U. S. DEPARTMENT OF COMMERCE, ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
IN COOPERATION WITH THE OHIO AGRICULTURAL RESEARCH AND DEVELOPMENT CENTER
AND THE OHIO DEPARTMENT OF NATURAL RESOURCES - DIVISION OF WATER
CLIMATOGRAPHY OF THE UNITED STATES NO. 20-33-11

LATITUDE 41° 19' N
LONGITUDE 81° 09' W
ELEV. (GROUND) 1250 FT.

# CLIMATOLOGICAL SUMMARY

STATION: Hiram, Ohio

MEANS AND EXTREMES FOR PERIOD 1894-1965

| MONTH | TEMPERATURE (°F) MEANS: DAILY MAXIMUM | DAILY MINIMUM | MONTHLY | EXTREMES: RECORD HIGHEST | YEAR | DAY | RECORD LOWEST | YEAR | DAY | MEAN DEGREE DAYS ** | MEAN NUMBER OF DAYS: MAX. 90° AND ABOVE | MAX. 32° AND BELOW | MIN. 32° AND BELOW | MIN. 0° AND BELOW | PRECIPITATION TOTALS (INCHES): MEAN | GREATEST MONTHLY | YEAR | GREATEST DAILY | YEAR | DAY | SNOW, SLEET: MEAN | MAXIMUM MONTHLY | YEAR | GREATEST DAILY | YEAR | DAY | MEAN NUMBER OF DAYS: .01 or MORE | .10 or MORE | .50 or MORE | 1.00 or MORE | MONTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JAN | 33.9 | 18.3 | 26.1 | 71 | 50 | 25 | -23 | 63 | 24 | 1200. | 0 | 13 | 28 | 2 | 2.87 | 8.02 | 37 | 2.05 | 59 | 21 | 10.6 | 27.5 | 14 | 9.0 | 14 | 3 | 13 | 7 | 1.5 | .2 | JAN |
| FEB | 34.4 | 17.7 | 26.0 | 69 | 32 | 11 | -22* | 34 | 9 | 1055. | 0 | 12 | 25 | 2 | 2.32 | 4.98 | 59 | 2.50 | 59 | 10 | 10.1 | 28.0 | 10 | 12.0 | 51 | 1 | 11 | 6 | 1.1 | .1 | FEB |
| MAR | 45.1 | 26.3 | 35.7 | 81 | 10 | 24 | -7 | 1 | 6 | 905. | 0 | 4 | 23 | 0 | 3.30 | 8.54 | 13 | 3.10 | 13 | 25 | 7.6 | 23.5 | 60 | 8.0 | 60 | 22 | 12 | 8 | 2.1 | .3 | MAR |
| APR | 57.5 | 36.7 | 47.1 | 87 | 15* | 25 | 2 | 23 | 1 | 540. | 0 | 0 | 10 | 0 | 3.51 | 8.01 | 61 | 1.98 | 3 | 3 | 2.3 | 20.0 | 1 | 13.0 | 1 | 20 | 12 | 8 | 2.1 | .4 | APR |
| MAY | 69.2 | 47.2 | 58.2 | 93 | 17 | 28 | 24 | 23 | 10 | 242. | 0 | 0 | 1 | 0 | 3.65 | 7.39 | 56 | 2.42 | 5 | 26 | .0 | 3.0 | 23 | 2.0 | 23 | 10 | 12 | 8 | 2.2 | .5 | MAY |
| JUNE | 77.7 | 56.1 | 66.9 | 96 | 52* | 26 | 34 | 45 | 5 | 60. | 1 | 0 | 0 | 0 | 3.74 | 8.59 | 2 | 2.50 | 57 | 28 | | | | | | | 10 | 7 | 2.6 | .8 | JUNE |
| JULY | 81.9 | 60.5 | 71.2 | 101 | 36* | 14 | 40 | 98 | 11 | 11. | 3 | 0 | 0 | 0 | 3.79 | 10.47 | 58 | 2.30 | 29 | 5 | | | | | | | 10 | 7 | 2.7 | .9 | JULY |
| AUG | 80.4 | 58.7 | 69.5 | 102 | 18 | 6 | 39* | 34 | 30 | 23. | 2 | 0 | 0 | 0 | 3.28 | 7.51 | 60 | 3.70 | 35 | 2 | | | | | | | 9 | 6 | 2.2 | .7 | AUG |
| SEPT | 74.6 | 52.9 | 63.7 | 102 | 53 | 2 | 27 | 15 | 29 | 116. | 0 | 0 | 0 | 0 | 3.09 | 9.64 | 26 | 2.61 | 6 | 30 | | | | | | | 8 | 5 | 2.1 | .7 | SEPT |
| OCT | 62.8 | 42.4 | 52.6 | 88 | 53* | 3 | 20* | 62 | 27 | 391. | 0 | 0 | 3 | 0 | 3.00 | 9.23 | 54 | 2.90 | 62 | 26 | .6 | 10.0 | 6+ | 10.0 | 62 | 26 | 10 | 6 | 1.9 | .5 | OCT |
| NOV | 48.0 | 32.0 | 40.0 | 80 | 61* | 3 | -2 | 29 | 30 | 747. | 0 | 2 | 16 | 0 | 3.00 | 6.73 | 27 | 2.28 | 21 | 1 | 5.8 | 31.1 | 51 | 17.0 | 13 | 9 | 12 | 7 | 1.6 | .4 | NOV |
| DEC | 36.0 | 22.0 | 29.0 | 65 | 56* | 6 | -11* | 51 | 16 | 1112. | 0 | 11 | 26 | 0 | 2.67 | 5.39 | 51 | 2.00 | 3 | 26 | 10.4 | 37.9 | 62 | 13.0 | 62 | 7 | 12 | 7 | 1.3 | .2 | DEC |
| | | | | | AUG | | | JAN | | | | | | | | JULY | | | AUG | | | DEC | | | NOV | | | | | | |
| YEAR | 58.4 | 39.2 | 48.8 | 102 | 18 | 6 | -23 | 63 | 24 | 6442. | 6 | 42 | 198 | 4 | 38.22 | 10.47 | 58 | 3.70 | 35 | 2 | 47.4 | 37.9 | 62 | 17.0 | 13 | 9 | 131 | 82 | 23. | 6. | YEAR |

