



# North Dakota Monthly Climate Summary

May 2019

Volume 13, No. 5

## 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 May precipitation was 2.29 inches, which was 1.12 inch more than last month, 0.33 inch more than in May 2018 but 0.24 inch less than the 1981-2010 average, making it the 65th driest May in the 125-year period of record. It was the driest May 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 May. The greatest monthly precipitation accumulation was 5.38 inches, recorded in Pretty Rock, Grant County. The greatest 24-hour precipitation was 1.08 inches, recorded in Reeder, Adams County, on May 17. The greatest monthly snowfall accumulation was 4.7 inches, recorded in Bowman, Bowman County. The greatest 24-hour snowfall was 2 inches, recorded in Dunn Center, Dunn County, on May 18. Based on historical records, statewide May precipitation showed a positive long-term trend of 0.33 inch per decade since 1895. The highest and lowest May precipitation for the state ranged from 5.96 inches in 1927 to 0.23 inch in 1901 (Figure 2).

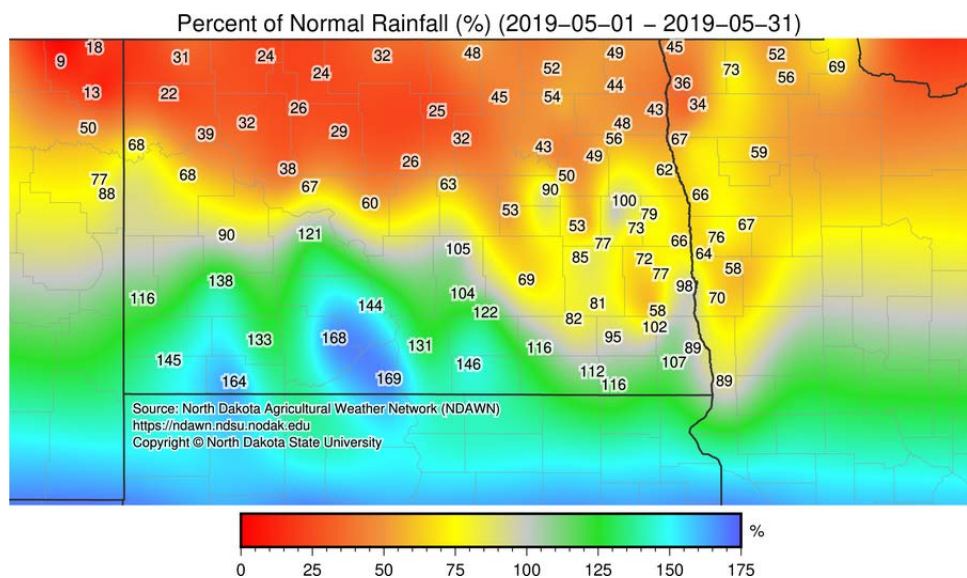


Figure 1. May 2019 precipitation percent of normal for North Dakota. (North Dakota Agricultural Weather Network)



