
K

The Manhattan Weather in 1984 and 1985

SL. Dean Bark¹**U**

The charts that follow show graphically the daily weather in Manhattan during the last 2 years. Each chart has three smooth curves to represent the average weather conditions at Manhattan based on 70 years of records from the Experiment Station files. The two smooth curves near the top of the charts show the average maximum and minimum temperatures that occur throughout the year. They reach a low point in mid-January and climb to a peak in mid-July.

The smooth curve in the lower part of the chart indicates the average accumulative precipitation during the year. Starting at zero on January 1, it gradually increases throughout the year until it reaches the average annual total precipitation on December 31. This curve climbs quite steeply during mid-year, when considerable rain occurs in Kansas, and less steeply at the beginning and end of the year, when only small amounts of snow or rain are received.

The actual temperature and accumulated precipitation totals that occurred throughout 1984 and 1985 are also plotted on these charts so that the "weather" can be compared with the climatic averages. Note that on the actual precipitation curve, a horizontal section indicates no rain in that period, and a vertical section means that rain occurred that day.

The 1985 temperature curves show a very cold beginning to the year and a similar finish, when November mean temperatures reached a record low. In fact, above normal temperatures occurred only during March, April, and May, making the mean temperature for 1985 the third lowest since 1890. The cool temperatures during the crop-growing season kept water stress to reasonable levels. At the same time, these low temperatures slowed growth and maturation, reducing grass and forage production in mid-summer. Yields for some late-planted, or slow-maturing crops were reduced by the earlier than average freeze occurring on September 30th. In 1984, the first freeze was one day earlier, September 29.

Precipitation for 1985 was more than 5 inches above the average, but more than 5 inches below that received in 1984. Precipitation distribution was better in 1985 than in 1984, when there were many heavy rains followed by long dry periods—note June to September, 1984. Frequent rains and cloudy skies often made it difficult to perform field operations because of wet soils. Substantial rains that occurred late in September and October should have recharged the soil moisture used during the growing season.

¹Climatologist for the Agricultural Experiment Station, Department of Physics.

