

April 2020

Volume 14, No. 4

Precipitation

North Dakota State Climate Office: Your Resource for Climate Information

NDSU NORTH DAKOTA STATE UNIVERSITY

North Dakota State University

College of Agriculture, Food Systems, and Natural Resources

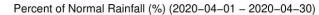
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Based on the National Centers for Environmental Information (NCEI), the statewide average April precipitation was 0.75 inch, which was 0.48 inch more than last month but 0.4 inch less than in April 2019. It also was 0.47 inch less than the 1981-2010 average, making it the 28th driest April in the 126-year period of record (Table 1). It was the driest April since 2018. The values less than 100 in Figure 1 below are shaded in yellow, orange and red to depict the region with belowaverage 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 April. The greatest monthly precipitation accumulation was 2.64 inches, recorded in Fullerton, Dickey County. The greatest monthly snowfall accumulation was 12 inches, recorded in Grand Forks, Grand Forks County. Based on historical records, statewide April precipitation showed a slight negative long-term trend of 0.02 inch per century since 1895. The lowest and highest April precipitation for the state ranged from 0.11 inch in 1987 to 3.71 inches in 1986 (Figure 2).



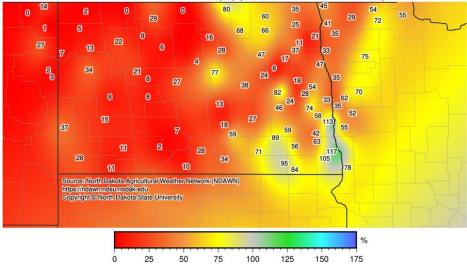


Figure 1. April 2020 precipitation percent of normal for North Dakota. (North Dakota Agricultural Weather Network, NDSU)



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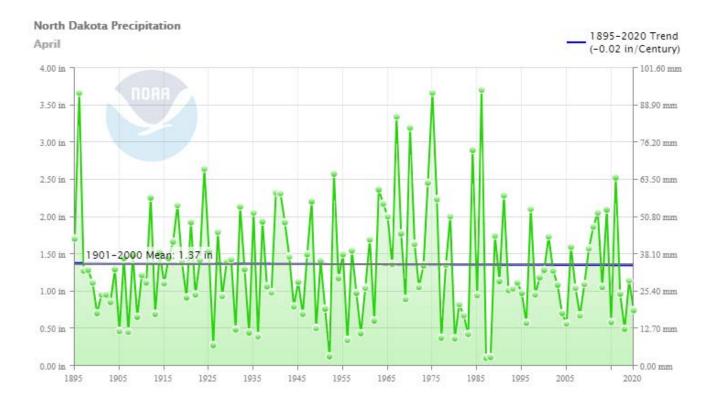


Figure 2. Historical April precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North	Dakota April	Precipitation	Ranking Table.
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Period	Value	Normal	Anomaly	Rank	Wettest/Driest	Record
					Since	Year
April 2020	0.75"	1.22"	-0.47"	28th driest	Driest since 2018	0.11" (1987)
-				99th wettest	Wettest since 2019	3.71" (1986)



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Temperature

The official state average April temperature was 37.7 F, which is 7.9 degrees warmer than last month but 4.1 degrees cooler than in April 2019. The average April temperature was 0.47 degree cooler than the 1981-2010 average, which made it the 24th coolest April in the 126 years of record. It was the coolest April since 2018 (Table 2). The negative numbers in Figure 3 are shaded in green and blue to depict

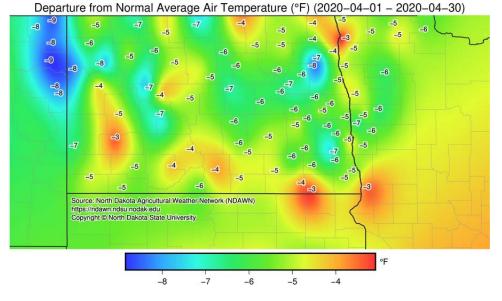


Figure 3. April 2020 temperature departure from normal for North Dakota. (North Dakota Agricultural Weather Network)

the region with cooler-than-average temperatures in April. In contrast, the positive numbers in the same figure are shaded in red and orange to illustrate the region with warmer-than-average temperatures in April. The state's lowest and highest daily temperatures ranged from minus 7 F on April 3 in Hettinger, Adams County, and Northgate, Burke County, to 84 F on April 30 in Williston, Williams County. Based on the historical records, the state average April temperature showed a slight positive long-term trend of 0.01 degree per decade since 1895. The lowest and highest monthly state April average temperatures ranged from 31.3 F in 2013 to 50.2 F in 1987 (Figure 4).



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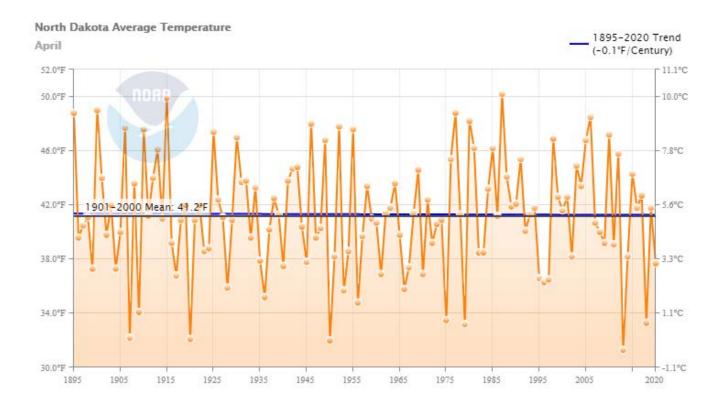


Figure 4. Historical April temperature time series for North Dakota. (NCEI, NOAA)

Tuble 2. North Dakota April Temperature Ranking Tuble.						
Period	Value	Normal	Anomaly	Rank	Warmest/Coolest	Record
					Since	Year
April 2020	37.7°	42.4°	-4.7°	24th coolest	Coolest since 2018	31.3 F (2013)
				103rd warmest	Warmest since 2019	50.2 F (1987)

Table 2. North Dakota April Temperature Ranking Table.



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

The NOAA Storm Report showed one hail and no wind and no tornado reports, with a total of one significant storm event in April. Table 3 summarizes the number of tornado, hail and damaging wind reports in April, while Figure 5 geographically displays the locations of these storms.

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

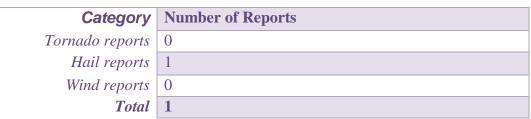




Figure 5. Map of April 2020 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)



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Daily Record Events in April: Across the observation network of weather stations with at least 30 years of history, one daily high- and 79 daily low-temperature records were set or tied. A total of 30 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 April. (NCEI Daily Weather Records)

Category	Number of
	Records
Highest daily max. temp.	0
Highest daily min. temp.	1
Lowest daily max. temp.	36
Lowest daily min. temp.	43
Highest daily precipitation	12
Highest daily snowfall	18
Total	110

The Highlight of the Month*

A lowest daily minimum temperature record of minus 5 degrees was set in **Grand Forks** on **April 4**, exceeding the previous record that was set in **1970** by 5 degrees (years on record: 79).

*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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