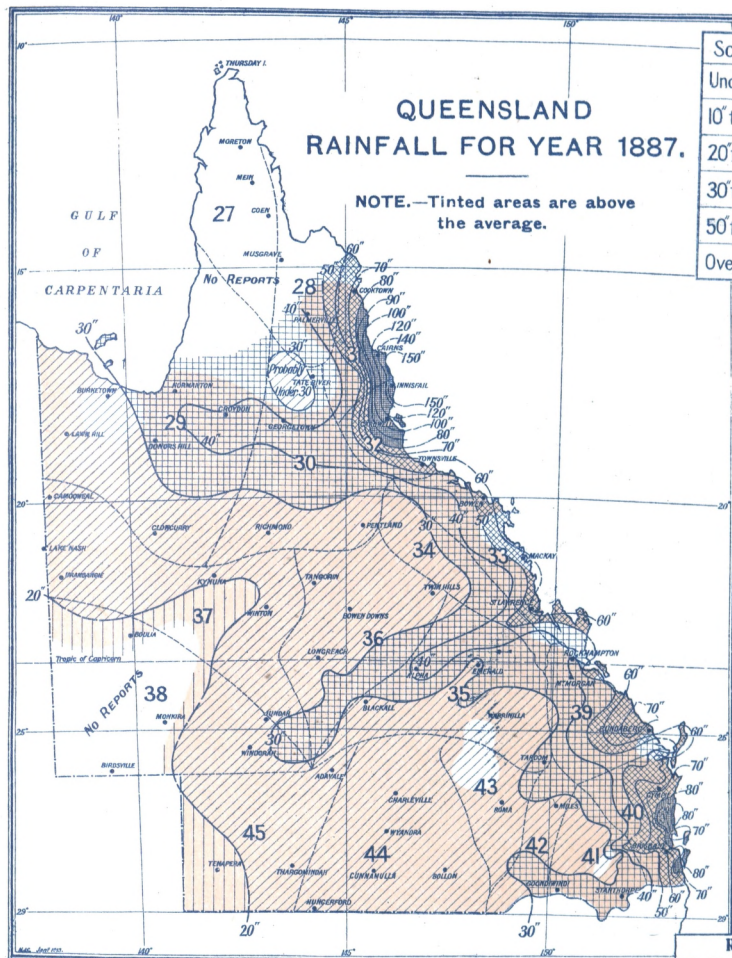


Note.—Tinted areas indicate rainfall of 1 inch and over.

QUEENSLAND MEAN MONTHLY RAINFALL.

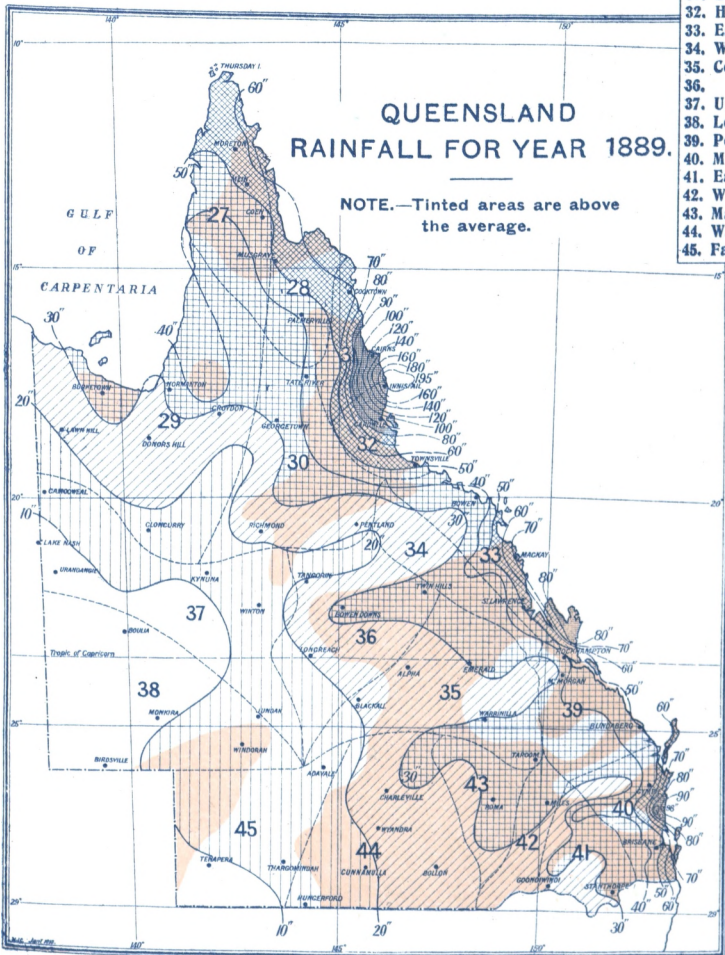
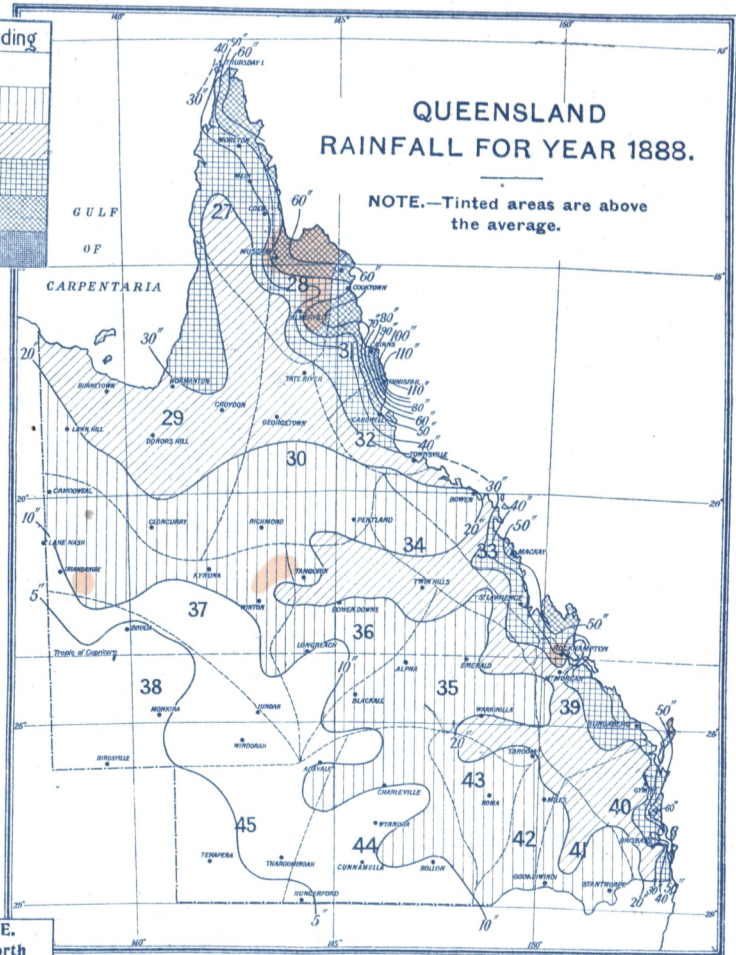


Note.—Tinted areas indicate rainfall of 1 inch and over.