** BASE 65° F *Also on Earlier Dates, Months, or Years +Also in 1962

# NARRATIVE CLIMATOLOGICAL SUMMARY

Hiram is located in the northeast quadrant of Portage County in northeastern Ohio. Drainage from this area flows into the Mahoning River. Terrain within Portage County is hilly to gently rolling; the elevation of the earth's surface above sea level varies from about 915 to 1295 feet. A map of the physiographic regions of Ohio shows Portage County to be a part of Ohio's Glaciated Plateau. The glaciation which occurred in this region has reduced the steep slopes and filled the valleys, thus transforming the rough preglacial topography to one of more subdued character.

The climate of Hiram is classified as continental. Such a climate is a characteristic of the interior of a land mass the size of North America and is marked by large annual, daily, and day to day changes of temperature. Lake Erie which is located about 27 miles to the northwest influences the weather in the Hiram area. This influence is most strongly felt in winter and spring when the wind blows from the northwest across the lake. On such days, the lake contributes to the occurrence of snow squalls, sometimes as late as mid-May, in the Hiram area. Summers are moderately warm and humid with occasional days when temperature exceeds 90°F; winters are reasonably cold and cloudy, with an average of 4 days of sub-zero weather. Weather changes occur every few days from the passing of cold or warm fronts and their associated centers of high and low pressure.

Mean temperature for the year is nearly two degrees below the average for northeastern Ohio. The extreme temperature range (record high minus record low) during the period 1894-1965 is 125 degrees. Normal daily range in temperature is greatest in late summer and least in early winter. Annual extremes of temperature normally occur soon after June 21 and December 22. Coldest month of record is January 1918. In that month, daily highs were below 25°F on 21 days while sub-zero lows were recorded on 8 days. Warmest month of record is July 1921. During that month, daily highs exceeded 89°F on 9 days while lows greater than 69°F were reported on 8 days. Coolest summer (June-September) of record is 1903 while the summer of 1921 has the honor of being the hottest summer of record. Warmest and coldest winters (December-March) of record are 1949 and 1963, respectively. Temperatures of 100°F or higher have never been recorded earlier than July 9 and only once has such a high temperature been recorded after August 6. Maximum temperatures below freezing usually occur from mid-December through February.

Taking the number of days between the last killing frost (32°F) of spring and the first killing frost in fall as the crop-growing season, this season averages 165 days in length. The growing season is 188 days or more in 10% of the years, 174 days or more in 30% of the years, less than 156 days in 30% of the years, and less than 142 days in 10% of the years. Temperatures of 32°F or less have been recorded as early as September 19 in Fall and as late as May 27 in Spring. The occurrences of selected temperatures and the length of the growing season vary greatly within Portage County because of the terrain.

Heating degree days as shown in the above table, are a measure of departure of the mean daily temperature from 65°F. The daily totals are accumulated from July 1 through June 30. At any point during the year, the accumulated degree days can be used as an index of past temperature effect upon power consumption and fuel consumption for heating of homes and businesses.

Precipitation is normally abundant and well distributed throughout the year with winter being the driest season. The mean annual precipitation of 38.22 inches is nearly two inches above the mean for northeastern Ohio. Showers and thundershowers account for most of the rainfall during the growing season. Thunderstorms occur on about 38 days each year. Most of these occur May through August. Snowfall averages about 47 inches a year, although as little as 11.8 inches fell during the winters of 1932-33 and as much as 112.1 inches fell during the winter of 1962-63. About 3 of 7 winters will have at least 50 inches of snow. Daily snowfall of 1 inch or more occurs about 18 times each winter. As is typical of all Ohio, most precipitation throughout the year lessens the need for irrigation to maintain healthy vegetation.

Evaporation is greatest during the warm months and is then most critical for agriculture. During the period May through September, potential evaporation exceeds the normal rainfall by about 7 inches. Driest growing season (May-September) of record is 1933. During that season, the potential evaporation exceeded the rainfall by more than 14 inches. When evaporation exceeds rainfall for prolonged periods, a drought may occur; however, severe droughts seldom occur in Portage County.

Humidity, cloudiness, sunshine, and wind observations are not recorded in Hiram; however, estimates of these variables can be made from observations recorded at other locations. Relative humidity, the ratio between the amount of moisture in the air and the amount which could be present, without condensation, at the same temperature and pressure, is an important factor in human and animal comfort and in the growth and development of vegetation. Generally, humidity rises and falls inversely with the daily temperature and is lowest in summer and highest in winter. For the year, relative humidity averages 81% at 1 AM, 83% at 7 AM, 60% at 1 PM, and 70% at 7 PM. Cloudiness is greatest in winter and least in summer. This seasonal variation is most clearly illustrated by the percentage of possible sunshine which is about 68% in July and 30% in December. Normally, heavy fog occurs 2 to 3 times each month. Death from smog is unknown. The prevailing wind direction for the year is south-southwest, averaging nearly 10 mph. Average wind speeds during winter are slightly higher than those of summer. Damaging winds occur most often during spring and summer. Such storms are usually associated with migrating thunderstorms.

