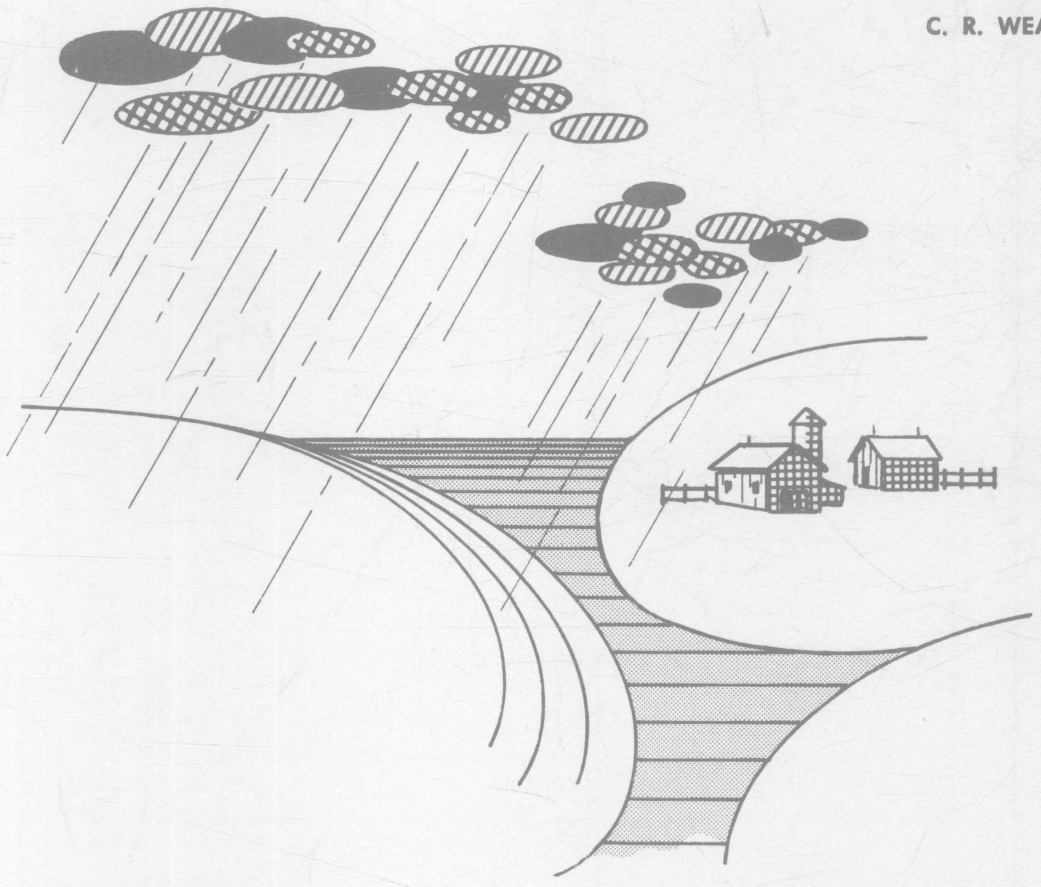
Mean Recurrence Tables of Daily Precipitation Amounts for Selected Locations in Ohio

MARVIN E. MILLER
C. R. WEAVER



RESEARCH BULLETIN 1034
MAY 1970

OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
Wooster, Ohio

CONTENTS

****

ACKNOWLEDGMENTS

The authors are indebted to Mr. Norman L. Canfield, Weather Bureau Regional Climatologist, Eastern Region, for his encouragement and assistance with this project. Drafting assistance was provided by Mr. Jack Pennell, Ohio Department of Natural Resources, Division of Water. The cover illustration was prepared by Mr. Newell Hartrum, graphic artist, Dept. of Public Information, Ohio Agricultural Research and Development Center.

AGDEX 551 5-68-2M

Mean Recurrence Tables of Daily Precipitation Amounts for Selected Locations in Ohio

MARVIN E. MILLER and C.R. WEAVER[1]

INTRODUCTION

A major problem confronting hydrologists and design engineers is to estimate the occurrence of precipitation which exceeds specified amounts over various drainage areas. Such information is particularly important in designing hydrological structures to withstand flood waters up to some value which has a relatively small probability of occurrence. (Myers (6) reviewed the history of the meteorological estimation of extreme precipitation for spillway design floods in the United States.) The potential savings in life, personal property, and farm land dictate the probability level that might be considered in the design computation. For convenience, the various probability levels of extreme precipitation amounts and floods are often expressed in terms of mean recurrence intervals, hereafter called *return periods*. A probability level of 0.1 and 0.01 would correspond to return periods of 10 and 100 years, respectively.

There are several ways of deriving information related to extreme precipitation amounts during short periods of time. Two such methods are the storm model approach and the statistical approach.

In the storm model approach, the precipitation is computed on the basis of net inflow of water vapor into the model (i.e., inflow minus outflow). This model is tested against major observed storms and a model factor is empirically determined which gives the ratio between the water vapor in the atmosphere and precipitation received at the earth's surface.

The deterministic statistical approach utilizes only climatological precipitation data as a means of estimating extreme precipitation amounts.[2] Precipitation values obtained by this statistical method are usually less than the physical upper limit possible for a designated time period. However, there appears to be no reason for regarding extreme precipitation data derived from deterministic statistical techniques as being less reliable than similar information obtained from other approaches.

Riedel, Appleby, and Schloemer (7) have presented monthly graphs from which the probable maximum 6-, 12-, 24-, and 48-hour precipitation amounts for drainage basin areas of 10 to 1000 square miles can be estimated. Their study entails maximization techniques and assumes that the probable maximum precipitation during any time period can be calculated from the optimum combination of moisture charge and convergence of the wind. The graphs show for all months the range of probable maximum 24-hour precipitation for 200-square-mile areas within Ohio to be between 21.5 inches in extreme northwest areas and 25.5 inches near Chesapeake in south central Ohio. To date, the heaviest 24-hour point rainfall within Ohio is 10.51 inches (9).

The Soil Conservation Service of the U.S. Dept. of Agriculture requested the Weather Bureau to provide material for use in developing planning and design criteria for a Watershed Protection and Flood Prevention Program. The most recent response to this request is contained in U. S. Weather Bureau Technical Paper 40 (3). (See also reference 11.)

Forty-nine rainfall frequency maps, several related maps, and seasonal variation diagrams are presented in Technical Paper 40 (T. P. 40). The rainfall frequency maps are for durations of 30 minutes and 1, 2, 3, 6, 12, and 24 hours and return periods of 1 to 100 years. Data from 5,000 stations, including about 110 Ohio locations, were considered in preparing the 49 rainfall frequency maps. The seasonal variation diagrams in T. P. 40 can be used to determine the probability in percent of obtaining a rainfall in any month of a particular year which is equal to or exceeds the return period values taken from the rainfall frequency maps.

Storms of smaller magnitude than those giving

[1]State Climatologist, Weather Bureau, Environmental Science Services Administration; and Statistician, Ohio Agricultural Research and Development Center.

[2]In this study, the term "extreme" is used according to its climatological definition; i.e., the highest and in some cases the lowest value of a climatic element observed during a given period or during a given month or season of that period. The above definition when applied to precipitation data should not be misconstrued as being synonymous with "probable maximum precipitation", which is the theoretically greatest depth of precipitation for a given duration which is physically possible over a particular area.

the extreme annual precipitation amounts must also be investigated because of their impact on engineering design. For example, in Ohio some of the worst floods in the state's history have been associated with the melting of snow and ice. During such periods, the rainfall was heavy but not of the deluge type which often occurs during showers and/or thundershowers. In designing a reservoir, an engineer must consider not only the level of water in the reservoir during the most probable time of the extreme annual rainfall storm but also potential levels which may result from a storm(s) anytime during the year.

The purpose of the study reported here is to present information for selected locations on the occurrence of monthly and annual extreme 24-hour precipitation amounts for return periods of 2, 5, 10, 25, 50, and 100 years. Statistical techniques are used to estimate the daily precipation amounts associated with the return periods.

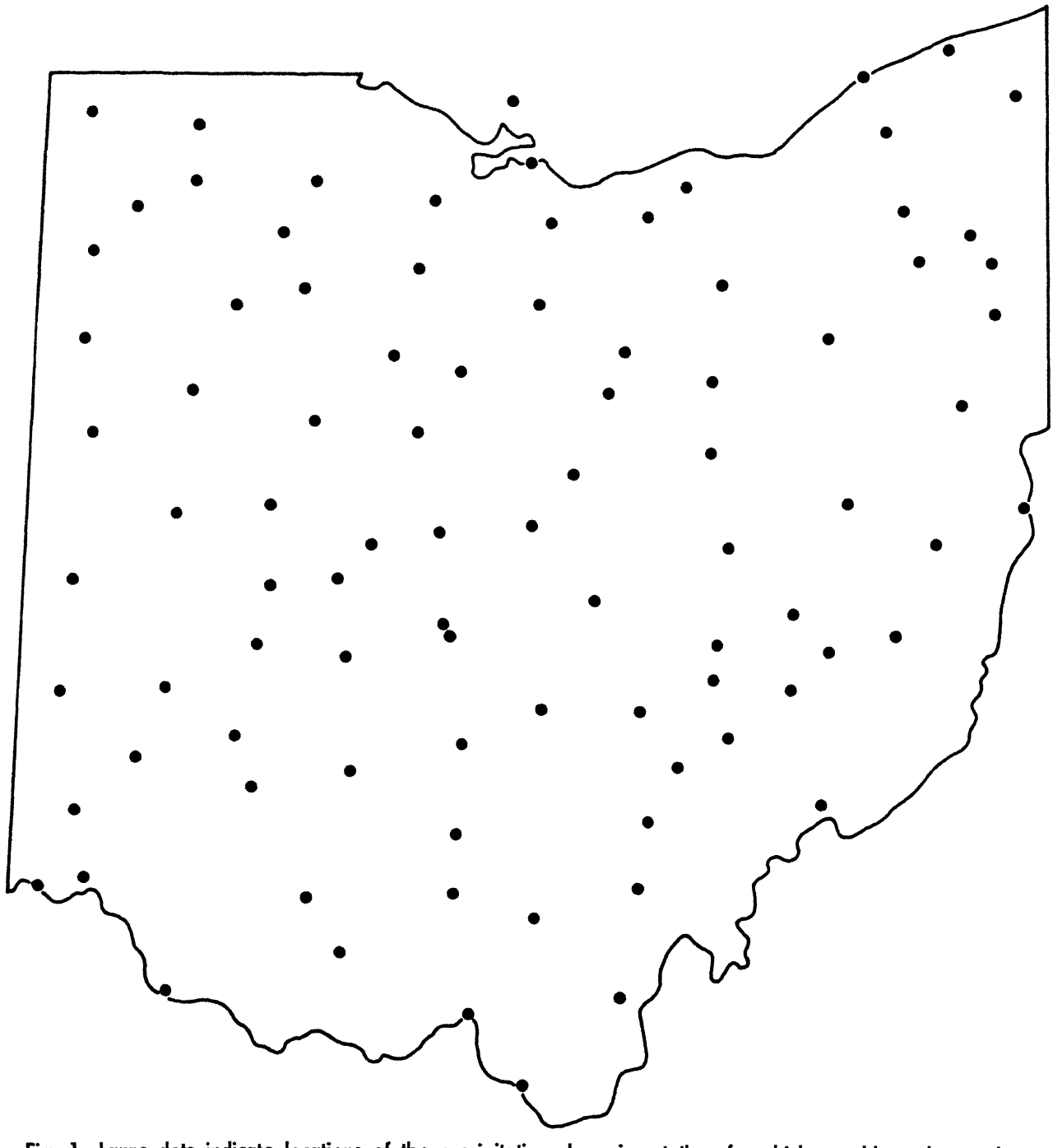


Fig. 1.—Large dots indicate locations of the precipitation observing stations for which monthly and annual extreme daily precipitation return period tables were computed.

MEASUREMENT OF PRECIPITATION

Precipitation includes both liquid and solid forms of water particles which fall from the atmosphere and reach the ground; i.e., drizzle, rain, snow, snow pellets, snow grains, ice crystals, ice pellets, and hail (4). Presently, more than 280 cooperative weather observers of the Environmental Science Services Administration (ESSA) are collecting daily precipitation records within Ohio.

A variety of instruments can be used to obtain precipitation measurements. The simplest gage is an open mouthed can with straight sides.

Three types of gages are being used within Ohio's precipitation network of volunteer weather observers. These include the standard 8-inch nonrecording gage, the weighing-type gage, and the digital gage. All three of these gages have the same 8-inch diameter opening into which the precipitation may fall. With the standard gage, precipitation measurements of 0.01 inch or more are made by using a ruled stick. The weighing-type recording gage records the rate of accumulation of precipitation. Only daily precipitation information from selected standard 8-inch and weighing gages were used for this study.

The locations of gages used in the investigation of extreme 24-hour precipitation amounts are shown in Figure 1. Most volunteer weather observers take their precipitation observations only once in 24 hours. Of the 90 locations included in this report, 57 observers take their observations between 6 and 9 a.m., 24 between 5 and 9 p.m., and 9 at midnight. Even though most heavy rains occur during the afternoon or evening, time of observation is not significant in rainfall frequency studies (3).

METHOD

Gumbel (2) has shown that rainfall-frequency values may be approximated by a Fisher-Tippett Type I distribution which is given by

$$P = e^{-e^{-y}} \qquad (1)$$

where P = probability that an extreme value will be less than X
e = base of natural logarithm
y = $(X-u)\,(S_n/S_X)$
and X = individual item in series of extreme values
u = mode of extreme values
S_n = standard deviation of y for the particular sample size
S_X = standard deviation of the series of extreme values

The probability that an extreme value will equal or exceed X in terms of the return period is

$$T = 1 / (1-P) \qquad (2)$$

where T = the return period in years.

