



# Iowa Crops & Weather

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## MORE SNOW AND ICE

During the month of January Iowa received more snow, cold temperatures, and ice which caused problems for everyone. The snow and ice storms brought power outages and road closures lasting several days. The winter weather slowed the progress of grain movement and the harvest of corn still standing in fields. The extreme temperatures caused stress levels for livestock to increase along with their need for feed and hay. Chopping ice to keep water available for livestock and removing heavy snow off barn roofs continue to keep producers busy as January comes to a close.

The average depth of snow cover for the month of January was 12 inches, above last year's average of 9 inches. Frost penetration averaged 10 inches compared to last year's 19 inches. Soil moisture availability rated 0 percent very short, 1 percent short, 74 percent adequate, and 25 percent surplus. Grain movement for the state was 31 percent none, 48 percent light, 19 percent moderate, and 2 percent heavy.

Availability of hay and roughage supplies was 19 percent short, 76 percent adequate, and 5 percent surplus. Quality of hay and roughage supplies was 10 percent poor, 55 percent fair, and 35 percent good. Utilization of stubble fields for grazing rated 57 percent none, 33 percent light, 9 percent moderate, and 1 percent heavy.

Hog and pig losses in January were 6 percent below average, 88 percent average, and 6 percent above average. Cattle and calf losses were 4 percent below average, 87 percent average, and 9 percent above average.

### IOWA PRELIMINARY WEATHER SUMMARY Provided by Harry Hillaker, State Climatologist Iowa Department of Agriculture & Land Stewardship

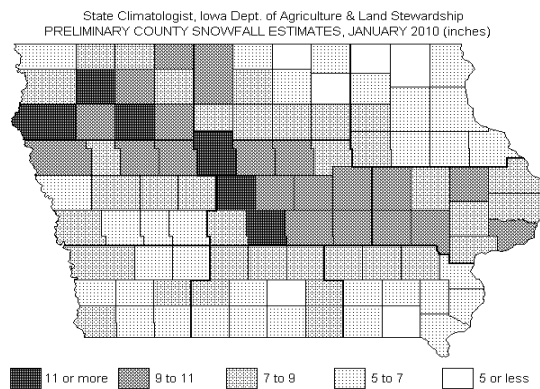
**General Summary.** Temperatures averaged 13.7 degrees or 4.1 degrees below normal while precipitation totaled 1.33 inches or 0.38 inches above normal. This ranks as the 33<sup>rd</sup> coldest and 37<sup>th</sup> wettest January among 138 years of records.

**Temperatures.** The new year began with exceptionally cold weather. Temperatures averaged 16.0 degrees below normal over the first 12 days of the month. At Spencer Airport the temperature fell to -37 degrees on the morning of the 2<sup>nd</sup> while wind chill readings dropped to -53 degrees at Estherville. The Spencer temperature extreme was exceeded just a year ago when Coggon reported -40 degrees on January 16. However, the Estherville wind chill reading was the lowest recorded in Iowa since February 1, 1996. After the very cold start to the month, the statewide average temperature was above normal every day from the 13<sup>th</sup> through the 25<sup>th</sup>, averaging 9.7 degrees above normal for this 13 day period. Highest temperatures were 45 degrees readings recorded at Ankeny, Donnellson, Keosauqua and Leon on the 13<sup>th</sup> and again at Burlington, Shenandoah and Sidney on the 23<sup>rd</sup>. A lower statewide calendar month maximum temperature has been recorded only twice in the past 138 years (40 degrees maximum in both January 1979 and December 1983). Colder weather returned with temperatures averaging below normal on each of the last six days of the month with Spencer and Sheldon recording lows of -17 degrees on the morning of the 29<sup>th</sup>.

**Heating Degree Days.** Home heating requirements, as estimated by heating degree day totals, averaged 9 percent more than normal, but 1 percent less than last January. Degree day totals thus far this heating season are running 2 percent more than normal and 2 percent less than last season at this time.

