

Cold, snowy February rounds out winter season

Winter held on tight across Nebraska this February with a cold and snowy month. The lowest temperatures occurred during two main cold spells during the second and third weeks of the month with lows well below zero. Temperatures in the Panhandle hit -20°F around Feb. 21. The Nebraska Mesonet station at Gordon reported a wind chill temperature of -31°F, also on Feb. 21.

Average monthly temperatures were in the teens across northern Nebraska and twenties for the southern two-thirds of the state. These averages are about 10 degrees to 5 degrees below normal. Overall, this February ranks as 22nd coldest since 1895 and 7.1°F below the 1981 to 2010 average. One impact of the cooler weather: Higher heating bills. Heating-degree days (using a base temperature of 65°F) for the month were from 75 to 300 units above average.

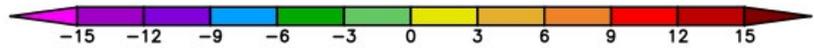
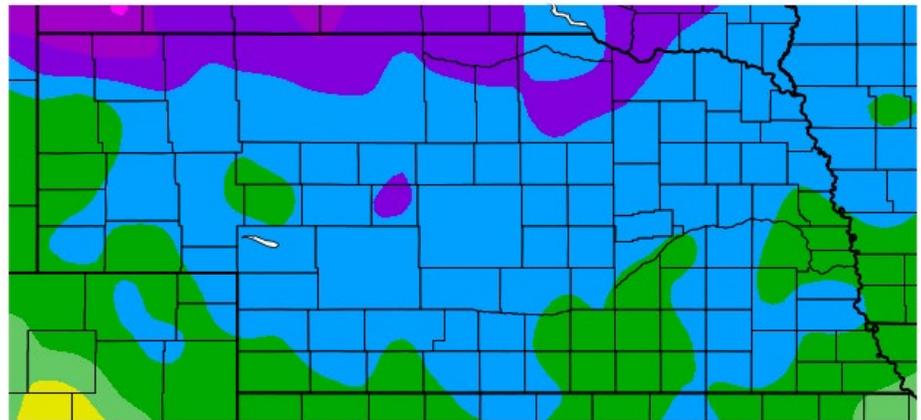
February was not without warmth, however. At month's end, temperatures rose into the 50s across northern Nebraska and even above 70 for the southern fringe of the state. The statewide high of 73°F was reported at the Nemaha 4 SE Nebraska Mesonet station.

Soil temperatures at the 4-inch depth under bare ground were as low as 17°F during the third week of February. However, significant warming began by month's end with daily maximums into the 50s at some locations. The average temperature by the start of March was at freezing or higher for the southern half of the state.

Precipitation

Snowfall occurred with several weather events crossing the state during February. Monthly totals were above normal for many locations. Portions of the Panhandle, southwest, central and northeast Nebraska reported more than 10 inches during February with a few locations receiving

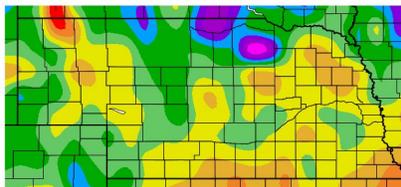
DEPARTURE FROM NORMAL TEMPERATURE (F)



HIGH PLAINS REGIONAL CLIMATE CENTER

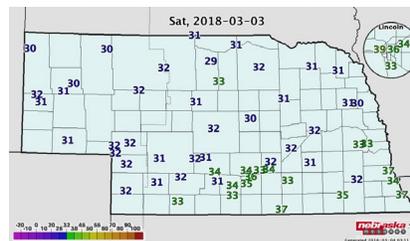
All maps generated using February provisional data.

DEPARTURE FROM NORMAL PRECIPITATION



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WEEKLY AVERAGE 4-INCH BARE SOIL TEMPERATURE (F)



NEBRASKA STATE CLIMATE OFFICE

February extremes

Nebraska's statewide weather network, the *Nebraska Mesonet*, cataloged the following extremes this February:

Highest air temperature: 73°F on Feb. 27 at Nemaha 4SE

Lowest air temperature: -19°F on Feb. 10 at Gordon 4SE

Greatest 24-hour temperature change: 61°F, 67°F to 6°F on Feb. 19 at Sidney 2NW

Highest 4-inch bare soil temperature: 53°F on Feb. 27 at Guide Rock 3E

Lowest 4-inch bare soil temperature: 17°F on Feb. 21 at Oakland 4W

Highest precipitation: 0.3 inches on Feb. 23 at Nemaha 4SE

Highest wind gust: 51 mph on Feb. 14 at Harrison 4NW

Lowest wind chill: -31°F on Feb. 21 at Gordon 4SE

more than 20 inches. Totals in the eastern third of the state were around 6 inches or more. Snow was on the ground for much of the month, but began melting or was all gone as the warmth came at month's end.

