



IOWA PRELIMINARY ANNUAL WEATHER SUMMARY – 2014

General Summary. Iowa temperatures averaged 45.4° or 2.7° below normal while precipitation totaled 39.61 inches or 4.34 inches below normal. This ranks as the 6th coolest and 15th wettest year among 142 years of records. A colder year was last recorded in 1917 and a wetter one in 2010.

Temperatures. The year began with the coldest winter season in 35 years. February was the coldest month of the year, however, January felt even colder owing to frequent windy conditions (windiest calendar month at Des Moines since March 1986). Elkader recorded Iowa's lowest temperature of the year with -29° readings on January 28 and February 11 while the lowest wind chills were a pair of -51° readings on January 6 at Mason City and Oelwein. The persistent cold, along with relatively dry soils, allowed the ground to freeze to unusually great depths. Soils under sod froze to depths of two to three feet and under roadways to as much as five and one-half feet and resulted in hundreds of water main breaks across the state. Soils finally thawed across southern Iowa in late March while some northern areas of the state remained frozen through the third week of April. A hard freeze was recorded over much of northwestern Iowa on May 16 with the temperature falling to 24° at Spencer. This was the lowest temperature recorded so late in the spring in Iowa since 1963. The late freeze did necessitate replanting of some soybeans as far south as the Missouri border. The year's highest temperatures were 97° readings at Clarinda, Shenandoah and Sidney on May 7. Statewide there was an average of only three days with daily temperatures reaching 90° or above compared to the normal of 23 such days. Iowa's earliest autumn freeze since 1986 impacted parts of northwestern Iowa on September 13. However, portions of southeast Iowa avoided a hard freeze until late in October. Overall, three months ranked among the ten coldest in Iowa with February seventh coldest among 142 years of record for that month, July the fifth coolest and November the fourth coldest. Only December averaged more than one degree warmer than normal.

Precipitation. Iowa entered the year with drought concerns, particularly over central and southeast sections, owing to the unusually dry weather prevailing during the second one-half of 2013. While much of Iowa recorded a very wet April, dry conditions persisted through May across the far northwest where Rock Rapids recorded their driest January through May period since 1963. However, northwest Iowa quickly collected their share of precipitation, and then some, during June. Rock Rapids received 11.04 inches of rain between June 14 and June 19. This 6-day total exceeded their highest calendar month rain total for any month among 116 years of records. Record flooding followed along the Rock River. Heavy rain was widespread across northern and eastern Iowa for the remainder of June with widespread flooding. June precipitation totals were above normal at every Iowa reporting point with Merville in Woodbury County reporting the most rain with 18.70 inches. The statewide average precipitation for June was 9.92 inches and was the fourth highest calendar month total among 142 years of state records. Fortunately, rain subsided greatly across most of the state in July and brought a relatively quick end to flooding issues across Iowa. Much of northeastern Iowa turned relatively dry during the mid to late summer and resulted in crop yields being trimmed from early expectations in those areas. However, very wet weather redeveloped across much of the southwest one-third of Iowa during August and persisted in the same areas through mid-October. At Greenfield 17.95 inches of rain fell during August. Finally, as the year drew to a close, December was notable for a lack of snow over much of the state. Parts of eastern Iowa recorded no measurable snow during the month. Annual precipitation totals varied from about 25 inches at Hawarden and Spirit Lake in the northwest to a little over 55 inches at Greenfield. Denison and Greenfield registered their wettest calendar years of record. Soil moisture levels at the end of the growing season were the greatest since 2010. The driest soils were in northwest Iowa, but even there moisture levels were far better than at the end of the three previous seasons. Very wet soils prevail over a broad swath of central and southwest Iowa, roughly bounded by Denison, Marshalltown and Lamoni.

