



## IOWA PRELIMINARY MONTHLY WEATHER SUMMARY – FEBRUARY 2018

**General Summary.** Temperatures averaged 20.0° or 4.0° below normal while precipitation totaled 1.63 inches or 0.58 inches above normal. This ranks as the 65<sup>th</sup> coolest and 23<sup>rd</sup> wettest February among 146 years of records.

**Temperatures.** Very cold weather prevailed early in the month with temperatures averaging 10.6 degrees colder than normal over the first 13 days of February. Warmer weather dominated the remainder of the month with above normal temperatures occurring on 11 of the final 15 days of the month. There was quite a gradient in temperatures across the state in February as readings averaged only 1 to 2 degrees below normal over the southeast corner of Iowa to 7 to 8 degrees subnormal over the northwest corner where snow cover persisted throughout the month. The month's lowest temperatures were -18° readings at Cresco and Webster City on the morning of the 6<sup>th</sup> while on the other extreme Lamoni reached 70° on the 27<sup>th</sup>. However, Estherville never saw temperatures climb above 41° during the month. The last subzero temperatures of the month were recorded on the 21<sup>st</sup>. Also notable was the wide range of temperatures on the 19<sup>th</sup> when daytime high temperatures varied from 18° at Rock Rapids to 68° at Keosauqua.

**Heating Degree Days.** Home heating requirements, as estimated by heating degree day totals, averaged 45% more than last February, which was Iowa's third warmest February of record, and 9% more than normal. Heating degree day totals are running 20% more than last year at this time and 1% less than normal.

**Precipitation.** Precipitation was much more frequent during February than during the previous three months with storm systems passing through Iowa almost every day between the 2<sup>nd</sup> and 11<sup>th</sup> and again from the 17<sup>th</sup> through the 24<sup>th</sup>. The largest storm event of the month came on the 19<sup>th</sup>-20<sup>th</sup> when thunderstorms rumbled over much of the southeast two-thirds of Iowa. This event brought freezing rain to much of central and western Iowa, light snow to the far northwest and over two inches of rain to locations in far eastern Iowa with a maximum amount of 2.67 inches at Burlington. Also noteworthy was a snow event on the 9<sup>th</sup>-10<sup>th</sup> which brought two inches or more of snow to the northeast one-half of the state with a maximum amount of 11.2 inches just north of Fort Dodge. Even parts of southeast Iowa, which has seen relatively little snow in the past two winters, received locally heavy snow with 7.5 inches at Washington on the 5<sup>th</sup> and 7.9 inches at Sigourney on the 9<sup>th</sup>-10<sup>th</sup>. Monthly precipitation totals varied from 0.68 inches at Sioux Center to 4.24 inches at Keokuk. Only a few scattered locations over western Iowa saw less than normal February precipitation totals. Snow was frequent and widespread with a statewide average of 11.0 inches or 4.2 inches above normal. This was the highest statewide average for any month since February 2015. Fort Dodge reported the most snow with 26.5 inches while Centerville reported the least with 4.6 inches.

**Winter Summary.** Iowa temperatures for the three mid-winter months averaged 20.6° or 1.5° below normal while precipitation totaled 3.09 inches or 0.25 inches less than normal. This ranks as the 68<sup>th</sup> coldest and 66<sup>th</sup> driest winter among 145 years of records.

**Outlook.** Longer days and higher temperatures have allowed soils to thaw completely over most of the southern one-third of Iowa by the end of February. Most soils across about the north one-third of the state were still frozen to a depth of one to two feet at month's end while areas in-between were frost-free for at least the uppermost half-foot of soil. With no major outbreak of cold air anticipated soils should slowly continue to thaw over the next week or two. Soil moisture levels are very low across much of south central and southeast Iowa following two very dry years in 2016 and 2017, thus having soils thawed in these area will finally allow any rain to soak into the ground unimpeded by frost. Elsewhere in the state soil moisture levels, though mostly less than seen over the past two years, are generally near long-term averages for this time of year. Years such as 2018 that began with a La Niña event, often experience (about 70% of the time) less than normal rainfall during the growing season in Iowa with this dryness typically most evident in the summer months. Thus, good spring rainfall will be very important for the currently dry areas of south central and southeast Iowa. The current National Weather Service outlook favors a warmer and wetter than normal March for Iowa while a tendency for drier than normal weather increases for the summer months. Drought has been increasing in severity over much of the southern plains states, especially over southwestern Kansas and points south while recent heavy rains have mitigated drought across previously very dry areas directly south of us across Missouri and Arkansas. Drought tends to expand and intensify in summer, thus it will be important to keep an eye on moisture trends in and near Iowa over the coming months.

