



North Dakota Monthly Climate Summary

October 2020

Volume 14, No. 10

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information



North Dakota State University

College of Agriculture, Food Systems, and Natural Resources

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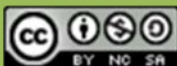
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Based on the National Centers for Environmental Information (NCEI), the statewide average October precipitation was 0.62 inch, which was 0.12 inch more than last month but 1.79 inches more than in October 2019. It was also 0.84 inch less than the 1981-2010 average, making it the 38th driest (or 89th wettest) October in the 126-year period of record (Table 1). It was the driest October since 2017. The values less than 100 in Figure 1 below are shaded in yellow, orange and red to depict the region with below-average rainfall. In contrast, the values that are greater than 100 in the same figure are shaded in green, blue and purple to depict the region with above-average rainfall in October. The greatest monthly precipitation accumulation was 1.47 inches, recorded in Ellendale, Dickey County. The greatest monthly snowfall accumulation, on the other hand, was 12.4 inches, recorded at Pretty Rock, Grant County. Based on historical records, statewide October precipitation showed a slight positive long-term trend of 0.5 inch during the last century. The lowest and highest October precipitation for the state ranged from 0.09 inch in 1952 to 4.61 inches in 1982 (Figure 2).

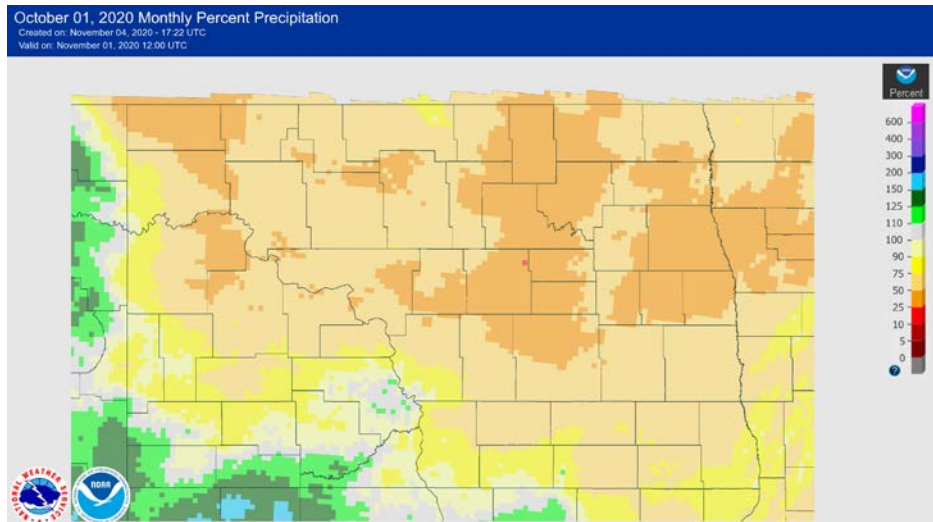


Figure 1. October 2020 precipitation percent of normal for North Dakota. (Advanced Hydrologic Prediction Center, NOAA)