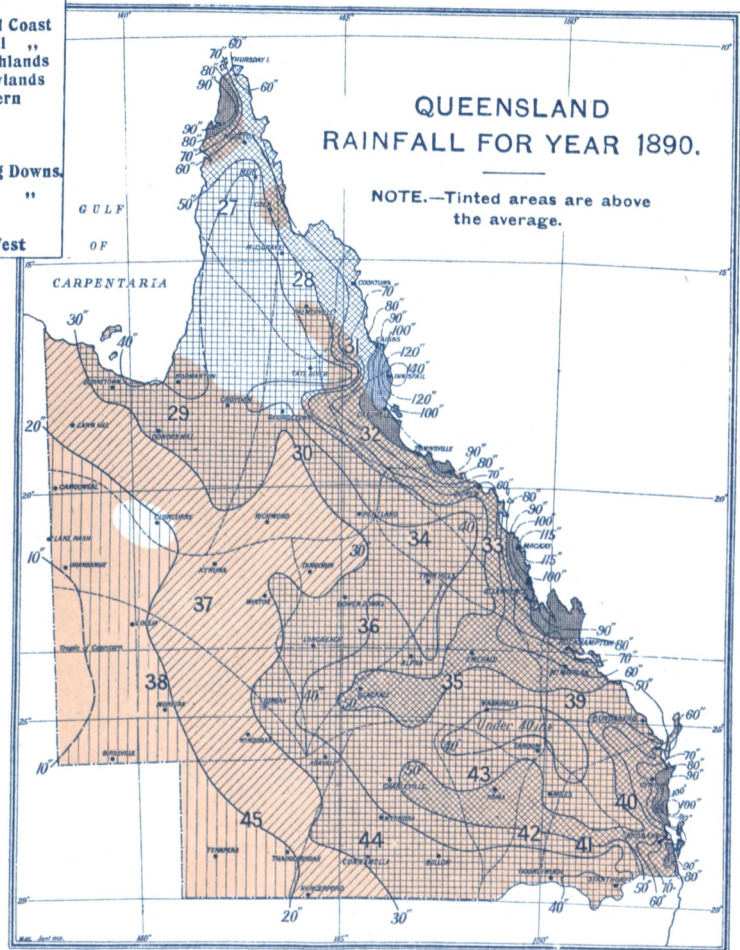


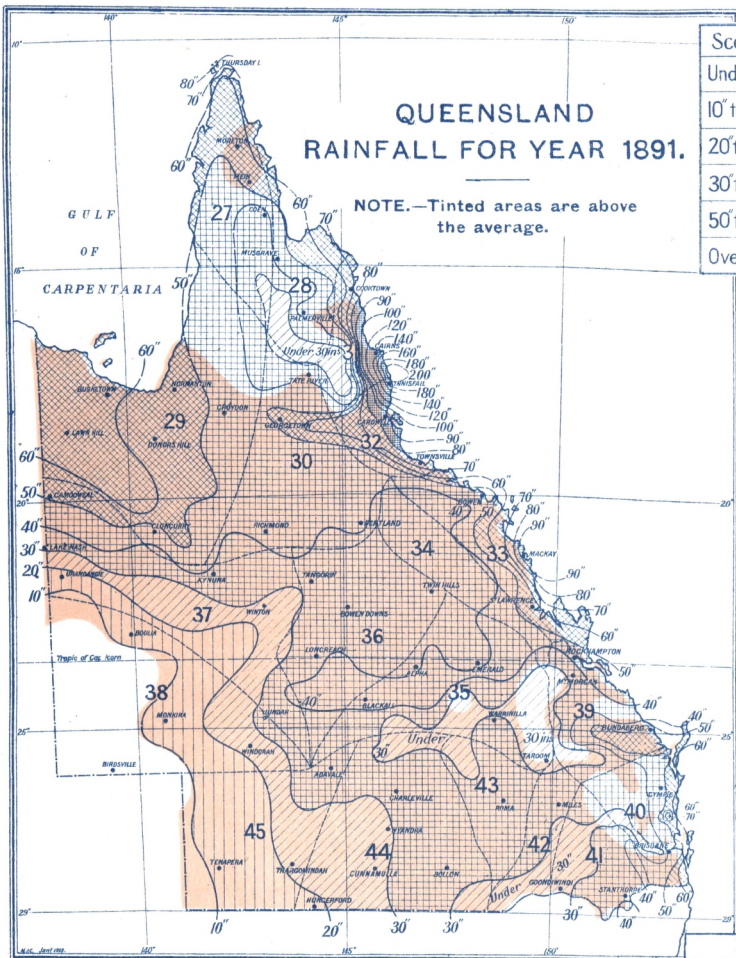
Scale of Shading

Under 10"
10" to 20"
20" to 30"
30" to 50"
50" to 80"
Over 80"



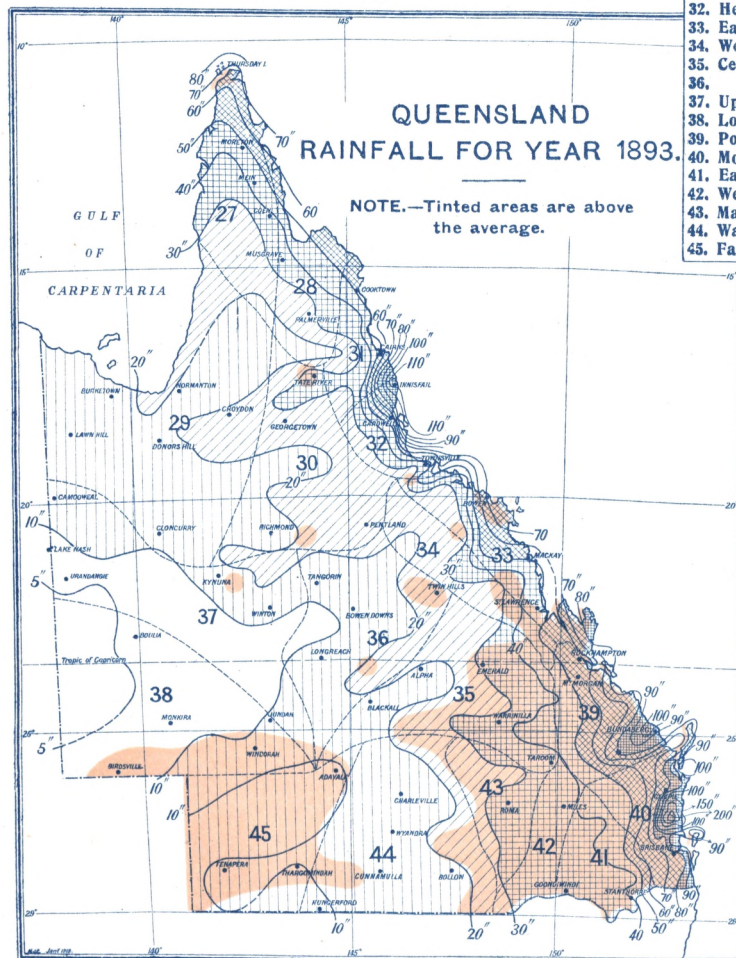
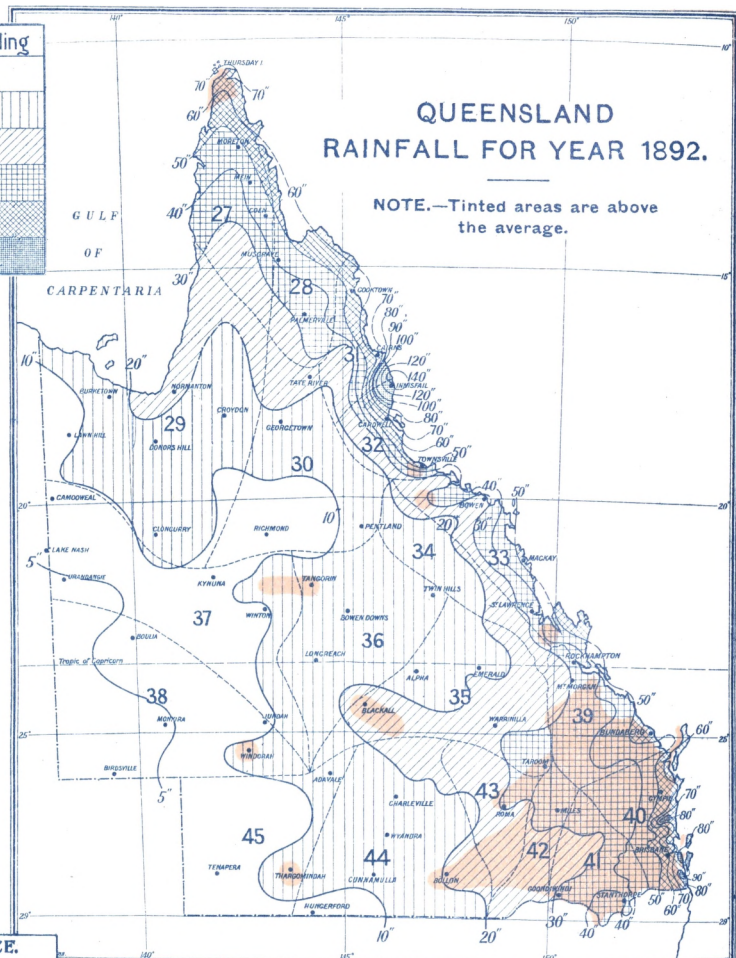
- REFERENCE.
- 27. Peninsula North
 - 28. " South
 - 29. Lower Carpentaria
 - 30. Upper " "
 - 31. Barron " "
 - 32. Herbert
 - 33. East-Central Coast
 - 34. West-Central " "
 - 35. Central Highlands
 - 36. " Lowlands
 - 37. Upper Western
 - 38. Lower " "
 - 39. Port Curtis
 - 40. Moreton
 - 41. East Darling Downs
 - 42. West " "
 - 43. Maranoa
 - 44. Warrego
 - 45. Far South-West



