



North Dakota Annual Climate Summary

Annual: 2020

Volume 14, No. 13

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information



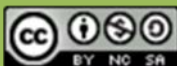
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Based on the National Centers for Environmental Information (NCEI), the statewide average annual precipitation accumulation for 2020 was 12.92 inches, which was 11.47 inches less than in 2019. It was also 5.26 inches less than the 1981-2010 average, making it the eighth driest January through December period in the 126-year period of record (Table 1). It was the driest year since 1988.

The counties shaded in brown in Figure 1 indicate drier-than-average conditions. In contrast, the counties shaded in green indicate wetter-than-average conditions in 2020. A white shading indicates near-average conditions. The numbers inside the counties are the precipitation rankings, with 1 being the lowest ranking (driest) and 126 being the highest ranking (the wettest).

The greatest annual precipitation accumulation in 2020 was 148.2 inches, recorded in Ashley, McIntosh County. Based on historical records, statewide annual precipitation showed a positive long-term trend of 1.27 inches during the last century. The lowest and highest annual precipitation for the state during this period ranged from 8.81 inches in 1936 to 24.41 inches in 2019 (Figure 2).

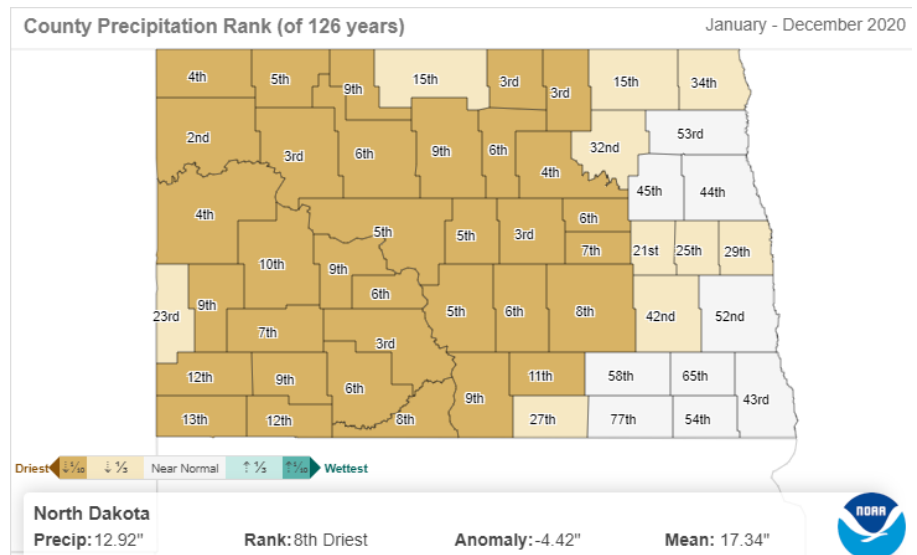


Figure 1. County precipitation ranking map for 2020. (National Centers for Environmental Information, NOAA)



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North Dakota Precipitation
January–December