Chow (1) has written Equation 1 for obtaining frequency analysis as

$$X_T = \bar{X} + S_X K_T \qquad (3)$$

where X_T = magnitude of item with return period T
$\bar{X}$ = mean of the extreme values
K_T = frequency factor depending on return period T, and length of record, n.

Values of K_T for 10, 15, 20, 30, 40, 60, and 100 years of record and return periods of 2, 5, 10, 25, 50, and 100 years were given by Weiss (13). Since the number of years of precipitation record varies within the statewide climatological network (11), the equation

$$K_T = b_0 + b_1 \log_{10} n + b_2 (\log_{10} n)^2 \qquad (4)$$

where n = number of years of precipitation record and b_0, b_1, b_2 = derived constants

was derived from data contained in Table 1 so that a value for K_T could be determined for any number of years of precipitation record. The derived constants associated with return periods of 2, 5, 10, 25, 50, and 100 years are given in Table 2.

TABLE 1.—Computed Values of K_T for Selected Years of Record n, and Return Periods, T (13).

	n						
T	10	15	20	30	40	60	100
2	-.1361	-.1433	-.1479	-.1525	-.1552	-.1580	-.1604
5	1.0479	.9672	.9186	.8663	.8379	.8068	.7790
10	1.8319	1.7026	1.6247	1.5410	1.4955	1.4457	1.4010
25	2.8224	2.6316	2.5169	2.3934	2.3263	2.2529	2.1869
50	3.5570	3.3207	3.1786	3.0256	2.9425	2.8516	2.7699
100	4.2865	4.0049	3.8357	3.6534	3.5544	3.4461	3.3486

TABLE 2.—Derived Constants b_0, b_1, and b_2 for Obtaining Values of K_T for Any Number of Years of Record.

Return Period (Years)	b_0	b_1	b_2
2	-.0735	-.0820	.0193
5	1.7315	-.8964	.2106
10	2.9265	-1.4353	.3372
25	4.4365	-2.1164	.4971
50	5.5564	-2.6218	.6159
100	6.6677	-3.1224	.7334

Equations 3 and 4 were incorporated into a computer program to obtain monthly and annual values of extreme 24-hour precipitation amounts for return periods of 2, 5, 10, 25, 50, and 100 years. The input data cards used in this program were obtained during a cooperative project between the U. S. Department of Commerce, Environmental Science Services Administration; the Ohio Agricultural Research and Development Center; and the Ohio Department of Natural Resources, Division of Water. Four special weather decks (12) resulted from this cooperative agreement.

One of these decks, the monthly summary deck, provided the input data for use in the computer program for this project. Each monthly summary card contains summarized information on temperature, precipitation, and snowfall. One of the summarized precipitation items is the greatest daily precipitation during the month and the day of occurrence.

DISCUSSION

Monthly and annual 24-hour extreme precipitation amounts for return periods of 2, 5, 10, 25, 50, and 100 years were calculated using the Gumbel statistical approach for 90 Ohio locations. The results are contained in the section, Mean Recurrence Tables. Since the data used in deriving these tables began on a specified hour, the values obtained will be lower than similar tables derived from monthly 24-hour precipitation amounts which began at no specified time. This detailed data, however, would be available for less than half of the state's precipitation recording stations and the cost of abstracting the information would be great. Such data would have to be taken from weighing gage charts which are not available for years prior to 1940.

An example of the different 24-hour extreme precipitation amounts obtained by the two different start-times (i.e., the amount attained with a specified beginning time and the greatest amount which fell during any 24-hour period within the month) is contained in the July 1966 issue of Climatological Data—Ohio (9). On July 12, 1966, Sandusky, Ohio, was swamped by torrential rains which began at about 2:00 a.m. and totaled 10.51 inches by 9:30 p.m. Rainfall amounts for the various periods are given in Table 3.

Since Sandusky's specified observing time is 7:30 a.m., the extreme 24-hour precipitation amount for July 1966 as listed in the above mentioned publication is 6.01 inches. This is a rare case but the point to remember when using the return period tables is that the true extreme for a specific month and return period as calculated from the "observational-day" values will usually be somewhat greater than the values shown.

TABLE 3.—Rainfall at Sandusky, Ohio, on July 12, 1966.

Time (E.S.T.)	Inches
0200 to 0730	6.01
0730 to 0920	2.98
0920 to 1010	.55
1010 to 1500	.27
1500 to 2130	.70
Total	10.51

Hershfield (3) has found that, on the average, the extreme precipitation amount in any 24-hour period is 13% greater than extreme precipitation amounts derived from fixed 24-hour periods such as 8 a.m. to 8 a.m. This average adjustment applies to the return period tables and not to individual 24-hour amounts. Return period values derived in this study have *not* been increased by 13%, even though all values were derived from fixed 24-hour periods.

Statistical distributions approximate the true distribution of a desired population, with more precision as the sample size increases. Of the 90 locations included in this study, 25 had less than 25 years of record available on punch cards, 51 had 25 to 50 years, and 14 had more than 50 years of daily precipitation data in machine processable form.

To check the representiveness of the return period tables, the authors compared the absolute[3] daily extreme precipitation amounts of record (see Figure 2) with the precipitation amounts associated with the various return periods for the month in which the record daily precipitation amount was recorded. Since many of Ohio's precipitation records go back to 1894, the record 24-hour rainfall should probably have a return period of at least 50 years. The record precipitation amounts were found to have return periods of longer than 50 years at 73 of the 90 locations.

The average length of record used in deriving the return period tables of the 17 locations (Barnesville, Celina, Chardon, Dorset, Eaton, Elyria, Franklin, Fremont, Hoytville, Marysville, Montpelier, Painesville, Pandora, Ravenna, Senecaville, Sidney, and Tom Jenkins Dam) where record daily precipitation amounts had return periods of less than 50 years was 17 years. Additional data will be needed from the above locations so that more precise return period tables can be prepared.

[3]Absolute extreme precipitation refers to the highest value actually recorded.

Since the absolute daily extreme precipitation amount of record may have occurred during any month, a monthly distribution of such values from locations throughout the state would show the most probable months of receiving the heaviest 24-hour rains. Such a distribution for the 73 locations whose absolute daily extreme precipitation amounts of record were found to exceed their annual 50-year return period values is given in Table 4. Table 5 shows for the same 73 locations the monthly distribution of the highest daily precipitation amount given in the 50-year column of the return period tables.

TABLE 4.—Monthly Distribution of Absolute Daily Extreme Precipitation Amounts of Record for 73 Ohio Locations.

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
5	1	6	1	1	14	19	11	11	3	1	0

TABLE 5.—Monthly Distribution for 73 Ohio Locations of the Highest Daily Precipitation Amounts Shown in the 50-Year Column of the Return Period Tables.

Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
4	0	4	0	1	20	23	10	8	2	1	0

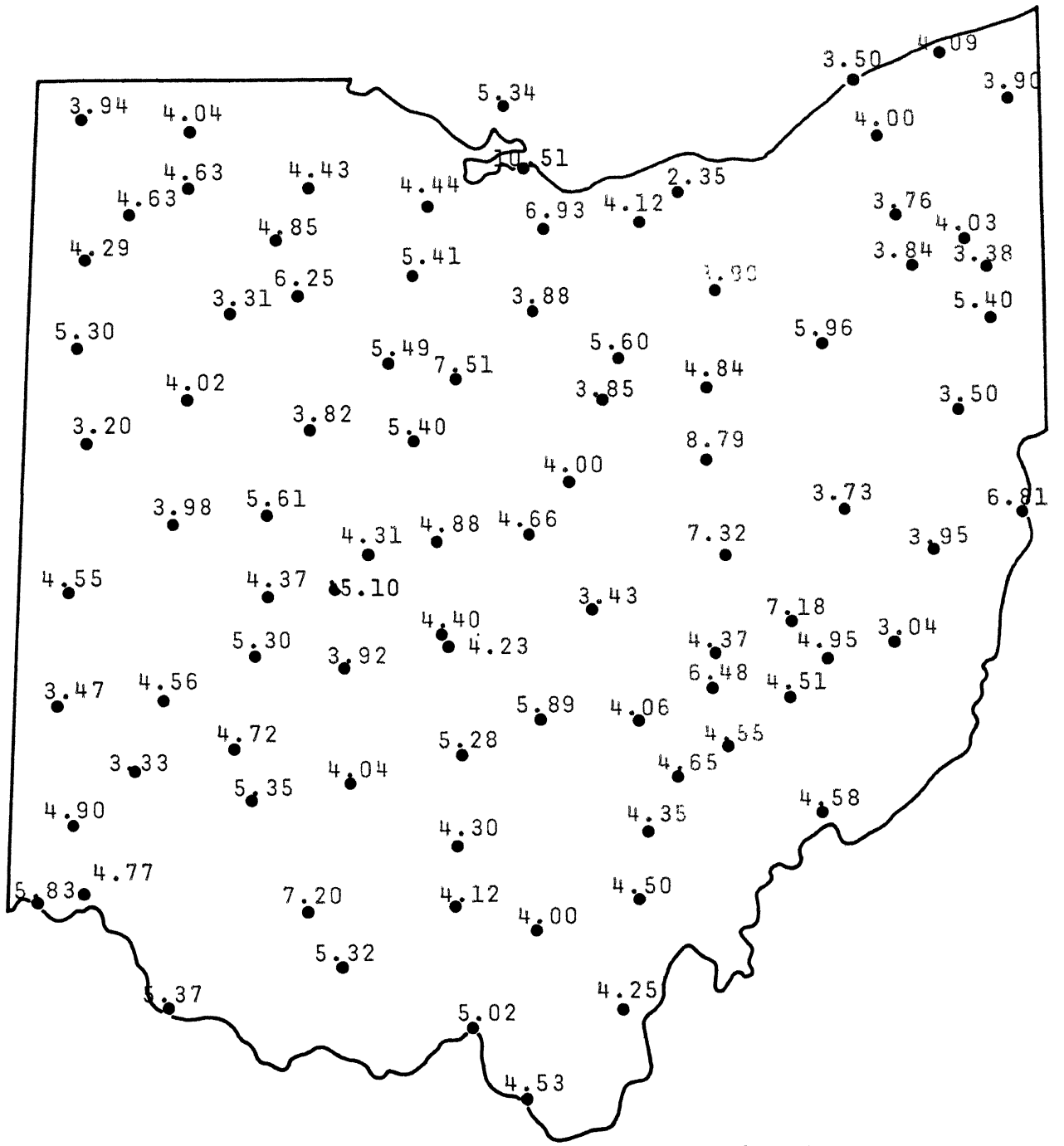


Fig. 2.—Absolute extreme daily precipitation amounts of record.

The two distributions are quite similar and show that the heaviest rains during the year are most likely to fall between June and September, the period of maximum thundershower activity. The rather high occurrence of daily extreme precipitation amounts in January can be attributed to a rather short period of record and the unusually heavy rains which fell over portions of southwest and central Ohio on January 20-21, 1959.

After inspecting several return period tables, there may be some question concerning the large differences between the extreme daily precipitation values in any month and similar values for the year. For example, at Athens the heaviest rain in any month with a mean return interval of 2 years is 1.28 inches (July), while the annual value is 2.02 inches. It must be remembered that an individual item in the series of annual extreme

Fig. 3.—Daily precipitation (inches) equaled or exceeded once in 5 years.

24-hour precipitation values had the choice of coming from any month. Over a period of years, the range of greatest daily precipitation values for the year is smaller than similar ranges for several of the warmer months (especially June and July).

Such distributions account for differences in the sizes of the standard deviations between annual and monthly daily extreme precipitation values. Because of these standard deviations, the differences between the monthly and annual 24-hour extreme precipitation amounts may increase or decrease as the return period becomes larger.

Figures 3, 4, and 5 show isopleths of daily extreme precipitation amounts with return periods of 5, 25, and 50 years, respectively. Return period values used in drawing these isohyetal lines were limited to those locations where return period tables were from at least 25 years of record.

Miller and Weaver (5) have shown that with

Fig. 4.—Daily precipitation (inches) equaled or exceeded once in 25 years.

the exception of northeast areas, there is a rather marked increase in annual precipitation from northern to southern Ohio and a noticeable but less important increase from western to eastern Ohio. A similar north to south increase is reflected in Figures 3, 4, and 5 but the west to east increase in 24-hour extreme precipitation is less apparent. If anything, the trend is reversed; i.e., there appears to be a west to east decrease in daily extreme precipitation amounts. The reason for this west to east decrease is not known but it may be due to the combination of topography with respect to available moisture and prevailing wind directions during convective storms. The relatively high daily extreme precipitation amounts over northeast Ohio are attributed to the increase in moisture of air as it moves across Lake Erie and the abrupt change in the temperature structure

Fig. 5.—Daily precipitation (inches) equaled or exceeded once in 50 years.

of the air near the earth's surface as it moves over the higher terrain near the shoreline.

Sporns (8) has presented 24-hour extreme precipitation maps with return periods of 5, 10, 25, and 50 years for the province of Ontario, Canada. Because of the prevailing southerly winds across Lake Erie during the warm months, daily extreme precipitation values along the Canadian shoreline opposite Ohio average about 0.5 inch more than similar return period values along Ohio's shoreline from Willoughby to Toledo. Only 30 percent of the cooperative weather stations in Ohio have recorded daily extreme precipitation amounts with annual return periods exceeding 100 years.

SUMMARY

Monthly and annual daily extreme precipitation tables for mean recurrence intervals of 2, 5, 10, 25, 50, and 100 years were computed for 90 Ohio locations. The theory of extreme values as presented by Chow (1) was used to make the various return period calculations. Daily precipitation data for this study came from ESSA's network of volunteer weather observers in Ohio. Results show the heaviest rains in 24 hours are most likely to occur during the months June through September and that amounts generally decrease with increasing latitude.

