



## IOWA MONTHLY WEATHER SUMMARY – OCTOBER 2018

General Summary: Iowa temperatures averaged 48.2 degrees, 2.6 degrees below normal, while precipitation totaled 4.49 inches or 1.88 inches above normal. This ranks as the 19<sup>th</sup> coolest October, tying 1913 and 1957. This was also the 7<sup>th</sup> wettest October on record. A slightly cooler October occurred in 2009 with a wetter October just last year.

Temperatures: October had distinct periods of above and below average temperatures, along with days in which portions of the state were split between the two, especially during strong frontal passages. These days typically represented transition days between air masses. October 9<sup>th</sup> was one such transition day in which daytime highs varied by more than 30 degrees northwest to southeast; highs were in the lower 80s in southeastern Iowa and upper 40s in northwestern Iowa. Overall the month was cooler than average. The longest period of cooler-than-normal temperatures occurred from October 11<sup>th</sup> through the 18<sup>th</sup>. October 14<sup>th</sup> had the coolest daytime highs of the month with many locations in northwestern Iowa in the lower to mid-30s. Sibley (Osceola County) observed a high of 33 degrees, 29 degrees below average. Eight days were warmer than average across Iowa with the longest stretch of warm weather occurring between October 29<sup>th</sup> and 31<sup>st</sup>. October 29<sup>th</sup> was the warmest day of this period; highs in the western third of the state were up to 10 degrees above average. In terms of temperature extremes, De Soto (Harrison County) reported the month's highest temperature of 93 degrees on the 2<sup>nd</sup>. This reading was about 20 degrees warmer than expected. Elkader (Clayton County) and Stanley (Buchanan County) observed the month's overnight low temperature of 19 degrees on the 22<sup>nd</sup>, 16 degrees below normal.

Heating Degree Day Totals: Home heating requirements, as estimated by heating degree day totals, averaged 39% more than last October and 15% more than normal. Thus far this heating season, heating degree day totals are running 36% more than last year at this time and 2% more than normal.

Precipitation: Early October continued the wetter-than-normal conditions from September, especially Iowa's southern quarter and eastern third. Many stations reported rainfall accumulations five to eight inches above average. Columbia (Marion County) reported the month's highest precipitation accumulation of 9.80 inches, around 7.00 inches above average. Sioux City (Woodbury County) reported a near normal accumulation of 2.09 inches of rain for the month. Knoxville (Marion County) reported the highest accumulation of 4.25 inches for the 24-hour period ending on October 9<sup>th</sup>. Southern Iowa continued to receive much needed rainfall, greatly improving drought conditions. Notable precipitation events occurred during the first half of the month as an active pattern brought low pressure systems with attendant cold fronts across the state. The first week of October saw multiple rounds of showers and thunderstorms, especially in Iowa's southeastern half. Monday (1<sup>st</sup>) was a rainy day for Iowa's northern two-thirds as a low pressure system moved into the state. Rainfall totals into Tuesday (2<sup>nd</sup>) morning were above one inch for more than 40 stations with Dubuque (Dubuque County) reporting 2.31 inches, 2.21 inches above normal. Heavy rainfall was reported in southern and eastern Iowa over the period from October 5<sup>th</sup> – 7<sup>th</sup>. Williamsburg (Iowa County) reported 3.65 inches, 3.55 inches above average. Stations from Marion to Scott counties recorded accumulations above two inches. Iowa had measurable snowfall from October 13<sup>th</sup> to the 14<sup>th</sup>. Many stations in northwestern Iowa had accumulations around 2 – 3 inches with locally heavier totals. The second half of October was relatively dry with statewide rainfall deficits.



## IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

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Mason City (Cerro Gordo County) reported the highest total accumulation of 0.61 inches for the reporting period ending October 21<sup>st</sup>. Dry conditions closed out the month with average statewide rainfall around 0.12 inches, much below the normal of 0.56 inches. Portions of southcentral Iowa received less than 0.01 inches over this period.

Severe Weather: Severe weather was limited to three days in October, all of which had tornadic activity. On the 3<sup>rd</sup>, a weak tornado was reported in Jones County causing crop damage and snapped tree branches. There was also a report of severe straight-line winds near Chariton (Lucas County). Two weak tornadoes were reported in Dallas and Clark counties on the 8<sup>th</sup> along with a severe wind report in Osceola. The most active day occurred on the 9<sup>th</sup>, where 10 tornadoes were reported across seven counties. Many of the tornadoes were weak and only minor structural damage was reported near Janesville (Black Hawk County).

