

**South Dakota Climate Summary  
June 2009  
Dr. Dennis Todey and Chirag Shukla**

**Summary**

South Dakota's cool spring conditions continued into June as most of the state was much colder than average. Statewide average temperatures were in the 60s. Only a late month warm period kept from setting some record temperatures. These average temperatures were anywhere from 2-5 F below average across the state and were a continuation of cool conditions throughout the spring. April to June temperatures conditions were 2 – 5 F below average, also. On a ranking scale, most of the stations were in the 10<sup>th</sup> to 30<sup>th</sup> coldest Junes. Gettysburg was the 9<sup>th</sup> coldest with Rapid City, also, in the top 10 coldest.

Precipitation was heavier than in the previous two months. But precipitation totals were still below average for the month in areas of east central, central and west central South Dakota. The Watertown to Milbank area and Pierre to Philip areas were 50-70% of average for the month. Areas in the southeast and north central had 130-150% of average precipitation for the month. No precipitation totals available were into extreme categories, though.

**Severe weather**

With the return to wetter conditions was a return of more severe weather after a fairly quiet severe weather spring. Severe storm reports were reported every day from the 13<sup>th</sup> to the 18<sup>th</sup> statewide and from the 23<sup>rd</sup> to the 26<sup>th</sup> statewide. One more day of severe weather occurred on the 29<sup>th</sup> mainly west of the river. Reports included large hail damaging some crops, strong winds and a lengthy tornado path in the eastern part of the state.

**Records**

Several daily temperature extremes occurred during a very cold period early in the month. Most of the records were for coldest high temperature on a day. Some highs did not get out of the 40s F on the 6<sup>th</sup>.

<b>Location</b>	<b>Type of record</b>	<b>New record</b>	<b>Old record</b>
Rapid City Airport	Low temp	35F on 4th	Tied with 1943
Mitchell	Coldest high temp	55F on 6th	56F in 1945
Huron	Coldest high temp	51F on 6th	54F in 1917
Sioux Falls	Coldest high temp	54F on 6th	55F in 1917
Aberdeen	Coldest high temp	49F on 6th	50F in 1901
Watertown	Coldest high temp	48F on 6th	53F in 1917
Pierre	Coldest high temp	49F on 6th	50F in 1945
Mobridge	Coldest high temp	47F on 6th	50F in 1945
Pierre	Coldest high temp	53F on 7th	58F in 1992
Mobridge	Coldest high temp	51F on 7th	54F in 1945
Sisseton	Coldest high temp	53F on 7th	54F in 1901
Sioux Falls	Coldest high temp	58F on 7th	Tied with 1945
East Rapid City	Low temp	36F on 8th	40F in 1924
Rapid City Airport	Low temp	35F on 8th	39F in 2007

## Drought Monitor

The extended spring dry period kept areas of the central and eastern part of the state in D0 conditions during the month. The areas under D0 increased in size until mid-month and had slowly been decreasing through the end of the month.

## Climate Impacts

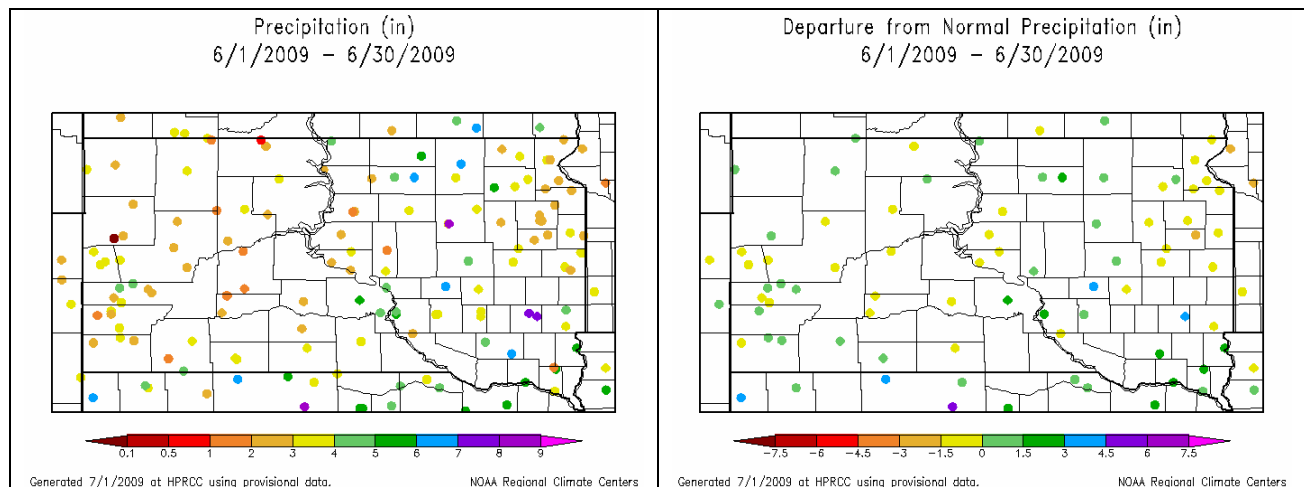
The extended dry period in the spring increased the D0 coverage on the US Drought Monitor as mentioned. Impacts of the dryness were fairly limited. Cooler spring conditions and the wet fall and spring kept some of the dryness problems from becoming too severe. Dry areas of the northeast had reported some uneven corn development. Near the Kadoka area some wheat was plowed under because of dry conditions. North of Philip hay amounts were expected to be limited because of the dry spring conditions. These reports were from county extension personnel.

