

## IOWA PRELIMINARY MONTHLY WEATHER SUMMARY – DECEMBER 2009

General Summary. Iowa temperatures averaged 19.8° or 2.8° below normal while precipitation totaled 2.70 inches or 1.47 inches above normal. This ranks as the 31<sup>st</sup> coolest and 2<sup>nd</sup> wettest December among 137 years of records. Only 1982 brought more December precipitation with 3.43 inches.

Temperatures. The very mild weather pattern of November continued briefly into December. Daytime highs on the 1<sup>st</sup> reached into the 50's and 60's statewide with Ankeny, Des Moines, Red Oak and Shenandoah the warmest at 62°. However, only two of the next 16 days managed to reach normal. The first single digit minimum temperatures of the season were recorded on the morning of the 4<sup>th</sup> with readings down to 2° at Estherville and Swea City. This was followed by the first subzero readings on the morning of the 9<sup>th</sup> with -1° at Sibley. However, much colder weather was not far behind with Little Sioux falling to -19° on the morning of the 10<sup>th</sup> when all but the far southeast corner of the state saw subzero readings. Temperatures finally edged above normal from the 17<sup>th</sup> through the 25<sup>th</sup> with Burlington reaching 49° early Christmas morning just prior to the arrival of another Arctic blast. Late month temperatures fell as low as -18° at Spencer on the morning of the 29<sup>th</sup>.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals, averaged 5% less than last December and 6% more than normal. Thus far this season (since July 1) heating requirements are running 3% less than last year at this time and 2% less than normal.

Precipitation. December was an exceptionally wet and snowy month thanks to two very strong storm systems. The first event, coming mostly in the form of snow, began late on the 7<sup>th</sup>, peaked on the 8<sup>th</sup>, and continued into the afternoon of the 9<sup>th</sup>. A statewide average of 0.80 inches of precipitation and 10.2 inches of snow fell in this storm. This was the largest snow event since the blizzard of January 2-4, 1971 (3<sup>rd</sup> largest statewide storm total since 1950). The heaviest snow fell from southwest, through central, and into northeast Iowa where amounts of 12 to 16 inches were common. Highest official totals were 16.2 inch totals at Corning and Osceola. Wind gusts of 50 mph or greater were common over the northern two-thirds of Iowa on the 9<sup>th</sup> with a peak gust of 61 mph at Estherville. A second major storm slowly moved into Iowa on the morning of the 23<sup>rd</sup> and finally exited the state on 27<sup>th</sup>. This storm brought snow to all of Iowa, but also an unseasonably large amount of rain to eastern sections. Statewide the second storm brought an average of 1.55 inches of precipitation and 8.2 inches of snow (8<sup>th</sup> largest statewide storm total since 1950). Heaviest snow fell over northwestern Iowa where Spencer recorded 24.0 inches of snow (new single storm record for Spencer, old record 19.0 inches February 17-18, 1962). Portions of west central and central Iowa also endured a period of freezing rain on the 23<sup>rd</sup>-24<sup>th</sup> with glazing of up to one-half inch. Winds speeds with this second blizzard were not as high as with the first storm with the higher winds being confined to far western Iowa where Sioux City recorded gusts to 51 mph. Thanks in large part to these two major events, Spencer set a state record for

maximum December snowfall with a total of 40.0 inches (old record 39.6 inches at Britt in December 2000). Record calendar month snowfalls included:

City	Dec. 2009	Old monthly record	Period of Record
Spencer	40.0	39.0 in February 1962	100 years
Sioux City	34.0	29.1 in January 1982	120 years
Denison	31.0	26.5 in January 1932	117 years

Overall the December 2009 statewide average snowfall was 23.3 inches. Normal for December is only 7.3 inches. This is the second highest statewide average for any calendar month (behind only December 2000's 25.5 inch average). Despite the second least snow of record in November the season-to-date statewide average snowfall through the end of December is also the second highest of record at 23.9 inches. Normal snowfall through the end of December is 11.2 inches while the record total for this period is 28.0 inches set in 2000.

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