The tornado, one of the most destructive of all atmospheric storms, is characterized by a violently rotating column of air which is nearly always observable as a "funnel cloud". It frequently leaves great destruction along a narrow path, and is usually accompanied by heavy rain and hail, and often by lightning and thunder. Since 1885, 5 such storms have been reported in Portage County. Ohio averages 4 to 6 tornadoes each year.

February 1967

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PROBABILITY OF FREEZES OCCURRING AS LATE IN THE SPRING OR AS EARLY IN THE FALL AS DATES SHOWN IN THE FOLLOWING TABLE

| PERCENT CHANCE OF LATER DATE IN SPRING | TEMPERATURE LEVELS 16° | 20° | 24° | 28° | 32° | 36° |
|---|---|---|---|---|---|---|
| 90 | MAR 3 | MAR 13 | MAR 24 | APR 5 | APR 16 | APR 30 |
| 70 | MAR 12 | MAR 22 | APR 2 | APR 12 | APR 25 | MAY 9 |
| 50 | MAR 18 | MAR 28 | APR 8 | APR 18 | MAY 2 | MAY 15 |
| 30 | MAR 25 | APR 4 | APR 14 | APR 23 | MAY 9 | MAY 21 |
| 10 | APR 3 | APR 13 | APR 23 | MAY 1 | MAY 18 | MAY 30 |
| **PERCENT CHANCE OF EARLIER DATE IN FALL** | | | | | | |
| 10 | SEPT 9 | NOV 7 | OCT 29 | OCT 14 | SEPT 30 | SEPT 18 |
| 30 | OCT 22 | NOV 14 | NOV 6 | OCT 23 | OCT 9 | SEPT 26 |
| 50 | NOV 20 | NOV 20 | NOV 12 | OCT 30 | OCT 15 | OCT 1 |
| 70 | DEC 20 | NOV 25 | NOV 18 | NOV 6 | OCT 21 | OCT 7 |
| 90 | | DEC 3 | NOV 26 | NOV 15 | OCT 29 | OCT 15 |

STATION HISTORY

| DATE | LOCATION (From Post Office) | ELEVATION (Ft. MSL) | OBSERVER |
|---|---|---|---|
| 10/83 - 11/25 | S. Campus Street | 1260 | George Colton |
| 12/25 - 9/27 | 0.3 miles S | 1260 | George Tilden |
| 10/27 - 6/57 | 0.3 miles NW | 1260 | Elbert Clarke |
| 7/57 - Present | 0.2 miles E (Municipal Power Plant) | 1250 | Howard Hutchinson |

