IOWA DEPARTMENT OF AGRICULTURE & LAND STEWARDSHIP

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IOWA MONTHLY WEATHER SUMMARY – MAY 2025

General Summary: General Summary: Temperatures averaged 59.7degrees or 0.2 degrees below normal while precipitation totaled 2.59 inches or 2.25 inches below normal. May 2025 ties 1960 and 1993 as the 72nd coldest and ties 1963 as the 64th driest May in 153 years of statewide records. A colder May occurred in 2021 while a drier May occurred in 2023.

Temperatures: Temperatures through the first half of May were four to six degrees above normal while the second half of the month was four to six degrees below normal. Overall, much of Iowa had near-normal temperatures with slightly cooler conditions across southern Iowa. Muscatine (Muscatine County) reported the month's high temperature of 95 degrees on the 15th, 21 degrees above normal. Mason City (Cerro Gordo County) reported the month's low temperature of 28 degrees on the 1st, 13 degrees below normal. May's statewide average maximum temperature was 71.8 degrees, 0.7 degrees above normal while the average minimum temperature was 47.4 degrees, 1.4 degrees below normal.

Heating Degree Days: Home heating requirements, as estimated by heating degree day totals, averaged 31% more than last May and 1% more than normal. Heating degree totals are 10% more than last year at this time and 8% less than normal.

Precipitation: All of Iowa's National Weather Service co-op stations reported precipitation deficits during the month. Only small pockets of central and eastern Iowa observed near-normal conditions; a large swath of southwest Iowa reported deficits in the 3.00-to-4.00- inch range. Monthly precipitation totals ranged from 0.83 inch at Ottumwa Industrial Airport (Wapello County) to 5.38 inches at a Community Collaborative Rain, Hail and Snow (CoCoRaHS) network rain gauge in Grand River (Decatur County).

A complex of moderate showers developed across eastern Iowa after sunset with isolated pockets of light rain farther west after midnight on the 1st. Twenty eastern Iowa stations reported more than an inch of rainfall, varying from 1.00 inch at Fairfield (Jefferson County) to 1.81 inches in DeWitt (Clinton County). Totals decreased to a few tenths of an inch towards central Iowa with a pocket of higher amounts in west-central Iowa. Showers continued across southern Iowa into the afternoon of the 2nd with isolated cells filling in behind the system. Rain totals were generally in the 0.20-to-0.50-inch-range, though Atlantic (Cass County) collected 0.55 inch and Earlham (Madison County) observed 0.75 inch. The 7th dawned with cloudless skies, northerly winds and lows in the 50s. Daytime temperatures warmed into the 60s over southern Iowa as a warm front lifted north across Iowa. Winds north of the boundary remained northeasterly as southerly winds held over southern Iowa. With enough forcing and moisture near the surface front, westerly propagating thundershowers formed along a west-to-east line during the evening hours. Of the stations reporting rainfall, most locations observed under a tenth of an inch. The highest totals were found in east-central Iowa, particularly in Linn County; amounts ranged from 0.29 inch in Cedar Rapids to 1.01 inches in Marion.

A line of stronger thunderstorms pushed across the northwest corner of Iowa overnight into the 15th. Rain totals were locally heavy with 0.55 inch in Rock Rapids (Lyon County) to 0.77 inch in Sibley

(Osceola County). Winds gradually shifted easterly through the day as a cold front swept west to east. Winds swung back to the southwest by Friday (16th) with clear morning conditions. Several lines of light showers ushered through the state's northern half with many stations collecting less than 0.10 inch; Sibley observed an additional 0.29 inch with 0.14 inch at Le Mars (Plymouth County) and Orange City (Sioux County).

Cloud cover increased towards midnight on the 18th as showers and a few thunderstorms pushed into southwest Iowa ahead of a low pressure center over the Dakotas. Rain totals at 7:00 am on the 19th were in the 0.25 – 0.75 inch range across much of western Iowa with pockets over an inch near the Iowa-Nebraska border; Randolph (Fremont County) reported 1.10 inches while 1.55 inches was observed in Blencoe (Harrison County). A stronger disturbance moved into southern Iowa during the afternoon hours, where high temperatures were in the mid to upper 60s. Severe-warned thunderstorms crossed into Iowa from northern Missouri and sped northeast into late evening as showers and thunderstorms overspread much of Iowa. Several reports of hail were noted along I-35 with 2.00-inch diameter hail in Grand River (Decatur County) and Osceola (Clarke County). Light to moderate rain continued from central to northeastern Iowa into the morning of the 20th. Additional stronger thunderstorms fired in eastern Iowa as the low pressure center transited into Wisconsin in the latter daytime hours. Nearly 85% of Iowa stations reported an inch or more with 70 stations collecting at least two inches, particularly along a swath of south-central to central Iowa and into eastern Iowa; Gilbert (Story County) registered 3.02 inches while Norwalk (Warren County) observed 4.76 inches. At a statewide average of 2.06 inches, these rain totals made up the bulk of the week's rainfall.