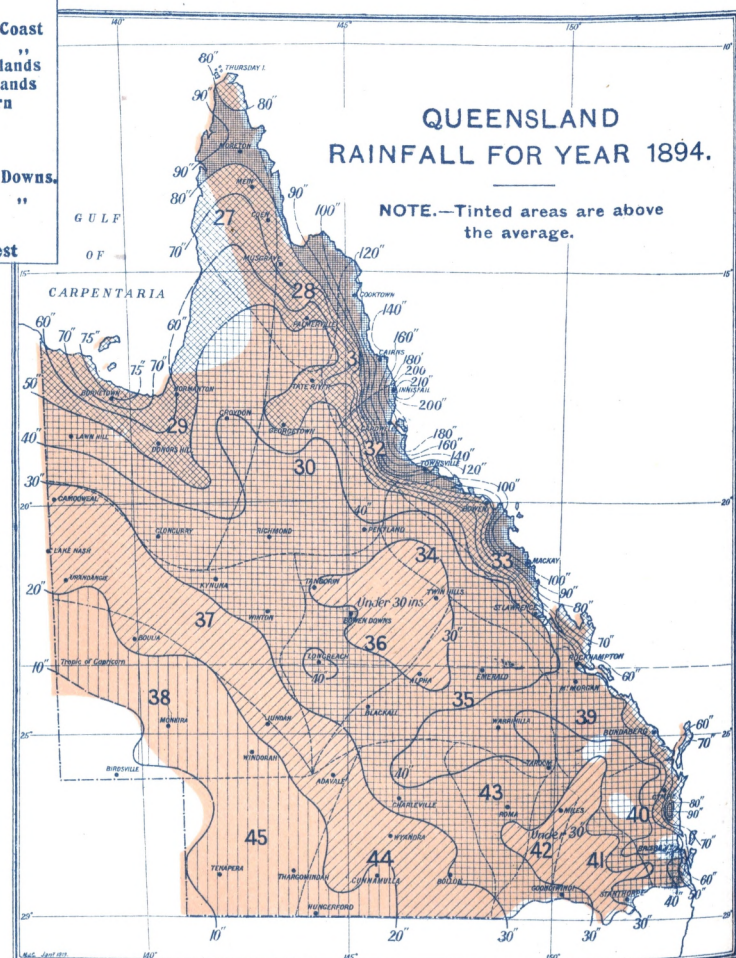


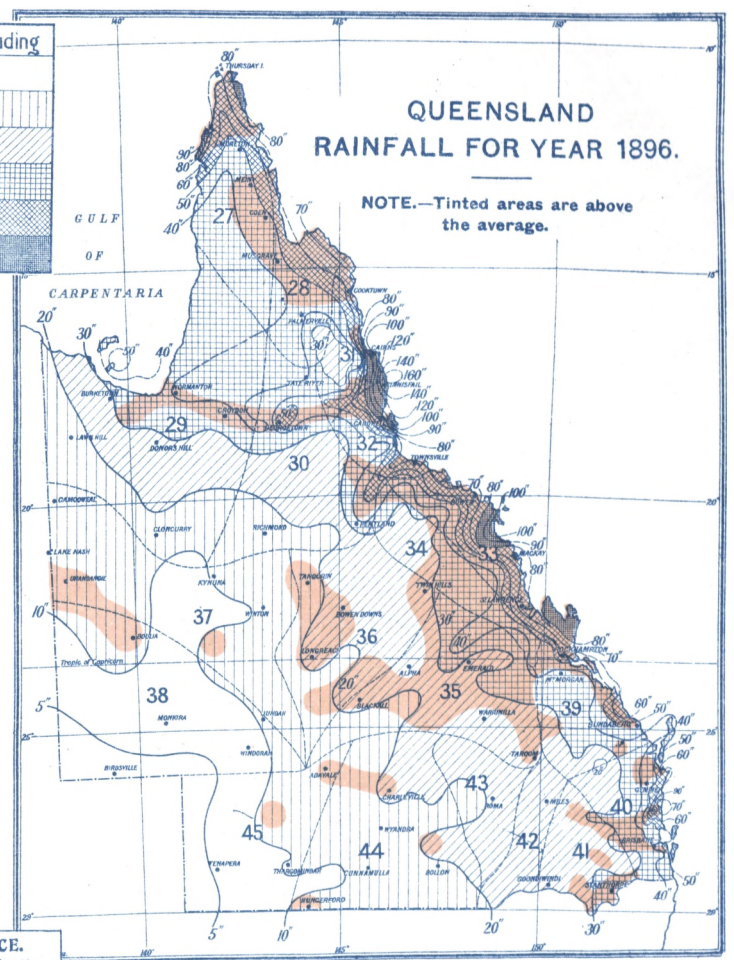
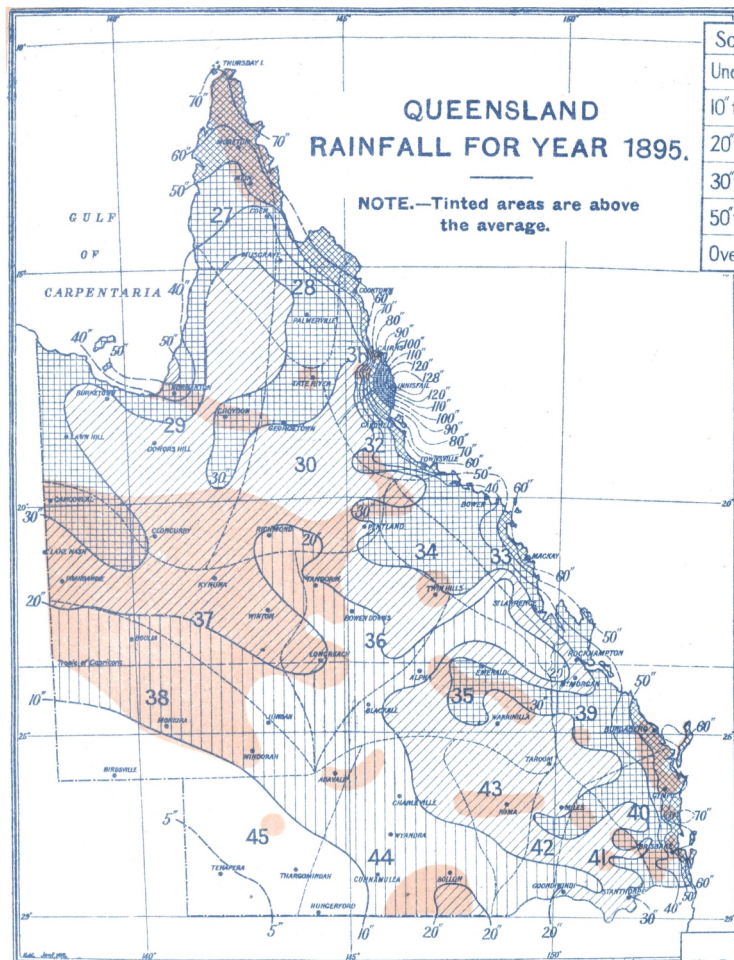
Scale of Shading

Under 10"	[White box]
10" to 20"	[Horizontal lines]
20" to 30"	[Vertical lines]
30" to 50"	[Cross-hatch]
50" to 80"	[Dense cross-hatch]
Over 80"	[Dark cross-hatch]

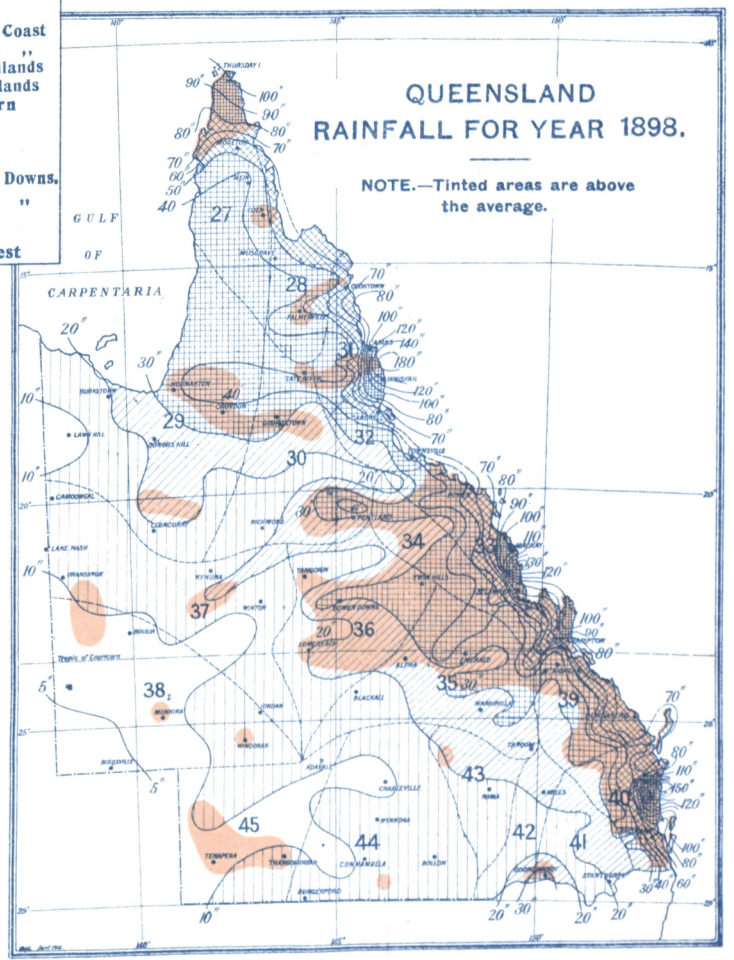
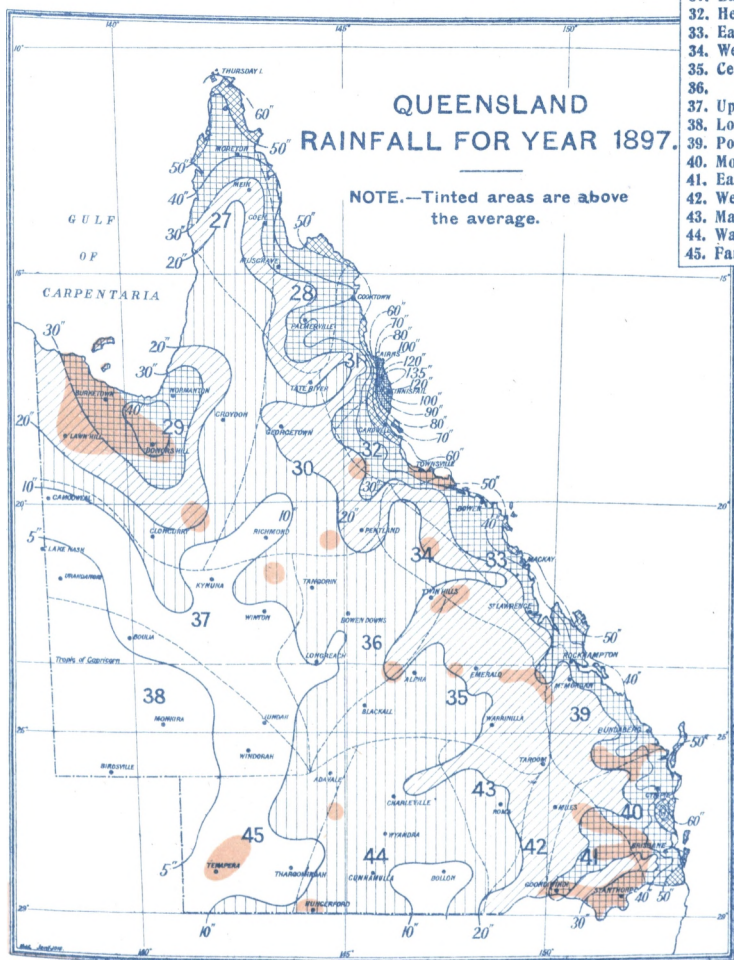


