



# Ohio Department of Natural Resources Division of Water Fact Sheet

Fact Sheet 92-11

## Precipitation in Ohio

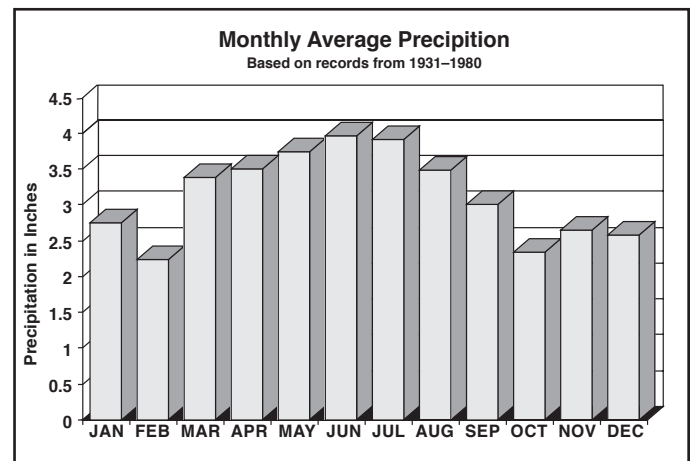
The changing weather in Ohio is always a topic of conversation and discussion. Even new acquaintances can talk about the recent weather being too hot, too dry, too cold, or too wet. The past several years are vivid examples of how weather conditions in Ohio can vary year to year. Droughts and floods, blizzards and tornados, fog, hail, wind and more; many people enjoy the variation that Ohio's weather brings, both the daily and the seasonal changes.

Precipitation includes rain, snow, sleet and hail. Many people measure and record the daily precipitation for fun or for a specific activity or business. Official precipitation recording stations are operated by the National Oceanic and Atmospheric Administration-National Weather Service and to a lesser extent, by other state and federal agencies. Each day, at a specific time, the amount of precipitation that fell during the previous 24 hours is measured and recorded. Some stations also have equipment that records the amount of precipitation that fell during each hour or even shorter periods.

### Over Three Feet of Rain?

Precipitation in Ohio varies greatly from area to area. The general trend is for precipitation to be greatest in the south and east, diminishing in amount toward the northwest. Based on the 50-year period 1931-80, Ohio averages 37.57 inches of precipitation annually. Locally, average annual precipitation ranges from a high of nearly 44 inches in the northeast near Chardon (Geauga County) and in the southwest near Hillsboro (Highland County) to less than 30 inches at Put-in-Bay on South Bass Island (Ottawa County). Snowfall ranges from greater than 100 inches in the northeast, east of Cleveland in Ohio's snowbelt, to less than 20 inches in the south along the Ohio River. The snowfall contributes significantly to the average annual precipitation total in the snowbelt areas. On the average, 10 inches of snow equals 1 inch of rain when melted.

Precipitation in Ohio varies throughout the year. The spring and summer months are typically the wettest while the fall and winter months are the driest. June and July are the wettest months with the state averaging nearly 4 inches of precipitation each month. October and February are the driest months with the state averaging about 2 1/4 inches of precipitation each month.



The amount of precipitation that falls during each year also is quite variable. For the state, the wettest year on record was 1990 when 51.38 inches of precipitation fell. Other wet years include 1890 and 1950. The driest year was 1930 when only 26.59 inches of precipitation was recorded, closely followed by 1934 and 1963.

Floods and droughts are natural periodic occurrences in Ohio. Floods can happen at any time and are the result of many factors. Droughts can occur during any season, but are usually more noticeable during the spring and summer months. Floods usually last from a few hours to a few days whereas droughts generally last from a few months to a few years.

### Basic Data for Water Projects

The Division of Water compiles precipitation information from several sources. Files containing current and historical information are maintained. Each month, the division evaluates the recent precipitation and how it relates to water supplies, floods and droughts. The

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information is distributed in the “Monthly Water Inventory Report for Ohio.” Precipitation data are also used extensively by division staff to evaluate designs for dams and levees, define floodplains, compare water supply alternatives, determine hydraulic operations throughout the canal system and many other things.

Over the years, the Division of Water has authored or funded the production of many publications concerning Ohio’s precipitation. The most recent is the “Hydrologic Atlas for Ohio.” This publication includes an explanatory report as well as four maps that show the variation

in precipitation, temperature, streamflow and water loss across Ohio based on data collected during the 50-year period 1931-80. This report sells for \$5.00 plus tax at the ODNR Publications Center (\$6.54 if ordered by mail).

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## Average Annual Precipitation (Recorded from 1931–1980)

