



North Dakota Monthly Climate Summary

November 2019

Volume 13, No. 11

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 November precipitation was 0.54 inch, which was 1.78 inches less than last month and 0.22 inch less than in November 2018. It was 0.14 inch less than the 1981-2010 average, making it the 71st driest November in the 125-year period of record (Table 1). 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 November. The greatest monthly precipitation accumulation was 2.08 inches, recorded in Steele, Kidder County. The greatest monthly snowfall accumulation was 18.5 inches, recorded at Pretty Rock, Grant County. Based on historical records, statewide November precipitation showed a slight negative long-term trend of 0.03 inch per century since 1895. The highest and lowest November precipitation for the state ranged from 2.33 inches in 2000 to 0.03 inch in 1939 (Figure 2).

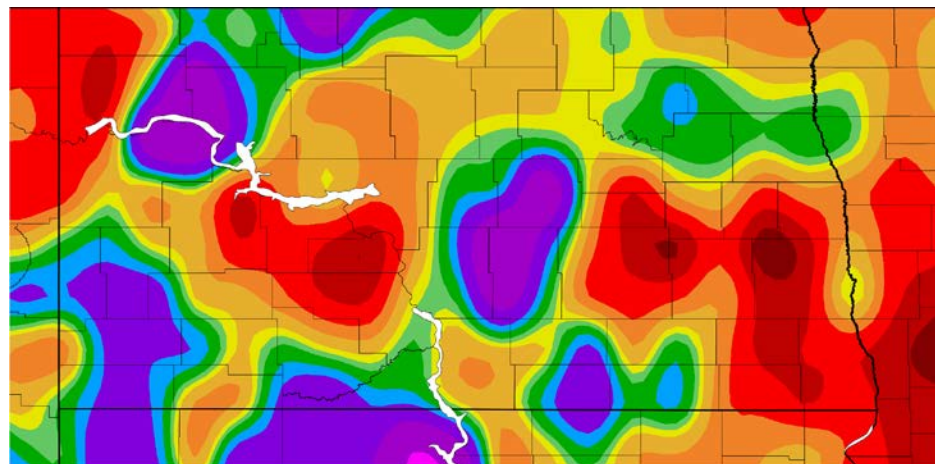


Figure 1. November 2019 precipitation percent of normal for North Dakota. (High Plains Regional Climate Center)