**Precipitation.** January brought only near normal snowfall totals, but much of it came from only two strong storms. The first event on the 6<sup>th</sup>-7<sup>th</sup> brought a statewide average of 5.1 inches of snow and was accompanied by wind gusts of 35 to 45 mph. Greatest snow fell from northwest, through central, into east central Iowa where up to 8 inches accumulated, while the highest winds were over the northwest. The second storm brought a statewide average of only 2.1 inches of snow. However, the storm was accompanied by widespread wind gusts over 40 mph with Sioux City reporting winds to 55 mph. Meanwhile another storm brought freezing rain to nearly all of Iowa on the 20<sup>th</sup>. Rain amounts exceeded an inch over parts of far southeastern Iowa but the worst icing conditions were over west central and central parts of the state where lower temperatures allowed an icy glaze of about one-half inch thick. The ice, along with wind gusts over 35 mph, brought down many tree limbs and power lines. Another storm on the 23<sup>rd</sup>/24<sup>th</sup> brought an average of nearly one-half inch of rain to the state with greatest amounts exceeding an inch over some far eastern Iowa locations. Fortunately temperatures were mostly above freezing with this storm. However, these two rain events created a very icy crust on the considerable snowcover that remained over the northwestern two-thirds of Iowa. This icy surface may have enhanced the blowing snow conditions of the storm that came on the 24<sup>th</sup>-25<sup>th</sup>. This again resulted in blizzard conditions over most of northern and central Iowa. There was a statewide average of 7.7 inches of snowfall during January. This total is 0.5 inches less than normal, yet ranks 48<sup>th</sup> greatest January total among 123 years of records. Thanks to the near-record December 2009 snowfall, the season-to-date statewide average snowfall amount stands at 31.6 inches or 12.2 inches above normal for the fourth highest total of record at this point in the season.

**Outlook.** El Niño typically brings Iowa milder than normal mid-winter temperatures; however, such conditions have yet to materialize this winter. Snow cover remains over all but far southeastern Iowa and is substantial over about the northwestern one-half of the state. Although only temporary, a large area of snow and ice extends across the southern plains states through the mid-Mississippi valley thanks to the passage of a major winter storm in late January. The snow cover will slow the rate of warming across Iowa but does not guarantee a continuation of a colder than normal weather pattern. A growing worry is the extensive moisture-rich snow pack across Iowa. The amount of water stored in the snowpack varies from 2 to 4 inches over most of the northwest one-half of the state. River levels are at near-record levels for this time of year over most of Iowa. Soil moisture levels are also above normal statewide, with the wettest conditions over the east central and southeast districts. All of these factors increase the odds of substantial flooding this spring. The one bit of good news is that frost depths are unusually shallow (thanks to heavy snow coming prior to the arrival of very cold weather), thus some of the snow water may be able to percolate into the soil. The later the snow cover remains into the spring the greater the odds of flooding. This is because the odds of a major warm-up increase as the days grow longer, thus melting the snow more rapidly. Also, the probability of receiving substantial rainfall increases as we pass later in the spring, enhancing the chances of substantial rainfall coinciding with the snow melt.



Snow Cover and Frost Penetration for the Month of December

Item	Districts									State	Last Month	Last Year
	NW	NC	NE	WC	C	EC	SW	SC	SE			
Snow cover	23	16	8	14	16	6	13	7	7	12	15	9
Frost penetration	13	11	11	10	10	10	9	9	9	10	11	19

