

**South Dakota Climate Summary
July 2009
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The main topic and concern of the month were the very cold temperatures over the whole state. Many stations recorded July temperatures in the top five coldest July's on record (see list below) based on preliminary station data. The cool conditions reduced energy usage for air conditioning. But the conditions also delayed crop growth and development of nearly all crops during the month.

Temperatures and Impacts

The eastern half of the state was generally 4 – 6 F below average. Western parts were 2 – 4 F below average. Actual average temperatures ranged from 65 F north to 72 F south. Several stations in the east reached no higher than the mid 80s for any day during the month. Only a few stations (Cottonwood, Philp and Edgemont) in the west reached 100 F for the month.

South Dakota Agricultural Statistics reports for the month indicated crop conditions were generally good. But cold delayed development leading to concerns about reaching maturity before freezing in the fall. Current growing degree day accumulations ranged from about a week to nearly three weeks behind average in the state.

Severe weather was very prevalent for the first two weeks of the month. Since the 14th severe reports have been fairly limited as severe storms have been far fewer. The preliminary number of 240 total severe weather reports from NOAA's Storm Prediction Center was in the middle of totals for July over the last 10 years. The major problem early in the month was large hail and wind damaging or wiping out entire fields. One county (Hutchinson) has requested a USDA disaster declaration for crop loss due to storm damage.

Precipitation and Drought

In most locations precipitation was above average to well above average. Precipitation was short in a few areas, generally smaller pockets. Two areas of D0 (Anomalously Dry) conditions still remained on the US Drought Monitor, a little D0 left around Pierre in the central and in the far northeast corner attached to a larger area in Minnesota. Less than an inch of precipitation fell in Britton and Victor 4NNE. A few drier areas were popping up in the western part of the state. Cold temperatures masked most of the dryness issues that might have been associated with the dry areas. July is the hottest month on average in South Dakota. Greatly reduced temperatures greatly reduced water use and potential stress on crops.

Records

Below are records for various locations that had some extreme values for the month. This is not a comprehensive list as some data are still being reported.

Driest

Victor 4NNE 0.93 6th driest (a few days missing)

Wettest

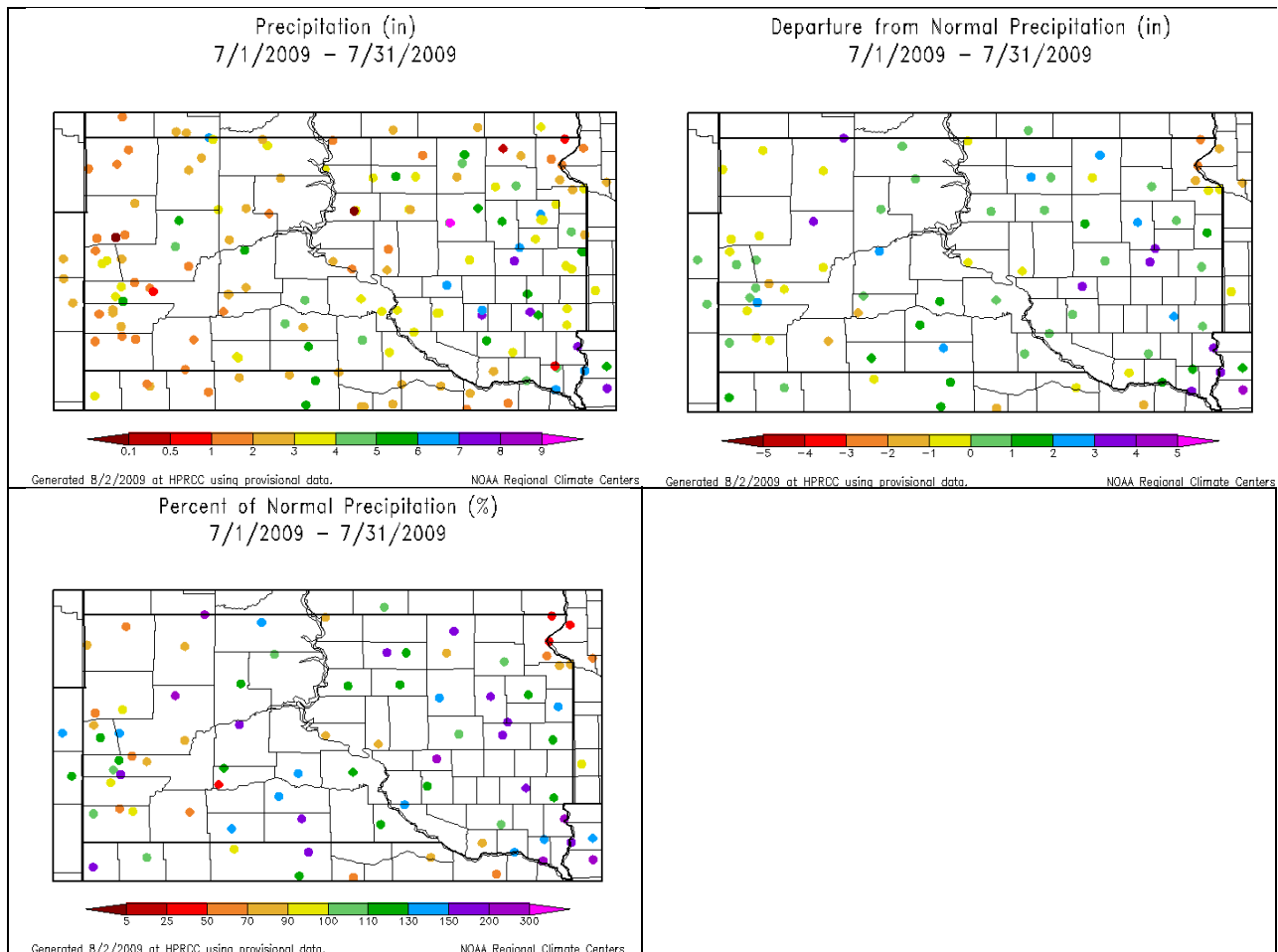
DeSmet 6.90 7th wettest
Wessington Springs 6.04 3rd wettest
Vermillion 2 SE 6.96 6th wettest
Gregory 3.96 14th wettest
Mt. Rushmore 5.28 5th wettest (short record)
Lemmon 6.29 4th wettest
Maurine 12SW 5.29 2nd wettest (short record)
Milesville 5NE 5.52 6th wettest
Murdo 4.01 10th wettest
Roscoe 5.26 5th wettest