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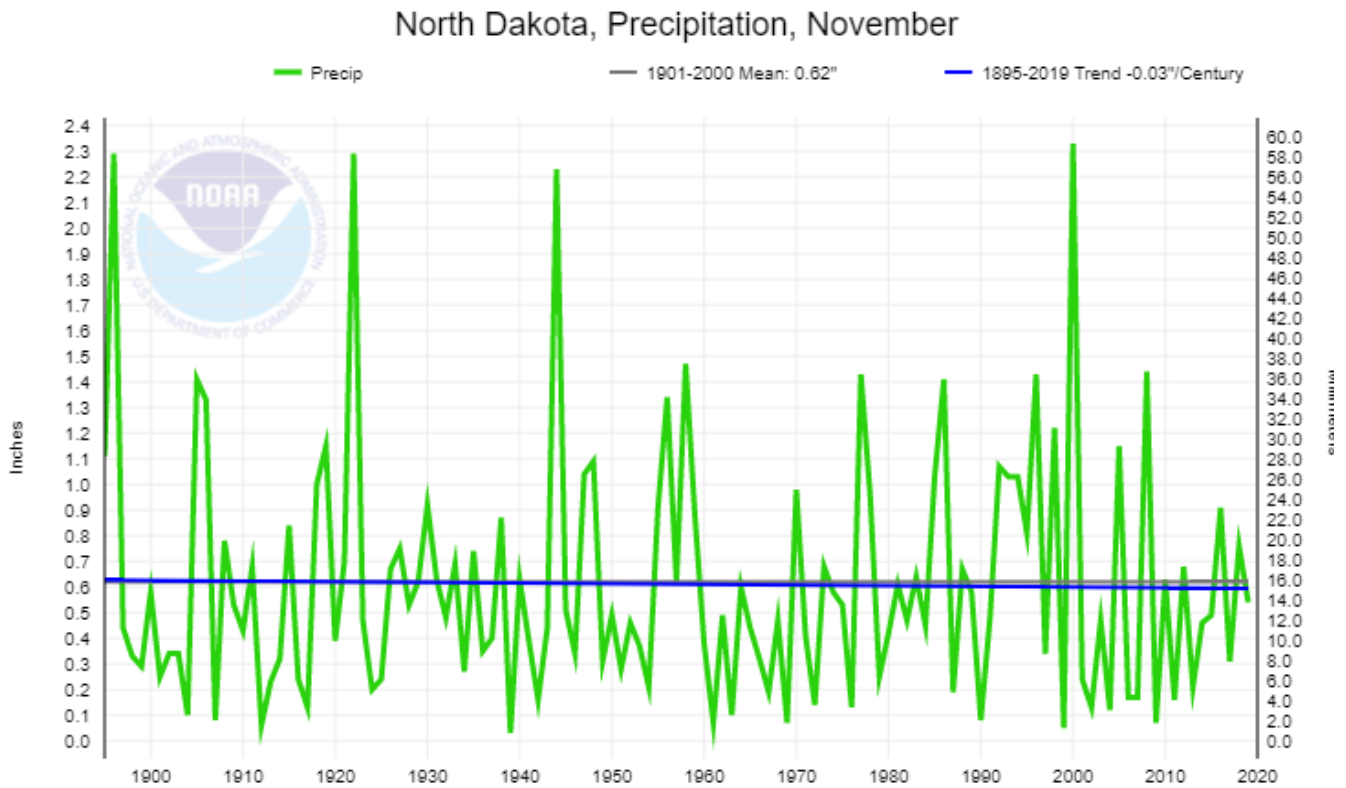


Figure 2. Historical November precipitation time series for North Dakota. (NCEI, NOAA)

Table 1. North Dakota November Precipitation Ranking Table.

| Period | Value | Normal | Anomaly | Rank | Wettest/Driest Since | Record Year |
|---------------|-------|--------|---------|-----------------------------|---|------------------------------|
| November 2019 | 0.54" | 0.68" | - 0.14 | 71st driest 55th wettest | Driest since 2017 Wettest since 2018 | 0.03" (1939) 2.33" (2000) |



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Temperature

The official state average November temperature was 26.2 F, which is 11.8 degrees cooler than last month but 3.3 degrees warmer than in November 2018. The average November temperature was 1.1 degrees cooler than the 1981-2010 average, which made it the 54th coolest November in the 125 years of record. It was the coolest November since 2018 (Table 2). The negative numbers in Figure 3 are shaded in green and blue to depict the region with cooler-than-average temperatures in November. The state's highest and lowest daily temperatures ranged from 61 F on Nov. 10 in Hettinger, Adams County, to minus 12 F on Nov. 11, in Medora, Billings County. Based on the historical records, the state average November temperature showed a slight positive long-term trend of 0.3 degree per decade since 1895. The highest and lowest monthly state November average temperatures ranged from 39.3 F in 2016 to 6.1 F in 1896 (Figure 4).