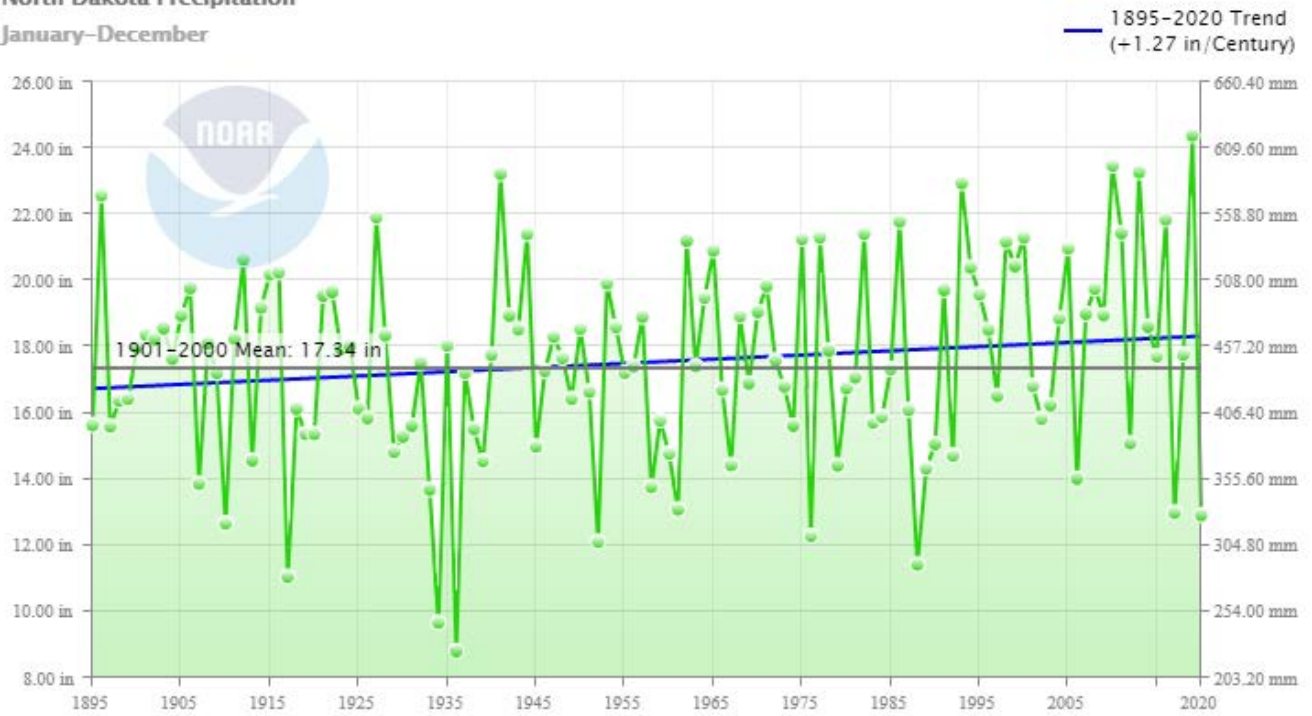


Figure 2. Historical annual precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota 2020 Annual Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
2020	12.92"	18.18"	-5.26"	8th driest 119th wettest	Driest since 1988 Wettest since 2019	8.81" (1936) 24.41" (2019)



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Temperature

The official state average annual average temperature of 2020 was 42.3 F, which is 4.3 degrees warmer than in 2019. The average January through December temperature for the state was 1.3 degrees warmer than the 1981-2010 average, making it the 14th warmest year in the 126 years of record (Table 2).

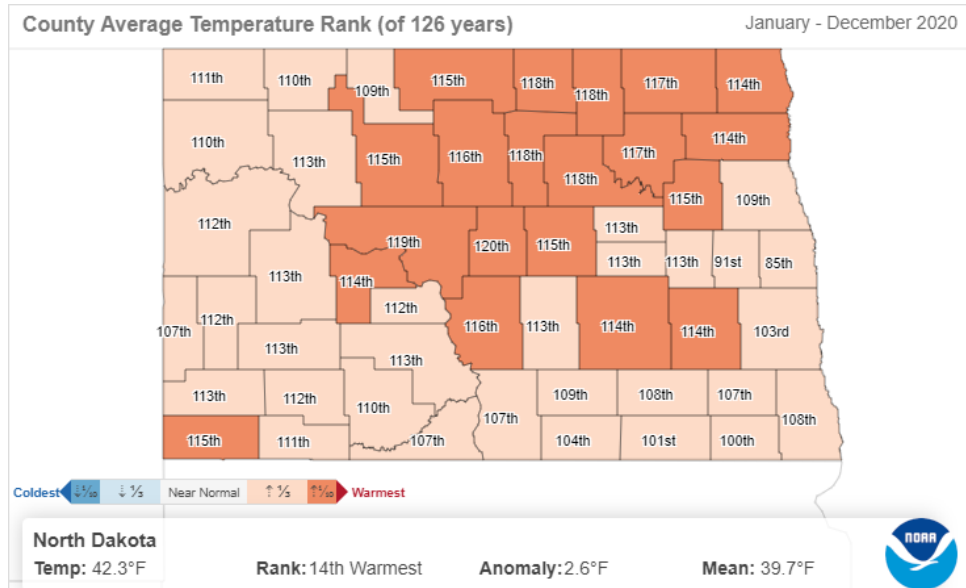


Figure 3. County average temperature ranking map for 2020. (National Centers for Environmental Information, NOAA)

The counties shaded in pink in Figure 1 indicate warmer-than-average conditions. In contrast, the counties shaded in blue indicate colder-than-average conditions in 2020. A white shading indicates near-average conditions. The numbers inside the counties are the temperature rankings, with 1 being the lowest ranking (coldest) and 126 being the highest ranking (the warmest).

