



Highlighting Kentucky's Climate: What You Expect Isn't Always What You Get

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Kentucky's climate is a natural resource that supports a way of life enjoyed by people through the commonwealth. As the global population and economy continue to grow, water is increasingly recognized as a vital but threatened resource. Kentucky's location in the eastern United States in proximity to the Gulf of Mexico contributes to a climate that normally produces ample precipitation to meet the needs of both urban and rural dwellers. Average annual precipitation ranges from over 40 inches in far northern Kentucky to more than 50 inches in south central Kentucky. Precipitation tends to be well distributed throughout the year, though the fall is typically a bit drier than other seasons.

As Kentuckians know however, our climatic conditions can vary significantly from year to year. The wettest year on record in Kentucky was 1950, when average precipitation across the state was 62.93 inches. Weather producing extremes of precipitation can develop quickly or persist for extended periods. Flash floods, usually resulting from intense but short-lived thunderstorms or from storms training over an area, occur throughout Kentucky, but are a particular concern in the rugged terrain of eastern Kentucky, which is characterized by steep slopes and narrow valleys. Flooding on major rivers is also a threat, and the Great Flood of January, 1937 set the mark. Record flooding occurred on the Ohio River and many of its tributaries when more than 20 inches of precipitation was recorded in parts of Kentucky during that January alone.

Drought occurs periodically in Kentucky. When it does, it is often accompanied by oppressive heat, leaving the landscape parched. Kentucky's drought of record occurred in 1930. Crops wilted in the field, and many municipalities struggled to provide a safe, adequate water supply. The year 1930 was the driest year on record in Kentucky, with an average precipitation total of 29.39 inches across the state.

Kentucky's location further contributes to a climate characterized by warm summers and cool winters. High temperatures in the summer average from the mid-80s in the north and east to about 90 in western Kentucky. Overnight low temperatures average from the low to upper 60s across those same areas. The highest recorded temperature, 114°F, was reported in Greensburg on July 28th in the midst of the 1930 drought. High temperatures in the winter average from the high 30s in the north to the mid-40s in the south, while lows range from about 20 to the mid-25s over the same areas. Kentucky's record low temperature of -37°F was recorded at Shelbyville on January 19th following a paralyzing snow and ice storm in 1994.

While Kentucky enjoys a pleasant climate, the changeable nature of day-to-day weather is often noted by its residents. CoCoRaHS observers throughout Kentucky play a vital role in contributing to our recordkeeping and understanding of day-to-day weather in Kentucky, and therein also aid in furthering our understanding of Kentucky's climate.

To learn more about Kentucky's climate please visit the Kentucky Climate Center Web page at: <http://kyclim.wku.edu/>