

## SOUTH DAKOTA WEATHER SUMMARY, 2006

### GENERAL

The headline story for 2006 was the drought. At some point during July and August, every acre of South Dakota was considered under moderate, severe, extreme or exceptional drought conditions. The small grains were able to utilize soil moisture early in the growing season, while other row crops utilized the rains in August. In spite of the harsh conditions, final crop yields were better than during the drought of 2002.

### JANUARY

Average temperatures ranged from 10 to 20 degrees above normal, with averages mostly in the 30's. These temperatures resulted in minimal snow cover, with the average snow depth for the state at 0.9 inch at month's end. While minimal snow cover allowed for extended use of field residue for grazing, many producers were apprehensive about the winter's effects on alfalfa and fall seedings.

### FEBRUARY

Statewide, temperatures during the month averaged only 2.7 degrees above normal, with most stations reporting below normal precipitation. With small amounts of precipitation, a lack of snow cover continued, with the average snow depth for the state rated at 0.5 inch at month's end. However, a lack of snow proved beneficial to livestock producers as calving and lambing season started. Livestock remained in mostly good to excellent condition.

### MARCH

A major snowstorm occurred the second weekend in March affecting the western two-thirds of the state. The average snow depth for the state was 3.7 inches on March 26<sup>th</sup>. With snowfall accumulation from 12 to 20 inches in several areas, many producers reported issues with calving and lambing during the month, as well as problems with accessibility of feed supplies. In spite of the storm, 31 of 43 stations remained with below normal precipitation since January 1<sup>st</sup>.

### APRIL

Every reporting station received precipitation in April and many stations reported precipitation every week. The recurring storms delayed initial fieldwork but improved soil moisture levels, except in the western part of the state. Mid-April saw a snowstorm hit the western side of the state, further slowing fieldwork. At month's end, spring wheat was 83 percent and oats 71 percent seeded, both ahead of the five-year averages of 75 and 68 percent, respectively. Calving and lambing closed the month at 85 percent and 82 percent complete, respectively.

### MAY

May started with average to slightly below average precipitation and cooler than average temperatures. The month ended drier, with above average temperatures. Statewide average precipitation, accumulated since April 1, on May 28<sup>th</sup> totaled 1.18 inches below normal. Small grain seeding was completed after May 21<sup>st</sup>, whereas corn and soybean planting progressed ahead of normal by the end of May.

### JUNE

June continued to be dry, and on June 25<sup>th</sup> the statewide average precipitation since April 1<sup>st</sup> was 2.07 inches below normal. Heat began to be a factor as many stations reported highs in the 90's and several in the 100's for the first three weeks of June. These conditions pushed small grain development ahead of normal, despite some late plantings. The driest area was the north central part of the state, but rippled out from there to encompass the western three quarters of the state.

### JULY

On July 30<sup>th</sup>, statewide precipitation since April 1 was 4.32 inches below average. The entire state was rated at a minimum of moderate drought conditions, according to the "U.S. Drought Monitor," with the north central region rated an exceptional drought. Small grains matured faster than normal because of the heat and moisture stress. Harvest by the end of July was over 20 percentage points ahead of average for all crops. Row crop development also continued ahead of normal for all crops.

### AUGUST

Significant rainfall in August brought much needed relief to the eastern part of the state, and temperatures were only slightly above normal. However, the "U.S. Drought Monitor" still had the whole state listed at a minimum of abnormally dry, with the exceptional drought area shifting slightly to the west. Harvest of small grains was finished mid August, about two weeks ahead of normal. Row crops developed ahead of the five-year averages and welcomed the rainfall received.

### SEPTEMBER

September turned slightly cooler than normal with rains recorded at all stations for the first and fourth weeks of the month. Row crops had been developing ahead of normal, but maturity slowed due to the September rains. Corn and sorghum silage harvest started early because of the many stressed acres, as producers tried to salvage corn acres wherever possible. Although soybean harvest started mid month, progress the last half of September was slow. Winter wheat seedings advanced all month, slightly ahead of normal.

