

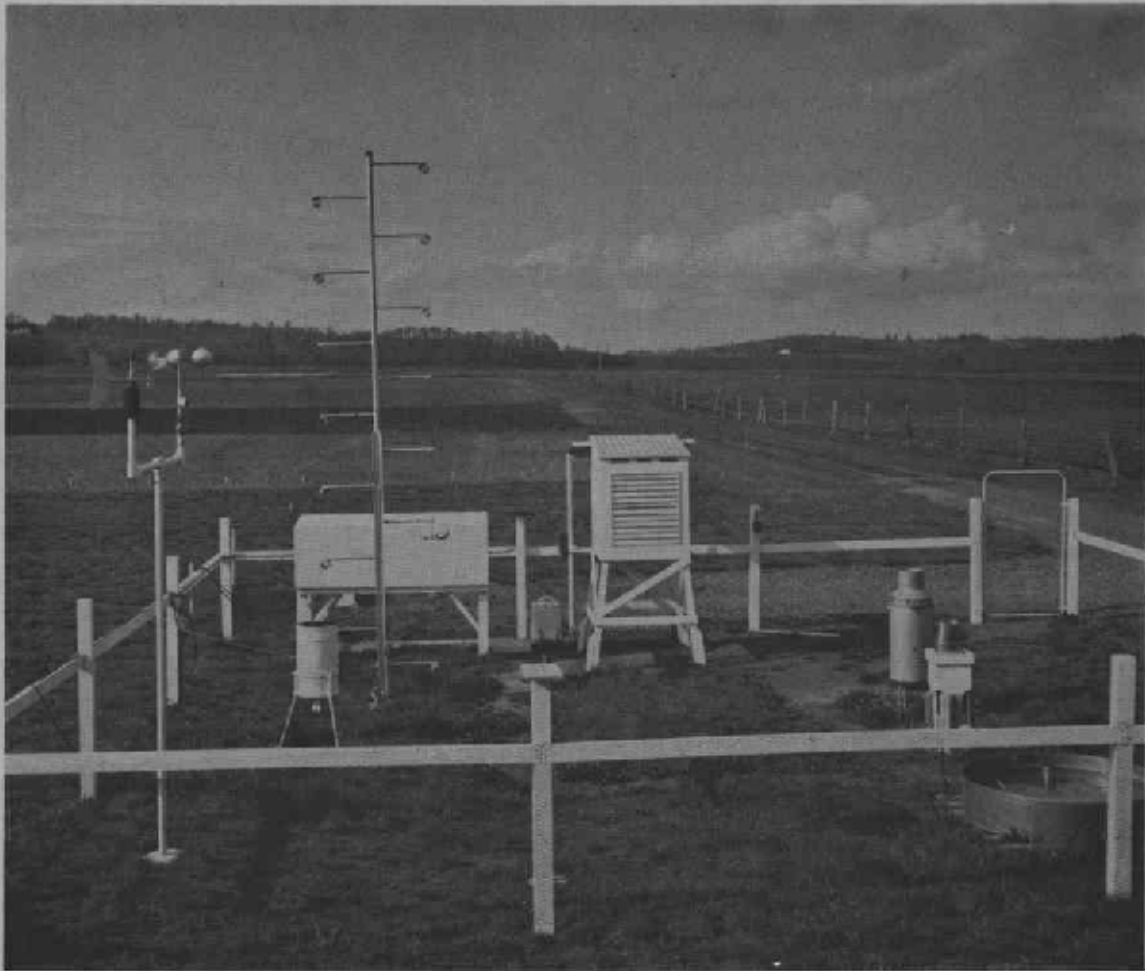
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SPECIAL REPORT 193

MAY 1965

# Oregon State University Local Climatological Data -- 1964



United States Department of Commerce  
Weather Bureau

in cooperation with the  
Agricultural Experiment Station  
Oregon State University  
Corvallis, Oregon

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## PREFACE

Miscellaneous Paper 105, Agricultural Experiment Station, Oregon State University, entitled "A Summary of Climate and Weather for Corvallis, Oregon, 1889 through 1960" by Wheeler Calhoun was published in March 1961. During the past two years the United States Department of Commerce Weather Bureau, working with the Farm Crops Department at Oregon State University, has instrumented the Hyslop Farm Weather Station to measure additional elements important to agricultural scientists. There will be a continuing need for a publication to make these data readily available to researchers. It is planned that local climatological data from the Hyslop Farm Weather Station will be published annually. This is the first of that series.

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## HISTORY OF OREGON STATE UNIVERSITY WEATHER STATION

The cooperative Oregon State University--U. S. Weather Bureau station is in an open field located at the Hyslop Agronomy Farm, six miles northeast of Corvallis, Oregon, just off Highway 20. It is situated on the main Willamette Valley floor a few miles to the east of the coast range foothills. The elevation is 225 feet above sea level at a latitude of  $44^{\circ} 38'$  North and longitude  $123^{\circ} 12'$  West. The station is operated by the Farm Crops Department of Oregon State University.

A cooperative weather station was first established at Corvallis by Captain E. Grimm of the U. S. Army Signal Corps in October 1889. In 1891 the U. S. Weather Bureau was established and took charge of this station with John Fulton assuming the duties as observer. He made weather and special soil temperature observations until 1895. Ellsworth Erwin carried on the work until January 1910, when W. L. Powers was assigned this duty. At this time the observations taken were expanded to include evaporation and other items related to drainage, irrigation, and soil moisture. E. F. Torgerson kept the record from 1918 to 1946 with R. O. Swan assisting. From 1946 until 1950 Powers again assumed responsibility for the observations and records. Eugene Dammann was observer from 1950 to May 1952. In May 1952 the weather station was moved from the campus of Oregon State College to its present location at Hyslop Agronomy Experimental Farm. Wheeler Calhoun, Superintendent of Hyslop, has been the official weather observer since 1952.

## WEATHER RECORDS AT OREGON STATE UNIVERSITY

For many years prior to the station's move to the Hyslop Farm, campus observations were taken at a roof-top exposure during the "winter" season and at a nearby ground site during "summer." This twice-a-year move of the station and the move from the campus to Hyslop Farm have introduced some discrepancies in temperature "normals," or averages. Temperatures at the present site are a little lower, especially on clear, calm nights, than at the previous campus location. To compute "normals" or averages which reflect the new location and are, therefore, more meaningful for comparisons, temperature records prior to 1953 were adjusted. Most climatological stations of the U. S. Weather Bureau publish and use a 30-year "normal" or average for temperatures and precipitation (presently 1931-1960). To facilitate direct comparison of Hyslop Weather Station temperature and precipitation "normals" with other published "normals," the 1931-1960 period is used herein.