LITERATURE CITED

1. Chow, V. T. 1951. A general formula for hydrologic frequency analysis. Trans., Am. Geophys. Un., 32:231.
2. Gumbel, E. J. 1958. Statistics of extremes. Columbia University Press, New York.
3. Hershfield, D. M. or U. S. Dept. of Commerce, Weather Bureau. May 1961. Rainfall frequency atlas of the United States for durations from 30 minutes to 24-hours and return periods from 1 to 100 years. Weather Bureau, Tech. Paper 40.
4. Huschke, R. E. 1959. Glossary of meteorology. American Meteorol. Soc., Boston.
5. Miller, M. E. and C. R. Weaver. 1969. Monthly and annual precipitation probabilities for selected locations in Ohio. Ohio Agri. Res. and Dev. Center, Res. Bull. 1017.
6. Myers, V. A. Oct. 1967. Meteorological estimation of extreme precipitation for spillway design floods. U. S. Dept. of Commerce, Tech. Memo. WBTM-HYDRO-5, 29 pp.
7. Riedel, J. T., J. F. Appleby, and R. W. Schloemer. April 1956. Seasonal variation of the probable maximum precipitation east of the 105th meridian for areas 10 to 1000 square miles and durations of 6, 12, 24, and 48 hours. U. S. Dept. of Commerce, Weather Bureau, Hydrometeorological Report No. 33, 58 pp.
8. Sporns, U. Sept. 1963. Rainfall intensity-duration-frequency maps for Ontario. Canada Dept. of Transport, Meteorol. Br., Circ. 3895.
9. U. S. Dept. of Commerce, Environmental Science Services Admin. July 1966. Climatological data—Ohio, 71:81-100.
10. U. S. Dept. of Commerce, Weather Bureau. Rainfall intensity-frequency regime. Part 1—The Ohio Valley (1957); Part 5—Great Lakes Region (1960). Weather Bureau, Tech. Paper 29.
11. U. S. Dept. of Commerce, Weather Bureau. 1956. Substation history—Ohio. Key to meteorological records documentation No. 1.1.
12. Weaver, C. R. Feb. 1968. A source of Ohio weather data in machine processable form. Ohio Agri. Res. and Dev. Center, Agron. Dept. Series 204.
13. Weiss, L. L. March 1955. Nomogram based on the theory of extreme values for various return periods. Monthly Weather Review, 83:69-71.

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

AKRON CANTON AP 1949-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.81	1.51	1.97	2.56	2.99	3.42
.68	1.21	1.56	2.00	2.33	2.65
.79	1.50	1.97	2.57	3.01	3.44
.74	1.01	1.20	1.43	1.61	1.78
.89	1.50	1.90	2.40	2.78	3.15
.98	1.71	2.19	2.79	3.24	3.68
1.10	1.94	2.50	3.20	3.72	4.23
1.07	1.54	1.85	2.24	2.53	2.82
.85	1.46	1.86	2.37	2.75	3.12
.55	1.15	1.55	2.05	2.42	2.79
.69	1.18	1.50	1.91	2.21	2.51
.58	.85	1.03	1.26	1.43	1.60
2.02	2.76	3.24	3.86	4.31	4.76

ASHLAND 1936-1965

	2	5	10	25	50	100
JAN	.71	1.36	1.79	2.34	2.74	3.14
FEB	.63	1.06	1.35	1.71	1.98	2.25
MAR	.84	1.33	1.65	2.06	2.37	2.67
APR	.79	1.20	1.47	1.81	2.06	2.31
MAY	.98	1.50	1.84	2.28	2.60	2.92
JUN	1.11	1.58	1.88	2.27	2.56	2.84
JUL	1.18	1.96	2.49	3.14	3.63	4.12
AUG	1.08	1.63	1.99	2.45	2.80	3.14
SEP	1.02	1.72	2.18	2.76	3.19	3.62
OCT	.72	1.21	1.53	1.94	2.24	2.54
NOV	.69	1.25	1.63	2.09	2.44	2.79
DEC	.67	.99	1.20	1.46	1.66	1.86
ANN	2.00	2.67	3.12	3.68	4.09	4.51

ATHENS 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.79	1.32	1.67	2.11	2.44	2.76
.78	1.17	1.43	1.76	2.00	2.24
.92	1.39	1.70	2.09	2.39	2.68
.89	1.41	1.76	2.20	2.53	2.85
.99	1.56	1.93	2.41	2.76	3.11
1.01	1.63	2.03	2.55	2.93	3.30
1.28	1.80	2.15	2.58	2.91	3.23
1.20	2.06	2.63	3.35	3.88	4.41
1.07	1.94	2.51	3.24	3.78	4.31
.77	1.21	1.50	1.87	2.14	2.42
.69	1.00	1.21	1.46	1.65	1.84
.83	1.26	1.54	1.90	2.17	2.43
2.15	2.82	3.27	3.83	4.25	4.66

BARNESVILLE 1940-1965

	2	5	10	25	50	100
JAN	.75	1.20	1.49	1.86	2.13	2.40
FEB	.80	1.30	1.63	2.05	2.37	2.68
MAR	1.00	1.70	2.16	2.74	3.17	3.60
APR	1.01	1.51	1.84	2.26	2.57	2.88
MAY	1.25	1.89	2.32	2.86	3.26	3.66
JUN	1.19	1.66	1.97	2.37	2.66	2.95
JUL	1.13	1.64	1.98	2.41	2.72	3.04
AUG	1.15	1.78	2.20	2.73	3.13	3.52
SEP	1.00	1.60	2.00	2.50	2.87	3.24
OCT	.81	1.42	1.82	2.32	2.70	3.07
NOV	.84	1.21	1.46	1.77	2.00	2.23
DEC	.71	1.08	1.31	1.62	1.84	2.06
ANN	1.99	2.48	2.81	3.22	3.53	3.83

BELLEFONTAINE 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.72	1.52	2.05	2.72	3.22	3.71
.72	1.19	1.50	1.89	2.18	2.47
.81	1.29	1.62	2.02	2.33	2.63
.91	1.50	1.89	2.38	2.75	3.11
.87	1.33	1.64	2.03	2.31	2.59
1.12	1.89	2.40	3.05	3.53	4.01
1.17	1.74	2.12	2.59	2.95	3.30
1.15	2.06	2.65	3.41	3.97	4.53
.94	1.47	1.82	2.26	2.59	2.92
.79	1.33	1.68	2.13	2.46	2.78
.69	1.28	1.66	2.15	2.52	2.88
.65	1.02	1.26	1.56	1.79	2.01
2.10	2.78	3.23	3.80	4.22	4.64

BOWLING GREEN 1936-1965

	2	5	10	25	50	100
JAN	.64	1.12	1.45	1.85	2.16	2.46
FEB	.61	1.02	1.29	1.63	1.89	2.14
MAR	.80	1.32	1.67	2.10	2.43	2.75
APR	.93	1.56	1.99	2.52	2.92	3.31
MAY	.92	1.42	1.75	2.17	2.49	2.80
JUN	1.19	1.94	2.43	3.05	3.51	3.97
JUL	.97	1.69	2.16	2.76	3.21	3.65
AUG	.97	1.66	2.13	2.71	3.15	3.58
SEP	.88	1.56	2.02	2.60	3.03	3.45
OCT	.90	1.58	2.03	2.60	3.02	3.44
NOV	.62	.97	1.20	1.49	1.71	1.92
DEC	.59	.92	1.14	1.41	1.62	1.82
ANN	2.05	2.76	3.23	3.82	4.26	4.70

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

BUCYRUS 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.80	1.36	1.73	2.20	2.55	2.90
.77	1.34	1.71	2.18	2.53	2.88
.87	1.40	1.76	2.20	2.53	2.86
.82	1.26	1.55	1.92	2.19	2.47
.81	1.21	1.47	1.80	2.05	2.30
1.26	2.57	3.43	4.52	5.33	6.14
1.06	1.72	2.15	2.71	3.12	3.53
.97	1.57	1.97	2.47	2.85	3.22
.95	1.55	1.95	2.46	2.84	3.21
.75	1.22	1.53	1.93	2.22	2.52
.70	1.17	1.48	1.86	2.15	2.44
.63	.98	1.21	1.51	1.72	1.94
2.03	3.20	3.98	4.96	5.69	6.41

CADIZ 1904-1965

	2	5	10	25	50	100
JAN	.80	1.13	1.35	1.62	1.83	2.03
FEB	.72	1.08	1.32	1.62	1.84	2.06
MAR	.88	1.44	1.80	2.26	2.61	2.95
APR	.91	1.29	1.53	1.85	2.08	2.31
MAY	.86	1.25	1.51	1.83	2.07	2.31
JUN	1.27	1.89	2.30	2.82	3.21	3.59
JUL	1.37	1.99	2.39	2.91	3.29	3.67
AUG	1.10	1.72	2.13	2.64	3.03	3.41
SEP	1.12	1.82	2.29	2.88	3.32	3.75
OCT	.86	1.37	1.71	2.14	2.46	2.78
NOV	.82	1.32	1.66	2.08	2.39	2.70
DEC	.76	1.14	1.39	1.71	1.94	2.18
ANN	2.06	2.57	2.91	3.34	3.66	3.97

CALDWELL 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.77	1.15	1.41	1.73	1.97	2.21
.84	1.35	1.69	2.11	2.43	2.75
1.01	1.72	2.19	2.78	3.22	3.66
1.01	1.47	1.78	2.17	2.45	2.74
1.12	1.75	2.16	2.68	3.06	3.45
1.27	2.12	2.68	3.39	3.92	4.45
1.32	2.08	2.59	3.22	3.70	4.17
1.39	2.27	2.85	3.59	4.13	4.68
.87	1.29	1.57	1.92	2.18	2.44
.83	1.42	1.80	2.29	2.65	3.01
.76	1.22	1.52	1.90	2.18	2.46
.71	1.08	1.32	1.62	1.84	2.07
2.37	3.02	3.45	3.99	4.39	4.79

CAMBRIDGE 1936-1965

	2	5	10	25	50	100
JAN	.72	1.10	1.34	1.66	1.89	2.12
FEB	.78	1.36	1.74	2.23	2.59	2.95
MAR	1.00	1.80	2.33	3.00	3.50	3.99
APR	.90	1.43	1.79	2.24	2.57	2.90
MAY	.88	1.24	1.48	1.77	2.00	2.21
JUN	1.32	2.52	3.31	4.31	5.06	5.80
JUL	1.20	1.76	2.13	2.60	2.95	3.29
AUG	1.08	1.88	2.41	3.08	3.57	4.06
SEP	.91	1.55	1.98	2.52	2.92	3.31
OCT	.77	1.37	1.78	2.28	2.66	3.03
NOV	.82	1.32	1.64	2.06	2.36	2.67
DEC	.63	.94	1.14	1.39	1.58	1.77
ANN	2.24	3.32	4.04	4.95	5.62	6.29

CANFIELD 1917-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.59	1.00	1.27	1.61	1.86	2.11
.59	1.03	1.33	1.70	1.97	2.25
.67	.96	1.15	1.40	1.57	1.75
.78	1.10	1.31	1.58	1.78	1.98
.97	1.54	1.93	2.41	2.76	3.12
1.14	1.67	2.02	2.46	2.79	3.12
1.15	1.74	2.14	2.63	3.00	3.36
.95	1.51	1.87	2.33	2.68	3.02
.90	1.43	1.78	2.22	2.55	2.88
.75	1.29	1.65	2.11	2.45	2.78
.69	1.13	1.42	1.80	2.07	2.34
.57	.88	1.09	1.35	1.54	1.73
1.85	2.43	2.81	3.29	3.65	4.01

CARPENTER SE BRANCH OARDC 1938-1965

	2	5	10	25	50	100
JAN	.85	1.38	1.73	2.17	2.50	2.82
FEB	.79	1.29	1.62	2.04	2.35	2.65
MAR	.96	1.50	1.87	2.33	2.67	3.00
APR	1.01	1.68	2.13	2.69	3.11	3.53
MAY	1.18	1.66	1.97	2.37	2.67	2.97
JUN	1.13	1.97	2.52	3.22	3.75	4.26
JUL	1.26	1.92	2.36	2.92	3.34	3.75
AUG	1.18	2.03	2.58	3.29	3.81	4.33
SEP	1.10	1.68	2.05	2.53	2.88	3.24
OCT	.65	.97	1.19	1.46	1.67	1.87
NOV	.75	1.10	1.33	1.63	1.85	2.07
DEC	.76	1.32	1.69	2.16	2.50	2.84
ANN	2.15	2.94	3.46	4.11	4.60	5.08

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

CELINA 1957-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.73	1.59	2.15	2.87	3.40	3.93
.83	1.61	2.13	2.78	3.26	3.75
.77	1.41	1.83	2.37	2.76	3.15
1.13	2.09	2.73	3.54	4.13	4.73
.69	.97	1.16	1.39	1.57	1.74
1.07	2.04	2.68	3.50	4.10	4.70
1.28	1.92	2.35	2.89	3.29	3.68
.69	1.19	1.52	1.94	2.24	2.55
1.18	1.94	2.44	3.07	3.53	4.00
.73	1.26	1.60	2.04	2.36	2.69
.64	1.03	1.28	1.60	1.84	2.08
.53	.90	1.14	1.45	1.67	1.90
1.96	2.71	3.21	3.84	4.31	4.78