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# February 2018

## WEATHER BY DISTRICTS

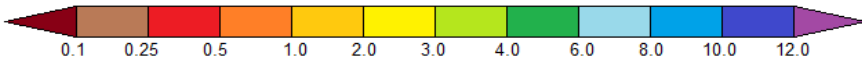
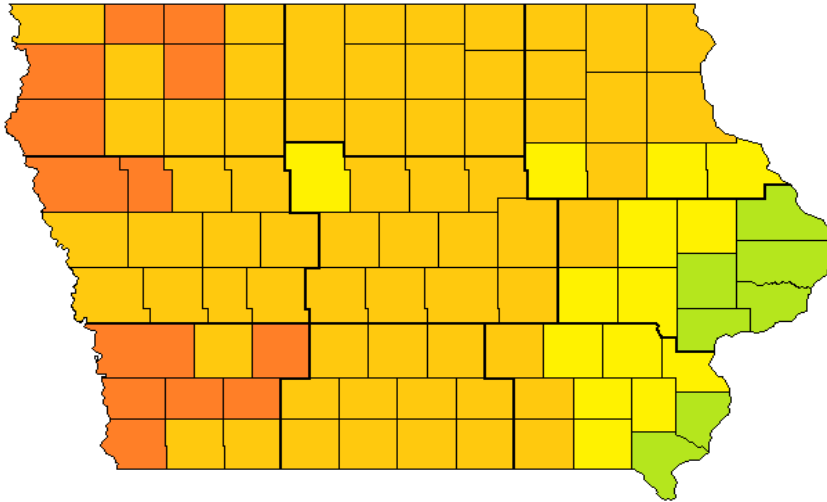
DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				SNOWFALL Feb 2018 Average
	February 2018		February 2018		Since Jul., 1, 2017		February 2018		Since Jan.1, 2018		
	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	
Northwest	14.4	-6.9	1408	+185	5758	-8	1.09	+0.45	2.01	+0.70	13.3
North Central	16.1	-4.3	1343	+95	5707	-123	1.30	+0.44	2.83	+1.14	11.3
Northeast	19.0	-2.6	1306	+98	5545	-53	1.95	+0.85	3.42	+1.30	11.2
West Central	17.4	-6.5	1349	+198	5463	+84	1.16	+0.34	2.09	+0.49	11.8
Central	20.1	-3.7	1243	+88	5243	-104	1.60	+0.58	2.96	+1.02	11.6
East Central	22.5	-2.7	1181	+68	5032	-72	2.58	+1.24	3.35	+0.86	13.0
Southwest	23.0	-3.9	1178	+112	4928	-3	1.02	-0.02	1.75	-0.10	7.9
South Central	24.4	-2.2	1125	+50	4819	-119	1.40	+0.16	2.46	+0.33	8.7
Southeast	25.6	-2.3	1101	+63	4695	-21	2.73	+1.17	3.29	+0.46	8.9
STATE	20.0	-4.0	1257	+109	5274	-48	1.63	+0.58	2.69	+0.72	11.0

\* Departures are computed from 1981-2010 normals.

Monthly estimates are preliminary and are likely to change.

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

State Climatologist, Iowa Dept. of Agriculture & Land Stewardship  
 PRELIMINARY COUNTY PRECIPITATION TOTALS, FEBRUARY 2018 (inches)



State Climatologist, Iowa Dept. of Agriculture & Land Stewardship  
 PRELIMINARY COUNTY SNOWFALL TOTALS, FEBRUARY 2018 (inches)