The move from the campus site to Hyslop Farm also affected precipitation catch. This became apparent when comparisons for several years before and after the move were made with nearby stations whose locations remained unchanged. The present site is slightly wetter than was the campus site. Adjusted precipitation "normals" or averages for the 1931-1960 period represent the present location of the gage.

The present site at Hyslop Agronomy Farm is an excellent one for an agricultural weather station. During the past two years additional weather instruments and equipment have been installed. Data for 1964 from the added instrumentation appear in this publication.

## NARRATIVE CLIMATOLOGICAL SUMMARY FOR MID-WILLAMETTE VALLEY

The mid-Willamette Valley, that valley area from a latitude just north of Salem to just south of Corvallis, is a homogeneous area with respect to climate. The usual movement of very moist maritime air masses from the Pacific Ocean inland over the Coast Range produces near its crest some of the heaviest yearly precipitation (nearly all rain) in the United States. An annual total of almost 170 inches has been recorded, and one station situated in the Coast Range has established a period-of-record annual average near 125 inches. From the ridge crest of the Coast Range, approximately 3,000 feet above sea level, there is a gradual decrease of rainfall downslope to the valley floor where annual totals average near 40 inches. As these marine-conditioned air masses continue to move farther inland, they are forced to ascend the west slopes of the Cascades to elevations generally near or above 5,000 feet above sea level, and again precipitation amounts increase substantially with elevation.

Most of this precipitation in both the valley and its bordering mountain ranges occurs during the winter. In the mid-Willamette Valley about 70 percent of the annual total occurs during the five months November through March, while only 5 percent occurs during the three summer months. In this area, on the average, there are only three or four days during the year with measurable amounts of snow. Its depth on the ground rarely exceeds two or three inches and usually melts in a day or two. The few thunderstorms that occur in the valley each year are not generally severe and seldom

do they, or the hail that occasionally accompanies them, cause serious damage.

The seasonal differences in temperatures are much less marked than those of precipitation. The range in mean temperatures during January, the coldest month, and July, the warmest, is just under 30 degrees. Maximum temperatures of 100 degrees or higher are very infrequent, averaging less than one per year for the past 75 years. Minimum temperatures below zero are even more infrequent and occur only in about one year out of fifteen on the average. At Corvallis the average length of time between killing frosts during the growing seasons (1936--1964) is 215 days. Since 1900 the latest killing frost in spring was May 31 and the earliest in fall was September 24.

AVERAGE MONTHLY MAXIMUM TEMPERATURES  
1931-1964

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1931	50.2	52.9	57.5	67.3	75.2	73.5	84.8	83.6	73.1	65.0	51.5	45.4
1932	46.0	49.2	55.1	61.6	66.7	78.5	76.5	79.9	79.5	67.5	55.3	43.6
1933	44.1	45.9	54.6	63.5	60.4	71.3	81.9	83.0	68.6	67.5	52.9	51.2
1934	51.6	56.6	63.2	66.8	68.3	72.4	76.8	80.5	73.7	65.7	53.1	46.6
1935	44.6	50.5	49.7	59.8	69.6	76.2	79.9	83.7	81.7	63.3	49.9	46.8
1936	49.9	44.6	54.8	65.9	71.2	75.2	80.2	82.4	77.5	72.1	55.3	48.3
1937	38.3	47.8	57.6	58.3	70.1	74.6	81.5	80.2	76.3	69.5	54.8	49.0
1938	46.8	51.0	55.6	64.3	71.5	77.9	86.2	79.7	79.5	64.7	50.9	50.3
1939	49.1	47.4	58.5	67.6	71.6	72.9	83.0	84.5	77.6	65.4	56.7	51.9
1940	49.1	53.1	60.5	65.1	74.5	81.0	80.1	84.2	75.4	66.7	51.7	50.4
1941	49.4	56.5	65.1	66.1	68.5	73.0	86.7	79.1	70.7	63.7	54.0	48.0
1942	43.5	51.6	57.0	64.8	66.9	72.4	83.0	84.1	79.7	68.8	53.5	50.0
1943	42.1	55.9	56.2	66.3	67.1	71.9	82.1	78.4	81.5	63.9	54.6	47.3
1944	47.3	52.0	57.5	60.8	68.8	73.8	81.5	82.2	81.1	70.5	52.3	46.4
1945	49.8	52.9	53.6	59.6	69.5	75.4	84.6	83.0	75.5	68.3	51.6	48.0
1946	47.3	50.4	56.2	63.1	72.8	71.4	74.8	83.2	74.5	60.5	52.1	47.9
1947	43.7	56.1	61.4	65.4	74.8	71.1	77.3	80.2	79.1	62.7	55.1	49.7
1948	49.5	48.9	53.9	56.1	66.2	78.1	78.8	77.0	75.6	62.7	51.0	43.1
1949	38.6	48.8	55.9	66.2	72.0	76.8	79.4	79.1	76.4	61.1	58.2	47.1
1950	36.8	49.5	53.0	60.6	68.8	74.1	82.9	85.9	78.3	60.3	54.6	53.7
1951	46.2	52.4	51.6	68.2	69.3	80.2	81.4	84.3	78.9	63.2	53.7	44.9
1952	45.0	50.9	53.3	65.6	65.6	69.8	84.0	81.1	80.6	71.9	46.3	48.0
1953	51.5	51.4	53.3	58.8	62.3	66.2	79.7	77.5	76.6	64.8	54.3	47.7
1954	45.6	50.8	53.6	59.4	68.2	66.9	76.1	76.0	72.4	63.3	55.9	46.8
1955	43.7	48.3	48.9	53.1	64.5	71.9	73.6	80.7	74.1	62.3	48.3	46.5
1956	46.4	41.6	51.3	62.2	69.9	68.6	82.8	79.7	76.5	61.2	50.5	45.0
1957	37.6	49.3	53.1	61.1	67.5	72.9	78.1	77.5	79.9	63.1	52.6	48.6
1958	47.2	54.4	53.9	58.6	73.0	73.7	86.0	86.7	75.4	67.5	53.5	51.0
1959	47.6	48.8	54.3	61.2	63.5	71.4	83.7	81.2	70.0	64.0	53.6	45.4
1960	41.3	49.1	53.3	59.3	62.0	75.2	85.2	78.0	75.7	65.3	52.8	45.6
1961	50.2	52.7	53.4	59.0	63.5	77.3	81.7	84.8	72.1	63.6	49.8	47.0
1962	43.8	48.8	51.4	62.5	59.5	72.6	80.5	78.2	76.1	61.7	54.4	47.3
1963	41.5	56.1	53.8	54.6	66.7	70.3	74.0	78.7	77.4	64.3	52.4	45.4
1964	47.0	49.9	51.7	57.0	63.0	69.0	78.5	77.2	73.3	66.3	48.1	45.6

Station moved from Campus to Hyslop Agronomy Farm May 1952.



