

CLIMATE UPDATE

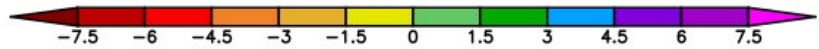
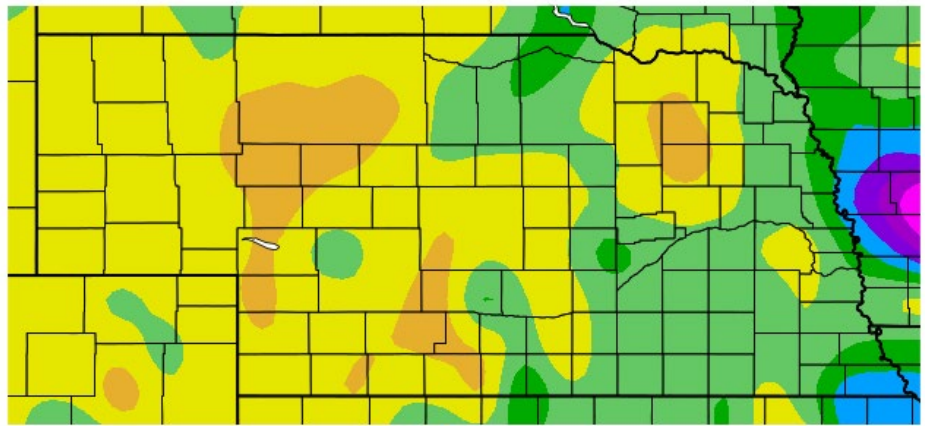
Surplus rain brings relief in SE Nebraska

Temperatures shied away from extremes during August and were quite moderate throughout the month. It was a continuation of the overall cooler-than-normal trend that began in the middle of July. The statewide average temperature of 70.9°F ranked 34 coolest out of 123 years of record and was 1.6°F below normal. Across the state, temperatures were about 3 degrees cooler than normal in the west and less than a degree below average in the east. The high for the month of 101°F was reached at Chadron and Falls City, and a handful of 100-degree temperatures were observed through central Nebraska. For most locations, the monthly high topped out in the mid to upper 90s. Lows for the month ranged from the 50s in southeast Nebraska to the high 30s in the west. A couple of locations fell below freezing in the western Panhandle — near Agate and Harrison. This was localized, and no widespread freeze occurred. The median date of first freeze in the fall ranges from early September in the Panhandle to mid-October in the southeast.

Precipitation

Rainfall for the month ranged from less than an inch in the west to more than 3 inches for the eastern third of Nebraska. Interestingly, there were only two days this August with no measurable precipitation somewhere in the state. Many locations in the southeast reported greater than 6 inches for the month. The highest totals were in the 9-inch range, including 9.81 inches at Omaha Eppley Airfield (third highest August total since 1935). The statewide average total of 2.54 inches was just under the 30-year normal. The big precipitation story was heavy rain in the Omaha metro area on Aug. 19 and 20. The two-day total as observed at Eppley Airfield was 8.33 inches, 6.17 of which fell on the 20th. Both daily totals

DEPARTURE FROM NORMAL PRECIPITATION (IN)



HIGH PLAINS REGIONAL CLIMATE CENTER

All maps generated using August provisional data.

Nebraska Mesonet extremes

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

Highest air temperature: 99°F on Aug. 31 at Dunning 6NW

Lowest air temperature: 39°F on Aug. 20 at Scottsbluff 6NW

Highest 4-inch bare soil temperature: 98°F on Aug. 9 at Central City 3W

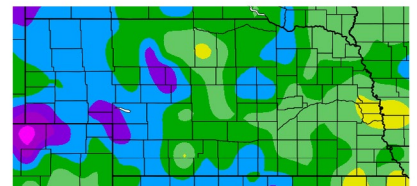
Lowest 4-inch bare soil temperature: 54°F on Aug. 20 at Harrison 4NW

Highest 5-second wind gust: 56 mph on Aug. 6 at Central City 3W

Highest precipitation: 2.69 inches on Aug. 21 at Plattsmouth 2SE

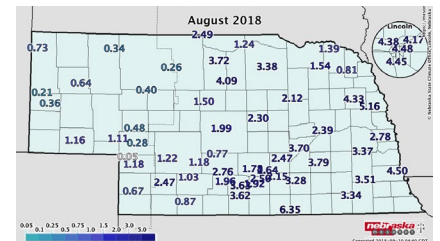
Source: *The Nebraska Mesonet* at Nebraska State Climate Office, University of Nebraska-Lincoln

DEPARTURE FROM NORMAL TEMPERATURE (F)



HIGH PLAINS REGIONAL CLIMATE CENTER

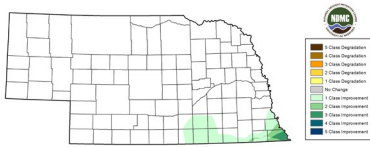
LIQUID PRECIPITATION TOTALS (IN)



NEBRASKA STATE CLIMATE OFFICE

U.S. DROUGHT MONITOR CHANGE MAP

SEPT. 4 COMPARED TO AUG. 7



set new records for the respective dates. Significant flooding of streets, homes and businesses occurred, the worst of which was in Council Bluffs, Iowa.

