IOWA DEPARTMENT OF AGRICULTURE & LAND STEWARDSHIP

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Secretary of Agriculture

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IOWA MONTHLY WEATHER SUMMARY – NOVEMBER 2020

General Summary: Temperatures averaged 42.1 degrees or 5.5 degrees above normal while precipitation totaled 1.88 inches or 0.17 inch below normal. November 2020 ranks as the 10th warmest on record with a warmer November last occurring in 2016. The month ranked as the 48th wettest November in 148 years of statewide records with a wetter one last occurring in 2015.

Temperatures: Unseasonably warm conditions blanketed Iowa during November with positive departures ranging from four to eight degrees statewide; eastern Iowa reported the warmest conditions. November's statewide average maximum temperature was 53.6 degrees, 7.4 degrees above normal while the average minimum temperature was 30.5 degrees, 3.6 degrees above normal. Shenandoah (Page County) reported the month's high temperature of 81 degrees on the 3rd, on average 24 degrees above normal. Estherville Municipal Airport (Emmet County) reported the month's low temperature of 2 degrees on the 13th, 23 degrees below normal.

Heating Degree Day Totals: Home heating requirements, as estimated by heating degree day totals, averaged 31% less than last November and 19% less than normal. Thus far this heating season, heating degree day totals are running 12% less than last year at this time and 2% less than normal.

Precipitation: Portions of Iowa experienced both wetter and drier than normal conditions in November. Precipitation deficits of up to 1.50 inches were reported in northeastern Iowa while above-normal totals on the same order were observed in southern Iowa; a band of positive departures was also observed from western Iowa through north-central Iowa. Monthly precipitation totals ranged from 0.58 inch at Lake Park (Dickinson County) to 4.33 inches at a CoCoRaHS rain gauge near Allerton (Wayne County). The statewide average snowfall was 1.1 inches, which is 1.6 inches below average.

The first week and a half of the month was dry across the state with no National Weather Service coop stations reporting measurable precipitation. The first precipitation event of the month began on the 9th. A low pressure center and its attendant cold front pushed west to east through Iowa with multiple waves of showers and thunderstorms leaving widespread rain. As the front moved out of southeastern Iowa, isolated severe thunderstorms paired with 60 mph wind gusts were reported in Burlington (Des Moines County). Two-day rain totals at 7:00 am on Veteran's Day showed measurable precipitation at all reporting stations with the highest totals over a swath cover west-central Iowa into north-central Iowa; generally 1.50 to 2.00 inches within this area. More than 100 stations collected an inch or more with Osage (Mitchell County) observing 2.00 inches while Mason City (Cerro Gordo County) reported 2.15 inches. With colder air wrapping around the system, light snow fell on the backside of the low. Snow totals ranged from 0.5 inch at Storm Lake (Buena Vista County) to 6.5 inches in Sibley (Osceola County).

Rain showers pushed into southeastern Iowa early on the 14th as a disturbance began moving across the state. Strong winds built in through the evening hours as several waves of showers and a few thunderstorms moved through eastern Iowa ahead of the system; additional pockets of rainfall propagated through Iowa overnight into the 15th. Rainfall amounts in eastern Iowa were in the range of 0.10 to 0.50 inch with lighter amounts tapering off into western Iowa. A disturbance pushed into southwestern Iowa on the 23rd, initially bringing rain showers that switched over to snow through the afternoon hours. The system brought widespread snowfall across much of Iowa

with the highest totals reported in eastern Iowa; Strawberry Point (Clayton County) observed 2.7 inches. Showers remained in central and eastern Iowa through the afternoon on the 25th. Rain totals for the event varied from a few tenths of an inch in northwestern Iowa to over 1.00 inch at multiple stations in southeastern Iowa; Albia 3 NNE (Monroe County) observed 2.00 inches.

Fall Summary: Temperatures over the three autumn months (September-October-November) averaged 50.0 degrees or 0.2 degrees below normal while precipitation totaled 7.80 inches or 0.23 inches below normal. Fall 2020 ties 1974, 1986 and 1988 as the 51st coldest and 67th wettest fall among the period of record. A colder and wetter fall occurred just last year.

Outlook: Current short-term outlooks indicate elevated chances of above-average temperatures through the middle of December. The monthly outlooks for December indicate good chances of warmer and drier conditions statewide. During meteorological winter (December-January-February), the phase of the El Niño-Southern Oscillation (ENSO) climate signal provides generally good guidance in terms of seasonal temperature behavior. The Climate Prediction Center (CPC) currently has a La Niña Advisory, meaning that the La Niña phase of ENSO is present and has a 95% chance of remaining through the Northern Hemisphere winter. CPC outlooks for meteorological winter show a classic La Niña signal in which there are elevated chances of colder than average temperatures across the Dakotas through the Pacific Northwest; much of the southern United States is slated to see above-average temperatures. In terms of the precipitation signal, there are above-average probabilities of wetter conditions in the Ohio Valley and across the Upper Midwest. Iowa happens to be within the Equal Chance (EC) range, which suggests the longer-term outlooks are not providing a clear signal for the season.