AVERAGE MONTHLY MINIMUM TEMPERATURES  
1931-1964

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1931	37.0	34.5	39.8	43.3	47.4	50.6	53.8	52.6	50.0	44.8	36.3	35.3
1932	34.3	35.5	40.8	41.0	45.5	51.1	51.1	55.2	48.5	46.2	41.5	30.9
1933	33.9	32.0	38.2	39.6	43.7	50.3	52.5	53.6	48.6	38.5	37.5	42.4
1934	40.8	39.3	44.0	44.9	48.3	50.4	53.0	53.0	48.2	46.9	44.2	37.1
1935	32.7	36.2	35.3	41.2	42.2	50.5	52.5	53.0	51.3	42.6	35.5	34.3
1936	38.1	31.1	37.4	43.6	49.0	53.1	54.5	53.8	48.8	43.7	32.6	37.9
1937	25.9	35.1	40.8	40.1	45.9	53.3	54.7	52.2	51.5	47.6	44.0	37.7
1938	35.0	35.8	38.0	42.8	46.3	50.6	54.5	51.2	53.2	45.7	35.8	36.0
1939	36.7	34.1	38.7	42.5	46.0	48.9	53.0	53.0	51.1	45.9	40.6	40.4
1940	34.8	40.0	41.8	42.9	47.6	50.7	54.1	54.1	53.9	49.6	37.1	37.7
1941	37.2	37.6	40.6	42.0	46.3	51.2	56.2	55.2	50.4	44.8	40.6	38.0
1942	30.7	33.7	36.3	42.3	44.6	50.0	55.3	53.8	48.3	43.5	39.5	39.0
1943	29.0	36.0	37.3	42.3	43.7	48.6	51.8	51.6	50.6	46.2	38.2	32.5
1944	32.5	35.5	35.8	40.4	43.6	48.1	52.1	51.7	50.0	46.5	36.5	30.7
1945	34.0	37.5	36.4	39.9	46.6	49.2	51.7	50.6	46.9	41.1	40.0	35.4
1946	34.0	35.4	37.1	39.3	45.1	47.0	51.5	50.9	46.1	40.3	35.2	36.6
1947	30.5	35.7	39.5	41.6	45.8	49.3	51.0	49.0	48.6	46.1	39.5	35.5
1948	31.1	33.7	35.5	38.4	44.9	52.2	51.3	51.8	47.3	41.8	37.1	31.0
1949	22.0	33.5	39.7	41.7	46.6	49.2	50.9	52.0	50.4	38.7	41.2	35.6
1950	25.9	34.3	37.5	39.5	42.6	50.0	52.4	52.1	48.6	46.1	40.9	42.5
1951	34.7	36.9	34.0	39.2	44.6	48.5	50.2	49.5	48.3	44.9	39.5	33.5
1952	33.9	35.9	37.8	40.5	40.9	46.0	49.6	48.6	46.5	51.6	30.5	34.8
1953	41.0	35.1	35.6	39.4	43.6	46.9	49.3	52.3	49.8	41.2	39.8	35.8
1954	33.0	32.6	31.7	38.5	43.4	47.4	49.4	50.1	46.2	38.6	41.1	32.7
1955	32.1	31.1	32.8	35.6	39.9	47.1	48.7	47.1	45.5	43.0	36.3	34.9
1956	35.4	30.2	35.7	39.0	46.0	46.6	50.8	50.6	47.1	40.8	32.7	33.8
1957	25.8	34.5	39.5	40.8	47.5	49.5	49.1	48.4	48.8	42.3	31.2	36.7
1958	34.7	41.2	34.6	40.9	46.7	53.6	54.5	52.7	48.6	41.5	38.9	38.2
1959	35.9	33.6	35.8	39.1	42.7	49.0	51.4	49.2	47.8	43.9	34.1	33.5
1960	29.7	34.4	35.8	39.7	42.7	47.9	49.2	49.2	46.9	41.7	37.2	31.8
1961	36.1	39.2	38.2	40.2	44.9	49.6	50.9	52.6	45.1	40.6	33.5	35.1
1962	29.5	33.8	35.2	40.6	42.4	45.5	48.7	50.0	48.5	43.5	39.3	35.9
1963	26.7	39.0	35.5	38.9	43.8	48.1	50.0	51.6	51.1	43.0	39.7	32.2
1964	34.6	31.9	34.9	37.8	40.3	47.5	50.7	50.4	43.9	40.7	35.6	34.8

Station moved from Campus to Hyslop Agronomy Farm May 1952.

