



IOWA ANNUAL WEATHER SUMMARY – 2016

General Summary. Temperatures averaged 50.6° or 2.5° above normal while precipitation totaled 38.78 inches or 3.51 inches above normal. This ranks as the 5th warmest and 19th wettest year among 144 years of records.

Temperatures. Above normal temperatures were the rule for much of the year, with warmer than normal days outnumbering cooler than normal ones by a count of 245 to 121. February, March, June, September, October and November all ranked within the warmer 25% of the historical record for their respective months. January, May, July and December were the only cooler than normal months, and these were all less than one degree below normal. Nevertheless, summer extremes of temperature were less than usual. The statewide maximum temperature was a 100° reading at Little Sioux on June 11th while the statewide average of days at or above 90° was 15 days, or eight days fewer than usual. On the other end of the spectrum the year's lowest temperature was recorded at Rock Rapids on December 18 with -29°. Statewide there was an average of 14 days with daily minimum temperatures of zero degrees or lower compared to a normal of 18 such days.

Precipitation. Iowa entered 2016 with very wet conditions thanks to a record wet November-December period in 2015 and a wet 2015 generally over much of the state. Precipitation during the first one-half of 2016 was mostly near to below normal over Iowa. However, a notable exception was the western one-quarter of the state where very wet weather prevailed from the second one-half of April through late May. As a result spring planting was delayed over the far west, but was accomplished well ahead of normal over much of the remainder of Iowa. June was unseasonably warm statewide and very dry over much of the southwest two-thirds of the state. The U.S. Drought Monitor had just over one-half of the state classified as abnormally dry by early July. However, rain became much more frequent during the second week of July and relatively wet weather prevailed over much of the state through late September. North central and northeast Iowa, however, first turned wet in June and was excessively wet in many areas each month through September. Two rain events were particularly noteworthy. On the night of August 23 up to 8.46 inches of rain fell in the Decorah area with record flooding resulting along portions of the Upper Iowa and Turkey Rivers. An even larger event was centered on September 22 when 10.56 inches of rain fell near Nora Springs in Floyd County. Record flooding resulted on the Shell Rock River with the second highest flood of record along the Cedar River. By the end of September record annual precipitation totals already had been recorded at Charles City, Decorah and Cresco. Record 2016 precipitation totals are listed below:

Station	2016 Total	Previous Annual Record	Period of Record
Charles City	58.58 inches	51.35 inches in 1999	133 years
Decorah	58.08	48.74 in 2007	128 years
Cresco	57.56	47.87 in 1951	110 years
New Hampton	57.11	51.88 in 2007	110 years
Osage	53.19	45.72 in 1999	112 years
Lake Mills	50.21	47.35 in 1993	62 years
Mason City Airport	47.74	46.76 in 1991	74 years
Mason City	46.36	45.63 in 1990	117 years

