

North Dakota Monthly Climate Summary

May 2025

Volume 19. No. 5

NORTH DAKOTA STATE CLIMATE OFFICE



May 2025



Photo: A beautiful foggy May sunrise overlooking the State Park at the Little Missouri NDAWN Station

May was a turbulent month, as is typical for a Northern Plains spring. While severe weather was out of the question, the entire state, and especially Western North Dakota, had a good pouring of rain to saturate the soil. Eastern ND fell on the short side, but there was significant improvement to soil quality in areas suffering from drought. Hot temperatures have exacerbated the issue, and a late spring frost made planting and growing conditions difficult.

A few local areas in the Northeast reached temperatures as high as 100°F in May! Statewide, temperatures were in the 90s. While it felt like summer, it was detrimental for livestock, planting, fields, and wildfire conditions because of strong winds associated with the system. Soon after however, temperatures dropped rapidly and a multiday rain soothed dry conditions.



Figure 1: Purple and green Northern Lights seen from the Hirschville NDAWN camera in late May

Precipitation

While April brought a decent amount of precipitation to the Eastern side of the state, in May it was time for Western ND to get the rain. Areas in Dunn, Mercer, and Grant County received over 7 inches of rain in just a few days! These showers were very widespread, so while not everyone received extreme amounts, many were in the range of 3-5 inches (Figure 2). Eastern ND was on the lighter side this time around, recording around 1.5-2 inches with higher totals in the SE; they are still below average for the month by about 50-70%.

Total Precipitation (in)