MONTHLY PRECIPITATION  
1931-1964  
(inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1931	4.72	2.83	5.72	1.28	.19	3.35	T	0	1.52	3.82	6.58	9.12	39.13
1932	6.55	2.08	5.06	2.36	2.24	.24	.61	.83	T	3.99	4.89	8.09	36.94
1933	7.93	5.14	4.03	.76	3.70	.84	0	.69	1.68	2.67	1.00	14.15	42.59
1934	5.55	.98	2.12	1.94	1.28	.24	.26	.10	.57	4.57	9.71	8.10	35.42
1935	4.21	3.37	4.52	2.00	.52	.21	.51	.10	1.28	2.61	2.26	4.76	26.35
1936	10.82	5.35	1.97	1.43	3.41	1.70	.32	T	.89	.16	.24	5.82	32.11
1937	7.61	7.55	3.95	7.99	2.32	3.58	.08	.45	1.06	2.59	9.71	11.17	58.06
1938	4.03	6.33	7.42	1.51	.64	.08	.17	T	1.35	2.92	4.10	3.49	32.04
1939	3.92	3.60	2.44	.22	1.71	.70	.43	1.14	.43	2.90	.31	8.53	26.33
1940	4.41	9.80	4.93	2.26	2.62	.12	.16	T	2.75	4.14	4.46	4.71	40.36
1941	4.38	1.65	1.22	2.01	2.42	1.03	0	1.09	3.96	1.64	5.56	7.99	32.95
1942	4.95	3.36	1.04	1.62	2.56	1.11	.28	T	T	1.22	12.69	10.37	39.20
1943	5.09	3.78	5.60	2.01	1.16	1.32	.22	1.62	.02	5.54	2.51	2.66	31.53
1944	3.06	2.25	2.23	2.93	.85	.62	.14	T	2.18	1.36	4.63	2.74	22.99
1945	4.34	5.04	5.60	2.33	3.10	.22	.14	.08	.94	.89	10.08	5.03	37.79
1946	4.79	4.28	4.59	.68	.59	.98	.57	.01	2.17	4.22	6.78	3.76	33.42
1947	2.26	2.97	4.86	1.67	.16	2.55	2.72	.46	.61	9.05	3.10	3.45	33.86
1948	7.08	5.10	3.86	3.64	2.67	.39	.70	.06	1.87	2.34	5.97	7.46	41.14
1949	1.74	10.58	2.19	.55	2.06	.68	.03	.27	1.56	1.72	4.89	4.19	30.46
1950	12.17	5.23	4.16	.99	.65	.88	.21	.76	.97	9.70	7.73	5.13	48.58
1951	7.36	4.62	4.16	.65	1.40	.02	.11	.08	1.23	6.78	5.84	6.13	38.38
1952	5.08	4.17	1.75	.92	.35	3.84	0	.16	.40	1.02	1.55	7.13	26.37
1953	12.40	5.14	4.50	1.97	3.31	1.83	T	1.74	.49	3.12	6.96	7.81	49.27
1954	8.04	5.25	2.96	2.71	.90	3.11	.53	.64	1.60	3.56	5.86	6.92	42.08
1955	3.09	2.29	5.51	4.58	.91	.85	.62	0	1.97	7.58	7.32	12.64	47.36
1956	11.89	5.48	5.89	.93	1.98	1.14	.02	.34	1.12	5.86	1.38	4.56	40.59
1957	2.78	4.89	7.01	2.11	3.21	1.07	.17	.22	1.50	3.14	2.81	10.38	39.29
1958	8.15	7.81	2.55	3.66	1.12	2.91	.02	.02	1.30	2.68	8.49	4.15	42.86
1959	10.52	4.56	3.99	.84	2.20	1.31	.32	T	1.60	1.57	2.58	3.35	32.84
1960	4.38	6.49	7.18	3.29	3.92	.22	T	.64	.52	2.52	10.49	4.15	43.80
1961	4.80	10.12	7.46	2.23	2.05	.40	.59	.33	1.18	3.73	6.79	6.21	45.89
1962	1.21	3.82	6.37	2.90	2.31	.39	0	.51	1.60	4.62	7.89	2.90	34.58
1963	1.64	5.23	6.30	4.64	3.94	.98	.52	.65	.94	2.77	7.04	3.91	38.56
1964	11.68	.79	4.33	1.61	.55	.88	.57	.23	.31	1.25	9.23	13.27	44.70

Station moved from Campus to Hyslop Agronomy Farm May 1952.

