

CHAPTER 9

HAIL

Hail causes more than \$1 billion of property damage nationally each year, mostly to crops. The southeast corner of Wyoming lies within the nation's "Hail Alley." Together with adjacent portions of Colorado and Nebraska, this region of Wyoming is battered by more hailstorms than any other part of the United States. Climatological data shows this area of Wyoming averages five to nine days of hail annually.

History

There have been more than 2,036 reports of hail events documented from June 1926 through April 2007. An additional 142 events were reported between May 2007 and December 2009. There are significant gaps in the record prior to 1926. Continued research is required to complete the data gaps. One of the earliest years on record with significant hail damage was 1962. There was nearly \$4 million (over \$28.75 million in 2010 USD) in recorded damages. The most damaging event that year occurred in Casper on July 31, 1962. Several inches of hail covered the southern half of Casper causing considerable damage to houses and cars.

Another year in which significant damage occurred across the state was 1977. There were 29 events with measurable damage of almost \$15.1 million (nearly \$54.5 million in 2010 USD). There were four separate events that each caused over \$2.75 million (almost \$9.9 million in 2010 USD) in damage. On June 16, 1977, a storm with hail one inch to two inches in diameter cut across Cheyenne from the northwest to the southeast with much damage to houses, cars, trees, and gardens. On July 5, 1977, hail up to one inch fell over an area starting just south of Powell and extending eastward. Most damage was to buildings and cars. On July 11, 1977, hail up to one inch fell over an area between Heart Mountain and Powell. Most damage was to irrigated crops with some damage to buildings and cars. On July 26, 1977, hail up to 1.75 inches fell in a strip from five to six miles north of Powell to the southeast for 10 miles. Most damage was to irrigated crops with some damage to buildings and cars.

There was also heavy hail damage in 1978, with nearly \$12.5 million (\$41.84 million in 2010 USD) in reported damage. One storm accounted for much of the damage. On July 31, 1978, two thunderstorms did considerable damage to parts of Cheyenne. Hail up to 3 inches in diameter did an estimated \$9.0 million (\$30.24 million in 2010 USD) damage to homes, property, and vehicles.

In 1979, there were also damages in excess of \$9.1 million (\$27.42 million in 2010 USD) reported across the state. Damages in excess of \$2.75 million (\$8.38 million in 2010 USD) occurred in both Sheridan and Fort Laramie.

On July 30, 1979, an extremely large and intense thunderstorm moving through the Cheyenne area caused extensive hail damage to cars, homes, and city buildings. Hail up to two inches in diameter was verified in town with reports of baseball-sized hail south of the city. Damage was

in excess of \$2.5 million (\$7.57 million in 2010 USD). as reported by the Wyoming Tribune Eagle. State Farm Insurance reported more than \$3.2 million in claims for the event, and the State of Wyoming All-Hazard Mitigation Plan from December 1999, reported that \$16.5 million in damage may have occurred during the storm. The \$16.5 million figure was obtained from the Western Insurance Information Service, and may have included damage from Fort Collins, Colorado.

On August 1, 1985, a nearly stationary severe thunderstorm produced the most damaging flash flood on record for Cheyenne and the state. Twelve people lost their lives, 70 were injured, and damage to homes, cars, and businesses was estimated at \$65 million (\$132.27 million in 2010 USD). At the National Weather Service Forecast Office near the airport, 6.06 inches of rain fell in just over 3 hours. By 1930 MST, in addition to blinding rain, hail up to two inches in diameter and winds to 70 mph were occurring in the Cheyenne area. Many streets turned into 2- to 4-inch deep rivers with large amounts of hail floating on top. Basements of homes and businesses quickly filled up with water and hail as flood waters crashed through doors and windows. Some basements equipped with drains were flooded with two to five feet of hail after the water drained away. In some areas of Cheyenne the hail had piled up into 4- to 8-foot drifts (**Figure 9.1**).

On September 2, 1986, thunderstorm winds damaged the roof of a house, toppled power poles, and uprooted pine trees on Casper Mountain. Hail up to two inches in diameter moved through Casper, causing extensive damage to vehicles, buildings, and vegetation. Damage was estimated at \$29 million (\$58.55 million in 2010 USD).

On August 3, 1987, a hailstorm hit Cheyenne with 0.5- to 2-inch-diameter hail. This storm heavily damaged cars at three major car dealerships west of downtown. Many of the cars were severely dented, with numerous broken or cracked windshields. Another hard hit area was F.E. Warren Air Force Base, where numerous vehicles were dented and windows shattered or broken. Three people were slightly injured during the hailstorm. The damage was estimated at \$37 million (almost \$67.54 million in 2010 USD).

On July 30, 1993, a number of thunderstorms worked their way through northeast Wyoming. The Gillette area was hit hard, with one report of 4-inch-diameter hail from the central tower at the Gillette airport. There was significant roof and window damage to homes and businesses. No injuries were noted. The damage was reported to be \$17 million (\$26 million in 2010 USD). The Gillette area again experienced \$17 million (\$20.41 million in 2010 USD) in hail damage on June 21, 2003. Extensive hail damage occurred to roofs and automobiles.

Most recently, on August 26, 2002, \$30 million (\$36.87 million in 2010 USD) in hail damage occurred in Cheyenne. Hail from one inch up to 2.75 inches in diameter fell over the central and western parts of Cheyenne. Significant damage was reported to automobiles and roofs.

An abbreviated hail history is presented in **Table 9.1**. The data were derived from the monthly Storm Data reports generated by the National Oceanic and Atmospheric Administration's (NOAA) National Climatic Data Center (NCDC). Other sources are unpublished reports from the Wyoming Office of Homeland Security, newspaper accounts, and periodicals from public libraries. The table represents hailstorms that have caused damage, injuries, or loss of life.



Figure 9.1—1985 Hailstorm in Cheyenne.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/3/1944		Albany	Laramie					At Laramie, hailstorms on the 3rd and 10th did considerable damage to vegetation.
7/10/1944		Albany	Laramie					At Laramie, hailstorms on the 3rd and 10th did considerable damage to vegetation.
8/1/1953		Albany					20,000	A hailstorm in northern Albany County caused \$20,000 damage to wheat. Ironically, harvest of that wheat was to have begun the following day.
6/15/1962		Albany	Laramie				275	Two to three inches of 0.5- to 1-inch hail did minor damage to range land south of Laramie.
8/9/1978		Albany	Laramie			27,500		A rapidly developing thunderstorm did widespread damage to personal property across the University of Wyoming as well as western parts of Laramie. Minor crop damages were also reported in the local area. Hail up to slightly more than 1 inch in diameter was reported at the University by the violent 15-minute storm.
8/2/1986		Albany	15 ENE Laramie			27,500		Golf ball-sized hail 15 miles east-northeast of Laramie heavily damaged a deputy sheriff's car.
7/16/1994		Albany	10 SE Laramie			275		
7/16/1994		Albany	Laramie			275		
7/3/2001		Albany	Laramie			50,000		
8/19/2001		Albany	10 E Laramie			10,000		Hail cracked windshields east of Laramie, Wyoming.
5/22/2008		Albany	6 W Buford, 1 SE Laramie					Hail from nickel to golf ball sized reported
7/2/2009		Albany	8 N Laramie					Hail from 1 to 1.75 inches in diameter reported.
5/1/1938		Big Horn	Big Horn Basin					Some damage from hail in the lower Big Horn Basin and portions of Sheridan, Platte, Goshen and Laramie Counties. However, in most places the hail was small and with only slight damage to vegetation.
6/1/1938		Big Horn						Hail storms were unusually numerous and destructive, the greater damage occurring in Park County, the irrigated area along the Big Horn basin and in the Platte and Goshen Counties. Sugar beets suffered the greatest damage. Severe hail in Park, Big Horn, Washakie, Goshen and Platte Counties caused considerable damage to sugar beets.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/18/1938		Big Horn	Deaver					Considerable damage by hail was reported to growing crops in the Deaver on the 18th and 20th. In the Powell and Deaver districts, it was reported that the hail was the worst in the history of that section. The damage was confined entirely to growing crops. A number of roofs of buildings as well as automobile tops were damaged. The loss to turkeys and chickens will also run high.
6/20/1938		Big Horn	Deaver					Considerable damage by hail was reported to growing crops in the Deaver on the 18th and 20th. In the Powell and Deaver districts, it was reported that the hail was the worst in the history of that section. The damage was confined entirely to growing crops. A number of roofs of buildings as well as automobile tops were damaged. The loss to turkeys and chickens will also run high.
5/30/1941		Big Horn	Lower Big Horn Basin near MT line					The heaviest hail storms were those that occurred in Crook County on the 27th and in the lower Big Horn Basin near the Montana line on the 30th. This latter storm resulted in considerable damage to crops both by hail and flood waters, as well as damage to bridges.
6/26/1959		Big Horn	30 E Greybull	1	1	2,750		Storm moved from south to north down a fairly steep slope into forested Granite Creek valley and up the other side turning toward the northeast and into more open country. The storm moved through a campground and was experienced by several people in the area although the funnel itself was evidently obscured by dust and bits of flying trees. Property damage was caused mostly by heavy hail and falling trees. The one fatality was a man sitting in a pickup truck who was killed almost instantly by a tree falling onto the truck cab. Eyewitnesses reported a "terrific roar," zero visibility, driving rain and hail, and trees twisted off.
7/6/1961		Big Horn	Greybull and vicinity			27,500		High intensity rain showers with some 1- to 1.5-inch hail caused flash flooding in the Greybull area. Damage was to homes, streets, crops, and farm land.
7/29/1962		Big Horn	Manderson				27,500	Several inches of hail caused severe crop damage in the Manderson vicinity.
7/31/1962		Big Horn	Emblem				27,500	Several inches of hail caused severe crop damage in the Emblem vicinity.
6/11/1976		Big Horn	3 NE Lovell				275,000	A large hailstorm, hail up to 0.5-inch, cut a path 3 miles wide and 10 to 12 miles long from 3 miles NE of Lovell to the southeast. The storm destroyed more than 1000 acres of crops and damaged another 1300 acres.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/6/1980		Big Horn	Byron, Lovell, Sheep Mountain					A hailstorm that moved from Byron through Lovell to Sheep Mountain left hail 4 inches deep in some areas. Sugar beet losses were estimated up to 50 percent. Malt barley and hay crops were severely damaged. Gardens on the south side of Lovell were wiped out or heavily damaged. Some damage to roofs was reported. This was the worst hailstorm in the history of Lovell.
6/25/1991		Big Horn	Basin			27,500		
6/25/1991		Big Horn	Shell			27,500		Afternoon thunderstorms with hail at Basin and Shell in the Big Horn County did damage to some cars and trees.
7/12/1995		Big Horn				275,000		Strong thunderstorm winds knocked down a tree, many tree limbs, and a flagpole in Greybull; 1.75-inch-diameter hail fell in Greybull.
7/19/1997		Big Horn	Manderson					Hail fell in the Orchard Bench area. Exact locations are estimates. Crop damage occurred, but no estimates available.
7/19/1997		Big Horn	12 S Basin to 15 S Basin					Hail fell in the Orchard Bench area. Exact locations are estimates. Crop damage occurred, but no estimates available.
8/8/1998		Big Horn	1 W Lovell					Hail up to 1 inch in diameter fell along and near the Shoshone River between Powell and Lovell. Damage to barley and sugar beet crops. No damage estimates available.
6/9/2000		Big Horn	Cowley				2,750,000	Severe thunderstorm produced swath of large hail from the Cody area northeast to Powell and into extreme northwest Big Horn County. Largest hail apparently fell over south and southeast parts of Powell, with official reports of golf ball size and unofficial reports of softball size. Property damage is an estimate. Preliminary crop estimates expected to reach into the millions of dollars. Severe damage to sugar beet, barley, and bean crops. Wind gusts from 60 to 65 mph were also reported with the storm in the Powell area.
6/14/2006	6/14/2006	Big Horn	5 E Lovell			12,000	500	Hail (2.00)
6/14/2006	6/14/2006	Big Horn	6 E Lovell			12,000	275,000	A severe thunderstorm quickly developed near Byron and tracked northeast over the City of Lovell toward the Bighorn Canyon National Recreation Area. Large hail of around two inches in diameter fell five to six miles east of Lovell where two homes sustained substantial roof and siding damage. Approximately 900 acres of sugar beets, over 100 acres of corn, and about 40 acres of alfalfa were destroyed by the large hail.
8/7/2009		Big Horn	4 SE Burlington					Hail of quarter to half dollar size fell at a ranch southeast of Burlington.
8/7/2009		Big Horn	2 NNW Otto					Half dollar sized hail struck a ranch near Otto.

