

SOUTH DAKOTA WEATHER SUMMARY, 2007

GENERAL

2007 was a rebound year after dealing with severe drought conditions that inundated the state of South Dakota in 2006. Most of the state received precipitation to cover 2006 deficits, but large parts of western South Dakota were still under moderate or severe drought conditions at the end of 2007. Flooding of the James River Valley in the spring caused property damage along with the loss of planted acres and the prevented planting of crops in the area. Lack of rain in July across the state created moisture deficits during critical development stages of some row crops. Overall, final crop yields were vastly improved over 2006, even setting all-time South Dakota records for soybean and winter wheat yields and corn production.

JANUARY

Despite several occasions of below average temperatures, overall January temperatures were above average for most of the state. Much of the state received little precipitation during the month of January. The only locations receiving near-average precipitation were the northern Black Hills and around the Yankton area. Otherwise precipitation was well below average with less than 25% of average precipitation over large areas of the state.

FEBRUARY

With the exception of a snowstorm hitting the eastern part of South Dakota in late February/early March, there was very little precipitation across the state in February. Extreme drought ratings by the U.S. Drought Monitor were seen in the northwest and southwest corners of the state on February 27 covering 8.2% of South Dakota. Overall temperatures were well below average reaching -40° F in a couple locations during the month.

MARCH

Warm temperatures returned to the state soon after the early March snowfalls bringing a very rapid melt-off to the new snowfall. The entire state received at least some precipitation, with some eastern locations recording over an inch of liquid equivalent in the snow. According to the U.S. Drought Monitor, most areas west of the river continued in severe drought conditions having received little snow and only light precipitation amounts during the month. Temperatures in March were above average everywhere in the state. Eastern locations were only a few degrees above average while the western stations warmed very quickly with the lack of snow cover.

APRIL

The month started off much cooler than average, with many parts of the state reporting temperatures 20 to 25 degrees below average during the second week of April. The second half of the month was marked by above average temperatures and scattered rain and snow showers in the eastern half of the state. Large scale severe weather the weekend of April 21 brought large hail, heavy rains and tornados in eastern South Dakota. On April 24 the U.S. Drought Monitor rated 13.7% of South Dakota in a severe drought or worse, mostly in the southwest corner of the state.

MAY

May began with several days of storm events which resulted in tornado damage in southeast South Dakota and heavy precipitation across the state. Two day totals of 8 to 9 inches of rain reported in Spink and Brown counties led to serious urban and agricultural flooding along the James River Valley from Aberdeen down to Huron. The first three weeks of May recorded above average temperatures, while the fourth week had below average temperatures and frost in isolated areas of the state.

JUNE

The month of June started off with cooler than average temperatures, but ended with nearly three weeks of above average temperatures with weather stations across the state recording highs in the 90s and over 100° F. Several severe storms allowed some areas of the state to record precipitation in the first half of the month, but most weather stations recorded limited to no precipitation in the second half of the month. Only a small portion equaling 2.5% of the state in the southwest corner of South Dakota was rated as in a severe drought.

JULY

The month of July saw dry conditions across the state with precipitation totals of less than 25% of average for much of the eastern and southern parts of the state. Temperatures were above normal for much of the month, with several stations in the western portion of the state recording temperatures over 110° F. During the final week of July, temperatures in the 90s, with dew points in the 70s, lead to nearly 3,000 cattle deaths in the northeast part of the state under extreme heat index conditions.

AUGUST

August began with two weeks of above normal temperatures and ended with one week of below normal temperatures across South Dakota. Sporadic storms across the state for the entire month brought more than 2 inches of precipitation over most of the state, with 6 to 8 inches or more in several locations. These rains removed much of the precipitation deficit for the growing season across the majority of the state. In the final week of August state record large hail occurred in southern Charles Mix county. One confirmed hail stone at Dante was 6 7/8 inches in diameter.