Coldest

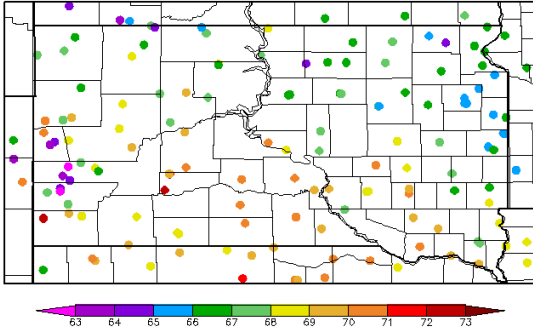
Brookings 65.8 4th
Clark 66.3 5th
Clear Lake 65.5 2nd
DeSmet 67.0 4th
Huron 68.5 5th
Redfield 67.4 3rd
Watertown 65.7 5th
Forestburg 3NE 68.9 7th
Vermillion 2SE 69.4 2nd
Centerville 6SE 67.8 3rd
Menno 69.9 7th
Sioux Falls 68.6 4th
White Lake 68.4 2nd
Yankton 2E 69.9 3rd
Academy 2 NE 67.9 3rd
Gregory 69.3 3rd
Mission 70.1 6th
Kennebec 70.2 4th
Murdo 70.9 9th
Pierre 70.4 4th
Aberdeen 67.4 6th
Milbank 2SSW 65.6 2nd
Webster 66.8 3rd
Faulkton 66.8 6th
Gettysburg 66.3 3rd
Timber Lake 68.0 6th
Bison 68.5 8th

Camp Crook	67.1	13 th
Lemmon	67.4	11 th
Milesville 5NE	69.9	6 th
Newell	69.2	11 th
Cottonwood 2E	71.0	11 th
Edgemont	72.6	8 th
Ft. Meade	68.6	8 th
Oral	69.4	4 th
Hill City	63.5	9 th
Hot Springs	70.0	15 th
Lead	63.1	6 th

July Climate Images

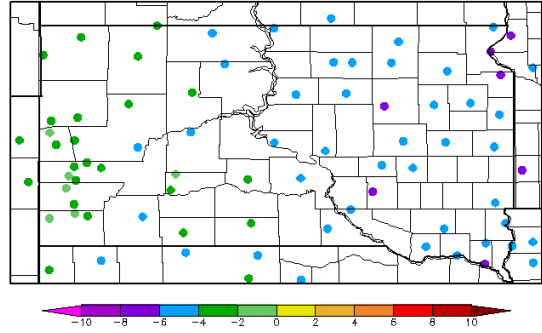


Temperature (F)
7/1/2009 - 7/31/2009



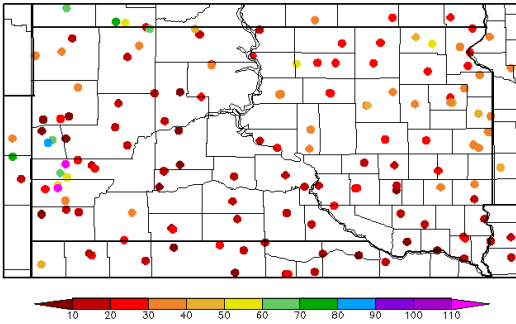
Generated 8/2/2009 at HPRCC using provisional data. NOAA Regional Climate Centers