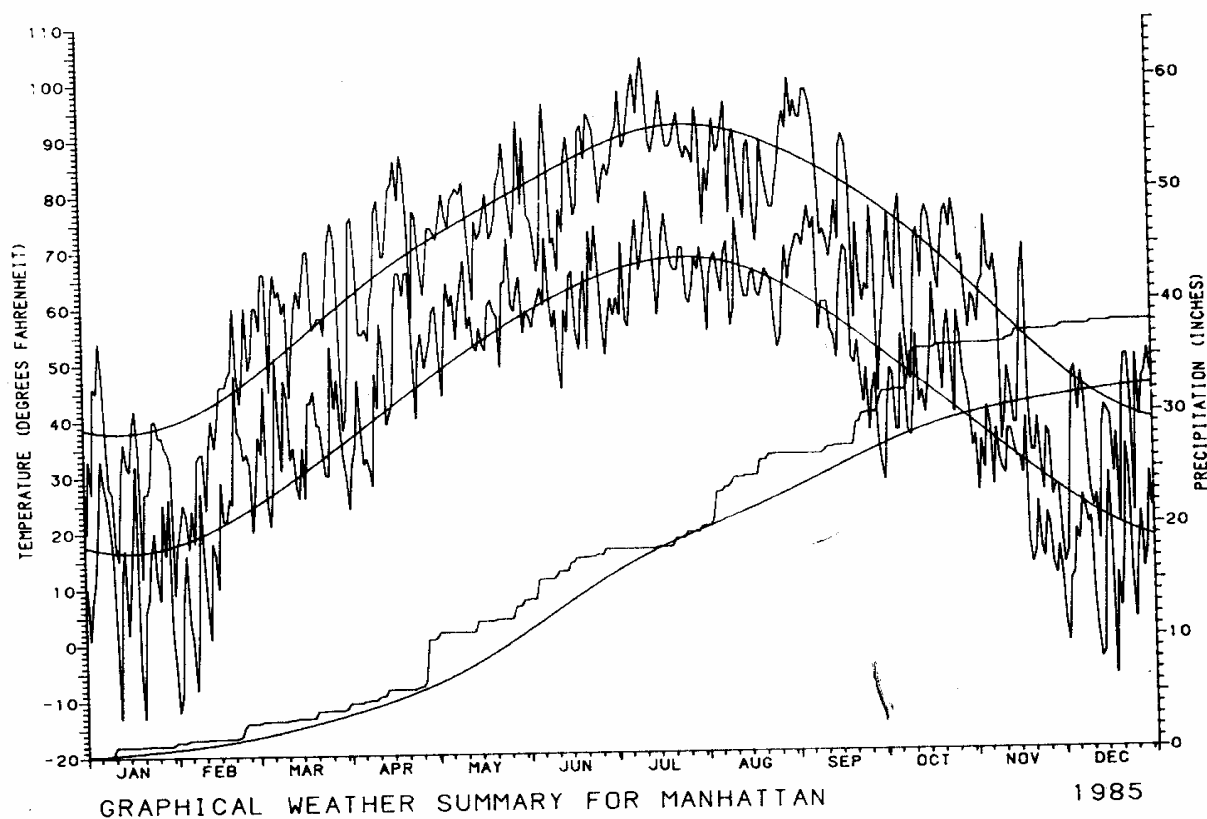
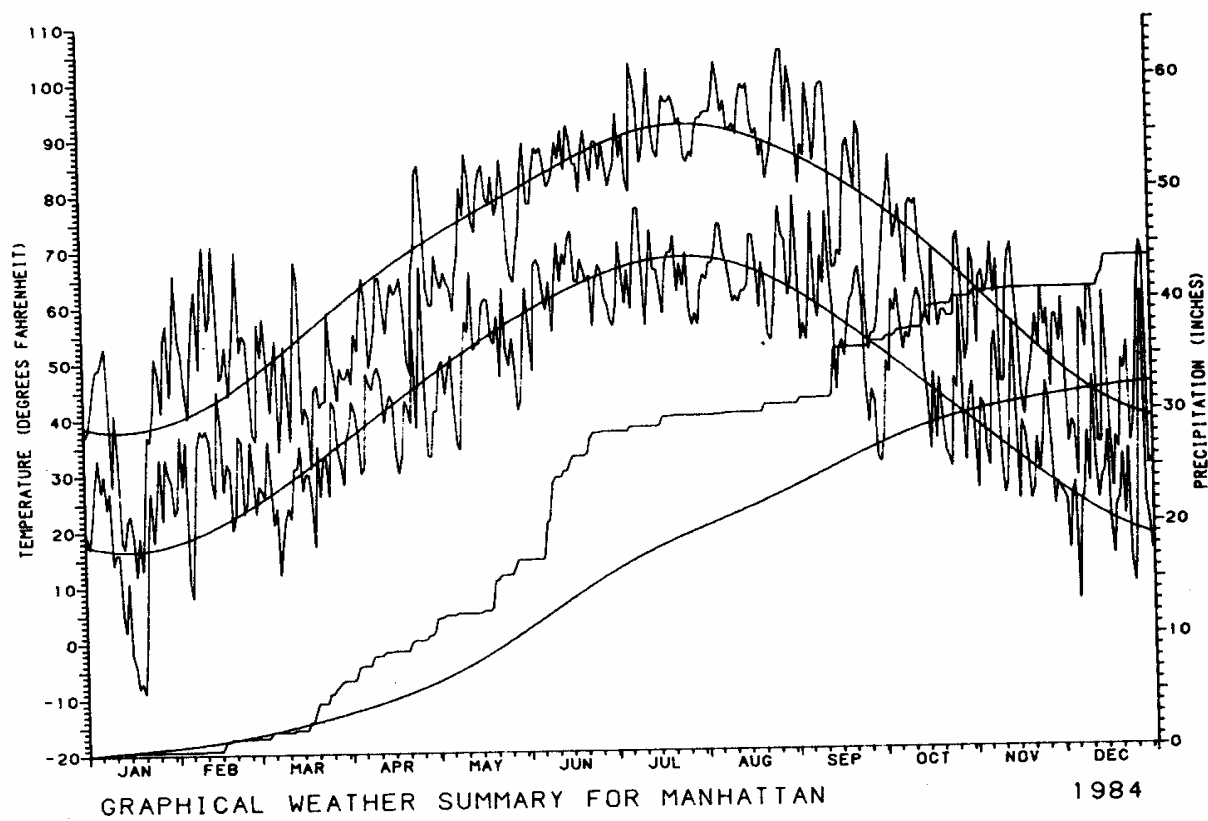


Figure 46.1. 1984 and 1985 graphical weather summary of Manhattan, Kansas. From the Kansas Agricultural Experiment Station Weather Data Library.