

Global Precipitation Measurement Mission

Expert Group- Weather and Climate in Gypsum, Kansas

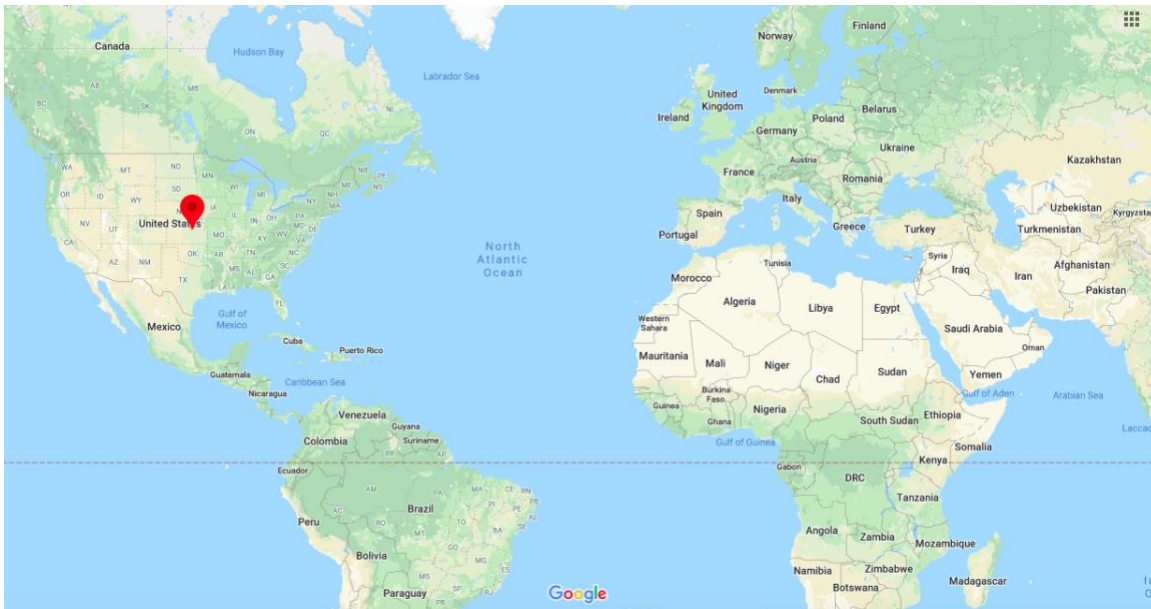


Figure 1: Developed using [Google Maps](#)

As the nation's leading wheat producer, Kansas has long been known as the “*Breadbasket of the World*”. There are over 60,000 farmers in Kansas, many of whom are female, and a third of these farmers grow wheat. Gypsum is a small city in Saline County, Kansas that is deep in the heart of wheat farming country. While it is a rather small city of only about 400 people, there are many farms in the area outside Gypsum.

In Kansas, wheat is planted in September and October, and is harvested in June and July. The wheat will sprout and grow in the fall until a winter freeze occurs, and then it will become dormant, which means it is alive but not actively growing, until spring. The wheat will mature until it is harvested during the summer. You can learn more about Kansas's wheat farmers [here](#).

Weather and Climate:

Weather and climate are different. Weather helps you decide what to wear when you go outside, and climate helps you know which clothes to have ready for possible weather conditions during that season. Weather is what is happening outside right now in the atmosphere. Climate is an average of the weather conditions over the past, and usually includes at least 30 years of weather data to determine these typical conditions. Watch [this](#) short video to learn the difference between weather and climate.

Kansas has a temperate continental climate, with extremes between summer and winter temperatures, but only a few long periods of extreme hot or cold. The annual average temperature is 13 °C/ 5 °F. The growing season ranges from mid-April to mid-

Global Precipitation Measurement Mission

September. Normal annual precipitation ranges from less than 500 mm/20 inches in the west to more than 1,000 mm/40 inches in the southeast, with a statewide average of slightly more than 655 mm/25 inches.

