IOWA ANNUAL WEATHER SUMMARY – 2003

General Summary. Iowa temperatures averaged 47.8° or exactly normal while precipitation totaled 29.37 inches or 4.71 inches less than normal. This ranks as the 58th coolest and 36th driest year among 131 years of records.

Temperatures. The year began with unseasonably mild weather prevailing for the first 9 days of January. Indianola reached 70° on January 8. This 70° reading has been exceeded in only 4 others Januarys (1909, 1950, 1989 and 2002). Colder than normal weather dominated from mid January through early March with the year's lowest temperature recorded at Spencer on March 5 with -21°. There were several episodes of unseasonably warm weather from mid March through mid April. The most unusual of these came on April 1 when Glenwood reached 90°. This was the earliest occurrence of 90° heat in Iowa since March 29, 1986. Temperatures averaged near or below normal for much of the period from late April through late June although there were no significant extremes on either end of the spectrum. The first prolonged heat wave of the summer came in early July with temperatures reaching 98° at Ankeny, Mapleton and Shenandoah on July 3. Below normal temperatures prevailed for much of the period from mid July to mid August with the exception of a brief burst of heat on July 26 when Shenandoah and Sidney reached 101°. Late August, however, brought the worst heat of the summer. Temperatures were above normal from August 14 through the 29th with 104° temperatures recorded at Glenwood and Lamoni on the 18th and also at Osceola on the 25th. These were the highest temperatures recorded in many south central Iowa locations since 1988. There were two prolonged periods of temperature anomalies in the fall. The first was a period of unseasonably cold weather from mid September through early October. The season's first freeze was recorded in a few northwest Iowa locations on September 25 with progressively colder intrusions of Arctic air on September 29-30 and October 2. 71% of the state's reporting points recorded a freeze by the end of September and nearly all did by October 2. Mason City reported a 16° low on October 2 which was Iowa's lowest temperature for so early in the fall since 1974. The other anomalous period was a warm one from October 4th through the 22nd. Temperatures peaked at 90° at Glenwood and Red Oak on October 19. These were Iowa's latest 90° readings since October 30, 1950.

Precipitation. The year began the same way that 2002 ended with very dry weather. The period November 2002 through January 2003 was the driest 3 months ever in Iowa. A total of 0.87 inches or precipitation fell during this 3 month period while the previous record low was 0.94 inches from November 1976 through January 1977. Much of the snowfall for the 2002-2003 season came late in the winter thanks to large storms on February 14-15, March 4 and April 6-7. Rainfall finally became frequent and widespread from late April through mid May. Extended periods of dry weather just before and after this mid-spring wet episode allowed spring planting to proceed in a timely manner. The year's heaviest rainfall came from July 3rd to 9th with an average of 3.13 inches falling during that week. However, one of the driest summer periods ever took place from July 10 through September 8. An average of only 2.16 inches of rain fell across Iowa during this 61 day period, only about one-fourth of the normal 8.11 inches for that portion of the summer. This very dry weather, combined with the late August heat wave, greatly reduced the state's soybean crop. While corn yields were still very good in 2003 they could have very easily exceeded previous records if not for this drought. The fall month's were characterized by long periods of very dry and sunny weather. However, the total amount of precipitation recorded during the fall was nearly normal thanks to two brief episodes of very wet weather. The first wet spell was September 9th through the 14th when heavy rain fell in extreme northwest Iowa and also over southeastern portions of the state. The second wet period came in early November when unseasonably heavy rain fell across much of the southeastern two-thirds of Iowa from the 2nd to the 4th. Several locations recorded their wettest November ever from southwest, through central, and into northeast Iowa. A period of much more frequent precipitation, mostly in the form of snow, prevailed during the first one-half of December. Annual precipitation totals varied from 20.40 inches at Milford to 40.69 inches at Keokuk. When expressed versus normal the annual precipitation totals varied from 12.87 inches less than normal at Cresco

to 3.65 inches above normal at Jefferson. Only 11% of the state's reporting points recorded above normal amounts of precipitation for the year. Overall this was Iowa's driest year since 1989 although it was only very slightly drier than the more recent years of 1994, 1997 and 2002.

Severe Weather. 2003 was an extremely quiet year for severe weather in Iowa. A total of 28 tornadoes were recorded with no injuries or fatalities reported. This is Iowa's lowest tornado total since 1997. The most damaging tornadoes of the year hit the Cedar Rapids area on July 20 causing an estimated $4 million in damage. No major flooding was reported during the year. Hail caused locally severe damage on several dates. The most damaging hail events were on May 8 (Burlington, Fort Madison areas), May 10 (Linn Co.) and July 7 (Newton).

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