Drought: With wetter-than-normal conditions continuing into early October, drought continued to improve significantly. Moderate (D1) and severe drought (D2) that covered much of Appanoose and Davis counties and smaller parts of surrounding counties was completely removed by the middle of the month. As of early October, the D0 category covered 1.47% of southern Iowa. At this time last year, D0 – D2 drought covered 33% of the state. From this time last month abnormally dry conditions decreased by around 2%.

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# October 2018

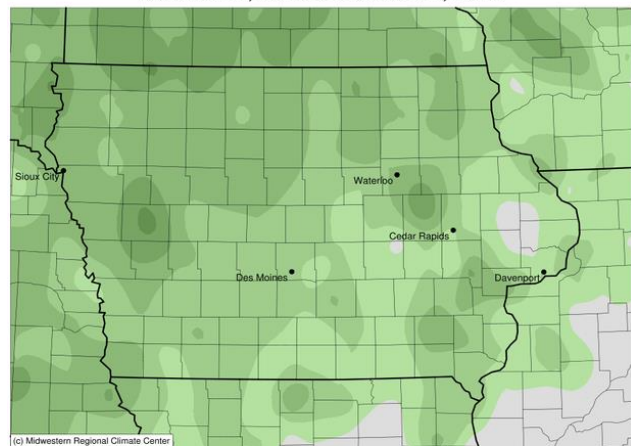
## WEATHER BY DISTRICTS

DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				SNOWFALL Oct 2018 Average
	October 2018 Average	Departure*	October 2018 Average	Departure*	Since Jul., 1, 2018 Average	Departure*	October 2018 Average	Departure*	Since Jan.1, 2018 Average	Departure*	
Northwest	45.7	-3.3	598	+103	741	+45	2.66	+0.42	40.28	+12.32	1.3
North Central	45.9	-3.0	592	+93	733	+30	3.79	+1.42	45.95	+14.75	0.8
Northeast	46.7	-2.9	567	+73	703	+5	5.74	+3.16	50.30	+17.81	0.3
West Central	47.8	-2.7	533	+90	644	+36	3.36	+0.95	37.23	+6.98	1.5
Central	48.6	-2.1	508	+65	608	+8	4.34	+1.72	42.79	+9.90	0.3
East Central	49.6	-2.1	477	+47	560	-9	5.61	+2.72	42.00	+9.49	T
Southwest	49.8	-2.6	471	+74	557	+24	4.65	+2.04	37.19	+4.74	1.1
South Central	50.3	-2.0	460	+62	534	+7	5.55	+2.70	35.16	+1.09	T
Southeast	50.9	-2.7	442	+61	510	+18	5.37	+2.31	34.81	+0.55	0.1
STATE	48.2	-2.6	510	+67	611	+11	4.49	+1.88	40.93	+9.05	0.6

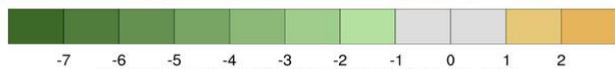
\* Departures are computed from 1981-2010 normals.

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

**Average Temperature (°F): Departure from 1981-2010 Normals**  
October 01, 2018 to October 31, 2018

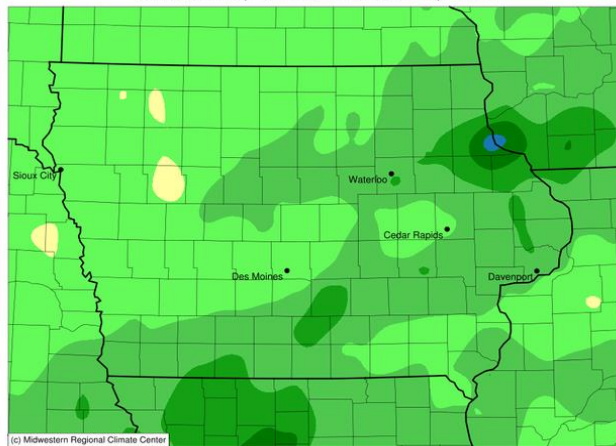


(c) Midwestern Regional Climate Center



Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwestern Regional Climate Center  
cli-MATE: MRCC Application Tools Environment  
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**Accumulated Precipitation (in): Departure from 1981-2010 Normals**  
October 01, 2018 to October 31, 2018



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