

Kansas's Climate

THE COCORAHS 'STATE CLIMATES' SERIES

The Climate of Kansas

By Mary Knapp, Kansas State Climatologist

Kansas has what is typically described as a continental climate meaning without the influence of any major bodies of water. Summers are warm, with the majority of the annual precipitation occurring during this period. Winters tend to be cold with an occasional mild spell and moderate snowfall amounts. Annual average rainfall ranges between approximately 45 inches in the southeastern part of the state to less than 20 inches in the western part of the state. Annual average snowfall ranges from 40 inches in the northwest to less than 15 inches in the southeast.

Much of the severe weather for which Kansas is often noted is due to weather patterns that bring cold dry air into contact with warm moist air over the state. There are many severe thunderstorms each year with an average of 111 tornadoes per year in the state (based on 2000-2009 SPC data). Extreme temperatures reported in the state range from a high of 121F (Fredonia, July 18, 1936 and Alton, July 24, 1936) to a low of -40F (Lebanon, February 13, 1905). Despite these extremes, Kansas is noted for its agriculture, repeatedly figuring among the top states in the production of wheat, sorghum, soybeans, and beef.

The prevailing wind direction for the state is from the south. The average annual wind speed for the first order stations in Kansas are as follows: Dodge City, 14 miles per hour (mph); Goodland, 12.7 mph; Wichita, 12.5 mph; Concordia, 12.2 mph; Topeka, 10.4 mph. Much of Kansas is windier than the "Windy City" of Chicago, which reports an annual wind speed of 10.4 miles per hour.

For additional information regarding the Climate of Kansas, check the "Kansas Climate Atlas" available from the Kansas Geological Survey Press, contact the State Climatologist at Kansas State University, or visit the Kansas Climate Office website at: <http://www.ksre.ksu.edu/wdl/>.

To learn more about the "Climates of our Fifty States" and view past state climate messages, visit our [50 States Climate Page](#).

Join us on Wednesday, as we feature the Southern Regional Climate Center

