



## IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

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### IOWA MONTHLY WEATHER SUMMARY – DECEMBER 2017

General Summary. Temperatures averaged 24.1° or 1.2° above normal while precipitation averaged 0.42 inches or 0.92 inches less than normal. This ranks as the 61<sup>st</sup> warmest and 12<sup>th</sup> driest December among 145 years of records. A drier December was last recorded in 2002. Windy conditions were frequent early in the month with gusts over 50 mph recorded on the 4<sup>th</sup>, 5<sup>th</sup>, 11<sup>th</sup> and 13<sup>th</sup>. Estherville Airport reported the highest winds with a gust to 63 mph on the 13<sup>th</sup>.

Temperatures. The first three weeks of December were mostly much warmer than usual, averaging 7.7° above normal. However, a turn toward much colder weather began on the 22<sup>nd</sup> and intensified on Christmas Day with temperatures over the final ten days of the month averaging 14.4° lower than normal. Each of the first four days of the month averaged more than ten degrees above normal, as did the 13<sup>th</sup>, 15<sup>th</sup>, 16<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup>. The warmest day was the 4<sup>th</sup> when temperatures averaged 20.1° above normal with Indianola and Lamoni reaching 70°. This was only the twelfth date on record for temperatures to reach the 70 degree threshold in Iowa in December (last occurrence was Dec. 3, 2012). The season's first zero degree temperatures were recorded on the morning of the 7<sup>th</sup> at Primghar and Sibley. Meanwhile temperatures averaged twenty degrees or more below normal on the 26<sup>th</sup>, 27<sup>th</sup>, 28<sup>th</sup>, 30<sup>th</sup> and 31<sup>st</sup> with New Year's Eve averaging 30.3° below normal. Sioux City Airport recorded the lowest temperature of the month with a -24° reading at midnight New Year's Eve. Meanwhile subzero daily maximum temperatures were recorded somewhere in Iowa locations on six of the final seven days of the month. Northwood reported the lowest maximum temperature of the month with a minus 14° 'high' on the 31<sup>st</sup>. The lowest wind chill reading was -46° recorded at 9 p.m. on the 31<sup>st</sup> at Storm Lake.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals, averaged 3% less than last year and normal. Heating requirements thus far this season (since July 1) are running 13% more than last year at this time and 7% less normal.

Precipitation. The very dry weather pattern that began in mid-October continued through December 20<sup>th</sup>. A statewide average of only 1.25 inches occurred over the 67-day period ending December 20 while normal for the period is 4.30 inches. Precipitation for the remainder of the month averaged near normal. A statewide average of only 0.2 inches of snow fell through December 20. A slower start to the snow season has not occurred since 1960. However, light snow was frequent for the remainder of the month. The largest precipitation event of the month came on the 29<sup>th</sup> when snow fell across the northeast three-fourths of Iowa with greatest storm totals of 4 to 6 inches occurring from the Spirit Lake area southeastward through Fort Dodge and Marshalltown to Muscatine. The statewide average snowfall was 5.5 inches or 2.8 inches below normal. This ranks as the 63<sup>rd</sup> least December snowfall among 130 years of record. Monthly snow totals varied from 2.8 inches at Newton to 9.3 inches at Muscatine. Monthly precipitation totals (rain plus the liquid equivalent of snow) varied from 0.17 inches at Forest City to 0.91 inches at Iowa City. Precipitation totals were below normal at every reporting point in the state for the second consecutive month.

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# December 2017

## WEATHER BY DISTRICTS

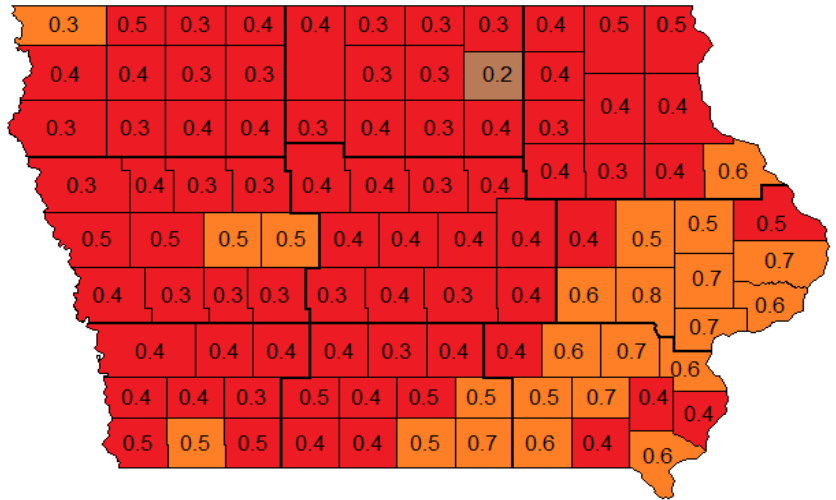
DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				SNOWFALL Dec 2017 Average
	December 2017		December 2017		Since Jul., 1, 2017		December 2017		Since Jan.1, 2017		
	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	
Northwest	21.6	+1.9	1342	-62	2821	-216	0.36	-0.54	29.96	-0.43	6.7
North Central	21.2	+1.7	1353	-57	2829	-220	0.32	-0.92	34.26	-0.03	5.3
Northeast	21.8	+0.5	1334	-19	2728	-175	0.40	-1.09	37.74	+1.48	4.8
West Central	24.1	+1.8	1261	-63	2613	-200	0.40	-0.69	35.09	+2.12	6.2
Central	24.4	+1.6	1253	-56	2542	-226	0.35	-0.97	31.73	-4.62	6.3
East Central	24.8	+0.3	1241	-13	2494	-121	0.61	-1.13	33.46	-3.20	6.4
Southwest	27.0	+1.6	1171	-56	2330	-214	0.38	-0.86	36.19	+0.56	4.0
South Central	26.6	+0.9	1183	-36	2350	-190	0.46	-0.92	30.50	-7.22	4.7
Southeast	27.3	+0.3	1164	-13	2288	-103	0.51	-1.30	28.88	-9.77	4.5
STATE	24.1	+1.2	1261	-43	2571	-188	0.42	-0.92	33.11	-2.16	5.5

\* Departures are computed from 1981-2010 normals.

Monthly estimates are preliminary and are likely to change.

The weather data in this report are based upon information collected by the U. S. Dept. of Commerce, NOAA National Weather Service.

State Climatologist, Iowa Dept. of Agriculture & Land Stewardship  
 COUNTY PRECIPITATION TOTALS, DECEMBER 2017 (inches)



State Climatologist, Iowa Dept. of Agriculture & Land Stewardship  
 COUNTY SNOWFALL TOTALS, DECEMBER 2017 (inches)

