

IOWA MONTHLY WEATHER SUMMARY – APRIL 2021

General Summary: Temperatures averaged 49.3 degrees or 0.4 degree above normal while precipitation totaled 1.51 inches or 2.00 inches below normal. April 2021 ties 1949 as the 71st warmest; it was also the 16th driest April in 149 years of statewide records. A warmer April last occurred in 2017 while a drier April last occurred in 1980.

Temperatures: Iowa experienced periods of unseasonably cool days intermixed with warmer and windy days during April. On average, statewide temperatures were only slightly warmer than normal; positive temperature departures of one to two degrees were observed across north-central Iowa with near-normal conditions reported at the remaining National Weather Service (NWS) co-op stations.

April's statewide average maximum temperature was 60.7 degrees, 0.5 degree above normal while the average minimum temperature was 37.9 degrees, 0.3 degree above normal. Desoto (Harrison County) reported the month's high temperature of 93 degrees on the 26th, 26 degrees above average. Estherville Municipal Airport (Emmet County) and Battle Creek (Ida County) reported the week's low temperature of 11 degrees on the 1st, on average 19 degrees below normal.

Heating Degree Days: Home heating requirements, as estimated by heating degree day totals, averaged 15% less than last April and 5% less than normal. Heating degree day totals are running 2% more than last year at this time and 2% less than normal.

Precipitation: A vast majority of the state's NWS co-op stations reported below-average totals during the month; stations from Polk County north to Winnebago County and over to the Iowa-Minnesota-Wisconsin border observed deficits of over three inches. Several stations with a period of observation beginning in the late 1800s reported their driest April. Extreme southeastern Iowa was the only section of the state to report above-average totals, on the order of one to two inches.

Spotty thundershowers popped up across northeastern Iowa during the late evening ahead of a low pressure system. The disturbance brought rain showers over the northern half of the state through the afternoon of the 5th with totals on the order of a few tenths of an inch. Later in the evening, a line of strong thunderstorms pushed into extreme northwest Iowa and skirted the Iowa-Minnesota border into the early morning of the 6th before dissipating in northeastern Iowa. Scattered showers and thunderstorms re-formed later in the day in advance of a surface boundary moving into western Iowa overnight into the 7th. As temperatures warmed into the 70s with ample low-level moisture, additional thunderstorms formed in south-central Iowa on the north side of a low pressure center over northwestern Missouri. The storms, with locally heavy rainfall and small hail, moved north and east into late evening.

The disturbance continued to circulate additional waves of showers across the state as it propagated northeast through the 8th. Two-day rain totals were highest across southern and western Iowa, with totals on the order of 0.75 inch to above an inch; multiple stations in south-central Iowa measured over two

inches with Murray (Clarke County) observing 2.70 inches. All National Weather Service coop stations reported measurable rainfall with a statewide average of 0.69 inch. The low pressure center continued to spin through the Great Lakes as rain showers gradually dissipated over Iowa on the morning of the 9th. Another center of low pressure propagated from Kansas into Missouri into the overnight hours into the 10th. With a lack of upper-level steering flow, the sluggish low created a persistent rain shield across eastern Iowa.

After more than a week of generally dry conditions, rain showers pushed into southwestern Iowa during the afternoon hours of the 17th and lingered over southern Iowa into the 18th with 24-hour rain totals reported at 7:00 am across the southern one-third of Iowa ranging from near 0.50 inch west to a little more than 0.10 inch east. The low's attendant cold front swept through the state overnight into the 19th. Behind the front, rain transitioned to snow during the morning hours with a rain and snow mix persisting over much of Iowa's western half and along the Iowa-Missouri border. Light rain and some snow remained across southeastern Iowa on the morning of the 20th. Event snow totals were generally under a half of an inch, though 10 stations reported an inch or more; Little Sioux (Harrison County) measured 2.7 inches while Sibley (Osceola County) reported 4.0 inches.

A disturbance moving through the Midwest brought showers across northern Iowa in the late morning hours of the 25th with rain exiting eastern Iowa in the evening. Rain totals reported at 7:00 am on the 26th were highest in the northwestern corner with Sanborn (O'Brien) and Spirit Lake (Dickinson) observing 0.35 inch; totals tailed off south and east where rain gauges collected a few tenths of an inch. A center of low pressure pushing through Iowa shifted winds to a northerly direction from the west to east during the day on the 27th. Showers formed across western Iowa as the disturbance propagated over the region. Showers and a few thunderstorms continue to pop up through most of the next day leading to higher totals in southeastern Iowa as the system moved east. Event rain totals reported at 7:00 am on the 29th were highest in the state's southeast corner with over 20 rain gauges collecting an inch or more of new rainfall; several stations in Appanoose, Davis and Lee counties observed more than 1.50 inches.

Monthly precipitation totals ranged from 0.30" in Tripoli (Bremer County) to 6.59" at Fort Madison (Lee County). In terms of snowfall, all Iowa stations reported below-average snow with Iowa's eastern third observing no measurable snow. The preliminary statewide average snowfall of 0.2", 1.4" below normal, tying multiple years as the 39th least snowy April in 134 years of snowfall records; April 2017 saw less snow. Sibley (Osceola County) measured the state's highest accumulation of 4.0".