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Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
8/7/2009		Big Horn	1 S Greybull					Hailstones of golf ball size were numerous at a residence in Greybull. Some stones reached two inches in diameter.
8/7/2009		Big Horn	1 ESE Greybull					Hail estimated at two inches in diameter dented the hood of a traveling vehicle. Most of the stones were the size of a half dollar coin.
8/7/2009		Big Horn	Greybull					Hail of 2.00 to 2.5 inches was measured on the east side of the Greybull River above Greybull.
6/12/1937		Campbell	Pine Tree					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined.
5/29/1940		Campbell	Clarkelen					A damaging storm occurred at Clarkelen on the afternoon of the 29th. Alfalfa and some small grain were damaged in this storm.
6/3/1940		Campbell	Clarkelen					Damaging hail storms were reported from parts of Crook, Weston and Campbell Counties on the 3rd, 5th and 22nd. Slight damage occurred to growing crops in the storms over the northeast portion of the State.
6/22/1940		Campbell	Recluse					Damaging hail storms were reported from parts of Crook, Weston and Campbell Counties on the 3rd, 5th and 22nd. Slight damage occurred to growing crops in the storms over the northeast portion of the State.
7/25/1946		Campbell	Dillinger					Hailstorms were less frequent than in June. Only two damaging storms were reported. The first of these occurred at Phillips on the 6th and the other at Dillinger on the 25th. Both storms caused considerable damage to growing crops.
6/18/1951		Campbell	Northeast portion of the state			40,000		A series of hail storms over the northeast portion of the State on the 18th caused about \$40,000 damage. While some damage occurred to growing crops, the principal damage was to buildings and automobiles.
8/13/1951		Campbell	Gillette					A damaging hailstorm occurred in the Gillette area on the 13th and caused damage to property and crops
9/5/1954		Campbell	Lawver			150		On the 5th, during a hailstorm at Lawver, wind overturned and wrecked an auto trailer house, causing about \$150 damage.
8/27/1955		Campbell	Gillette					Heavy rain with hail occurred in the vicinity of Gillette on the 27th. This caused some local flood damage and also some damage to the corn crop.
5/20/1956		Campbell	4 miles east of Gillette					A damaging hailstorm occurred about 4 miles east of Gillette on the 20th, it caused some damage to growing crops.
8/31/1957		Campbell	Gillette					Windows, cars, signs, etc. were hit by hail.

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8/31/1957		Campbell	Gillette					At Gillette a hailstorm at 6:00 p.m. caused heavy property damage to cars, windows, and roofs, but little crop damage.
6/26/1960		Campbell	18 S Gillette				27,500	
9/3/1972		Campbell	Gillette			2,750		Hail up to 1.25 inches caused damage to gardens, trees, houses, and cars.
6/5/1976		Campbell	Gillette 4.5 NNW				275	Hail up to 1.5 inches fell over open range just east of Gillette airport.
6/13/1977		Campbell	Gillette 30 S				2,750	Hail up to 1.75-inch diameter fell over open rangeland and destroyed range grass.
6/16/1977		Campbell	NW Campbell County			275,000		Hail up to 0.75 inch caused damage to small grains, range land and minor damage to houses, gardens, etc.
8/8/1977		Campbell	Gillette			27,500		Hail up to 0.875-inch diameter fell over Gillette and just east. Most damage was to experimental crops at State Experiment Farm 2 miles east of Gillette.
5/23/1978		Campbell	Gillette 25 W			275,000		Tornado caused major damage to several mobile homes in the Gillette area. High winds overturned several mobile homes in area with no serious injuries reported. Golf ball-sized hail from same storm caused widespread damage to homes and cars in the Gillette area.
6/15/1978		Campbell	Gillette area			1,500,000		Thunderstorms dropped up to golf ball-sized hail through the Gillette area causing considerable damage to homes, cars, and crops. This storm was the largest hail damage since 1957 in the area—estimated at \$1.5 million.
6/16/1978		Campbell	Gillette			275,000		Thunderstorm dropped egg-sized hail in Gillette causing damage to public property. The half hour hailstorm left over 3 inches of hail in many areas of the town.
6/16/1979		Campbell	Gillette 25 SW			\$275,000		Severe thunderstorm near Gillette did hail damage to homes and crops about 20 miles southwest of Gillette. Hail up to 2 inches in diameter.
6/17/1979		Campbell	Parkman area			275,000		A severe thunderstorm dumped hail up to 3 inches in diameter in the Parkman area doing damage to homes and crops.
5/16/1987		Campbell	Recluse					Hail covered the ground in the town of Recluse and some damage to crops, cars, and buildings was reported. No estimate of damage was reported. The town of Recluse is located about 50 miles north of Gillette.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
5/19/1987		Campbell	5 S Gillette					Severe thunderstorms developed over central Campbell County during the afternoon. Later these thunderstorms rambled northeast into southwest Crook County. These severe thunderstorms pelted Gillette with 0.5- to 0.75-inch hail. The sheriff's department reported a funnel cloud sighted about 7 miles southwest of Gillette. Later reports indicated a tornado briefly touching down 5 miles northwest of Moorcroft. Also, large hail up to 2 inches in diameter pummeled the Moorcroft area. Damage could not be effectively determined.
6/19/1987		Campbell	Gillette					A severe thunderstorm developed southwest of Gillette and moved northeast during the afternoon and evening. As this thunderstorm moved over Gillette 0.5- to 0.75-inch-diameter hail was reported. A funnel cloud was spotted about 7 miles southwest of Gillette. Later in the day this thunderstorm moved into Crook County where it pelted roofs and broke windows with 1.25-inch-diameter hail. A tornado touched down about 5 miles north of Interstate 90 near Moorcroft. This thunderstorm deposited more than 2 inches of rain in Gillette during a period of 2 hours. Some minor flooding was observed in Gillette with these heavy rains.
7/17/1987		Campbell	Recluse 14 NE			275		Strong thunderstorms marched through Campbell, Crook, and Weston counties. These thunderstorms pelted the area with 0.5- to 1-inch-diameter hail. Heavy rain was also noted with the storms, with rainfall amounts varying from 0.5 inch at Moorcroft to 1.5 inches 14 miles northeast of Recluse.
7/30/1987		Campbell	Savageton					A very strong thunderstorm developed near Savageton, about 40 miles southwest of Gillette, at 2045 MST. This storm drenched the town with 1.5 inches of rain in 35 minutes along with 1.5-inch-diameter hail. The storm later moved northeast during the next few hours and damaged structures in the south and east sections of Gillette. As the thunderstorm moved into Gillette, 50- to 60-mile-per-hour winds raked the area along with 1.5 inches of rain in 1 hour. This storm destroyed one unoccupied home. Other damages included numerous horse stalls destroyed, sections of roofs partially destroyed, and many city and state road signs severely damaged. Also, lightning struck a home in Gillette and knocked a hole in the ceiling. Many streets and a few apartments were flooded due to the torrential rains between 2100 and 2200 MST. Later that night the very-strong thunderstorm moved into Crook County with heavy rain and 0.5-inch-diameter hail west of Moorcroft.
7/23/1992		Campbell	Weston			27,500		