SUNRISE AND SUNSET AT CORVALLIS, OREGON  
PACIFIC STANDARD TIME

DAY	January		February		March		April		May		June		July		August		September		October		November		December	
	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.	Rise a.m.	Set p.m.
1	7:49	4:43	7:31	5:21	6:50	6:00	5:54	6:39	5:03	7:17	4:31	7:50	4:31	8:01	4:58	7:38	5:35	6:49	6:10	5:53	6:50	5:02	7:29	4:34
2	7:49	4:44	7:30	5:22	6:49	6:01	5:52	6:41	5:01	7:18	4:30	7:51	4:32	8:01	4:59	7:37	5:36	6:48	6:11	5:51	6:51	5:00	7:30	4:34
3	7:49	4:45	7:29	5:24	6:47	6:03	5:51	6:42	5:00	7:19	4:30	7:52	4:32	8:01	5:00	7:36	5:37	6:46	6:12	5:49	6:51	5:00	7:31	4:33
4	7:49	4:46	7:27	5:25	6:45	6:04	5:49	6:43	4:59	7:21	4:29	7:52	4:33	8:00	5:02	7:34	5:38	6:44	6:13	5:48	6:54	5:00	7:32	4:33
5	7:49	4:47	7:26	5:27	6:43	6:05	5:47	6:45	4:58	7:22	4:28	7:53	4:33	8:00	5:03	7:33	5:39	6:42	6:15	5:46	6:56	5:00	7:33	4:33
6	7:49	4:48	7:25	5:28	6:42	6:06	5:45	6:46	4:57	7:23	4:29	7:54	4:34	8:00	5:04	7:32	5:40	6:40	6:16	5:44	6:57	5:00	7:34	4:33
7	7:49	4:49	7:24	5:30	6:40	6:08	5:43	6:47	4:55	7:24	4:28	7:55	4:35	7:59	5:05	7:30	5:41	6:38	6:17	5:42	6:54	5:00	7:35	4:32
8	7:49	4:50	7:22	5:31	6:38	6:09	5:41	6:48	4:53	7:25	4:28	7:56	4:36	7:59	5:06	7:29	5:43	6:37	6:18	5:41	7:00	5:00	7:36	4:32
9	7:48	4:51	7:21	5:32	6:36	6:10	5:40	6:50	4:51	7:26	4:28	7:56	4:36	7:58	5:07	7:28	5:44	6:35	6:20	5:39	7:01	5:00	7:37	4:32
10	7:48	4:52	7:20	5:34	6:35	6:11	5:38	6:51	4:50	7:28	4:27	7:57	4:37	7:58	5:09	7:26	5:45	6:33	6:21	5:37	7:02	5:00	7:38	4:32
11	7:48	4:53	7:19	5:35	6:33	6:13	5:36	6:52	4:49	7:29	4:27	7:57	4:38	7:57	5:10	7:25	5:46	6:31	6:22	5:35	7:04	5:00	7:39	4:32
12	7:47	4:55	7:18	5:37	6:31	6:14	5:34	6:53	4:48	7:30	4:27	7:58	4:39	7:57	5:11	7:28	5:47	6:29	6:23	5:34	7:05	5:00	7:40	4:32
13	7:47	4:56	7:16	5:38	6:29	6:15	5:32	6:55	4:47	7:31	4:27	7:58	4:40	7:56	5:12	7:22	5:48	6:27	6:25	5:32	7:06	5:00	7:41	4:33
14	7:46	4:57	7:15	5:40	6:27	6:17	5:31	6:56	4:46	7:32	4:27	7:59	4:40	7:55	5:13	7:20	5:49	6:25	6:26	5:30	7:08	5:00	7:41	4:33
15	7:46	4:58	7:13	5:41	6:26	6:18	5:29	6:57	4:45	7:33	4:27	7:59	4:41	7:55	5:15	7:19	5:51	6:23	6:27	5:28	7:09	5:00	7:42	4:33
16	7:45	4:59	7:12	5:42	6:24	6:19	5:27	6:58	4:44	7:34	4:27	8:00	4:42	7:54	5:16	7:17	5:52	6:21	6:29	5:27	7:10	5:00	7:43	4:33
17	7:45	5:01	7:10	5:44	6:22	6:20	5:25	7:00	4:43	7:35	4:27	8:00	4:43	7:53	5:17	7:15	5:53	6:20	6:30	5:25	7:12	5:00	7:44	4:34
18	7:44	5:02	7:09	5:45	6:20	6:22	5:24	7:01	4:42	7:37	4:27	8:00	4:44	7:53	5:18	7:14	5:54	6:18	6:31	5:23	7:13	5:00	7:44	4:34
19	7:43	5:03	7:07	5:47	6:18	6:23	5:22	7:02	4:41	7:38	4:27	8:01	4:45	7:52	5:19	7:12	5:55	6:16	6:33	5:22	7:14	5:00	7:45	4:34
20	7:42	5:04	7:05	5:48	6:17	6:25	5:20	7:03	4:40	7:39	4:27	8:01	4:46	7:51	5:20	7:11	5:56	6:14	6:34	5:20	7:15	5:00	7:45	4:35
21	7:42	5:06	7:04	5:49	6:15	6:26	5:19	7:05	4:39	7:40	4:27	8:01	4:47	7:50	5:22	7:09	5:58	6:12	6:35	5:19	7:17	5:00	7:46	4:35
22	7:41	5:07	7:02	5:51	6:13	6:27	5:17	7:06	4:38	7:41	4:28	8:01	4:48	7:49	5:23	7:07	5:59	6:10	6:37	5:17	7:18	5:00	7:46	4:36
23	7:40	5:08	7:01	5:52	6:11	6:28	5:16	7:07	4:37	7:42	4:28	8:01	4:49	7:48	5:24	7:05	6:00	6:08	6:38	5:15	7:19	5:00	7:47	4:36
24	7:40	5:10	6:59	5:53	6:09	6:29	5:14	7:08	4:36	7:43	4:28	8:01	4:50	7:47	5:25	7:04	6:01	6:06	6:39	5:14	7:20	5:00	7:47	4:37
25	7:39	5:11	6:57	5:55	6:07	6:31	5:12	7:09	4:36	7:44	4:29	8:02	4:51	7:46	5:26	7:02	6:02	6:04	6:41	5:12	7:22	5:00	7:48	4:37
26	7:38	5:13	6:55	5:56	6:05	6:32	5:11	7:11	4:35	7:45	4:29	8:02	4:52	7:45	5:28	7:00	6:04	6:02	6:42	5:11	7:23	5:00	7:48	4:38
27	7:37	5:14	6:54	5:58	6:04	6:33	5:09	7:12	4:34	7:46	4:30	8:02	4:53	7:44	5:29	6:58	6:05	6:01	6:43	5:09	7:24	5:00	7:48	4:39
28	7:36	5:16	6:52	5:59	6:02	6:34	5:07	7:13	4:34	7:47	4:30	8:01	4:54	7:43	5:30	6:57	6:06	5:59	6:45	5:08	7:25	5:00	7:49	4:40
29	7:35	5:17	6:51	6:00	6:00	6:36	5:06	7:15	4:33	7:47	4:30	8:01	4:55	7:42	5:31	6:55	6:07	5:57	6:46	5:06	7:26	5:00	7:49	4:40
30	7:34	5:18	6:51	6:00	5:58	6:37	5:04	7:16	4:32	7:48	4:31	8:01	4:56	7:41	5:32	6:53	6:08	5:55	6:47	5:05	7:28	5:00	7:49	4:41
31	7:33	5:20	6:50	6:00	5:56	6:38	5:04	7:17	4:31	7:49	4:31	8:01	4:57	7:39	5:33	6:51	6:08	5:55	6:49	5:03	7:29	5:00	7:49	4:42

Add one hour for Daylight Saving Time if and when in use.

This table may be used in any year of the twentieth century and within the geographical boundary of the stated place with an error not exceeding 2 minutes and generally less than 1 minute.

This table was prepared using official sunrise and sunset tables of the U.S. Naval Observatory for Salem, Oregon and Eugene, Oregon.

KILLING FROST

Year	Last Spring Frost Month	Frost Day	First Fall Frost Month	Frost Day	Frost Free Days
1936	May	2	October	29	180
1937	March	18	November	30	257
1938	April	6	October	15	192
1939	March	10	November	4	239
1940	February	20	November	22	275
1941	March	14	November	17	248
1942	April	24	November	11	201
1943	April	26	November	6	194
1944	March	28	November	15	232
1945	March	5	October	24	233
1946	February	11	October	28	259
1947	February	28	November	23	267
1948	April	27	October	28	183
1949	March	24	October	17	206
1950	March	12	November	10	222
1951	April	24	October	21	189
1952	May	4	November	2	182
1953	April	10	November	1	204
1954	April	28	October	26	181
1955	April	27	November	23	210
1956	April	5	November	15	223
1957	April	7	November	1	207
1958	April	5	November	16	225
1959	April	15	November	6	205
1960	April	16	November	9	206
1961	March	28	October	20	207
1962	April	10	December	1	234
1963	April	2	October	19	200
1964	May	2	October	26	177
<b>AVERAGE</b>					
<b>FOR 29</b>					
<b>YEARS</b>	April	3	November	4	215

June, July, August have been frost free for 75 years.