05-01-2025 - 05-31-2025

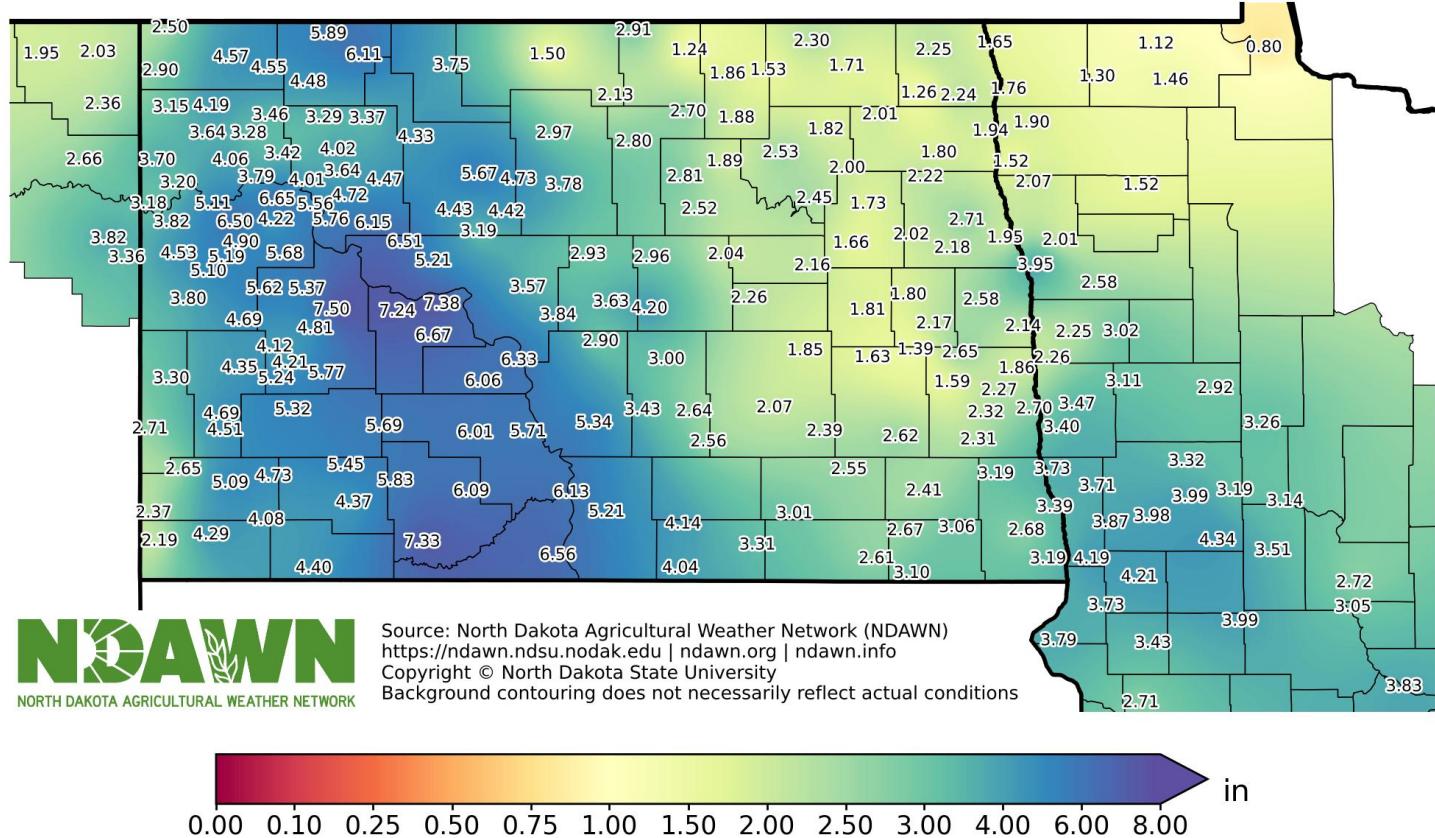


Figure 2: Total Precipitation measured at all NDAWN stations in May 2025



Precipitation

The maximum monthly precipitation recorded by NDAWN during the month of May was 7.50 inches at the Werner 6N station in Dunn County. This is 4.66 inches above average for this station, and multiple NDAWN stations in the area reported well over 200% normal precipitation. On the dry side of things, in Northeastern North Dakota, the Crystal 4NW NDAWN station recorded just 1.26 inches of precipitation, less than 50% of normal. This area was dry in April as well, and abnormally dry/moderate drought conditions do persist.