## AVERAGE TEMPERATURE (°F)

| YR | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 94 | 30.1 | 24.1 | 41.3 | 47.2 | 57.9 | 69.0 | 72.6 | 70.2 | 66.0 | 53.0 | 35.4 | 30.9 | 49.8 |
| 95 | 20.3 | 16.5 | 29.5 | 49.3 | 59.0 | 70.0 | 68.5 | 70.4 | 65.3 | 44.5 | 38.6 | 31.2 | 46.9 |
| 96 | 26.0 | 25.0 | 28.7 | 53.0 | 65.5 | 67.2 | 70.8 | 68.9 | 60.2 | 46.4 | 43.2 | 30.0 | 48.7 |
| 97 | 21.3 | 27.7 | 37.8 | 46.5 | 54.5 | 63.9 | 73.0 | 66.2 | 65.4 | 54.8 | 39.1 | 29.4 | 48.3 |
| 98 | 28.5 | 25.6 | 42.8 | 45.2 | 58.2 | 69.0 | 73.9 | 71.4 | 66.0 | 51.9 | 37.6 | 26.7 | 49.7 |
| 99 | 25.2 | 19.7 | 34.2 | 51.6 | 60.7 | 69.5 | 72.2 | 72.7 | 61.9 | 57.1 | 42.1 | 28.6 | 49.6 |
| 0 | 27.7 | 22.9 | 28.0 | 48.0 | 59.6 | 67.4 | 71.5 | 74.1 | 66.7 | 59.1 | 40.3 | 29.6 | 49.5 |
| 1 | 27.0 | 17.5 | 35.6 | 45.3 | 57.2 | 67.7 | 76.5 | 70.8 | 63.0 | 52.2 | 36.0 | 25.8 | 47.9 |
| 2 | 23.8 | 19.1 | 39.5 | 45.0 | 59.2 | 63.8 | 71.9 | 65.4 | 62.0 | 52.6 | 46.4 | 26.0 | 47.9 |
| 3 | 24.1 | 27.2 | 44.4 | 47.9 | 62.0 | 62.1 | 69.9 | 67.1 | 62.7 | 51.9 | 35.5 | 22.3 | 48.1 |
| 4 | 18.9 | 18.5 | 35.1 | 41.2 | 58.9 | 67.0 | 68.8 | 66.1 | 62.3 | 49.8 | 39.0 | 25.6 | 45.9 |
| 5 | 20.4 | 18.0 | 38.8 | 45.5 | 58.9 | 66.9 | 71.3 | 69.2 | 63.7 | 50.8 | 37.4 | 31.5 | 47.7 |
| 6 | 33.9 | 24.3 | 28.8 | 48.7 | 58.2 | 67.9 | 70.0 | 72.5 | 66.4 | 50.3 | 40.3 | 29.3 | 49.2 |
| 7 | 28.6 | 20.9 | 41.0 | 40.3 | 51.8 | 63.1 | 69.9 | 67.1 | 63.4 | 47.0 | 37.7 | 30.5 | 46.8 |
| 8 | 26.8 | 23.8 | 39.3 | 47.2 | 60.2 | 67.4 | 71.4 | 69.0 | 68.2 | 53.9 | 40.7 | 30.6 | 49.9 |
| 9 | 30.0 | 31.6 | 33.0 | 45.8 | 57.3 | 67.3 | 69.2 | 69.7 | 61.3 | 47.7 | 46.4 | 23.5 | 48.6 |
| 10 | 25.5 | 22.5 | 45.7 | 49.9 | 54.4 | 64.2 | 73.1 | 71.1 | 64.4 | 54.9 | 34.2 | 23.7 | 48.6 |
| 11 | 30.1 | 30.0 | 32.8 | 45.6 | 65.5 | 68.9 | 73.0 | 70.3 | 65.3 | 50.7 | 35.7 | 34.4 | 50.2 |
| 12 | 15.2 | 20.5 | 29.0 | 48.8 | 60.8 | 64.6 | 71.2 | 66.4 | 65.7 | 53.4 | 40.9 | 31.5 | 47.4 |
| 13 | 34.3 | 24.0 | 37.0 | 48.1 | 57.9 | 67.4 | 71.8 | 71.2 | 62.9 | 52.4 | 42.3 | 32.8 | 50.2 |
| 14 | 29.6 | 18.9 | 33.1 | 45.7 | 60.4 | 67.6 | 72.1 | 71.0 | 61.7 | 55.9 | 39.1 | 25.2 | 48.4 |
| 15 | 24.1 | 31.9 | 30.0 | 53.8 | 54.7 | 63.7 | 68.8 | 66.3 | 65.0 | 54.4 | 41.8 | 28.0 | 48.6 |
| 16 | 33.4 | 21.7 | 29.5 | 46.4 | 58.6 | 61.9 | 74.4 | 73.1 | 62.3 | 52.4 | 40.8 | 26.6 | 48.4 |
