CLIMATE UPDATE

A MONTHLY SUMMARY FROM THE NEBRASKA STATE CLIMATE OFFICE

Season-ending freeze, snow highlight October

e started October quite warm with some daily high temperatures tied or broken. Grand Island and Hastings airports both reached 94°F on the afternoon of Oct. 3. which were records for that date. The high for the month was 96°F Oct. 3, observed at the McCook Airport. But, thanks to a cold front, temperatures promptly took a dive for the next few weeks. In fact, Grand Island and Hastings airports both reported record low daily high temperatures just one day after their record highs on Oct. 4 at 45°F and 47°F respectively. Temperatures remained below normal until the second half of the month with a return to relative warmth.

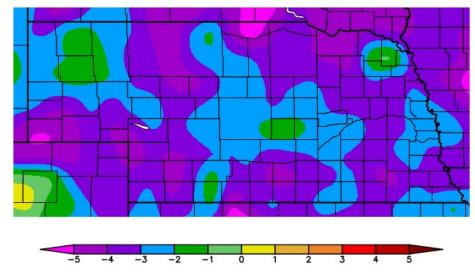
Season-ending freezes occurred statewide around mid-October, which is in line with the median date. More record cold weather returned as daily low temperature records were set for Alliance (6°F on Oct. 14), Grand Island AP (23°F on Oct. 15), Hastings AP (25°F on Oct. 15), North Platte (12°F on Oct. 15) and Valentine (13°F on Oct. 15). The lowest observed temperature was 3°F, recorded at both Agate and Harrison.

For the month overall, temperatures across Nebraska were a few degrees below normal. The average temperature was 47.1°F, which was 3.2°F below average, and ranks as 17th coldest since 1895. Nebraska was near the southern flank of a relative cool spot for the contiguous U.S. as the strongest temperature departures were found in the Dakotas and Minnesota, both of which were 5°F below average and colder. Temperatures for the West Coast, portions of the Intermountain West, and the eastern third of the U.S. averaged above normal for the month.

Precipitation

Along with the cold experienced around mid-month was relatively heavy, wet snow. Five inches fell in and around the capitol

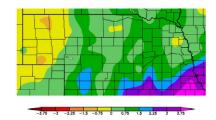
DEPARTURE FROM NORMAL TEMPERATURE (F)



HIGH PLAINS REGIONAL CLIMATE CENTER

All maps generated using October provisional data.

DEPARTURE FROM NORMAL PRECIPITATION (IN)



HIGH PLAINS REGIONAL CLIMATE CENTER

city and a handful of daily snowfall records were observed on Oct. 14: 1.4 inches at Omaha AP. 3.5 inches at Lincoln AP. 1.5 inches at Grand Island AP, 1.1 inches at Hastings AP, and 3 inches at Valentine. Several pockets in southeast Nebraska had more than 6 inches for this event. Many locations around Nebraska reported snow during the month, trace amounts to nearly 10 inches total near Chadron. With a relative warm-up that followed, the snow did not stick around long.

October extremes

Nebraska's statewide weather network operated by the Nebraska Mesonet at the University of Nebraska-Lincoln cataloged the following extremes this October:

Highest air temperature: 94°F on Oct. 3 at Shelton 2SW

Lowest air temperature: 4°F on Oct. 15 at Scottsbluff 2NW

Highest 4-inch bare soil temperature: 80°F on Oct. 3 at Central City 3W

Lowest 4-inch bare soil temperature: 33°F on Oct. 15 at Oshkosh

Highest wind gust: 52 mph on Oct. 3 at Naper 12SW

Highest precipitation: 2.21 inches on Octo.10 at Guide Rock 3E





For monthly totals, precipitation conditions were wetter than normal for the eastern two-thirds of the state and drier than normal in the Panhandle. The far southeastern counties reported more than 5 inches for the month. For the monthly statewide average, precipitation totaled 2.52 inches, which is 0.74" above normal.

Drought

Nebraska was a blank slate on the U.S. Drought Monitor map throughout October. We have remained as such for the last eight weeks. The country as a whole saw widespread improvements for areas that are experiencing drought during October. There are a few areas around Nebraska in a precipitation deficit when looking at the last 12 months and longer. Pockets of southeast Nebraska, portions of the southwest and Panhandle are running deficits of a few inches. The rest of the state remains in the above-normal precipitation category over the last year.

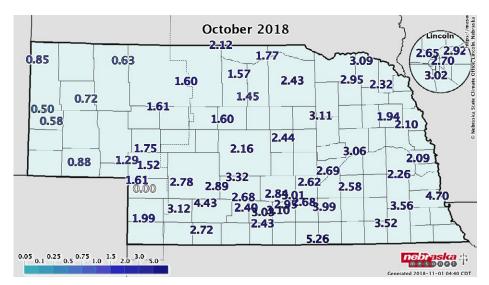
Agriculture

Crop harvest was ahead of normal after the first week of October. There were some delays for soybean harvest due to wet field conditions impeding daily dry down during the afternoon hours. The mid-October precipitation event significantly halted harvest activity. Producers were concerned with beans swelling or opening pods, thus reducing yields before combines entered the fields. Quality also was a concern. Harvest gained steam during the final 10 days of the month. Yield reports have been spotty thus far, but drought-stressed crops were primarily limited to southeast portions of south-central Nebraska.

Outlook

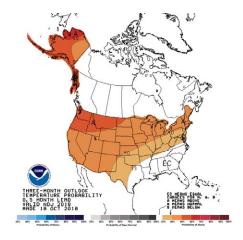
In the short-term, temperatures for mid-November have a good chance of being below normal for Nebraska and much of the lower 48. For the month on the

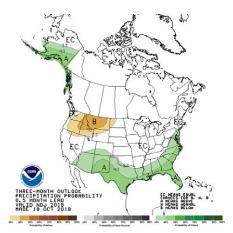
NEBRASKA LIQUID PRECIPITATION TOTALS (IN)



NEBRASKA STATE CLIMATE OFFICE

90-DAY OUTLOOK **TEMPERATURE (LEFT) & PRECIPITATION**





whole, the eastern half of the state lies in an area of increased chance for below-normal temperatures. Precipitation odds are tilted in the above-normal category across the state and for the eastern two-thirds of the country. For November through January, temperatures for much of the country will continue to trend in the increased chances

for a warmer-than-normal overall. The outlook for precipitation is an El Niño signal with an increased chance for wetter than normal weather along the southern and southeast U.S. and a dry signal to the north and west of Nebraska.

> - Martha Shulski and Al Dutcher, Nebraska State Climate Office



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