



## PRELIMINARY IOWA MONTHLY WEATHER SUMMARY – OCTOBER 2016

**General Summary.** Iowa temperatures averaged 55.3° or 4.5° above normal while precipitation totaled 2.07 inches or 0.54 inches less than normal. This ranks as the 23<sup>rd</sup> warmest and 70<sup>th</sup> driest October among 144 years of records. A warmer October was last recorded in 2007.

**Temperatures.** Warmer than normal weather was the rule for most of October as only six days (7<sup>th</sup>-8<sup>th</sup>, 11<sup>th</sup>-12<sup>th</sup> and 20<sup>th</sup>-21<sup>st</sup>) during the month averaged cooler than usual. Temperatures averaged ten or more degrees above normal on the 4<sup>th</sup>, 11<sup>th</sup>, 15<sup>th</sup>-17<sup>th</sup> and 28<sup>th</sup>-29<sup>th</sup> while the most abnormally cool day was the 13<sup>th</sup> at nine degrees below normal. Burlington reported the highest temperature of the month with a 91° reading on the 17<sup>th</sup> when daily record high temperatures were recorded at numerous locations across the state. Meanwhile, Iowa's first freeze of the season was recorded at Little Sioux on the morning of the 7<sup>th</sup>. The first hard freeze of the fall occurred over much of the northwest two-thirds of Iowa on the morning of the 13<sup>th</sup> with the lowest temperature recorded at Battle Creek with 23°. However, by month's end 12% of the state, mostly in far eastern and southeastern Iowa, had yet to see a temperature of 32° or lower. Not since 1998 (32%) has more of the state entered November without a freeze.

**Heating Degree Day Totals.** Home heating requirements, as estimated by heating degree day totals, averaged 32% less than normal and 18% less than last year.

**Precipitation.** A drier than normal weather pattern prevailed across most of Iowa during October. Greater than normal rain totals were mostly confined to about the northern two or three tiers of counties. Northeastern Iowa, which had been plagued with numerous heavy rain events in recent months finally got a break from the wet weather from the last week in September until October 25-26 when widespread rains of two to nearly three inches occurred. October rainfall was less than one-half of normal over much of central and south central Iowa with Gilbert in Story County reporting the least rain at 0.54 inches. Keokuk, thanks largely to a very isolated downpour of 4.98 inches of rain on the morning of the 5<sup>th</sup>, recorded the most rain during the month with 6.93 inches. River flows at month's end continue at well above seasonal normals along most of Iowa's major rivers with below normal flows confined to smaller watersheds in south central Iowa. While October precipitation was not excessive, it was enough to push the 2016 annual totals to new records at Osage and New Hampton. These two locations join Charles City, Decorah and Cresco which surpassed their previous annual records in September.

Station	2016 Total	Previous Annual Record	Period of Record
Charles City	54.82 inches	51.35 in 1999	133 years
Decorah	54.02 inches	48.74 in 2007	128 years
Cresco	53.51 inches	47.87 in 1951	110 years
New Hampton	52.77 inches	51.88 in 2007	110 years
Osage	48.48 inches	45.72 in 1999	112 years

**Outlook.** The National Weather Service forecasts strongly favor warmer than normal weather through the first one-half of November as well as slightly favoring drier than normal weather for the same time period. There are some indications for a return to more seasonal weather during the second one-half of November. La Niña conditions are expected to be in place shortly in the Pacific Ocean. Historically La Niña favors cooler and wetter than normal weather for the mid-winter season along the U.S.–Canadian border from the Pacific Northwest to the western Great Lakes and warmer and drier than typical weather across the southern United States. Iowa is located between these two geographic areas thus the mid-winter weather predictability is minimal for us at this point in time. The last La Niña event (2011-2012 brought a very mild winter to Iowa while the one before that (2010-2011) was colder and snowier than normal in the state.

Harry J. Hillaker, State Climatologist  
Iowa Dept. of Agriculture & Land Stewardship  
Wallace State Office Bldg.  
Des Moines, IA 50319  
Telephone: (515) 281-8981  
E-mail: Harry.Hillaker@IowaAgriculture.gov

# October 2016

## WEATHER BY DISTRICTS

DISTRICT	TEMPERATURE (F)		HEATING DEGREE DAYS				PRECIPITATION (inches)			
	October 2016 Average	Departure*	October 2016 Average	Departure*	Since Jul., 1, 2016 Average	Departure*	October 2016 Average	Departure*	Since Jan.1, 2016 Average	Departure*
Northwest	52.5	+3.5	395	-109	485	-207	2.92	+0.68	35.53	+7.57
North Central	52.9	+4.0	368	-138	443	-260	2.55	+0.18	42.76	+11.56
Northeast	54.0	+4.4	349	-135	412	-253	2.29	-0.29	44.21	+11.70
West Central	54.3	+3.8	332	-125	410	-202	1.87	-0.54	33.29	+3.03
Central	55.6	+4.9	290	-162	339	-265	1.44	-1.19	34.67	+1.77
East Central	56.7	+5.0	265	-158	300	-258	2.31	-0.58	36.36	+3.84
Southwest	57.1	+4.7	252	-151	303	-215	1.68	-0.93	38.47	+6.01
South Central	57.6	+5.3	243	-163	290	-242	1.38	-1.47	30.14	-3.93
Southeast	58.6	+5.0	219	-150	248	-223	2.09	-0.97	29.73	-4.53
STATE	55.3	+4.5	306	-143	365	-237	2.07	-0.54	36.18	+4.28

\* Departures are computed from 1981-2010 normals.

Monthly estimates are preliminary and are like

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

State Climatologist, Iowa Dept. of Agriculture & Land Stewardship

### PRELIMINARY COUNTY PRECIPITATION ESTIMATES, OCTOBER 2016 (inches)