The severe weather of the month did produce some crop damage according to extension reports and severe weather reports including specific reports from Day, Roberts and Sanborn County. Also isolated heavy rainfalls had produced locations of inundation of crops by standing water. One specific report of wet crop conditions came from Marshall County.

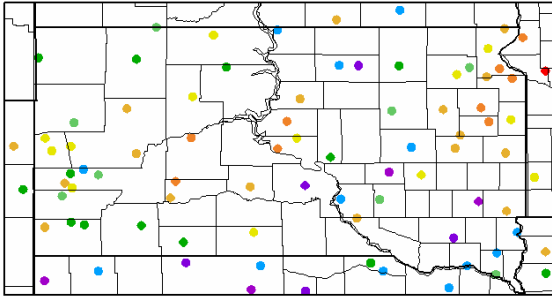
The cold temperatures also slowed development of corn and bean crops. Warm late-June conditions did improve the situation somewhat. But slower development has been a common problem reported.

Flooding continued along the James River because of continued release of water from reservoirs in the Jamestown, ND area to reduce reservoir levels.

## June Climate Images

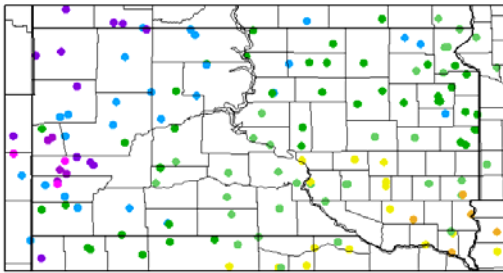


Percent of Normal Precipitation (%)  
6/1/2009 - 6/30/2009



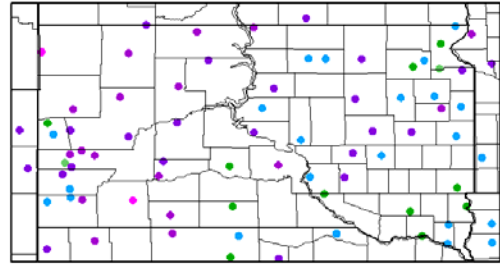
Generated 7/1/2009 at HPRCC using provisional data. NOAA Regional Climate Centers

Temperature (F)  
6/1/2009 - 6/30/2009



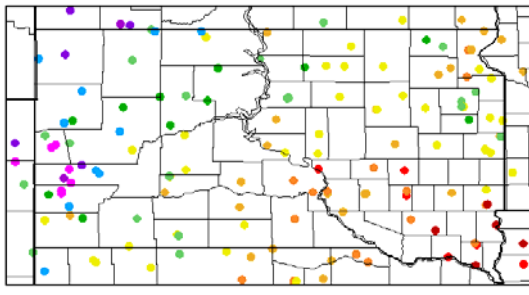
Generated 7/1/2009 at HPRCC using provisional data. NOAA Regional Climate Centers

Departure from Normal Temperature (F)  
6/1/2009 - 6/30/2009



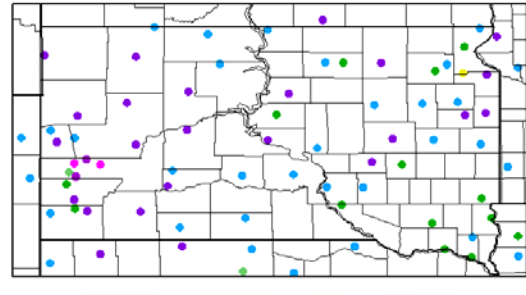
Generated 7/1/2009 at HPRCC using provisional data. NOAA Regional Climate Centers

