



Iowa Crop Progress & Condition

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Cooperating with the Iowa Department of Agriculture and Land Stewardship

For the month of December, 2015
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Iowa experienced above normal temperatures throughout December, however operations struggled to catch up on fieldwork activities as the month of December also saw much higher than normal precipitation totals according to the USDA, National Agricultural Statistics Service. Scattered reports of unfinished fall anhydrous and manure application were received.

As December came to a close, topsoil moisture levels rated 0 percent very short, 1 percent short, 68 percent adequate, and 31 percent surplus. The east central portion of Iowa reported the highest moisture level with 58 percent rated surplus.

Grain movement rated 35 percent none, 41 percent light, 21 percent moderate, and 3 percent heavy. This December nearly one-quarter of grain movement was rated moderate to heavy, while one-third of the movement in December 2014 was rated moderate to heavy. Eastern Iowa recorded the most grain movement rated heavy for the month of December, averaging 4 percentage points more than western Iowa and 5 percentage points more than central Iowa.

Availability of hay and roughage supplies was 0 percent very short, 4 percent short, 85 percent adequate, and 11 percent surplus. Livestock conditions were reported as difficult at the beginning of December, with cattle producers experiencing muddy pastures and feedlots due to the warmer than normal temperatures and above average precipitation. As December came to a close many livestock producers reported normal conditions as the ground was able to freeze.

Post-Harvest Conditions as of December 31, 2015

Item	None	Light	Moderate	Heavy
	(Percent)	(Percent)	(Percent)	(Percent)
Grain movement...	35	41	21	3

Hay/Roughage Supplies as December 31, 2015

Item	Very Short	Short	Adequate	Surplus
	(percent)	(percent)	(percent)	(percent)
Hay/Roughage	0	4	85	11

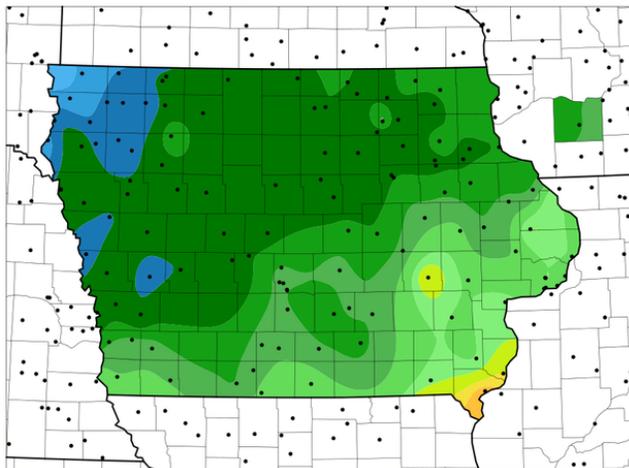
Average Snow Depth for the Month of December

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 depth	7.0	6.0	7.0	5.0	6.0	4.0	3.0	4.0	4.0	5.0	(NA)	1.0

(NA) Not available.

Accumulated Snowfall (in)

December 01, 2015 to December 31, 2015

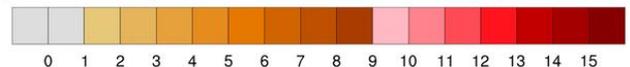
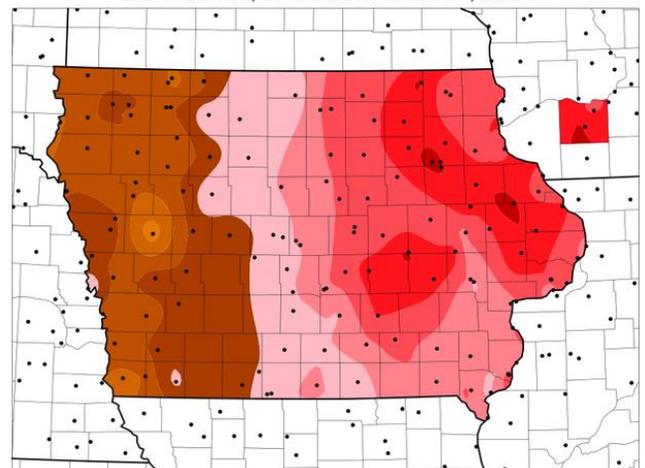


Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI,

Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
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Average Temperature (°F): Departure from 1981-2010 Normals

December 01, 2015 to December 31, 2015

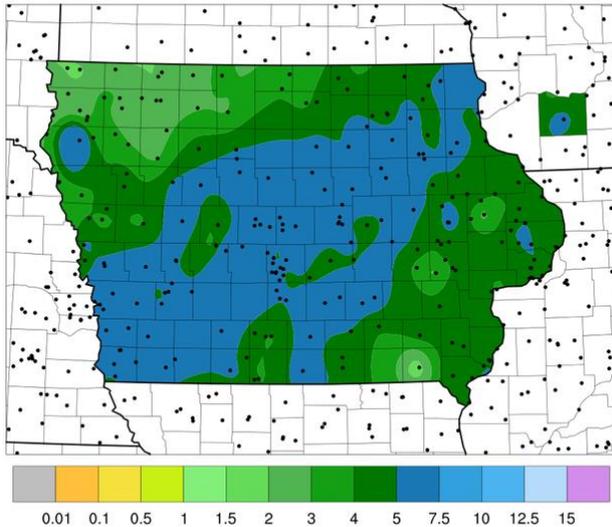


Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI,

Midwestern Regional Climate Center
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Accumulated Precipitation (in)

December 01, 2015 to December 31, 2015

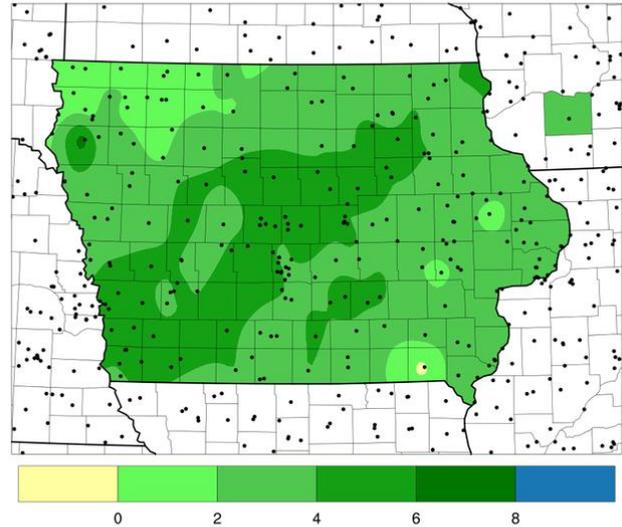


Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI,

Midwestern Regional Climate Center
cli-MATE: MRCC Application Tools Environment
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Accumulated Precipitation (in): Departure from 1981-2010 Normals

December 01, 2015 to December 31, 2015



Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI,

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

General Summary. Temperatures averaged 33.0° or 10.1° above normal while precipitation totaled 5.04 inches or 3.70 inches above normal. This ranks as the wettest and 7th warmest December among 143 years of records. The previous wettest December was recorded in 1982 with 3.43 inches. The last warmer December was recorded in 1965.

Temperatures. Unseasonably warm weather was the rule through nearly all of December. Only one day (the 31st) brought a statewide average temperature that was below normal. This warm pattern began on August 31 with only 25 of the last 123 days of 2015 averaging below normal. The final one-third of the year averaged 5.8° above normal. Only 1931 was warmer for this late year period (when September, November and December all ranked in the top 5 warmest for their respective months). Temperature extremes for the month ranged from highs of 64° at Donnellson and Keokuk on the 12th, Bloomfield and Keosauqua on the 13th and Keosauqua again on the 23rd while Sheldon, Sioux Center and Spencer recorded the lowest temperatures with -6° readings on the morning of the 31st. There were five days (10th, 12th, 13th, 14th and 23rd) during the month when temperatures exceeded 60° somewhere in the state while only two days (3rd and 31st) brought sub-zero readings.

