

CLIMATE UPDATE

Warm start, cool end to July, dryness continues

For the first half of July across Nebraska, the warmer-than-normal trend from June continued. Temperatures remained above average with some significant warmth, and 95- to 100-degree days were common. The statewide high for July was 102°F, observed at a handful of locations — Red Cloud, Broadwater, Chadron and Valentine. This was followed, however, by a cool down for the latter portion of the month when temperatures fell below normal. Aside from a few pockets across the state, the monthly average temperatures for July were generally slightly cooler than normal by about a degree. The statewide average temperature for July was 73.4°F, which is less than a degree below the 1981 to 2010 normal.

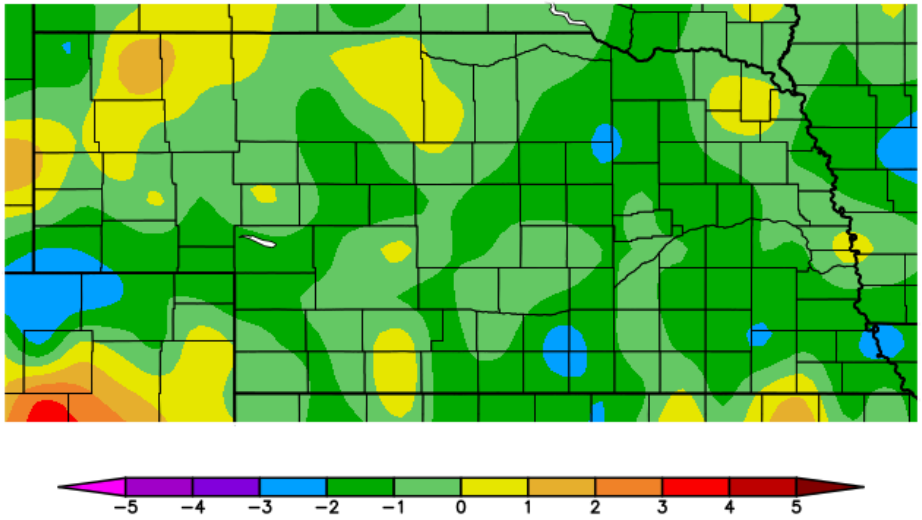
Agriculture

Given the warmer-than-normal conditions in May, June and the first half of July, and despite the cold and wet spring, crop progress is generally on track or ahead of schedule for this time of year. Corn is still running well ahead of normal for maturity. Growing degree day accumulations from May 1 are 150 units to 300 units ahead of normal by six to 12 growing days with early planted corn entering dent condition south of I-80. One significant impact to some crop fields in south-central Nebraska was a hail storm that occurred June 30. Large swaths of corn and soybean fields near Loomis and Holdrege were decimated. In all for July, there were 95 hail reports around the state, 69 reports of high wind events and tornadic activity on July 28 about 3 miles west and southwest of Kimball.

Precipitation

Rainfall amounts varied across the state, as is typical for convective summer-time precipitation events. Monthly totals were highest for central and northeast

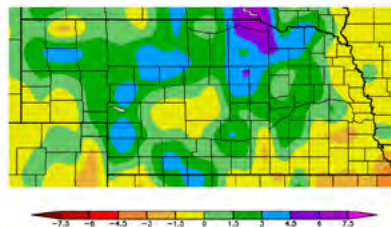
DEPARTURE FROM NORMAL TEMPERATURE



HIGH PLAINS REGIONAL CLIMATE CENTER

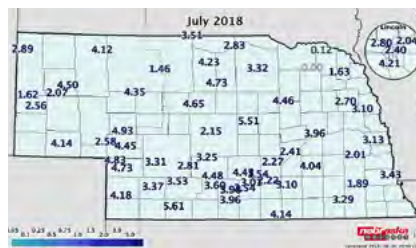
All maps generated using July provisional data.

DEPARTURE FROM NORMAL PRECIPITATION



HIGH PLAINS REGIONAL CLIMATE CENTER

LIQUID PRECIPITATION TOTALS (IN)



NEBRASKA STATE CLIMATE OFFICE

Nebraska Mesonet extremes

The following extremes were cataloged this July by Nebraska's statewide weather network:

Highest air temperature: 99°F on July 11 at Scottsbluff 6NW

Lowest air temperature: 44°F on July 1 at Harrison 4NW

Highest 4-inch bare soil temperature: 101°F on July 12 at Emmet 2E

Lowest 4-inch bare soil temperature: 56°F on July 30 at Harrison 4NW

Highest 5-second wind gust: 58 mph on July 4 at Long Pine 20S

Highest precipitation: 3.17 inches on July 1 at York 2W

Source: *The Nebraska Mesonet* at Nebraska State Climate Office, University of Nebraska-Lincoln

Nebraska with some areas receiving more than 7 inches. A few daily rainfall totals were in the 4-inch range in the central part of the state. For the state as a whole, precipitation totaled 4.43 inches, which is a bit more than an inch above normal.