Drought

Precipitation was above normal for the southeast portion of the state, an area where the strongest deficits were found. The U.S. Drought Monitor showed an overall improvement during August, thanks to rain that occurred during the last two weeks of the month. By early September, southern portions of Pawnee and Richardson counties were in the abnormally dry category (D0). Some residual dryness also has been reported across portions of Nuckolls and Webster counties.

Agriculture

For year-to-date totals, much of Nebraska is in a precipitation surplus, most significantly in the northcentral and northeast. Some producers are struggling to put up hay due to wetness, and most of the corn harvest reports from insurance claims are connected to high moisture corn.

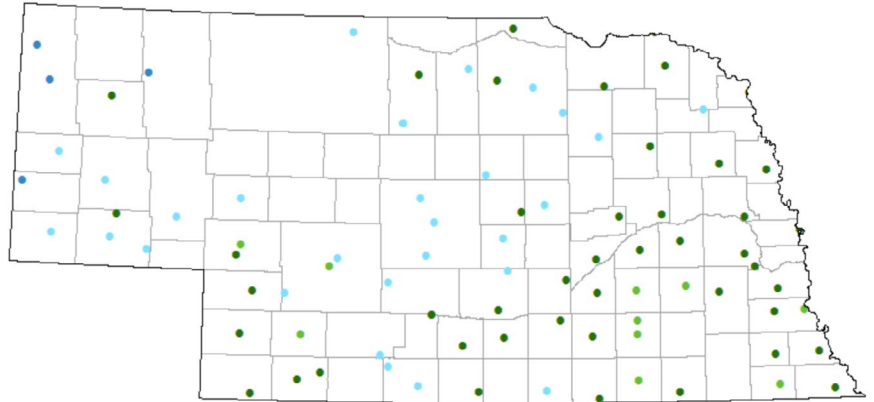
There are dry pockets, however, around the state — in the far southeast, southcentral, and portions of the Panhandle. These areas are running a 3- to 6-inch deficit for the 2018 total.

Dryness in the Panhandle partially offset temperatures, helping haying there, but drying seed beds could be of concern for September wheat planting in the region.

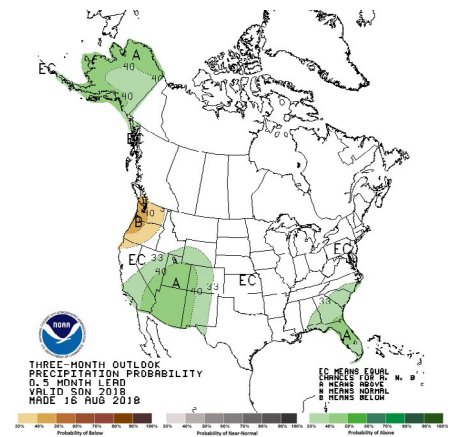
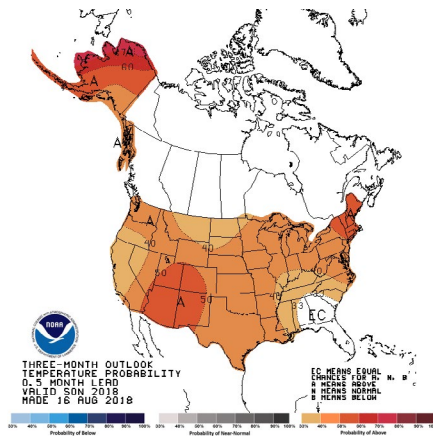
FALL FREEZE RECORD FOR NEBRASKA

Median Date Of 32°F Freeze
Based on 1981-2010 Average

- Aug 10 or Earlier
- Sep 1 - 10
- Oct 1 - 10
- Nov 1 - 10
- Aug 11 - 20
- Sep 11 - 20
- Oct 11 - 20
- Nov 11 - 20
- Aug 21 - 31
- Sep 21 - 30
- Oct 21 - 31
- Nov 21 or Later



90-DAY OUTLOOK TEMPERATURE (LEFT) & PRECIPITATION



Outlook

The latest outlook from the Climate Prediction Center is calling for an increased chance of warmer- and wetter-than-normal conditions for September.

The probability of warmth continues for the September to November time frame. The three-month precipitation

outlook does not offer guidance, with Nebraska in the 'equal chances' category. The increased chance for a wetter-than-normal trend continues for the southwestern U.S. and covers much of Colorado and Wyoming,

— Martha Shulski,
state climatologist and NSCO director



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