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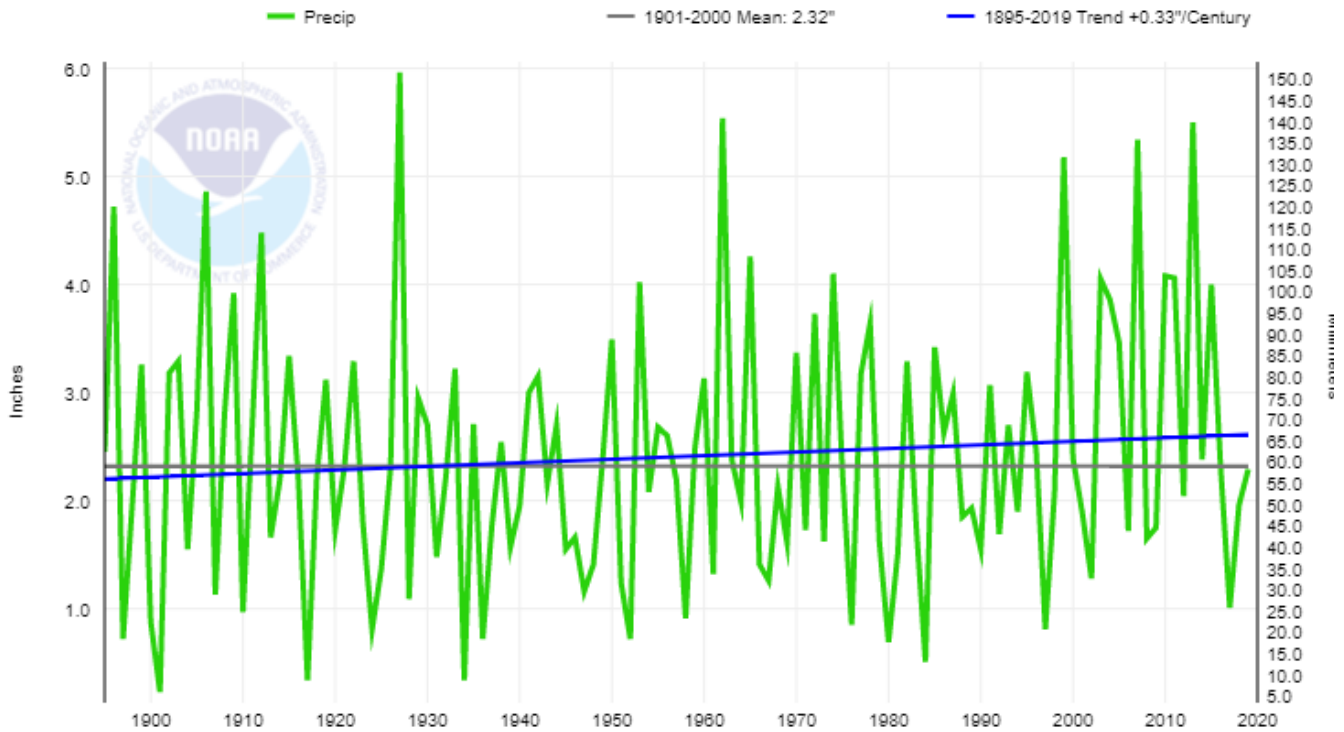


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North Dakota, Precipitation, May



### May Precipitation Statistics

Record high value: 5.96 inches in 1927  
 Record low value: 0.23 inch in 1901  
 Trend: 0.33 inch per century

May 2019 value: 2.29 inch  
 1981-2010 average: 2.53 inch  
 Monthly ranking: 65th driest  
 Record length: 125 years

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

Table 1. North Dakota May Precipitation Ranking Table.

Period	Value	Normal	Anomaly	Rank	Wettest/Driest Since	Record Year
May 2019	2.29"	2.53"	- 0.24	65th driest 61st wettest	Driest since 2018 Wettest since 2016	1901 1927



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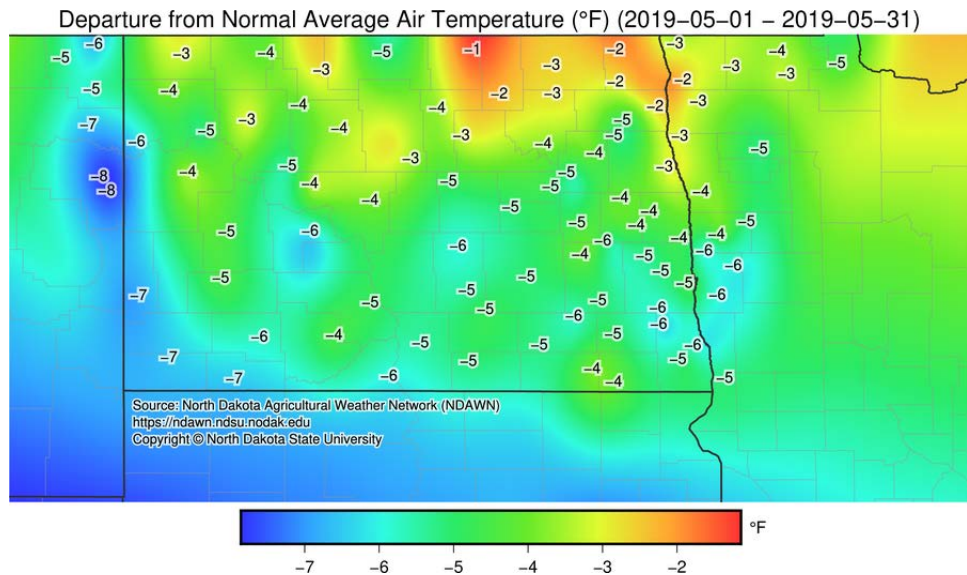
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## Temperature