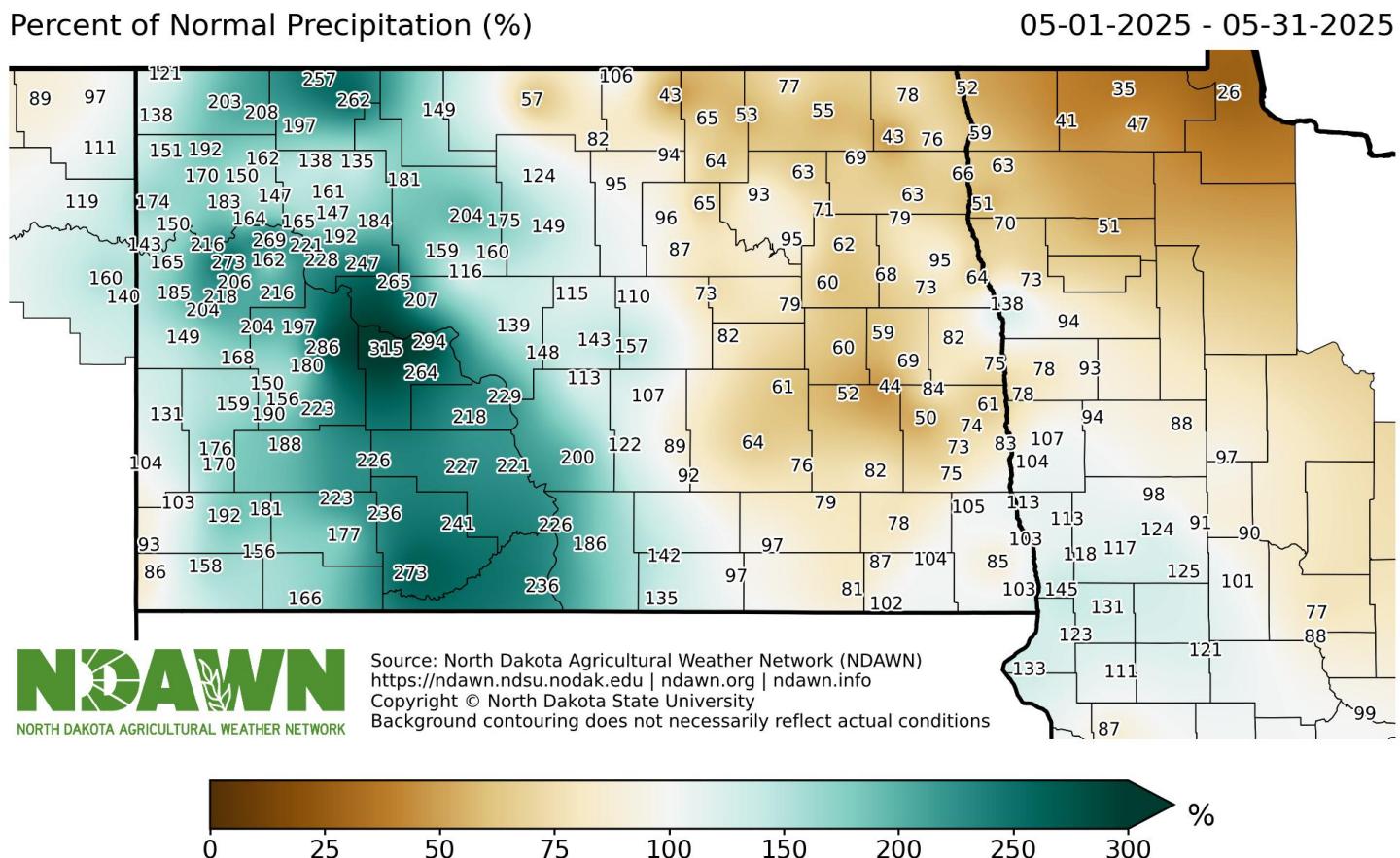


Figure 3: Percent of Normal Precipitation measured at each NDAWN station throughout the month of May 2025

Precipitation

Long term precipitation patterns are seeing improvements from the wet May. The Northeast is lagging behind from a dry winter AND a mostly dry spring with about half of normal precipitation. The rest of the state is catching up or caught up to normal thanks to the heavy stratiform rain in mid-May. Soil conditions statewide have made a great improvement due to this. It also helped to calm down fire condition, as much of the state was under Red Flag Warnings during hot, windy days.