US Drought Monitor: Drought conditions continued to cover western Iowa through November. The initial drought depiction for the month showed a large region of D2 (Severe Drought) covering 28% of western Iowa with a 4% region of D3 (Extreme Drought) in the northwest corner. Overall, D0 (abnormally dry) to D3 covered 64% of Iowa. Though minor changes occurred during the month, the map remained generally status quo through much of the rest of November. Wetter conditions across southern and eastern Iowa led to the removal of a majority of the existing D0 region with only a small extent in extreme southeast Iowa remaining. As of this final report, D0-D3 conditions cover 62% of Iowa.

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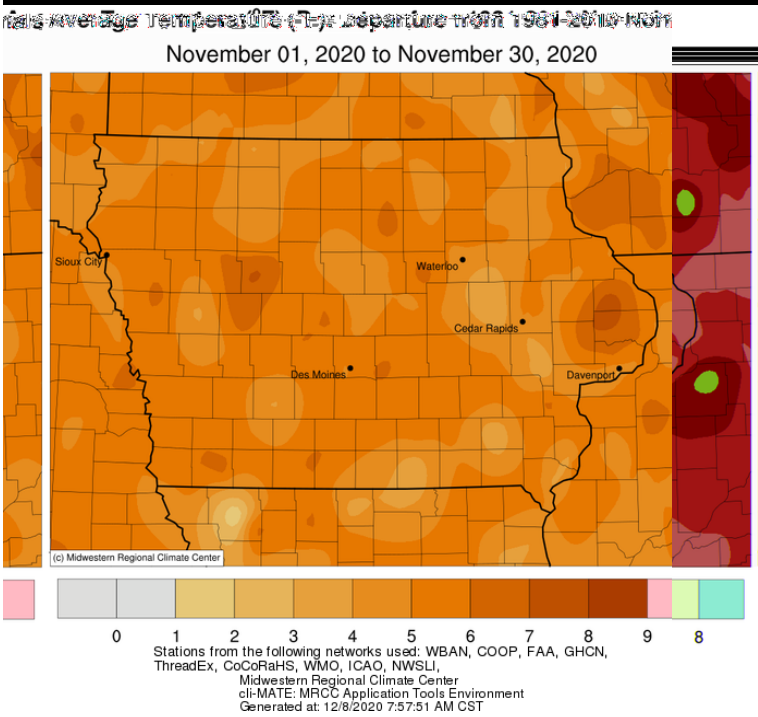
November 2020

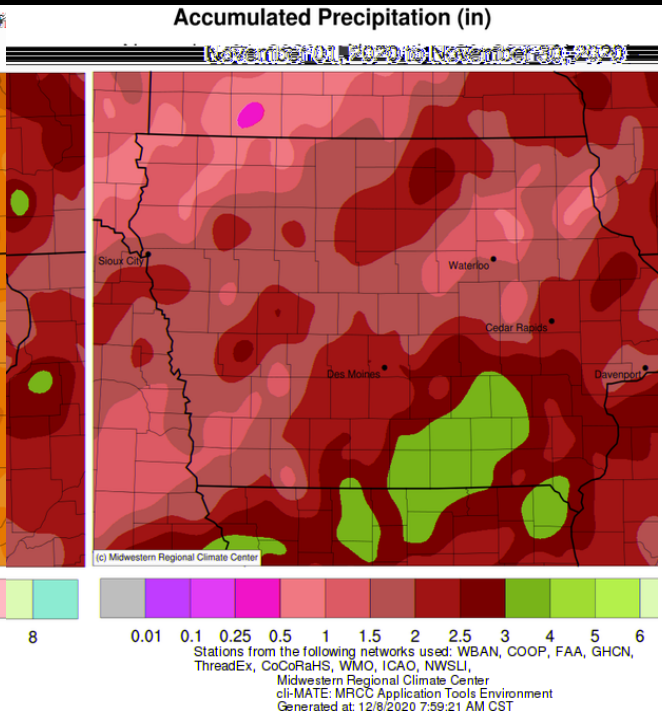
WEATHER BY DISTRICTS

DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)				
	November 2020		November 2020		Since Jul., 1, 2020		November 2020		Since Jan.1, 2020		SNOWFALL Nov 2020
	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average	Departure*	Average
Northwest	39.3	5.7	771	-164	1617	-14	1.34	-0.19	19.97	-9.52	3.4
North Central	39.3	5.5	771	-152	1624	-2	1.93	+0.08	27.87	-5.18	0.7
Northeast	40.5	5.0	735	-162	1578	-17	1.61	-0.67	35.19	+0.42	1.2
West Central	42.1	6.3	687	-177	1429	-43	1.78	+0.15	21.02	-10.86	0.9
Central	42.1	5.6	687	-158	1416	-28	1.81	-0.33	27.54	-7.49	0.7
East Central	43.3	5.1	651	-161	1346	-35	2.03	-0.38	34.67	-0.26	0.8
Southwest	44.0	5.6	630	-165	1314	-14	1.74	-0.20	22.89	-11.51	0.6
South Central	44.7	6.0	609	-166	1286	-18	2.12	-0.14	29.60	-6.74	0.7
Southeast	44.8	4.6	606	-148	1248	+2	2.84	+0.27	32.54	-4.29	0.5
STATE	42.1	5.5	681	-160	1420	-23	1.88	-0.17	27.75	-6.18	1.1

* 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.





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