

IOWA MONTHLY WEATHER SUMMARY – MAY 2004

General Summary. Iowa temperatures averaged 60.8° or 0.6° above normal while precipitation totaled 7.86 inches or 3.63 inches greater than normal. This ranks as the 54th warmest and 4th wettest May among 132 years of state records. Greater May rainfall has not been recorded since 1908.

Temperatures. Dry air early in the month allowed for very wide fluctuations in temperatures. The coldest weather came on the morning of the 3rd when Cresco reported a low of 21° while a freeze was recorded over most of the state. This was Iowa's lowest May temperature since 1967. The month's highest temperature arrived just 2 days later when Sioux City reached 95° on the afternoon of the 5th (a 51° rise from their morning low!). Cold weather returned at mid-month with frost reported across much of the state on the morning of the 15th. Higher humidity and frequent rainfall kept temperature fluctuations to a minimum for the second half of the month as only Burlington and Glenwood managed to reach 90° (on the 21st). Overall, 117 of the state's 134 reporting points recorded a freeze during the month. Not since 1989 has so much of Iowa recorded a freeze during May.

Heating Degree Days. Home heating requirements, as estimated by heating degree day totals, averaged 14% less than normal and 17% less than last May. Heating requirements for the 2003-2004 season have averaged 5% less than last year and 6% less than normal.

Precipitation. May 2004 began rather dry with an average of only 0.19 inches of rain over the first week of the month. However, the second week of May brought seasonally normal rainfall while widespread heavy rains began during the third week of the month. May's greatest rain events came back-to-back. The first round of thunderstorms began on the morning of the 21st and continued into the morning of the 22nd. Heaviest rains were in north central and northeast Iowa where storm totals included 4.75 inches at Emmetsburg, 6.10 inches at Mason City and 5.14 inches at Decorah. Another round of storms began on the afternoon of the 22nd and continued into the morning of the 23rd. Some of the rain totals reported with this second series of storms included 6.67 inches near Ames and 5.20 inches at Colo. A statewide average of 2.97 inches of rain fell from these two systems. Locally heavy rain continued through much of the remainder of the month. The largest of these late month rainstorms came in the early morning of the 30th when 4.37 inches of rain fell at Fairfield. The rain of the second half of May was Iowa's greatest since July 1993. Rainfall totals for the month varied from 3.80 inches at Mount Pleasant to 14.87 inches at Lansing (the highest total for any month at Lansing, old record 13.57 inches in July 1999). Monthly precipitation totals were above normal at all but 2 (Mount Pleasant and Keosauqua) of 140 reporting points. A partial listing of sites to set new May rainfall records includes:

Station	May 2004	Old May Record	Years of Record
Lansing	14.87	11.36 in 1902	98
Mason City	13.23	8.53 in 1991	110
Cresco	12.05	9.47 in 1902	111
Northwood	12.00	11.29 in 1957	110
Shenandoah	11.69	10.27 in 1987	70
Osage	11.42	11.25 in 1938	120
Waterloo	11.39	8.60 in 2000	123
Oelwein	11.29	9.23 in 2000	82
Audubon	10.95	10.16 in 1908	112
Independence	10.70	10.46 in 1902	145
Charles City	10.19	9.19 in 1902	130

Severe Weather. Major flooding resulted from the excessive late May rains, especially across northeastern sections of the state. Additionally, episodes of large hail, high winds and tornadoes were frequent during May. Severe weather was reported on 15 days during the month with all but 7 of Iowa's 99 counties reporting severe thunderstorm events. The month's largest severe weather outbreaks were the 8th (26 counties, mostly west central to northeast); 17th (30 counties, mostly southwest to east central); 21st (37 counties, mostly northwest to east central); 22nd (31 counties, mostly southwest to east central) and the 24th (33 counties, mostly southwest one-half). An exact tornado count is not yet available but a total of about 51 tornadoes touched down during May, including 14 on the 21st and 22 on the 22nd. This total

preliminarily breaks Iowa's one month record of 48 tornadoes recorded in June 1984. Fortunately, nearly all were relatively small with significant damage limited to a few unlucky communities such as Bradgate and Palo (both on May 21).

Spring Summary. Iowa's spring temperatures (March 1-May 31) averaged 50.7° or 2.5° above normal while precipitation totaled 13.63 inches or 3.86 inches above normal. This ranks as the 20th warmest and 6th wettest spring among 132 years of state records. Only one spring (2000) has been warmer in the past 13 years while 1991 was the last wetter spring. Year-to-date precipitation also ranks 6th highest of record.

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