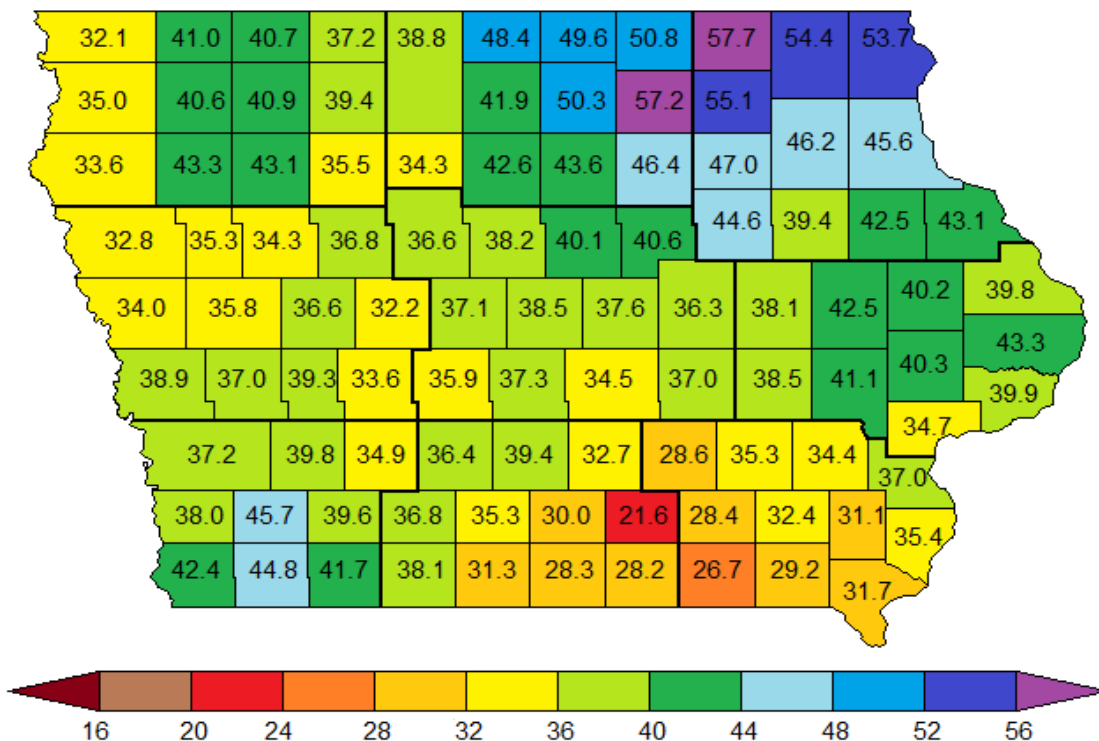


Meanwhile, while rain was persistent and heavy over much of north central and northeast Iowa during 2016, the opposite was the case over portions of south central and southeast Iowa. Annual precipitation totals were well below normal along and south of a line from Lamoni to Oskaloosa to Burlington. At Albia and Lake Rathbun Dam precipitation was below normal for every month of the year except August. Annual precipitation was more than one foot below normal at several south central Iowa locations. The lowest annual total was reported at Albia with 20.28 inches or 17.52 inches less than normal. Amazingly corn and soybean yields were excellent over much of this dry region thanks to abundant subsoil moisture reserves entering the growing season, timely planting, the lack of extreme heat and a few timely rain events during the summer. Statewide the USDA National Agricultural Statistics Service has estimated a record yield for both corn and soybeans in Iowa for 2016. The statewide average corn yield is estimated to have been 203.0 bushels per acre, 11.0 bushels per acre more than the previous record set in 2015. The Iowa soybean yield is estimated at 60.5 bushels per acre or 4.0 bushels per acre more than the record yield set in 2015.

Severe Weather. Preliminary data from the National Weather Service indicates that 43 tornadoes touched down in Iowa in 2016, six fewer than the average of the previous 30 years. Only two of these storms reached EF-2 strength, both in Benton County on July 17.