| 17 | 25.0 | 21.0 | 36.6 | 45.8 | 50.7 | 64.2 | 70.2 | 69.8 | 60.2 | 44.6 | 36.8 | 21.2 | 45.5 |
| 18 | 13.7 | 26.6 | 40.8 | 46.6 | 63.7 | 66.0 | 70.1 | 74.1 | 57.4 | 54.5 | 41.5 | 36.7 | 49.3 |
| 19 | 31.1 | 29.9 | 38.7 | 46.8 | 57.3 | 72.4 | 73.0 | 68.4 | 64.6 | 57.0 | 39.3 | 23.3 | 50.1 |
| 20 | 17.8 | 22.3 | 38.4 | 41.2 | 55.7 | 65.7 | 68.7 | 68.5 | 63.6 | 57.9 | 38.2 | 30.1 | 47.3 |
| 21 | 29.9 | 30.1 | 44.6 | 51.7 | 56.1 | 68.9 | 76.3 | 70.5 | 67.3 | 51.7 | 40.0 | 30.5 | 51.5 |
| 22 | 23.2 | 30.8 | 38.7 | 48.9 | 62.1 | 68.6 | 70.3 | 68.3 | 66.0 | 54.0 | 42.4 | 29.0 | 50.2 |
| 23 | 27.1 | 21.6 | 32.6 | 43.8 | 55.6 | 68.6 | 67.2 | 66.6 | 62.1 | 49.6 | 39.5 | 38.0 | 47.7 |
| 24 | 22.9 | 24.2 | 32.7 | 45.2 | 52.1 | 64.5 | 67.9 | 67.6 | 58.0 | 53.5 | 38.9 | 25.1 | 46.1 |
| 25 | 23.2 | 32.7 | 37.2 | 50.7 | 52.7 | 69.8 | 68.5 | 68.7 | 65.5 | 42.1 | 35.3 | 26.3 | 47.7 |
| 26 | 25.3 | 26.4 | 29.5 | 41.6 | 58.6 | 62.9 | 70.4 | 71.0 | 64.2 | 51.5 | 39.0 | 24.6 | 47.1 |
| 27 | 23.1 | 31.1 | 39.3 | 43.9 | 57.8 | 63.8 | 69.8 | 65.8 | 66.5 | 55.9 | 43.7 | 29.6 | 49.2 |
| 28 | 25.8 | 27.9 | 34.5 | 43.1 | 55.7 | 62.7 | 70.9 | 71.7 | 59.4 | 55.3 | 41.2 | 33.4 | 48.5 |
| 29 | 22.5 | 22.8 | 42.4 | 48.9 | 56.1 | 64.4 | 70.0 | 65.0 | 64.2 | 49.6 | 36.7 | 28.6 | 47.6 |
| 30 | 24.6 | 34.4 | 34.2 | 47.6 | 59.5 | 67.6 | 71.6 | 69.0 | 65.7 | 50.0 | 41.0 | 28.3 | 49.5 |
| 31 | 28.4 | 30.8 | 32.6 | 46.6 | 56.8 | 67.3 | 74.3 | 71.4 | 68.1 | 56.1 | 48.1 | 37.6 | 51.5 |
| 32 | 38.4 | 33.6 | 29.8 | 44.5 | 58.2 | 67.7 | 69.5 | 69.7 | 64.5 | 53.1 | 37.8 | 30.8 | 49.8 |
| 33 | 35.3 | 29.2 | 33.9 | 48.3 | 59.8 | 71.5 | 73.2 | 70.6 | 66.6 | 51.1 | 35.8 | 31.7 | 50.6 |
| 34 | 29.7 | 14.1 | 31.5 | 45.8 | 61.9 | 73.6 | 74.1 | 68.1 | 66.2 | 52.2 | 43.4 | 27.9 | 49.1 |
| 35 | 26.2 | 26.4 | 42.0 | 44.5 | 53.2 | 64.8 | 74.5 | 70.0 | 62.1 | 52.5 | 41.1 | 23.0 | 48.4 |
| 36 | 20.8 | 18.8 | 38.5 | 42.3 | 61.2 | 66.4 | 72.9 | 72.1 | 66.7 | 52.3 | 35.4 | 33.4 | 48.4 |
| 37 | 33.1 | 28.9 | 30.4 | 45.9 | 57.7 | 66.8 | 71.0 | 72.8 | 60.9 | 49.3 | 37.7 | 26.6 | 48.4 |
| 38 | 26.3 | 33.0 | 42.8 | 49.2 | 57.2 | 64.7 | 71.2 | 72.2 | 61.6 | 54.4 | 42.2 | 29.7 | 50.4 |
| 39 | 29.1 | 29.4 | 36.5 | 43.4 | 60.6 | 69.3 | 70.3 | 71.1 | 66.8 | 54.4 | 39.0 | 32.6 | 50.2 |
| 40 | 15.7 | 26.5 | 29.2 | 43.0 | 55.8 | 67.1 | 71.5 | 69.7 | 61.0 | 51.8 | 38.8 | 34.6 | 47.0 |
| 41 | 26.2 | 23.5 | 29.4 | 53.3 | 60.0 | 68.3 | 72.2 | 67.4 | 65.0 | 55.2 | 41.5 | 35.2 | 49.8 |