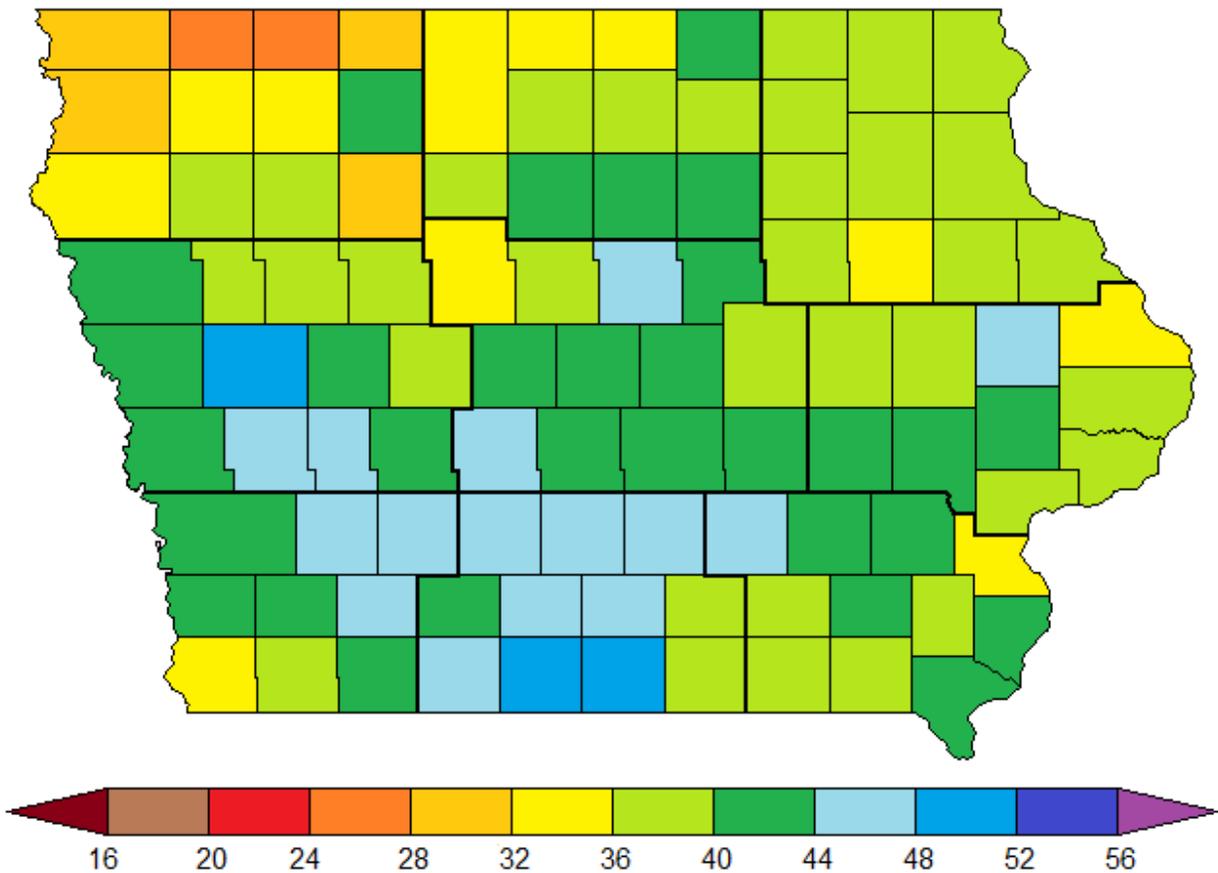
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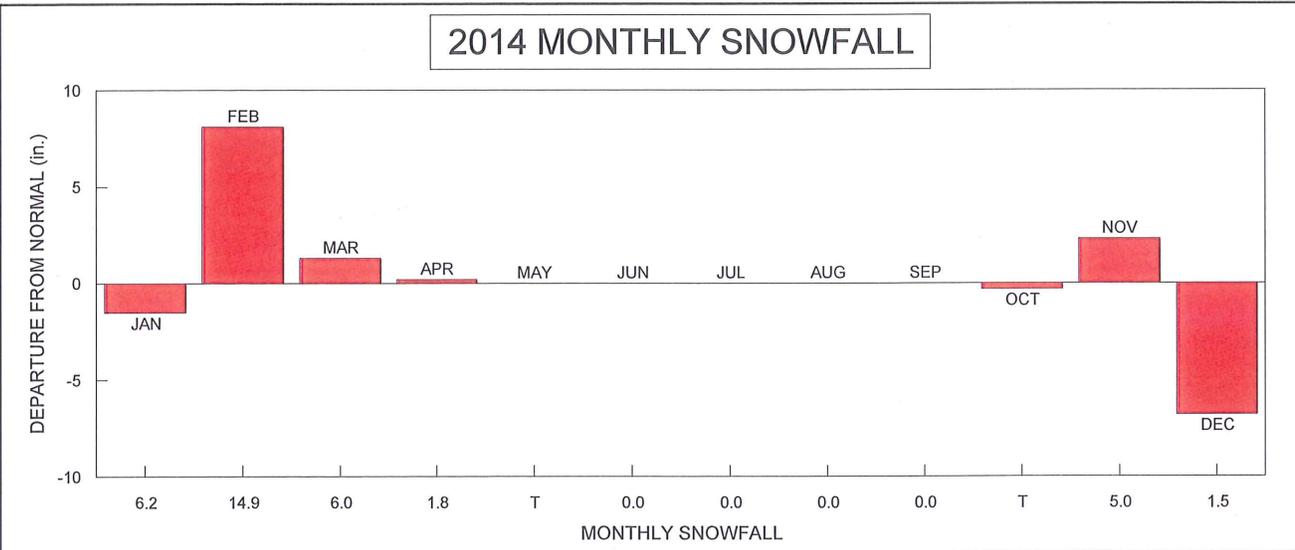
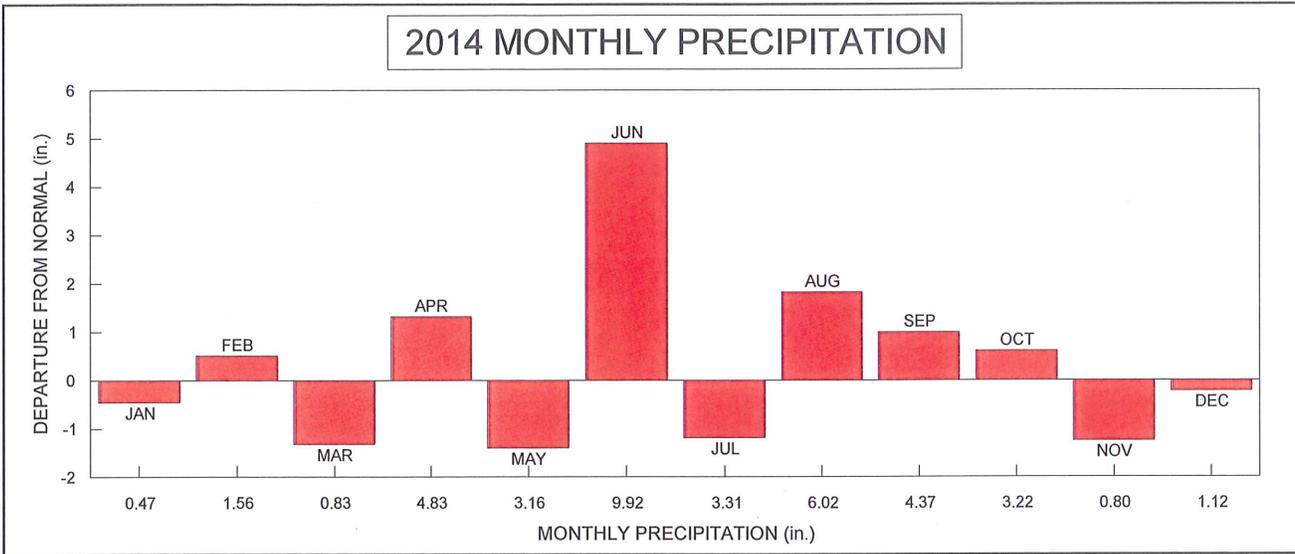
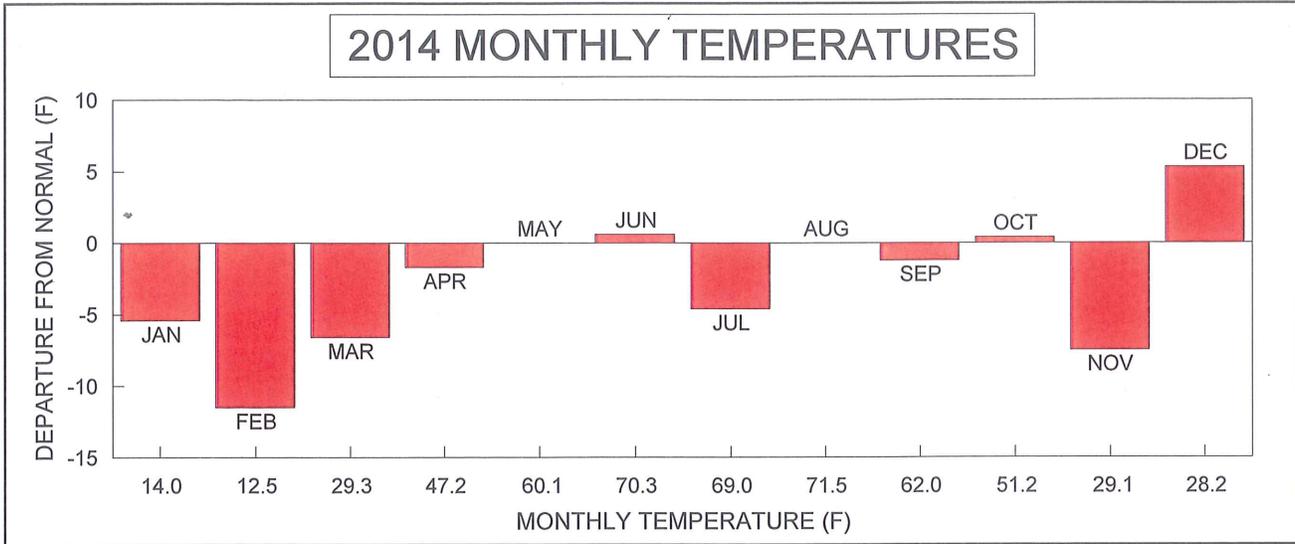
Tornadoes. The National Weather Service reported a total of 55 tornadoes across Iowa in 2014. This was the largest annual total since 2008 and follows below normal numbers in three of the previous four years. The bulk of the tornado activity came in early summer with 38 tornadoes reported in the three weeks between June 16 and July 6. However, the most noteworthy storm was an EF-1 intensity tornado that made a 46 mile path across parts of four counties on April 26 and resulted in two fatalities in Keokuk County.