Departure from Normal Temperature (F)
7/1/2009 - 7/31/2009



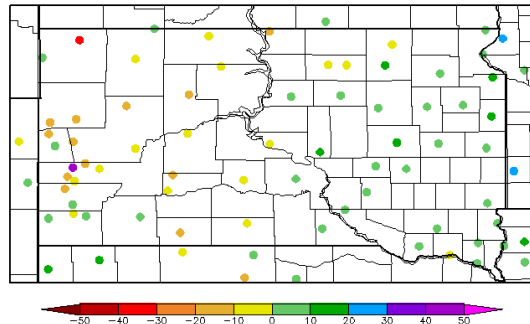
Generated 8/2/2009 at HPRCC using provisional data. NOAA Regional Climate Centers

Heating Degree Days (base 65)
7/1/2009 - 7/31/2009



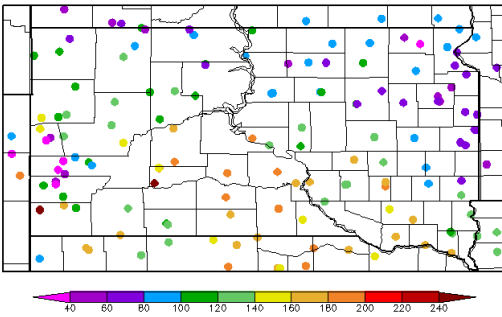
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Departure from Normal HDD (base 65)
7/1/2009 - 7/31/2009



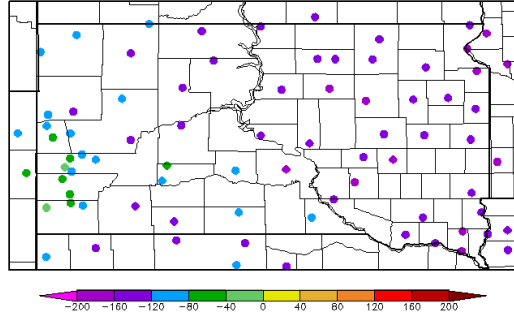
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Cooling Degree Days (base 65)
7/1/2009 - 7/31/2009



Generated 8/2/2009 at HPRCC using provisional data. NOAA Regional Climate Centers

Departure from Normal CDD (base 65)
7/1/2009 - 7/31/2009



Generated 8/2/2009 at HPRCC using provisional data. NOAA Regional Climate Centers

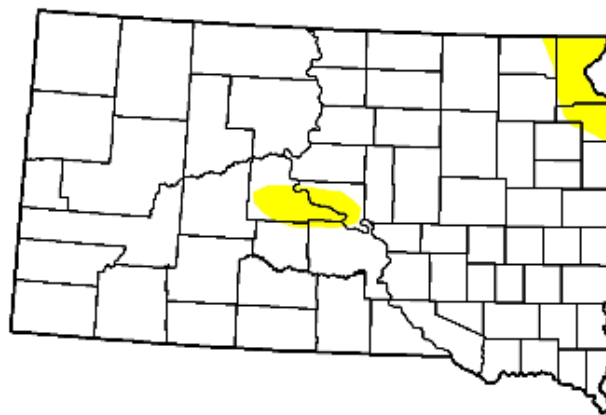
U.S. Drought Monitor

South Dakota

July 28, 2009
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	95.7	4.3	0.0	0.0	0.0	0.0
Last Week (07/21/2009 map)	96.7	3.3	0.0	0.0	0.0	0.0
3 Months Ago (05/05/2009 map)	100.0	0.0	0.0	0.0	0.0	0.0
Start of Calendar Year (01/06/2009 map)	99.5	0.5	0.0	0.0	0.0	0.0
Start of Water Year (10/07/2008 map)	73.9	26.1	0.8	0.0	0.0	0.0
One Year Ago (07/29/2008 map)	72.0	28.0	5.2	0.0	0.0	0.0



Intensity:

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

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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