In terms of liquid equivalent precipitation, monthly totals ranged from three-tenths of an inch for portions of western, southcentral, and northeast Nebraska up to an inch or more for pockets of northern, central, and eastern Nebraska. Overall, precipitation was below normal in the east and portions of the west, and was above normal for northcentral, southwest and far western Nebraska. The monthly state-wide average of 0.66 inches is just slightly (0.06 inches) above the 30-year average.

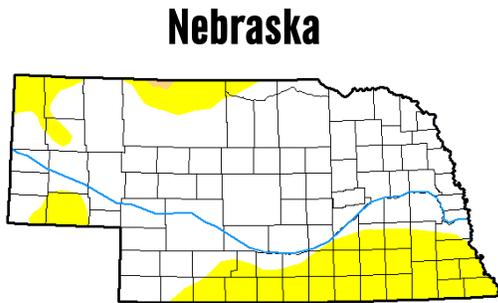
Drought

In some areas where above-normal precipitation was received, abnormal dryness (D0) and moderate drought (D1) conditions were alleviated during February, according to the U.S. Drought Monitor. Dryness conditions were scaled back for a large swath in southern Nebraska, the southern Panhandle, and a small area north of the Niobrara River. Moderate drought was alleviated completely in southern Nebraska. At the start of March, 25 percent of the state was in the D0 category and a mere 0.2 percent of the state was in D1, just grazing northern Cherry County.

Outlook

Looking ahead to March, climate outlooks from the NOAA Climate Prediction Center are calling for an increased chance of warmer-than-normal temperatures for the southeast third of Nebraska. The northwest portion of the state has the opposite trend with an increased chance for cooler-than-normal temperatures. For precipitation, conditions are trending toward dryness in the southwest and wet-

U.S. DROUGHT MONITOR | FEB. 27, 2018
RELEASED THURSDAY, MARCH 1, 2018



Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	74.66	25.34	0.20	0.00	0.00	0.00
Last Week 02-20-2018	69.45	30.55	0.20	0.00	0.00	0.00
3 Months Ago 11-28-2017	91.35	8.66	2.03	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 02-28-2017	66.27	33.73	8.33	0.00	0.00	0.00

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

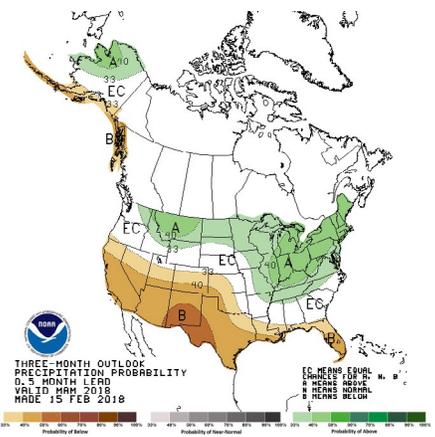
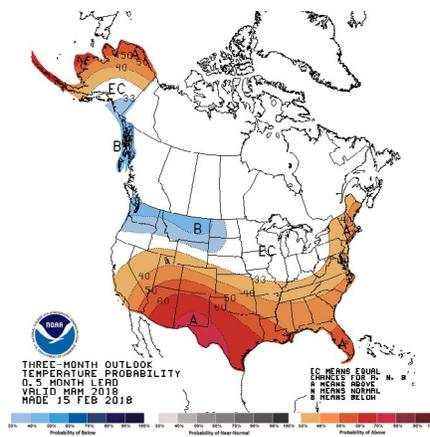
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
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National Drought Mitigation Center



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90-DAY OUTLOOK TEMPERATURE (LEFT) & PRECIPITATION



ter-than-normal conditions in the extreme northeast. Looking further out into the March to May time-frame, warmth probabilities shift to southwest Nebraska with the rest of the state in equal chances of warmer, colder, or near-normal. Seasonal

precipitation trends are showing wetness to our north and dryness to our south, just grazing southwest Nebraska.

— **Martha Shulski**,
climatologist and NSCO director



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