



North Dakota Monthly Climate Summary

October 2022

Volume 16, No. 10

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information.



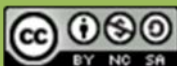
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Based on the National Centers for Environmental Information (NCEI), the statewide average October precipitation was 0.64 inches, which was 0.13 inches less than last month and 2.7 inches more than October 2021. It was 0.86 inches less than the 1991-2020 average, making it the 42nd driest October in the 128-year period of record (Table 1).

The counties shaded in green in Figure 1 indicate wetter-than-average conditions in October 2022. Similarly the counties shaded in brown in the same figure indicate drier-than-average conditions. White shading indicates near-average conditions. The numbers inside the counties are the precipitation rankings with 1 being the lowest (driest) and 128 being the highest ranking (the wettest).

The greatest monthly precipitation accumulation was 2.35 inches, recorded in Upham, McHenry County. The greatest monthly snowfall accumulation was 6.5 inches, recorded in Beach, Golden Valley County. Based on historical records, statewide October precipitation showed a sharp positive long-term trend of 0.54 inches during the last century. The lowest and highest October precipitation for the state during this period ranged from 0.09 inches in 1952 to 4.61 inches in 1982 (Figure 2 and Table 1).

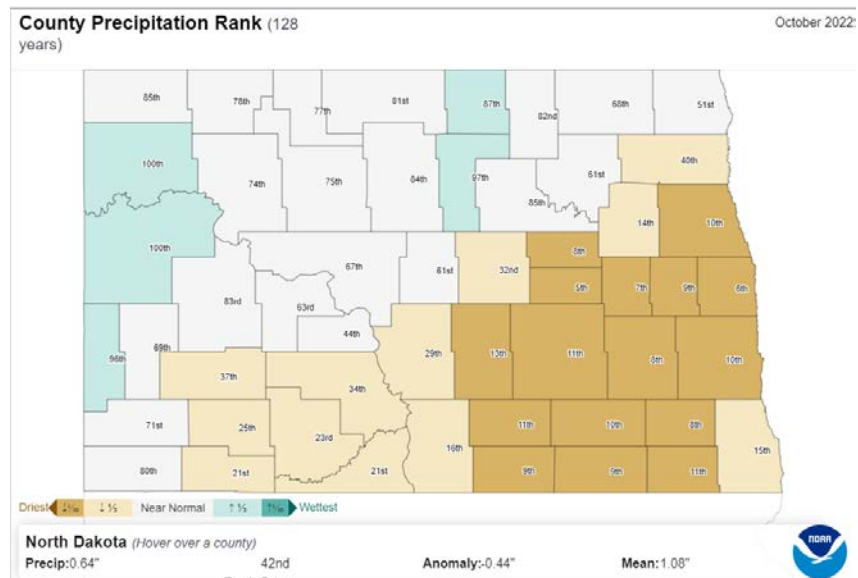


Figure 1. October 2022 county precipitation ranking map of North Dakota. (NCEI, NOAA)