CENTERBURG 1951-1965

	2	5	10	25	50	100
JAN	.89	2.08	2.86	3.85	4.59	5.31
FEB	.83	1.49	1.93	2.48	2.89	3.30
MAR	.98	1.75	2.26	2.91	3.39	3.86
APR	.99	1.73	2.22	2.85	3.31	3.77
MAY	.93	1.40	1.71	2.10	2.39	2.68
JUN	1.29	1.88	2.27	2.77	3.13	3.49
JUL	1.28	1.88	2.28	2.79	3.17	3.54
AUG	1.06	1.80	2.29	2.91	3.38	3.84
SEP	.98	1.85	2.42	3.15	3.69	4.22
OCT	.63	1.23	1.62	2.12	2.49	2.86
NOV	.81	1.69	2.28	3.02	3.57	4.12
DEC	.68	1.02	1.24	1.53	1.74	1.94
ANN	2.36	3.31	3.93	4.73	5.32	5.90

CHARDON 1946-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.78	1.26	1.58	1.99	2.29	2.59
.73	1.20	1.51	1.91	2.20	2.50
.86	1.64	2.15	2.80	3.28	3.76
1.01	1.86	2.42	3.13	3.66	4.19
.89	1.40	1.74	2.17	2.49	2.80
1.20	1.94	2.42	3.04	3.50	3.95
1.09	1.55	1.86	2.25	2.54	2.82
1.21	2.22	2.89	3.73	4.36	4.98
.95	1.62	2.06	2.62	3.04	3.45
.92	1.75	2.30	2.99	3.51	4.02
1.05	1.58	1.93	2.38	2.71	3.04
.71	1.09	1.34	1.65	1.89	2.12
2.19	3.07	3.65	4.38	4.93	5.47

CHARLES MILL DAM 1939-1965

	2	5	10	25	50	100
JAN	.66	1.12	1.42	1.81	2.10	2.38
FEB	.76	1.23	1.54	1.93	2.22	2.51
MAR	.88	1.43	1.80	2.26	2.60	2.94
APR	.81	1.25	1.54	1.91	2.18	2.45
MAY	.92	1.49	1.87	2.34	2.70	3.05
JUN	1.13	1.95	2.50	3.19	3.71	4.22
JUL	1.25	1.93	2.38	2.95	3.37	3.79
AUG	1.02	1.66	2.08	2.62	3.01	3.40
SEP	.98	1.71	2.19	2.81	3.26	3.71
OCT	.65	1.17	1.52	1.96	2.28	2.61
NOV	.73	1.31	1.70	2.19	2.56	2.92
DEC	.59	.86	1.04	1.26	1.43	1.59
ANN	2.09	2.80	3.26	3.85	4.29	4.72

CHILLICOTHE 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.83	1.38	1.74	2.20	2.54	2.88
.76	1.22	1.52	1.90	2.18	2.46
1.06	1.98	2.59	3.36	3.93	4.49
.99	1.60	2.01	2.53	2.91	3.29
.94	1.36	1.64	1.99	2.25	2.51
1.02	1.62	2.02	2.52	2.89	3.26
1.22	1.82	2.21	2.71	3.08	3.45
.96	1.71	2.21	2.84	3.31	3.78
1.08	1.94	2.50	3.22	3.75	4.27
.75	1.24	1.56	1.97	2.28	2.58
.74	1.12	1.37	1.69	1.92	2.16
.85	1.38	1.73	2.17	2.50	2.82
2.20	3.05	3.61	4.33	4.86	5.38

CHILO 1938-1965

	2	5	10	25	50	100
JAN	.82	1.17	1.40	1.69	1.91	2.12
FEB	.94	1.54	1.94	2.44	2.81	3.18
MAR	1.33	2.31	2.95	3.77	4.37	4.97
APR	1.10	1.96	2.53	3.25	3.78	4.31
MAY	.97	1.74	2.25	2.90	3.37	3.85
JUN	1.19	1.93	2.43	3.05	3.51	3.96
JUL	1.26	2.23	2.86	3.67	4.27	4.86
AUG	1.19	2.07	2.66	3.41	3.96	4.51
SEP	1.04	2.03	2.69	3.52	4.13	4.74
OCT	.79	1.31	1.66	2.10	2.42	2.74
NOV	.89	1.47	1.85	2.34	2.70	3.06
DEC	.79	1.44	1.88	2.42	2.83	3.23
ANN	2.53	3.58	4.28	5.16	5.82	6.47

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

CHIPPEWA LAKE 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.70	1.14	1.43	1.79	2.06	2.33	JAN
.67	1.16	1.49	1.90	2.21	2.51	FEB
.75	1.15	1.42	1.75	2.00	2.25	MAR
.80	1.14	1.37	1.66	1.87	2.08	APR
1.02	1.71	2.17	2.74	3.17	3.59	MAY
1.26	2.02	2.52	3.16	3.63	4.10	JUN
1.18	1.83	2.25	2.79	3.19	3.59	JUL
1.06	1.56	1.89	2.30	2.61	2.92	AUG
.91	1.29	1.54	1.85	2.09	2.32	SEP
.77	1.32	1.69	2.15	2.49	2.83	OCT
.70	1.17	1.48	1.88	2.17	2.47	NOV
.63	.89	1.07	1.30	1.46	1.63	DEC
1.89	2.51	2.92	3.43	3.82	4.20	ANN

CINCINNATI 1916-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.99	1.65	2.09	2.64	3.05	3.46	JAN
.77	1.25	1.58	1.98	2.28	2.58	FEB
1.05	1.86	2.40	3.08	3.58	4.08	MAR
1.03	1.56	1.90	2.34	2.66	2.98	APR
1.04	1.75	2.22	2.82	3.26	3.70	MAY
1.11	1.74	2.16	2.69	3.08	3.47	JUN
1.19	1.99	2.53	3.20	3.70	4.19	JUL
1.08	1.78	2.24	2.82	3.25	3.68	AUG
1.04	1.50	1.81	2.20	2.49	2.78	SEP
.81	1.24	1.53	1.89	2.16	2.43	OCT
.87	1.37	1.70	2.12	2.43	2.74	NOV
.90	1.42	1.77	2.21	2.54	2.86	DEC
2.28	3.02	3.50	4.12	4.57	5.03	ANN

CIRCLEVILLE 1942-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.79	1.38	1.77	2.27	2.63	3.00	JAN
.78	1.17	1.43	1.75	2.00	2.24	FEB
1.05	1.98	2.61	3.39	3.98	4.56	MAR
1.02	1.60	1.99	2.47	2.83	3.19	APR
1.00	1.50	1.84	2.26	2.57	2.88	MAY
1.11	1.63	1.98	2.42	2.75	3.07	JUN
1.48	2.48	3.15	3.99	4.61	5.23	JUL
.96	1.76	2.29	2.96	3.46	3.95	AUG
1.12	1.78	2.22	2.78	3.19	3.60	SEP
.64	1.03	1.28	1.61	1.85	2.08	OCT
.72	1.09	1.34	1.64	1.87	2.10	NOV
.72	1.15	1.43	1.79	2.06	2.32	DEC
2.21	3.14	3.76	4.54	5.12	5.69	ANN

COLUMBUS OSU 1894-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.78	1.36	1.74	2.22	2.58	2.93	JAN
.65	1.02	1.27	1.59	1.82	2.05	FEB
.96	1.65	2.11	2.69	3.11	3.54	MAR
.85	1.21	1.45	1.75	1.98	2.20	APR
.96	1.42	1.73	2.12	2.41	2.70	MAY
1.11	1.80	2.26	2.84	3.27	3.69	JUN
1.16	1.75	2.14	2.63	3.00	3.36	JUL
1.09	1.69	2.09	2.60	2.97	3.34	AUG
.89	1.43	1.78	2.23	2.56	2.89	SEP
.70	1.14	1.44	1.81	2.09	2.37	OCT
.76	1.18	1.47	1.82	2.08	2.35	NOV
.75	1.06	1.27	1.53	1.73	1.92	DEC
2.03	2.70	3.15	3.71	4.13	4.54	ANN

COLUMBUS CITY 1893-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.74	1.33	1.73	2.22	2.59	2.95	JAN
.64	1.01	1.25	1.56	1.79	2.01	FEB
.90	1.55	1.99	2.54	2.95	3.36	MAR
.82	1.21	1.48	1.81	2.05	2.29	APR
.88	1.33	1.62	1.99	2.27	2.54	MAY
1.04	1.60	1.97	2.44	2.79	3.13	JUN
1.09	1.76	2.21	2.77	3.18	3.60	JUL
1.01	1.58	1.97	2.45	2.81	3.16	AUG
.85	1.36	1.69	2.12	2.43	2.75	SEP
.68	1.16	1.48	1.88	2.18	2.47	OCT
.73	1.14	1.41	1.76	2.01	2.27	NOV
.70	1.02	1.23	1.49	1.69	1.89	DEC
1.96	2.61	3.04	3.58	3.98	4.38	ANN

COSHOCTON 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.81	1.44	1.86	2.39	2.79	3.18	JAN
.75	1.24	1.57	1.99	2.30	2.61	FEB
.93	1.65	2.12	2.73	3.17	3.62	MAR
.99	1.47	1.78	2.18	2.48	2.78	APR
1.02	1.90	2.48	3.21	3.76	4.30	MAY
1.17	1.86	2.31	2.88	3.30	3.72	JUN
1.38	2.11	2.60	3.21	3.67	4.12	JUL
1.16	1.98	2.53	3.21	3.72	4.23	AUG
.88	1.53	1.97	2.51	2.91	3.31	SEP
.80	1.37	1.74	2.22	2.57	2.92	OCT
.81	1.33	1.67	2.10	2.43	2.74	NOV
.74	1.07	1.29	1.57	1.77	1.97	DEC
2.30	3.14	3.70	4.41	4.93	5.45	ANN

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

DAYTON 1934-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.82	1.59	2.09	2.73	3.21	3.68
.84	1.30	1.60	1.99	2.28	2.56
1.01	1.70	2.15	2.73	3.15	3.58
.99	1.52	1.87	2.31	2.63	2.96
.93	1.37	1.67	2.04	2.32	2.59
1.15	1.78	2.19	2.71	3.10	3.49
1.10	1.68	2.07	2.56	2.92	3.28
1.11	1.86	2.35	2.98	3.44	3.90
1.04	1.52	1.84	2.24	2.54	2.83
.76	1.20	1.50	1.87	2.15	2.42
.86	1.59	2.07	2.68	3.13	3.58
.77	1.25	1.57	1.97	2.26	2.56
2.14	2.69	3.06	3.52	3.86	4.20

DEFIANCE 1936-1965

2	5	10	25	50	100
JAN	.64	1.13	1.44	1.85	2.14	2.44
FEB	.71	1.09	1.34	1.67	1.91	2.14
MAR	.82	1.28	1.58	1.96	2.25	2.53
APR	.96	1.55	1.95	2.45	2.82	3.19
MAY	.92	1.44	1.78	2.21	2.53	2.85
JUN	1.32	2.00	2.46	3.04	3.47	3.89
JUL	1.05	1.50	1.80	2.17	2.45	2.73
AUG	.94	1.51	1.89	2.37	2.73	3.08
SEP	.86	1.54	1.99	2.56	2.98	3.40
OCT	.82	1.46	1.88	2.41	2.81	3.20
NOV	.71	1.08	1.32	1.62	1.85	2.07
DEC	.57	.90	1.12	1.40	1.61	1.81
ANN	1.97	2.45	2.76	3.16	3.46	3.75

DELAWARE 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.74	1.33	1.72	2.21	2.57	2.93
.73	1.21	1.54	1.94	2.24	2.55
.95	1.55	1.94	2.43	2.80	3.17
.90	1.45	1.81	2.27	2.61	2.95
.85	1.23	1.49	1.81	2.04	2.28
1.30	2.35	3.05	3.93	4.58	5.23
1.12	1.70	2.08	2.56	2.92	3.28
1.08	1.82	2.31	2.92	3.38	3.83
.99	1.45	1.75	2.14	2.42	2.70
.71	1.21	1.55	1.97	2.29	2.60
.74	1.43	1.89	2.47	2.91	3.33
.69	1.04	1.27	1.56	1.77	1.99
2.20	3.00	3.52	4.19	4.68	5.17

DENNISON 1937-1965

2	5	10	25	50	100
JAN	.74	1.21	1.52	1.92	2.21	2.50
FEB	.74	1.28	1.63	2.07	2.40	2.73
MAR	.84	1.39	1.75	2.21	2.56	2.90
APR	.92	1.40	1.71	2.11	2.41	2.70
MAY	1.05	1.65	2.04	2.54	2.91	3.27
JUN	1.29	1.85	2.23	2.69	3.04	3.39
JUL	1.14	1.85	2.33	2.92	3.37	3.81
AUG	1.18	1.85	2.29	2.85	3.27	3.68
SEP	.97	1.77	2.30	2.98	3.47	3.97
OCT	.74	1.24	1.56	1.98	2.29	2.60
NOV	.74	1.14	1.40	1.73	1.97	2.21
DEC	.70	1.04	1.27	1.55	1.76	1.97
ANN	2.12	2.64	2.98	3.41	3.73	4.05

DORSET 1957-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.83	1.31	1.64	2.04	2.34	2.64
.72	1.32	1.72	2.22	2.60	2.96
.56	1.12	1.50	1.98	2.33	2.68
.80	1.17	1.41	1.72	1.95	2.18
.80	1.16	1.40	1.70	1.93	2.15
1.28	2.18	2.77	3.52	4.08	4.64
1.33	1.93	2.33	2.84	3.22	3.59
1.01	1.96	2.60	3.40	3.99	4.58
1.19	1.89	2.35	2.94	3.37	3.80
.90	2.11	2.91	3.93	4.68	5.42
.91	1.51	1.90	2.40	2.78	3.14
.56	.84	1.03	1.26	1.44	1.61
2.10	3.09	3.74	4.56	5.17	5.78