| 42 | 26.5 | 22.5 | 38.0 | 52.1 | 60.0 | 67.9 | 70.5 | 68.0 | 62.7 | 53.0 | 40.4 | 25.3 | 48.9 |
| 43 | 25.0 | 28.3 | 34.7 | 41.4 | 56.8 | 70.7 | 70.9 | 69.4 | 60.2 | 49.0 | 37.0 | 27.4 | 47.6 |
| 44 | 30.3 | 27.7 | 32.9 | 44.0 | 64.3 | 69.3 | 71.6 | 71.0 | 62.4 | 51.3 | 41.1 | 24.7 | 49.2 |
| 45 | 17.4 | 27.5 | 47.5 | 50.8 | 52.5 | 64.0 | 69.4 | 69.1 | 64.8 | 49.6 | 40.6 | 23.1 | 48.0 |
| 46 | 27.9 | 28.0 | 47.9 | 46.7 | 55.6 | 65.1 | 69.7 | 65.1 | 64.3 | 56.2 | 43.5 | 31.8 | 50.1 |
| 47 | 30.4 | 19.8 | 28.6 | 46.0 | 53.6 | 64.3 | 66.8 | 74.3 | 64.0 | 59.2 | 35.8 | 28.7 | 47.6 |
| 48 | 17.9 | 27.0 | 37.2 | 50.9 | 54.6 | 65.6 | 70.3 | 68.1 | 63.1 | 47.9 | 44.3 | 31.0 | 48.2 |
| 49 | 32.7 | 33.7 | 36.8 | 46.5 | 60.5 | 72.2 | 75.3 | 71.4 | 59.8 | 58.1 | 41.0 | 33.8 | 51.8 |
| 50 | 36.8 | 27.8 | 31.7 | 42.9 | 60.2 | 66.4 | 68.8 | 68.6 | 61.8 | 55.3 | 36.4 | 25.0 | 48.5 |
| 51 | 29.1 | 29.4 | 36.5 | 46.5 | 59.7 | 67.0 | 70.9 | 68.6 | 62.1 | 55.7 | 34.2 | 30.0 | 49.2 |
| 52 | 31.3 | 30.8 | 35.1 | 49.1 | 56.4 | 70.4 | 74.0 | 69.6 | 64.5 | 48.2 | 43.3 | 33.4 | 50.5 |
| 53 | 32.6 | 32.4 | 38.4 | 44.6 | 61.1 | 69.1 | 71.3 | 71.2 | 64.6 | 55.7 | 44.2 | 33.0 | 51.5 |
| 54 | 27.7 | 34.8 | 33.9 | 53.9 | 54.9 | 69.3 | 70.5 | 68.6 | 65.2 | 55.3 | 41.3 | 29.7 | 50.4 |
| 55 | 25.1 | 28.6 | 37.1 | 55.1 | 60.5 | 64.9 | 76.0 | 69.8 | 63.8 | 52.5 | 36.4 | 27.1 | 49.8 |
| 56 | 26.3 | 29.6 | 33.7 | 44.9 | 55.6 | 66.7 | 69.4 | 69.3 | 58.8 | 55.7 | 41.3 | 35.9 | 48.9 |
| 57 | 22.3 | 32.2 | 37.1 | 49.8 | 58.6 | 68.5 | 70.5 | 68.9 | 63.8 | 49.7 | 40.9 | 32.3 | 49.6 |
| 58 | 25.0 | 19.4 | 31.9 | 48.1 | 56.7 | 63.6 | 71.8 | 69.6 | 63.7 | 52.8 | 43.1 | 21.6 | 47.3 |
| 59 | 23.4 | 29.8 | 35.1 | 49.8 | 63.0 | 66.9 | 71.2 | 73.9 | 66.7 | 53.0 | 37.6 | 33.6 | 50.3 |
| 60 | 29.2 | 28.0 | 24.9 | 52.6 | 57.1 | 66.5 | 69.0 | 71.0 | 67.0 | 53.3 | 43.3 | 23.1 | 48.8 |
| 61 | 22.0 | 32.8 | 39.2 | 43.4 | 54.6 | 66.0 | 70.7 | 71.0 | 68.8 | 56.0 | 41.6 | 27.9 | 49.5 |
| 62 | 22.4 | 26.0 | 34.2 | 47.9 | 65.0 | 67.7 | 69.3 | 70.2 | 60.3 | 53.4 | 39.4 | 23.7 | 48.3 |
| 63 | 18.9 | 19.3 | 38.3 | 48.4 | 56.2 | 66.9 | 70.3 | 66.2 | 60.3 | 59.9 | 42.1 | 20.7 | 47.3 |
| 64 | 27.6 | 25.2 | 37.3 | 49.8 | 62.2 | 68.1 | 73.3 | 67.0 | 64.3 | 51.6 | 45.3 | 31.7 | 50.3 |
| 65 | 25.6 | 26.8 | 32.5 | 47.1 | 64.7 | 66.6 | 69.2 | 68.7 | 66.3 | 50.3 | 42.5 | 35.9 | 49.7 |

