

**April 2019** Volume: 13, No: 4

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

304 Morrill Hall, Fargo, N.D 58108

www.ndsu.edu/ndsco

Adnan.Akyuz@ndsu.edu

701-231-6577

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### **Precipitation**

Based on the National Centers for Environmental Information (NCEI), the statewide average April precipitation was 1.17 inches, which was 0.68 inch more than last month, 0.67 inch more than in April 2018 but 0.05 inch less than the 1981-2010 average, making it the 59th driest April in the 125-year period of record. It was the driest April since 2018 (Table 1). The numbers 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 numbers 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 2.35 inches, recorded in Larimore, Grand Forks County. The greatest 24-hour precipitation was 1.55 inches, recorded in Ellendale, Dickey County, on April 12. The greatest monthly snowfall accumulation was 13.1 inches, recorded in Ashley, McIntosh County. The greatest 24-hour snowfall was 12 inches, recorded in Ellendale, Dickey County on April 12. Based on historical records, statewide April precipitation showed no long-term trends since 1895. The highest and lowest April precipitation for the state ranged from 3.71 inches in 1986 to 0.11 inch in 1987 (Figure 2). It shows how volatile North Dakota's precipitation can be from one year to the next.

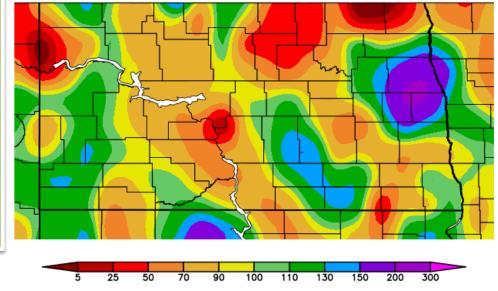
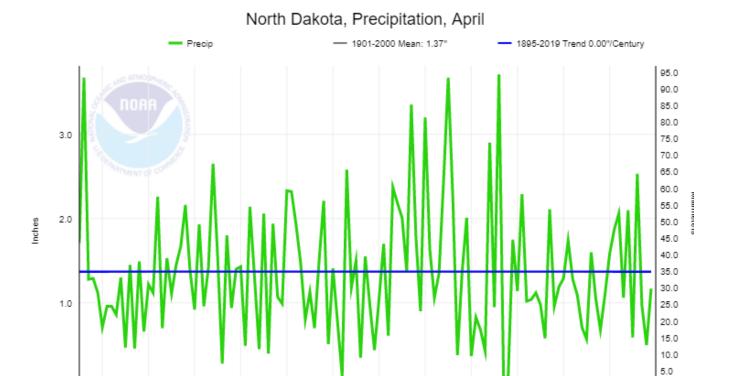


Figure 1. April 2019 precipitation percent of normal for North Dakota. (High Plains Regional Climate Center)





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#### **April Precipitation Statistics**

Record high value: 3.71 inches in 1986 Record low value: 0.11 inch in 1987

1910

1920

Trend: 0 inch per century

1900

April 2019 value: 1.17 inch 1981-2010 average: 1.22 inch Monthly ranking: 59th driest Record length: 125 years

2010

2020

2000

Figure 2. Historical April precipitation time series for North Dakota.

1930

1940

1950

1960

1970

1980

1990

Table 1. North Dakota April Precipitation Ranking Table.

| Period     | Value | Normal | Anomaly | Rank                     | Wettest/Driest<br>Since                 | Record<br>Year |
|------------|-------|--------|---------|--------------------------|---|----------------|
| April 2019 | 1.17" | 1.22"  | - 0.05  | 59th driest 67th wettest | Driest since 2018<br>Wettest since 2016 | 1987<br>1986   |





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#### **Temperature**

The official state average April temperature was 41.7 F, which is 21 F warmer than last month and 8.5 F warmer than in April 2018. The average April temperature was 0.7 F cooler than the 1981-2010 average, which made it the 56th warmest or 70<sup>th</sup> coolest April in the 125-year period of record. It was the warmest April since 2017 (Table 2). The negative numbers in Figure 3 are shaded in green and blue to depict