EATON 1955-1965

2	5	10	25	50	100
JAN	.85	1.64	2.17	2.83	3.32	3.81
FEB	.89	1.41	1.75	2.19	2.51	2.83
MAR	.99	1.84	2.40	3.11	3.63	4.15
APR	1.17	2.07	2.66	3.40	3.95	4.50
MAY	1.02	1.69	2.14	2.70	3.11	3.52
JUN	1.11	2.30	3.09	4.09	4.84	5.57
JUL	1.19	1.86	2.31	2.87	3.29	3.70
AUG	1.06	1.57	1.91	2.35	2.66	2.98
SEP	.91	1.90	2.56	3.39	4.00	4.61
OCT	.80	1.44	1.87	2.40	2.80	3.19
NOV	.73	1.11	1.37	1.68	1.92	2.15
DEC	.74	1.28	1.65	2.10	2.44	2.77
ANN	2.34	3.06	3.55	4.15	4.61	5.05

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

ELYRIA 1950-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.73	1.31	1.69	2.17	2.53	2.89
.71	1.30	1.69	2.18	2.54	2.90
.73	1.17	1.46	1.83	2.10	2.37
.95	1.56	1.97	2.48	2.86	3.24
.87	1.41	1.77	2.22	2.56	2.89
.92	1.38	1.68	2.06	2.35	2.63
.88	1.38	1.72	2.14	2.46	2.77
1.02	1.52	1.85	2.26	2.57	2.88
1.03	1.51	1.83	2.23	2.53	2.82
.81	1.37	1.75	2.22	2.57	2.91
.92	1.66	2.16	2.79	3.25	3.71
.63	1.04	1.30	1.64	1.89	2.14
1.76	2.16	2.43	2.77	3.02	3.27

FERNBANK DAM 1950-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	1.03	1.57	1.92	2.37	2.70	3.03
FEB	.85	1.42	1.79	2.27	2.62	2.97
MAR	.97	1.83	2.40	3.12	3.66	4.19
APR	.84	1.39	1.76	2.22	2.56	2.90
MAY	1.08	2.12	2.80	3.67	4.32	4.96
JUN	1.29	1.90	2.30	2.81	3.19	3.57
JUL	1.50	2.50	3.16	4.00	4.62	5.24
AUG	1.07	2.05	2.70	3.51	4.12	4.72
SEP	.97	1.66	2.11	2.68	3.11	3.53
OCT	.98	1.52	1.88	2.34	2.68	3.01
NOV	.83	1.31	1.63	2.03	2.33	2.63
DEC	.82	1.22	1.49	1.83	2.08	2.33
ANN	2.47	3.11	3.53	4.06	4.46	4.85

FINDLAY 1936-1969

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.70	1.24	1.60	2.05	2.38	2.71
.76	1.31	1.67	2.12	2.46	2.80
.84	1.39	1.75	2.20	2.54	2.88
.97	1.42	1.72	2.10	2.38	2.65
.97	1.53	1.91	2.38	2.73	3.08
1.35	2.14	2.66	3.32	3.81	4.29
1.15	1.90	2.39	3.01	3.47	3.93
.95	1.40	1.69	2.06	2.34	2.61
1.00	2.19	2.98	3.97	4.70	5.44
.96	1.70	2.19	2.81	3.27	3.72
.74	1.26	1.61	2.04	2.37	2.69
.60	.95	1.17	1.46	1.68	1.89
2.18	3.21	3.89	4.75	5.39	6.02

FRANKLIN 1953-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.93	1.67	2.15	2.77	3.22	3.67
FEB	.76	1.14	1.39	1.71	1.94	2.18
MAR	.85	1.79	2.42	3.21	3.79	4.37
APR	1.04	1.74	2.20	2.78	3.21	3.64
MAY	1.13	1.97	2.53	3.24	3.77	4.29
JUN	.99	1.83	2.39	3.09	3.61	4.13
JUL	1.32	2.19	2.76	3.48	4.02	4.55
AUG	.99	1.67	2.12	2.69	3.11	3.52
SEP	1.06	1.88	2.43	3.12	3.62	4.13
OCT	.62	1.11	1.43	1.84	2.14	2.45
NOV	.75	1.12	1.36	1.67	1.89	2.12
DEC	.70	1.08	1.33	1.65	1.89	2.12
ANN	2.35	3.01	3.45	4.00	4.41	4.81

FREDRICKTOWN 1948-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.88	1.61	2.09	2.70	3.15	3.60
.83	1.40	1.78	2.25	2.61	2.96
.84	1.52	1.98	2.55	2.98	3.40
.94	1.48	1.83	2.28	2.61	2.94
.80	1.29	1.62	2.03	2.33	2.63
1.13	1.94	2.48	3.16	3.67	4.17
1.16	1.62	1.92	2.30	2.58	2.86
1.02	1.75	2.23	2.84	3.29	3.74
.79	1.34	1.70	2.16	2.49	2.83
.64	1.04	1.31	1.66	1.91	2.16
.77	1.36	1.75	2.24	2.60	2.97
.69	1.11	1.38	1.74	2.00	2.25
1.98	2.69	3.16	3.76	4.20	4.64

FREMONT 1953-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.65	1.16	1.50	1.93	2.25	2.57
FEB	.74	1.29	1.65	2.10	2.43	2.77
MAR	.63	1.15	1.50	1.94	2.26	2.58
APR	.89	1.27	1.52	1.85	2.08	2.32
MAY	.84	1.49	1.93	2.47	2.88	3.28
JUN	.91	1.62	2.09	2.69	3.13	3.57
JUL	1.09	2.50	3.43	4.61	5.49	6.35
AUG	1.10	1.59	1.91	2.31	2.61	2.91
SEP	.72	1.16	1.44	1.81	2.08	2.35
OCT	.61	1.18	1.56	2.03	2.39	2.74
NOV	.65	1.17	1.51	1.95	2.27	2.59
DEC	.52	.85	1.06	1.34	1.54	1.74
ANN	1.86	2.98	3.72	4.66	5.35	6.04

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

GALLIPOLIS 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.95	1.44	1.77	2.19	2.50	2.80	JAN
.92	1.50	1.88	2.37	2.73	3.08	FEB
.92	1.49	1.86	2.33	2.68	3.03	MAR
1.08	1.81	2.29	2.90	3.36	3.80	APR
.99	1.42	1.70	2.06	2.33	2.59	MAY
1.04	1.61	1.98	2.46	2.81	3.16	JUN
1.29	1.96	2.40	2.96	3.38	3.79	JUL
1.27	2.08	2.61	3.29	3.79	4.29	AUG
1.07	1.66	2.05	2.54	2.91	3.27	SEP
.69	1.08	1.33	1.66	1.89	2.13	OCT
.77	1.19	1.48	1.84	2.10	2.37	NOV
.81	1.26	1.55	1.92	2.19	2.47	DEC
2.22	2.84	3.24	3.76	4.14	4.51	ANN

GENEVA 1944-1965

2	5	10	25	50	100
.68	1.05	1.29	1.60	1.82	2.05
.70	1.16	1.47	1.86	2.14	2.43
.75	1.27	1.61	2.05	2.37	2.69
.99	1.50	1.84	2.27	2.59	2.90
1.02	1.60	1.99	2.47	2.83	3.19
1.09	1.66	2.04	2.51	2.86	3.21
1.14	1.66	2.00	2.44	2.76	3.09
1.13	1.77	2.19	2.72	3.12	3.51
1.13	1.96	2.51	3.21	3.73	4.24
.92	1.86	2.48	3.27	3.86	4.44
.90	1.40	1.74	2.16	2.47	2.78
.67	1.10	1.39	1.75	2.02	2.28
2.15	2.77	3.18	3.69	4.08	4.46

GREENVILLE 1894-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.91	1.49	1.88	2.37	2.73	3.09	JAN
.73	1.17	1.46	1.82	2.09	2.36	FEB
1.03	1.68	2.11	2.65	3.05	3.45	MAR
.99	1.54	1.90	2.36	2.70	3.04	APR
.95	1.46	1.79	2.22	2.53	2.84	MAY
1.29	2.15	2.72	3.44	3.98	4.51	JUN
1.17	1.89	2.37	2.97	3.41	3.85	JUL
1.00	1.56	1.93	2.40	2.75	3.09	AUG
1.03	1.74	2.20	2.80	3.24	3.67	SEP
.85	1.40	1.76	2.22	2.56	2.89	OCT
.81	1.29	1.61	2.02	2.32	2.62	NOV
.76	1.16	1.42	1.75	1.99	2.23	DEC
2.27	3.05	3.57	4.22	4.71	5.19	ANN

HAMILTON 1936-1965

2	5	10	25	50	100
1.00	1.99	2.65	3.48	4.09	4.70
.84	1.34	1.67	2.09	2.40	2.70
1.02	1.89	2.47	3.21	3.75	4.29
1.05	1.75	2.21	2.80	3.24	3.67
.96	1.52	1.89	2.36	2.71	3.06
1.20	1.84	2.26	2.79	3.18	3.57
1.28	2.23	2.86	3.66	4.26	4.84
.92	1.47	1.84	2.30	2.64	2.98
1.04	1.85	2.39	3.06	3.57	4.07
.79	1.29	1.62	2.03	2.34	2.64
.84	1.45	1.85	2.36	2.74	3.11
.87	1.49	1.90	2.43	2.81	3.20
2.55	3.48	4.09	4.86	5.43	6.00

HILLSBORO 1894-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.90	1.33	1.61	1.96	2.22	2.48	JAN
.84	1.33	1.65	2.05	2.36	2.66	FEB
1.17	2.02	2.58	3.29	3.82	4.34	MAR
1.01	1.56	1.93	2.39	2.73	3.07	APR
1.02	1.68	2.12	2.67	3.08	3.49	MAY
1.18	1.76	2.15	2.64	3.00	3.36	JUN
1.30	2.44	3.19	4.15	4.85	5.55	JUL
1.26	1.88	2.29	2.81	3.20	3.59	AUG
1.10	1.78	2.23	2.80	3.23	3.65	SEP
.87	1.42	1.79	2.25	2.59	2.93	OCT
.87	1.32	1.62	2.00	2.28	2.56	NOV
.91	1.34	1.62	1.98	2.25	2.51	DEC
2.37	3.35	4.00	4.83	5.43	6.04	ANN

HIRAM 1894-1965

2	5	10	25	50	100
.74	1.13	1.39	1.72	1.96	2.20
.61	1.00	1.26	1.58	1.83	2.07
.77	1.18	1.45	1.79	2.05	2.30
.87	1.26	1.52	1.84	2.08	2.32
.92	1.36	1.65	2.01	2.28	2.55
1.08	1.51	1.80	2.16	2.43	2.70
1.09	1.56	1.88	2.28	2.57	2.87
1.01	1.64	2.06	2.59	2.98	3.37
.97	1.51	1.88	2.33	2.67	3.01
.87	1.43	1.80	2.27	2.62	2.97
.80	1.21	1.49	1.84	2.10	2.36
.69	.99	1.19	1.43	1.62	1.80
1.80	2.32	2.66	3.10	3.42	3.74

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

HOYTVILLE 1953-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.66	1.23	1.61	2.08	2.44	2.79
.65	1.20	1.56	2.02	2.36	2.70
.60	.98	1.24	1.57	1.81	2.05
.87	1.29	1.58	1.93	2.19	2.46
.75	1.21	1.52	1.91	2.20	2.48
1.22	1.76	2.11	2.56	2.90	3.23
1.24	1.87	2.28	2.80	3.19	3.58
1.00	1.72	2.20	2.81	3.25	3.70
1.09	2.43	3.32	4.45	5.29	6.11
.72	1.52	2.05	2.72	3.21	3.70
.73	1.47	1.97	2.59	3.05	3.51
.54	.98	1.27	1.64	1.91	2.18
2.04	3.13	3.84	4.75	5.42	6.09

IRONTON 1894-1965

	2	5	10	25	50	100
JAN	.97	1.39	1.67	2.02	2.28	2.54
FEB	.85	1.29	1.58	1.95	2.23	2.50
MAR	1.10	1.65	2.02	2.48	2.82	3.16
APR	.95	1.48	1.83	2.28	2.61	2.94
MAY	1.03	1.54	1.88	2.31	2.62	2.94
JUN	1.28	1.95	2.39	2.95	3.36	3.77
JUL	1.37	2.07	2.53	3.11	3.54	3.96
AUG	1.20	1.88	2.32	2.89	3.31	3.73
SEP	.97	1.50	1.85	2.29	2.62	2.94
OCT	.79	1.27	1.60	2.00	2.30	2.60
NOV	.83	1.30	1.62	2.01	2.30	2.60
DEC	.87	1.26	1.52	1.85	2.09	2.34
ANN	2.16	2.78	3.19	3.71	4.09	4.47

IRWIN 1942-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.86	1.92	2.61	3.50	4.15	4.80
.82	1.42	1.82	2.32	2.70	3.07
1.03	1.70	2.14	2.69	3.10	3.51
.94	1.40	1.70	2.08	2.36	2.64
1.04	1.43	1.69	2.02	2.26	2.50
1.13	1.83	2.30	2.88	3.32	3.75
1.23	1.76	2.11	2.55	2.87	3.20
1.08	1.78	2.24	2.83	3.26	3.69
.97	1.49	1.84	2.29	2.61	2.94
.68	1.06	1.31	1.63	1.86	2.10
.80	1.40	1.80	2.31	2.68	3.05
.69	1.05	1.29	1.60	1.82	2.04
2.06	2.88	3.42	4.11	4.62	5.12