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North Dakota Precipitation

October

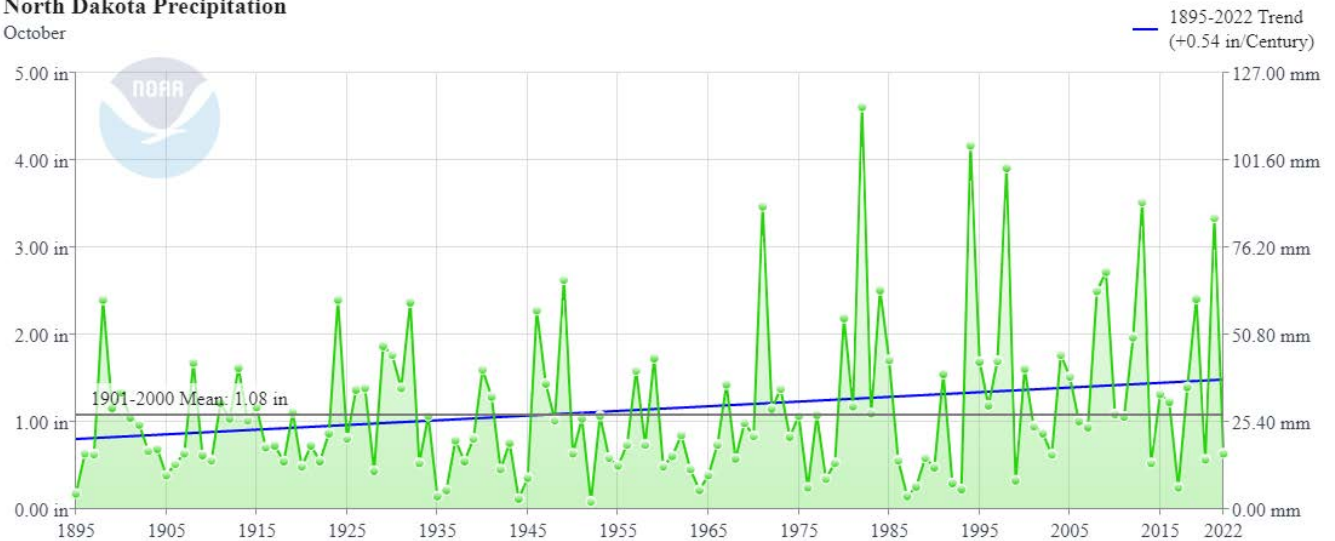


Figure 2. Historical October precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota October Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
October 2022	0.64"	1.5"	-0.86"	42nd driest 87th wettest	Driest since 2020 Wettest since 2021	0.09" (1952) 4.61" (1982)



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Temperature

The official state average October temperature was 46 F, which is 15 degrees cooler than last month and 2.6 degrees cooler than in October 2021. However, the average October temperature was 2.7 degrees warmer than the 1991-2020 average, making it the 34th warmest October in the 128 years of record (Table 2).

The counties shaded in peach in Figure 3 indicate warmer-than-average conditions.

White shading indicates near-average conditions. The numbers inside the counties are the temperature rankings, with 1 being the lowest (coldest) and 128 being the highest (warmest).

The state's highest and lowest daily temperatures ranged from 81 F on Oct. 20¹ in Bismarck², Burleigh County, to 7 F on Oct. 18 in Sheyenne, Ransom County. Based on the historical records, the state average October temperature showed a positive long-term trend of 0.6 degrees during the last century. The lowest and highest monthly state October average temperatures during this period ranged from 32.6 F in 1925 to 54.8 F in 1963 (Figure 4 and Table 2).

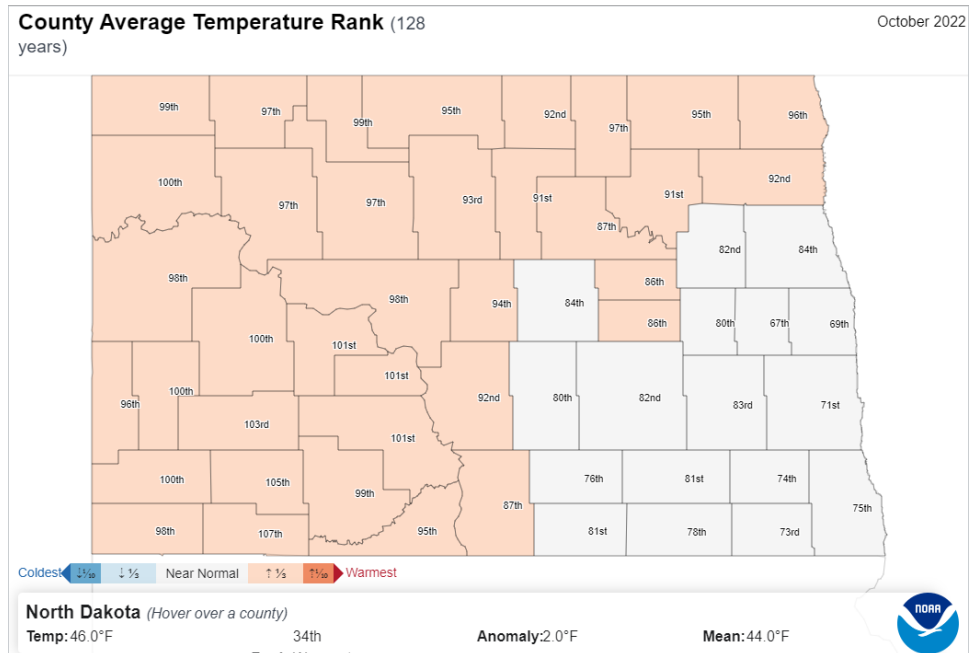


Figure 3. October 2022 county temperature ranking map of North Dakota. (NCEI, NOAA)

¹ There were multiple days with this record.

