



IOWA MONTHLY WEATHER SUMMARY – DECEMBER 2016

General Summary. Iowa temperatures averaged 22.7° or 0.2° below normal while precipitation totaled 1.55 inches or 0.21 inches greater than normal. This ranks as the 67th coolest and 37th wettest December among 144 years of record.

Temperatures. The month began and ended with an extended period of warmer than normal weather while below normal temperatures prevailed each day from the 7th through the 19th. The most noteworthy temperature event of the month was the cold weather on the 18th. Morning low temperatures on the 18th varied from -8° at Keokuk to -29° at Rock Rapids. The Rock Rapids reading was the lowest temperature recorded in Iowa since Elkader saw -30° on February 28, 2015 and was the lowest December temperature in the state since a -34° reading at Elkader on December 25, 2000. Afternoon high temperatures were below zero across about the northeast one-third of Iowa on the 18th. Meanwhile wind chill indices dropped as low as -46° at Estherville and Spencer on the morning of the 18th for the lowest wind chill readings in Iowa since -53° was registered at Estherville on January 2, 2010. Soils began to freeze with the arrival of colder air on the 7th and quickly extended to about a foot beneath the surface by the 20th across much of central and southern Iowa where little or no snow cover existed. However, warmer weather late in the month, plus a widespread Christmas Day rain, partially or completely thawed soils over southern Iowa by the end of the month. The month's highest temperature was recorded at Keokuk on Christmas night with a 60° reading.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals averaged the same as normal but 32% more than seen during the very mild December of 2015. Thus far this heating season (since July 1), heating requirements have averaged 18% less than normal but 6% more than last season at this time.

Precipitation. Precipitation was relatively frequent during the month, but with plenty of breaks between events. The first widespread snow of the season arrived on the 3rd-4th with snow accumulating at all but a few far southern Iowa locations. Heaviest snow fell over extreme eastern Iowa where the Davenport Airport recorded 10.2 inches. Widespread snow also fell over all but far southern-southwestern Iowa on the 10th-11th with a few totals of six inches over the far north/northeast. Snow also fell statewide on the 16th-17th with greatest amounts again over the north where a few locations picked up a half-foot or more. Still another statewide snow event came on the 23rd and once again resulted in little, if any, accumulation over the south while 3 to 5 inches fell across the northeast corner of Iowa. The last, and largest precipitation event of the month, came on Christmas Day and brought a statewide average of 0.63 inches of rain. Thunder accompanied the rain over about the west two-thirds of Iowa with rain totals exceeding an inch in a few areas. The rain, combined with frozen soil (which prevented rainwater from soaking into the ground), brought some minor flooding, especially over the south where some ice jams occurred as river ice broke up. Monthly precipitation totals were generally well above normal across the northwest one-half of the state. Precipitation totals varied from 0.82 inches at Sac City to 2.91 inches at Saint Ansgar. Snowfall totals varied from only an inch at Allerton, Clarinda and Red Oak to 20.8 inches at Saint Ansgar. The statewide average snowfall was 8.2 inches or 0.1 inches less than average. This ranks as the 40th greatest December snowfall among 130 years of records.

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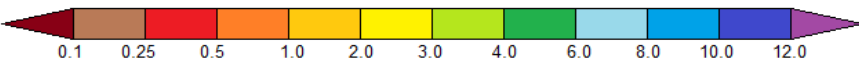
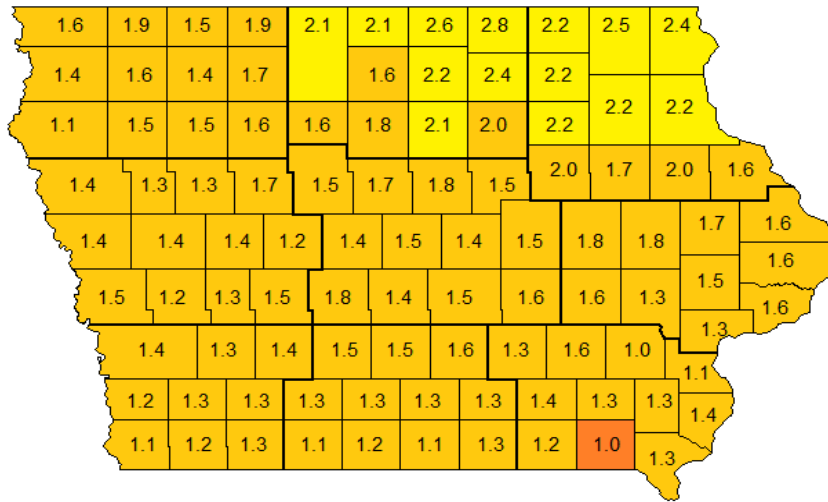
WEATHER BY DISTRICTS

DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				SNOWFALL Dec 2016 Average
	December 2016 Average	Departure*	December 2016 Average	Departure*	Since Jul., 1, 2016 Average	Departure*	December 2016 Average	Departure*	Since Jan.1, 2016 Average	Departure*	
Northwest	20.1	+0.4	1388	-16	2526	-511	1.44	+0.54	37.22	+6.83	7.9
North Central	19.8	+0.3	1395	-15	2502	-547	2.14	+0.90	46.18	+11.89	14.7
Northeast	20.7	-0.6	1368	+15	2376	-527	2.05	+0.56	45.97	+9.71	15.4
West Central	22.0	-0.3	1325	+1	2358	-455	1.37	+0.28	35.62	+2.65	7.0
Central	23.4	+0.6	1282	-27	2217	-551	1.55	+0.23	38.34	+1.99	6.3
East Central	23.7	-0.8	1274	+20	2162	-453	1.51	-0.23	39.78	+3.12	11.1
Southwest	24.7	-0.7	1244	+17	2095	-449	1.25	+0.01	41.20	+5.57	1.7
South Central	25.1	-0.6	1232	+13	2059	-481	1.31	-0.07	32.28	-5.44	2.7
Southeast	26.4	-0.6	1190	+13	1966	-425	1.25	-0.56	31.63	-7.02	5.0
STATE	22.7	-0.2	1305	+1	2266	-493	1.55	+0.21	38.76	+3.49	8.2

* Departures are computed from 1981-2010 normals.

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 ESTIMATES, DECEMBER 2016 (inches)



State Climatologist, Iowa Dept. of Agriculture & Land Stewardship
 COUNTY SNOWFALL ESTIMATES, DECEMBER 2016 (inches)