Severe Weather: As with March, Iowa experienced a very quiet month in terms of severe weather with only two days of severe activity. The first, isolated event occurred on the 5th with two reports of hail between 1.00 and 1.50 inches observed in Lyon County. On the 7th, thunderstorms in eastern Iowa became stronger with a brief, weak tornado reported near Cedar Rapids (Linn County) that caused damage to several structures.

US Drought Monitor: Drought and abnormally dry conditions expanded through Iowa in April as very dry conditions were reported across much of the state. The initial drought depiction at the beginning of April showed 41% of the state covered in D0 (Abnormally Dry) to D3 (Extreme Drought) conditions; the largest share was D0, which covered the northern one-third of Iowa, along the border with Minnesota with a swath

extending into southwestern Iowa. Extreme drought continued to cover around 3% of northwestern Iowa, though this region was upgraded to D2 (Severe Drought) after measurable precipitation fell over the state's northwestern corner. The drought depiction remained status quo until the week of April 27th when D0 conditions expanded in all directions, covering 55% of Iowa, up from 28% the previous week. A new region of D1 (Moderate Drought) was introduced in northeastern Iowa where rainfall deficits continued to stack up. As of the first week of May, D0-D2 categories now cover 78% of the state, the highest extent since mid-September 2020. The categorical breakdown is as follows: D0 – 42%, D1 – 29%, D2 – 8%.

Justin Glisan, Ph.D.
State Climatologist of Iowa
Iowa Dept. of Agriculture & Land Stewardship
Wallace State Office Bldg.
Des Moines, IA 50319
Telephone: (515) 281-8981
E-mail: Justin.Glisan@IowaAgriculture.gov

April 2021

WEATHER BY DISTRICTS

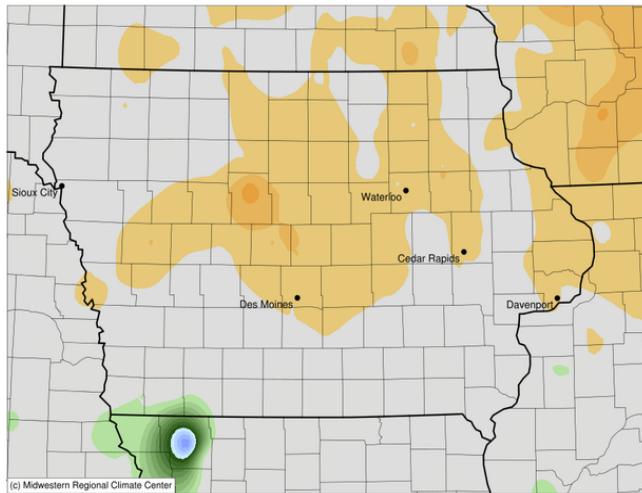
DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				SNOWFALL
	April 2021		April 2021		Since Jul., 1, 2020		April 2021		Since Jan.1, 2021		Apr 2021
	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average
Northwest	47.0	0.0	540	-9	6985	-200	1.93	-1.29	5.67	-0.74	0.5
North Central	48.1	1.5	507	-45	6999	-217	0.80	-2.78	4.43	-2.80	0.3
Northeast	47.6	0.0	522	-30	7023	-61	0.83	-2.87	5.03	-2.76	T
West Central	49.5	0.9	465	-25	6448	-159	1.10	-2.33	6.63	-0.51	0.5
Central	50.2	1.4	444	-42	6518	-77	0.68	-2.94	4.72	-3.03	0.2
East Central	49.9	-0.1	453	-24	6464	+36	2.37	-1.02	6.97	-1.19	T
Southwest	50.7	0.3	429	-7	6053	-26	1.58	-1.88	7.80	+0.26	0.1
South Central	51.0	0.9	420	-12	6059	+6	1.53	-2.12	6.78	-1.29	0.1
Southeast	50.9	-0.9	423	-1	6037	+75	3.23	-0.35	9.11	+0.14	0.1
STATE	49.3	0.4	463	-26	6529	-50	1.51	-2.00	6.22	-1.41	0.2

* 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 1991-2020 Normals

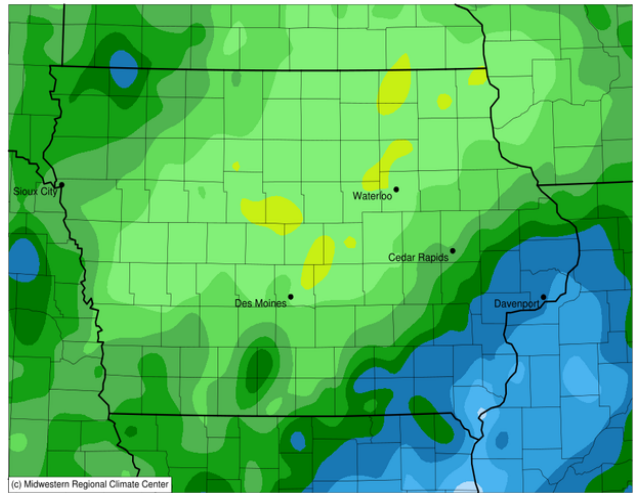
April 01, 2021 to April 30, 2021



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: 5/7/2021 2:02:07 PM CDT

Accumulated Precipitation (in)

April 01, 2021 to April 30, 2021



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: 5/7/2021 2:03:33 PM CDT