



North Dakota Monthly Climate Summary

July 2016

Volume 10 Number 7

Precipitation

Based on the National Centers for Environmental Information (NCEI), statewide averaged monthly accumulated precipitation was 4.38", 1.73" greater than last year and 1.5" greater than the 1981-2010 average July precipitation. The statewide average precipitation was ranked the 9th wettest on record since 1895. A majority of the state received above to much-above-normal precipitation (Figure 1). Northeastern parts of the state received between 1.7 and 2.3 times as much rain as normally falls in these regions. Northwestern parts and some small pockets of the southwest, Adams county, continued to stay on the dryer end. The largest amount of monthly accumulation was 9.89", recorded in Cavalier, Pembina County by a CoCoRaHS observer. The least amount of monthly accumulation was 0.6", in Hettinger, Adams County. The greatest 24-hr rainfall was 3.13", recorded in Fargo on July 27 by another CoCoRaHS observer. Based on the historical records since 1895, the state average annual precipitation accumulation showed an increasing trend of 0.09" per decade. The highest and the lowest monthly state July precipitation ranged from 7.97" in 1993 to 0.94" in 1936.

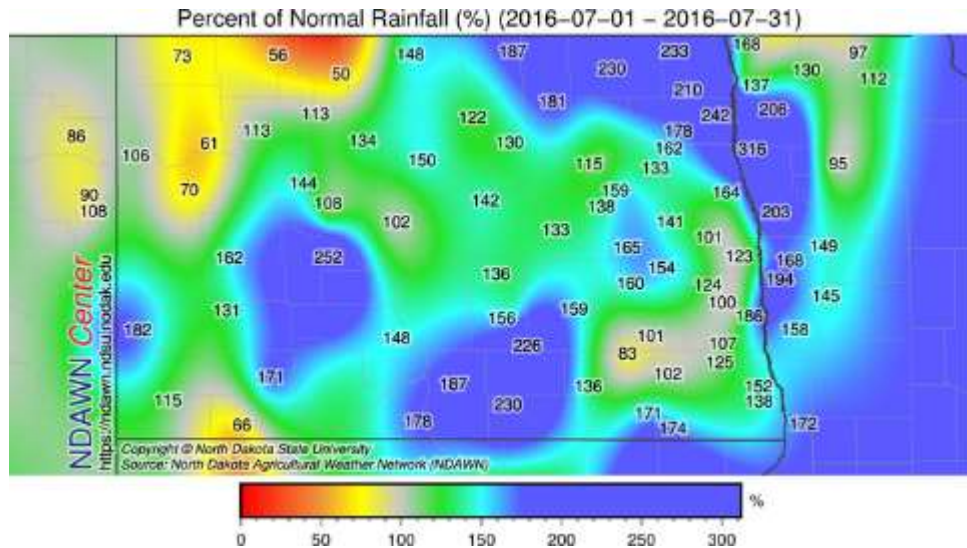


Figure 1. Precipitation Percent of Normal in July 2016 for North Dakota (NDAWN)

Temperature

The state average temperature in July based on NCEI was 69.2°F, 0.7° cooler than last year but 0.2° warmer than the 1981-2010 average. It was ranked the 63rd warmest or 60th coldest July on record since 1895. For most of the state, it was either an average July or within one degree from the 1981-2010 average (Fig. 2). The state's highest and lowest daily