CROP SEASON MONTHLY EVAPORATION

From Standard Weather Bureau  
Open Pan (1953-1964)  
(inches)

Year	April	May	June	July	August	September	October
1953	.73	2.64	3.43	6.77	5.48	4.13	1.65
1954	3.01	4.19	3.43	5.06	3.77	2.70	1.34
1955	1.16	4.44	5.04	5.30	6.72	4.25	1.30
1956	2.99	4.52	4.53	7.74	5.72	4.26	1.66
1957	2.71	3.43	4.62	7.05	5.87	5.04	1.55
1958	1.11	5.20	4.51	8.29	8.31	4.80	2.54
1959	2.80	3.27	5.00	9.13	8.11	3.57	1.84
1960	2.37	2.90	7.27	9.89	6.87	4.72	2.30
1961	2.01	2.33	6.97	8.53	7.06	4.55	1.97
1962	3.24	3.26	6.87	8.13	6.74	5.01	1.05
1963	2.61	4.31	5.20	6.52	8.16	4.68	1.63
1964	2.75	4.25	4.75	6.77	6.20	4.56	2.26
MEAN	2.29	3.73	5.13	7.43	6.58	4.36	1.76

MISCELLANEOUS CLIMATOLOGICAL DATA

Estimate of Percent of Possible Sunshine at Corvallis\*  
(based on cloud cover and solar radiation data)

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	35	40	50	55	60	70	70	65	45	30	20

\*From 1959 Climatological Publication, OREGON SUNSHINE, U. S. Weather Bureau, Portland, Oregon. Author: Gilbert Sternes, State Climatologist.

Average Monthly Relative Humidity at Salem, Oregon, Weather Bureau  
Airport Station\*  
(in percent)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>4 a.m.</u>	88	90	89	89	89	88	87	87	89	92	90	90
<u>4 p.m.</u>	79	71	63	54	52	50	39	40	47	64	76	81

\*From U. S. Weather Bureau LOCAL CLIMATOLOGICAL DATA, Salem, Oregon, 1961. These data are representative of the mid-Willamette Valley.

Average Monthly Maximum and Minimum Air Temperatures\*  
(1964)

	May	June	July	Aug.	Sept.
(maximum)					
1-foot level	63.3	69.8	81.1	78.8	74.0
15-foot level	59.6	66.7	77.0	76.1	72.8
(minimum)					
1-foot level	39.4	46.2	47.7	48.7	42.0
15-foot level	40.5	47.1	50.2	52.4	46.4

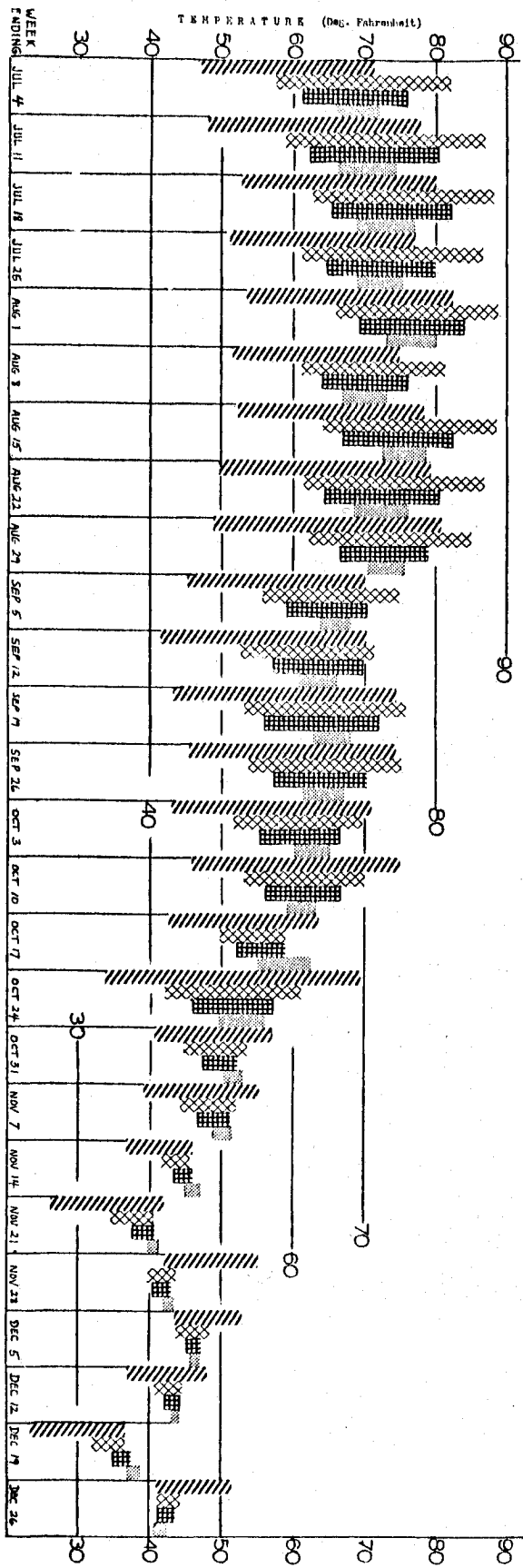
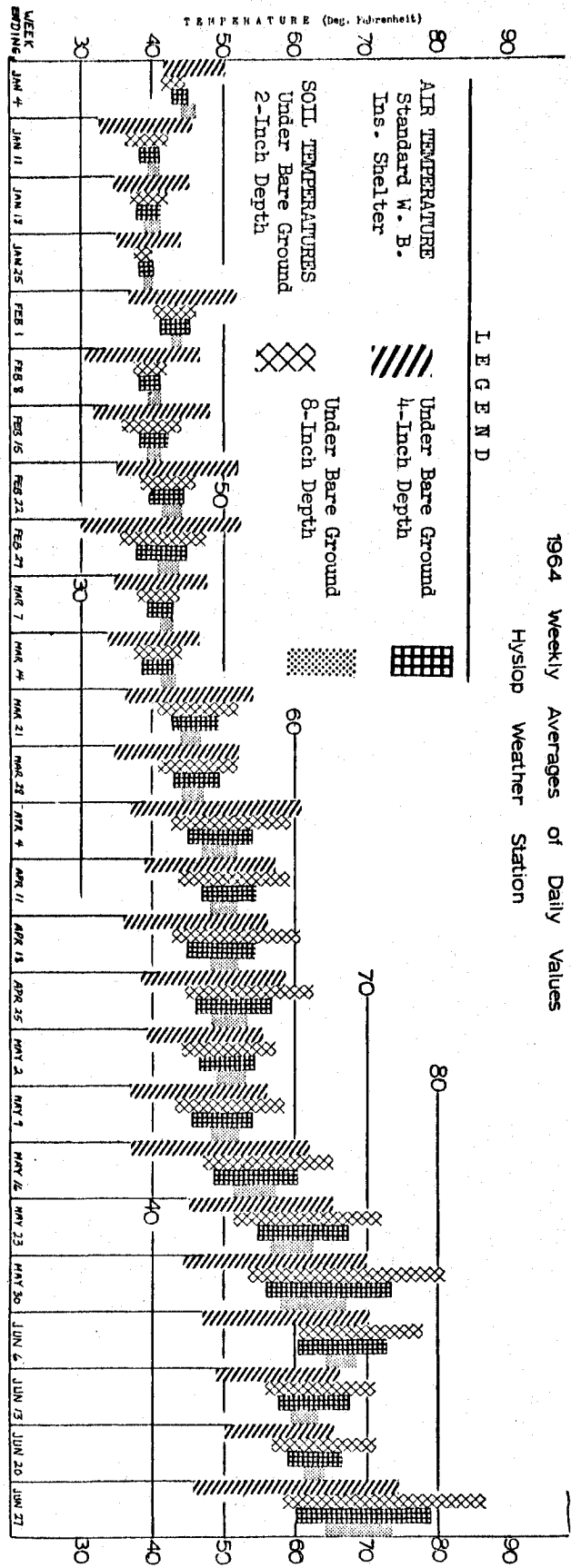
\*From tower at Hyslop Weather Station. Temperature measuring devices shielded from direct sun.