Drought

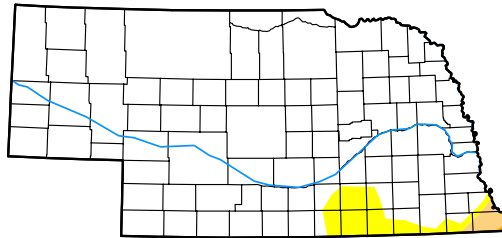
While much of the state received above-normal amounts for July, extreme southcentral and southeast Nebraska continues to miss out on timely rains. Accumulated precipitation totals going back to Oct. 1 show portions of Nuckolls, Thayer, Fillmore and Richardson counties are running a 6-inch precipitation deficit, which is less than 70 percent of normal for this time period. Soil moisture reports by extension educators is most severe across the southern two-thirds of Webster and Nuckolls counties. Expansion of the dryness was being noted along the southern tier counties from Thayer eastward to western Richardson county. Elsewhere, dryness concerns have been minimal. With continued dryness in far southcentral and southeast Nebraska, the U.S. Drought Monitor has expanded D0 into a seven-county area centered on Nuckolls county.

Outlook

The short-term outlook from the Climate Prediction Center for the next one to two weeks indicate an increased chance for above-normal temperatures. Last month, the Climate Prediction Center has issued an El Nino watch, meaning that conditions are favorable for an El Nino to develop this fall. The seasonal (August to October) outlooks are calling for higher probabilities of warmer-than-normal weather statewide. In terms of precipitation, the far southeast corner of the state is in the higher probability for below-normal rainfall category. If the warmth and dryness does verify, this will worsen the precipitation deficits this area already is experiencing.

— Martha Shulski, state climatologist and NSCO director

U.S. DROUGHT MONITOR MAP NEBRASKA



	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	95.00	5.00	0.87	0.08	0.00	0.00
Last Week 07-24-2018	94.88	5.12	0.84	0.00	0.00	0.00
3 Months Ago 05-01-2018	72.17	27.83	2.26	0.00	0.00	0.00
Start of Calendar Year 01-02-2018	9.32	90.68	2.03	0.00	0.00	0.00
Start of Water Year 09-26-2017	82.67	17.33	4.01	0.00	0.00	0.00
One Year Ago 08-01-2017	14.32	85.68	41.90	6.44	0.00	0.00

Intensity:
 D0 Abnormally Dry D3 Extreme Drought
 D1 Moderate Drought D4 Exceptional Drought
 D2 Severe Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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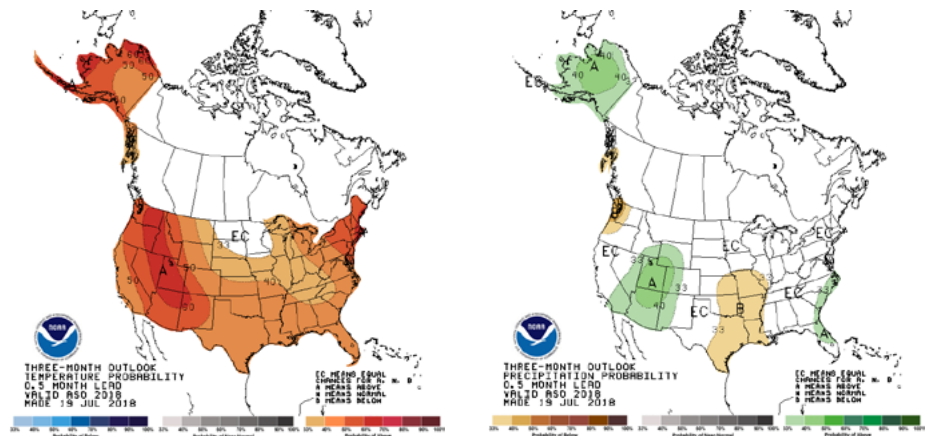


NATIONAL DROUGHT MITIGATION CENTER

This map shows which Nebraska counties are experiencing abnormally dry to severe drought conditions at month's end in July.

90-DAY OUTLOOK

TEMPERATURE (LEFT) & PRECIPITATION



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