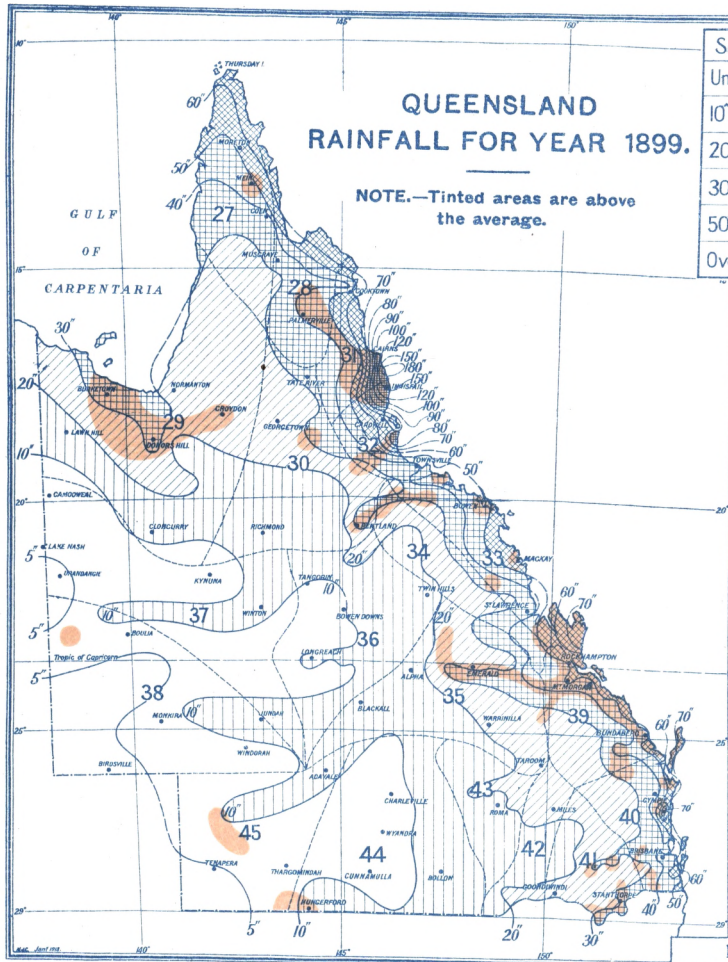
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- 27. Peninsula North
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 - 41. East Darling Downs.
 - 42. West " "
 - 43. Maranoa " "
 - 44. Warrego
 - 45. Far South West





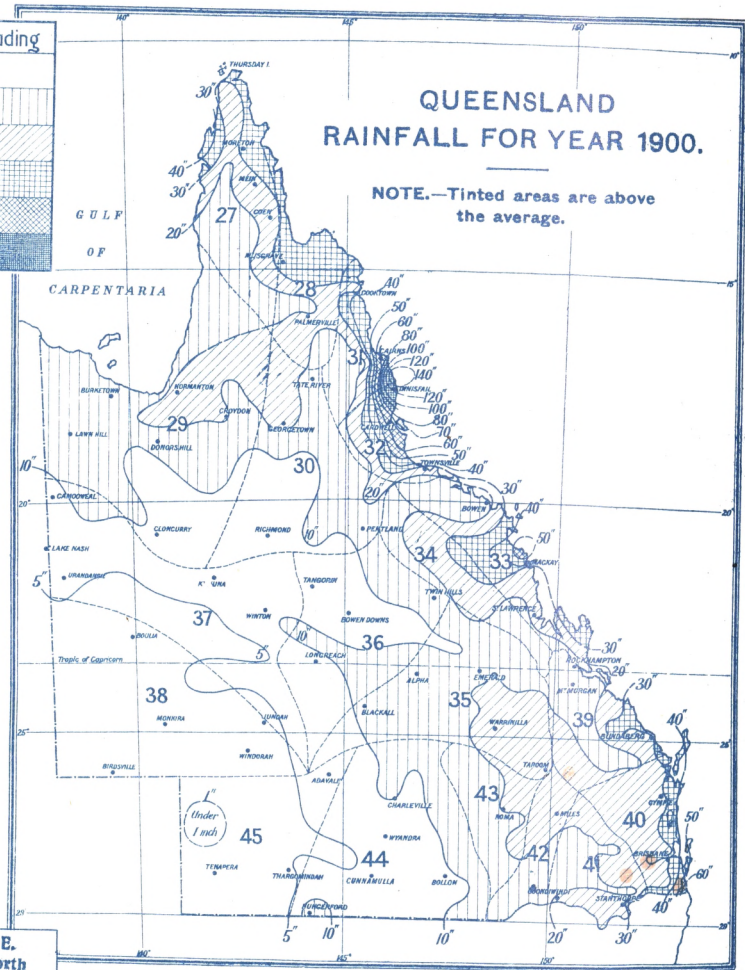
- REFERENCE.**
- 27. Peninsula North
 - 28. " South
 - 29. Lower Carpentaria
 - 30. Upper "
 - 31. Barron "
 - 32. Herbert
 - 33. East-Central Coast
 - 34. West-Central "
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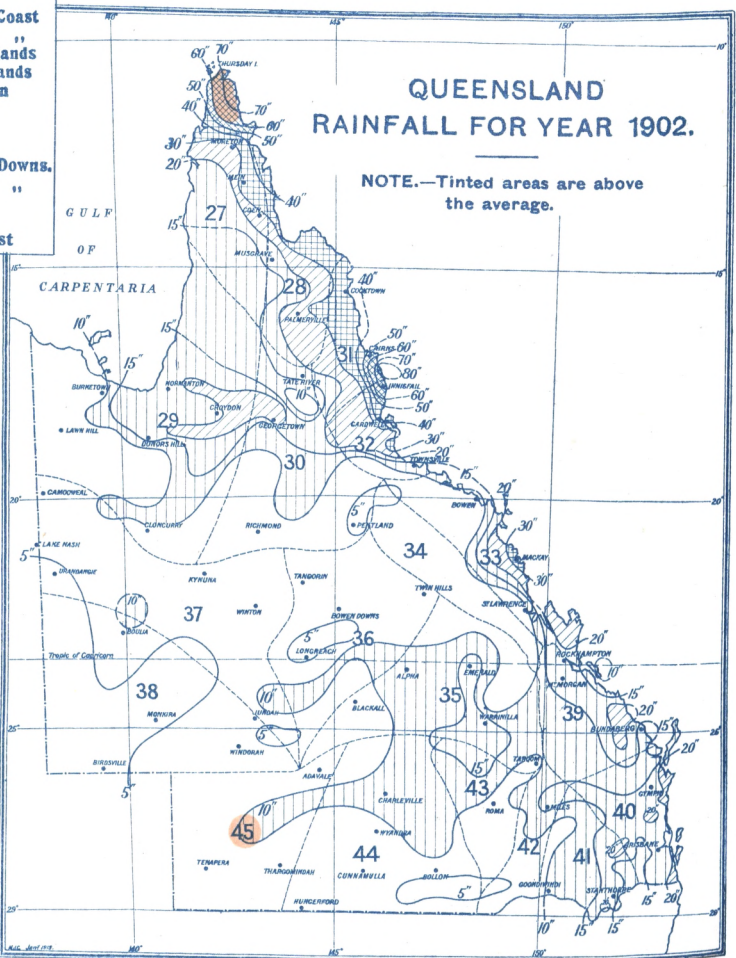
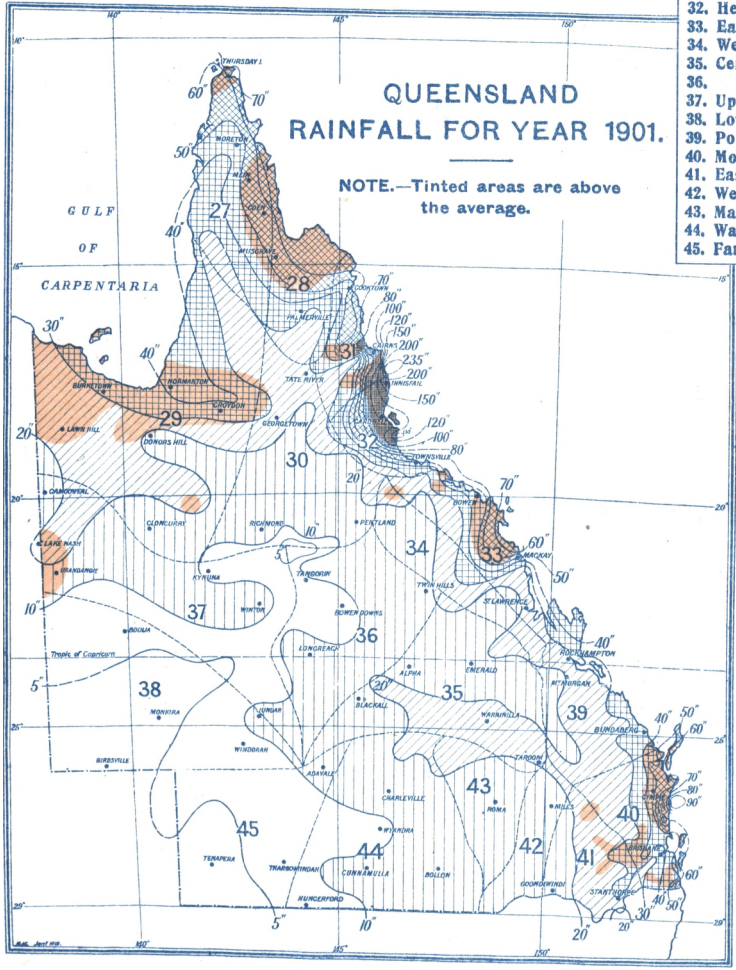