## TOTAL PRECIPITATION (INCHES)

| YR | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 94 | 2.70 | 2.41 | 2.62 | 3.20 | 3.32 | 3.23 | 1.97 | .22 | 5.47 | 2.32 | 3.76 | 3.72 | 34.94 |
| 95 | 3.33 | .83 | 1.59 | 1.81 | 2.00 | 1.44 | 2.13 | 3.16 | 4.13 | 1.41 | 5.02 | 4.84 | 31.69 |
| 96 | 2.23 | 2.87 | 3.50 | 4.59 | 2.18 | 3.95 | 4.57 | 2.06 | 4.69 | 1.10 | 1.97 | 2.43 | 36.14 |
| 97 | 2.00 | 3.01 | 4.58 | 2.47 | 5.01 | 1.80 | 6.51 | 3.21 | .76 | 2.78 | 6.15 | 2.15 | 40.43 |
| 98 | 4.41 | 2.40 | 5.14 | 2.69 | 3.00 | 3.90 | 3.20 | 6.03 | 2.53 | 5.07 | 4.66 | 2.68 | 45.71 |
| 99 | 3.03 | 1.77 | 4.63 | 1.25 | 6.90 | 2.03 | 2.19 | 1.23 | 3.40 | 2.14 | 1.79 | 4.30 | 34.66 |
| 0 | 2.74 | 3.26 | 3.45 | 2.70 | 2.70 | 1.91 | 4.99 | 1.46 | 2.09 | 1.99 | 4.80 | 1.37 | 33.46 |
| 1 | 2.37 | 1.41 | 3.51 | 4.40 | 3.39 | 4.53 | 3.71 | 4.55 | 4.37 | .77 | 3.11 | 3.85 | 39.97 |
| 2 | 1.76 | .69 | 1.64 | 3.76 | 3.59 | 8.59 | 7.22 | 2.06 | 4.25 | 2.06 | 2.51 | 4.40 | 42.53 |
| 3 | 2.22 | 4.21 | 3.58 | 4.79 | 1.32 | 4.21 | 5.27 | 4.62 | 1.44 | 3.82 | 2.46 | 3.26 | 41.20 |
| 4 | 4.91 | 2.14 | 3.73 | 4.11 | 5.86 | 2.62 | 5.17 | 2.55 | 1.56 | 1.22 | .94 | 1.96 | 36.77 |
| 5 | 1.60 | 1.38 | 2.46 | 2.59 | 5.18 | 2.71 | 5.85 | 5.46 | 5.13 | 3.77 | 2.80 | 1.74 | 40.67 |
| 6 | 1.31 | 1.22 | 3.21 | 2.32 | 3.19 | 2.03 | 6.21 | 7.46 | 6.23 | 5.62 | 2.80 | 4.33 | 45.93 |
| 7 | 5.47 | .74 | 5.65 | 2.99 | 3.09 | 4.31 | 3.60 | 3.30 | 4.33 | 4.09 | 2.10 | 2.69 | 42.36 |
| 8 | 2.67 | 3.76 | 5.60 | 3.91 | 3.81 | 3.55 | 3.65 | 1.88 | 1.17 | 1.14 | .93 | 3.01 | 35.08 |
| 9 | 2.91 | 3.93 | 2.24 | 4.89 | 2.42 | 4.41 | 2.70 | 3.48 | 1.41 | 1.39 | 3.31 | 1.85 | 34.94 |
| 10 | 3.73 | 3.73 | .23 | 3.08 | 4.61 | 1.67 | 1.53 | 1.02 | 4.63 | 3.97 | 3.22 | 2.65 | 34.07 |
| 11 | 3.27 | 2.58 | 2.01 | 3.64 | 2.73 | 3.12 | 2.65 | 5.02 | 5.29 | 5.93 | 3.51 | 4.11 | 43.86 |
| 12 | 3.42 | 1.89 | 2.32 | 3.48 | 1.46 | 1.52 | 3.88 | 5.69 | 3.31 | 5.60 | 2.13 | 1.73 | 36.43 |
| 13 | 4.69 | 1.19 | 8.54 | 2.97 | 2.85 | 1.17 | 3.78 | 2.72 | 1.76 | 4.84 | 4.26 | 2.38 | 41.15 |
| 14 | 3.34 | 2.45 | 2.85 | 5.74 | 4.77 | 3.08 | .90 | 5.92 | 1.43 | 2.89 | 2.75 | 2.75 | 38.87 |
| 15 | 3.04 | 2.84 | 1.27 | .65 | 3.08 | 3.80 | 3.86 | 3.79 | 2.83 | 2.62 | 2.58 | 3.71 | 34.07 |
| 16 | 2.92 | 1.68 | 3.21 | 2.21 | 3.17 | 5.09 | 2.29 | 1.44 | 2.79 | 2.69 | 2.29 | 2.31 | 32.09 |
| 17 | 2.57 | 1.14 | 2.73 | 2.65 | 4.96 | 3.98 | 3.35 | 3.07 | 2.67 | 5.90 | 1.11 | 1.31 | 35.44 |
| 18 | 2.03 | 1.98 | 3.64 | 4.03 | 4.91 | 3.10 | 1.40 | 3.71 | 4.18 | 3.93 | 2.39 | 2.74 | 38.04 |
| 19 | 1.49 | 1.66 | 2.74 | 3.11 | 7.15 | 2.02 | 3.50 | 6.66 | 2.57 | 5.93 | 2.90 | 1.77 | 41.50 |
| 20 | 2.73 | .98 | 1.33 | 5.33 | 1.72 | 5.76 | 3.88 | 3.69 | 1.12 | 2.06 | 3.16 | 2.63 | 34.39 |
| 21 | 2.38 | 2.53 | 4.96 | 2.57 | 2.18 | 1.74 | 3.34 | 3.94 | 3.93 | 2.83 | 6.27 | 1.90 | 38.57 |
| 22 | 1.98 | 1.28 | 4.62 | 4.16 | 4.64 | 3.89 | 3.82 | 2.43 | 2.34 | 2.06 | 2.10 | 2.82 | 36.14 |
| 23 | 4.07 | 1.87 | 2.65 | 2.06 | 4.34 | 3.25 | 3.18 | 2.56 | 2.89 | 1.76 | 3.93 | 5.13 | 37.69 |
| 24 | 4.46 | 1.90 | 2.36 | 3.28 | 4.57 | 6.44 | 4.08 | 2.29 | 9.47 | .34 | .92 | 3.47 | 43.58 |
| 25 | 1.78 | 3.08 | 2.87 | 1.29 | 2.85 | 4.29 | 5.03 | 1.60 | 5.27 | 3.51 | 4.14 | 1.36 | 37.07 |
| 26 | 2.13 | 2.96 | 2.04 | 3.37 | 2.25 | 3.74 | 4.10 | 4.86 | 9.64 | 7.59 | 2.76 | 2.33 | 47.77 |
| 27 | 2.56 | 2.86 | 3.42 | 1.90 | 3.80 | 3.26 | 5.13 | 2.08 | 2.03 | 1.68 | 6.73 | 5.01 | 40.46 |
| 28 | 2.13 | 3.02 | 2.68 | 2.90 | 1.83 | 6.90 | 7.26 | 2.60 | .58 | 3.53 | 4.63 | 1.30 | 39.36 |
| 29 | 5.35 | 2.08 | 4.06 | 7.62 | 6.12 | 2.51 | 5.49 | 1.42 | 2.37 | 2.87 | 4.39 | 3.22 | 47.50 |