PERCENT PROBABILITY OF PRECIPITATION EQUAL TO OR EXCEEDING SPECIFIED AMOUNTS  
DURING EACH WEEK OF THE YEAR FOR ALBANY, OREGON, 30-YEARS 1928-1957

Date	Week No.	0.01	0.10	0.25	0.50	1.00	2.00
Mar 1 to 7	1	87	83	77	63	27	3
Mar 8 to 14	2	97	90	90	83	43	20
Mar 15 to 21	3	93	90	67	57	37	13
Mar 22 to 28	4	97	93	93	83	43	10
Mar 29 to Apr 4	5	97	90	83	67	37	13
Apr 5 to 11	6	83	73	70	50	20	
Apr 12 to 18	7	80	73	60	37	27	3
Apr 19 to 25	8	83	80	50	37	7	
Apr 26 to May 2	9	97	87	67	50	27	
May 3 to 9	10	80	73	57	43	23	7
May 10 to 16	11	77	63	60	33	17	3
May 17 to 23	12	77	63	43	37	17	
May 24 to 30	13	77	70	50	20	3	
May 31 to Jun 6	14	73	60	50	33	7	
Jun 7 to 13	15	73	53	43	20	13	
Jun 14 to 20	16	80	63	63	33	13	7
Jun 21 to 27	17	57	40	30	17	3	
Jun 28 to Jul 4	18	70	43	20	13	3	3
Jul 5 to 11	19	50	30	17	7		
Jul 12 to 18	20	37	13	10	3		
Jul 19 to 25	21	23	10	3			
Jul 26 to Aug 1	22	27	17	10	3	3	3
Aug 2 to 8	23	33	30	17	7		
Aug 9 to 15	24	27	10	3			
Aug 16 to 22	25	20	13	7			
Aug 23 to 29	26	53	30	20	17	7	
Aug 30 to Sep 5	27	60	40	27	13	10	
Sep 6 to 12	28	63	53	40	30	10	
Sep 13 to 19	29	63	50	47	40	10	
Sep 20 to 26	30	60	37	27	23	7	
Sep 27 to Oct 3	31	77	57	47	33	20	3
Oct 4 to 10	32	87	67	60	37	27	7
Oct 11 to 17	33	93	77	63	43	30	7
Oct 18 to 24	34	77	73	67	43	37	30
Oct 25 to 31	35	93	83	80	63	27	13
Nov 1 to 7	36	90	80	77	57	33	23
Nov 8 to 14	37	87	83	73	60	57	17
Nov 15 to 21	38	93	83	80	67	57	37
Nov 22 to 28	39	80	73	63	43	43	27
Nov 29 to Dec 5	40	97	90	83	77	47	30
Dec 6 to 12	41	100	87	80	73	60	37
Dec 13 to 19	42	97	83	77	77	53	20
Dec 20 to 26	43	100	97	90	77	57	30
Dec 27 to Jan 2	44	100	97	93	87	63	40
Jan 3 to 9	45	97	97	87	77	47	20
Jan 10 to 16	46	97	90	80	80	47	17
Jan 17 to 23	47	97	93	87	70	43	27
Jan 24 to 30	48	93	87	73	73	50	20
Jan 31 to Feb 6	49	100	87	80	73	53	30
Feb 7 to 13	50	93	90	90	73	50	27
Feb 14 to 20	51	93	73	67	57	37	10
Feb 21 to 27	52	93	93	83	63	43	20

Example: Analysis of 30 years of record (1928-1957) showed that total precipitation during week 29, Sep 13 to 19, equaled or exceeded .10 inch 15 times, for a 50 percent probability of occurrence. Blanks in the table indicate no occurrence during the 30-year period examined.

MAXIMUM & MINIMUM AIR & SOIL TEMPERATURES  
1964 Weekly Averages of Daily Values  
Hyslop Weather Station





# METEOROLOGICAL DATA FOR THE CURRENT YEAR

WESLOP AERONAUTIC FIELD  
CERRILLES, OREGON

Month	Temperature				Degrees days	Precipitation				Relative humidity			Wind			Evaporation				Number of days										
	Averages		Extremes			Total	Greatest in 24 hrs.	Date	Greatest in 24 hrs.	Date	10:00 a.m.	4:00 p.m.	10:00 p.m.	Average hourly speed	Prevailing direction	Speed	Direction	Fastest mile	Date	Monthly Total (inches)	At 8:00 a.m. Observation	Precipitation	Snow, Sleet	10 or more	Thunderstorms	Heavy fog	90° and above	32° and below	Min. temp.	Zero and below
	Daily maximum	Daily minimum	Monthly maximum	Monthly minimum																										
Year	60.6	40.3	50.4	54	44.70	2.18	1.9	5.3	1.5	75	84	92	11	3	1	1	1	1	22	28	4	4	9	2	52	0	0	0	0	0