² There were multiple locations with this record



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North Dakota Average Temperature

October

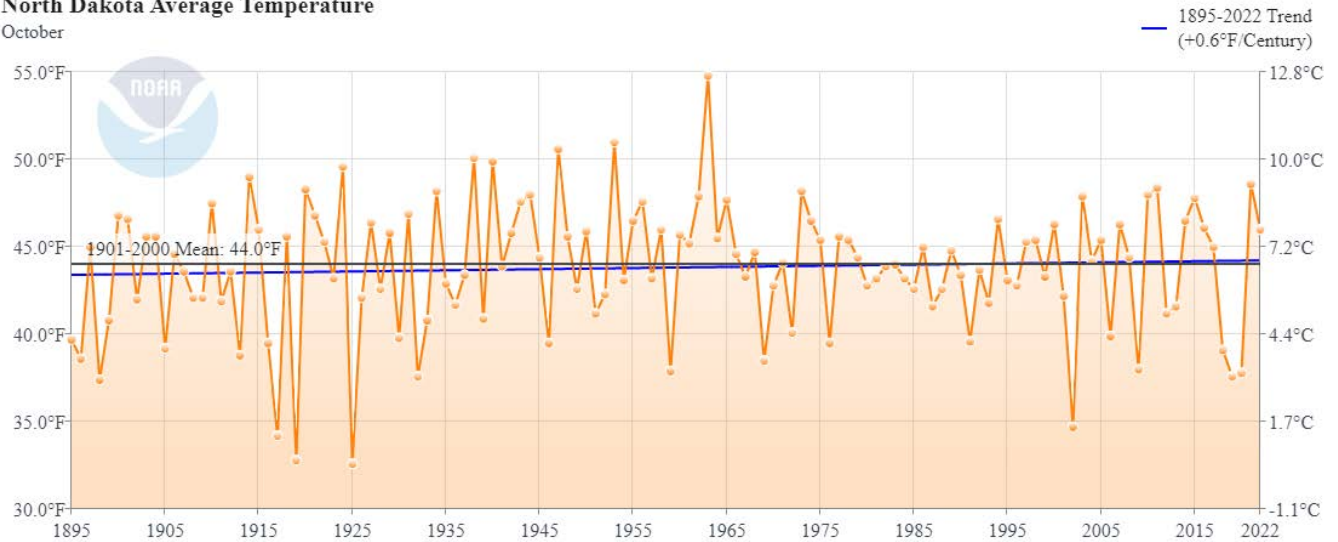


Figure 4. Historical October temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota October Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coolest Since	Record Year
October 2022	46°	43.3°	2.7°	95th coolest 34th warmest	Coolest since 2020 Warmest since 2021	32.6 F (1925) 54.8 F (1963)



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Storm Reports: Table 3 below shows the summary of October severe storm reports in North Dakota (Storm Prediction Center, NOAA).

The NOAA Storm Report recorded zero tornados, zero hail and zero damaging wind report with no significant storm events in October. Table 3 summarizes the number of tornado, hail and damaging wind reports in October, while Figure 5 geographically displays the locations of these storms.

Table 3. Summary of October Severe Storm Reports in North Dakota. (Storm Prediction Center, NOAA)

Category	Number of Reports
<i>Tornado reports</i>	0
<i>Hail reports</i>	0
<i>Wind reports</i>	0
Total	0



Figure 5. Map of October 2022 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)



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Daily Record Events in October: Across the observation network of weather stations with at least 30 years of history, 11 daily high- and only nine daily low-temperature records were set or tied. In addition, a total of four 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)

<i>Category</i>	Number of Records
<i>Highest daily max. temp.</i>	6
<i>Highest daily min. temp.</i>	5
<i>Lowest daily max. temp.</i>	2
<i>Lowest daily min. temp.</i>	7
<i>Highest daily precipitation</i>	2
<i>Highest daily snowfall</i>	2
Total	24

The Highlight of the Month*

A lowest daily temperature record of nine degrees was broken in **Mayville on Oct. 19**, exceeding the previous record that was set in 1919 by **five** degrees (years on record: 126).

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

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This work is supported by the USDA National Institute of Food and Agriculture, Hatch/Multi State project ND1005365.