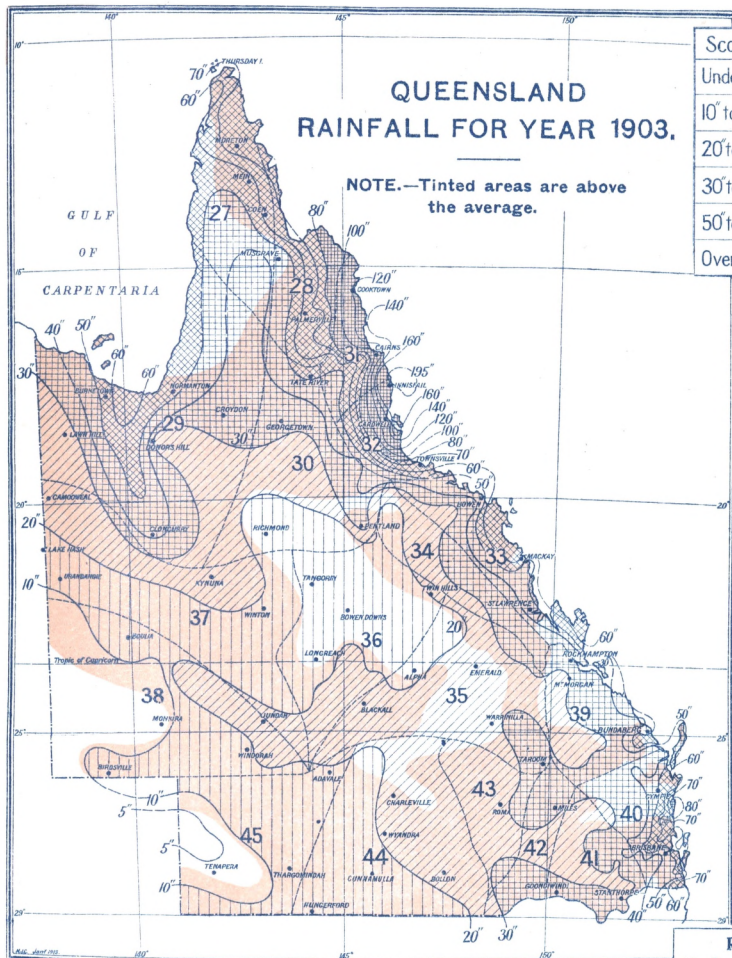
Scale of Shading

Under 10"	[White box]
10" to 20"	[Light hatched box]
20" to 30"	[Medium hatched box]
30" to 50"	[Dark hatched box]
50" to 80"	[Cross-hatched box]
Over 80"	[Solid dark box]



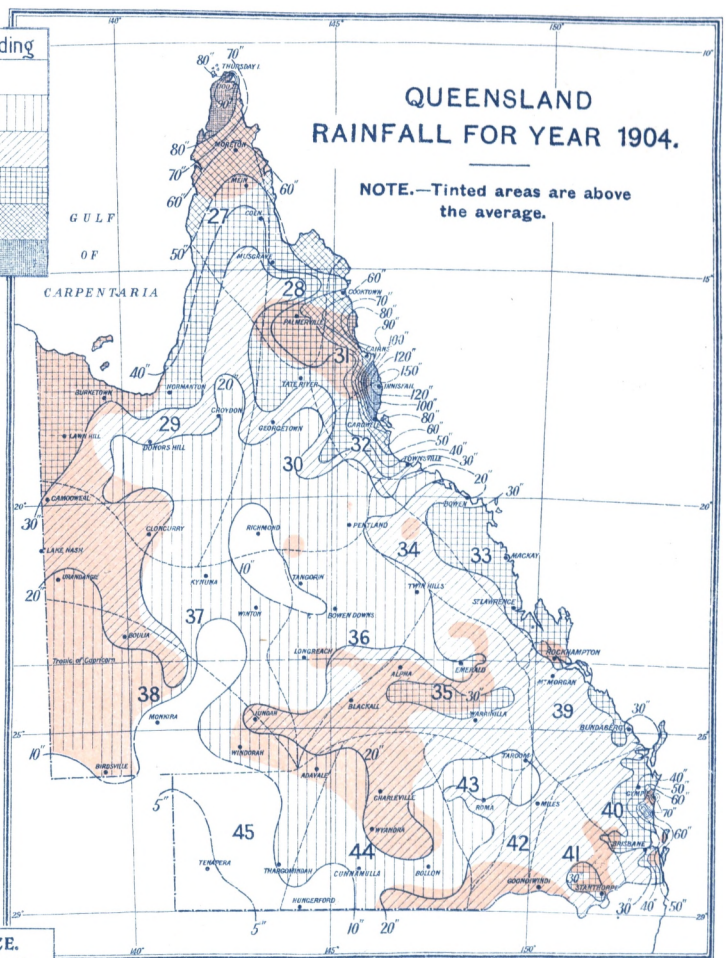
- REFERENCE.**
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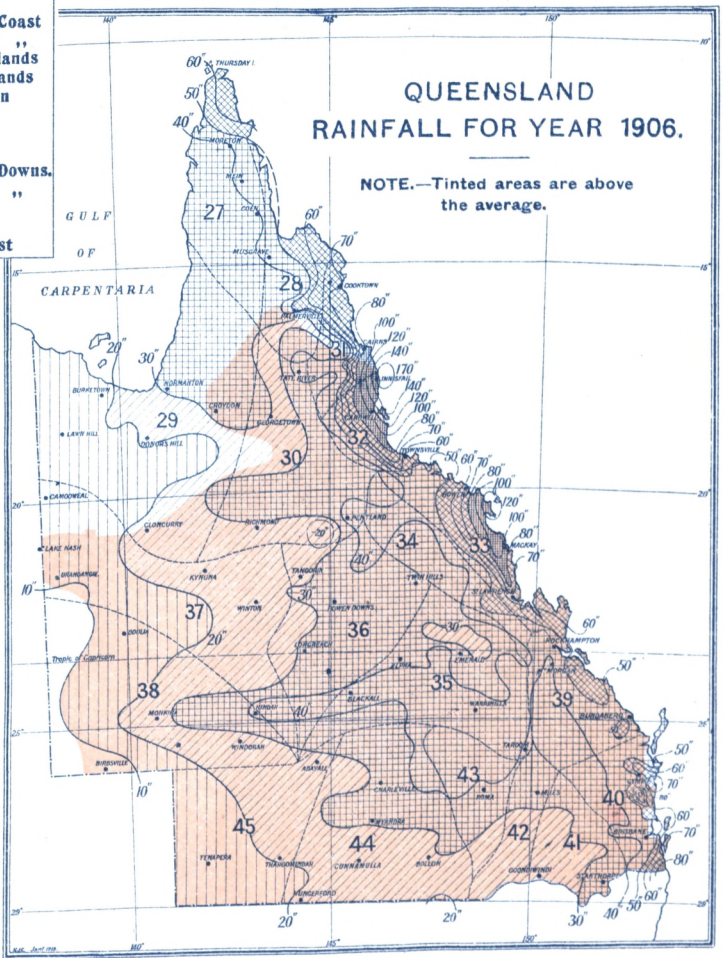
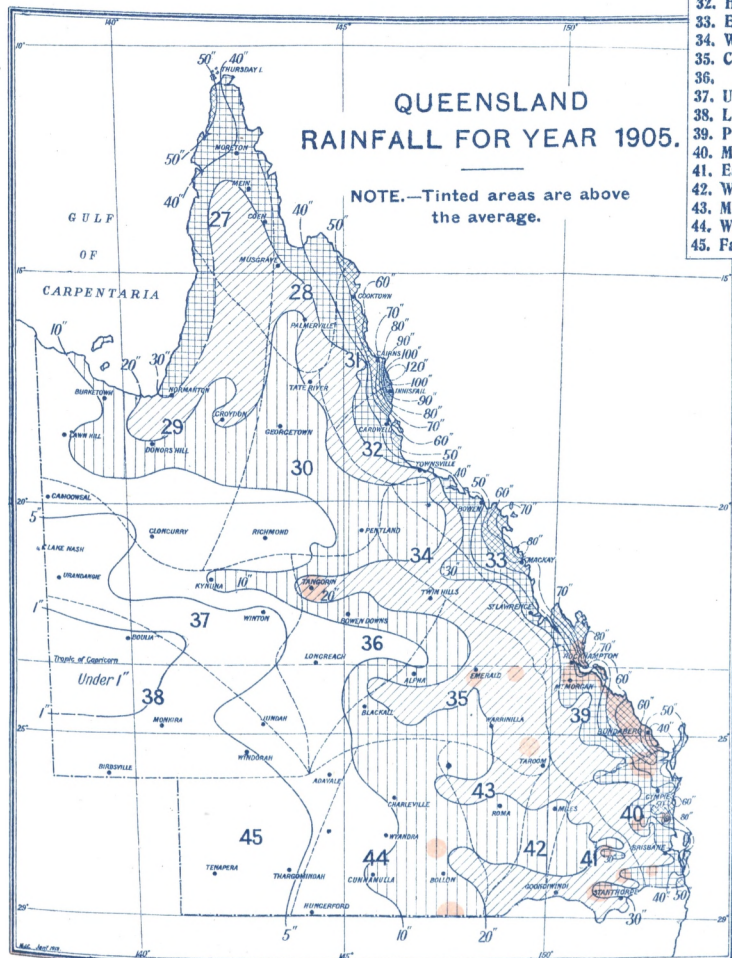


