

## IOWA MONTHLY WEATHER SUMMARY – DECEMBER 2019

General Summary: Temperatures averaged 29.1 degrees or 6.2 degrees above normal making December 2019 the 25<sup>th</sup> warmest on record. Precipitation averaged 1.28 inches or 0.06 inches less than normal ranking it as the 87<sup>th</sup> driest. A warmer December last occurred in 2015 while a drier one was last recorded in 2017.

Temperatures: Average temperatures for December were unseasonably warm statewide with the warmest conditions across eastern Iowa; departures were up to eight degrees above normal. Iowa's northwest corner experienced departures ranging from two to four degrees above normal as well.

Twenty-two days in December had statewide average temperatures above average with two extended periods, the first of which occurred between the 2<sup>nd</sup> and the 8<sup>th</sup>. The warmest day of the period was December 7<sup>th</sup> with highs in the upper 30s north to upper 40s south; the average high was 44 degrees, 10 degrees above normal. Mid-month experienced a period of unseasonable coldness spanning December 13<sup>th</sup> through the 15<sup>th</sup> as a low pressure and attendant cold front pushed through Iowa. December 14<sup>th</sup> was the coldest day of the month statewide with an average temperature of 12.5 degrees, half of the climatological normal of 25.0 degrees.

The longest stretch of unseasonable warmth lasted from December 18<sup>th</sup> through the 31<sup>st</sup>. Temperatures averaged at least ten degrees above normal for seven consecutive days prior to Christmas. Overnight lows on Christmas Eve were between 20 and 30 degrees above average at many locations in southern and eastern Iowa, allowing highs on Christmas Day to reach into the low 60s across southern Iowa; nearly 40 stations broke their daily temperature records for Christmas. The statewide average high was 53.2 degrees, 24.3 degrees above the 30-year climatological average. Temperatures through New Year's Eve averaged 10 degrees above average, capping an unseasonably warm month.

December's statewide average maximum temperature was 38.1 degrees, 6.4 degrees above normal while the minimum temperature was 19.6 degrees, 5.5 degrees above normal. The month's high temperature of 64 degrees was reported on the 25<sup>th</sup> at Centerville (Appanoose), Keosauqua (Van Buren) and Lamoni (Decatur County). This reading was on average 30 degrees warmer than normal. Lake Park (Dickinson County) recorded the lowest morning temperature of the month with a -6 degrees reading on the 12<sup>th</sup>, 18 degrees below average.

Heating Degree Day Totals: Home heating requirements, as estimated by heating degree day totals, averaged 15% below normal and 3% less than seen last year. Heating degree totals thus far this heating season are running 1% above normal and 3% less than at this time last year.

Precipitation: Much of the southeastern two-thirds of Iowa experienced near to below average precipitation during December with east central Iowa reporting up to one inch deficits. Iowa's northwestern corner reported above average precipitation with some locations observing over an inch above normal. Monthly precipitation totals varied from 0.42 inches in Shenandoah (Page County) to 2.32

inches in Sioux City (Woodbury County). Measurable snowfall was also reported across the state though totals were below average statewide; the preliminary average snowfall was 2.4 inches, 5.9 inches below average, tying 1900 as the 20<sup>th</sup> least snowiest Decembers in 132 years of records.

Measurable precipitation fell on 12 days during the month with a nine day period between the 17<sup>th</sup> and 25<sup>th</sup> of dry weather. A strong low pressure system moved through Iowa during the afternoon of the 1<sup>st</sup>. Precipitation totals were generally under a tenth of an inch though nine stations reported higher totals ranging from 0.12 inch in Creston (Union County) to 0.46 inch in Stanley (Buchanan County). Snow fell across parts of central and eastern Iowa with very light accumulations; Fort Dodge (Webster County) reported the highest total of one inch.

A winter system moved quickly through Iowa on the 9<sup>th</sup>, leaving behind light accumulations across much of the northern two-thirds of the state. However, the system produced locally heavy snow and reduced visibilities across north-central Iowa, leading to rapidly declining travel conditions. This was the first event in which the National Weather Service (NWS) issued a “Snow Squall Warning” in Iowa. A second clipper moved through the state on the 10<sup>th</sup> through the 11<sup>th</sup> leaving a band of snow from Spirit Lake (Dickinson County) southeast through Davenport (Scott County). Twenty-four stations reported snow totals at or above two inches with a measurement on 3.5 inches in Cedar Falls (Black Hawk County).