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7/30/1993		Campbell	Gillette			17,000,000		A number of thunderstorms worked their way through northeast Wyoming through the evening. Several reports of 4-inch hail noted by the central tower at the Gillette airport. Window damage and plane damage was done by the hail in Gillette. No injuries were noted in any of the storms.
7/15/1995		Campbell	Gillette			275,000		Hail up to 1-inch in diameter fell in Recluse and Gillette. The hail damaged trees and gardens in Gillette. One outdoor booth at a rodeo in Gillette was demolished and some trailers were damaged. At the same rodeo, two people sustained minor injuries due to the hail. The hail was in drifts 6 to 8 inches deep in Gillette.
7/18/1997		Campbell	20 N Gillette			25,000		Wind ripped off part of the roof of a mobile home and damaged the interior. A garage under construction was heavily damaged, and windows were broken by the wind. Hail piled up to 1.5 feet deep.
8/11/1999		Campbell	6 S Rozet					Windows were broken at a spotter's home.
6/9/2000		Campbell	14 NW Recluse					Broke some windows in a home and in a vehicle.
6/21/2003		Campbell	Gillette			17,000,000		A strong upper-level shortwave moving over northeastern Wyoming produced a long-lived super cell thunderstorm. The thunderstorm developed over western Campbell County, moved east across Gillette, and continued to Rozet. The storm continued into southern Crook County, moving just north of Moorcroft and Sundance. West of Gillette, the storm became tornadic and produced brief tornadoes without any damage. One tornado briefly touched down 12 miles west of Gillette in the vicinity of Force Road, north of Interstate 90; another tornado briefly touched down near the Wyodak Power Plant, about 5 miles east of Gillette. Golf ball- to baseball-sized hail was common across Campbell and Crook counties. Extensive hail damage was reported in Gillette, particularly across northern parts of the city. Auto dealerships estimated losses of several million dollars. Insurance companies estimated claims totals from automobiles and roof damage to be in the millions of dollars.
8/12/2005		Campbell	15 SE Rozet			5,000		Hail (1.75)
6/9/2006	6/9/2006	Campbell	13 NE Wright					A severe thunderstorm moved across east-central Campbell County, bringing large hail to areas northeast of Wright. Strong winds from the thunderstorm damaged small outbuildings and blew over trees. The combination of hail and wind killed 10 sheep on ranchland.
8/17/2006	8/17/2006	Campbell	10 NW Gillette to 11 NNW Gillette			5,000		Numerous automobile windshields were shattered at Green Valley Estates north of Gillette.

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Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
4/18/2007		Campbell	11 E. Gillette					An upper level disturbance brought thunderstorms to parts of northeast Wyoming during the late afternoon and evening hours. Gusty winds and hail accompanied a few of the storms.
5/28/2007		Campbell	6 SE Gillette			2,713,200		
6/2/2008		Campbell	19 SW Upton			10,070		Baseball sized hail was reported as a severe thunderstorm moved from Montana across northern Campbell and Crook counties.
7/13/2009		Campbell	11 NNW Gillette			10,000		Nickel sized hail fell north of Gillette
7/16/2008		Campbell	2 N Recluse					
7/18/2008		Campbell	17 N Recluse					
6/13/2009		Campbell	13 SW Wright					
7/13/2009		Campbell	11 SW Rockypoint					Fifty mph wind gusts were also reported.
6/23/2008		Campbell	7 W Gillette					A severe thunderstorm produced large hail just west of Gillette.
8/5/2008		Campbell	13 SE Rozet					
8/5/2008		Campbell	13 SE Rozet					
6/6/2007		Campbell	2 W Gillette					

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Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
8/22/2007		Campbell	5 SW Gillette					
6/18/2008		Campbell	12 W Wright					A severe thunderstorm produced golf ball sized hail west of Wright
6/23/2008		Campbell	8 S Wright					A severe thunderstorm produced golf ball sized hail south of Wright.
7/22/2008		Campbell	21 N Weston					Nickel to golf ball sized hail fell for one hour.
7/22/2008		Campbell	4 SSW Lightning Flat					A severe thunderstorm clipped far northern portions of Campbell and Crook Counties with hail to golf ball size and heavy rain. Three to six inches of rain fell from near Weston to the Wyoming/Montana border
7/24/2008		Campbell	7 WSW Recluse					A severe thunderstorm produced golf ball sized hail at Spotted Horse
7/24/2008		Campbell	10 SW Recluse					A severe thunderstorm produced golf ball sized hail southwest of Recluse
8/5/2008		Campbell	7 NW Rockypoint					
8/24/2008		Campbell	19 SE Wright					A severe thunderstorm produced golf ball sized hail and 53 mph wind gusts southeast of Wright
7/9/2009		Campbell	Wright					
7/13/2009		Campbell	15 NNW Recluse					Golf ball hail accumulated four to six inches deep.
8/7/2009		Campbell	6 NW Gillette					Hail damaged houses and automobiles in the Oriva Hills subdivision northwest of Gillette
6/25/2007		Campbell	17 N Recluse					
6/25/2007		Campbell	7 W Rockypoint					
6/25/2007		Campbell	Aladdin					Severe thunderstorms moved across northern Campbell and Crook Counties during the late afternoon and evening. A long-lived supercell thunderstorm produced hail to softball size, causing damage to houses and automobiles in its path.
6/2/2008		Campbell	9 WNW Recluse					
6/2/2008		Campbell	13 NW Weston					Large hail damaged two houses.

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Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/2/2008		Campbell	Weston					
7/13/2009		Campbell	4 E Hulett					A supercell thunderstorm developed over northern Campbell County and moved southeastward across Crook County. The storm produced very large hail across western Crook County, which caused significant damage in the New Haven and Hulett areas. The storm also spawned a large tornado over the Bear Lodge Mountains north of Sundance.
6/25/2007		Campbell	25 NE Weston					Hail broke house windows.
6/25/2007		Campbell	Colony					Hail damaged automobiles. Severe thunderstorms moved across northern Campbell and Crook Counties during the late afternoon and evening. A long-lived supercell thunderstorm produced hail to softball size, causing damage to houses and automobiles in its path.
7/13/2009		Campbell	New Haven					Softball sized hail damaged automobiles and buildings. A supercell thunderstorm developed over northern Campbell County and moved southeastward across Crook County. The storm produced very large hail across western Crook County, which caused significant damage in the New Haven and Hulett areas. The storm also spawned a large tornado over the Bear Lodge Mountains north of Sundance.
6/20/1968		Campbell, Weston and Crook	Northeast Wyoming			275,000		Severe hailstorms with some hail in the Hulett area up to 3 inches diameter did damage to cars, buildings, utilities, and crops in the northern Campbell County, Weston County, and Crook County area.
7/6/1937		Carbon	Leo					Crops suffered on account of flood and hail. Severe hail occurred over much of the State, particularly in Sweetwater, Carbon, and Washakie Counties, but due to the absence of crops, it resulted in only slight damage.
7/8/1937		Carbon	Leo					Crops suffered on account of flood and hail. Severe hail occurred over much of the State, particularly in Sweetwater, Carbon, and Washakie Counties, but due to the absence of crops, it resulted in only slight damage.
5/9/1972		Carbon	Rawlins			275,000		Hail up to 2 inches in diameter caused damage to roofs, cars, windows, trees, shrubs, and a greenhouse.
9/8/1973		Carbon	Shirley Basin			275,000		Hail up to 1.5 inches did much damage to this mostly mobile home community along with damage to other structures and cars.
7/2/2008		Carbon	3 N Rawlins					Nickel to half dollar sized hail reported in the vicinity of Rawlins, WY. A severe thunderstorm produced some hail around Rawlins, WY.

