

# Transcribed Excerpt of "Outstanding Iowa Storms" Essay from The Annals of Iowa, 1970

## Winter Storms

Iowa's winter storms are sometimes rain, sometimes with snow and on occasion sleet or freezing rain; the latter treacherous occasions occur a few days each winter. The most dramatic of all the winter storms, though, is the blizzard—with its combination of snow, wind and sharply falling temperatures into the sub-zero range. It is the blizzard that creates the greatest hazard to the highway traveler, the cattlemen's herds and the poultrymen's flocks. Blizzards combine all the dangers of the wintry cold with shrieking winds laden with blinding snow. The Great Plains are visited with some regularity year after year. Iowa is located in the heart of the blizzard-belt and experiences blizzards almost every winter.

It was in the Estherville (Iowa) Vindicator that the word "blizzard" was first used in print to describe the March 14, 1870 storm which swept across the Dakotas through Iowa. The origin of the name is attributed to the early German settlers, who called the storms blizartig (sic) (lightning-like) to describe the sudden fury of the storms.

The lightning like fury of these most destructive and perilous winter storms are chronicled throughout Iowa history. Some of the greatest blizzard disasters have followed unusual winter mildness when people were away from their homes without sufficient clothing. The blizzard is fed by the abundance of moisture in the air and the sharp temperature contrast between the advancing cold air and the unseasonably warm air it displaces.

A blizzard, to be so classed, must have winds 35 miles per hour or stronger with falling or blowing snow and temperatures 20 degrees F. or lower for an extended period. A severe blizzard has winds 45 miles per hour or higher and the temperatures are 10 degrees F. or colder. Many outstanding snowstorms escape the blizzard classification for lack of wind or temperature. For example, heavy snows drifted roof high in northwest Iowa in February 1962, yet lacked winds above 35 miles per hour to place the storm in blizzard classification. Truly outstanding, this storm will long remain in the memories of the natives.

Early record indicates 1848 was a snowy year. The History of Polk County, Iowa (1888) says, "the winter of 1848 will never be forgotten by the early settlers. The snow commenced early in November (1847) before the ground was frozen and continued until the unprecedented snowfall on December 21 ... which was the most fearful one in the country." The snow continued over three feet deep into February 1848 with pioneers completely snowbound. At Muscatine, a record-breaking 20.5 inches of new snow fell on Dec. 21, 1847; a record which stands to this date.

Outstanding Iowa blizzards total 16; they are described in Table 1. The first outstanding blizzard in our record triggered the famous winter of 1856-57 on Dec. 2-3. The Dubuque Express and Herald wrote: "... the weather was unusually severe. Snow which commenced to fall on the evening previous continued throughout the entire night and day, and was swept through the streets by an angry wind

with blinding velocity. The amount of snow which fell must be in the neighborhood of 16 or 18 inches ... The wind, too, was exceedingly chilly ..." Ten days later another severe storm piled more snow over Iowa. In the Dec. 21, 1856 issue of the Dubuque Express and Herald the later report was: "Travel has been most difficult [due to deep snow] and several persons froze to death on the prairie during the late severe weather." Pioneers had already begun to suffer through one of the most severe and extended winters in Iowa history, which it is claimed, contributed to the Spirit Lake Massacre in northwest Iowa in the spring of 1857. The long winter had made game exceedingly scarce. Further, the winter was intensely cold. At Dubuque, December and January have never been so continuously and prolongedly (sic) cold since 1856-57. At Muscatine, the thermometer plunged to -30 degrees F. February) and March were somewhat cold, followed by Iowa's coldest April of record accentuated with heavy snowfalls. The winter of 1856-57 lasted through April and was one of the most severe, if not the worst, in Iowa's whole recorded history.

The blizzard of Dec. 15-16, 1863 was notable in Des Moines where the howling winds damaged a few homes. Fifteen days later the blizzard, which C. D. Reed (U. S. Weather Bureau Section Director, Iowa, 1918-1944) classified as the worst blizzard in eastern Iowa, struck with moderate snowfalls and a severe cold wave. Cattle froze to death and suffering was considerable.

The fourth one of Iowa's noteworthy blizzards was observed on Jan. 7-9, 1873. It was described by the Iowa State Register (Des Moines) in the Jan. 8, 1873 issue thusly: "One of the severest storms that has been known in this section for years, came swooping down on the city and adjacent country yesterday afternoon, about 4 o'clock. The wind blew a regular hurricane, and the air was filled with fine snow that blinded travelers and almost shut out eyesight ... Trains were stalled and roofs were blown from one or two small houses on Capitol Hill." Snow was a foot or two deep and greatly drifted. The March 2-4, 1881 blizzard was described as very severe. It extended from Iowa into Michigan with much suffering due to shortages of food and fuel. Dr. Gustavus Hinrichs, Director of the Iowa Weather Service, said that high winds caused immense snow drifts which "completely blocked even the oldest and best east and west railroads for a day or two and stopping all traffic on other lines for a much longer time." He further states that continuous snow cover "till the latter half of the closing decade of March gave us over one hundred days of good sleighing, but also much anxiety in regard to the final breakup." Little damage resulted from snow melt.