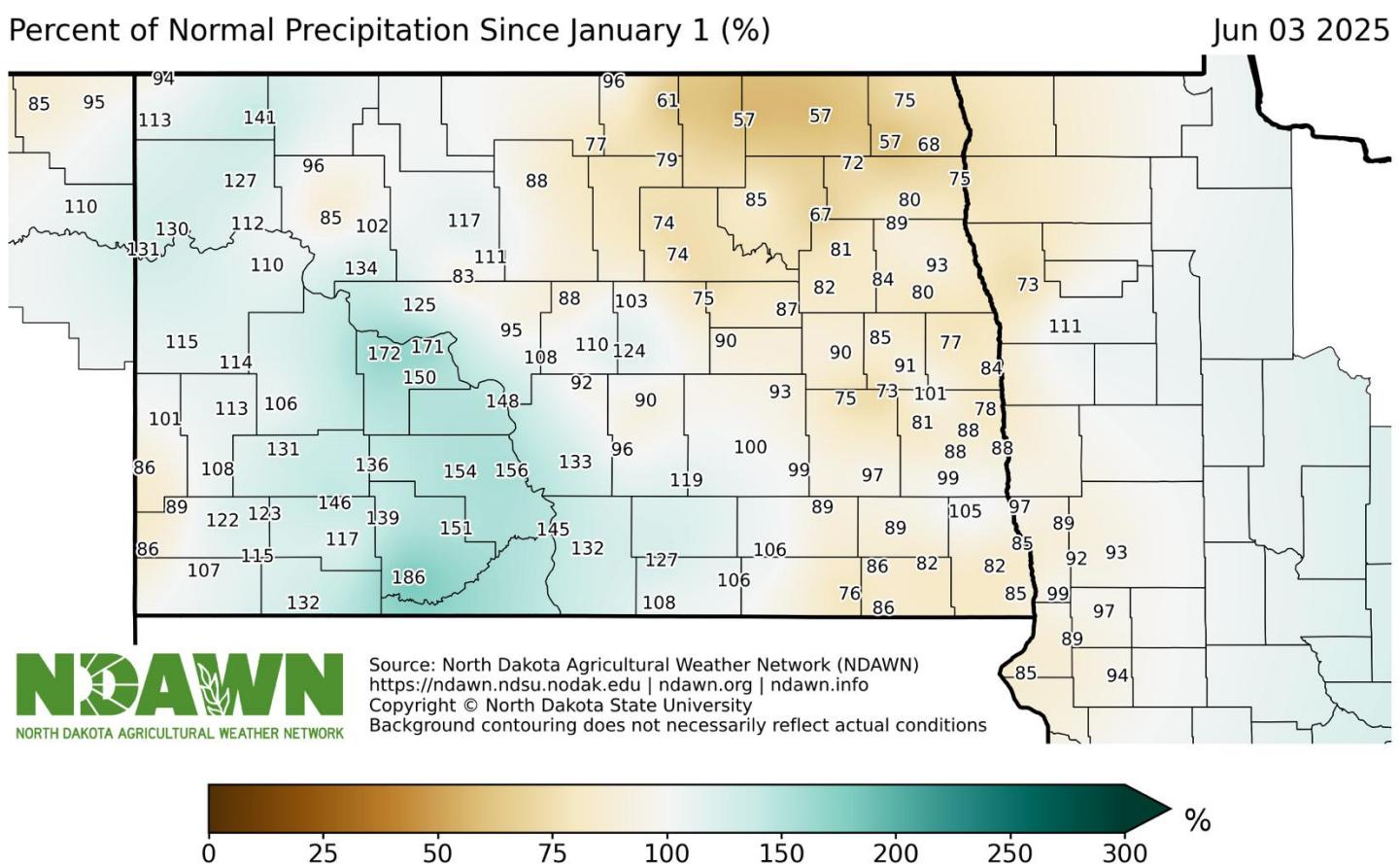


Figure 4: Percent of Normal Precipitation from January through May

Precipitation

Improvements to the Drought Monitor are still underway, but there has been great progress in drought reduction already. Most noticeably the D3 Extreme Drought in Western ND reduced from 6% to 2% area. As vegetation conditions improve, the Drought Monitor will reflect the recent rains. Overall, conditions are improving statewide.