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Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/7/1945		Converse	Dull Center					A storm that resulted in damage to growing crops occurred at Dull Center on the 7th.
7/15/1945		Converse	Verse					A storm that resulted in damage to growing crops occurred at Verse on the 15th.
9/6/1946		Converse	Douglas			15,000	500	A damaging storm occurred as a hail storm in the vicinity of Douglas on the 6th. Loss of crops from this storm amounted to about \$500 due to the lateness of the season. However, approximately \$10,000 damage was caused to five airplanes parked at the airport and an additional \$5,000 damage to automobiles, buildings, trees and shrubs throughout the city.
8/10/1947		Converse	Douglas					The greatest amount of precipitation in 24 consecutive hours occurred at Douglas where 1.31 inches fell on the 10th. Of this amount 1.21 inches fell in about 20 minutes.
6/17/1948		Converse				100,000		A hailstorm and tornado that hit parts of Converse and Niobrara Counties on the 17th. This storm caused serious damage, not only to growing crops, but to ranch and farm property as well. Damage from the storm alone will amount to nearly \$100,000.
8/1/1948		Converse	Douglas			400,000		A hailstorm occurred near Douglas on August 1st where hail and wind caused approximately \$400,000 damage.
6/17/1950		Converse						A damaging hailstorms occurred in Natrona and Converse Counties, which also caused considerable damage to property and growing crops.
6/26/1952		Converse	Esterbrook					A hail and rain storm at Esterbrook on the 26th caused a flash flood which did considerable damage to fences and bridges.
6/1/1955		Converse	Esterbrook					Heavy showers and hail started in May, but caused little damage until June 1, when an 18 square mile area near Esterbrook was hit by hail which reached a foot deep near the station, and depths to 5 feet in drifts. Crop damage was heavy.
6/25/1955	6/27/1955	Converse	North Platte Valley					Hail and thunderstorms visited the North Platte Valley, and hail damage to many crop varieties was heavy.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/26/1955	6/27/1955	Converse	North Platte Valley					One of the worst series of thunderstorms in the North Platte Valley in recent years occurred June 26th - 27th. A survey of the area by a representative of the U.S. Weather Bureau, in cooperation with other interested agencies, indicated from unofficial reports that there were 6 inches to 8 inches of precipitation. This was one of the worst floods in the upper North Platte Valley in 25 years. On U.S. highway 26, two bridges were washed out between Ft. Laramie and Guernsey. About 75 persons were evacuated from their homes along the North Platte. Torrential rains with hail and consequent high water caused hundreds of thousands of dollars in damage to wheat, bean, and sugar beet crops in the valley. In some fields plantings were total losses. Trees were uprooted by high winds and two farmhouses were destroyed by a small tornado along a path from 2 to 7 miles southwest of Torrington the morning of the 27th. The North Platte River and the Interstate Canal overflowed their banks the evening and night of the 26th at Ft. Laramie. More than 75 percent of the town was inundated by 5 feet of water; 4 to 6 inches of mud was deposited on the floors of three-fourths of the homes and business buildings of the town. The worst bridge washout was at Cottonwood Creek five miles west of Ft. Laramie. Two spans were swept away and piling was torn out of the ground. The grade approach to a railroad bridge was washed out leaving 22 feet of track suspended. South of Chugwater 18 miles of railroad tracks were washed out. Temporary bridges were erected over Bear Creek on U.S. Highway 87. There were reports from four miles west of Torrington of hailstones as large as baseballs. Runoff from the hills north of Torrington flooded the town to a depth of 2 to 3 feet at the height of the storm on the 26th. Many basements in residential and business areas were filled with water and hail. The National Guard was mustered to direct traffic and police the area. A partially built frame house in Torrington collapsed, and a basement wall of another house caved in. A county road north of Torrington was undercut by the deluge and a 40-foot section washed out.
5/29/1959		Converse	Douglas Airport			25		
6/15/1962		Converse	Glenrock 5 SE				275	Hail up to 1-inch in diameter was reported north of the climatological station.
6/15/1962		Converse	Douglas			275		Hail up to 0.75-inch in diameter did minor damage in Douglas.
5/21/1970		Converse	Glenrock 10 E				275	Public reported 1.75 inches of hail over open range.
5/21/1970		Converse	Glenrock 5 W				275	Public reported 2.75 inches of hail over open range.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/28/1977		Converse	Douglas			275,000		Hail up to 1.5 inches in diameter fell over a wide area starting on the south part of Douglas and extending southwards. Most damage was to field crops with damage to gardens, buildings, and cars.
7/22/1984		Converse	Douglas			27,500		Wind gusts to 58 mph and hail to a depth of 8 inches hit a campground near Douglas in Converse County. Considerable damage to trailer homes in campground.
8/18/1989		Converse	Douglas		1	27,500		From the late afternoon through early evening, a severe thunderstorm moved eastward through Converse County. As the storm passed through Glenrock, winds gusted to 58 mph. Minor tree damage resulted. Thirty minutes later, the storm hit Douglas and produced considerable pea to dime size hail. The hail caused minor damage to some homes and cars. A person was injured trying to seek shelter from the hail. This occurred when a boy ran through the glass pane window of a door, causing severe lacerations to his left arm.
8/15/1996		Converse	Douglas			30,000		
8/19/1997		Converse	Glenrock			2,000		A few golf ball-sized hailstones accompanied a large amount of pea-sized stones.
8/29/1997		Converse	6 N Glenrock			2,000		
7/1/1998		Converse	7 E Bill			4,000		A storm produced golf ball-sized hail 7 miles east of Bill.
7/1/1998		Converse	40 NW Douglas			7,000		A storm produced golf ball- to baseball-sized hail, which covered the ground on several ranches 40 miles northwest of Douglas.
7/12/2009		Converse	7 W Douglas					Strong wind gusts also reported in Douglas with some trees damaged or down. Some car windows broken.
8/22/2007		Converse	Douglas					Many reports received from the public of hail around golf ball size.
7/9/1978		Converse, northern Platte	Douglas to Glendo area			27,500	275,000	Golf ball-sized hail was dumped by a thunderstorm between Douglas and Glendo in a storm path nearly 2 miles wide at times. Major damage to crops, as well as minor damages to buildings, mobile homes, and vehicles was reported.
6/22/1940		Crook	Sundance					Damaging hail storms were reported from parts of Crook, Weston and Campbell Counties on the 3rd, 5th and 22nd. Slight damage occurred to growing crops in the storms over the northeast portion of the State.
7/25/1940		Crook	Colony					A damaging hail storm was reported from Crook County on the 25th. Gardens and field crops were seriously damaged during this storm.
5/24/1941		Crook						The heaviest hail storms were those that occurred in Crook County on the 27th and in the lower Big Horn Basin near the Montana line on the 30th. This latter storm resulted in considerable damage to crops both by hail and flood waters, as well as damage to bridges.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/10/1943		Crook	Hulett					In a storm, at Hulett on the 10th, hail stones from 6 to 8 inches in circumference were observed.
5/19/1945		Crook	Hulett					A storm at Hulett on the 19th resulted in considerable damage to crops and vegetation.
6/10/1946	6/11/1946	Crook					50,000	A storm in Crook County on the 10th and 11th caused approximately \$50,000 damage to growing crops, as well as some damage to roofs and windows.
6/18/1951		Crook	Northeast portion of the state			40,000		A series of hail storms over the northeast portion of the State on the 18th caused about \$40,000 damage. While some damage occurred to growing crops, the principal damage was to buildings and automobiles.
8/5/1953		Crook	Northeast corner			5,000	20,000	The extreme northeast corner was hit by a hailstorm on the 5th that caused \$20,000 damage to crops and \$5,000 property damage.
7/15/1956		Crook	Sundance			750	50,000	On the 15th in an area 15 to 25 miles south of Sundance, a hail - and windstorm occurred causing \$1,500 property damage, 50 percent attributed to hail; and causing \$50,000 crop damage, 90 percent attributed to hail.
8/6/1956		Crook	Sundance					At Sundance, 4:30 p.m. of the 6th, a thunderstorm with hail passed southeastward. Heavy damage was caused over an area about one mile wide and two miles long. Some hail was as large as tennis balls.
7/14/1957		Crook	Alva					Near Alva during the afternoon of the 14th, hail caused fairly heavy damage to crops.
6/24/1959		Crook	South of Sundance, Miller Creek			2,750	27,500	Storm moved down Miller Creek with hailstones to 4 inches in diameter. Some flash flooding from heavy rain.
6/25/1959		Crook	Southwest of Sundance			2,750	27,500	Severe thunderstorm moving north to northwest down Kara Creek with heavy rain and hail causing some damage. Tornado developed with storm for a brief period causing most of the reported property damage at one ranch.
6/11/1962		Crook	Moorcroft 15 S				2,750	Tornado and two funnels observed but details of path not. Most damage was done by hail to grasslands.
7/12/1965		Crook	Moorcroft 6 N			27,500		Hail 1.5 inches in diameter destroyed crops and forage over about 15 square miles. Homes and trees were also damaged.
6/16/1977		Crook	Moorcroft 10 W			27,500		Hail up to 1 inch in diameter, 4 to 6 inches deep caused damage to crops, houses, cars, etc.
9/11/1980		Crook	Moorcroft area			2,750,000		Golf ball-sized hail, 2 to 5 inches deep in places, devastated the Moorcroft area in about 20 minutes. Schools, dwellings, businesses, and automobiles suffered great damages. Trees were stripped and gardens were destroyed.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/13/1982		Crook	Oshoto, Sundance, Moskee					A thunderstorm dumped up to 7 inches of rain throughout the southeastern part of Crook County along with hail drifts from 2 to 5 feet in some places. The hail ranged from pea size up to 1 inch in diameter and caused considerable damage. Losses included fences, corrals, water tanks, soil, and stock. The major damage in the Moskee and Oshoto areas was due to flooding.
8/23/1982		Crook	Sundance			27,500	2,750	A destructive hailstorm caused severe damage to crops, buildings, and vehicles in rural areas west and south of Sundance. The size of the hailstones was not reported.
8/11/1987		Crook	2 S Hulett, 1 W Alva			27,500	27,500	A severe thunderstorm swept through north central Crook County after 1715 MST. This storm produced heavy rain and hail from 0.25 to 2 inches in diameter near Hulett. Wyoming Highway 24 south of Hulett was closed for a short time due to 1- to 2-foot drifts of hail and minor flooding as more than 2 inches of rain fell in about 30 minutes. Ranchers south of Hulett reported numerous windows shattered and roof and siding damage due to hail. Ranchers north of Aladdin reported washed out fences and the loss of livestock. Grain crops were battered flat by the hailstorm from Alva to Aladdin. The hail one mile west of Alva drifted to a depth from 4 inches to over 12 inches.
6/16/1989		Crook	10 SW Moorcroft			2,750		
8/11/1999		Crook	Moorcroft			20,000		Eighty houses had hail damage—mostly broken windows and damaged siding. Two police vehicles had moderate hail damage and another was totaled by hail.
7/4/2000		Crook	18 NW New Haven			10,000		Several windows were broken, also several cattle and antelope were killed.
7/8/2001		Crook	Devils Tower		4	10,000		A thunderstorm moved across Crook County producing very large hail. Hail ranging in size from pennies to tennis balls pelted Devil's Tower for 40 minutes. Four injuries (direct) were climbers on Devil's Tower who were hit by hail. Two injuries (direct) were the result of a lightning strike. The injuries were not life threatening, and it is not known if medical attention was administered. Damage to several cars was reported as "significant."
6/16/2007		Crook	Sundance			96,900		
6/25/2007		Crook	4 W New Haven			48,450		
6/2/2008		Crook	19 SW Upton			10,070		A severe thunderstorm produced large hail near Lightning Flat.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/16/2008		Crook	3 SSW Lightning Flat			10,070		A severe thunderstorm produced ping pong ball sized hail over western Crook County.
6/20/2008		Crook	6 W Oshoto			20,140		
6/24/2008		Crook	7 W Aladdin			10,070		
7/17/2008		Crook	Moorcroft			10,070		A severe thunderstorm produced large hail in the Colony Area.
6/2/2008		Crook	Lightning Flat					A severe thunderstorm produced large hail north of Hulett.
6/25/2008		Crook	6 SE Oshoto					
7/24/2008		Crook	3 E Oshoto					A severe thunderstorm moved across eastern Crook County into western South Dakota, producing hail almost to golf ball size from Colony to Beulah.
8/5/2008		Crook	12 W Colony					
6/14/2009		Crook	6 SE Colony					
7/8/2009		Crook	7 NNW Alva					Windows were broken and vehicles and motorcycles damaged by large hail and strong winds.
7/8/2007		Crook	Colony					
7/8/2007		Crook	1 E Beulah					An early morning severe thunderstorm dropped ping pong ball sized hail in the Colony area.
6/24/2008		Crook	2 W Hulett					
8/5/2008		Crook	Aladdin					
8/5/2008		Crook	Beulah					
8/5/2008		Crook	Beulah					A severe thunderstorm moved from southeastern Montana and produced hail quarter size across northern Crook County.
8/6/2009		Crook	Colony					
5/28/2007		Crook	9 W Sundance					A severe thunderstorm clipped far northern portions of Campbell and Crook Counties with hail to golf ball size and heavy rain. Three to six inches of rain fell from near Weston to the Wyoming/Montana border
7/18/2007		Crook	11 S Hulett					
8/17/2007		Crook	Colony					
6/16/2008		Crook	14 NW Aladdin					