Heating Degree Days (base 65)  
6/1/2009 - 6/30/2009



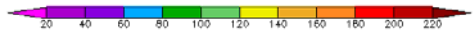
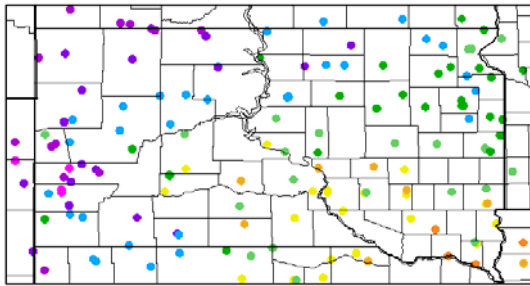
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Departure from Normal HDD (base 65)  
6/1/2009 - 6/30/2009



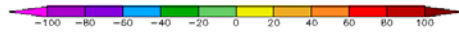
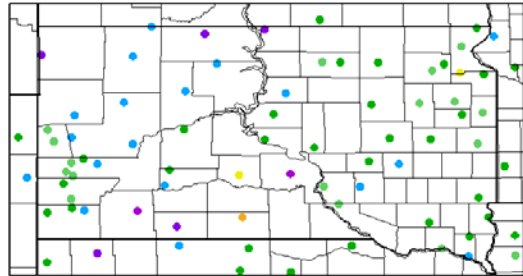
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Cooling Degree Days (base 65)  
6/1/2009 - 6/30/2009



Generated 7/1/2009 at HPRCC using provisional data. NOAA Regional Climate Centers

Departure from Normal CDD (base 65)  
6/1/2009 - 6/30/2009

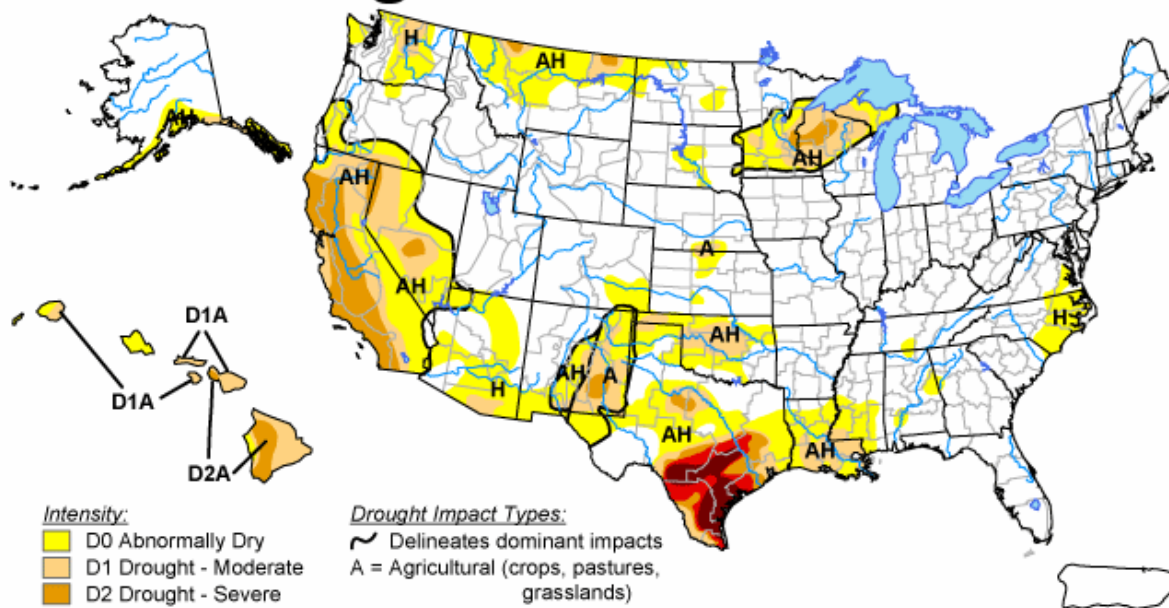


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# U.S. Drought Monitor

June 30, 2009

Valid 8 a.m. EDT



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- ~ Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

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

<http://drought.unl.edu/dm>



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Reports include information from:

- National Weather Service
- High Plains Regional Climate Center
- National Drought Mitigation Center
- South Dakota Cooperative Extension Service