North Dakota Monthly Climate Summary

March 2011

Precipitation:

Precipitation ranged from approximately 5% to 300% of normal precipitation. Above normal precipitation covered most of the state and fell in large portions of the central and east central regions. (Figure 1. High Plains Regional Climate Center). Precipitation totals ranged primarily from 0.15 to 2.7 inches. Persistent cold weather slowed the snow melt and delayed spring flooding into April. According to the USDA, National Agricultural Statistics Service, North Dakota Field Office the statewide average snow depth was 12.2 inches on March 27th (15.6 inches on February 28, 2011) compared to 0.6 inches at this time last year. As of March 31st,

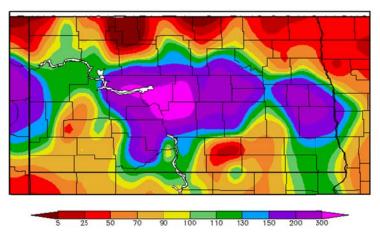


Figure 1. Precipitation Percent of Normal in March 2011 for North Dakota (High Plains Regional Climate Center)

Fargo recorded its 3rd snowiest winter (since 1885), Grand Forks was 8th (since 1893), Bismarck was 8th (since 1886), Dickinson was 9th (since 1893), Minot was 4th (since 1905) and Williston was 1st (since 1894). There were two major storm events. On the 11th, snow totals ranged from a approximately a Trace to 6 inches with wind gusts of over 40 mph with some areas measuring greater than 60 mph. The 22-23 storm system produced heavy, wet snow of 5 to 20 inches in the west central, central, south central, eastern, and southeastern locations.

Temperature:

The North Dakota Agricultural Weather Network (NDAWN) March average air temperatures ranged from 16 °F to 23 °F. NDAWN departure from normal temperatures ranged from -3 °F to -10 °F (Figure 2. North Dakota State Climate Office). The past 4 months had below normal average monthly air temperatures with a 12/1/10 - 3/31/11 departure from normal average temperature range of -2 to -7. The first 9 days of March were cold with average daily temperatures from 10 to nearly 30 °F below normal. There were a few days from the 14th through the 22nd where average



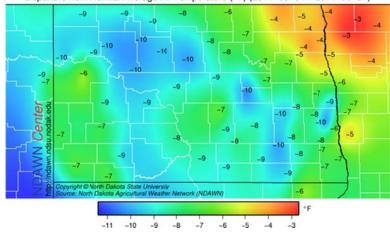


Figure 2. Temperature Departure from Normal in March 2011 for North Dakota (North Dakota State Climate Office)

daily temperatures hovered more near normal or even slightly above. The remainder of the month had varying temperatures across the state of near normal to 20 °F below normal.