

## IOWA MONTHLY WEATHER SUMMARY – OCTOBER 2022

General Summary: Temperatures averaged 50.4 degrees, 0.6 degree below normal while precipitation totaled 0.89 inch or 1.80 inches below normal. October 2022 ties 1906 and 2013 as the 49th coldest on record. It was also the 15th driest October in 150 years of statewide records. A colder October last occurred in 2020 while October 2011 was drier and the 10th driest on record.

Temperatures: Monthly temperatures were near normal across most of Iowa with pockets of colder than average conditions on the eastern side of the state. October's statewide average maximum temperature was 64.4 degrees, 2.1 degrees above normal while the average minimum temperature was 36.4 degrees, 3.2 degrees below normal. Oskaloosa (Mahaska County) reported the month's high temperature of 88 degrees on the 23<sup>rd</sup>, 26 degrees above normal. Spencer Municipal Airport (Clay County) reported the month's low temperature of 7 degrees on the 18th, 30 degrees below normal.

Heating Degree Day Totals: Home heating requirements, as estimated by heating degree day totals, averaged 51% more than last October and 5% more than normal. Thus far this heating season, heating degree day totals are running 47% more than last year at this time and 4% more than normal.

Precipitation: While widespread rain fell across Iowa, all National Weather Service co-op stations reported below-average totals in October with the driest conditions found in the state's western half; precipitation deficits approached 2.50 inches at several stations. Monthly precipitation totals ranged from 0.06 inch at Estherville Municipal Airport (Emmet County) to 2.49 inches at Keokuk Lock and Dam (Lee County).

Cloud cover increased over northern Iowa into the morning of the 1<sup>st</sup> as isolated showers continued to form in western and northern Iowa, though much of the rainfall evaporated before hitting the ground. Isolated showers dissipated across western Iowa into the afternoon of the 2<sup>nd</sup> with meager totals reported at a handful of stations. Evening cloud cover began to increase in western Iowa as a weather disturbance approached the state with spotty showers increasing through the 5<sup>th</sup>. Some rumbles of thunder were heard in central Iowa with higher rainfall totals compared to other stations. A low pressure system spun through Iowa through the morning of the 6<sup>th</sup>. Pockets of north-central and northeastern Iowa measured totals above 0.30 inch with stations in Black Hawk County dumping out between 0.52 to 0.58 inch. General totals where rain fell were in the 0.10 to 0.20 inch range.

Wind speeds increased through the day on the 11<sup>th</sup> as a strong cold front approached from the west. The surface boundary finally pushed over western Iowa just before midnight with a few severe-weather thunderstorms along the Iowa-Nebraska border. The complex brought widespread rainfall as a secondary line fired in eastern Iowa around 3:00 am on the 12<sup>th</sup>. Rainfall totals were highest in west-central and eastern Iowa as at least 10 stations observed 0.50 inch or more with general totals around 0.20 inch; a Community Collaborative Rain, Hail and Snow (CoCoRaHS) network gauge in Cedar Rapids (Linn County) hit 0.57 inch while Persia (Harrison County) registered 1.21 inches. Pockets of showers continued to filter in through the afternoon and evening hours as winds shifted to a northwesterly direction. Rain totals from the backside of the disturbance reported at 7:00 am on the 13<sup>th</sup> were under 0.20 inch with Hopkinton (Delaware County) dumping out 0.19 inch. A fast-moving low pressure center brought very light rain showers to Iowa's southeastern half through the 14<sup>th</sup> leading to damp and chilly conditions. Rainfall amounts were no more than a trace at most stations to 0.20 inch at Augusta (Lee County). Generally dry conditions were reported through the middle of the month. Scattered cloud cover filtered into eastern Iowa along with very isolated pockets of drizzle and light rain on the 16<sup>th</sup>. On the 23<sup>rd</sup>, showers formed in eastern Iowa over the late evening hours as well as isolated strong thunderstorms in the northwest corner. The

Iowa's attendant cold front slowly progressed west to east through Iowa on the 24<sup>th</sup> with chilly conditions reported under overcast skies and moderate rainfall. Event rain totals were highest across a south-central to northeast swath with more than 100 stations measuring at least an inch. Totals tailed off farther west where amounts were under 0.30 inches with a pocket in northwest Iowa receiving no rainfall. Clouds increased in western Iowa overnight into the 27<sup>th</sup> with pockets of spotty light rain; moderate showers formed later in the day. Several stations reported measurable totals with Sioux City (Woodbury County) measuring 0.44 inches. Showers spun into Iowa's southeastern corner through the afternoon of the 30<sup>th</sup>. Several stations reported a few tenths of an inch with a gauge in New London (Henry County) measuring 0.34 inches.