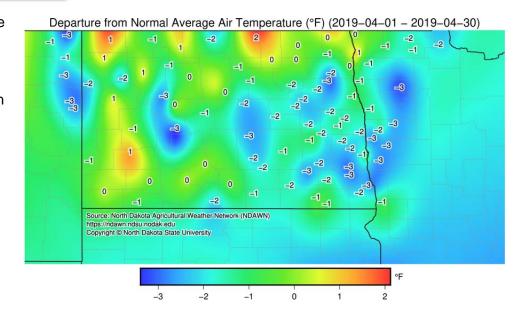


Figure 3. April 2019 temperature departure from normal for North Dakota. (North Dakota Agricultural Weather Network)

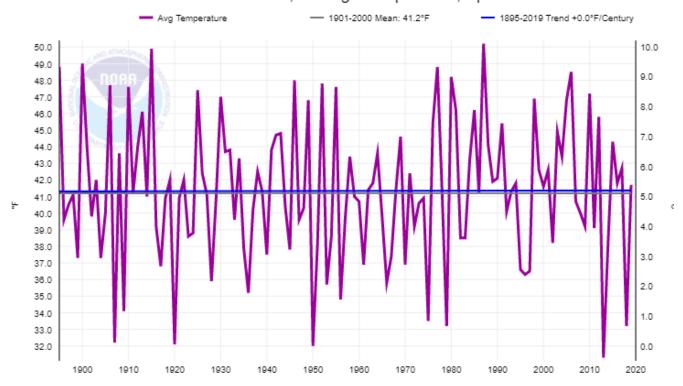
the region with cooler than average temperatures in April. In contrast, the positive numbers in red and orange depict the region with warmer than average temperatures in April. The state's highest and lowest daily temperatures ranged from 82 F on April 21 in Ashley, McIntosh County, to 12 F on April 4 in Drake, McHenry County. Based on the historical records, the state average April temperature showed no long-term trend since 1895. The highest and lowest monthly state April average temperatures ranged from 50.2 F in 1987 to 31.2 F in 2013 (Figure 4).





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### North Dakota, Average Temperature, April



#### **April Temperature Statistics**

Record high value: 50.2 F in 1987 Record low value: 31.3 F in 2013

Trend: 0.0 F per decade

April 2019 value: 41.7 F 1981-2010 average: 42.4 F Monthly ranking: 56th warmest Record length: 125 years

Figure 4. Historical April temperature time series for North Dakota.

Table 2. North Dakota April Temperature Ranking Table.

| Period        | Value | Normal | Anomaly | Rank                      | Warmest/Coolest Since                    | Record<br>Year |
|---------------|-------|--------|---------|---------------------------|--|----------------|
| April<br>2019 | 41.7  | 42.4   | - 0.7   | 70th coolest 56th warmest | Coolest since 2018<br>Warmest since 2017 | 2013<br>1987   |





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**Storm Reports:** NDAWN's highest 10-meter peak gust in April was 50 mph, recorded at the Carrington weather station in Foster County on April 25, 2019.

**Daily Record Events in April:** Across the observation network of weather stations with at least 30 years of history, a total of six daily high and 12 daily low-temperature-related records were set or tied. A total of 20 highest daily precipitation-related records were set or tied. Details of the records are in Table 3 below.

Table 3. Summary of daily records broken or set in North Dakota in April. (NCEI Daily Weather Records)

| Category                    | Number of |
|-----------------------------|-----------|
|                             | Records   |
| Highest daily max. temp.    | 1         |
| Highest daily min. temp.    | 5         |
| Lowest daily max. temp.     | 12        |
| Lowest daily min. temp.     | 0         |
| Highest daily precipitation | 6         |
| Highest daily snowfall      | 14        |
| Total                       | 38        |

#### The Highlight of the Month\*

A highest daily snowfall record of 11.6 inches was set in **Ashley** on **April 12**, breaking the previous record for that date by 3.6 inches, which was set in 1979 (years on record: 122).

<sup>\*</sup>The records in this box may be different from the record on Pages 1 and 3 due to the fact that this page only includes records for stations with at least 30 years of history.