### OCTOBER

With over 25 days suitable for fieldwork and limited precipitation in October, harvest progressed normally. Soybean harvest was virtually complete by month's end, with corn 64 percent and sorghum 85 percent harvested, equaling the five-year averages. Sunflower harvest was slow throughout October and, even though 63 percent harvested by the end of the month, was 9 points behind average. Many producers began to utilize field residue for grazing.

### NOVEMBER

November was cool the first week, but warmer than normal the next two weeks. The little precipitation received didn't slow harvest progress, as there were 19 days suitable for fieldwork in the first 3 weeks. Corn, sorghum and sunflower harvest were all complete about the 21<sup>st</sup> of the month. The western half of South Dakota was still short of moisture, with many empty stock dams and ponds. The last weekly report showed 43 percent of the state short or very short of topsoil moisture, while 58 percent of the state was short or very short of subsoil moisture.

### DECEMBER

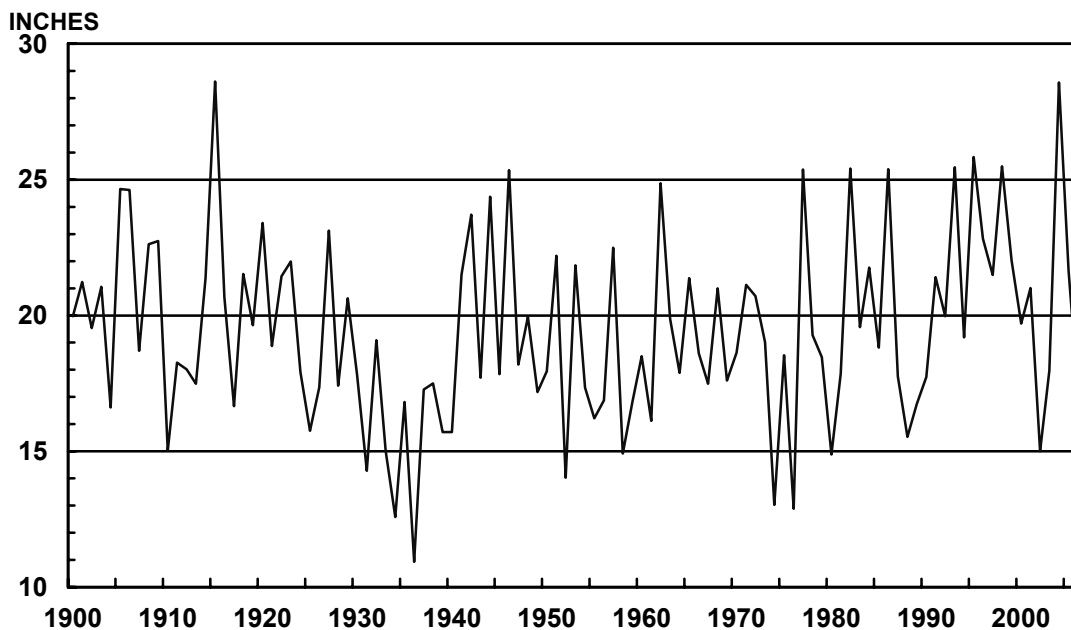
A rather mild December started out dry, but the latter part of the month brought rain and snow to central and eastern areas. The northwestern part of the state received little to no precipitation. The lack of cold and snow allowed producers to conserve feed supplies and utilize grazing. The early mild conditions also benefited the condition of livestock and reduced death loss. As of December 31<sup>st</sup>, the average state snow depth was only 1.6 inches. The western third of the state continued to lack moisture. Livestock enjoyed the mild weather with extended grazing on crop residue.