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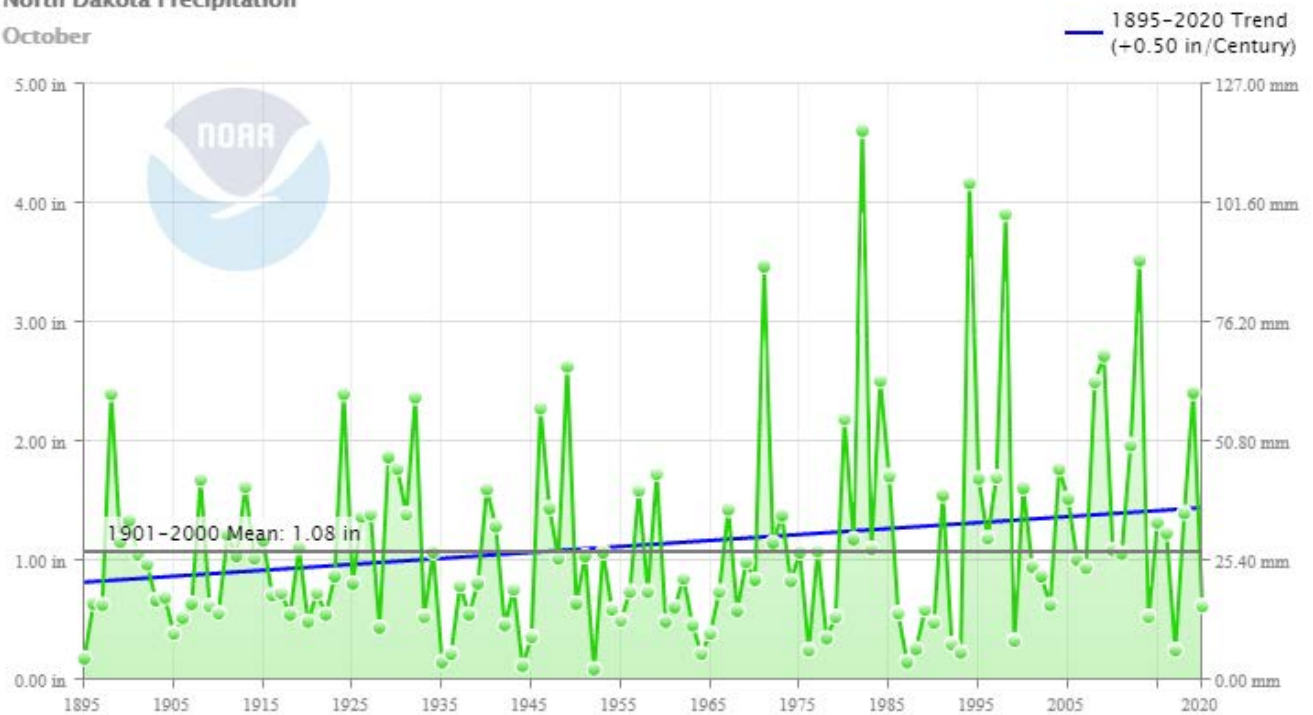


Figure 2. Historical October precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota October Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
October 2020	0.62"	1.46"	-0.84"	38th driest 89th wettest	Driest since 2017 Wettest since 2019	0.09" (1952) 4.61" (1982)



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Temperature

The official state average October temperature was 37.6 F, which is 19.5 degrees cooler than last month, and the same as in October 2019. The average October temperature also was 5.8 degrees cooler than the 1981-2010 average, which made it the sixth coldest October in the 126 years of record (Table 2). The negative numbers in Figure 3 are shaded in green and blue to depict the area with cooler-than-average temperatures in October. The state's lowest and highest daily temperatures ranged from minus 7 F on Oct. 7 in Bowman, Bowman County, to 83 F on Oct. 6 in Carrington, Foster County. Based on the historical records, the state average October temperature showed a slight positive long-term trend of 0.4 degree during the last century. The lowest and highest monthly state October average temperatures ranged from 32.6 F in 1925 to 54.8 F in 1963 (Figure 4).

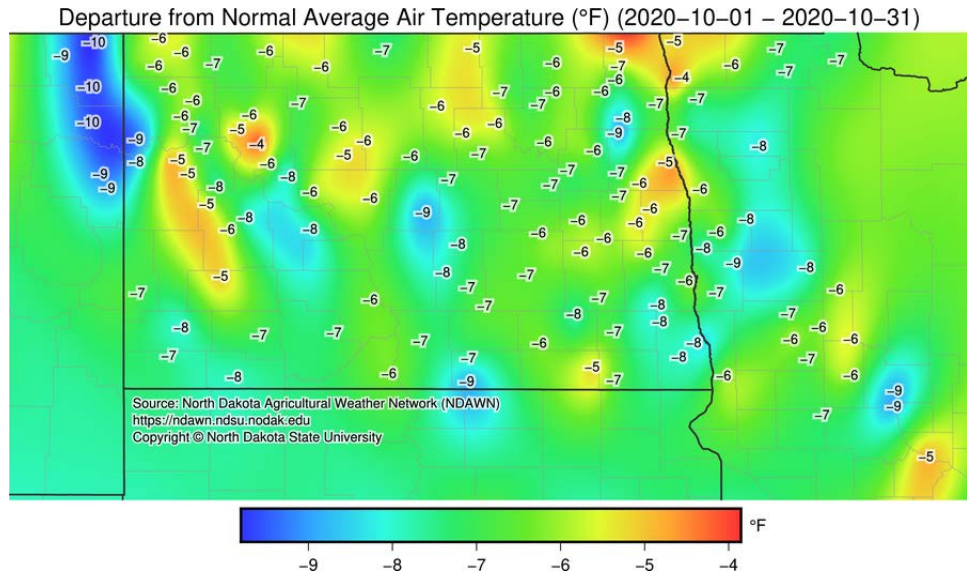


Figure 3. October 2020 temperature departure from average for North Dakota. (North Dakota Agricultural Weather Network)