The official state average May temperature was 49.5 F, which is 7.8 F warmer than last month but 10.7 F warmer than in May 2018. The average May temperature was 4.6 F cooler than the 1981-2010 average, which made it the 11th coolest May in the 125-year period of record. It was the coolest May since 2002 (Table 2). The negative numbers in Figure 3 are shaded in green and blue to depict the region with cooler-than-average temperatures in May. The state's highest and lowest daily temperatures ranged from 93 F on May 31 in Petersburg, Nelson County, to 19 F on May 7 in Hettinger, Adams County. Based on the historical records, the state average May temperature showed a slight positive long-term trend of 0.1 F per decade since 1895. The highest and lowest monthly state May average temperatures ranged from 63.5 F in 1934 to 44.4 F in 1907 (Figure 4).



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



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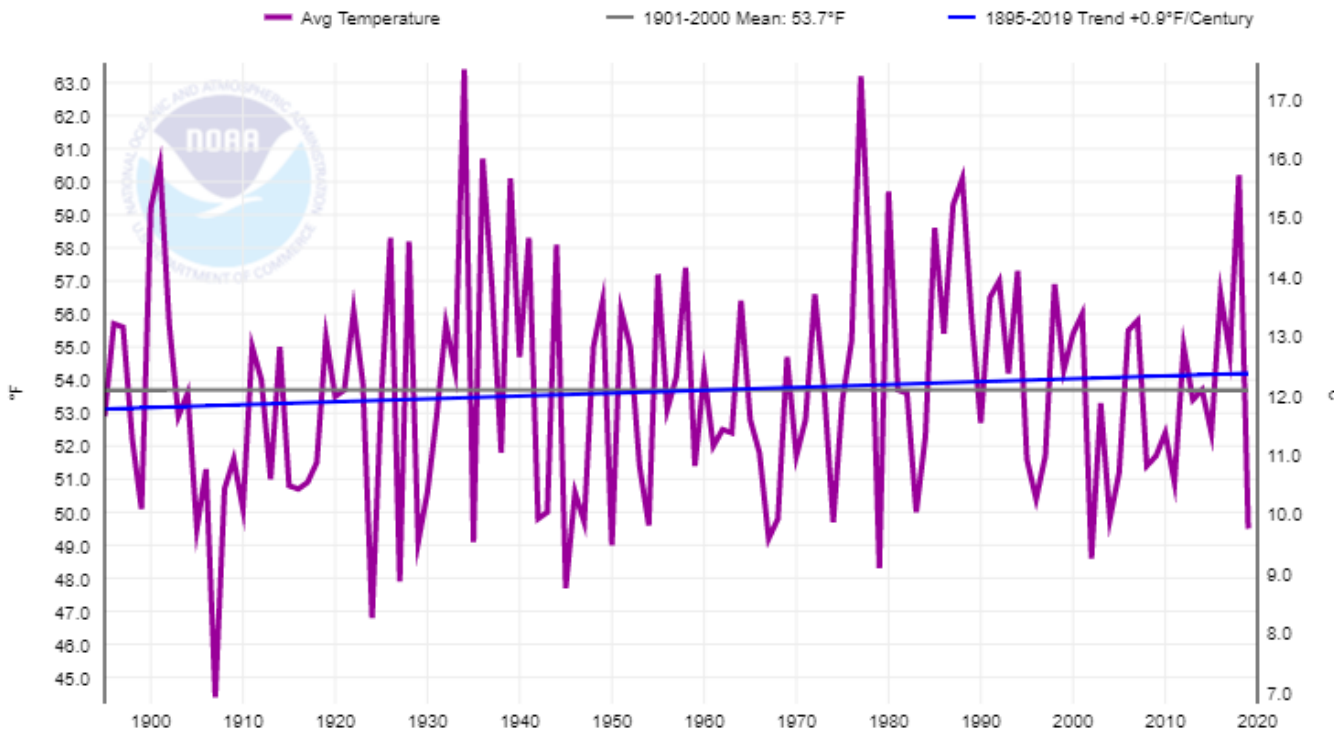