JACKSON 1936-1965

	2	5	10	25	50	100
JAN	.94	1.38	1.67	2.03	2.31	2.58
FEB	.84	1.40	1.78	2.26	2.61	2.96
MAR	1.10	1.75	2.18	2.73	3.13	3.54
APR	.98	1.59	1.99	2.51	2.89	3.26
MAY	1.03	1.46	1.75	2.12	2.39	2.66
JUN	1.05	1.71	2.14	2.69	3.10	3.50
JUL	1.23	2.02	2.55	3.22	3.71	4.20
AUG	1.13	1.68	2.04	2.50	2.84	3.18
SEP	1.08	1.91	2.46	3.15	3.67	4.18
OCT	.77	1.28	1.62	2.05	2.36	2.68
NOV	.75	1.20	1.50	1.88	2.16	2.44
DEC	.86	1.45	1.84	2.33	2.70	3.06
ANN	2.29	2.97	3.42	4.00	4.42	4.84

KENTON 1894-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.73	1.20	1.52	1.92	2.21	2.51
.61	.98	1.23	1.53	1.76	1.99
.85	1.41	1.78	2.25	2.60	2.94
.85	1.36	1.70	2.12	2.44	2.75
.90	1.39	1.71	2.12	2.43	2.73
1.23	1.98	2.47	3.10	3.56	4.02
1.16	1.76	2.15	2.66	3.03	3.40
1.04	1.61	2.00	2.48	2.84	3.19
1.02	1.69	2.13	2.69	3.10	3.51
.79	1.36	1.73	2.20	2.56	2.90
.76	1.22	1.53	1.93	2.22	2.50
.68	.97	1.17	1.42	1.61	1.79
2.10	2.70	3.10	3.61	3.98	4.35

LANCASTER 1936-1965

	2	5	10	25	50	100
JAN	.76	1.26	1.58	2.00	2.31	2.61
FEB	.76	1.19	1.47	1.83	2.09	2.35
MAR	1.06	2.01	2.63	3.42	4.01	4.59
APR	.96	1.60	2.02	2.55	2.95	3.34
MAY	1.00	1.44	1.72	2.08	2.35	2.62
JUN	1.16	1.86	2.32	2.90	3.33	3.76
JUL	1.23	1.88	2.32	2.87	3.28	3.68
AUG	1.12	2.01	2.60	3.35	3.90	4.45
SEP	.97	2.01	2.70	3.56	4.21	4.85
OCT	.71	1.13	1.41	1.76	2.02	2.28
NOV	.74	1.23	1.55	1.96	2.27	2.57
DEC	.77	1.11	1.34	1.63	1.84	2.05
ANN	2.37	3.27	3.87	4.62	5.19	5.74

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

LIMA 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.74	1.33	1.72	2.22	2.58	2.94
FEB	.79	1.31	1.66	2.09	2.42	2.74
MAR	.90	1.45	1.81	2.27	2.60	2.94
APR	.90	1.37	1.69	2.09	2.39	2.68
MAY	.93	1.41	1.73	2.14	2.44	2.74
JUN	1.09	1.62	1.97	2.42	2.75	3.08
JUL	.99	1.45	1.75	2.14	2.43	2.71
AUG	1.11	1.73	2.14	2.65	3.04	3.42
SEP	.96	1.82	2.40	3.12	3.66	4.19
OCT	.89	1.49	1.89	2.39	2.76	3.13
NOV	.80	1.29	1.61	2.02	2.33	2.63
DEC	.62	1.00	1.25	1.57	1.81	2.04
ANN	1.86	2.44	2.82	3.30	3.66	4.01

LONDON 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.85	1.61	2.12	2.76	3.23	3.70
FEB	.80	1.18	1.43	1.74	1.98	2.21
MAR	.97	1.81	2.36	3.07	3.59	4.11
APR	.98	1.45	1.76	2.16	2.45	2.75
MAY	.98	1.46	1.78	2.19	2.49	2.78
JUN	1.13	1.94	2.48	3.16	3.67	4.17
JUL	1.29	2.03	2.52	3.14	3.60	4.06
AUG	.93	1.53	1.92	2.42	2.79	3.16
SEP	1.04	1.58	1.94	2.39	2.72	3.06
OCT	.73	1.20	1.51	1.91	2.20	2.49
NOV	.81	1.39	1.78	2.26	2.63	2.98
DEC	.79	1.17	1.42	1.74	1.98	2.22
ANN	2.27	2.91	3.33	3.87	4.27	4.66

MARIETTA 1948-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.80	1.16	1.39	1.69	1.92	2.14
FEB	.85	1.26	1.54	1.88	2.14	2.39
MAR	.85	1.25	1.52	1.85	2.10	2.35
APR	.97	1.63	2.07	2.62	3.03	3.44
MAY	.87	1.27	1.53	1.86	2.11	2.35
JUN	1.16	1.74	2.13	2.61	2.97	3.33
JUL	1.28	1.64	1.88	2.17	2.39	2.61
AUG	1.24	2.26	2.94	3.81	4.44	5.08
SEP	1.09	1.73	2.15	2.69	3.09	3.48
OCT	.73	1.42	1.89	2.47	2.90	3.33
NOV	.69	1.02	1.23	1.51	1.71	1.92
DEC	.80	1.25	1.56	1.94	2.22	2.50
ANN	2.02	2.82	3.36	4.03	4.53	5.03

MARION 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.80	1.55	2.04	2.66	3.12	3.58
FEB	.71	1.17	1.47	1.85	2.13	2.41
MAR	.93	1.55	1.96	2.47	2.86	3.24
APR	.83	1.36	1.72	2.16	2.49	2.82
MAY	.86	1.09	1.25	1.45	1.60	1.75
JUN	1.20	2.14	2.75	3.53	4.11	4.69
JUL	.99	1.45	1.75	2.13	2.41	2.69
AUG	1.04	1.75	2.22	2.81	3.25	3.69
SEP	.94	1.64	2.11	2.70	3.13	3.56
OCT	.81	1.42	1.82	2.34	2.72	3.09
NOV	.73	1.27	1.63	2.08	2.41	2.75
DEC	.59	1.02	1.30	1.65	1.92	2.18
ANN	1.99	2.86	3.43	4.16	4.69	5.22

MARYSVILLE 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.75	1.38	1.80	2.32	2.71	3.10
FEB	.74	1.23	1.55	1.96	2.27	2.57
MAR	.97	1.56	1.95	2.44	2.80	3.16
APR	.93	1.52	1.91	2.40	2.77	3.13
MAY	.87	1.35	1.67	2.08	2.38	2.67
JUN	1.28	2.29	2.97	3.81	4.44	5.06
JUL	1.17	1.75	2.13	2.62	2.98	3.34
AUG	1.04	1.68	2.11	2.65	3.04	3.44
SEP	1.07	1.58	1.91	2.34	2.65	2.96
OCT	.76	1.34	1.72	2.21	2.57	2.92
NOV	.74	1.30	1.66	2.13	2.47	2.82
DEC	.67	1.02	1.25	1.54	1.76	1.97
ANN	2.15	2.82	3.26	3.82	4.24	4.65

MC CONNELSVILLE 1894-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.85	1.21	1.45	1.76	1.99	2.21
FEB	.80	1.20	1.46	1.80	2.05	2.29
MAR	.99	1.51	1.86	2.30	2.62	2.95
APR	.95	1.42	1.73	2.12	2.41	2.70
MAY	1.01	1.45	1.74	2.10	2.37	2.64
JUN	1.15	1.73	2.10	2.58	2.94	3.29
JUL	1.27	1.98	2.45	3.04	3.48	3.92
AUG	1.09	1.68	2.07	2.56	2.93	3.29
SEP	1.00	1.61	2.02	2.54	2.92	3.30
OCT	.81	1.31	1.64	2.06	2.38	2.69
NOV	.75	1.20	1.50	1.87	2.15	2.43
DEC	.85	1.20	1.43	1.72	1.93	2.14
ANN	2.05	2.70	3.12	3.66	4.06	4.46

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

MILLERSBURG 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.76	1.27	1.61	2.03	2.35	2.66	JAN
.69	1.14	1.44	1.81	2.09	2.37	FEB
.90	1.56	2.00	2.55	2.96	3.37	MAR
1.00	1.58	1.97	2.46	2.82	3.18	APR
1.03	1.58	1.94	2.40	2.74	3.08	MAY
1.34	2.15	2.68	3.35	3.85	4.35	JUN
1.14	1.69	2.05	2.52	2.86	3.20	JUL
1.12	1.65	2.01	2.45	2.79	3.12	AUG
.87	1.48	1.89	2.40	2.78	3.16	SEP
.79	1.48	1.95	2.53	2.97	3.40	OCT
.71	1.24	1.59	2.04	2.36	2.69	NOV
.67	1.04	1.28	1.59	1.82	2.05	DEC
2.16	2.72	3.09	3.55	3.90	4.24	ANN

MILLPORT 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
1.90	2.40	2.73	3.15	3.46	3.77	ANN

MINERAL RIDGE 1940-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.69	1.21	1.55	1.99	2.31	2.63	JAN
.66	1.28	1.68	2.20	2.58	2.96	FEB
.74	1.15	1.42	1.77	2.02	2.27	MAR
.88	1.32	1.62	1.98	2.26	2.53	APR
.87	1.28	1.55	1.89	2.14	2.39	MAY
1.01	1.46	1.77	2.15	2.43	2.71	JUN
1.11	1.70	2.09	2.58	2.95	3.31	JUL
.99	1.49	1.83	2.25	2.56	2.87	AUG
.82	1.30	1.61	2.01	2.31	2.61	SEP
.79	1.45	1.90	2.45	2.87	3.28	OCT
.68	1.22	1.58	2.04	2.37	2.71	NOV
.56	.88	1.08	1.34	1.54	1.73	DEC
1.77	2.31	2.67	3.12	3.46	3.79	ANN

MONTPELIER 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.61	1.08	1.38	1.77	2.06	2.34	JAN
.79	1.29	1.62	2.04	2.35	2.66	FEB
.89	1.52	1.94	2.47	2.86	3.25	MAR
1.09	1.79	2.25	2.83	3.26	3.69	APR
.96	1.60	2.02	2.56	2.95	3.35	MAY
1.10	1.87	2.38	3.02	3.50	3.97	JUN
1.26	2.16	2.75	3.50	4.05	4.60	JUL
1.13	1.84	2.31	2.90	3.34	3.78	AUG
.99	1.67	2.11	2.68	3.10	3.51	SEP
.88	1.54	1.97	2.52	2.93	3.34	OCT
.76	1.18	1.46	1.81	2.07	2.33	NOV
.59	1.17	1.54	2.02	2.38	2.73	DEC
2.19	2.94	3.43	4.06	4.52	4.98	ANN

NAPOLEON 1894-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.78	1.18	1.45	1.79	2.04	2.29	JAN
.66	1.08	1.35	1.69	1.95	2.20	FEB
.90	1.38	1.70	2.10	2.39	2.69	MAR
.92	1.44	1.79	2.22	2.54	2.87	APR
.98	1.43	1.72	2.09	2.37	2.64	MAY
1.22	2.01	2.53	3.19	3.68	4.17	JUN
1.13	1.70	2.08	2.56	2.91	3.26	JUL
1.12	1.87	2.37	2.99	3.45	3.91	AUG
1.03	1.73	2.19	2.78	3.22	3.65	SEP
.85	1.43	1.81	2.29	2.65	3.01	OCT
.76	1.14	1.39	1.70	1.93	2.16	NOV
.70	1.04	1.26	1.55	1.76	1.96	DEC
2.08	2.79	3.26	3.85	4.29	4.73	ANN

NEWARK 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100	
.83	1.50	1.95	2.52	2.94	3.35	JAN
.70	1.12	1.39	1.74	2.00	2.26	FEB
.99	1.77	2.29	2.94	3.43	3.91	MAR
1.00	1.52	1.87	2.31	2.64	2.97	APR
1.00	1.45	1.75	2.12	2.40	2.68	MAY
1.43	2.17	2.67	3.29	3.75	4.21	JUN
1.15	1.66	2.00	2.44	2.76	3.07	JUL
1.07	1.75	2.21	2.78	3.20	3.63	AUG
.88	1.59	2.07	2.66	3.11	3.55	SEP
.72	1.23	1.56	1.99	2.30	2.62	OCT
.77	1.27	1.60	2.02	2.33	2.64	NOV
.74	1.11	1.35	1.65	1.87	2.10	DEC
2.25	2.83	3.21	3.70	4.06	4.42	ANN

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

NEW LEXINGTON 1942-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.70	1.09	1.34	1.66	1.90	2.13
.84	1.23	1.48	1.80	2.04	2.28
1.11	1.99	2.58	3.31	3.86	4.40
.98	1.55	1.93	2.40	2.76	3.11
.93	1.49	1.86	2.33	2.67	3.01
1.38	2.15	2.67	3.32	3.80	4.28
1.42	2.22	2.75	3.42	3.92	4.42
.90	1.81	2.41	3.16	3.73	4.29
.89	1.52	1.93	2.45	2.84	3.23
.63	1.03	1.29	1.63	1.88	2.12
.71	1.26	1.63	2.09	2.43	2.77
.73	1.09	1.33	1.63	1.85	2.08
2.19	2.97	3.50	4.16	4.65	5.13

NORTHCENTRAL BRANCH OARDC 1955-1965

	2	5	10	25	50	100
JAN	.71	1.50	2.02	2.67	3.16	3.64
FEB	.75	1.34	1.73	2.22	2.59	2.95
MAR	.63	1.16	1.52	1.96	2.30	2.63
APR	.88	1.45	1.82	2.30	2.65	3.00
MAY	.90	1.96	2.66	3.54	4.20	4.85
JUN	.97	1.66	2.11	2.69	3.12	3.55
JUL	1.22	2.01	2.53	3.20	3.69	4.18
AUG	1.05	1.69	2.12	2.66	3.05	3.45
SEP	.83	1.32	1.64	2.05	2.36	2.66
OCT	.72	1.36	1.78	2.31	2.70	3.09
NOV	.80	1.19	1.45	1.78	2.02	2.26
DEC	.61	1.06	1.35	1.73	2.01	2.29
ANN	1.82	2.72	3.31	4.05	4.61	5.16