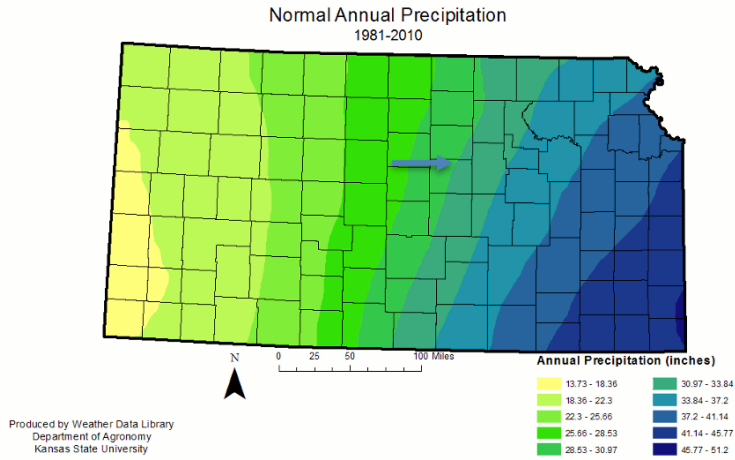


Figure 2: [Normal Annual Precipitation](#)

The map above shows the average amount of precipitation, in inches, that fell in Kansas over a 29-year period. The arrow shows approximately where Gypsum is located. You can see the variability of how much precipitation Kansas receives over the year.

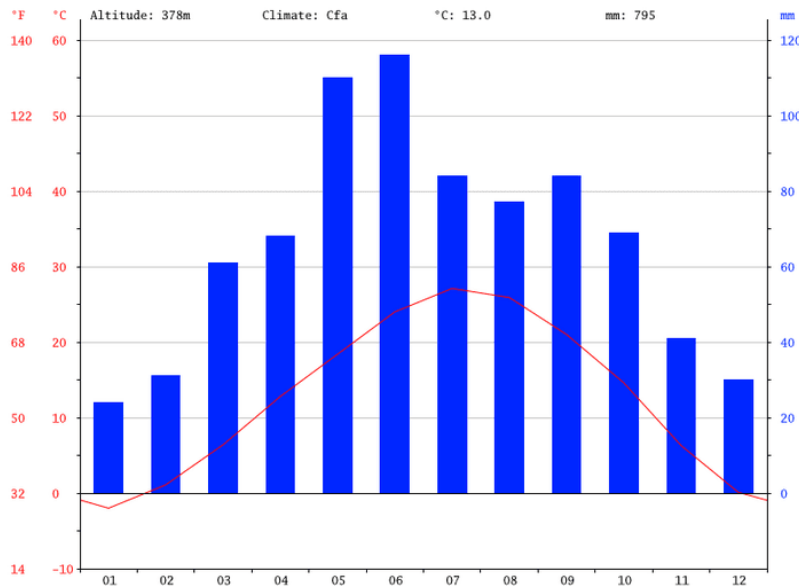


Figure 3: [Average Daily Temperature and Precipitation](#)
Image credit: [Climate_Data.org](#)

Global Precipitation Measurement Mission

The graph in Figure 3 helps to show what the climate is like in Gypsum, Kansas as it is also giving average conditions based on a 30-year record of data. Take a look at the graph, and try to figure out which data is showing the average temperature, and which data is representing the average amount of precipitation.

Climate Zones

Global

PLACE II
Position, Landscape, and Climate Estimation

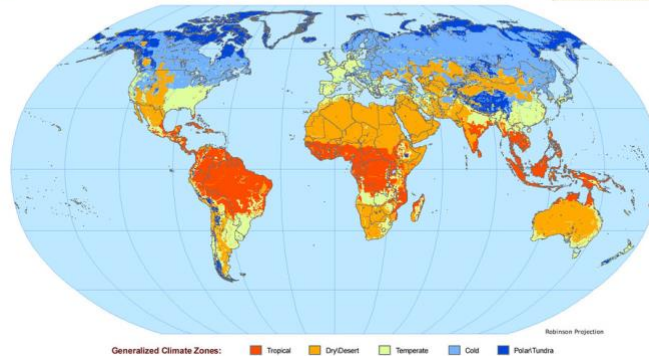


Figure 4: Global Climate Zones/ Image credit: [Creative Commons](#)

Gypsum is located in what is known as a local steppe climate. A steppe is a dry, grassy plain that is found in temperate climates, between the tropics and the polar regions. In the U.S., steppe climate zones are found in the Midwest in states such as Kansas. Steppe climates are semi-arid meaning that they receive about 25-50 cm/10-20 inches of precipitation per year. Gypsum is 378 meters above sea level. The map below shows the different climate zones around the world.

Resources:

- [Wheat Facts](#)
- [What's Growing in Kansas?](#)
- [U.S. Wheat](#)
- [The Wheat Beat](#)
- [Encyclopedia Britannica](#)