

# Iowa Crops & Weather



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## ICY DECEMBER

Ice covered a majority of the state during the month of December. Temperatures remained cold keeping ice prevalent. Utilization of stubble fields and grain movement was limited due to ice coverage.

The average depth of **snow cover** for the month of December was 7 inches, well above last year's average of no snow cover. **Frost penetration** averaged 9 inches compared to last year's 2 inches. **Soil moisture availability** rated 0 percent very short, 5 percent short, 78 percent adequate, and 17 percent surplus. **Grain movement** for the state was 27 percent none, 32 percent light, 36 percent moderate, and 5 percent heavy.

**Availability of hay and roughage supplies** was 19 percent short, 77 percent adequate, and 4 percent surplus. **Quality of hay and roughage supplies** was 8 percent poor, 42 percent fair, and 50 percent good. **Utilization of stubble fields for grazing** rated 45 percent none, 33 percent limited, 15 percent moderate, and 7 percent extensive.

**Hog and pig losses** in December were 19 percent below average, 79 percent average, and 2 percent above average. **Cattle and calf losses** were 21 percent below average, 75 percent average, and 4 percent above average.

### IOWA PRELIMINARY WEATHER SUMMARY, DECEMBER, 2007

Provided by State Climatologist Harry Hillaker

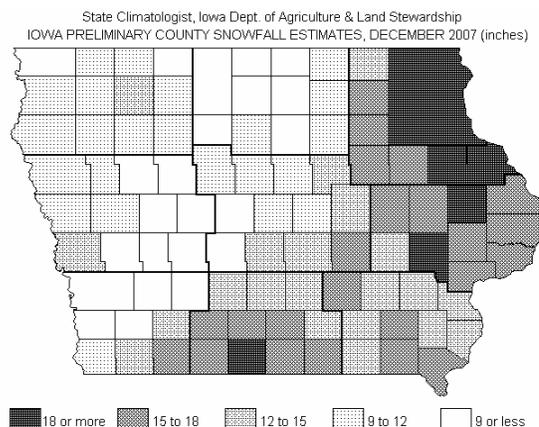
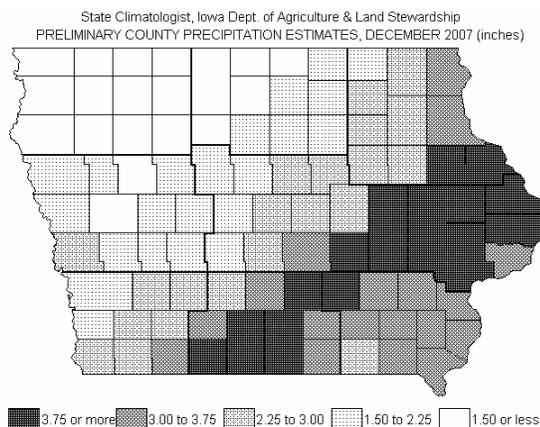
**General Summary.** Temperatures across Iowa averaged 20.6 degrees or 2.0 degrees below normal while precipitation totaled 2.57 inches or 1.34 inches above normal. This ranks as the 39<sup>th</sup> coldest and 2<sup>nd</sup> wettest December among 135 years of state records. Only December 1982 was wetter with an average of 3.43 inches of precipitation.

**Temperatures.** There were relatively few temperature extremes during the month as only three days averaged more than ten degrees from normal (8<sup>th</sup> and 9<sup>th</sup> on the cold side of normal and the 21<sup>st</sup> on the warm side). Colder than normal weather was the rule for most of the first one-half of the month with only 3 of the first 17 days of December averaging warmer than normal. Conversely, only 5 days among the final two weeks were colder than usual. Temperature extremes ranged from highs of 59 degrees on the 1<sup>st</sup> at Lamoni, Leon and Mount Ayr to a low of -11 degrees at Cresco on the 6<sup>th</sup>. Estherville recorded a monthly maximum temperature of 33 degrees, yet only experienced two dates with minimum temperatures dipping below zero.

**Heating Degree Day Totals.** Home heating requirements, as estimated by heating degree day totals, averaged 31 percent greater than last December, but only 4 percent more than normal. Thus far this season (since July 1) heating requirements are running 3 percent more than last season at this time and 7 percent less than normal.

