

# Global Precipitation Measurement Mission

## Expert Group- Weather and Climate in Gypsum, Kansas

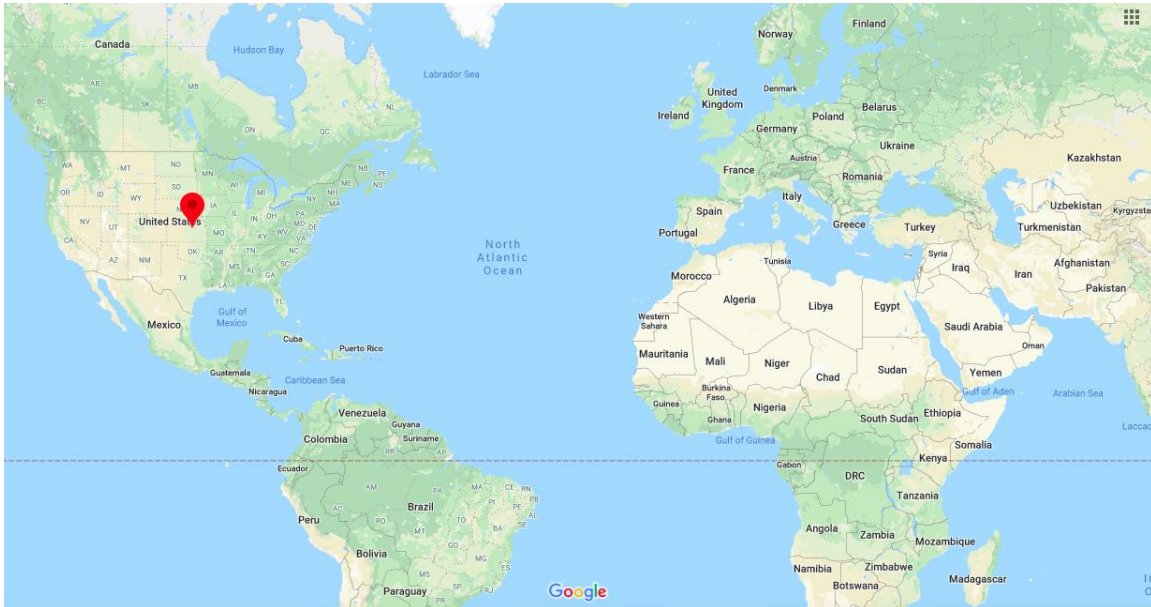


Figure 1: Developed using [Google Maps](#)

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-

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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.

The graph below helps to show what the climate is like in Gypsum, Kansas. Can you figure out what is being shown along the x-axis (at the bottom)? If you figured out those are showing us the months of the year, you are correct! We can see the average temperature, in both C° and F° along the right-hand side. Follow the red line to see how the average daily temperature changes over the year. What data do you think the blue bars are showing?

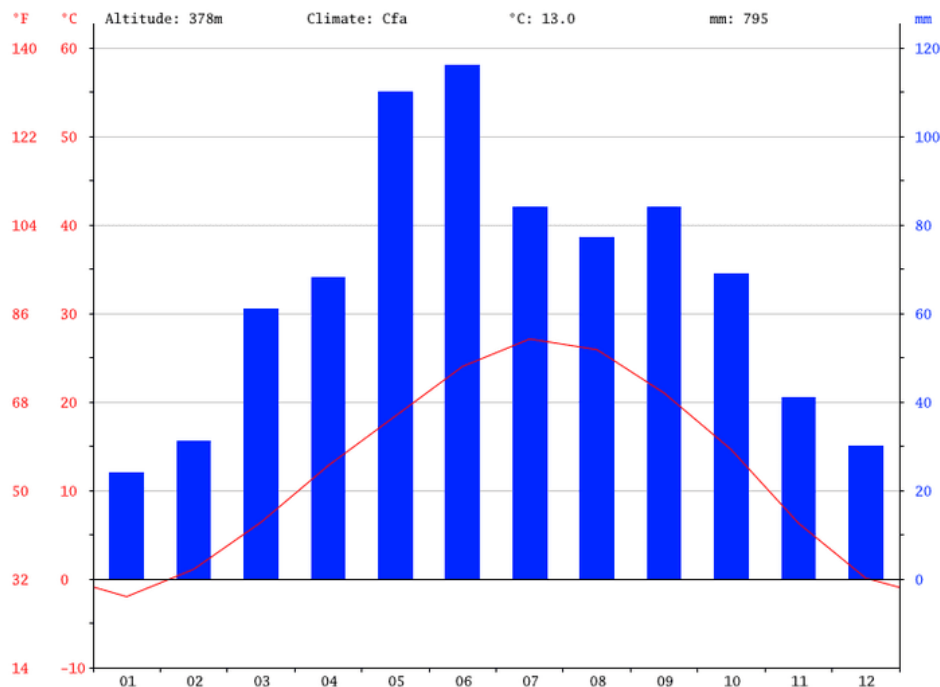


Figure 2: World Climate Zones/ [Image Credit: ck12.org](http://ck12.org)

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.

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## Climate Zones

Global

PLACE II  
Population, Landscape, and Climate Estimate

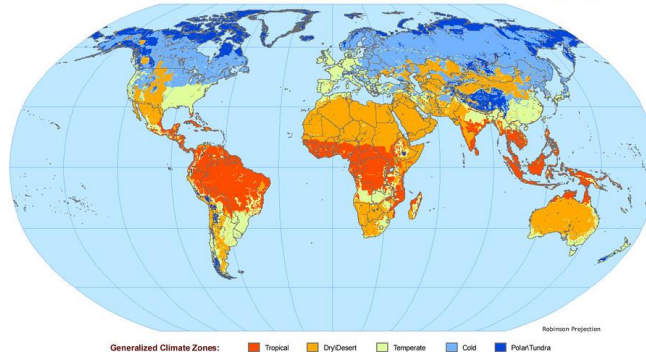


Figure 3: Global Climate Zones/ Image credit: [Creative Commons](#)

Now you know the difference between weather and climate, and also a lot about the climate in Kansas and in Gypsum. You will be ready to contribute to your Project Team by helping them know what the climate is like during the wheat growing season for Kansas.

### Resources:

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