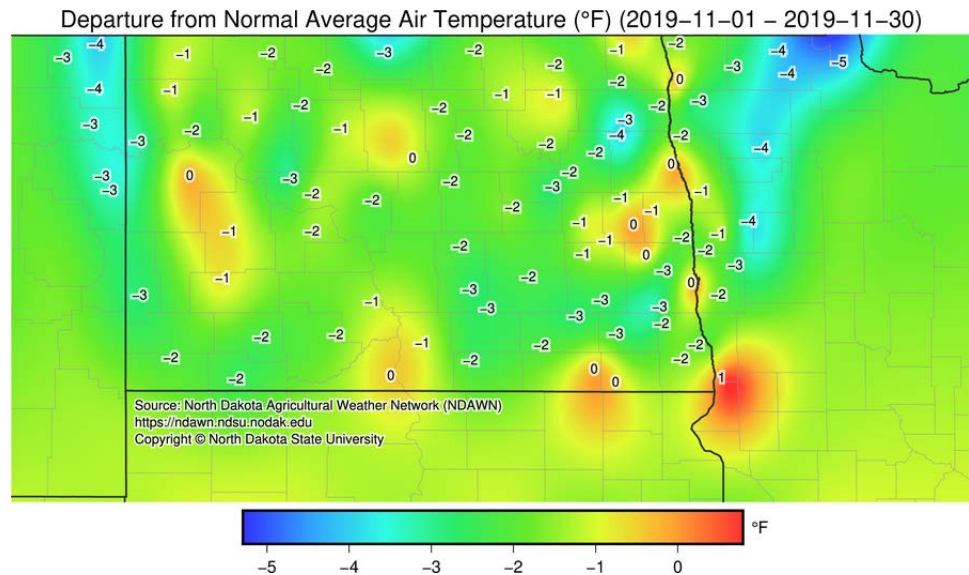


Figure 3. November 2019 temperature departure from normal for North Dakota. (North Dakota Agricultural Weather Network)

The negative numbers in Figure 3 are shaded in green and blue to depict the region with cooler-than-average temperatures in November. The state's highest and lowest daily temperatures ranged from 61 F on Nov. 10 in Hettinger, Adams County, to minus 12 F on Nov. 11, in Medora, Billings County. Based on the historical records, the state average November temperature showed a slight positive long-term trend of 0.3 degree per decade since 1895. The highest and lowest monthly state November average temperatures ranged from 39.3 F in 2016 to 6.1 F in 1896 (Figure 4).



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North Dakota, Average Temperature, November