US Drought Monitor: The US Drought Monitor (USDM) showed continued worsening of abnormally dry and drought conditions, with some intermittent areas of improvement mixed in. Between October 4 and November 7, the USDM depiction for Iowa showed degradation in every category of drought or dryness. The worst conditions peaked on November 1, just before the unseasonably wet stretch of days. Over 11% of Iowa is in Extreme (D3) or Exceptional (D4) Drought, and almost three quarters of the state is in at least Moderate (D2) Drought. The least impacted parts of Iowa are the counties in east-central and eastern Iowa, with about 7% of the state free from any dryness or drought. Long-term significant precipitation deficits remain in much of Iowa, and consistent rainfall is needed to move more of the state out of drought conditions.

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# October 2022

## WEATHER BY DISTRICTS

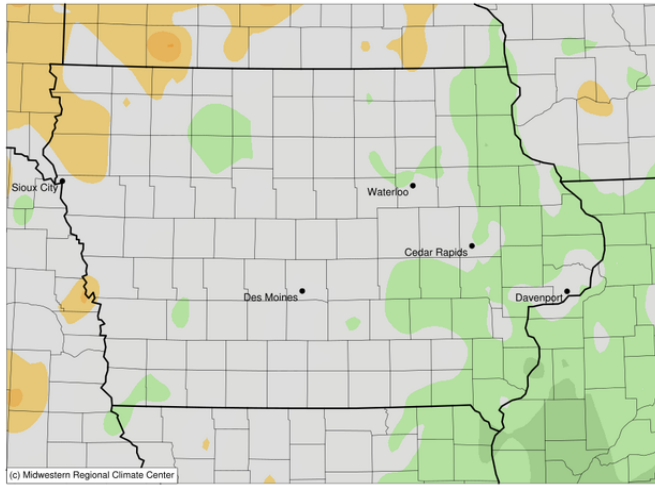
DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				SNOWFALL Oct 2022 Average
	October 2022 Average Departure	October 2022 Average Departure	October 2022 Average Departure	Since Jul. 1, 2022 Average Departure	October 2022 Average Departure	October 2022 Average Departure	Since Jan. 1, 2022 Average Departure	October 2022 Average Departure			
Northwest	49.6	+0.3	477	-12	610	-67	0.35	-2.00	17.74	-10.61	0.0
North Central	48.9	-0.2	499	+4	656	-32	0.54	-1.96	24.50	-7.78	0.0
Northeast	48.5	-0.9	512	+25	669	-13	1.35	-1.49	29.34	-5.08	0.0
West Central	50.9	-0.2	442	+6	551	-43	0.49	-1.97	20.31	-10.18	0.0
Central	50.5	-0.6	455	+19	561	-24	0.93	-1.74	24.95	-7.89	0.0
East Central	50.3	-1.3	456	+33	555	0	1.18	-1.75	26.41	-7.27	0.0
Southwest	52.6	-0.1	392	+2	480	-40	0.68	-2.12	22.63	-9.87	0.0
South Central	52.0	-0.6	410	+16	491	-28	1.30	-1.53	24.04	-9.64	0.0
Southeast	51.3	-1.8	430	+50	508	+21	1.32	-1.61	22.88	-11.07	0.0
STATE	50.4	-0.6	457	+20	567	-20	0.89	-1.80	23.59	-8.77	0.0

\* Departures are computed from 1991-2020 normals.

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

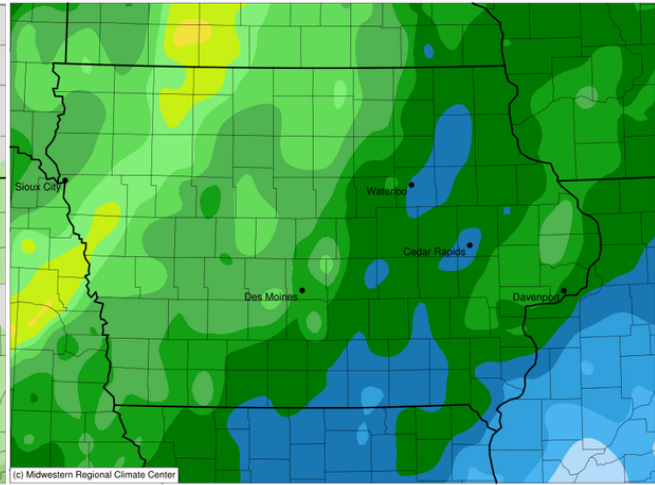
### Average Temperature (°F): Departure from 1991-2020 Normals

October 01, 2022 to October 31, 2022



### Accumulated Precipitation (in)

October 01, 2022 to October 31, 2022



Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwest Regional Climate Center  
cli-MATE: MRCC Application Tools Environment  
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Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwest Regional Climate Center  
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