**January Weather Summary For Iowa Agricultural Statistics Service  
Prepared by AWIS, Inc.**

STATION	AIR TEMPERATURE				PRECIPITATION			HDD TOT	HDD DFN	DAYS OF 32 COLD	DAYS OF 28 COLD
	HI	LO	AVG	DFN	TOTAL	DFN	DAYS				
<b>North West District</b>											
Estherville	35	-28	10	-3	0.28	-0.43	2	1,711	87	31	30
Sioux Center	35	-30	12	-4	1.08	0.45	6	1,639	106	31	30
Spencer	35	-33	10	-5	0.53	0.01	3	1,699	113	31	30
Spirit Lake	35	-29	10	-3	0.61	0.05	5	1,701	309	31	30
<b>North Central District</b>											
Britt	35	-27	8	-7	0.91	0.00	6	1,761	183	31	30
Humboldt	35	-24	10	-7	1.39	0.66	8	1,689	162	31	30
Mason City	34	-21	11	-3	0.44	-0.45	5	1,670	63	31	29
Osage	35	-19	10	-5	0.86	-0.01	5	1,714	190	31	30
<b>North East District</b>											
Decorah	36	-24	14	-2	0.86	0.12	6	1,583	39	31	29
Dubuque	37	-10	16	0	1.72	0.46	7	1,510	-15	30	28
Elkader	37	-24	12	-5	1.13	0.17	6	1,638	296	30	29
Fayette	36	-17	12	-4	1.12	0.18	7	1,649	99	31	31
Waterloo	37	-19	13	-2	0.83	0.03	5	1,605	41	31	28
<b>West Central District</b>											
Carroll	36	-22	12	-6	1.84	1.07	8	1,632	139	31	29
Castana	39	-20	13	-7	1.26	0.71	10	1,623	65	31	28
Guthrie Center	40	-21	13	-6	1.65	0.81	6	1,605	145	31	28
Harlan	37	-19	13	-7	1.67	1.00	9	1,618	104	31	28
Jefferson	37	-24	12	-6	1.44	0.67	7	1,640	147	31	30
Logan	40	-29	12	-7	1.14	0.36	7	1,635	192	31	28
Rockwell City	37	-25	11	-7	1.86	1.21	9	1,656	179	31	27
Sac City	34	-24	10	-6	1.46	0.78	5	1,687	157	31	31
Sioux City	38	-22	14	-4	2.01	1.46	12	1,562	94	30	28
<b>Central District</b>											
Boone	40	-23	12	-5	1.54	0.63	9	1,633	134	31	29
Des Moines	44	-15	18	-3	1.33	0.37	5	1,464	50	29	25
Grundy Center	37	-18	12	-3	0.87	0.01	5	1,627	69	30	28
Marshalltown	38	-16	14	-4	0.83	0.00	5	1,582	91	30	26
Newton	40	-18	13	-6	1.77	0.93	6	1,595	147	31	28
Perry	41	-22	13	-5	1.44	0.74	9	1,602	122	31	29
Toledo	38	-18	12	-5	1.12	0.27	7	1,624	116	31	28
<b>East Central District</b>											
Cedar Rapids	39	-14	14	-4	0.79	-0.22	3	1,563	94	30	27
Davenport	39	-16	17	-4	1.51	0.44	7	1,480	88	28	25
Iowa City	39	-15	17	-5	0.85	-0.15	4	1,491	115	29	27
Lowden	38	-17	14	-4	2.39	1.20	7	1,592	126	30	28
Maquoketa	37	-15	14	-4	1.55	0.44	5	1,587	97	30	28
Muscatine	42	-13	17	-5	2.05	0.80	7	1,499	-59	30	27
<b>South West District</b>											
Atlantic	40	-22	13	-6	1.08	0.36	5	1,600	145	31	28
Clarinda	43	-25	14	-6	1.38	0.50	6	1,564	169	31	28
Glenwood	42	-17	15	-6	0.89	0.15	6	1,536	161	31	29
Red Oak	44	-23	15	-7	1.20	0.40	7	1,540	190	31	28
Sidney	45	-14	16	-6	1.37	0.68	7	1,502	143	31	27
<b>South Central District</b>											
Allerton	43	-16	16	-5	0.92	-0.08	5	1,511	-154	30	28
Beaconsfield	42	-18	15	-6	0.78	0.08	6	1,552	151	31	28
Chariton	43	-18	16	-4	1.26	0.31	8	1,513	92	31	27
Indianola	42	-21	14	-6	2.36	1.40	7	1,566	159	31	28
Leon	45	-18	16	-5	0.91	-0.06	7	1,507	114	30	26
<b>South East District</b>											
Bloomfield	43	-13	17	-6	1.03	-0.09	7	1,490	176	30	26
Burlington	45	-10	20	-2	1.28	0.04	3	1,394	53	28	25
Ottumwa	42	-13	17	-5	0.93	-0.05	5	1,481	111	29	25
Washington	44	-18	16	-7	2.09	1.00	8	1,523	9	30	27

Precipitation (rain, melted snow or ice) in inches. Precipitation Days = Days with precipitation of 0.01 inch or more. Air Temperatures in Degrees Fahrenheit. Copyright 2010: AWIS, Inc. All Rights Reserved.