### PRECIPITATION SOUTH DAKOTA, 2005-2006

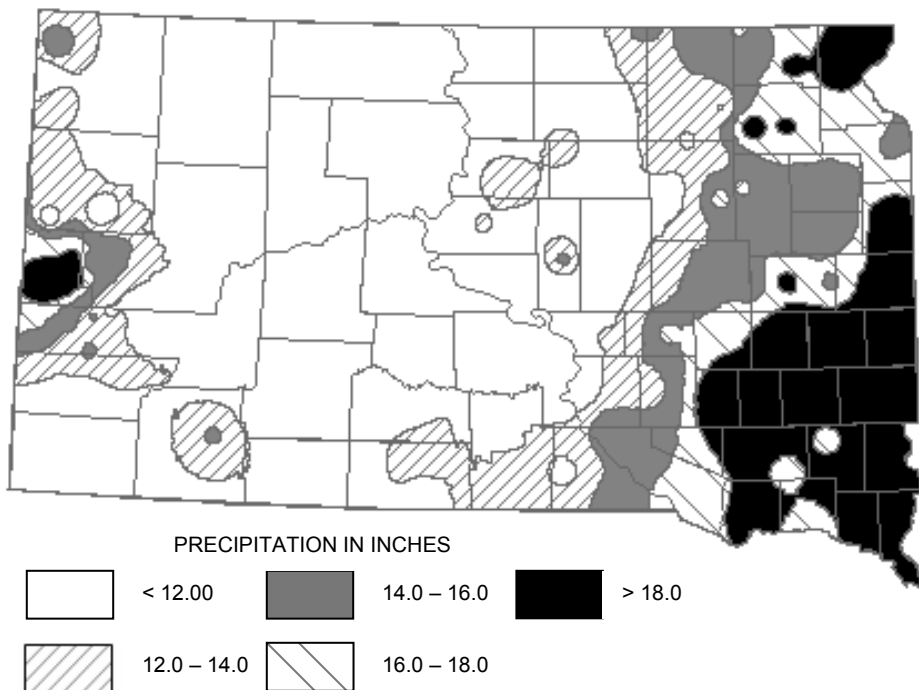
DIST.	STATION	GROWING SEASON				ANNUAL			
		APR 1-SEP 30, 2005		APR 1-SEP 30, 2006		2005		2006	
		TOTAL	DEPARTURE FROM NORMAL	TOTAL	DEPARTURE FROM NORMAL	TOTAL	DEPARTURE FROM NORMAL	TOTAL	DEPARTURE FROM NORMAL
-----INCHES-----									
NW	CAMP CROOK	10.83	-0.28	10.11	-1.00	13.85	-0.52	11.11	-3.26
	NEWELL	14.35	+2.96	10.25	-1.14	16.55	+1.07	12.74	-2.74
	LEMMON	15.83	+2.27	10.15	-3.41	19.75	+1.51	12.21	-6.03
	DUPREE	14.65	+1.27	9.02	-4.36	16.79	-1.05	11.28	-6.56
NC	MOBRIDGE	12.46	-0.23	6.63	-6.06	14.33	-2.61	7.91	-9.03
	FAULKTON	18.26	+3.41	10.31	-4.54	22.54	+2.23	12.98	-7.33
	ABERDEEN	14.09	-1.07	13.63	-1.53	18.70	-1.52	15.94	-4.28
NE	WAUBAY	17.51	+1.62	16.15	+0.26	22.74	+1.79	19.76	-1.19
	WATERTOWN	16.50	+0.13	15.06	-1.31	21.90	-0.04	17.65	-4.29
	MILBANK	16.20	+0.12	15.73	-0.35	22.51	+0.46	19.34	-2.71
WC	SPEARFISH	13.84	-1.36	16.08	+0.88	19.76	-1.90	18.91	-2.75
	RAPID CITY	11.28	-1.11	9.36	-3.03	14.41	-2.23	11.72	-4.92
	COTTONWOOD	12.96	+0.22	8.69	-4.05	16.37	-0.79	12.49	-4.67
	MILESVILLE	15.70	+1.02	10.99	-3.69	18.84	-0.79	14.59	-5.04
C	PIERRE	11.20	-3.61	9.14	-5.67	13.34	-6.54	11.41	-8.47
	HIGHMORE	15.97	-0.02	14.43	-1.56	19.54	-1.69	17.15	-4.08
	HURON	19.65	+4.35	14.42	-0.88	25.78	+4.88	17.53	-3.37
EC	MITCHELL	23.47	+6.68	21.49	+4.70	28.86	+6.00	25.01	+2.15
	BROOKINGS	26.27	+8.53	19.26	+1.52	33.12	+10.31	23.17	+0.36
	SIOUX FALLS	22.98	+4.93	19.89	+1.84	31.71	+7.02	26.74	+2.05
SW	OELRICHS	17.62	+4.63	10.96	-2.03	19.72	+2.47	14.70	-2.55
	PORCUPINE	17.03	+3.79	14.22	+0.98	20.63	+3.11	18.69	+1.17
SC	MURDO	15.15	+0.93	8.58	-5.64	19.39	-0.38	12.92	-6.85
	KENNEBEC	16.85	+2.56	9.68	-4.61	22.83	+4.12	12.80	-5.91
	WINNER	18.11	+0.69	13.40	-4.02	22.70	-1.02	19.16	-4.56
SE	PICKSTOWN	18.82	+1.30	17.09	-0.43	24.83	+1.46	22.52	-0.85
	YANKTON	22.36	+3.61	16.85	-1.90	30.62	+5.53	25.99	+0.90