May 6, 2025

May 27, 2025

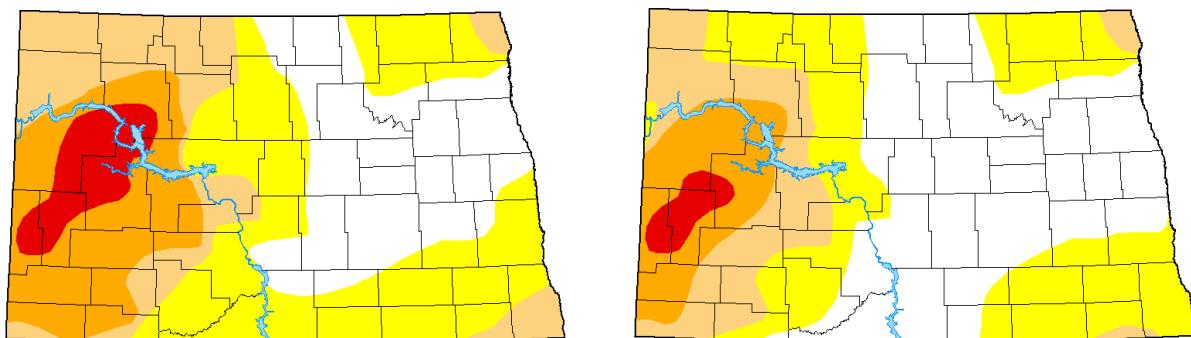
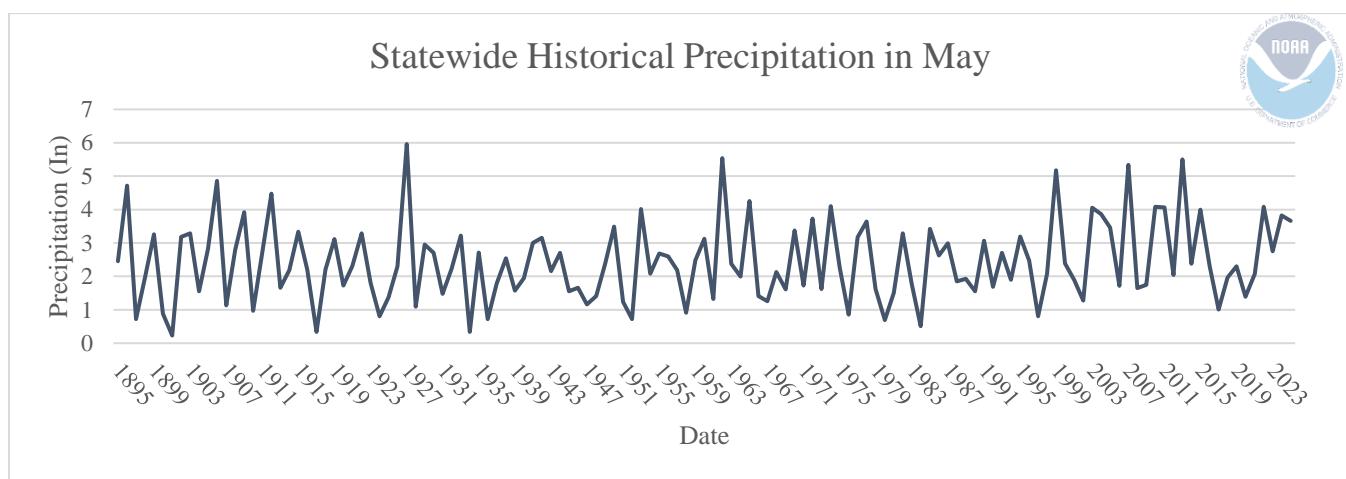


Figure 5: U.S. Drought Monitor conditions changes between May 6, 2025 (left) to May 27, 2025 (right)



Precipitation



NDAWN Zeeland

05/21/2025 06:50:40 AM

Figure 6: Some late May snow dusting the Zeeland NDAWN station, which hit 95°F one week earlier

North Dakota May Precipitation Summary

May 2025	Precipitation	Normal	Anomaly	Rank	Record Year
	3.66"	2.71"	+0.96"	21 st Wettest	1927
				111 th Driest	1901

Temperature

May was all around warmer than average, thanks to an unusually warm few days early in the month. The entire state recorded temperatures in the 90s, and in the Northeast multiple NDAWN stations measured over 100°F.

Though many days were HOT, a not too much later, areas in Western and South Central ND saw SNOW! Not uncommon for May, but certainly interesting after warming up so significantly. The average temperature in May was 2.2°F warmer than normal, at 56.1°F. It was much warmer than normal in the Northeast, with an average temperature of 60°F at the St. Thomas and Forest River NDAWN Stations (Figure 7).

Average Air Temperature (° F)