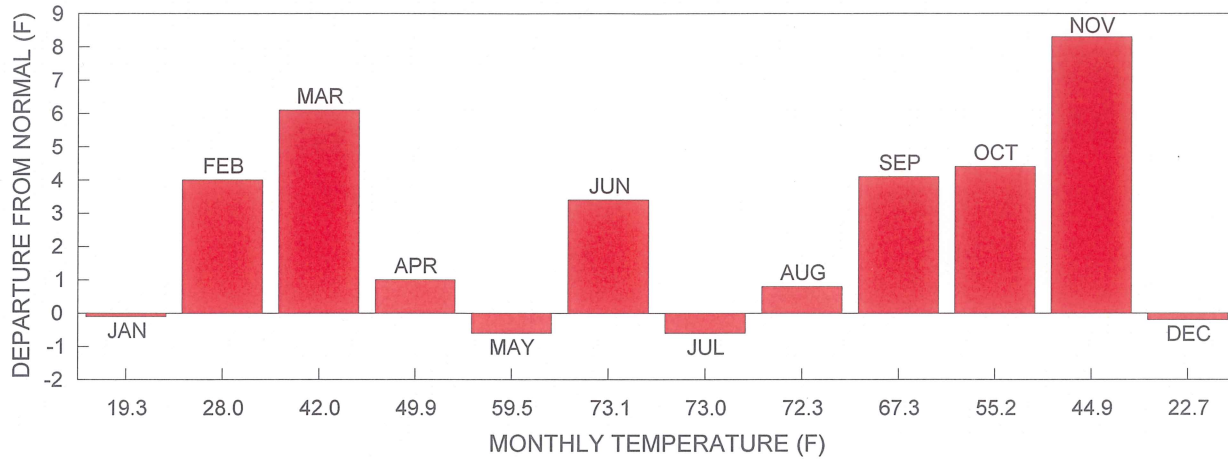
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State Climatologist, Iowa Dept. of Agriculture & Land Stewardship
COUNTY PRECIPITATION ESTIMATES, 2016 (inches)