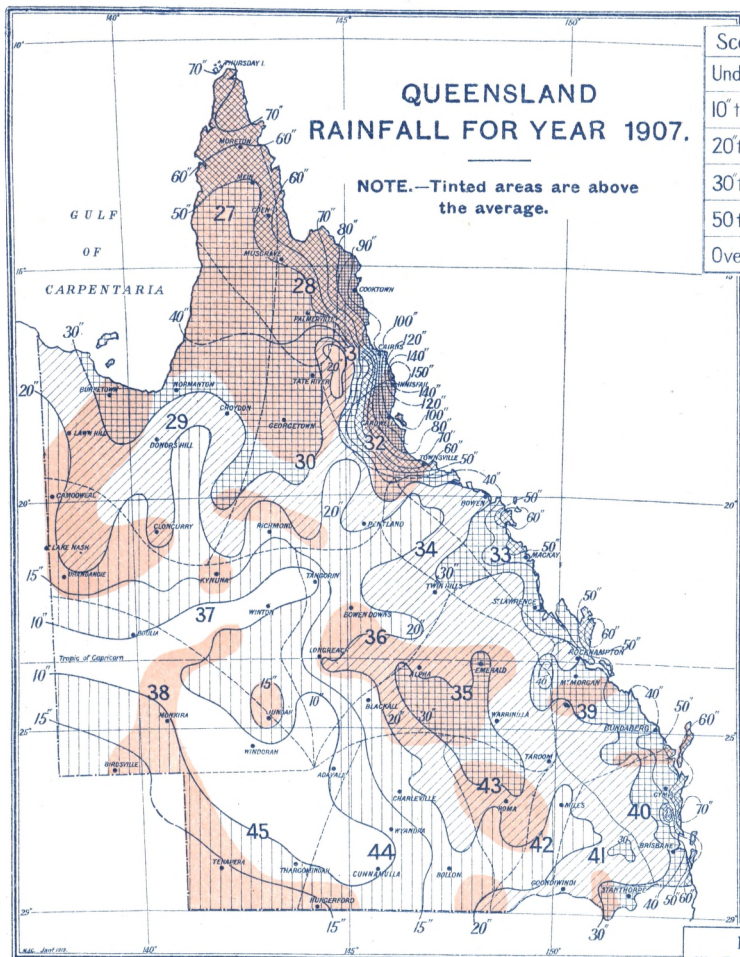
Scale of Shading

Under 10	[White]
10 to 20	[Lightest shading]
20 to 30	[Light shading]
30 to 50	[Medium shading]
50 to 80	[Dark shading]
Over 80	[Darkest shading]



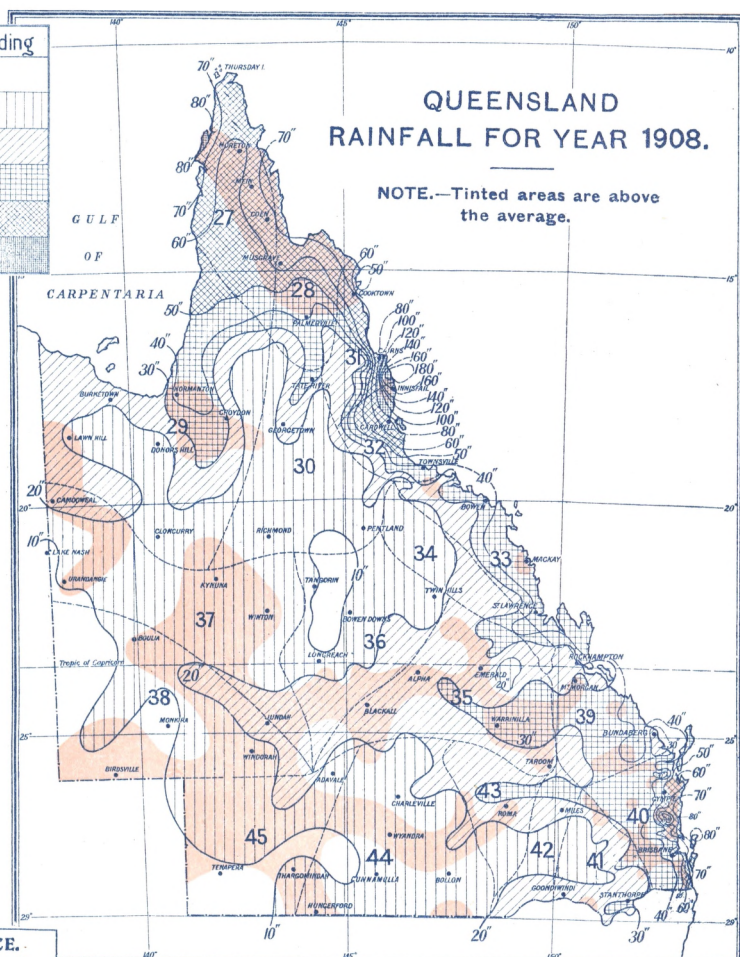
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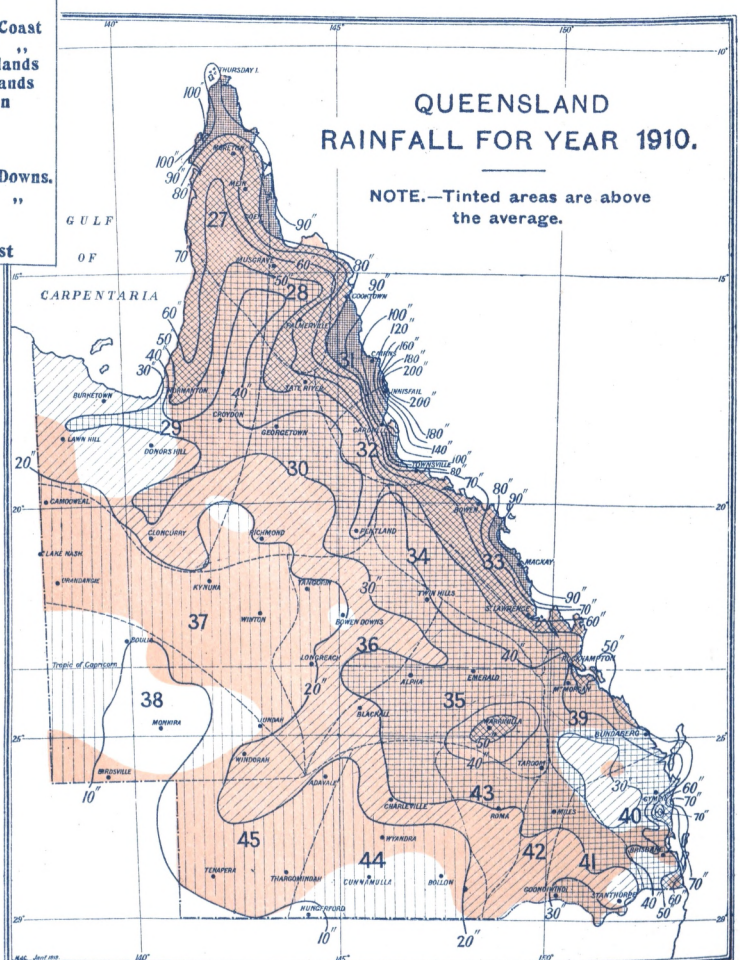
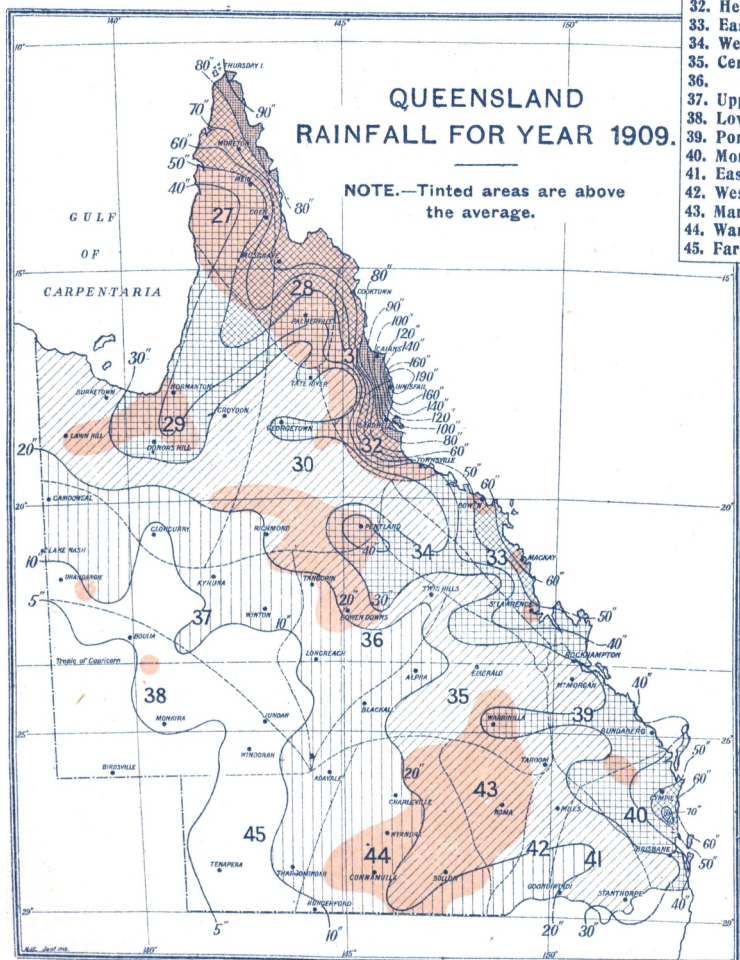