To the blizzard of Jan. 7-8, 1886 is attributed the greatest loss of life in Iowa during any blizzard. Twenty Iowans were overcome by the storm. An account in the State Register on January 15 describes the storm and some of the casualties. A young man became lost but found a haystack in which he tried, unsuccessfully, to burrow for shelter. He unhitched his team of horses which returned home alone. The horses' ears were frozen stiff close to their necks, and it took over an hour and a half to get the bits out of their mouths.

The blizzard of Jan. 12, 1888 was probably the worst of history over north and west Iowa and in the upper Great Plains. Numerous people were lost and frozen in the storm as it swept across Montana, the Dakotas and Nebraska. It reached Iowa in the afternoon late enough so that most Iowans had reached shelter and few casualties were reported. Dr. Geo. Chappel, U. S. Signal Service in Omaha, Nebraska compared the storm intensity to that of 1864. The following period of cold was likewise comparable. Dr. Hinrichs in the Iowa Weather Report described the 10 days following as the coldest 10-day period known over Iowa and even exceeding the coldness of the Jan. 1-10, 1864 period.

The blizzard of Nov. 21, 1898 was characterized by high winds, sharply falling temperatures and considerable snow. Official observer, David Hadden at Alta described the storm thus: "a norther raged all day of the 21st, the high northwest gales continuing until evening of the 22nd. Snow drifted greatly

and in places was five or six feet deep. It was one of the severest blizzards in this section for many years. A cold wave followed which continued nearly all week." Much of the corn was not yet harvested when the blizzard struck Iowa.

The blizzard on Dec. 26-28, 1904 was characterized as the worst in that area since 1873 by the Cresco newspaper. Little mention was made of livestock losses in most parts of the State. The noteworthy blizzard on Jan. 28-30, 1909 was widespread over much of Iowa with numerous livestock and property losses reported. Fred B. Hanson, Official Weather Observer at Inwood, described this blizzard as the worst in 21 years and if there had been more snow it would have equalled (sic) the storm of Jan. 12, 1888. The Official Weather Observer at Hopeful, M. T. Ashley, reported many windmills blown down in this blizzard and that some livestock perished.

The blizzard on March 18, 1923 completed one of the snowiest weeks of record in Iowa. Some central Iowa stations reported 2.5-30 inches snowfall during this week. The loss of young lambs and pigs was estimated at a million. The coal and food supplies were exhausted and suffering was reported during the intensely cold weather following.

During the intensely cold winter of 1936 an outstanding blizzard added to the already heavy snow cover. Again fuel and food came into short supply. The next of the noteworthy blizzards and probably the most destructive of record was reported on Nov. 11, 1940. Due to the late mild autumn, the blizzard destroyed most of Iowa's apple orchards, froze millions of turkeys, other fowl and livestock. Seven Iowans lost their lives in this storm.

On Jan. 1, 1942, the heaviest snowfall of record in Des Moines, 19.8 inches, fell in this noteworthy blizzard; the whole area was totally paralyzed. In many places over an area from Page to Black Hawk Counties the total snow depth was increased to more than 2 feet by this storm. The suffering from this storm was intensified by the extreme cold following.

Not until Feb. 9-10, 1960, was another noteworthy blizzard documented. It claimed six lives, stranded travelers and closed schools and businesses. February will further be remembered for the unusually heavy snowfalls over the State. But two years later in 1962, February snowfalls far surpassed most records set in the February of 1960. Many of Iowa's heavy snowfall records came in the numerous heavy snows of February 1962. Rock Rapids, from Feb. 17-21, 1962, reported 31 inches new snow, and a 20th Century record snowfall for any Iowa snow storm.

The last of Iowa's noteworthy blizzards was reported on March 17-18, 1965, in which thousands of travelers were stranded, one person died and four were hospitalized from exposure. This was at the midpoint of one of Iowa's snowiest Marchs of record.

The relationships between Iowa's notable storms and temperature trends are most particularly well defined; most noteworthy blizzards occurred during cold winters. Some of Iowa's outstandingly cold winters were associated with intense blizzards. No particular relationships of tornadoes with summer temperatures in Iowa appear evident.

*(Pages 194-199)*