05-01-2025 - 05-31-2025

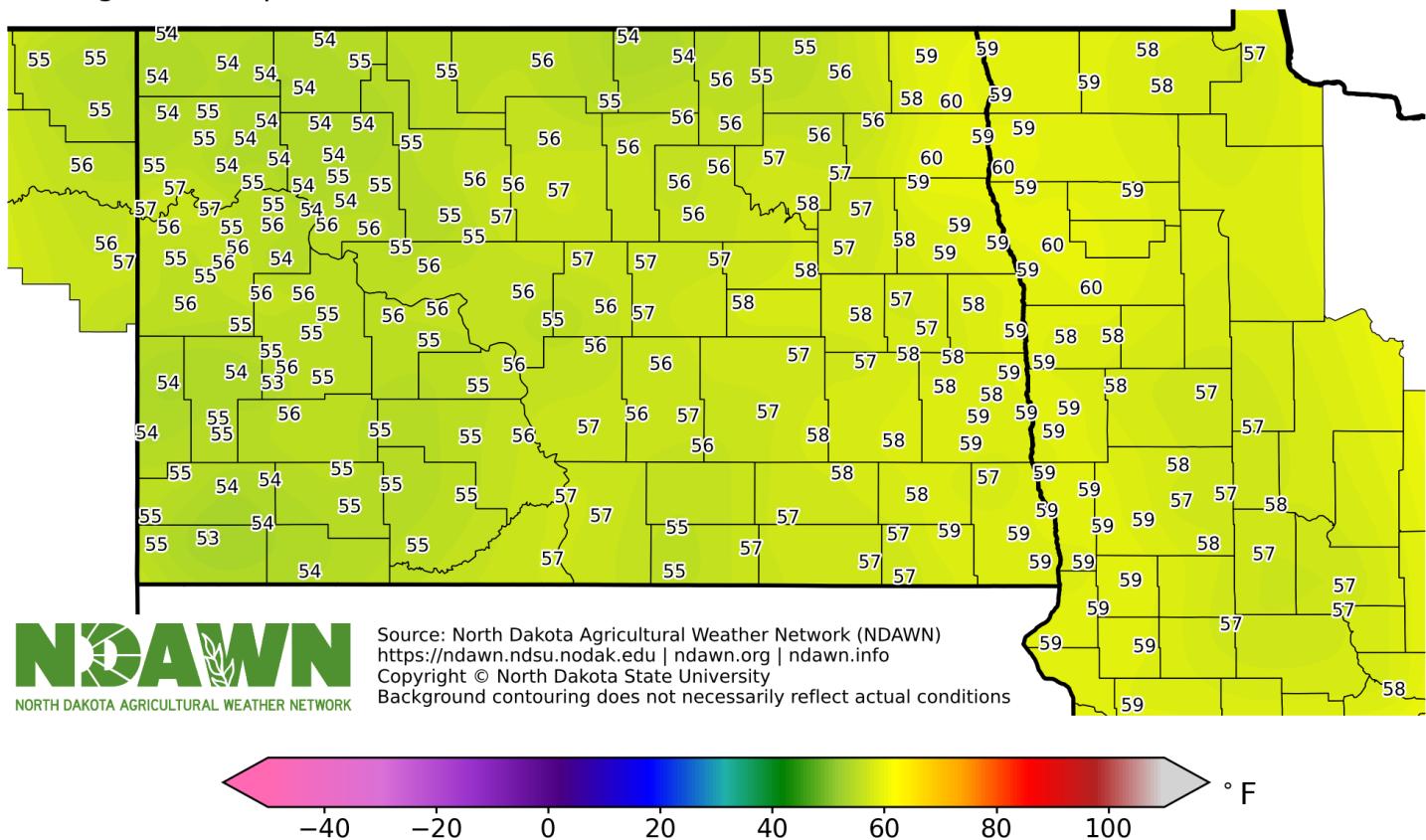


Figure 7: Average Air Temperature for the month of May at all NDAWN Stations

Temperature

Maximum temperatures were warmer than normal by nearly 3°F due to the extreme high temperatures across the state in May. The average maximum temperature this month was 69.1°F. Minimum temperatures were not affected as badly, with this month averaging 43°F statewide, 1.7°F warmer than normal. The hottest temperature recorded by NDAWN in May was 100°F at three stations in Pembina and Walsh Counties: Crystal, St. Thomas, and Forest River. Just on the other side in MN, 3 stations recorded 101°F temperatures.