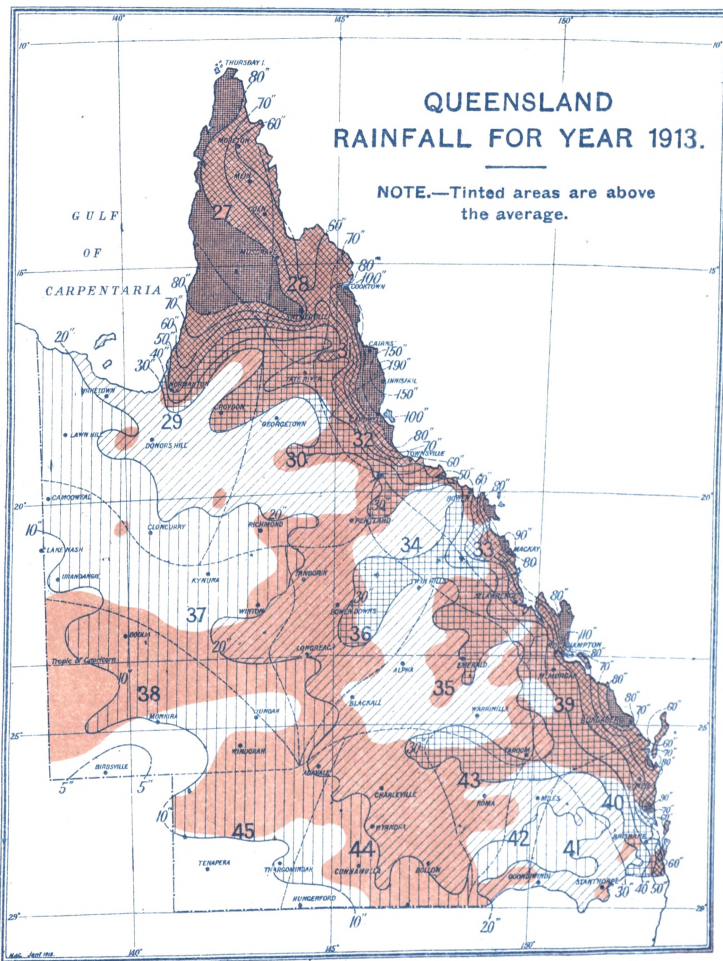
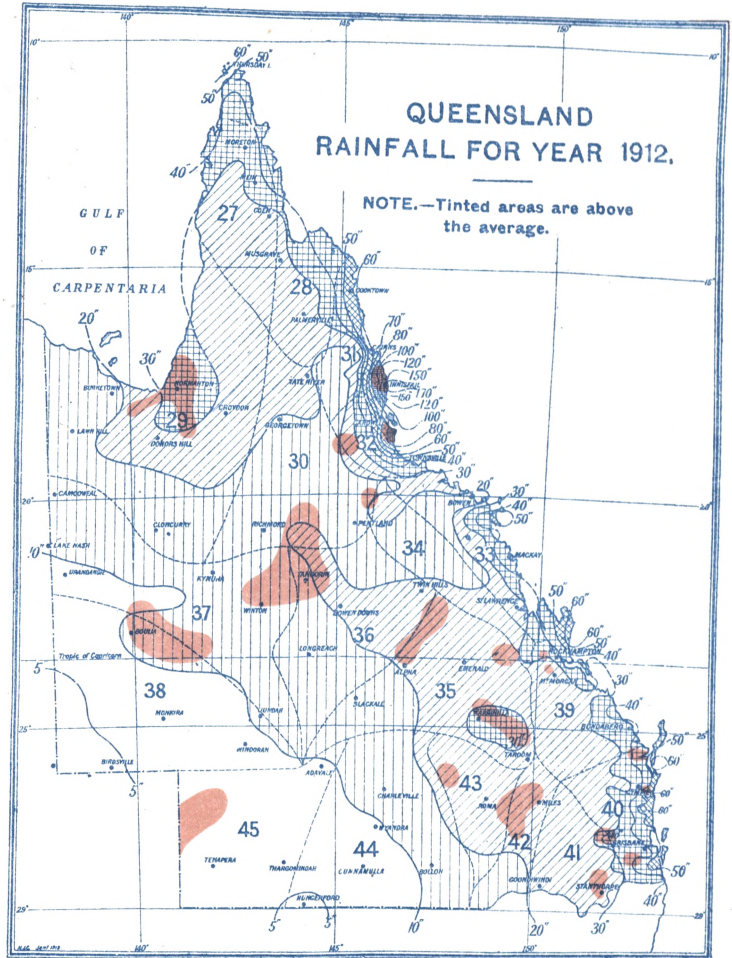
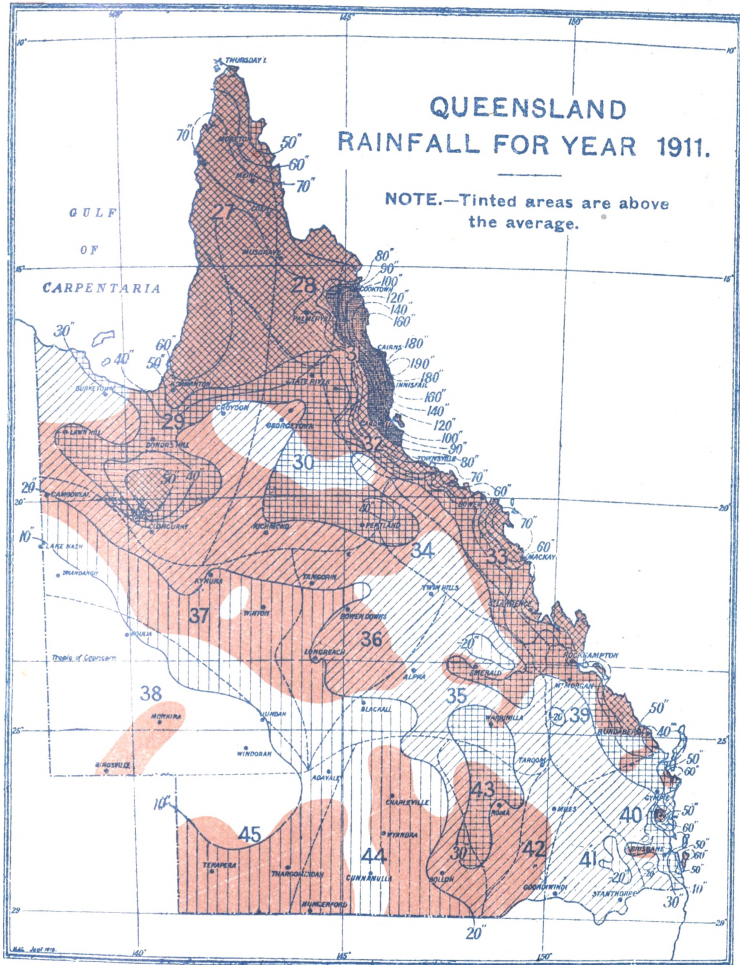
Scale of Shading

Under 10"	[White box]
10" to 20"	[Lightly shaded box]
20" to 30"	[Medium shaded box]
30" to 50"	[Darkly shaded box]
50" to 80"	[Cross-hatched box]
Over 80"	[Dense cross-hatched box]