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/18/2008		Crook	3 W Hulett					A severe thunderstorm produced large hail in the Moorcroft area. Hail to the size golf balls covered the ground. Minor Damage was reported.
7/22/2008		Crook	4 SSW Lightning Flat					
8/5/2008		Crook	Devils Tower					A severe thunderstorm produced large hail and 60 mph wind gusts between Moorcroft and Sundance.
8/5/2008		Crook	Sundance					Severe thunderstorms moved across northern Campbell and Crook Counties during the late afternoon and evening. A long-lived supercell thunderstorm produced hail to softball size, causing damage to houses and automobiles in its path.
8/10/2008		Crook	6 S Alva					
5/30/2009		Crook	1 W Moorcroft					Hail broke windows on the west side of a house.
7/13/2009		Crook	4 New Haven					
8/5/2009		Crook	10 ESE Keyhole Reservoir					Baseball sized hail caused extensive damage to homes and automobiles throughout town.
6/25/2007		Crook	Aladdin					A supercell thunderstorm developed over northern Campbell County and moved southeastward across Crook County. The storm produced very large hail across western Crook County, which caused significant damage in the New Haven and Hulett areas. The storm also spawned a large tornado over the Bear Lodge Mountains north of Sundance.
7/18/2007		Crook	10 SE Hulett					
6/25/2007		Crook	1 SW Lightning Flat					Hail damaged automobiles. Severe thunderstorms moved across northern Campbell and Crook Counties during the late afternoon and evening. A long-lived supercell thunderstorm produced hail to softball size, causing damage to houses and automobiles in its path.
6/25/2007		Crook	16 N Hulett					
7/13/2009		Crook	Hulett					Softball sized hail damaged automobiles and buildings. A supercell thunderstorm developed over northern Campbell County and moved southeastward across Crook County. The storm produced very large hail across western Crook County, which caused significant damage in the New Haven and Hulett areas. The storm also spawned a large tornado over the Bear Lodge Mountains north of Sundance.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/13/2009		Crook	4 E Hulett					Softball sized hail broke windows and damaged roofs and automobiles.
6/25/2007		Crook	2 SW Lightning Flat					A severe thunderstorm produced large hail near Lightning Flat.
6/25/2007		Crook	Colony					A severe thunderstorm produced ping pong ball sized hail over western Crook County.
6/25/2007		Crook	20 NW Aladdin					
7/13/2009		Crook	New Haven					
7/13/2009		Crook	2 W Hulett					A severe thunderstorm produced large hail in the Colony Area.
7/11/1937	7/12/1937	Fremont	Shoshoni					Heavy flood damage also occurred in the Big Horn Basin, particularly in the Wind River Canyon and in the vicinity of Shoshoni. The damage in the Wind River Canyon resulted from land slides, which took out several sections of highway and railroad. In all highways suffered damage in 12 counties. Crops suffered severely from hail and floods, but there were compensating benefits from the excess moisture.
6/24/1948		Fremont	Riverton				54,000	A hailstorm near Riverton on June 24 causing about \$54,000 damage to crops and property.
6/17/1950		Fremont	Riverton			200,000		A damaging hailstorm occurred near Riverton on the 17th, which caused near \$200,000 damage to property and growing crops.
7/20/1951		Fremont	Riverton					A damaging hailstorm occurred near Riverton on the afternoon of the 20th causing damage to approximately 2000 acres of growing crops.
8/17/1957		Fremont	Riverton					Some crops were destroyed by hail near Riverton, in Fremont County, and the fabric was ripped to shreds on five airplanes.
8/17/1957		Fremont	Riverton					A hailstorm at Riverton caused both property and crop damage. The fabric of five airplanes was cut to shreds. This accounted for most of the property damage, but grain crops and growing beets and corn also were damaged.
6/15/1962		Fremont	Pavilion 15 E			27,500		Several inches of small hail caused considerable damage to crops, some to farmsteads.
9/21/1962		Fremont	Fremont County			0	27,500	Several inches of hail did crop damage on a strip about 10 miles long from 7 miles NW to 10 miles NE of Riverton, from Burma Hill to Riverton Valley to Hidden Valley.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/2/1965		Fremont	Riverton 25 NW			275,000		Thunderstorms producing heavy rains and hail up to 1.5 inches in diameter caused considerable crop loss in the irrigation district between Diversion Dam and Crow Creek. Damage by hail to windbreaks and farm buildings was also noted.
6/6/1967		Fremont	Riverton 5 N		2		275	A tornado which topped several trees injured two boys when it dropped one of the tree parts on them. One-inch hail did minor damage in the same area.
9/2/1968		Fremont	Fremont County			275,000		A widespread hailstorm with strong gusting winds and hail up to 0.5 inch in diameter, did considerable damage to crops, utilities, buildings, and cars, mostly in the Missouri and Paradise Valleys and also hit fields in Buckhorn Flats, Lost Wells Butte, and Hidden Valley. Damage estimate for crops was \$250,000 with considerable loss to other property.
9/8/1973		Fremont	Riverton / Lander area			27,500		Rain and hail from series of thunderstorms, hail mostly small but some to 1.25 inches, along with high water, caused damage primarily to crops but also to some structures, cars, and materials.
6/20/1977		Fremont	Lander-Riverton			27,500		Several areas between Lander and Riverton received hail up to 0.75 inch causing damage to crops, trailers, etc.
7/18/1981		Fremont	Riverton area			27,500	27,500	A thunderstorm with hail did extensive damage to crops and property in the Riverton area.
6/14/1984		Fremont				2,750		Hail as large as golf balls pelted parts of northwest Fremont County from Fort Washakie to Kinnear. A few vehicles were damaged.
8/1/1984		Fremont	Cottonwood Bench			2,750	275,000	Thunderstorm moved through Cottonwood Bench area, 30 miles north of Riverton, in Fremont County. Storm piled hail up to 2 feet deep and dumped 2 inches of rain in a 30-minute period. Considerable hail damage to crops. Gale-force winds and heavy rain did some damage to property and roads.
6/8/1987		Fremont	Midvale				27,500	At 1630 MST a strong thunderstorm moved over the town of Midvale (2 miles south and 8 miles east of Pavillion) and deposited hail 0.25 inch in diameter to a depth of 4 inches. A report from Midvale indicated that this hail severely damaged 50 acres of barley and 70 acres of alfalfa. A farmer north of Riverton saw three funnel clouds protrude from a very strong thunderstorm. This very strong thunderstorm north of Riverton dumped between 2 to 3 inches of rain in about 2 hours. Many fields of barley and beans were washed out. Numerous secondary roads were damaged.
8/25/1987		Fremont	20 NW Riverton				27,500	At 1330 MST a thunderstorm moved through the Pavillion area about 20 miles northwest of Riverton. Hail damage was reported to late grain crops.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/12/1988		Fremont	8NW Riverton				275,000	Several thunderstorms moved through Fremont County during the afternoons of the 11th and 12th. At least 10 range fires were ignited by lightning strikes. The largest fire occurred south of Jeffrey City and another near Copper Mountain. The Fremont County fire warden said that all the fires were put out in time before they got too large. These thunderstorms also produced isolated heavy rainfalls of 2.5 to 3 inches; 0.5-inch-diameter hail covered the ground northwest of Riverton during the afternoon of June 12th and caused crop damage to 80 acres of hay, 80 acres of grain, and 20 acres of corn. Additionally, fields of sugar beets and barley were damaged by the small hail. No flooding was reported with the heavy rainfall.
8/11/1990		Fremont	NW of Riverton			2,750	275,000	A hailstorm of 1-inch stones pelted an area northwest of Riverton between 1400 and 1415 MST. Damage was primarily to crops.
8/2/1994		Fremont	South Pass City				100,000	Thunderstorms over the southern Wind River Mountains produced up to 4 inches of hail on the ground. Some hailstones up to 0.75 inch were reported. Heavy rain also washed out a road in the area.
9/14/2001		Fremont	Lander					Nursing home ceiling collapsed due to the weight of accumulated hail and rain.
9/14/2001		Fremont	Lander					Top dining room windows broken at residence on 4th street.
5/21/2008		Fremont	Milford					Hail of .88 to 1.50 inches in diameter fell around Milford northwest of Lander.
6/13/2009		Fremont	14 SSE Riverton					Hail up to 1.50 inches in diameter was measured by a storm chaser.
7/28/2009		Fremont	4 WSW Wind River					Golf ball sized hail was reported on Trout Creek Road.
7/28/2009		Fremont	9 N Miners Delight					Red Canyon Ranch experienced golf ball sized. Breaks in an overcast sky caused by moist upslope flow allowed for afternoon heating in the Wind River Basin. Thunderstorms developed near Ft. Washakie and tracked southeast along the foothills through Lander and Red Canyon.
8/10/1983		Fremont, Hot Springs, Washakie				2,750	27,500	A large area of severe thunderstorms rumbled through west central Wyoming; 0.75-inch-diameter hail fell near Thermopolis and just northwest of Worland, causing extensive crop damage especially to beets. The storms also had very intense and frequent lightning, which caused power outages and damages to homes and barns in the Riverton and Worland areas. Minor flash flooding was also reported near Riverton and Worland as 1 to 2 inches of rain fell.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
5/1/1938		Goshen	Yoder, Ft. Laramie					Some damage from hail in the lower Big Horn Basin and portions of Sheridan, Platte, Goshen and Laramie Counties. However, in most places the hail was small and with only slight damage to vegetation.
6/1/1938		Goshen						Hail storms were unusually numerous and destructive, the greater damage occurring in Park County, the irrigated area along the Big Horn basin and in the Platte and Goshen Counties. Sugar beets suffered the greatest damage. Severe hail in Park, Big Horn, Washakie, Goshen and Platte Counties caused considerable damage to sugar beets.
7/13/1938		Goshen	Torrington					Severe local hail damage to crops occurred in Goshen County on the 13th and in Park County on the 22nd. Damaging hail storms were reported from the Torrington area on the 13th with damage amounting to about 75% in some fields.
5/23/1939		Goshen						A severe hail storm occurred in portions of Goshen, Platte and Niobrara Counties on May 23rd. Growing crops were severely damaged by this storm, as well as considerable property damage such as broken windows, and damage to roofs and automobiles in the vicinity of Lusk. Some livestock, especially young lambs, were killed by the storm.
4/27/1940		Goshen	Ft. Laramie					Severe hail and small tornado that occurred in northern Goshen County on the afternoon of April 27th. Considerable property damage was reported from this storm and only the fact that crops were not up or were small prevented serious crop loss.
6/24/1943		Goshen						Hail storms occurred over eastern Laramie and the southern portions of Goshen and Platte Counties on the 24th. There were two large hail areas in Laramie County. The largest extended from Pine Bluffs westward with damage in an area about 15 miles long and 6 miles wide at points in the path of the storm; another severe storm less in extent occurred west of Albin. Another storm occurred south of Torrington and extended westward into Platte County. The greatest damage was to winter wheat which had completely headed. In many fields there was not a single stalk standing and sweet clover along roads and highways was completely stripped of all foliage and branches and only stubble remained.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/11/1944		Goshen						A hailstorm occurred on the afternoon and evening of June 11th in Laramie and Southern Goshen Counties. This storm struck the city of Cheyenne resulting in approximately a half-million dollars property damage in the city alone which was covered by insurance, and a great deal more uncovered. This storm is probably the most destructive that ever visited Cheyenne. There were many stones in the city larger than baseballs, and at Archer, 7 miles east of Cheyenne, individual stones were reported to be as much as 6 inches in diameter, and some clusters were much larger. Stones were mostly the shape of door knobs, though some were nearly spherical. One large stone was cut into halves that showed 18 concentric circles. The principal damage resulted to windows, roofs, automobile tops and glasses, and Neon signs. Not a single Neon sign escaped destruction. Damage to crops in the adjacent area amounted to many thousands of additional dollars.
7/6/1946		Goshen	Phillips					Hailstorms were less frequent than in June. Only two damaging storms were reported. The first of these occurred at Phillips on the 6th and the other at Dillinger on the 25th. Both storms caused considerable damage to growing crops.
6/8/1951		Goshen						A hail storm in Goshen County on the 8th caused heavy damage to growing crops and light to moderate damage to property.
7/31/1951		Goshen	Yoder				60,000	Hail and wind in the Yoder area on the 31st caused approximately \$60,000 damage to growing crops. In some places, small grain about ready to harvest, was a complete loss.
7/2/1953		Goshen					125,000	A destructive hail and rainstorm occurred in southern Platte and Goshen Counties on the 2nd, causing nearly \$125,000 damage to crops and property.
6/25/1955	6/27/1955	Goshen	North Platte Valley					Hail and thunderstorms visited the North Platte Valley, and hail damage to many crop varieties was heavy.
6/26/1955	6/27/1955	Goshen	North Platte Valley					One of the worst series of thunderstorms in the North Platte Valley in recent years occurred June 26th - 27th. A survey of the area by a representative of the U.S. Weather Bureau, in cooperation with other interested agencies, indicated from unofficial reports that there were 6 inches to 8 inches of precipitation. This was one of the worst floods in the upper North Platte Valley in 25 years. On U.S. highway 26, two bridges were washed out between Ft. Laramie and Guernsey. About 75 persons were evacuated from their homes along the North Platte. Torrential rains with hail and consequent high water caused hundreds of thousands of dollars in damage to wheat, bean, and sugar beet crops in the valley. In some fields plantings were total losses. Trees were

