IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Mike Naig, Secretary of Agriculture
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IOWA MONTHLY WEATHER SUMMARY – NOVEMBER 2018

General Summary: Iowa temperatures averaged 30.2 degrees or 6.4 degrees below normal while precipitation totaled 1.77 inches or 0.28 inches less than normal. This ranks as the 11th coldest and ties with 2006 as the 76th driest November on record. A colder November last occurred in 2014 while last November was drier.

Temperatures: A vast majority of November was unseasonably cool with only a few days of statewide above average temperatures. The first and last day of the month, along with the period from November 22nd through the 24th was unseasonably warm with the 22nd being the warmest day. Portions of western and northwestern Iowa experienced highs in the upper 50s and low 60s, with some locations over 20 degrees above average. There were two periods in which daytime highs were extremely cold - November 7th though the 13th and November 17th through the 19th. The latter period was bitterly cold with overnight lows in some locations in northern Iowa below zero. Southern Iowa was the coldest part of the state during the end of November with temperatures around 10 degrees below normal due to snowpack. The month's high temperature was 62 degrees and occurred in Red Oak (Montgomery County) and Atlantic (Cass County) on the 1st. Sioux City (Woodbury County) also recorded this temperature on the 22nd. New Hampton (Chickasaw County) and Mason City (Marshall County) reported the month's overnight low temperature of -6 degrees on the 18th, 28 degrees below average. The temperature broke Mason's City's daily record of -4 degrees set in 1894. Waterloo (Black Hawk County) also set a record low of one degrees on the same date, breaking the record of four degrees set in 2014.

Heating Degree Day Totals: Home heating requirements, as estimated by heating degree day totals, averaged 23% above normal and 21% more than seen during a warmer November last year. Heating degree totals thus far this heating season are running 14% more than normal and 27% more than at this time last year.

Precipitation: Monthly statewide precipitation varied from drier than normal conditions in western Iowa to above normal precipitation in the northeast and southeast corners. Portions of the southeast quadrant had over 1.50 inches of above average precipitation. Muscatine (Muscatine County) reported the month's highest precipitation accumulation of 4.94 inches, 2.50 inches above normal. The beginning of November was unseasonably wet, especially across eastern Iowa. Multiple rounds of rain moved through the state as two low pressure systems propagated though Iowa from the 1st through the 4th. Widespread measurable rainfall was reported across the state; Anamosa (Jones County) reported 1.48 inches. Measurable snowfall fell across portions of Iowa over the 8th and 9th with average accumulations between 1 and 2 inches. Another round of snow moved into Iowa during the afternoon of the 16th and lingered across the state into the 17th. Snowfall totals were over three inches in Iowa's northeastern third. St. Ansgar (Mitchell County) observed 3.8 inches of snow. Snow showers reformed across Iowa's southern half later on the 18th. Accumulations ranged from a dusting to over six inches; Beaconsfield (Ringgold County) reported 6.5 inches. Between November 25th and 26th a strong low pressure system moved through the southern half of Iowa, bringing moderate to heavy snow and blizzard conditions. Osceola (Clarke County) reported the greatest accumulation with 12 inches. The statewide average snowfall for the month was a 4.4 inches, 1.7 inches above normal.

Fall Summary: Temperatures over the three autumn months averaged 48.1 degrees or 2.1 degrees below normal while precipitation totaled 14.48 inches or 6.48 inches above normal. This ranks as the 24th coldest and 3rd wettest fall among the period of record. A colder season last occurred in 2014 while a wetter fall last occurred in 1941. A very wet end to the growing season across much of Iowa resulted in subsoil moisture levels being rated 79% adequate and 19% surplus according to the final USDA/NASS crop report of the season.

Outlook: The cold trend experienced in November has continued into the first few days of December, with daytime highs below normal. Cloudy conditions have kept overnight lows above average. Unseasonable coldness will continue through the second week of December. Current outlooks indicate that above average temperatures will return towards the middle of the month. The Climate Prediction Center currently has an 80% probability of a weak to moderate El Nino forming and persisting into winter 2019. This behavior typically means above average winter time temperatures across Iowa. Precipitation probabilities are above normal for December with equal chances of above or below normal precipitation during the winter season.