**Precipitation.** The big weather story of the month was the frequent winter storms. After the 3<sup>rd</sup> driest November on record, Mother Nature wasted to time in setting a different tone for December. A major storm system affected all of Iowa on the 1<sup>st</sup>. Much of the state saw from one-half to one inch of freezing rain. Temperatures warmed well above freezing over southern Iowa, and briefly above freezing in the north, to allow the freezing rain to change to rain by the night of the 1<sup>st</sup>. Extreme northern Iowa recorded 2 to 6 inches of snow in addition to the rain. An average of 1.07 inches of precipitation fell across the state with this first storm with a maximum amount of 1.84 inches reported at Waukon. Northeast Iowa caught the edge of a large storm system on the night of the 4<sup>th</sup> with 3 to 6 inches of snowfall. Snow fell statewide on the 6<sup>th</sup> with 3 to 5 inch amounts common in the southwest. Another snow event affected most of the state on the 8<sup>th</sup> with 2 to 5 inch amounts common in the northwest. The most destructive storm of the month began late on the 10<sup>th</sup> in southwest Iowa and spread over all but the far northwest on the 11<sup>th</sup>. Freezing rain was the rule for the southeast one-half of the state with this storm. Ice accumulations of more than an inch were common from south central to east central Iowa. Unlike the ice storm of the 1<sup>st</sup>, this event saw temperatures remain below freezing excepting a brief thaw in the extreme southeast. Damage to trees and power lines was severe, especially in south central Iowa where Mount Ayr reported 1.90 inches of freezing rain. Damage could have been much worse except that winds remained fairly light during and after the storm. This storm brought a statewide average of 0.64 inches of precipitation. Yet another storm brought 3 to 5 inches of snow across the southern one-third of Iowa late on the 14<sup>th</sup> and through the 15<sup>th</sup>. The most disruptive snow storm of the month came on the 22<sup>nd</sup> and into the 23<sup>rd</sup> across southeastern and eastern Iowa. Heaviest snowfall of 6 to 10 inches fell from south central into northeast Iowa and, unlike earlier events in the month, this snow was accompanied by strong winds of 25 to 40 mph. Christmas Day brought 4 to 6 inches of snow to extreme northwestern Iowa. Snow fell across the southeast two-thirds of the state on the 28<sup>th</sup> with 4 to 6 inches in the far east. Finally 2 to 6 inches of snow fell over far southern/southeastern Iowa on New Year's Eve. The statewide average snowfall was 12.8 inches or 5.5 inches greater than normal and ranks as the 9<sup>th</sup> highest December total among 121 years of state records. The greatest snowfall was reported in northeast Iowa where Lansing reported 27.6 inches for the month. At Dubuque Airport a total of 4.61 inches of precipitation was reported during the month, their highest December total among 155 years of record (old record of 4.14 inches in 1982).

**Annual Summary.** Iowa's statewide average temperature for 2007 was 48.9 degrees or 1.1 degrees above normal while precipitation totaled 43.34 inches or 9.26 inches above normal. This ranks as the 43<sup>rd</sup> warmest and 4<sup>th</sup> wettest year among 135 years of state records. This was the ninth year among the past ten to average warmer than normal. Only 1993 (48.22 inches), 1881 (44.16) and 1902 (44.04) brought more precipitation.



### Snow Cover and Frost Penetration for the Month of December 2007

Item	Districts									State	Last Month	Last Year
	NW	NC	NE	WC	C	EC	SW	SC	SE			
	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches	Inches
Snow cover	8	5	11	5	7	9	5	8	8	7	NA	0
Frost penetration	17	12	11	12	9	9	7	3	5	9	NA	2