Heating Degree Days. Home heating requirements, as estimated by heating degree day totals, averaged 24% less than normal and 13% less than last December. Heating degree day totals so far this season (since July 1) are running 23% less than normal and last year at this time.

Precipitation. A storm system brought heavy snow to far northwest Iowa on the last day of November with light rain and snow persisting over much of Iowa into the first two days of December. There was a welcome mostly dry period from the 3rd through the 11th. However, an unseasonably warm and humid air mass brought widespread heavy rainfall from the evening of the 12th through the morning of the 14th. An amazing statewide average of 2.80 inches of rain fell during this event. Only three winter *months* (December 1982, February 1881 and February 1915) have brought more precipitation to Iowa than this one storm system. Grundy Center recorded 5.98 inches of rain during this storm which easily exceeded their December monthly record precipitation total of 3.74 inches. Another storm system brought widespread rain on the 23rd with some central and northeast Iowa locations receiving over an inch of rain. The extended period of unseasonably warm and wet weather appeared to make a White Christmas impossible. However, a compact Christmas Eve storm system brought snow from southwest, through central and into northeast Iowa. Heavy snow fell from Council Bluffs to Ames with 14 inches reported at Persia in Harrison County. Finally, another large storm system brought heavy winter precipitation to much of Iowa on the 28th into the morning of the 29th. Heavy snow fell across the northern one-third of Iowa where 6 to 10 inch amounts were common. Meanwhile copious amounts of sleet and freezing rain fell over much of east central and southeast Iowa. Monthly precipitation totals (rain plus the liquid equivalent of snow and sleet) varied from 1.72 inches at Rock Rapids to 8.20 inches at Grundy Center. Grundy Center's total has been exceeded only once in Iowa during December when Keokuk recorded 8.56 inches in 1873. Dozens of cities set records for greatest December precipitation totals with a partial list below. Cherokee, Shenandoah and Storm Lake set record maximum totals for both November and December.

City	Dec. 2015 (inches)	Previous Dec. Record	Period of Record
Grundy Center	8.20	3.74 in 1982	123 years
Denison	7.15	3.43 in 1984	120 years
Glenwood	6.84	4.19 in 1984	127 years
Atlantic	6.62	3.54 in 1982	126 years
Clarinda	6.16	4.73 in 1913	132 years
Carroll	6.09	3.88 in 1931	128 years
Waterloo	5.92	3.77 in 1982	132 years
Logan	5.80	4.76 in 1984	146 years
Oskaloosa	5.67	4.16 in 2007	137 years

Marshalltown	5.60	3.41 in 1982	134 years
Iowa Falls	5.56	4.47 in 1982	131 years
Belle Plaine	5.49	3.31 in 2007	126 years
Dakota City	5.46	3.72 in 2009	129 years
Des Moines	5.44	3.72 in 1931	140 years
Sac City	5.22	4.40 in 1871	140 years
Storm Lake	4.80	2.46 in 1931	126 years
Decorah	4.78	3.29 in 2010	129 years
Indianola	4.77	3.90 in 2009	129 years
Cedar Rapids	4.49	3.84 in 1982	133 years
Charles City	4.42	3.59 in 1891	134 years
Mason City	4.22	3.26 in 1982	117 years
Ottumwa	4.03	3.95 in 1895	125 years

December snow totals varied from only a dusting in extreme southeast Iowa to 25.9 inches at Rock Rapids. The statewide average snowfall was 10.0 inches or 1.7 inches above normal and ranks as the 29th highest December total among 129 years of records.

Outlook. The new year is expected to begin with a period of near seasonal temperatures and mostly dry weather for the first week of January. However, the second week of the month looks to turn wetter with below normal temperatures predominating for much of the mid portion of the month.