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North Dakota Average Temperature

October

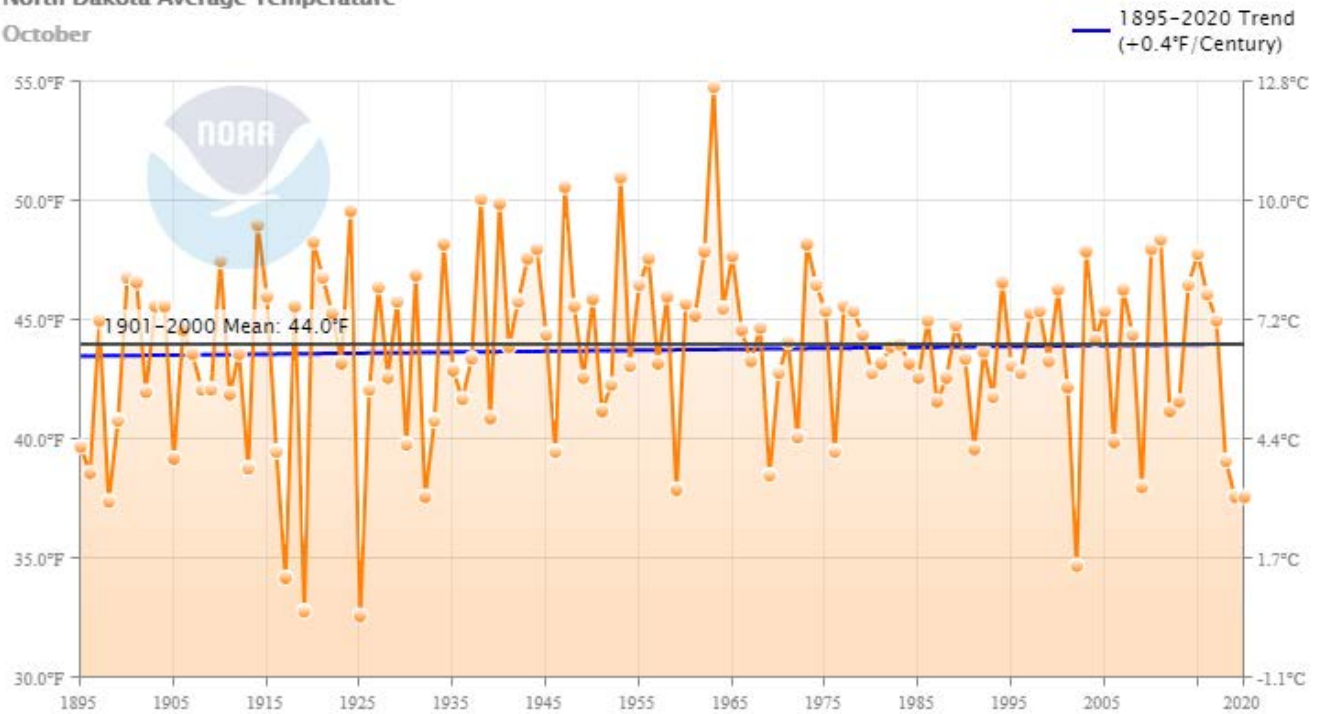


Figure 4. Historical October temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota October Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coollest Since	Record Year
October 2020	37.6°	43.4°	-5.8°	6th coolest 121st warmest	Coollest since 2019 Warmest since 2019	32.6 F (1925) 54.8 F (1963)



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Daily Record Events in October: Across the observation network of weather stations with at least 30 years of history, seven daily high- and 129 daily low-temperature records were set or tied. A total of 49 highest daily precipitation-related records were set or tied. Details of the records are in Table 4.

Table 4. Summary of daily records broken or set in North Dakota in October. (NCEI Daily Weather Records)

Category	Number of Records
Highest daily max. temp.	2
Highest daily min. temp.	5
Lowest daily max. temp.	90
Lowest daily min. temp.	39
Highest daily precipitation	5
Highest daily snowfall	44
Total	185

The Highlight of the Month*

A highest daily snowfall record of 7.2 inches was broken in **Ashley on Oct. 22**, exceeding the previous record that was set in **2002** by **4** inches. (years on record: 123).

*The records in this box may be different from the record on Pages 1 and 3 because this page only includes records for stations with at least 30 years of history.

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