SOURCE: SOUTH DAKOTA STATE CLIMATOLOGIST.

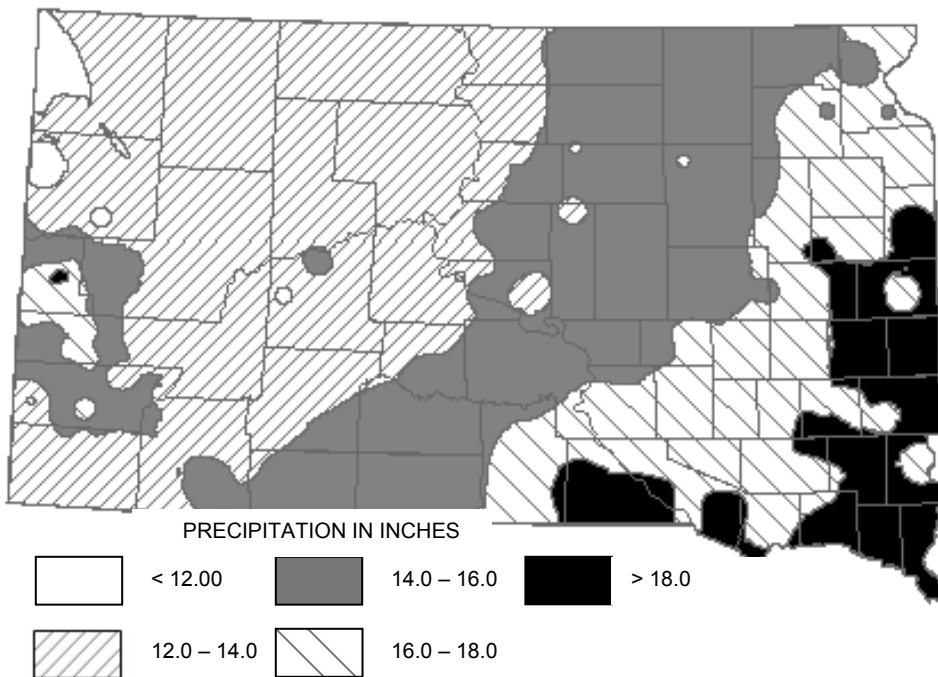
### AVERAGE ANNUAL PRECIPITATION, SOUTH DAKOTA, 1900-2006



### GROWING SEASON PRECIPITATION, SOUTH DAKOTA, APRIL THROUGH SEPTEMBER, 2006



### GROWING SEASON PRECIPITATION SOUTH DAKOTA, APRIL THROUGH SEPTEMBER AVERAGE, 1971-2000



SOURCE: SOUTH DAKOTA STATE CLIMATOLOGIST