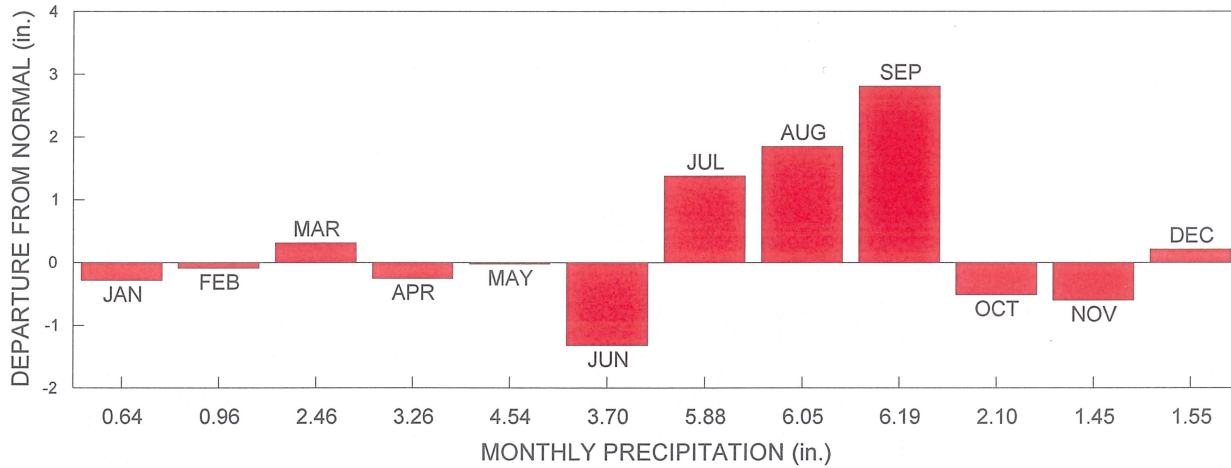


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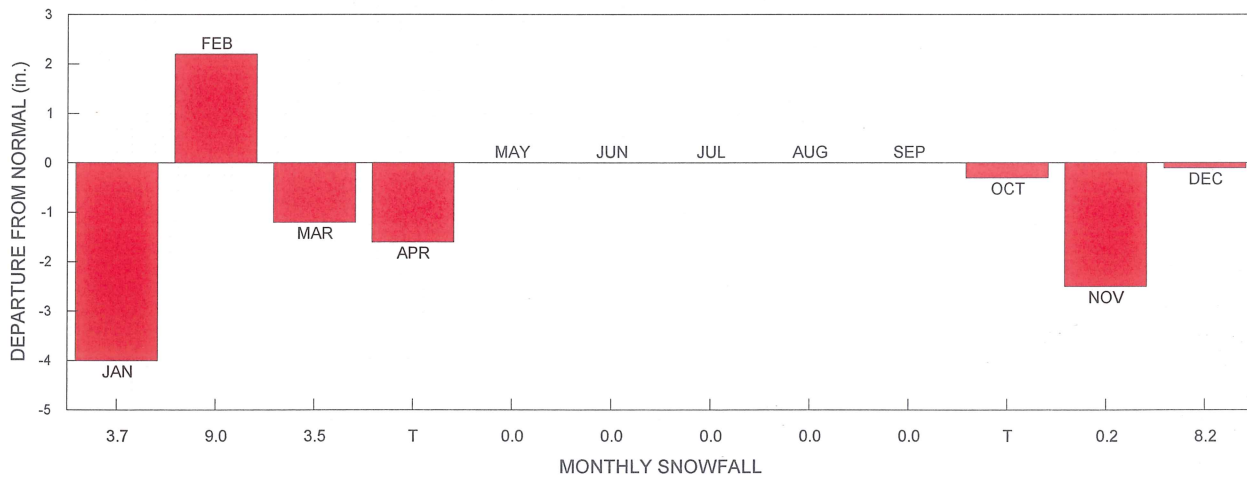
2016 MONTHLY TEMPERATURES



2016 MONTHLY PRECIPITATION



2016 MONTHLY SNOWFALL



IOWA PRELIMINARY ANNUAL WEATHER SUMMARY - 2016

2016 STATEWIDE MONTHLY TEMPERATURE EXTREMES							STATEWIDE MONTHLY RANK*	
MONTH	MAX TEMP	DAY	LOCATION	MIN TEMP	DAY	LOCATION	TEMPERATURE	PRECIPITATION
JANUARY	56	14th	Lamoni	-21	17th	Spencer	69th warmest	37th driest
FEBRUARY	75	27th	Sidney	-17	13th	Cresco	33rd warmest	69th driest
MARCH	80	7th	Sioux City	-6	2nd	Elkader	13th warmest	39th wettest
				-6	2nd	Stanley		
APRIL	85	3rd	Little Sioux	13	9th	Audubon	57th warmest	56th wettest
	85	25th	Donnellson					
MAY	90	3rd	Guttenberg	27	15th	Cresco	65th coolest	53rd wettest
	90	3rd	Hawarden	27	15th	Decorah		
	90	3rd	Marion	27	15th	Elkader		
JUNE	100	11th	Little Sioux	43	8th	Belle Plaine	15th warmest	45th driest
				43	8th	Elkader		
				43	8th	Grinnell		
JULY	97	20th	Sioux City	47	3rd	Cresco	50th coolest	18th wettest
	97	21st	Des Moines	47	3rd	Elkader		
	97	21st	Lamoni	47	3rd	Estherville		
	97	21st	Sioux City					
AUGUST	97	11th	Lamoni	46	21st	Battle Creek	58th warmest	14th wettest
				46	21st	Sheldon		
				46	21st	Spencer		
SEPTEMBER	94	6th	Burlington	38	29th	Sheldon	15th warmest	13th wettest
	94	21st	Algona	38	29th	Spencer		
	94	21st	Atlantic	38	30th	Spencer		
	94	21st	Clarion					
	94	21st	Indianola					
OCTOBER	91	17th	Burlington	23	13th	Battle Creek	23rd warmest	70th driest
NOVEMBER	81	1st	Donnellson	13	20th	Rock Rapids	2nd warmest	63rd driest
				13	21st	Cresco		
				13	21st	Elkader		
DECEMBER	60	25th	Keokuk	-29	18th	Rock Rapids	60th coolest	36th wettest
*Rankings based upon 144 years of data.							Data for September through December are preliminary	

State Climatologist, Iowa Dept. of Agriculture & Land Stewardship
PRECIPITATION TOTALS, DEPARTURE FROM NORMAL, 2016 (inches)