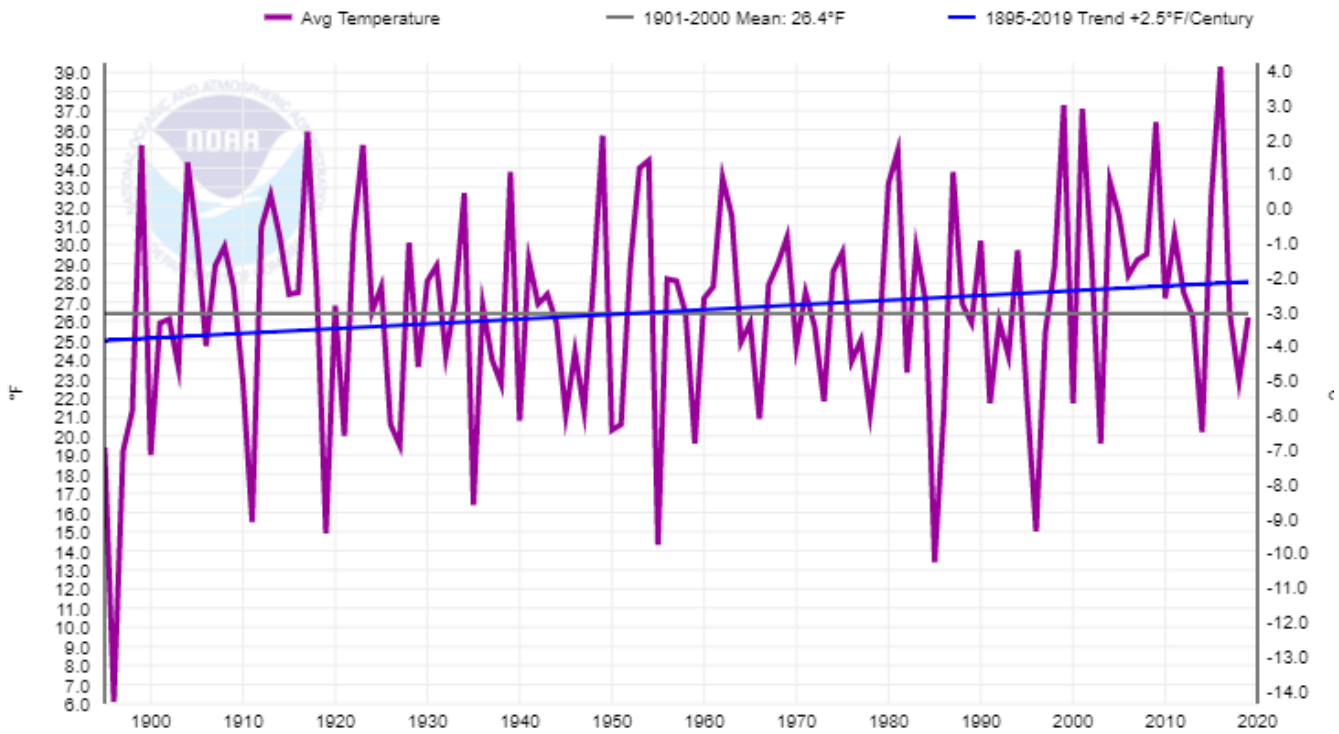


Figure 4. Historical November temperature time series for North Dakota. (NCEI, NOAA)

Table 2. North Dakota November Temperature Ranking Table.

| Period | Value | Normal | Anomaly | Rank | Warmest/Coollest Since | Record Year |
|---------------|-------|--------|---------|------------------------------|---|-------------------------------|
| November 2019 | 26.2 | 27.3 | -1.1 | 54th coolest 72nd warmest | Coollest since 2018 Warmest since 2017 | 6.1°F (1896) 39.3°F (2016) |



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Storm Reports: Table 3 below shows the summary of November Severe Storm Reports in North Dakota (Storm Prediction Center, NOAA).

The NOAA Storm Report showed no significant storm events in November. Table 3 summarizes the number of tornado, hail and damaging wind reports in November, while Figure 5 geographically displays the locations of these storms.

Table 3. Summary of November 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 |

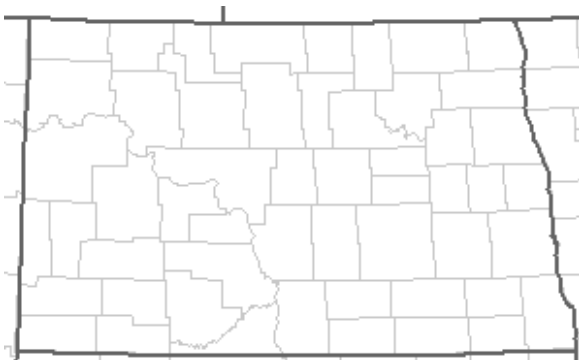


Figure 5. Map of November 2019 North Dakota storm events (red: tornado; blue: wind; green: hail). (Storm Prediction Center, NOAA)



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Daily Record Events in November: Across the observation network of weather stations with at least 30 years of history, six daily high- and 17 daily low-temperature records were set or tied. A total of 24 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 November. (NCEI Daily Weather Records)

| <i>Category</i> | Number of Records |
|------------------------------------|--------------------------|
| <i>Highest daily max. temp.</i> | 1 |
| <i>Highest daily min. temp.</i> | 5 |
| <i>Lowest daily max. temp.</i> | 10 |
| <i>Lowest daily min. temp.</i> | 7 |
| <i>Highest daily precipitation</i> | 10 |
| <i>Highest daily snowfall</i> | 14 |
| Total | 47 |

The Highlight of the Month*

A highest daily snowfall record of 9 inches was set in **Fullerton** on **Nov. 30**, exceeding the previous record that was set in 1922 by 2.8 inches (years on record: 120).

**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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