Crops. Preliminary USDA data indicates that Iowa enjoyed a record corn yield of 183 bushels per acre and the second highest soybean yield of record at 52 bushels per acre. If realized the corn yield will be two bushels per acre greater than the previous high yield set in 2004 and 2009 while the statewide average soybean yield is estimated to be one-half bushel per acre less than the record yield of 2005. Cold soils and frequent rains in mid and late April got planting off to a slow start. However, much drier weather in May allowed rapid planting progress. Heavy rains and flooding washed out some crops in June and necessitated some replanting, particularly in northern areas. However, growing conditions were nearly ideal during July with no damaging heat during the critical reproductive phase of crop development. The 2014 harvest got off to a very slow start owing to frequent rain in September and early October. Additionally, crop maturity and dry-down was slowed by the cool growing season, thus giving even less incentive to get into the fields early. Much drier weather from mid-October to early November allowed the harvest to be completed in a timely manner.

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State Climatologist, Iowa Dept. of Agriculture & Land Stewardship
COUNTY PRECIPITATION AVERAGES, ANNUAL 2014 (inches)





2014 STATEWIDE MONTHLY TEMPERATURE EXTREMES							STATEWIDE MONTHLY RANK*	
MONTH	MAX TEMP	DAY	LOCATION	MIN TEMP	DAY	LOCATION	TEMPERATURE	PRECIPITATION
JANUARY	65	19th	Little Sioux	-29	28th	Elkader	35th coolest	20th driest
	65	19th	Logan					
	65	19th	Sioux City					
FEBRUARY	67	18th	Sidney	-29	11th	Elkader	7th coolest	25th wettest
MARCH	79	31st	Clarinda	-24	3rd	Decorah	22nd coolest	11th driest
	79	31st	Shenandoah	-24	3rd	Elkader		
APRIL	86	12th	Clarinda	11	15th	Sanborn	43rd coolest	12th wettest
	86	12th	Des Moines					
	86	12th	Indianola					
MAY	97	7th	Clarinda	24	16th	Spencer	66th warmest	42nd driest
	97	7th	Shenandoah					
	97	7th	Sidney					
JUNE	93	20th	Little Sioux	38	13th	Battle Creek	55th warmest	3rd wettest
JULY	96	21st	Little Sioux	44	16th	Little Sioux	5th coolest	60th driest
	96	25th	Shenandoah					
AUGUST	95	25th	Donnellson	47	13th	Stanley	60th coolest	14th wettest
SEPTEMBER	94	4th	Donnellson	31	13th	Elkader	43rd coolest	40th wettest
	94	4th	Glenwood	31	13th	Estherville		
	94	4th	Shenandoah	31	13th	Mason City		
	94	4th	Sidney	31	13th	Sheldon		
				31	13th	Sioux Center		
			31	13th	Spencer			
			31	13th	Stanley			
			31	13th	Webster City			
OCTOBER	85	26th	Sidney	17	31st	Spencer	64th coolest	35th wettest
NOVEMBER	72	10th	Keosauqua	-16	27th	Swea City	4th coolest	33rd driest
DECEMBER	60	14th	Shenandoah	-15	30th	Primghar	33rd warmest	70th wettest
	60	14th	Sidney	-15	30th	Sioux Center		

*Rankings based upon 142 years of data.

Data for May through December are preliminary

State Climatologist, Iowa Dept. of Agriculture & Land Stewardship
 COUNTY PRECIPITATION AVERAGES, DEPARTURE FROM NORMAL, 2014 (inches)

