

## IOWA PRELIMINARY ANNUAL WEATHER SUMMARY – 2005

General Summary. Temperatures for the year averaged 49.6° or 1.8° above normal while precipitation totaled 30.70 inches or 3.38 inches less than normal. This ranks as the 21<sup>st</sup> warmest and 51<sup>st</sup> driest year among 133 years of state records.

Temperatures. Much of the year featured above normal temperatures with only March, May and December averaging colder than normal. Annual temperatures ranged from lows of -20° at several northern Iowa locations in mid January to highs of 104° recorded at Keokuk and Keosauqua on July 24<sup>th</sup>. Winter made an early exit from the state with no subzero readings recorded after February 10<sup>th</sup>. However, a very hard freeze in early May resulted in considerable damage to the state's fruit trees. Temperatures fell to 19° at Elkader, Grinnell, Lowden and Manchester on the morning of May 3. These were Iowa's lowest temperatures for so late in the spring since 1907 while Dubuque recorded their lowest May temperature (21°) among 156 years of records. Summer arrived in early June and brought a statewide average of 25 days with high temperatures at or above 90°. Overall, the summer season was just slightly cooler than those of 2002 and 1995 and averaged the same as in 1991 (these being the hottest summers since 1988). The warm weather pattern continued through most of the autumn season. Glenwood reached 101° on September 21<sup>st</sup>, Iowa's warmest reading for so late in the year since 1953. Temperatures finally settled down to seasonal levels in mid November and plunged in early December when Iowa recorded its coldest first week of December on record. Temperatures fell as low as -19° at Sheldon on the morning of December 6 and again at Cedar Rapids on the morning of December 7. At Cedar Rapids this was their lowest temperature ever for so early in the winter. Overall this was the warmest year since 1999 and the seventh year of the past eight to average warmer than the long-term median.

Heating and cooling degree day totals. Cooling degree day totals, a measure of home air conditioning needs, averaged 20% greater than normal and 65% greater than during the exceptionally mild 2004 season. The cooling degree day total was essentially the same as in 2002, the only other warmer than normal air conditioning season since 1998. Meanwhile, the year brought 6% fewer heating degree days (a measure of home heating requirements) than normal and 1% more than in 2004.

Precipitation. Drought began to develop in eastern Iowa in March and intensified through the year. At Davenport this was the driest year since 1901 with a total of only 17.96 inches of precipitation, about 20 inches less than normal. Drought began spreading westward in August with much of southern Iowa turning very dry during the late summer and fall. Meanwhile parts of northwest and north central Iowa were consistently wetter than normal during 2005. Precipitation at Mason City Airport totaled 44.00 inches for the year, or 9.52 inches greater than normal. This was their wettest year since 1991. Generally, areas to the north of a Sioux City to Waterloo to Decorah line received above normal rainfall for the year. The driest portion of Iowa was roughly bounded by Dubuque, Oskaloosa and Burlington where precipitation deficits were ten inches or greater. Snowfall totaled 32.3 inches for the year or just 0.1 inches less than normal. Iowa's greatest snowstorm, in terms of statewide average snowfall, in at least

20 years dropped an average of 8.5 inches of snow on January 4-6 with Ames reporting the most snow with 15.5 inches. Finally, a rapid succession of small and medium sized storms produced an average of 12.6 inches of snowfall during the first one-half of December. This was Iowa's snowiest period since late January and early February of 2004.

Severe Weather. May and June, typically the most active severe weather months of the year, were very quiet in 2005. The two largest tornado outbreaks came outside of the usual tornado season. On March 30 a total of nine tornadoes touched down across northern Iowa although all were relatively weak storms. There were no tornadoes stronger than F1 during the year until the evening of November 12 when an outbreak of ten tornadoes included one at Stratford that briefly reached F3 intensity and resulted in one fatality. Preliminarily a total of 42 tornadoes touched down during the year, slightly less than the normal of 47.

Current Moisture Situation. Soils across much of the southern and eastern sections of Iowa are unusually dry coming into the new year. This drought area extends westward into southeast Nebraska, eastward to northwest Indiana and southward to the Gulf Coast where a large area of drought extends from Texas to Mississippi. Currently the most severe drought conditions in the nation are across northeast Texas, southeast Oklahoma and southwest Arkansas with a secondary area centered near the Quad Cities of eastern Iowa and northwestern Illinois. Unusually wet conditions exist from northwest and north central Iowa northward through much of Minnesota and the eastern Dakotas with another wet area across the New England states. Last year at this time all of Iowa and nearly all of the eastern one-half of the nation enjoyed ample levels of soil moisture. These soil moisture reserves were critical in maintaining favorable crop conditions in the Midwest despite rapidly growing rainfall deficits in many areas.

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