# NORMALS, MEANS, AND EXTREMES

Month	Normal			Extremes			Normal degree days	Precipitation				Relative humidity			Wind			Evaporation				Mean number of days														
	Daily maximum	Daily minimum	Record lowest	Record highest	Year	Record lowest		Year	Normal total	Maximum monthly	Year	Minimum monthly	Year	Maximum in 24 hrs.	Year	Mean total	Maximum monthly	Year	Maximum	Year	Mean hourly speed	Prevailing direction	Speed	Direction	Fastest mile	Year	Mean Monthly (inches)	At 8:00 a.m. Observation	Precipitation	Snow, Sleet	Thunderstorms	Heavy fog	Max. temp.	Min. temp.		
	Year	Year	Year	Year	Year	Year		Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year		
J	44.4	24.1	38.3	51	1954	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
F	49.5	24.7	42.1	53	1958	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
M	51.0	26.6	45.4	55	1961	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
A	61.0	32.5	52.5	61	1953	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
M	57.7	35.5	56.6	67	1956	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
J	72.9	43.2	61.1	82	1955	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
J	81.2	51.6	66.4	97	1946	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
A	81.1	51.2	66.1	97	1950	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S	75.8	46.3	62.1	83	1941	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
O	61.2	37.0	53.6	69	1956	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
N	52.2	37.2	44.7	73	1930	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
D	48.8	35.1	41.0	66	1950	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
T	62.6	42.1	52.4	71	1959	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

(a) Length of record, years.

- (1) 1931-1960 (adjusted to present location)
- (2) 1889-1964
- (3) 1900-3/1/1965
- (4) 1916-1960
- (5) 1954-1961
- T = trace
- \* Also equalled in prior years









U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
LOCAL CLIMATOLOGICAL DATA

WYSLIP AGRONOMY FARM
CORVALLIS, OREGON
APRIL 1964

Latitude 44° 30' N. Longitude 123° 12' W. Elevation (ground) 225 ft. Pacific Standard time used

Main climatological data table with columns for Date, Temperature (Max, Min, Avg, Growing degree days), Precipitation, Wind (Direction, Velocity), Soil Temperatures (2", 4", 8" depth), Evaporation, Air Temps (Max, Min), Solar Radiation, and Relative Humidity (1 a.m., 10 a.m., 4 p.m., 10 p.m.). Includes a summary row at the bottom.

T in columns 7, 8, 9 and in the Hourly Precipitation table indicates an amount too small to measure.

TEMPERATURE: (°F)
Average monthly 47.4
Departure from normal - 3.4
Highest 69 on 29
Lowest 28 on 17
Number of days with -
Max. 32° or below 0
Max. 90° or above 0
Min. 32° or below 2
Min. 0° or below 0

TIME OF OBSERVATIONS:
(1) Data tabulated in Columns 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, and 17 are for the 24-hour period ending at 8:00 a.m. on the date shown.
(2) Data tabulated in Columns 9 and 10 are the wind direction and velocity at 8:00 a.m.
(3) Column 18 is for the 24-hour period ending at midnight, end of the day, on the date shown.

PRECIPITATION: (In.)
Total for the month 1.61
Departure from normal - .59
Greatest in 24 hours .55 on 3
\*2-day total

HOURLY PRECIPITATION (In.)

Hourly precipitation table with columns for Date, A. M. Hour ending at (1-12), P. M. Hour ending at (1-12), and Date. Shows precipitation amounts for each hour of the day.



















EXPLANATORY NOTES FOR DAILY CLIMATOLOGICAL DATA (pp 17 - 28)

- Column 1. Date of Observation.
2. Maximum Air Temperature, 24-hour period ending 8:00 a.m.
  3. Minimum Air Temperature, 24-hour period ending 8:00 a.m.
  4. Average Air Temperature, 24-hour period ending 8:00 a.m.
  5. Growing Degree Days, base 40°, computed from Average Temperature.
  6. Growing Degree Days, base 50°, computed from Average Temperature.
  7. Precipitation, water equivalent, inches, for 24-hour period ending at 8:00 a.m.
  8. Snow, Sleet or Other Frozen Precipitation in inches.
  9. Wind Direction at observation time, 8:00 a.m.
  10. Wind Speed, mph, at observation time, 8:00 a.m.
  11. Maximum and Minimum Soil Temperatures, 2-inch depth, 24-hour period ending at 8:00 a.m.
  12. Maximum and Minimum Soil Temperatures, 4-inch depth, 24-hour period ending at 8:00 a.m.
  13. Maximum and Minimum Soil Temperatures, 8-inch depth, 24-hour period ending at 8:00 a.m.
  14. Evaporation of Water from Standard Weather Bureau Pan, inches.
  15. Total 24-hour Wind Movement, miles, from anemometer 1-1/2 feet above ground at Evaporation Pan Site.
  16. Maximum and Minimum Air Temperatures, 1 foot above ground, 24-hour period ending at 8:00 a.m.
  17. Maximum and Minimum Air Temperatures, 15 feet above ground, 24-hour period ending at 8:00 a.m.
  18. Total Incoming Solar Radiation, Langleys, 24-hour period midnight to midnight.
  19. Day Length, sunrise to sunset, hours and minutes.
  20. - 23. Relative Humidity expressed in percent from hygro-thermograph in standard Weather Bureau shelter, 4:00 a.m., 10:00 a.m., 4:00 p.m. and 10:00 p.m.
  24. Date of Observation.

SOME REFERENCE PUBLICATIONS FOR CLIMATOLOGICAL DATA, OREGON

1. CLIMATOLOGICAL DATA, OREGON, Monthly and Annual Summaries.  
Author: Continuing publication of U. S. Weather Bureau.
2. A SUMMARY OF CLIMATE AND WEATHER FOR CORVALLIS, OREGON, Oregon State University Agricultural Experiment Station Miscellaneous Paper 105, March 1961. Author: Wheeler Calhoun.
3. ESTIMATING DATES FOR LOW TEMPERATURES IN OREGON, Oregon State University Agricultural Experiment Station Bulletin 581, October 1961. Authors: Noel D. Eichorn, Robert D. Rudd and Lyle D. Calvin.
4. STUDIES OF OREGON'S CLIMATE FOR THE FOREST INDUSTRY, Oregon Forest Lands Research Center, Oregon State University, Climatological Notes, 1960. Author: W. P. Lowry.
5. OREGON SUNSHINE, U. S. Weather Bureau Paper, State Climatologist, Portland, Oregon, 1959. Author: Gilbert Sternes.
6. DECENNIAL CENSUS OF UNITED STATES CLIMATE - OREGON, MONTHLY NORMALS OF TEMPERATURE, PRECIPITATION AND HEATING DEGREE DAYS, 1962. Author: U. S. Weather Bureau Publication.