SEPTEMBER

Temperatures were above average across the state for the month of September, except for a notable cold front occurring around September 13-14, which produced a killing frost over much of the state. Scattered rains throughout September led to the U.S. Drought Monitor removing drought ratings in the northeastern and southeastern corners of the state, but only a small reduction of severe and moderate ratings in western South Dakota.

OCTOBER

October was marked by above average precipitation for the first three weeks of the month. Especially in southeastern South Dakota, consecutive days of precipitation made harvest of row crops difficult. With warmer than average temperatures during the month, areas that had not received a killing frost in mid-September did not receive one until the weekend of October 27. A dry final week of October allowed the acceleration of most harvest activities.

NOVEMBER

November saw warmer than average temperatures and dry conditions across the state, which allowed for the completion of harvest activities. The final week of November saw below average temperatures and limited snowfall in northwestern South Dakota, but the same continued warm and dry conditions for the rest of the state.

DECEMBER

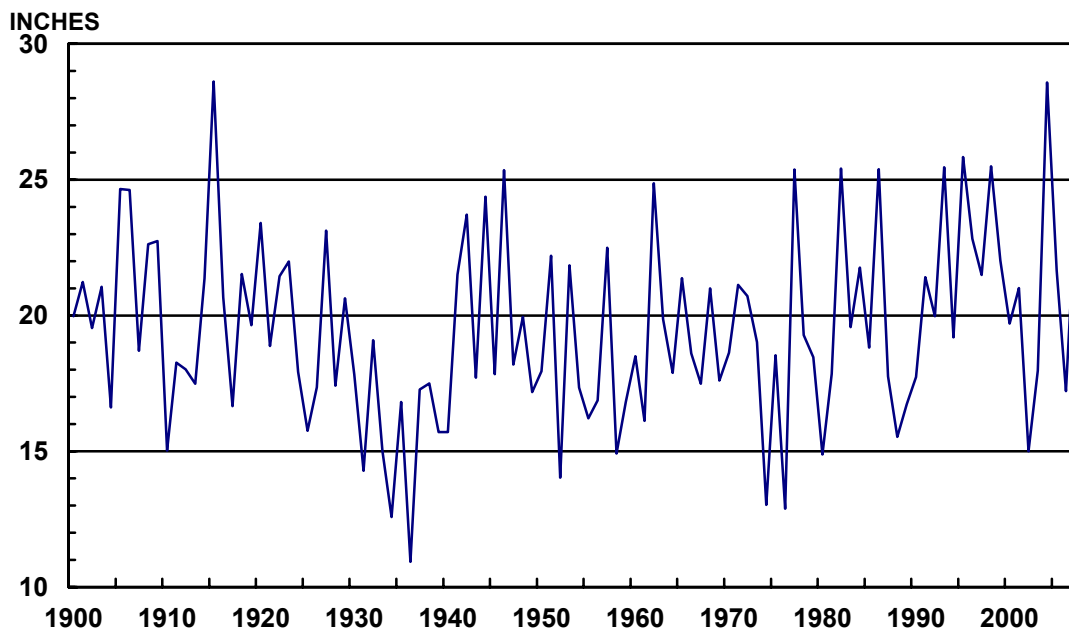
Parts of the southwest and most of the eastern third of South Dakota received snowfall during the month of December. The areas that retained snow cover through most of the month had below average temperatures for the month. Places in west and south central South Dakota without snow cover had near to above average temperatures because of the open ground conditions.