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North Dakota, Average Temperature, May



### May Temperature Statistics

Record high value: 63.5 F in 1934  
 Record low value: 44.4 F in 1907  
 Trend: 0.1 F per decade

May 2019 value: 49.5 F  
 1981-2010 average: 54.1 F  
 Monthly ranking: 11th coolest  
 Record length: 125 years

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

Table 2. North Dakota May Temperature Ranking Table.

Period	Value	Normal	Anomaly	Rank	Warmest/Coollest Since	Record Year
May 2019	49.5	54.1	- 4.6	11th coolest 115th warmest	Coollest since 2002 Warmest since 2018	1907 1934



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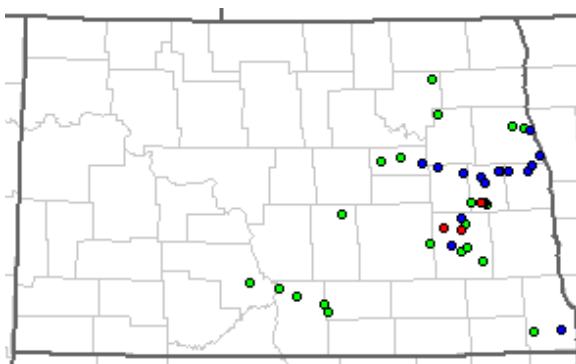
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**Storm Reports:** NDAWN's highest 10-meter peak gust in May was 48 mph, recorded at the Bowman weather station in Bowman County on May 2, 2019. See Table 3. Summary of May Severe Storm Reports in North Dakota (Storm Prediction Center, NOAA)

The NOAA Storm Report showed 35 significant storm events in May. Table 3 summarizes the number of tornado, hail and damaging wind reports in May, while Figure 7 geographically displays the locations of these storms.

*Table 3. Summary of May Severe Storm Reports in North Dakota (SPC, NOAA)*

Category	Number of Reports
<i>Tornado reports</i>	3
<i>Hail reports</i>	20
<i>Wind reports</i>	17
<b>Total</b>	<b>40</b>



*Figure 5. Map of May 2018 North Dakota storm events (red: tornado; blue: wind; green: hail).*



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**Daily Record Events in May:** Across the observation network of weather stations with at least 30 years of history, two daily high- and 36 daily low-temperature-related records were set or tied. A total of 17 highest daily precipitation-related records were set or tied. Details of the records are in Table 3 below.

*Table 4. Summary of daily records broken or set in North Dakota in May. (NCEI Daily Weather Records)*

<i>Category</i>	<b>Number of Records</b>
<i>Highest daily max. temp.</i>	2
<i>Highest daily min. temp.</i>	0
<i>Lowest daily max. temp.</i>	29
<i>Lowest daily min. temp.</i>	7
<i>Highest daily precipitation</i>	12
<i>Highest daily snowfall</i>	5
<b>Total</b>	<b>55</b>

### The Highlight of the Month\*

A lowest daily temperature record of 24 degrees was set in **Dickinson** on **May 7**, breaking the previous record for that date by one degree, which was set in 1980 (years on record: 70).

\*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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