The state's lowest and highest daily temperatures ranged from minus 38 F on Jan. 16 at Lake Metigoshe State Park, Bottineau County, to 102 F on Aug. 18 in Williston, Williams County. Based on the historical records, the state average annual temperatures showed a positive long-term trend of 2.4 degrees during the last century (the eighth steepest trend in the U.S.).

The lowest and highest monthly state annual average temperatures during this period ranged from 34.9 F in 1950 to 45 F in 1987 (Figure 4).



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North Dakota Average Temperature
January–December

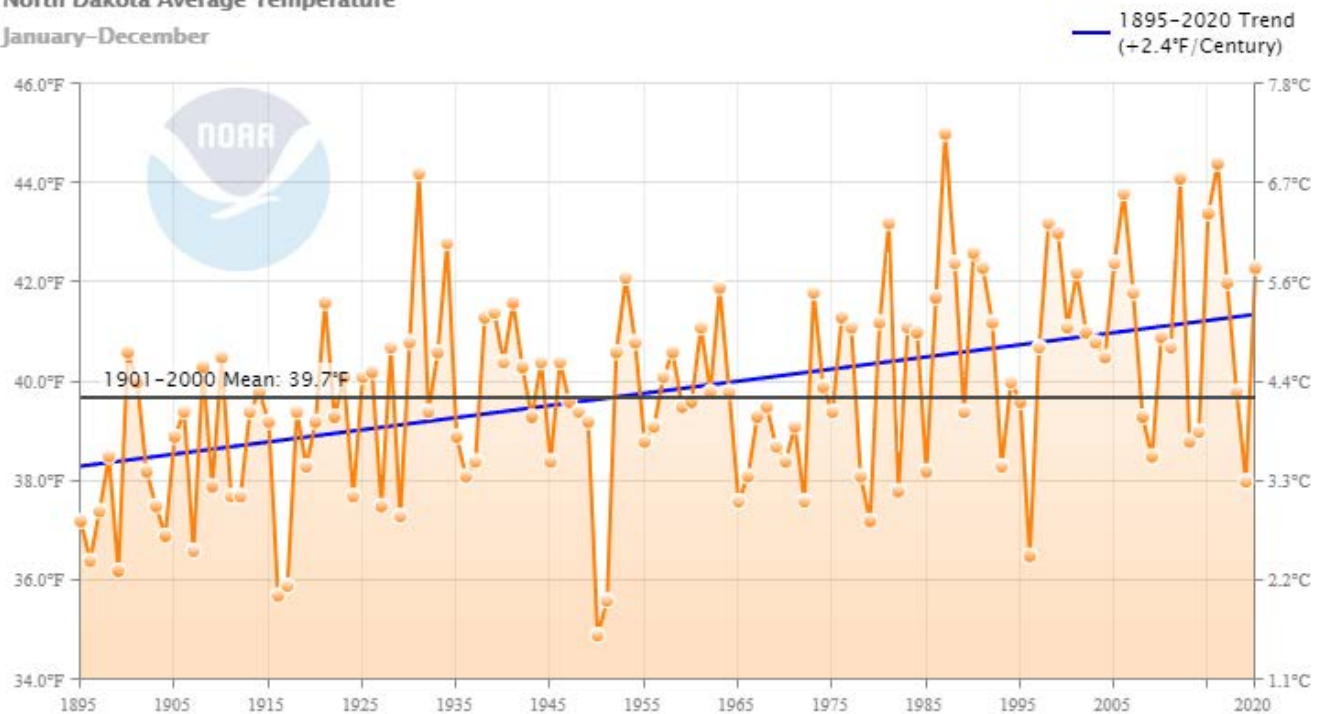


Figure 4. Historical annual temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota Annual Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coollest Since	Record Year
2020	42.3°	41°	1.3°	113rd coolest 14th warmest	Coollest since 2019 Warmest since 2016	34.9 F (1950) 45 F (1987)

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