| 30 | 4.56 | 2.13 | 2.58 | 2.27 | 1.69 | 2.87 | 1.71 | 2.00 | 1.69 | 3.52 | 2.12 | 1.18 | 28.32 |
| 31 | 1.85 | 1.44 | 1.88 | 3.96 | 4.24 | 3.71 | 2.46 | 3.64 | 3.31 | 2.64 | 3.06 | 3.14 | 35.33 |
| 32 | 6.57 | 1.03 | 2.18 | 2.78 | 2.84 | 3.55 | 4.81 | 2.85 | 1.64 | 2.32 | 3.05 | 2.89 | 36.51 |
| 33 | 1.22 | 1.84 | 4.11 | 3.86 | 3.69 | 1.78 | .85 | .90 | 2.48 | 1.07 | 2.79 | 2.11 | 26.70 |
| 34 | 1.98 | .67 | 2.03 | 2.17 | .52 | 3.55 | 2.80 | 4.26 | 5.56 | 1.15 | 3.10 | 1.37 | 29.16 |
| 35 | 2.56 | 2.61 | 1.94 | 1.15 | 2.74 | 4.07 | 4.03 | 7.28 | 2.30 | 1.97 | 2.09 | 3.39 | 36.13 |
| 36 | .87 | 2.70 | 4.55 | 2.89 | 1.40 | 2.29 | 2.98 | 4.62 | 2.79 | 2.91 | 2.48 | 2.24 | 32.72 |
| 37 | 8.02 | 1.05 | 2.32 | 4.75 | 4.21 | 6.49 | 5.81 | 5.16 | 2.58 | 3.98 | 1.77 | 2.70 | 48.84 |
| 38 | 1.02 | 2.80 | 5.00 | 2.01 | 3.68 | 3.48 | 4.49 | 4.36 | 4.25 | .55 | 2.93 | 1.37 | 35.94 |
| 39 | 2.23 | 3.43 | 3.22 | 4.06 | 1.42 | 4.16 | 4.53 | 1.40 | 3.08 | 3.44 | .74 | 1.55 | 33.26 |
| 40 | 1.49 | 3.39 | 2.75 | 4.67 | 6.00 | 6.20 | .97 | 4.86 | 1.24 | 1.64 | 3.69 | 3.79 | 40.69 |
| 41 | 1.96 | 1.04 | .94 | 1.54 | 2.93 | 3.50 | 6.79 | 3.65 | 1.43 | 5.45 | 1.40 | 2.01 | 32.64 |
| 42 | 1.78 | 3.60 | 4.51 | 3.16 | 4.88 | 3.77 | 4.34 | 2.13 | 2.57 | 3.77 | 2.98 | 3.80 | 41.29 |
| 43 | 1.96 | 2.06 | 2.86 | 3.73 | 5.38 | 5.93 | 5.22 | 2.20 | 2.89 | 2.81 | 1.57 | .86 | 37.47 |
| 44 | 1.57 | 2.22 | 3.66 | 3.74 | 4.75 | 3.81 | 1.78 | 4.02 | 2.74 | 1.19 | 2.57 | 2.91 | 34.96 |
| 45 | 1.38 | 2.37 | 4.72 | 3.44 | 5.94 | 2.66 | 3.22 | 2.92 | 8.16 | 4.81 | 3.28 | 1.96 | 44.86 |
| 46 | 1.02 | 2.73 | 2.71 | 1.52 | 7.08 | 3.06 | .97 | 1.94 | 1.23 | 3.89 | 2.65 | 2.85 | 31.65 |
| 47 | 4.66 | .76 | 2.69 | 5.45 | 7.00 | 5.68 | 3.59 | 2.13 | 2.62 | 1.22 | 2.68 | 1.68 | 40.16 |
| 48 | 1.84 | 1.86 | 3.65 | 4.39 | 5.06 | 5.20 | 3.76 | 3.71 | 2.37 | 2.70 | 3.24 | 3.15 | 40.93 |
| 49 | 3.82 | 2.36 | 2.90 | 2.92 | 3.82 | 5.47 | 3.30 | 3.66 | 2.68 | .94 | 1.80 | 2.24 | 33.91 |
| 50 | 7.13 | 4.15 | 4.08 | 5.37 | 2.18 | 5.30 | 3.52 | .85 | 3.20 | 3.28 | 5.82 | 1.92 | 46.80 |
| 51 | 2.63 | 3.28 | 6.10 | 3.39 | 2.91 | 2.71 | 3.91 | 1.90 | 3.57 | 1.81 | 6.00 | 5.39 | 43.60 |
| 52 | 6.02 | 2.33 | 3.56 | 3.32 | 3.66 | 2.63 | 2.79 | 3.13 | 1.96 | 1.95 | 3.05 | 2.05 | 36.45 |
| 53 | 3.30 | 1.13 | 1.78 | 2.88 | 3.39 | 2.42 | 1.55 | 1.50 | 1.97 | .83 | 1.66 | 3.16 | 25.57 |
| 54 | 2.83 | 1.42 | 5.41 | 5.49 | 2.72 | 2.32 | .33 | 3.26 | 3.49 | 9.23 | 1.81 | 2.59 | 40.90 |
| 55 | 2.24 | 2.55 | 5.57 | 3.94 | 2.45 | 4.34 | 4.02 | 3.79 | 2.26 | 5.84 | 3.32 | 1.23 | 41.55 |
| 56 | 1.59 | 4.58 | 4.69 | 5.38 | 7.39 | 7.20 | 6.19 | 6.93 | 3.19 | 1.11 | 1.67 | 2.56 | 52.48 |
| 57 | 2.49 | 1.98 | 2.17 | 7.71 | 3.13 | 7.53 | 1.77 | .51 | 1.98 | 2.23 | 2.97 | 4.75 | 39.22 |
| 58 | 2.27 | 2.24 | .63 | 3.61 | 3.19 | 5.51 | 10.47 | 3.87 | 5.00 | 1.82 | 3.88 | .95 | 43.44 |
| 59 | 3.45 | 4.98 | 2.28 | 4.86 | 3.26 | 5.23 | 5.43 | 2.76 | 4.80 | 4.86 | 3.83 | 3.19 | 48.93 |
| 60 | 3.42 | 3.32 | 3.31 | 1.79 | 6.25 | 2.20 | 6.10 | 7.51 | .59 | 1.32 | 2.49 | 2.36 | 40.66 |
| 61 | .95 | 3.97 | 4.12 | 8.01 | 1.97 | 5.35 | 4.68 | 2.12 | .67 | 3.55 | 3.57 | 2.44 | 41.40 |
| 62 | 2.86 | 2.67 | 2.07 | 1.79 | 3.39 | 2.81 | 3.80 | 1.08 | 3.85 | 5.09 | 2.69 | 2.79 | 34.89 |
| 63 | 1.46 | 1.21 | 4.09 | 3.30 | 1.94 | 3.60 | 2.64 | 2.37 | 1.25 | .85 | 3.54 | 1.98 | 28.23 |
| 64 | 2.01 | 2.09 | 5.85 | 6.74 | 2.47 | 2.85 | 2.98 | 3.30 | .50 | 1.48 | 1.24 | 3.23 | 34.74 |
| 65 | 4.14 | 3.69 | 3.64 | 2.56 | 2.82 | 2.70 | 3.25 | 4.79 | 2.76 | 6.00 | 3.81 | 1.39 | 41.55 |