NORWALK 1895-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.67	1.09	1.37	1.72	1.98	2.24
.60	.99	1.26	1.59	1.84	2.08
.79	1.23	1.51	1.88	2.15	2.42
.81	1.23	1.50	1.85	2.11	2.37
.88	1.45	1.83	2.30	2.66	3.01
1.07	1.72	2.16	2.71	3.11	3.52
1.23	1.85	2.26	2.79	3.17	3.56
1.05	1.80	2.29	2.92	3.38	3.84
.98	1.46	1.77	2.17	2.47	2.76
.77	1.23	1.53	1.91	2.19	2.47
.68	1.19	1.52	1.95	2.26	2.57
.63	.94	1.14	1.40	1.59	1.78
2.03	2.68	3.11	3.66	4.07	4.47

OBERLIN 1936-1965

	2	5	10	25	50	100
JAN	.66	1.17	1.51	1.93	2.25	2.56
FEB	.69	1.33	1.75	2.28	2.68	3.07
MAR	.72	1.11	1.37	1.70	1.95	2.19
APR	.93	1.38	1.68	2.05	2.33	2.61
MAY	1.06	1.76	2.22	2.80	3.23	3.65
JUN	1.19	1.99	2.52	3.19	3.68	4.18
JUL	1.20	1.90	2.37	2.96	3.40	3.83
AUG	1.09	1.77	2.22	2.79	3.21	3.63
SEP	.90	1.43	1.77	2.21	2.53	2.85
OCT	.75	1.24	1.57	1.99	2.30	2.61
NOV	.67	1.20	1.55	2.00	2.32	2.65
DEC	.61	.98	1.22	1.52	1.75	1.97
ANN	2.02	2.72	3.18	3.76	4.19	4.61

PAINESVILLE 1950-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.77	1.13	1.37	1.68	1.91	2.13
.74	1.30	1.67	2.14	2.48	2.83
.68	1.23	1.58	2.04	2.37	2.71
.80	1.19	1.45	1.78	2.02	2.26
.82	1.42	1.82	2.33	2.71	3.08
.95	1.44	1.76	2.17	2.48	2.78
1.08	1.54	1.84	2.23	2.51	2.79
1.04	1.59	1.95	2.41	2.74	3.08
.92	1.43	1.76	2.18	2.49	2.80
.95	1.90	2.53	3.33	3.92	4.50
1.00	1.61	2.02	2.53	2.91	3.29
.61	.94	1.15	1.43	1.63	1.83
1.84	2.49	2.92	3.46	3.86	4.26

PANDORA 1950-1965

	2	5	10	25	50	100
JAN	.76	1.30	1.66	2.11	2.44	2.78
FEB	.85	1.73	2.31	3.05	3.59	4.14
MAR	.83	1.42	1.81	2.31	2.67	3.03
APR	.90	1.29	1.55	1.87	2.11	2.35
MAY	.88	1.39	1.73	2.16	2.48	2.79
JUN	1.13	1.78	2.21	2.76	3.16	3.56
JUL	1.11	1.66	2.02	2.48	2.82	3.15
AUG	.90	1.50	1.90	2.41	2.79	3.16
SEP	.93	1.77	2.32	3.02	3.53	4.05
OCT	.85	1.70	2.27	2.98	3.51	4.03
NOV	.82	1.52	1.98	2.56	2.99	3.42
DEC	.57	.93	1.17	1.47	1.70	1.92
ANN	1.99	2.63	3.05	3.59	3.99	4.38

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

PAULDING 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.73	1.28	1.64	2.10	2.44	2.77
.73	1.21	1.54	1.95	2.25	2.55
.88	1.37	1.70	2.12	2.42	2.73
.93	1.52	1.91	2.41	2.77	3.14
.92	1.59	2.03	2.59	3.00	3.41
1.41	2.15	2.65	3.27	3.73	4.19
1.12	1.71	2.10	2.60	2.97	3.33
.83	1.14	1.35	1.61	1.80	2.00
.93	1.73	2.26	2.93	3.43	3.92
.98	1.76	2.27	2.93	3.41	3.89
.72	1.06	1.29	1.58	1.79	2.00
.57	.90	1.12	1.39	1.59	1.80
2.07	2.82	3.32	3.95	4.41	4.87

PEEBLES 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.86	1.36	1.69	2.10	2.41	2.72
FEB	.93	1.59	2.03	2.58	2.99	3.40
MAR	1.24	2.35	3.08	4.00	4.69	5.37
APR	.96	1.61	2.04	2.58	2.98	3.37
MAY	1.04	1.64	2.03	2.53	2.90	3.27
JUN	1.06	1.74	2.18	2.75	3.17	3.59
JUL	1.24	1.89	2.32	2.86	3.26	3.66
AUG	1.05	1.53	1.84	2.24	2.54	2.83
SEP	1.18	2.03	2.60	3.31	3.84	4.37
OCT	.79	1.27	1.58	1.98	2.27	2.57
NOV	.88	1.38	1.70	2.12	2.43	2.73
DEC	.82	1.50	1.95	2.51	2.93	3.35
ANN	2.41	3.27	3.84	4.56	5.10	5.63

PHILO 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.70	1.16	1.47	1.85	2.14	2.42
.79	1.23	1.52	1.88	2.15	2.42
.98	1.64	2.08	2.64	3.06	3.47
.93	1.35	1.63	1.98	2.24	2.49
1.06	1.82	2.33	2.97	3.45	3.92
1.14	1.85	2.32	2.91	3.35	3.79
1.32	1.88	2.25	2.72	3.07	3.42
1.19	1.89	2.36	2.94	3.38	3.81
.98	1.84	2.41	3.13	3.67	4.20
.71	1.24	1.59	2.03	2.36	2.68
.72	1.18	1.48	1.86	2.14	2.42
.73	1.07	1.29	1.57	1.79	1.99
2.12	2.91	3.43	4.09	4.58	5.06

PLYMOUTH 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.69	1.36	1.81	2.37	2.79	3.21
FEB	.66	1.21	1.58	2.04	2.38	2.72
MAR	.79	1.21	1.49	1.84	2.10	2.35
APR	.84	1.23	1.48	1.81	2.05	2.29
MAY	.95	1.53	1.92	2.41	2.77	3.13
JUN	1.25	2.04	2.57	3.24	3.73	4.23
JUL	1.12	1.87	2.37	2.99	3.46	3.92
AUG	1.26	2.08	2.62	3.31	3.82	4.32
SEP	.94	1.72	2.24	2.90	3.38	3.87
OCT	.75	1.23	1.56	1.97	2.27	2.57
NOV	.70	1.14	1.43	1.79	2.06	2.33
DEC	.65	1.01	1.25	1.55	1.78	2.00
ANN	2.24	2.94	3.40	3.98	4.42	4.84

PORTSMOUTH 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.93	1.43	1.76	2.18	2.49	2.80
.96	1.56	1.97	2.47	2.85	3.22
.99	1.48	1.80	2.21	2.51	2.82
1.05	1.86	2.40	3.09	3.59	4.10
1.20	1.73	2.09	2.53	2.86	3.19
1.10	1.65	2.01	2.46	2.80	3.13
1.46	2.46	3.13	3.97	4.60	5.22
1.28	2.05	2.56	3.20	3.68	4.15
1.05	1.82	2.33	2.97	3.44	3.92
.78	1.27	1.60	2.01	2.32	2.62
.80	1.25	1.55	1.94	2.22	2.50
.93	1.44	1.78	2.20	2.52	2.83
2.41	3.24	3.80	4.49	5.01	5.52

PUT IN BAY 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.62	1.08	1.38	1.77	2.05	2.34
FEB	.69	1.14	1.44	1.82	2.11	2.39
MAR	.72	1.22	1.55	1.96	2.27	2.58
APR	.89	1.35	1.66	2.04	2.33	2.61
MAY	.91	1.55	1.97	2.51	2.91	3.30
JUN	1.06	1.61	1.97	2.44	2.78	3.12
JUL	1.12	1.69	2.07	2.56	2.91	3.27
AUG	1.07	1.56	1.89	2.30	2.61	2.91
SEP	.82	1.41	1.81	2.31	2.68	3.04
OCT	.75	1.30	1.67	2.13	2.47	2.81
NOV	.59	.99	1.24	1.57	1.81	2.06
DEC	.56	.85	1.04	1.28	1.47	1.65
ANN	1.80	2.33	2.67	3.11	3.44	3.76

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

RAVENNA ARSENAL 1949-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.74	1.40	1.85	2.40	2.82	3.23
.69	1.35	1.78	2.33	2.74	3.15
.79	1.35	1.73	2.20	2.55	2.90
.86	1.29	1.58	1.94	2.20	2.47
.96	1.35	1.61	1.93	2.17	2.41
1.24	2.17	2.79	3.57	4.15	4.72
1.21	1.95	2.45	3.07	3.53	3.99
.89	1.39	1.72	2.15	2.46	2.77
.81	1.22	1.50	1.84	2.10	2.36
.68	1.22	1.57	2.02	2.35	2.68
.79	1.60	2.13	2.80	3.30	3.80
.54	.85	1.05	1.31	1.50	1.68
1.98	2.78	3.30	3.97	4.46	4.95

RIPLEY 1957-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.89	1.33	1.62	1.99	2.26	2.53
FEB	.85	1.51	1.94	2.48	2.89	3.29
MAR	1.52	3.42	4.68	6.27	7.45	8.63
APR	.80	1.37	1.75	2.22	2.57	2.92
MAY	1.17	2.36	3.15	4.15	4.89	5.62
JUN	1.48	2.21	2.69	3.30	3.75	4.20
JUL	1.33	2.51	3.29	4.27	5.00	5.72
AUG	1.15	1.64	1.97	2.39	2.70	3.00
SEP	1.06	2.30	3.11	4.15	4.91	5.67
OCT	.65	1.19	1.54	1.99	2.32	2.65
NOV	.78	1.06	1.25	1.48	1.65	1.82
DEC	.58	1.15	1.52	2.00	2.35	2.70
ANN	2.64	4.06	5.00	6.19	7.07	7.95

SANDUSKY 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.64	1.12	1.44	1.85	2.15	2.45
.73	1.21	1.53	1.93	2.23	2.52
.73	1.14	1.41	1.75	2.01	2.26
.78	1.18	1.45	1.79	2.04	2.29
.98	1.73	2.23	2.86	3.33	3.79
1.27	2.40	3.14	4.08	4.78	5.48
1.29	2.06	2.57	3.21	3.69	4.16
1.04	1.52	1.84	2.24	2.53	2.83
1.03	1.88	2.44	3.14	3.67	4.19
.70	1.15	1.46	1.84	2.12	2.40
.63	1.00	1.25	1.57	1.80	2.03
.65	.99	1.22	1.50	1.71	1.92
2.06	3.07	3.74	4.58	5.21	5.83

SENECAVILLE 1940-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.65	1.08	1.37	1.74	2.01	2.28
FEB	.74	1.22	1.54	1.95	2.25	2.55
MAR	.96	1.52	1.89	2.36	2.71	3.05
APR	.84	1.26	1.53	1.87	2.13	2.38
MAY	1.00	1.36	1.60	1.90	2.12	2.34
JUN	1.41	2.60	3.38	4.37	5.10	5.83
JUL	1.22	1.74	2.08	2.50	2.82	3.14
AUG	1.09	1.76	2.21	2.77	3.19	3.60
SEP	.87	1.36	1.69	2.10	2.41	2.71
OCT	.86	1.54	1.99	2.57	2.99	3.41
NOV	.80	1.21	1.49	1.84	2.09	2.35
DEC	.68	1.00	1.22	1.49	1.70	1.90
ANN	2.07	3.03	3.66	4.46	5.06	5.65

SIDNEY 1953-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.90	1.51	1.92	2.44	2.82	3.21
.91	1.49	1.87	2.35	2.70	3.06
.89	1.52	1.94	2.47	2.86	3.24
.97	1.71	2.19	2.81	3.26	3.71
.94	1.37	1.65	2.00	2.26	2.53
1.13	2.19	2.89	3.78	4.44	5.09
1.41	2.27	2.84	3.57	4.10	4.64
1.02	1.78	2.29	2.93	3.40	3.87
.79	1.40	1.81	2.32	2.70	3.08
.68	1.16	1.48	1.88	2.18	2.48
.76	1.47	1.94	2.54	2.98	3.42
.65	1.21	1.59	2.06	2.41	2.76
2.14	3.00	3.57	4.29	4.82	5.35

SPRINGFIELD 1944-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.93	2.12	2.90	3.89	4.62	5.35
FEB	.86	1.40	1.76	2.22	2.56	2.89
MAR	.97	1.81	2.36	3.07	3.59	4.11
APR	.97	1.47	1.80	2.22	2.53	2.84
MAY	1.05	1.53	1.84	2.24	2.54	2.83
JUN	1.05	1.83	2.34	2.99	3.47	3.95
JUL	1.03	1.65	2.06	2.57	2.96	3.34
AUG	1.01	1.61	2.00	2.50	2.87	3.24
SEP	.99	1.56	1.94	2.41	2.77	3.12
OCT	.68	1.05	1.30	1.61	1.84	2.07
NOV	.90	1.64	2.14	2.76	3.22	3.68
DEC	.77	1.17	1.44	1.78	2.04	2.29
ANN	2.25	3.19	3.81	4.60	5.18	5.76

