



IOWA MONTHLY WEATHER SUMMARY – NOVEMBER 2015

General Summary. Temperatures averaged 41.8° or 5.2° above normal while precipitation totaled 4.23 inches or 2.18 inches above normal. This ranks as the 10th warmest and 7th wettest November among 143 years of Iowa records. A warmer November was last recorded in 2009 and a wetter one in 1992.

Temperatures. Temperatures were above normal during all of the first 19 days of the month, averaging 8.5 degrees above normal for the period. Much more seasonal temperatures prevailed for the remainder of the month with readings averaging 0.7 degrees below normal for the final 11 days of November. Daytime highs reached into the mid-seventies somewhere in the state on each of the first five days of the month with Des Moines, Glenwood and Shenandoah recording the highest temperatures of the month with 79° readings on the 2nd. At the Des Moines Airport the first freeze (32°) of the season was finally recorded on the morning of the 13th. This was the latest 'first' freeze among 138 years of records at Des Moines (old record November 11, 1882). Very cold weather arrived following the major snowstorm of the 20th with Spencer Airport recording a low of -4° on the morning of the 21st while Waterloo Airport and Stanley recorded lows of -5° on the night of the 21st.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals, averaged 35% less than last November (which was the 4th coldest November on record) and 19% less than normal. Heating degree day totals so far this heating season are running 30% less than last year at this time and 21% less than normal.

Precipitation. November began with relatively dry weather until Veteran's Day when the first of a parade of five storm systems brought widespread precipitation to Iowa. The Veteran's Day event saw thunderstorms develop statewide with unseasonably heavy rain over far northwest Iowa and high winds and tornadoes over southern Iowa. The tail-end of this first storm system also brought the state's first accumulating snow to portions of west central Iowa. Additional storm systems came through at about four day intervals on the 16th-18th, 20th-21st, 25th-27th and 29th-30th. The most widespread rain came with storm #2 on the 16th-18th with a statewide average of 1.31 inches of rain. The third storm was noteworthy owing to the heavy snow that fell across much of the state. More than ten inches of snow fell across a wide area of northern Iowa with 15 inches reported at Rock Rapids and 16 inches near Kesley. This event brought Iowa's most widespread heavy snowfall for so early in the winter season since November 17-18, 1957. The fourth storm system brought light snow to northwest Iowa and 1.5 to 2.5 inches of rain to the southeast one-third of the state. Finally, the last storm brought heavy snow to northwest Iowa with 10 inches reported at Everly and Lake Park and one-half to an inch of rain elsewhere. Much of the snow on November 30 fell after the final measurements for the month (the daily measurements are made at 7 or 8 a.m. at most locations), thus will be included in the December totals. Monthly precipitation totals were above normal at all reporting points and varied from 2.63 inches at Zearing to 7.56 inches at Eldridge. Record maximum precipitation totals for November were set at several locations including:

Station	Nov 2015	Old November Record	Period of Record
Sanborn	6.14 inches	4.96 in 1991	104 years
Rock Rapids	5.62 inches	4.77 in 1975	113 years
Storm Lake	5.57 inches	4.20 in 1983	124 years
Spencer	5.48 inches	4.51 in 1896	103 years
Sheldon	5.37 inches	5.05 in 1909	104 years
Sibley	4.59 inches	4.24 in 1905	116 years
Sioux City	4.55 inches	4.41 in 1922	134 years

Monthly snow totals varied from only trace amounts at several far southwest Iowa locations to 22.4 inches at Spencer. The statewide average snowfall was 6.3 inches or 3.6 inches above normal. This is the 13th highest November snow total among 129 years of record and the highest for the month since 1991.

Severe Weather. The National Weather Service reported a total of 19 tornadoes across southern Iowa on Veteran's Day with damaging winds reported from 51 counties, mostly in central and southern Iowa. The tornado total exceeds the previous November record of 12 set on November 12, 2005.

Fall Summary. Temperatures for the three fall months of September, October and November averaged 54.4° or 4.2° above normal while precipitation totaled 10.14 inches or 2.11 inches above normal. This ranks as the 6th warmest and 22nd wettest fall among 143 years of records. A warmer fall was last recorded in 1963 and a wetter one in 1992.

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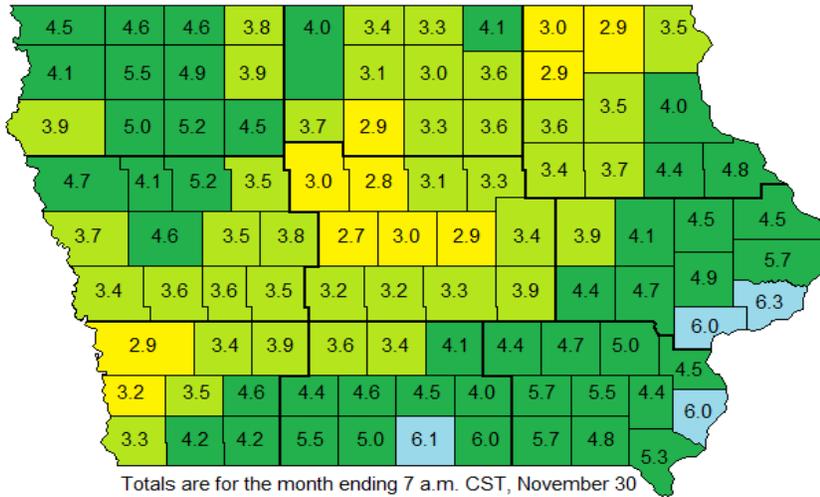
WEATHER BY DISTRICTS

DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				SNOWFALL Nov 2015 Average
	November 2015		November 2015		Since Jan., 1, 2015		November 2015		Since Jan.1, 2015		
	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	
Northwest	38.9	+5.3	777	-164	1286	-347	4.78	+3.25	33.20	+3.71	13.1
North Central	39.2	+5.4	766	-170	1314	-325	3.52	+1.67	35.43	+2.38	8.2
Northeast	40.6	+5.1	725	-160	1255	-295	3.83	+1.55	32.15	-2.62	8.9
West Central	41.2	+5.4	707	-170	1181	-308	4.08	+2.45	41.02	+9.14	5.7
Central	41.9	+5.4	686	-169	1161	-298	3.34	+1.20	40.39	+5.36	5.8
East Central	42.6	+4.4	666	-137	1091	-270	5.04	+2.63	39.43	+4.50	6.2
Southwest	44.1	+5.7	619	-180	1003	-314	3.79	+1.85	44.60	+10.20	0.7
South Central	44.2	+5.5	617	-172	1033	-288	4.69	+2.43	43.13	+6.79	2.6
Southeast	44.9	+4.7	597	-146	985	-229	5.25	+2.68	39.29	+2.46	3.2
STATE	41.8	+5.2	690	-163	1155	-300	4.23	+2.18	38.53	+4.60	6.3

* 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, NOVEMBER 2015 (inches)



State Climatologist, Iowa Dept. of Agriculture & Land Stewardship
 COUNTY SNOWFALL ESTIMATES, NOVEMBER 2015 (inches)

