

North Dakota Monthly Climate Summary

July 2014

Precipitation:

After an excessively wet June, almost all of North Dakota recorded below average precipitation during the month of July (Figure 1). The only exception was a few locations in the northeastern portion of the state. Using data from the North Dakota Agricultural Weather Network (NDAWN), the statewide average precipitation for the month of July was 1.47 inches. That is well below the July average of 2.87 inches which would rank July 2014 as the 14th driest on record. The U.S. Drought Monitor had less than 1% of North Dakota in abnormally dry conditions as of July 29, 2014.

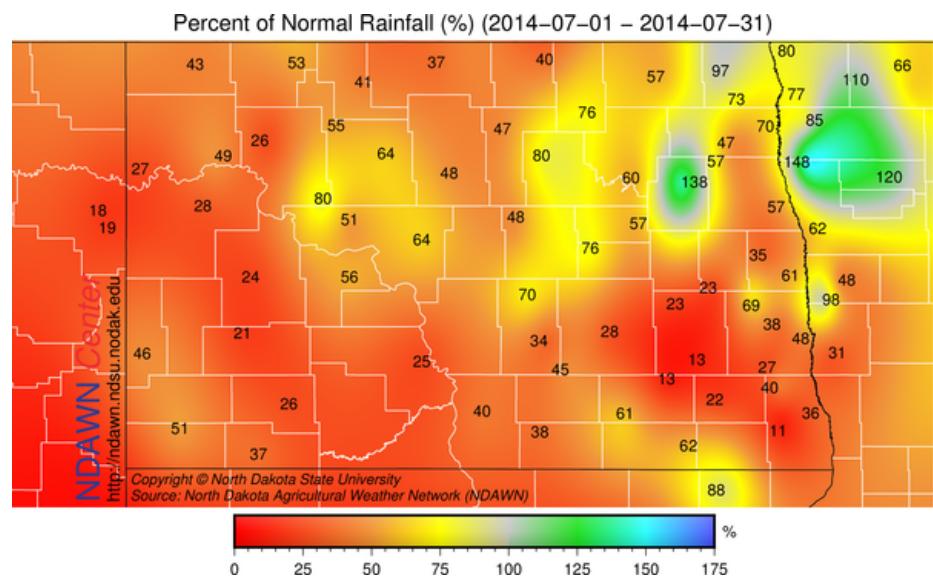


Figure 1. Precipitation Percent of Normal in July 2014 for North Dakota (North Dakota Agricultural Weather Network, NDAWN)

Temperature:

July 2014 was the 10th straight month with below average temperatures in North Dakota. With the exception of a few areas near the Canadian border the colder than average temperatures were fairly uniformed in the 2 to 4 degrees below normal range across the state (Figure 2). The NDAWN stations recorded an overall average temperature of 66.9 degrees which is 2.2 degrees below the 30 year average of 69.1 degrees for the month of July. That would rank July 2014 as tied for the 25th coldest July since such records began in 1895.

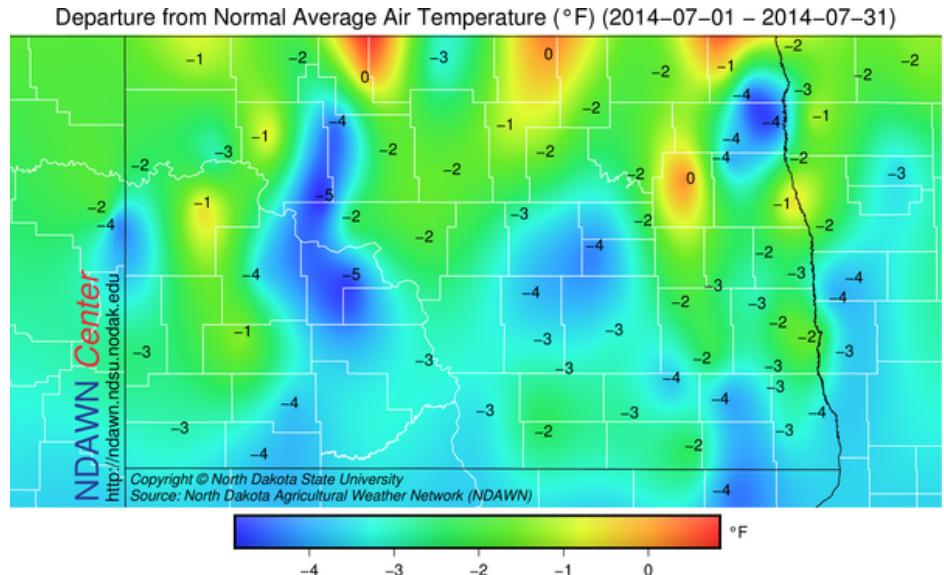


Figure 2. Temperature Departure from Normal in July 2014 for North Dakota (North Dakota Agricultural Weather Network, NDAWN)

Notable Weather:

On Monday, July 21, 2014 during the late afternoon and evening hours, a derecho (a long-lived line of severe thunderstorms) moved across North Dakota. The strong wind associated with this event caused damage from near Dickinson to Grand Forks (Figure 3). The derecho continued into the early hours of July 22 extending all the way to Lake Superior before weakening. The most widespread damage in North Dakota occurred from Carrington to Grand Forks where several tornadoes developed along the bow echo. The top wind speed recorded at any of the NDAWN sites was a 73 mph wind gust at the McHenry station in eastern Eddy County (Figure 4).

The thunderstorms not only produced strong wind and some tornadoes, but also localized heavy rain. The National Weather Service office in Grand Forks recorded 2.74 inches of rain and the Michigan NDAWN station recorded 4.00 inches that day. It was the most widespread severe weather event of the season to date and also the biggest rain maker for the month of July in the state.



Figure 3. Severe Weather Reports from July 21, 2014 from the Storm Prediction Center

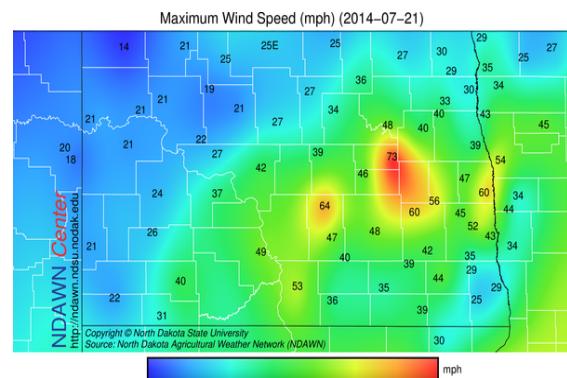


Figure 4. Peak Wind Gust from the North Dakota Agricultural Weather Network, NDAWN Sites on July 21, 2014