



Monthly JAN FEB MAR APR MAY JUN JUL AUG SEP

Tennessee Climatological Service

mly-tavg-normal 382S 424S 503S 588S 672S 750S 784S 778S 711S

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[Main](#) » Climate Data

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[Agricultural Weather](#)

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[Climate Data](#)

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[American Meteorological Society \(local chapter\)](#)

[Global Warming Effects on Tennessee](#)

[Southern Region Climate Center](#)

Climate Data for Tennessee

Climate descriptions of Tennessee

Generally, Tennessee has a temperate climate, with warm summers and mild winters. However, the state's varied topography leads to a wide range of climatic conditions.

The warmest parts of the state, with the longest growing season, are the Gulf Coastal Plain, the Central Basin, and the Sequatchie Valley. In the Memphis area in the southwest, the average date of the last killing frost is 20 March, and the growing season is about 235 days. Memphis has an annual mean temperature of 62°F (17°C), 40°F (4°C) in January, and 83°F (28°C) in July. In the Nashville area, the growing season lasts about 225 days. Nashville has an annual mean of 59°F (15°C), ranging from 36°F (2°C) in January to 79°F (26°C) in July. The Knoxville area has a growing season of 220 days. The city's annual mean temperature is 60°F (16°C), with averages of 41°F (5°C) in January and 78°F (26°C) in July. In some parts of the mountainous east, where the temperatures are considerably lower, the growing season is as short as 130 days. The record high temperature for the state is 113°F (45°C), set at Perryville on 9 August 1930; the record low, -32°F (-36°C), was registered at Mountain City on 30 December 1917.

Severe storms occur infrequently. The greatest rainfall occurs in the winter and early spring, especially March; the early fall months, particularly September and October, are the driest. Average annual precipitation (1971–2000) was 54.7 in (138.9 cm) in Memphis and 48 in (122 cm) in Nashville. Snowfall varies and is more prevalent in East Tennessee than in the western section; Nashville gets about 10 in (25.4 cm) a year, Memphis only 5 in (12.7 cm).

[Full description of climate \(National Climatic Data Center\)](#)

[Weather and Climate in the Great Smoky Mountains](#)

[Map of Annual Average Precipitation](#)

Data Requests:

The TSCO has the following resources that can be requested

- Daily data and sample graphs (max and min temperatures, precipitation, pan evaporation, wind over pan, soil temperatures) for entire period of record for Agricultural Experiment Stations - Greeneville, Knoxville, Crossville, Spring Hill, Springfield, Ames Plantation, Martin, Jackson, Milan - Excel format
- Hourly precipitation data for entire period of record for multiple locations in TN (UT, state and federal employees may borrow a CD with complete dataset).
- Daily precipitation and max and min temperature and for all NWS Coop and First Order stations in Tennessee (UT, state and federal employees may borrow a CD with complete dataset).
- Special requests - contact Joanne Logan at loganj@utk.edu

Recent Climate Data:

[Quick Climate Summary](#)

NOAA NowData (current and past month) for [West Tennessee/Middle Tennessee/East Tennessee](#)

[SRCC Station Search](#) - types of data collected, temperature and precipitation data for past year, monthly temperature and precipitation normals, current year's graphs of temperature and precipitation

[Community Collaborative Rain, Snow and Hail Network \(CoCoRAHS\) for Tennessee](#)

[Current Moisture Status for Tennessee](#)

Historical Climate Data:

[Tennessee Observed Normals \(1981-2010\) \(Google Map\)](#) 

[Tennessee Observed Normals \(1981-2010\) \(table format\)](#) 

[Climate Graphs for Memphis, Knoxville, Nashville, and Chattanooga](#)

[Natural Resources Conservation Service Climate Information Retrieval for Tennessee](#)

[Precipitation Frequency Data Server- Tennessee](#)

[NCDC Online Climate Data \(Some free, some fee-based\)](#)

[CDC: Timeseries plots, climatologies and data distributions available for temperature\(max,min\) and precipitation](#)

[ORNL/CDIAC: Tennessee Historical Climatology Network \(USHCN\)](#)

[Historic Palmer Drought Indices](#)

[Historical Climate Summaries for Tennessee](#)

[Storm Event Data for by State](#)

[U.S. Daily Weather Maps Project](#) (requires DjVu plug-in to view maps)

[WindRose plots for Bristol, Chattanooga, Knoxville, Memphis, and Nashville](#)

[Average Freeze dates for 78 locations in Tennessee](#)

[Severe Weather Climatology \(Storm Prediction Center\) for U.S.](#)

[Return to Top of Page](#)

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