September 2011

Precipitation:

September was a quiet month with many dry days which aided harvest progress. The larger rainfall events that occurred in parts of North Dakota (ND) happened on the 1st, 18th, 19th, and 20th. The rainfall event on the 20th was widespread with the higher amounts falling in the northeast. For September, the northeastern part of the state had above normal precipitation ranging from approximately 125% to 250% of normal (Figure 1. North Dakota State Climate Office). For the most part, the rest of the state had below normal precipitation of less than 50%. The northwest corner had near

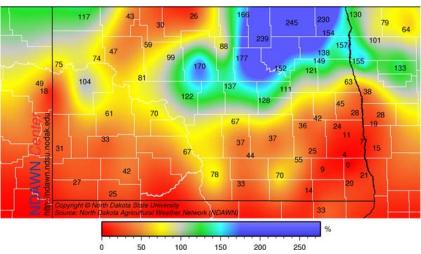


Figure 1. Precipitation Percent of Normal in September 2011 for North Dakota (North Dakota State Climate Office)

normal September rainfall. September precipitation amounts ranged from a trace in the southeast to ~4 inches in the northeast. For many locations it was in the top 10 driest Septembers. For example, for Fargo it was the 4th driest September since 1881.

Temperature:

NDAWN September average air temperatures ranged from 55 °F to 61 °F. NDAWN departure from normal temperatures ranged from -1 °F to 7 °F (Figure 2. North Dakota State Climate Office). In the late hours of August 31st and the early hours of September 1st a severe thunderstorm that produced powerful winds swept through northeast North Dakota (ND) and hit especially hard in northwestern Minnesota (MN) in which a peak wind of 121 mph was measured. The 121 mph peak wind is under review and could possibly become the new MN state record, beating the previous record of 117 mph. The first few

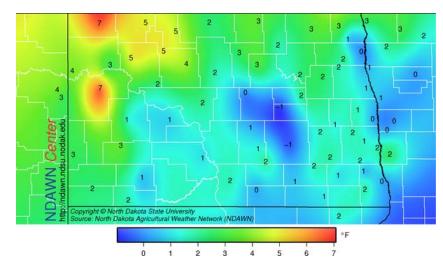


Figure 2. Temperature Departure from Normal in September 2011 for North Dakota (North Dakota State Climate Office)

days of September had near normal average air temperatures for most parts of ND which was followed by a stretch from the 5^{th} through the 11^{th} of above normal average temperatures. The first killing frost hit on the 14^{th} - 15^{th} . Daily minimum temperatures on the 14^{th} fell to 28 °F in parts of the central west. Daily minimum temperatures fell to 28 °F and less primarily in the east on the 15^{th} . Average temperatures rebounded after the 15^{th} to near normal. The 21^{st} - 22^{nd} again had below normal average air temperatures for most. Beginning around the 25^{th} was a long stretch of warm, sunny days that went into October. The National Weather Service (NWS) recorded a record high temperature on the 28^{th} at Fargo with 90 °F and Grand Forks airport with 88 °F.