Southern Iowa received measurable snow from a southern low pressure system on the 15<sup>th</sup> through the 16<sup>th</sup>. Stations across southeastern Iowa reported general totals from one to three inches; stations in Davis and Van Buren counties reported the higher totals. A substantial system entered Iowa beginning on the 27<sup>th</sup>, bringing measurable rain and snow to the state over the next two days. On the 29<sup>th</sup>, precipitation totals at 7:00 am were generally above 0.50 inch statewide with more than 150 stations reporting one inch or more. Britt (Hancock County) reported 2.16 inches, while a gauge in Logan (Harrison County) reported 2.07 inches. The statewide average precipitation was 0.95 inches. As the system moved out of the state, snow filtered in on the backside of the low; Little Sioux (Harrison County) reported the highest snow total at 2.7 inches while the statewide average was four-tenths of an inch.

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# December 2019

## WEATHER BY DISTRICTS

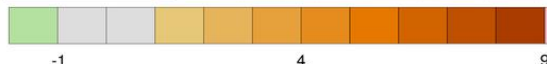
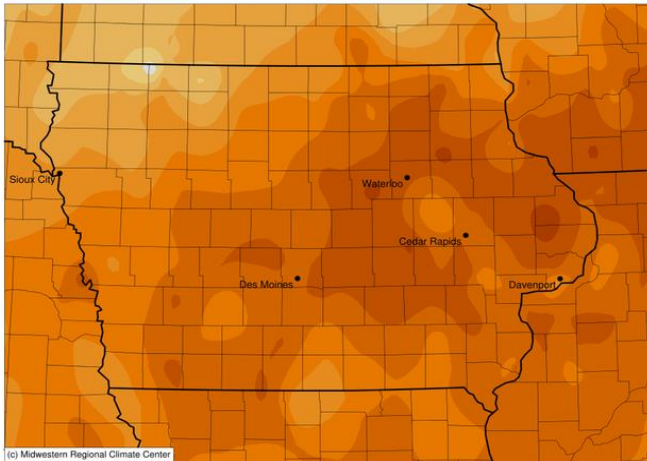
DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				SNOWFALL Dec 2019 Average
	December 2019 Average	Departure*	December 2019 Average	Departure*	Since Jul., 1, 2019 Average	Departure*	December 2019 Average	Departure*	Since Jan.1, 2019 Average	Departure*	
Northwest	23.4	+3.7	1290	-105	3062	+36	1.46	+0.56	39.36	+8.97	3.6
North Central	25.4	+5.9	1228	-170	3007	-17	1.29	+0.05	39.95	+5.66	3.5
Northeast	28.1	+6.8	1144	-219	2913	-46	1.39	-0.10	46.03	+9.77	2.0
West Central	28.8	+6.5	1122	-188	2722	-60	1.34	+0.25	36.37	+3.40	2.2
Central	30.0	+7.2	1085	-216	2696	-49	1.21	-0.11	40.03	+3.68	2.2
East Central	31.2	+6.7	1048	-215	2610	-35	1.29	-0.45	44.76	+8.10	2.9
Southwest	31.9	+6.5	1026	-197	2491	-60	0.92	-0.32	40.68	+5.05	1.3
South Central	32.5	+6.8	1008	-201	2473	-39	1.13	-0.25	44.04	+6.32	1.5
Southeast	33.0	+6.0	992	-198	2436	0	1.35	-0.46	45.13	+6.49	1.8
STATE	29.1	+6.2	1092	-202	2700	-36	1.28	-0.06	41.63	+6.36	2.4

\* 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

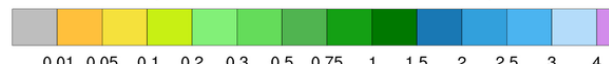
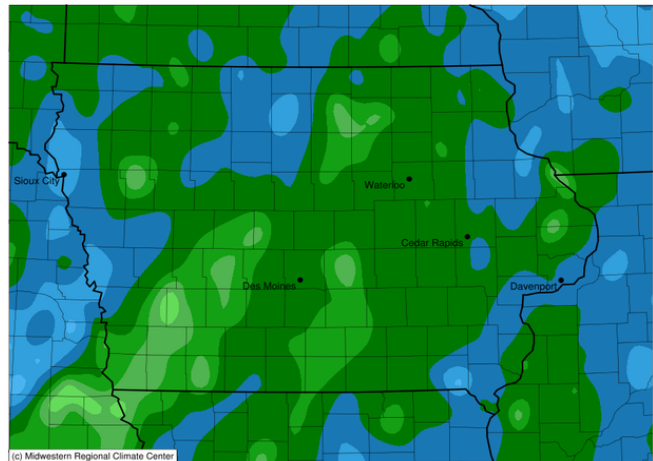
December 01, 2019 to December 31, 2019



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  
Generated at: 1/7/2020 3:56:05 PM CST

### Accumulated Precipitation (in)

December 01, 2019 to December 31, 2019



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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