

Annual Weather Summary 2017

West Central Research and Outreach Center

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2017 started off with above average temperatures for January and February and below average precipitation. In March and April temperatures were little above average. March was dry but April had average precipitation. The last week in April and first few days in May brought cooler than average temperatures. Precipitation in April and cooler than average temperatures in May slowed planting and crop development. In June temperatures and precipitation were close to average, however most of the rain occurred before June 14. July was very dry and in many areas. Crops, gardens and lawns were suffering from lack of moisture. This changed in August when we received over 9 inches of rain. However, August was also cooler than normal and by the end of August farmers were concerned about crop development. September was warmer and a later killing frost date allowed crops to develop to full maturity. However, a wetter than average August, September and October made harvest and fall tillage challenging. Several cycles of freezing and thawing allowed for most farmers to get their fall tillage done. Yields were above average in most areas around Morris. The first half of November was cooler than normal followed by above normal temperatures up to about the last week of December.

The mean annual temperature recorded at the WCROC in Morris (Jan-Dec 1886-2016) is 42.2°F. The annual temperature for 2017 was 43.9°F, which is 1.7°F warmer than the long term annual mean. This year ranks 22 out of 132 years for average temperature. For the year, 9 months had close to average mean temperatures, January (+5.5°F), and February (+12.5°F) had notably higher average temperatures and August lower (-3.2°F). We had 26 days in January, February, March and December with a minimum temperature of 0°F or lower. The average is 45 days. In 2017 we had 6 days of high temperatures exceeding 90°F. The average is 13 days. High temperature for the year was 95°F on July 18th. Low temperature for the year was -24°F which occurred on December 31st. The first killing frost occurred on October 10 with a temperature of 26°F.

Several temperature records were broken in 2017. In February, the high temperature for the month was 55°F and occurred on two days. 55°F was recorded on the 20th which tied the record set in 1930, and 55°F was also recorded on February 22nd which broke the record of 54°F set in 1930. A third record temperature was broken on February 11th with a temperature of 54°F. The previous record temperature was 49°F degrees set in 1934.

The total growing degree days for May, June, July, August and September is 2271 for 2017. Average is 2353 which makes 82 growing degree days less than average. In 2016 we accumulated 2431 growing degree days.

Total precipitation was 28.91 inches which was 4.59 inches above normal. We received 19.9 inches of rain during the growing season of April to August. Average is 16.00 inches. Last year we had 16.55 inches of rain for this time. Even with above average precipitation, July was very dry. Precipitation for the month of July totaled .92 inches, which is 2.74 inches below the average of 3.66 inches. This is the third lowest amount of rain recorded in July at WCROC. The only years when less precipitation was recorded was in 1936 when .34 inches was recorded and 2006 when .74 inches was recorded. However, August was different when 9.92 inches of rain fell. This is the second highest amount of rain recorded in August at the WCROC. The only year when more precipitation was recorded was in 1899 when 11.68 inches was recorded. Annual evaporation pan measurements for May to September was 19.89 inches.

Three precipitation records were exceeded in 2017. Heavy rain occurred on May 18th which totaled 2.09 inches and exceeded the old record of 2.05 inches set in 1944. The daily precipitation record for August 26th was beat with a rainfall total of 2.28 inches. The previous record was 1.73 inches in 2005. The daily precipitation record for September 24th was beat with a rainfall total of 2.10 inches. The previous record was 1.72 inches in 1934.

For the winter of 2016-2017, (October – March) we had 25.4 inches of snow, average is 35.7 inches. For the calendar year of 2017 we recorded 18.0 inches of snow. The largest

snow fall for 2017 occurred on November 4 with a total of only 3 inches. Maximum snow depth for the year was 8 inches from January 11th to the 14th. Heating Degree Days in 2017 totaled 8105, where the average is 8855.