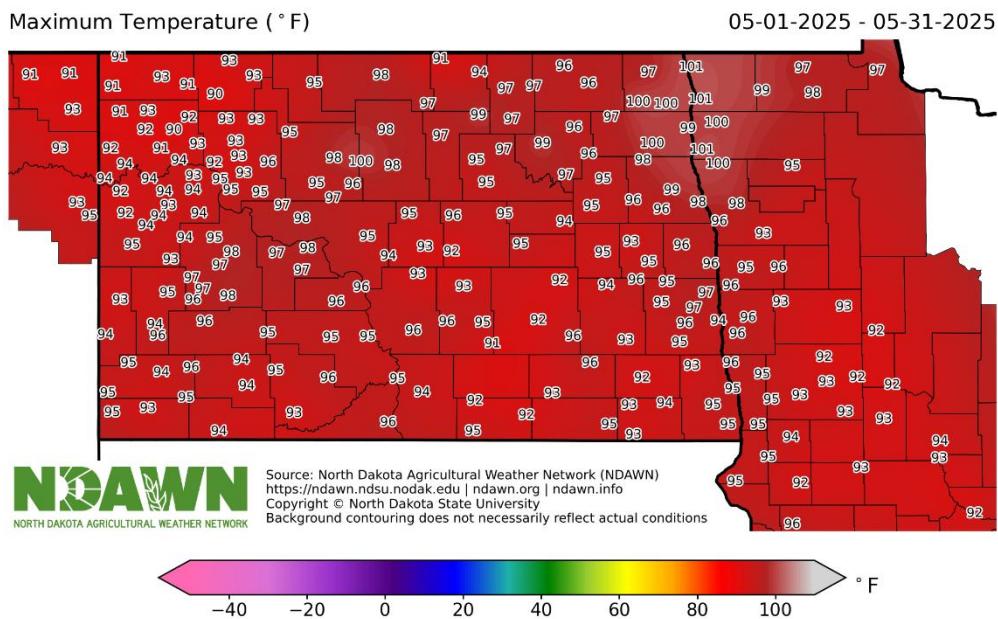


Figure 8: Maximum Temperature (top) and Minimum Temperature (bottom) recorded at all NDAWN stations during the month of April

Even minimum temperatures had their moment this month, with overnight temperatures reaching down to the mid 20s. and frequently near freezing. The coldest temperature recorded by NDAWN was 25°F at the Poker Jim and Grenora NDAWN stations (Figure 9).