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
								uprooted by high winds and two farmhouses were destroyed by a small tornado along a path from 2 to 7 miles southwest of Torrington the morning of the 27th. The North Platte River and the Interstate Canal overflowed their banks the evening and night of the 26th at Ft. Laramie. More than 75 percent of the town was inundated by 5 feet of water; 4 to 6 inches of mud was deposited on the floors of three-fourths of the homes and business buildings of the town. The worst bridge washout was at Cottonwood Creek five miles west of Ft. Laramie. Two spans were swept away and piling was torn out of the ground. The grade approach to a railroad bridge was washed out leaving 22 feet of track suspended. South of Chugwater 18 miles of railroad tracks were washed out. Temporary bridges were erected over Bear Creek on U.S. Highway 87. There were reports from four miles west of Torrington of hailstones as large as baseballs. Runoff from the hills north of Torrington flooded the town to a depth of 2 to 3 feet at the height of the storm on the 26th. Many basements in residential and business areas were filled with water and hail. The National Guard was mustered to direct traffic and police the area. A partially built frame house in Torrington collapsed, and a basement wall of another house caved in. A county road north of Torrington was undercut by the deluge and a 40-foot section washed out.
8/28/1957		Goshen	Huntley					Near Huntley, hail about 3:00 p.m. did considerable damage to crops.
7/30/1961		Goshen	Torrington, Platte River			27,500		High intensity rain showers with some 0.5- to 1-inch-diameter hail caused flash flooding with damage to homes, streets, crops, and farm land.
5/31/1962		Goshen	LaGrange 4 W			27,500		Severe thunderstorms with considerable small hail caused flash flooding along Bear Creek, damaging property, livestock, roads, and bridges. Flood waters piled hail into 8 to 10 foot drifts.
6/1/1962		Goshen	LaGrange 4 W			275,000		Severe thunderstorms with heavy rain and 4 to 6 inches of small hail caused damage and flash flooding to the area along Bear Creek and some along Horse Creek.
6/28/1962		Goshen	Torrington			27,500		Heavy thundershowers and hail did considerable damage to 1300 acres of crop land, mostly sugar beets, in an area just south of Torrington.
8/1/1962		Goshen	Hawk Springs				27,500	Hail, from 4 miles north to 1 mile south of Hawk Springs, did severe damage to crops.
7/23/1969		Goshen	Yoder				27,500	Hail up to 1.5 inches in diameter and a tornado did crop damage from Yoder eastward for about 10 miles.
6/2/1971		Goshen	Huntley				27,500	Hail up to 0.75 inches in diameter caused crop damage in the Huntley area.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/11/1977		Goshen	Veteran			275,000		Hail up to 2 inches in diameter destroyed many crops north and east of Veteran in the early evening. Damage also to cars, houses, etc.
6/16/1978		Goshen	Torrington					Heavy thunderstorm passed through Torrington dropping marble- to golf ball-sized hail and causing light damages to public property and crops in nearby areas.
7/20/1978		Goshen				27,500	27,500	Evening thunderstorms dumped golf ball-sized hail on part of northeastern Goshen County. Some vehicles and homes were damaged as well as crops in the area.
6/28/1979		Goshen				2,750,000		Heavy damages were reported in Fort Laramie as well as nearby ranches from the severe thunderstorm that reportedly had four tornadoes as well as golf ball-sized hail. Numerous buildings and crops (corn, sugar beets, and grain) were damaged, mostly by the hail and gusty winds.
7/19/1979		Goshen				275,000		A severe thunderstorm dumped baseball- to softball-sized hail in Fort Laramie, doing extensive damage to vehicles and buildings in the town and to surrounding wheat fields.
8/22/1982		Goshen	Yoder and Hawk Springs				27,500	A hailstorm raked a 4-square-mile area between Yoder and Hawk Springs with marble-sized hail 6 to 10 inches deep. The hail stripped the foliage from the area's corn, bean, and sugar beet crops.
6/20/1983		Goshen	Lingle			2,750		Hail up to the size of softballs fell just south and east of Lingle causing minor damage to cars and crops.
6/13/1984		Goshen	Hawk Springs			275	2,750	Hail up to the size of golf balls fell over a small strip centered on Hawk Springs. Most of the damage was to grain crops near the town, with some cars receiving window damage.
6/22/1984		Goshen	Torrington			2,750,000	275,000	All of the damage occurred due to the heavy fall of up to 1.5-inch-diameter hail. Extensive damage to cars and buildings occurred, and 10,000 acres of crops were severely smashed. A weak tornado formed as the storm went northeast of the city, briefly touching down outside town and then dissipating.
8/5/1985		Goshen				2,750		Hail up to 1 inch in diameter was reported 13 miles east-northeast of Jay Em.
9/5/1986		Goshen	1 N Lingle to Torrington			1,000,000	2,750,000	A swath of golf ball-sized hail from just north of Lingle to Torrington did more than \$1 million in damage to farms in the area and devastated crops and pasture land. Winds to 50 mph and heavy rain also accompanied the storm.
7/7/1987		Goshen	Yoder				2,750	Strong thunderstorms from south Platte County moved through south Goshen and northeast Laramie counties. These storms pelted crops with 0.5-inch-diameter hail from Yoder south to Albin. Also, Yoder reported some heavy rain totaling 0.67 inch.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
8/3/1987		Goshen	7 W Jay Em			27,500	27,500	At 2120 MST a severe thunderstorm pelted Orin Junction in extreme southeast Converse County with 0.75-inch-diameter hail. Later, this severe thunderstorm moved into northwest Platte County near Glendo Reservoir where 70 mph wind gusts were recorded. This severe thunderstorm provided a combination of heavy rain, hail, and damaging winds which wracked the Jay Em area in northern Goshen County about 2140 MST. Ranchers west of Jay Em experienced about 1 inch of heavy rain, 1.75-inch-diameter hail, and wind gusts over 60 mph. The hailstorm, which covered a strip about 5 miles wide by 25 miles long about 7 miles west of Jay Em, leveled oats and hay crops in its path. The severe storm damaged or shattered numerous windows in ranch houses, garages, barns, and pickup trucks. Siding damage was observed on many ranch buildings.
9/4/1987		Goshen	Yoder, 8 N Hawk Springs, 3 N Hawk Springs, Huntley			2,750	2,750	Severe thunderstorms pummeled the south section of Goshen County with 0.5- to 1.75-inch-diameter hail. The hailstorm broke all windows on the west side of Huntley Elementary School. Windows were also broken in homes, and damage was done to roofs and car tops between Yoder and Huntley. About 2500 acres of sugar beets were badly damaged due to the hail between Yoder and Huntley. Crops of corn and beans were also reduced to stubble due to the hail. Military personnel about 8 miles north of Hawk Springs reported 0.75-inch-diameter hail, which accumulated to a depth of about 2 inches.
5/30/1996		Goshen	Hawk Springs 15 W to Hawk Springs 5 E			10,000	10,000	Golf ball-sized hail fell from west to southeast of Hawk Springs. Some farms in the area had roof damage and windows blown out. The hail fell in a 1 mile wide path. Crops were also damaged in the area by hail.
8/14/1996		Goshen	15 S Torrington			10,000		
8/14/1996		Goshen	Yoder			10,000		The large hail broke car windshields.
6/26/1999		Goshen	LaGrange			100,000		
6/26/1999		Goshen	Yoder			1,200,000	500,000	
6/26/1999		Goshen	LaGrange			250,000	250,000	A severe hailstorm caused considerable damage to crops and property over a large part of central and eastern Goshen County, particularly between Yoder and Torrington.
6/27/1999		Goshen	Torrington			75,000		
5/6/2000		Goshen	Lingle			100,000		
5/16/2000		Goshen	29 N Torrington			20,000		