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

STEUBENVILLE 1942-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.73	1.23	1.56	1.97	2.28	2.58
.70	1.07	1.31	1.62	1.85	2.07
1.00	1.59	1.99	2.48	2.85	3.21
.93	1.44	1.78	2.21	2.52	2.84
1.03	1.52	1.84	2.25	2.55	2.85
1.21	1.93	2.40	3.00	3.45	3.89
1.38	2.72	3.61	4.72	5.55	6.38
.92	1.61	2.06	2.63	3.06	3.48
.98	1.69	2.15	2.74	3.18	3.61
.77	1.52	2.02	2.65	3.11	3.58
.75	1.14	1.39	1.72	1.96	2.20
.67	.99	1.20	1.46	1.66	1.86
2.11	3.32	4.12	5.14	5.89	6.63

TIFFIN 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.67	1.15	1.47	1.88	2.17	2.47
FEB	.75	1.28	1.63	2.07	2.40	2.73
MAR	.80	1.24	1.54	1.91	2.18	2.45
APR	.77	1.23	1.54	1.92	2.21	2.49
MAY	.90	1.35	1.64	2.02	2.30	2.57
JUN	1.10	1.71	2.11	2.62	2.99	3.37
JUL	1.06	1.65	2.04	2.53	2.89	3.26
AUG	1.14	1.83	2.29	2.86	3.29	3.72
SEP	1.01	1.85	2.40	3.10	3.61	4.13
OCT	.78	1.35	1.73	2.20	2.56	2.91
NOV	.73	1.34	1.75	2.26	2.64	3.02
DEC	.59	.87	1.05	1.28	1.45	1.62
ANN	2.06	2.55	2.88	3.29	3.60	3.90

TOM JENKINS DAM 1954-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.79	1.10	1.30	1.56	1.75	1.94
.82	1.29	1.61	2.00	2.30	2.59
1.09	1.97	2.56	3.30	3.84	4.39
.91	1.30	1.56	1.88	2.12	2.36
.76	1.04	1.23	1.47	1.65	1.83
.90	1.48	1.85	2.33	2.69	3.04
1.24	1.95	2.43	3.02	3.47	3.91
.91	1.38	1.70	2.10	2.40	2.69
1.17	2.40	3.22	4.25	5.02	5.78
.79	1.52	2.01	2.62	3.08	3.53
.76	1.29	1.65	2.10	2.44	2.77
.69	1.06	1.30	1.60	1.82	2.05
2.13	3.15	3.82	4.67	5.30	5.93

UPPER SANDUSKY 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.68	1.16	1.48	1.88	2.18	2.47
FEB	.74	1.23	1.56	1.97	2.27	2.57
MAR	.83	1.29	1.60	1.99	2.27	2.56
APR	.80	1.19	1.44	1.76	2.00	2.24
MAY	.89	1.30	1.57	1.91	2.16	2.41
JUN	1.28	2.33	3.03	3.91	4.56	5.21
JUL	1.04	1.56	1.90	2.33	2.65	2.97
AUG	.84	1.37	1.72	2.16	2.49	2.82
SEP	.99	1.69	2.16	2.75	3.18	3.62
OCT	.77	1.33	1.69	2.15	2.49	2.83
NOV	.78	1.33	1.70	2.16	2.51	2.85
DEC	.67	.99	1.21	1.48	1.68	1.88
ANN	1.96	2.79	3.34	4.04	4.56	5.07

URBANA 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.78	1.52	2.01	2.63	3.09	3.55
.78	1.24	1.54	1.93	2.21	2.50
.92	1.53	1.93	2.44	2.82	3.19
.97	1.43	1.74	2.12	2.41	2.69
1.00	1.41	1.68	2.02	2.27	2.52
1.01	1.52	1.86	2.29	2.60	2.92
1.24	2.05	2.59	3.27	3.78	4.28
1.12	1.69	2.07	2.56	2.91	3.27
1.01	1.76	2.25	2.87	3.33	3.79
.81	1.33	1.67	2.10	2.42	2.74
.79	1.33	1.69	2.15	2.48	2.82
.69	1.11	1.39	1.74	2.00	2.27
2.12	2.76	3.19	3.74	4.14	4.54

VAN WERT 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.72	1.25	1.60	2.04	2.37	2.70
FEB	.77	1.47	1.93	2.52	2.95	3.38
MAR	.98	1.61	2.03	2.56	2.95	3.33
APR	.89	1.34	1.64	2.02	2.30	2.58
MAY	1.12	1.78	2.21	2.76	3.17	3.57
JUN	1.37	2.01	2.44	2.98	3.38	3.78
JUL	1.18	1.76	2.15	2.64	3.00	3.37
AUG	.84	1.22	1.48	1.80	2.04	2.28
SEP	.95	1.40	1.70	2.07	2.35	2.63
OCT	1.02	2.00	2.65	3.47	4.08	4.68
NOV	.77	1.40	1.82	2.34	2.73	3.12
DEC	.64	1.05	1.33	1.68	1.93	2.19
ANN	2.10	2.96	3.53	4.25	4.78	5.31

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

WARREN 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.67	1.21	1.57	2.01	2.35	2.68
.64	1.14	1.46	1.87	2.18	2.48
.76	1.15	1.41	1.74	1.98	2.22
.89	1.41	1.76	2.19	2.52	2.84
.87	1.40	1.76	2.21	2.54	2.87
1.06	1.47	1.74	2.08	2.34	2.59
1.05	1.55	1.88	2.30	2.61	2.91
.92	1.40	1.71	2.11	2.40	2.69
.86	1.38	1.72	2.16	2.48	2.80
.78	1.42	1.85	2.38	2.78	3.17
.68	1.40	1.88	2.49	2.94	3.39
.54	.86	1.07	1.34	1.54	1.74
1.84	2.51	2.95	3.52	3.93	4.35

WASHINGTON COURT HOUSE 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.77	1.29	1.63	2.07	2.39	2.71
FEB	.75	1.14	1.40	1.73	1.97	2.21
MAR	1.04	2.04	2.70	3.54	4.16	4.77
APR	1.14	1.92	2.43	3.08	3.56	4.04
MAY	.95	1.49	1.85	2.30	2.64	2.98
JUN	1.07	1.63	2.00	2.47	2.81	3.16
JUL	1.19	1.96	2.47	3.11	3.59	4.06
AUG	.87	1.34	1.64	2.03	2.32	2.61
SEP	.88	1.40	1.74	2.18	2.50	2.82
OCT	.64	1.10	1.40	1.79	2.07	2.35
NOV	.81	1.22	1.50	1.85	2.11	2.36
DEC	.71	1.05	1.27	1.55	1.76	1.97
ANN	2.17	2.97	3.50	4.17	4.66	5.16

WAUSEON 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.70	1.15	1.46	1.84	2.12	2.40
.71	1.11	1.38	1.71	1.95	2.20
.80	1.21	1.48	1.82	2.07	2.33
.95	1.58	1.99	2.51	2.90	3.28
.99	1.56	1.94	2.42	2.78	3.13
.99	1.47	1.79	2.19	2.49	2.78
1.19	1.88	2.34	2.92	3.35	3.78
1.01	1.58	1.96	2.45	2.80	3.16
1.01	1.57	1.93	2.40	2.75	3.09
.85	1.55	2.01	2.60	3.03	3.47
.71	1.15	1.45	1.81	2.09	2.36
.64	1.00	1.24	1.55	1.77	2.00
1.84	2.42	2.81	3.30	3.66	4.02

WAVERLY 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.99	1.47	1.79	2.19	2.49	2.79
FEB	.89	1.42	1.77	2.22	2.54	2.87
MAR	1.12	1.99	2.56	3.29	3.83	4.36
APR	1.10	1.75	2.19	2.73	3.14	3.54
MAY	1.00	1.51	1.85	2.28	2.59	2.91
JUN	1.00	1.60	1.99	2.49	2.86	3.23
JUL	1.15	1.72	2.10	2.58	2.93	3.28
AUG	1.09	1.75	2.19	2.75	3.16	3.57
SEP	1.04	1.68	2.11	2.64	3.04	3.43
OCT	.72	1.23	1.57	2.00	2.31	2.63
NOV	.90	1.38	1.71	2.11	2.41	2.71
DEC	.87	1.39	1.74	2.17	2.49	2.81
ANN	2.20	2.77	3.15	3.63	3.99	4.34

WESTERN BRANCH OARDC 1961-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

2	5	10	25	50	100
.74	.97	1.12	1.32	1.46	1.60
.55	1.13	1.51	2.00	2.35	2.71
1.56	3.24	4.35	5.75	6.78	7.82
.86	1.70	2.25	2.95	3.47	3.99
.65	1.01	1.25	1.55	1.77	2.00
.50	.62	.70	.80	.88	.96
1.42	2.49	3.20	4.09	4.76	5.41
1.17	1.98	2.51	3.18	3.68	4.18
1.12	2.43	3.29	4.39	5.20	6.00
.47	1.17	1.64	2.22	2.66	3.09
.54	1.10	1.47	1.93	2.28	2.62
.46	.94	1.26	1.66	1.96	2.26
2.48	3.10	3.51	4.03	4.41	4.80

WILMINGTON 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF

	2	5	10	25	50	100
JAN	.93	1.65	2.13	2.73	3.18	3.63
FEB	.92	1.33	1.59	1.93	2.18	2.42
MAR	1.10	1.98	2.56	3.29	3.83	4.37
APR	1.20	1.97	2.49	3.14	3.62	4.10
MAY	1.03	1.52	1.85	2.27	2.58	2.88
JUN	1.05	1.75	2.22	2.81	3.25	3.68
JUL	1.21	2.22	2.89	3.74	4.37	4.99
AUG	.97	1.53	1.90	2.37	2.71	3.06
SEP	1.14	1.93	2.46	3.13	3.62	4.11
OCT	.82	1.36	1.71	2.16	2.49	2.82
NOV	.96	1.49	1.83	2.27	2.60	2.92
DEC	.87	1.28	1.56	1.90	2.16	2.41
ANN	2.39	3.35	3.98	4.77	5.36	5.95

MEAN RECURRENCE TABLES (RETURN PERIOD TABLES).

Period of record used in deriving these tables follows the station location.

WOOSTER 1894-1969 XENIA 1936-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF												
2	5	10	25	50	100		2	5	10	25	50	100
.72	1.21	1.53	1.94	2.25	2.55	JAN	.90	1.87	2.52	3.34	3.94	4.55
.63	.97	1.19	1.48	1.69	1.90	FEB	.77	1.11	1.34	1.63	1.84	2.05
.89	1.49	1.89	2.40	2.77	3.14	MAR	.96	1.83	2.41	3.14	3.68	4.21
.83	1.28	1.58	1.96	2.24	2.52	APR	1.07	1.70	2.12	2.64	3.03	3.42
.94	1.42	1.74	2.14	2.44	2.73	MAY	1.07	1.75	2.21	2.78	3.21	3.63
1.09	1.63	1.98	2.42	2.76	3.08	JUN	1.17	1.96	2.48	3.15	3.64	4.13
1.26	1.97	2.44	3.03	3.47	3.91	JUL	1.24	1.79	2.15	2.61	2.95	3.28
1.16	1.86	2.32	2.91	3.35	3.78	AUG	1.27	2.04	2.55	3.20	3.68	4.15
1.05	1.76	2.24	2.83	3.27	3.71	SEP	1.11	1.78	2.22	2.78	3.19	3.60
.68	1.07	1.33	1.65	1.89	2.13	OCT	.72	1.18	1.48	1.87	2.15	2.43
.71	1.12	1.40	1.75	2.01	2.26	NOV	.88	1.40	1.74	2.18	2.50	2.82
.66	.91	1.08	1.30	1.45	1.61	DEC	.79	1.16	1.41	1.72	1.95	2.18
2.04	2.78	3.27	3.89	4.36	4.81	ANN	2.34	3.12	3.64	4.29	4.78	5.26

ZANESVILLE 1946-1965

MAXIMUM DAILY PRECIPITATION FOR RETURN PERIODS (IN YEARS) OF						
2	5	10	25	50	100	
.75	1.26	1.61	2.04	2.36	2.68	JAN
.81	1.23	1.51	1.87	2.13	2.39	FEB
.94	1.93	2.58	3.41	4.02	4.63	MAR
.85	1.28	1.56	1.91	2.17	2.44	APR
.85	1.29	1.57	1.94	2.21	2.48	MAY
1.20	1.88	2.34	2.92	3.34	3.77	JUN
1.29	2.01	2.49	3.10	3.55	4.00	JUL
.96	1.65	2.11	2.69	3.12	3.55	AUG
.85	1.51	1.94	2.48	2.89	3.29	SEP
.67	1.13	1.43	1.81	2.09	2.38	OCT
.82	1.25	1.53	1.89	2.15	2.41	NOV
.69	1.12	1.40	1.75	2.02	2.28	DEC
2.15	2.88	3.36	3.97	4.43	4.88	ANN

The State Is the Campus for Agricultural Research and Development

Ohio's major soil types and climatic conditions are represented at the Research Center's 11 locations. Thus, Center scientists can make field tests under conditions similar to those encountered by Ohio farmers.

Research is conducted by 13 departments on more than 6200 acres at Center headquarters in Wooster, nine branches, and The Ohio State University.

Center Headquarters, Wooster, Wayne County: 1953 acres

Eastern Ohio Resource Development Center, Caldwell, Noble County: 2053 acres

Jackson Branch, Jackson, Jackson County: 344 acres

Mahoning County Farm, Canfield: 275 acres

Muck Crops Branch, Willard, Huron County: 15 acres

North Central Branch, Vickery, Erie County: 335 acres

Northwestern Branch, Hoytville, Wood County: 247 acres

Southeastern Branch, Carpenter, Meigs County: 330 acres

Southern Branch, Ripley, Brown County: 275 acres

Western Branch, South Charleston, Clark County: 428 acres