Cloud cover and showers moved through western Iowa into the late evening and dissipated through the overnight hours of the 24th. Northwest Iowa reported the highest totals with 0.55 inch in Orange City (Sioux City) with totals tapering off to a few tenths east and south. The remains of the day stayed cloudy with light showers filling in across southern Iowa after sunset. The highest rain totals, between 0.21 – 0.42 inch, were isolated to Mills, Page and Pottawattamie counties. Showers developed across western Iowa into the 27th as a cut-off low pressure system stalled over the Upper Midwest. Event rain totals were highest in western Iowa with 0.51 inch at Sioux City Airport (Woodbury County) to 0.64 inch in Bedford (Taylor County). Many stations receiving rainfall had general amounts in the 0.20-0.40-inch range with lesser amounts farther east.

Severe Weather: This was the first May since 2010 in which a tornado was not reported in Iowa.

Spring Summary: Spring Summary: Temperatures for the three spring months of March, April and May averaged 50.8 degrees, 2.5 degrees above normal. This ranks as the 23rd warmest spring on record. Precipitation totaled 8.55 inches or 1.95 inches below normal, tying 1963 as the 64th driest in 153 years of observations; Spring 2024 was warmer while 2023 was drier.

USDM: The current US Drought Monitor (USDM) indicates comparable conditions in most areas of the state throughout May, with drought expansion in areas of western Iowa. By the end of May and into early June, the areas of D0 increased to 72 percent, a more than 20 percent increase. Additionally, over six percent of D0 – Abnormally Dry or no dryness areas have been downgraded to D1-Moderate Drought. Nearly 28 percent of the state is rated as free from drought and dryness through the beginning of June, mostly concentrated in central and eastern Iowa. Due to below-normal precipitation

in May, drought and abnormally dry conditions expanded. The most recent USDM, released on June 5, shows degradation and a continuation of dry conditions across most of the state.

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May 2025

WEATHER BY DISTRICTS

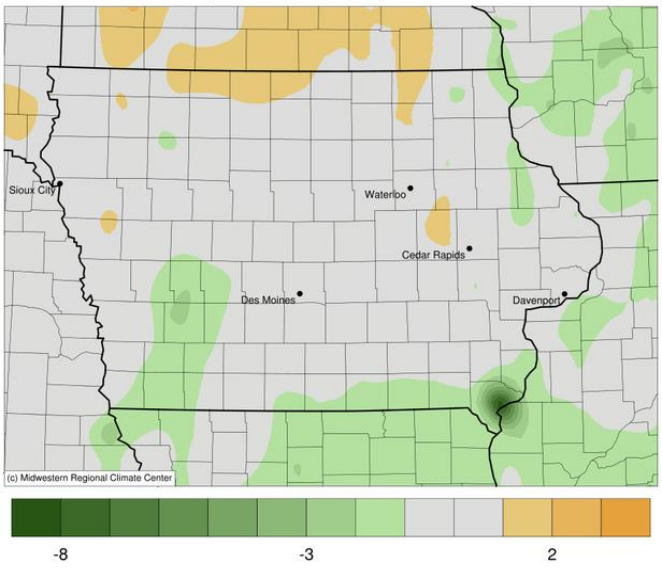
DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				
	May 2025		May 2025		Since Jul., 1, 2024		May 2025		Since Jan.1, 2025		SNOWFALL May 2025
	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average
Northwest	59.1	+0.3	231	-13	6779	-625	2.10	-2.17	7.55	-3.18	0.0
North Central	58.9	+0.4	234	-14	6855	-608	2.51	-2.37	10.82	-1.69	0.0
Northeast	58.4	0.0	241	-6	6791	-539	2.37	-2.35	10.34	-2.68	0.0
West Central	59.8	-0.2	211	-2	6280	-540	2.28	-2.44	8.53	-3.18	0.0
Central	60.0	-0.1	207	-4	6230	-576	3.12	-1.84	10.42	-2.37	0.0
East Central	60.2	-0.4	201	+2	6098	-530	3.35	-1.27	10.13	-3.15	0.0
Southwest	60.4	-0.9	195	+12	5832	-430	2.08	-3.20	7.14	-5.57	0.0
South Central	60.4	-0.7	194	+7	5751	-487	2.72	-2.50	8.79	-4.74	0.0
Southeast	60.6	-1.1	191	+16	5729	-409	2.81	-2.31	9.39	-4.71	0.0
STATE	59.7	-0.2	210	-1	6250	-538	2.59	-2.25	9.28	-3.37	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

May 01, 2025 to May 31, 2025



Accumulated Precipitation (in)

May 01, 2025 to May 31, 2025