Temperature

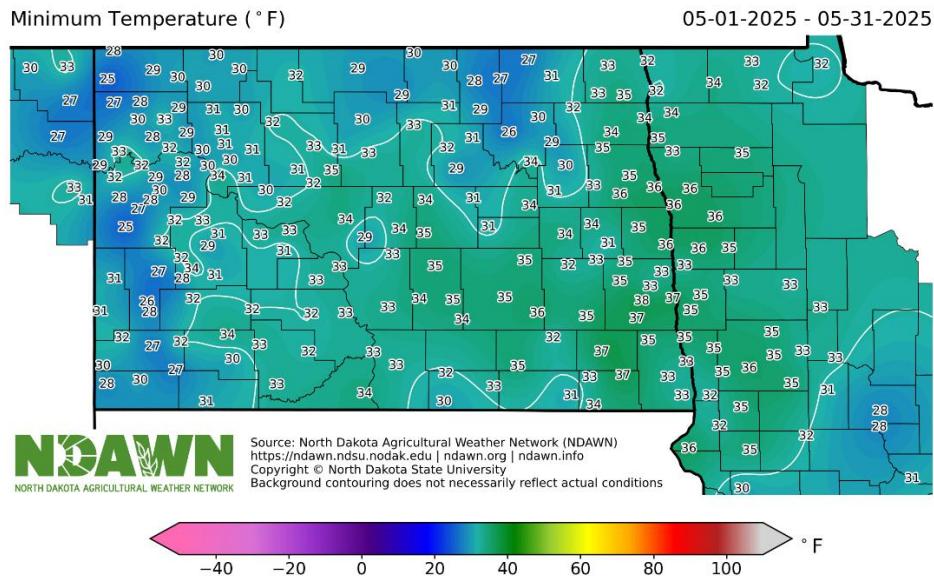


Figure 9: Minimum temperature recorded at each NDAWN Station during May

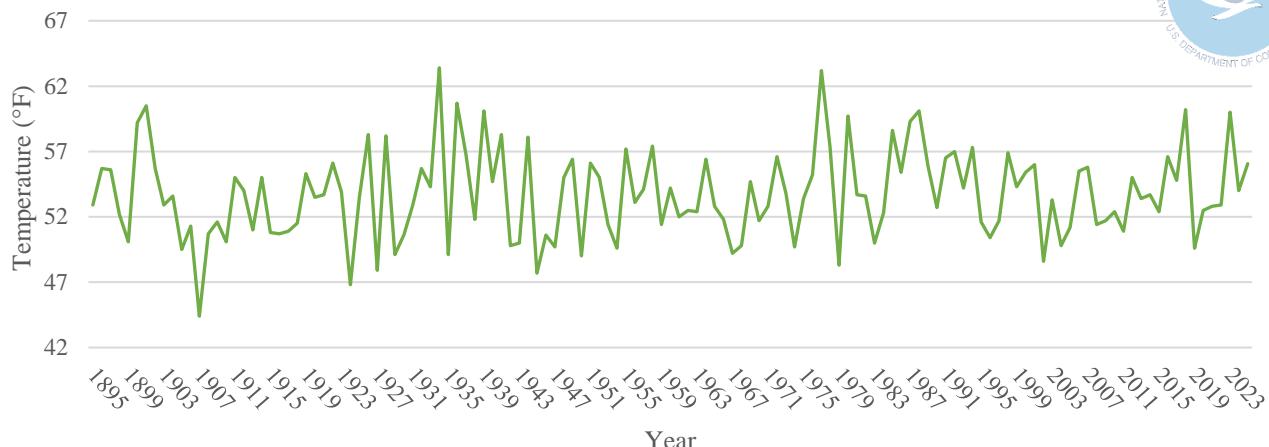
North Dakota May Temperature Summary

May 2025 Temperature Summary	Average T	Avg max T	Avg min T	Maximum	Minimum
	56.1°F	69.1°F	43.0°F	100°F	25°F
Anomaly	+2.2°F	+2.7°F	+1.7°F		
Rank					
Warmest	29 th warmest	34 th Warmest	29 th warmest		
Coolest	103 rd Coldest	98 th Coldest	103 rd Coldest		
Record					
Warmest	63.4°F (1934)	80.3°F (1934)	49.3°F (1977)	101°F (Oakes, 1980)	
Coolest	44.4°F (1907)	56.9°F (1927)	31.2°F (1907)		-24°F (Powers Lake, 1975)

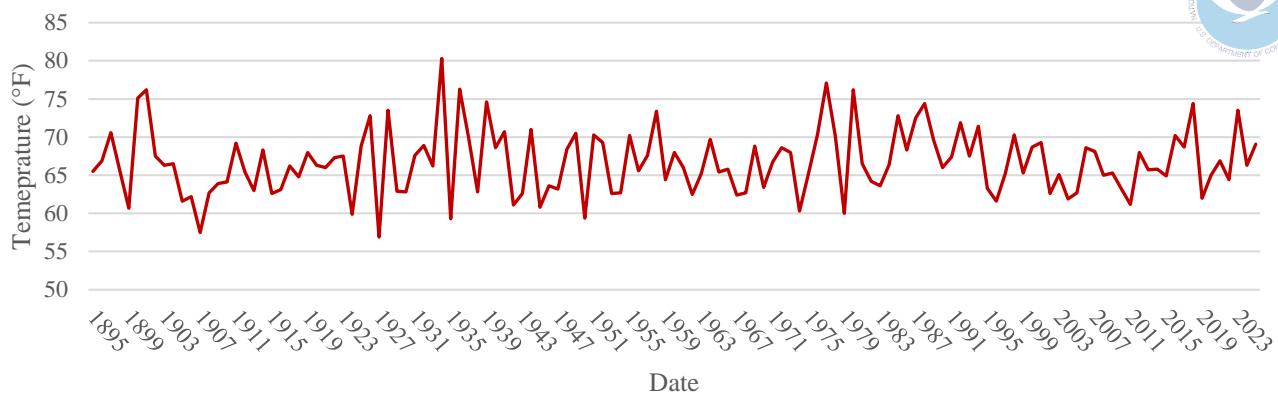
Table 2: May temperature summary for North Dakota. 2025 statistics from NDAWN station data. Ranking and records based on NCEI climate data (1895-2025) (NOAA).



Statewide Historical Average Temperature in May



Statewide Historical Average Maximum Temperature in May



Statewide Historical Average Minimum Temperature in May