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
5/16/2000		Goshen	6 SW Lingle			50,000		Hail and gusty winds occurred just south and west of Lingle, damaging two grain bins and breaking some windows.
6/18/1977		Goshen and Laramie	S Goshen, NE Laramie Counties			27,500		Hail up to 1.75 inches fell around 2100 MST doing damage to crops, pastures, houses, cars, etc.
5/7/2008		Goshen	8 W Veteran, Yoder					A severe thunderstorm produced hail around 1 inch in diameter as it tracked slowly eastward across a portion of Goshen county, Wyoming, with the largest hail reported from Yoder, Wyoming. A couple of severe thunderstorms produced some large hail over parts of southwest Wyoming.
6/5/2009		Goshen	1 WNW Barnes, 6 N Torrington					Hail from 3/4 to 1 1/4 inches in diameter fell along track. Hail accumulated 1 to 2 inches deep in a few areas. Scattered severe thunderstorms produced large hail and a tornado over parts of southeast Wyoming.
6/23/2009		Goshen	17 W La Grange					A severe thunderstorm produced some hail and heavy rain.
6/7/2009		Goshen	9 SE Burns					A line of thunderstorms produced hail over eastern Laramie county and a landspout type tornado over extreme southeast Goshen County into far northwest Banner county of the Nebraska panhandle.
6/19/2008		Goshen	2 E Lingle					An isolated severe thunderstorm produced some large hail near Lingle, WY.
7/25/2008		Goshen	20 NW Torrington					Hail up to 2 inches in diameter reported
6/5/2009		Goshen	15 WNW La Grange					
6/14/2009		Goshen	7 WNW Hawk Spgs					Quarter to softball sized hail reported along the storm track with hail drifts from 12 to 18 inches at the junction of county roads 38 and 55. An isolated supercell thunderstorm produced large hail and a tornado as it tracked across parts of Platte and Goshen counties.
6/11/1937		Hot Springs	Thermopolis					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined.
7/11/1937	7/12/1937	Hot Springs						Heavy flood damage also occurred in the Big Horn Basin, particularly in the Wind River Canyon and in the vicinity of Shoshoni. The damage in the Wind River Canyon resulted from land slides, which took out several sections of highway and railroad. In all highways suffered damage in 12 counties. Crops suffered severely from hail and floods, but there were compensating benefits from the excess moisture.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/31/1972		Hot Springs	Thermopolis			27,500		Hail up to 1 inch in diameter caused damage to houses, outbuildings, and crops on ranches on Owl Creek west of Thermopolis.
7/1/1982		Hot Springs	Thermopolis			2,750,000		A thunderstorm produced a 1-mile strip of hail from northwest to southeast across Thermopolis. Hail stones ranged from golf ball to baseball size. Damage estimates were in the millions. Personal injuries were minor.
8/4/1994		Hot Springs					\$50,000	Thunderstorms with small hail produced crop damage in north-central Hot Springs County.
7/2/1998		Hot Springs	Thermopolis Airport					Some crop damage south of town, some damage in town. No damage estimates available.
6/24/1982		Hot Springs, Fremont	Thermopolis, Lander and Riverton		1	27,500	\$27,500	Hail the size of golf balls caused minor damage to an 11-year old youth around 1500 MST in Thermopolis. Broken windows, damaged camper trailers, and three damaged aircrafts were reported. The Ocean Lake and Pavillion areas northwest of Riverton received quarter- to golf ball-sized hail during the early afternoon. Crop damage was substantial. Hail to 0.75 inch diameter pelted the Lander area between 1405 to 1435 MST with damage to campers, motor homes, and patio furniture.
8/6/2007		Hot Springs	Winchester					A lone severe thunderstorm brought large hail and heavy rain to portions of northern Hot Springs and western Washakie counties.
8/6/2007		Hot Springs	10 NW Kirby					Golf ball sized hail fell to the north of Little Cottonwood Creek in northern Hot Springs County.
6/12/1937		Johnson	Ucross					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined. Stones were reported nine inches in circumference in the southern portion of Johnson County.
6/16/1937		Johnson	Nine Mile Creek (near)					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined. Stones were reported nine inches in circumference in the southern portion of Johnson County.
6/17/1937		Johnson	Hunter's Station					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined. Stones were reported nine inches in circumference in the southern portion of Johnson County.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/10/1945		Johnson	Kaycee					A storm that resulted in damage to growing crops occurred at Kaycee on the 10th.
7/14/1947		Johnson	Nine Mile Creek					A hailstorms occurred at Nine Mile Creek on the 14th and caused considerable damage to growing crops.
6/18/1951		Johnson	Northeast portion of the state			40,000		A series of hail storms over the northeast portion of the State on the 18th caused about \$40,000 damage. While some damage occurred to growing crops, the principal damage was to buildings and automobiles.
8/10/1951		Johnson	Buffalo					A damaging hailstorm occurred near Buffalo on the afternoon of the 10th causing considerable damage to growing crops.
6/25/1955	6/27/1955	Johnson						In Sheridan and Johnson Counties exceptionally heavy rainfall during the period 25th - 27th caused flood damage along several streams, especially Rock Creek and Prairie Creek. From newspaper clippings and information furnished by Mr. Leo Clapp of the Cheyenne Weather Bureau Office, the following details were obtained: Following torrential rains in the nearby foothills of the Big Horn Mountains, below the Horton ranch, a flash flood roared down Rock Creek, north of Buffalo, late on the 25th, and another during the afternoon of the 26th. It was estimated that 75 percent of the bridges over Rock Creek were destroyed. No lives were lost but several persons were compelled to abandon cars and wade through waist-deep water to safety on higher ground. A few calves and many sheep were lost in the first flood on the 25th but livestock was moved to safe ground before the onset of the second flood on the 26th. On the 25th an area about 2 by 5 miles in the vicinity of Rock Creek was covered by hail, in some places 6 inches deep. Rock Creek, normally a tiny stream about 12 feet wide, became for 3 hours a roaring river half a mile across. On U.S. highway 87, about 2 miles north of Buffalo, water surged 3 feet deep across a bridge and over the paving. A new highway bridge under construction over Rock Creek was partially washed out and machinery carried downstream. In Johnson County a bridge northwest of Buffalo was washed out. Water was reported up into several ranch homes, and old-timers said floodwater had never been that high before. At the Rennie ranch mud covered fields, and buildings sustained extensive damage. At the Pabst ranch 150 sheep were lost in the flood. A three-foot wall of water came down McCormick Creek between 7:00 and 10:00 p.m. of the 25th. At the De Pue ranch, southeast of Sheridan, Prairie Dog Creek rose 12 feet the night of the 25th. A utility shed and a brooder house with 175 pullets were swept away, as well as a hayrack, bales of straw, feed racks, and oil drums. Water was more than two feet deep in the kitchen and utility room at this ranch, and silt one-half inch deep was deposited on the floors. Wagons were floated and scattered