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November 2018

WEATHER BY DISTRICTS

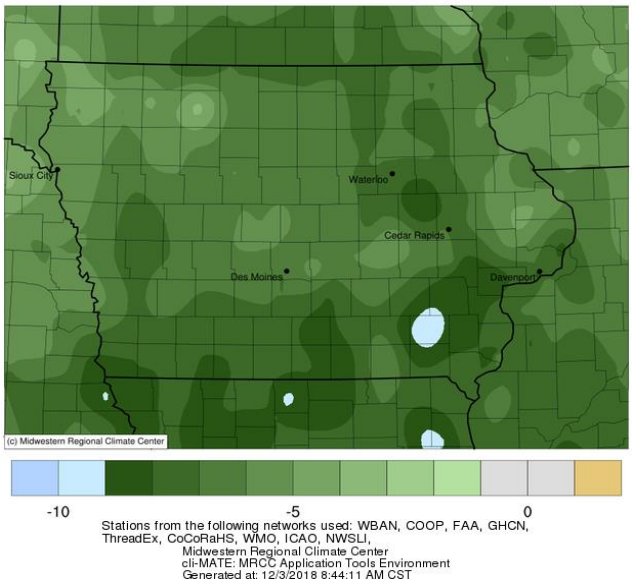
DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				
	November 2018		November 2018		Since Jul., 1, 2018		November 2018		Since Jan.1, 2018		SNOWFALL Nov 2018
	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average
Northwest	28.2	-5.4	1104	+169	1846	+215	1.11	-0.42	41.89	+12.40	0.8
North Central	27.5	-6.3	1125	+202	1861	+236	1.61	-0.24	47.71	+14.66	3.0
Northeast	28.6	-6.9	1092	+195	1795	+199	2.21	-0.07	52.73	+17.96	2.9
West Central	30.3	-5.5	1041	+177	1684	+212	1.02	-0.61	38.25	+6.37	0.4
Central	30.7	-5.8	1029	+184	1641	+196	1.71	-0.43	44.62	+9.24	1.0
East Central	31.5	-6.7	1005	+193	1564	+181	2.34	-0.07	44.69	+9.92	6.6
Southwest	31.4	-7.0	1008	+213	1568	+239	1.24	-0.70	38.57	+4.17	4.1
South Central	31.9	-6.8	993	+218	1527	+223	2.01	-0.25	37.70	+1.36	9.4
Southeast	32.6	-7.6	972	+218	1492	+245	2.93	+0.36	37.68	+0.85	9.5
STATE	30.2	-6.4	1035	+194	1649	+207	1.77	-0.28	42.91	+8.98	4.4

* 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

November 01, 2018 to November 30, 2018



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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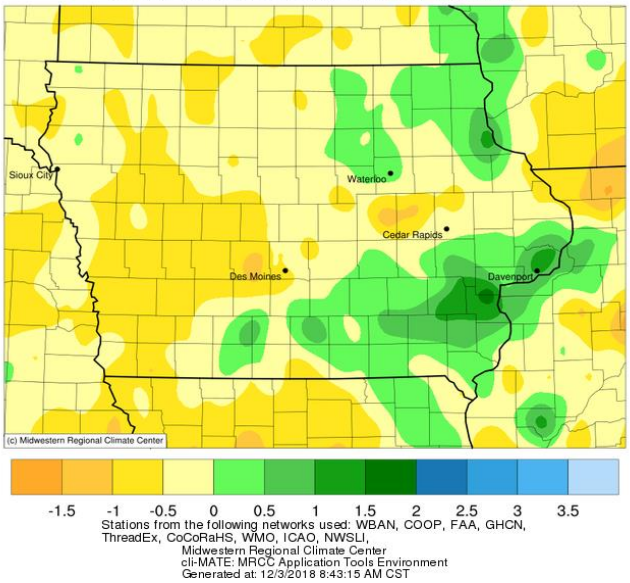
Accumulated Precipitation (in): Departure from 1981-2010 Normals

November 01, 2018 to November 30, 2018



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Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
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