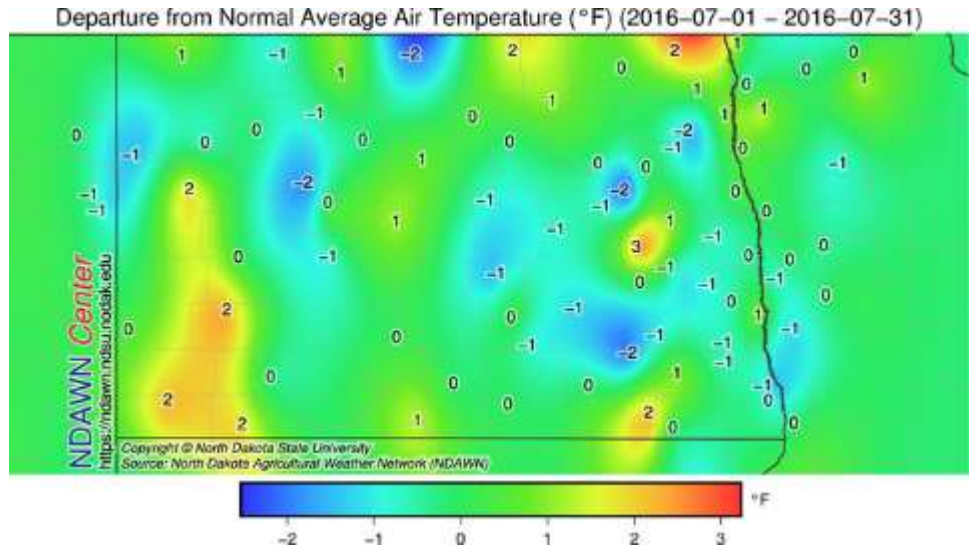


Figure 2. Temperature Departure from Normal in July 2016 for North Dakota (NDAWN)

temperatures ranged from 105° on July 20 in Hettinger (Adams County) to 39° on July 1 in Hazelton (Emmons County) and Willow City (Bottineau County). Based on the historical records since 1895, the state average annual temperature showed an increasing trend of 0.03°F per decade. The highest and the lowest monthly state July average temperatures ranged from 80.1° in 1936 to 61.8° in 1992.

Drought and Other Notable Impacts:

NWS Storm Prediction Center reported 15 tornadoes, 120 hail events, and 113 high wind events in ND. Figure 3 shows the storm reports in July 2016. In that figure red, blue and green dots represent tornado, wind, and hail respectively. NDAWN's highest peak gust in July was 89.5mph recorded at the McHenry weather station on July 4, 2016.

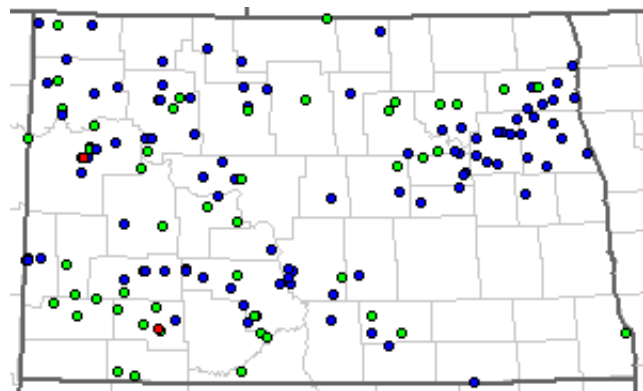


Figure 3. July 2016 North Dakota Storm Events (Red: Tornado; Blue: Wind; Green: Hail).

Based on the Drought Monitor (DM) on July 26, 2016, less than 3% of the state was under a drought designation (Figure 4). Out of that, only 1.2% was designated in the severe category, or D2, based on the index used by the DM from D0 (Abnormally Dry) to D4 (Exceptional Drought) .

Counties in the severe drought areas as of July 26: Bowman and Slope.

Counties in moderate drought areas: Bowman, Slope, and Adams in the southwest; Richland in the southeast.

More than 90% of the state did not have any D- designation including abnormally dry conditions.

Locations receiving excessive rain and storm damage in Pembina and Walsh counties impacted the state's overall potato conditions. Based on the ND Agricultural Statistical Services, the state's potato crop was rated at 21% percent poor or very poor conditions.

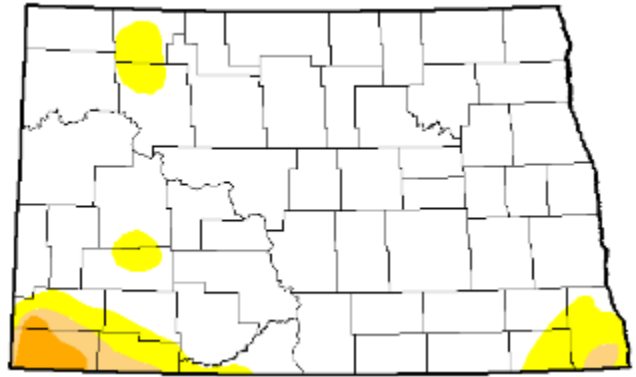


Figure 4. Drought Monitor Map of North Dakota as of July 26, 2016.