- REFERENCE.
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 - 30. Upper "
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 - 32. Herbert
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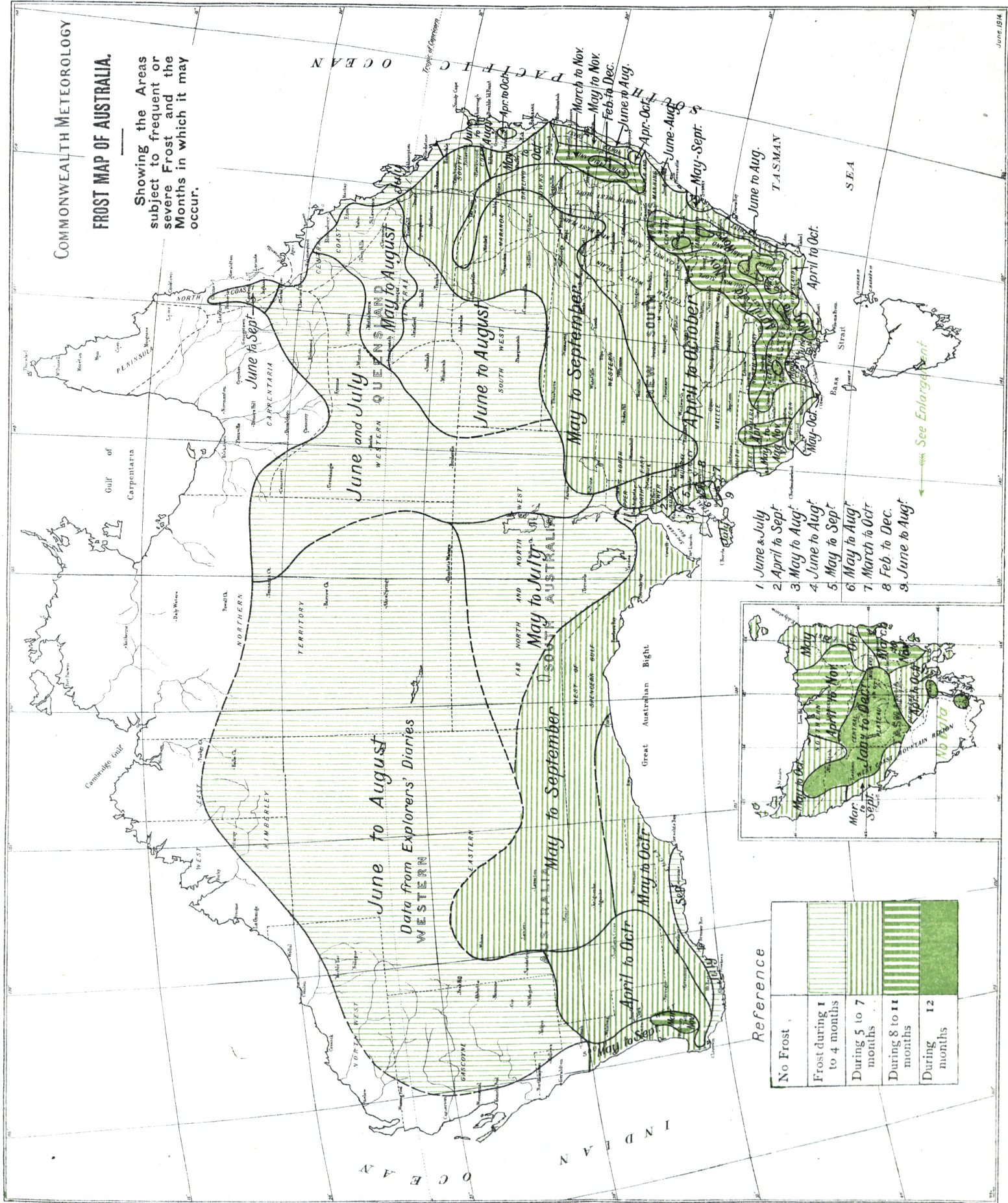
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 - 42. West "
 - 43. Maranoa
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 - 45. Far South-West

Scale of Shading	
Under 10"	[White box]
10" to 20"	[Light orange box]
20" to 30"	[Diagonal lines box]
30" to 50"	[Cross-hatch box]
50" to 80"	[Dark orange box]
Over 80"	[Dark blue box]

COMMONWEALTH METEOROLOGY

FROST MAP OF AUSTRALIA.

Showing the Areas subject to frequent or severe Frost and the Months in which it may occur.



COMMONWEALTH METEOROLOGY

MAP showing Average Rainfall

for the

Wheat-growing Period

APRIL to OCTOBER inclusive,

also

Percentage of Average Annual

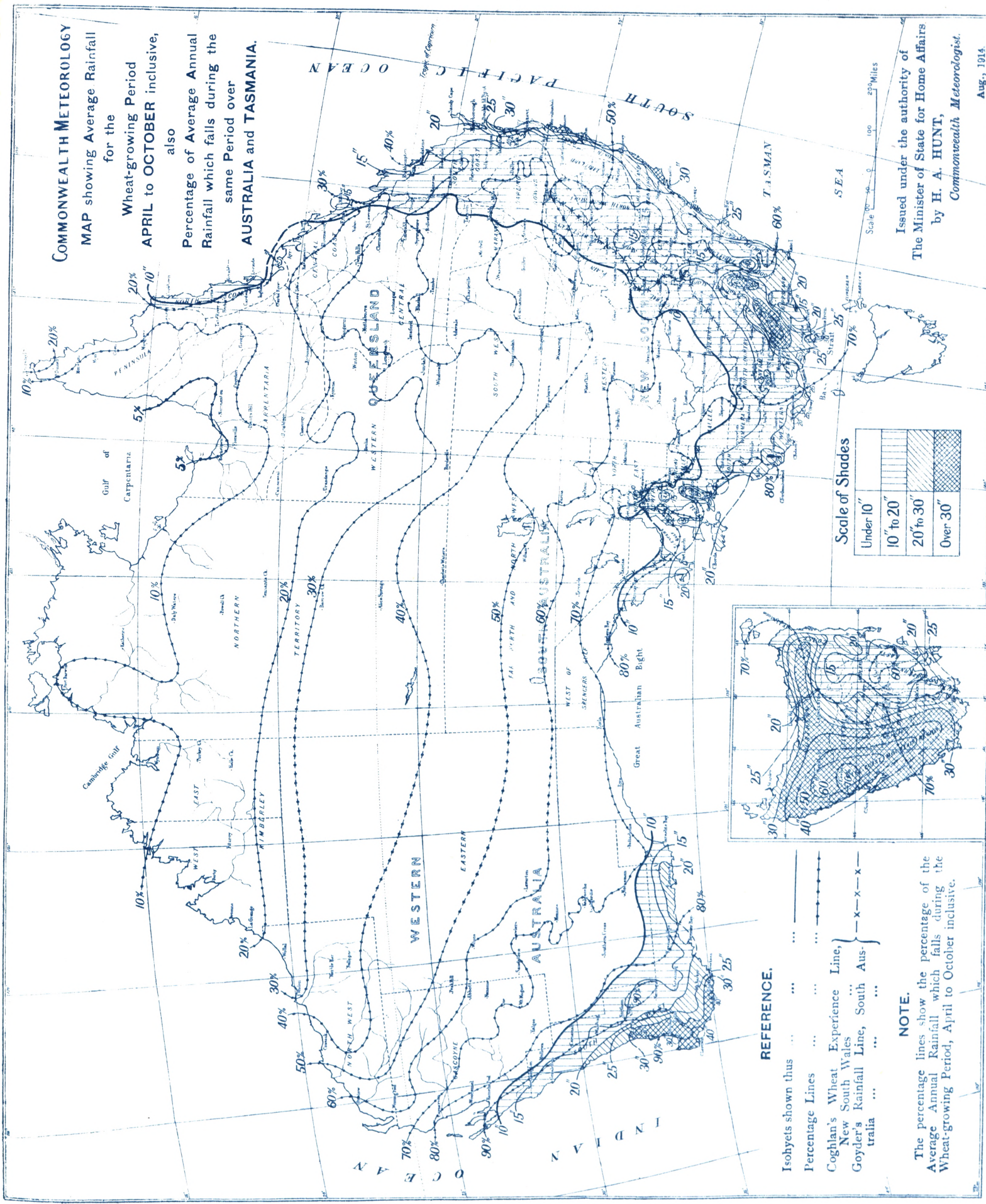
Rainfall which falls during the

same Period over

AUSTRALIA and TASMANIA.

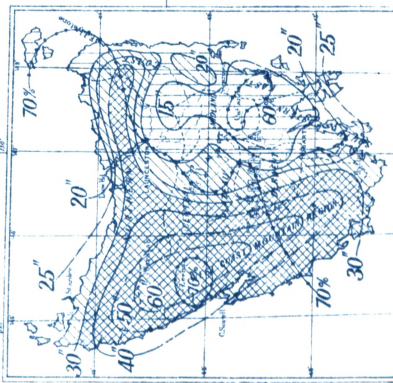
Issued under the authority of
The Minister of State for Home Affairs
by H. A. HUNT,
Commonwealth Meteorologist.

Aug., 1914.



Scale of Shades

Under 10"	(White)
10" to 20"	(Horizontal lines)
20" to 30"	(Vertical lines)
Over 30"	(Cross-hatch)



REFERENCE.

- Isohyets shown thus ...
- Percentage Lines ...
- Coghlan's Wheat Experience Line, New South Wales ...
- Goyder's Rainfall Line, South Australia ...

NOTE.

The percentage lines show the percentage of the Average Annual Rainfall which falls during the Wheat-growing Period, April to October inclusive.