

**OKLAHOMA WEATHER HISTORY**  
**Monthly Climatology Series**  
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MONTHLY CLIMATE OF OKLAHOMA – MAY

Oklahoma's weather reaches something of a crescendo in May as springtime comes to full flower. May is Oklahoma's wettest (statewide-averaged precipitation of 5.13 inches) and certainly its stormiest month (an average of 19.9 tornadoes, more than one-third of the annual average, occurring on 5.5 days, statewide). Its position in the spring transition season is confirmed by a monthly mean temperature, averaged statewide, of 68.4 degrees that ranks fifth highest among the months. Vestiges of winter are occasionally seen in the far northwestern portions of the state, but mostly May is a time for flowering of most plants, full leafing of deciduous trees, planting of row crops, and the maturing and ripening of the winter wheat that was sowed the previous fall.

May usually is characterized by a pleasant range of temperatures across the state, although there are times most years when it is evident that the hot Oklahoma summer is drawing near. Monthly mean temperatures since 1892 have ranged from 62.3 degrees in 1907 to 75.8 degrees in 1896. Normal daily maximum temperatures across the state vary from 84.6 degrees at Waurika to 76.5 degrees at Arnett. Normal daily minimum temperatures fall between 61.2 degrees at Ardmore and 46.8 degrees at Boise City. Historical extremes of temperature during the month are 114 degrees at Weatherford, reported on May 25, 2000 and 19 degrees at Hooker on May 1, 1909. Temperatures in southwestern Oklahoma, the state's hot spot, reach 100 degrees an average of slightly more than once each May. Freezing temperatures are also rare, occurring less than once per year in the panhandle, rarely elsewhere. Freezes have occurred in the state's most northerly regions as late as the end of the month.

The Oklahoma panhandle's climate differs from the rest of the state in that its primary precipitation season is shifted toward summer, being tied to the patterns of the High Plains, of which it is a part. Elsewhere in the state, May is the month of maximum precipitation and May is, in fact, the panhandle's second wettest month by a small margin. May has produced statewide-averaged monthly precipitation totals ranging from 10.68 inches in 1957 to 1.30 inches in 1988. Extremes of individual station-normal precipitation for the month are 7.06 inches in the southeast at Smithville and 2.29 inches in the western panhandle at Regnier. Miami recorded the greatest May monthly total precipitation, 23.95 inches, in 1943. The record-breaking 1957 statewide-averaged precipitation was amplified by the May total of 22.38 inches of rain recorded at Hennessey, most of which fell during the drought-breaking, flood-producing deluge that hammered much of the state on the 15<sup>th</sup> and 16<sup>th</sup>. Purcell apparently holds the single

reporting-day precipitation record for May, measuring 13.68 inches of rain on May 11, 1950. Interestingly, the events that produced the Purcell and Hennessey precipitation records, and the widespread flooding that occurred after each, bracket the state's driest ever 7-year period.

Springtime in Oklahoma is noted for severe thunderstorms and tornadoes. Over the last 52 years (the period of reasonably comprehensive statistics on the subject) Oklahoma has been struck by more tornadoes in May than in any other two months combined (April and June rank second and third, respectively, among the months). May 1999 holds the state record for most tornadoes in a single month with a nearly unbelievable confirmed total of 91. Most of those tornadoes (59) occurred in central and western Oklahoma on the afternoon and evening of May 3. That outbreak caused extensive damage and killed 40 people along a wide path extending generally from Amber to Stroud. Some of the fiercest storms struck in the southern portion of the Oklahoma City metropolitan area. A mobile Doppler radar operated by a University of Oklahoma research team measured winds as great as 318 miles per hour in one of the funnels, the greatest wind speed yet measured on the planet.

Terrible though the May 3, 1999 storms were, the number of fatalities was greatly reduced by accurate forecasts and timely warnings provided by National Weather Service, local emergency management, and area media outlets. Such advantages have not always been present. A tornado struck Snyder on May 10, 1905, killing 97 people. On May 2, 1920, the small northeastern Oklahoma community of Peggs was totally destroyed and 71 people died when a tornado struck without warning. On May 2, 1942, just 5 days after a deadly tornado at Pryor, 26 people were killed by tornadoes in Okfuskee County. Twenty people in Blackwell and another 80 in nearby parts of Kansas died in tornadoes on May 25, 1955. Sixteen people were killed in separate storms that struck Wilburton and Keota on May 5, 1960. Exactly one year later, 16 more people died in tornadoes in LeFlore County at Howe and Reichert. Pre-1990 tornado information is documented extensively in the two-volume set "Significant Tornadoes" by Tom Grazulis, published by St. John's Press.

Floods on the major rivers and their tributaries were common before the completion of numerous flood control dams and watershed retention pond systems during the two decades immediately after World War II. A May 1-5, 1914 flood on the Canadian River resulted from rainfall at the river's source in New Mexico with the flow going from "nil to overflow" overnight. The most recent memorable incidence of flooding throughout a river basin came in 1990 along the Red and Washita rivers. On May 3, 1990, water topped the Lake Texoma spillway for the first time since 1957. The North Canadian and Washita river floods of 1922 and 1923 were accompanied by droughts in other parts of their watersheds. Western Oklahoma was in a substantial drought in 1922 when rains in central portions of the state produced flooding in the eastern portions of each basin. One year later, the flood-producing rains were confined to the westernmost portions of the two basins while the rest of the state was suffering from a lack of precipitation.

Flash floods are dramatic events that arise from locally heavy rainfall and are all too common in Oklahoma. The most notable May event struck on a holiday weekend in the state's second largest metropolitan area. The Tulsa "Memorial Day Flood" on May 26-27, 1984, resulting from 12 inches or more of rain overnight led to massive flooding on the various creeks that run through Tulsa, leaving 14 people dead and damaging or destroying 5,500 homes and over 7,000 vehicles.

A wide variety of weather occurs in Oklahoma during May. Many of the thunderstorm systems that produce tornadoes also cause damage in other ways. Hail is a threat to maturing wheat in May, but one whose individual incidences are difficult to portray. One remarkable event was a May 24, 1940 storm that, while traversing a path between Seminole and Ada, piled hail "6-8 inches on the level with drifts to 5 feet," and "killed many animals and fowls." All this is according to a summary written by the director of the Weather Bureau office in Oklahoma City. A May 27, 2001 wind storm, associated with a line of thunderstorms, hit the Oklahoma City metropolitan area, knocking down many power poles and leaving 160,000 residences without power. Major weather events not associated with thunderstorms include the 12-inch snowfall at Boise City on May 3, 1978, the 1-inch snowfall at Kenton May 20-21, 1931, and the very late hard freezes in the northwest on May 27 and 28, 1907 and around Kenton on May 29, 1947. Finally, to demonstrate that it hasn't all been rain, visibility in Kenton was reduced to 100 feet for a short time on May 6, 1939 in one of three major dust storms reported there that month.

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