**PRECIPITATION,
SOUTH DAKOTA, 2006-2007**

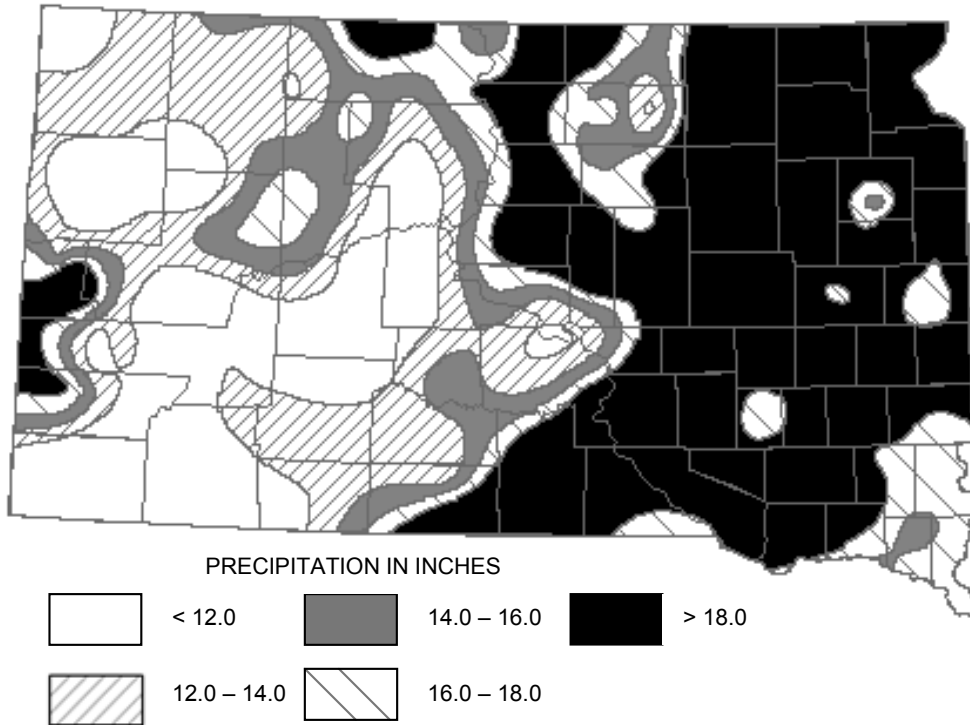
DIST.	STATION	GROWING SEASON				ANNUAL			
		APR 1-SEP 30, 2006		APR 1-SEP 30, 2007		2006		2007	
		TOTAL	DEPARTURE FROM NORMAL	TOTAL	DEPARTURE FROM NORMAL	TOTAL	DEPARTURE FROM NORMAL	TOTAL	DEPARTURE FROM NORMAL
		----- INCHES -----							
NW	CAMP CROOK	10.11	-1.00	12.06	+0.95	11.11	-3.26	16.70	+2.33
	NEWELL	10.25	-1.14	11.25	-0.14	12.74	-2.74	15.03	-0.45
	LEMMON	10.15	-3.41	14.35	+0.79	12.21	-6.03	17.41	-0.83
	DUPREE	9.02	-4.36	14.04	+1.00	11.28	-6.56	19.54	+2.09
NC	MOBRIDGE	6.63	-6.06	18.11	+5.42	7.91	-9.03	23.09	+6.15
	FAULKTON	10.31	-4.54	17.66	+2.81	12.98	-7.33	24.65	+4.34
	ABERDEEN	13.63	-1.53	22.70	+7.54	15.94	-4.28	28.23	+8.01
NE	WAUBAY	16.15	+0.26	21.13	+5.24	19.76	-1.19	26.77	+5.82
	WATERTOWN	15.06	-1.31	15.68	-0.69	17.65	-4.29	24.19	+2.25
	MILBANK	15.73	-0.35	27.05	+10.97	19.34	-2.71	35.61	+12.81
WC	SPEARFISH	16.08	+0.88	14.80	-0.40	18.91	-2.75	21.16	-0.50
	RAPID CITY	9.36	-3.03	10.06	-2.33	11.72	-4.92	12.59	-4.05
	COTTONWOOD	8.69	-4.05	9.42	-3.32	12.49	-4.67	14.03	-3.13
	MILESVILLE	10.99	-3.69	13.04	-1.64	14.59	-5.04	18.24	-1.39
C	PIERRE	9.14	-5.67	15.73	+0.92	11.41	-8.47	25.94	+6.06
	HIGHMORE	14.43	-1.56	23.15	+7.16	17.15	-4.08	30.66	+9.43
	HURON	14.42	-0.88	23.24	+7.94	17.53	-3.37	30.69	+9.79
EC	MITCHELL	21.49	+4.70	16.74	-0.05	25.01	+2.15	26.33	+3.47
	BROOKINGS	19.26	+1.52	16.26	-1.48	23.17	+0.36	22.86	+0.05
	SIOUX FALLS	19.89	+1.84	17.31	-0.74	26.74	+2.05	31.34	+6.65
SW	OELRICHS	10.96	-2.03	9.16	-3.83	14.70	-2.55	12.48	-4.77
	PORCUPINE	14.22	+0.98	13.09	-0.15	18.69	+1.17	16.22	-0.32
SC	MURDO	8.58	-5.64	14.71	+0.49	12.92	-6.85	23.00	+3.23
	KENNEBEC	9.68	-4.61	13.24	-1.05	12.80	-5.91	22.70	+3.99
	WINNER	13.40	-4.02	22.47	+5.05	19.16	-4.56	32.01	+8.29
SE	PICKSTOWN	17.09	-0.43	21.38	+4.32	22.52	-0.85	31.47	+8.68
	YANKTON	16.85	-1.90	16.42	-2.33	25.99	+0.90	29.15	+4.06