**December 2007 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				
North West District											
Estherville	33	-4	17	-2	0.64	-0.09	6	1,490	22	31	31
Sioux Center	35	-4	18	-3	2.18	1.34	5	1,446	54	31	31
Spencer	33	-4	17	-2	0.51	-0.20	4	1,476	34	31	31
Spirit Lake	34	-1	18	1	1.58	0.69	4	1,462	242	31	31
North Central District											
Britt	35	1	16	-4	2.11	0.75	6	1,516	102	31	31
Humboldt	37	3	18	-4	1.48	0.47	7	1,446	48	31	31
Mason City	36	-1	18	0	0.90	-0.31	7	1,449	3	30	29
Osage	37	-1	17	-3	1.80	0.55	9	1,479	95	31	30
North East District											
Decorah	38	-9	19	-2	1.46	0.25	11	1,403	31	31	30
Dubuque	38	-2	22	1	3.29	1.33	13	1,329	-18	29	28
Elkader	42	-10	19	-3	3.05	1.65	13	1,412	229	30	30
Fayette	36	-3	18	-3	2.17	0.76	9	1,449	71	31	30
Waterloo	39	0	21	1	1.66	0.36	10	1,370	-16	30	28
West Central District											
Carroll	39	1	20	-2	2.07	1.11	8	1,394	36	31	31
Castana	42	2	20	-4	1.50	0.67	8	1,396	3	31	31
Guthrie Center	44	0	20	-3	2.46	1.18	7	1,383	69	31	31
Harlan	43	1	20	-4	1.90	0.89	9	1,387	17	31	31
Jefferson	42	3	20	-1	2.16	1.20	9	1,376	18	31	31
Logan	44	-4	19	-4	2.06	0.99	8	1,407	94	31	31
Rockwell City	37	2	18	-5	1.70	0.77	5	1,452	116	31	31
Sac City	40	2	19	-2	1.61	0.47	7	1,428	38	31	31
Sioux City	40	-1	20	-3	1.40	0.62	11	1,396	57	31	31
Central District											
Boone	42	3	20	-2	1.98	0.64	10	1,387	43	31	31
Des Moines	43	7	24	0	2.56	1.24	11	1,252	-8	30	27
Grundy Center	39	2	19	-2	2.15	0.86	8	1,433	41	30	30
Marshalltown	40	6	22	-1	1.44	0.15	9	1,333	0	30	28
Newton	42	4	21	-3	3.74	2.61	10	1,367	74	31	30
Perry	43	3	21	-3	1.94	0.88	9	1,373	48	31	31
Toledo	40	5	20	-3	1.99	0.74	8	1,387	49	31	30
East Central District											
Cedar Rapids	39	5	22	-1	2.15	0.56	12	1,321	11	30	28
Davenport	47	6	26	0	3.02	1.10	13	1,211	-9	28	28
Iowa City	39	3	24	-3	2.88	1.32	10	1,262	50	29	28
Lowden	40	-3	21	-3	4.42	2.31	15	1,370	70	31	30
Maquoketa	42	2	20	-3	4.17	2.37	16	1,377	72	31	30
Muscatine	46	9	26	-1	4.18	2.21	11	1,208	-182	29	29
South West District											
Atlantic	50	2	22	0	2.06	0.97	8	1,311	-10	31	31
Clarinda	56	-2	21	-4	4.24	3.06	11	1,345	93	31	31
Glenwood	55	-5	22	-3	1.70	0.52	7	1,328	94	31	31
Red Oak	55	-4	23	-3	2.50	1.29	9	1,301	78	31	31
Sidney	55	6	24	-3	1.01	-0.15	6	1,275	50	31	30
South Central District											
Allerton	55	3	23	-3	3.56	2.25	11	1,289	-191	30	30
Beaconsfield	56	3	22	-3	4.29	3.18	12	1,319	67	31	29
Chariton	55	-1	22	-3	3.97	2.61	15	1,317	52	31	30
Indianola	46	5	22	-3	2.75	1.37	10	1,326	63	31	30
Leon	59	1	24	-2	3.95	2.59	12	1,277	28	30	30
South East District											
Bloomfield	55	2	24	-4	2.96	1.40	13	1,255	88	30	29
Burlington	52	12	30	3	2.30	0.32	10	1,092	-94	28	22
Ottumwa	45	2	25	-2	2.51	1.08	11	1,233	18	28	28
Washington	46	1	23	-4	3.74	2.05	11	1,288	-82	30	29

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 2008: AWIS, Inc. All Rights Reserved.

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