SOURCE: SOUTH DAKOTA STATE CLIMATOLOGIST.

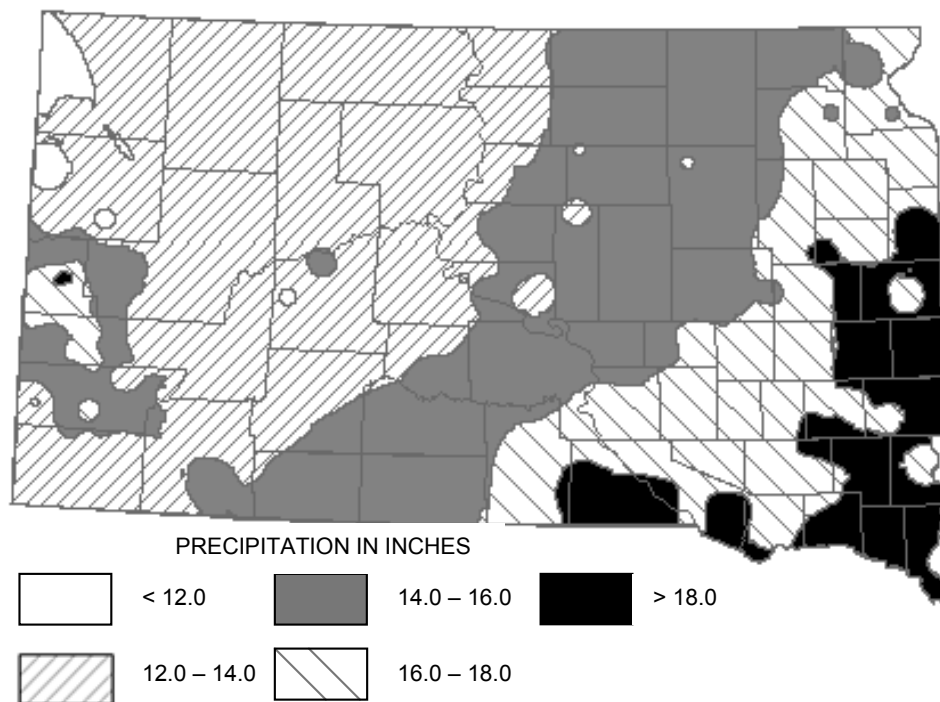
**AVERAGE ANNUAL PRECIPITATION,
SOUTH DAKOTA, 1900-2007**



**GROWING SEASON PRECIPITATION,
SOUTH DAKOTA, APRIL THROUGH SEPTEMBER, 2007**



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



SOURCE: STATE CLIMATE OFFICE OF SOUTH DAKOTA