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
								throughout the ranch but no livestock was reported lost. At another ranch Prairie Dog Creek cut new channels on opposite sides of the brooder house but no chickens were lost. Southeast of Sheridan, on Highway 14, Prairie Dog Creek covered the highway and a bridge. At the Harper ranch, water was over the highway and mud was deposited on the pavement. Meade Creek also was on a rampage and did considerable damage on the Willey ranch south of Sheridan. Sheds near the creek bank were destroyed, several bridges across the creek were carried away, and six pigs lost. Water was up to the barens but did not reach the ranch residence. The area from the Big Horn junction south of Sheridan to Meade Creek suffered most damage. Severe lightning caused a shutdown for about 2 hours of the main generator of the Acme power plant, which supplies electricity for Sheridan, beginning about 5:30 p.m. on the 25th. Lightning caused further power trouble at 12:30 a.m. the 26th when two transmission lines were parted. At 2:00 a.m. the 27th two substation transformers were burned out by lightning at the Big Horn Coal Co. tippie between Acme and Ranchester. Ash Creek, north of Sheridan, overflowed its banks for about 4 hours starting at 5:30 p.m. on the 27th. Considerable countryside was inundated and water flowed over at least one county bridge but no extensive damage was reported.
7/27/1956		Johnson	Buffalo					One of the most violent and unusual summer storms in the memory of Buffalo residents dumped an inch and a half of rain and hail and caused hundreds of dollars in property damage. The storm was accompanied by winds of almost tornadic force that brought the water from every angle. The rain came so fast that street gutters could not handle the flow and a torrent of water poured down the streets and sidewalks into basements in low areas and into several stores. Water poured over U. S. Highway 87 south of Buffalo to a depth of one foot as Bull Creek overflowed its banks. An ordinarily dry creek leading into Buffalo on a diagonal line from the west overflowed, and several homes in the northwest part of town were flooded. Tree limbs broke off all over the city. So many trees were blown over that traffic was blocked along roads in the city park. The wind was almost like a "twister" and residents described the storm as a "dryland typhoon". Telephone lines were put out of commission in many parts of town and the power line was temporarily knocked out. The hail was not large, but severe because it was driven by the strong wind. The storm was local in nature and areas a few miles in any direction from the town received very little rain. The storm seemed to rise and descend, missing some spots and hitting others as it moved into town.
6/20/1957		Johnson	Barnum					Hail destroyed some wheat and alfalfa

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/20/1957		Johnson	Southwest of Kaycee near Barnum					On the 20th at 3:30 p.m. a storm with hail and heavy rain began about 7 miles west-southwest of Kaycee near Barnum and moved along the upper Powder River Valley for about 12 miles. Hail fell until it was 3 to 4 inches deep in some areas. Some wheat and alfalfa was destroyed on three ranches. One ranch reported a fall of one and one-half inches of rain in about ten minutes. Fifty acres of alfalfa and a considerable acreage of wheat were destroyed on one ranch and unspecified acreage of crops on other ranches.
8/12/1957		Johnson	Nine Mile Creek station					About two miles south of the Nine Mile Creek station, hail about one-half inch in diameter fell until about three inches deep. Crops were reported ruined.
6/12/1962		Johnson	Buffalo 12 S				275	Hail measuring 1.5 to 2 inches in diameter caused some damage to range land.
7/27/1965		Johnson	Buffalo 15 SE, Crazy Woman Creek			27,500		Rains of 2 to 3 inches with some 1-inch-diameter hail did damage to crops and irrigation structures and caused flooding along Crazy Woman Creek.
6/22/1966		Johnson	Kaycee			27,500		One-inch hail did damage to crops and buildings in the Kaycee area.
6/26/1967		Johnson	Buffalo			27,500		One and one-quarter inch hail was reported in and around Buffalo with resulting damage to cars, roofs, and crops.
6/16/1972		Johnson	Kaycee			27,500		A heavy thunderstorm with up to 1.25-inch-diameter hail falling to a depth of 5 inches caused damage to houses, cars, trees, and gardens; damage from flash flooding. Storm was 4 to 5 miles wide, lasted 45 minutes, reported heavier east of town.
7/15/1984		Johnson	Buffalo			2,750,000		Walnut-size hail fell from storm, which moved through Buffalo in Johnson County. Nearly 700 insurance claims filed for roof, window, and vehicle damage.
5/23/1987		Johnson	Sussex				275,000	A severe thunderstorm moved rapidly through southeast Johnson County during the afternoon. This storm produced a slashing hailstorm about 15 miles long and 2 to 4 miles wide. Hail up to 1.5 inches pummeled 15 farms in the Sussex area. The town of Sussex is located about 60 miles north of Casper. A farmer in the Sussex area estimated the storm lasted only about 7 or 8 minutes. Hailstones piled up to a depth of 2 inches. Another farmer estimated crop damage in excess of \$200,000.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/25/1987		Johnson	Buffalo 7 E			27,500	275,000	A strong thunderstorm produced 0.5-inch-diameter hail about 7 miles east of Buffalo. One rancher east of Buffalo said that this hail cut a swath approx. 2 miles wide. Damage was done to gardens, crops, and roofs; paint was chipped off the side of buildings. Another rancher east of Buffalo had crop damage to 200 acres of hay. He also reported 2.5 inches of rain in just 20 minutes and 0.5-inch-diameter hail that accumulated to a depth of 2 inches. This rancher said the hail made the highways just like ice.
7/15/1990		Johnson	20-25 S Buffalo			27,500	27,500	A severe hailstorm struck the area about 20 to 25 miles south of Buffalo around 1600 MST with hail up to the size of golf balls. Damage occurred to cars, roofs, and windows on several ranches in the area. Pasture land and some fields of hay were also heavily damaged.
5/27/1993		Johnson						An evening thunderstorm did damage to buildings and some crops 12 miles northwest of Kaycee. Windows were broken with no injuries reported.
7/4/2001		Johnson	15 SE Buffalo					Every window in house broken and six vehicles windshields broken. Property damage amounts unknown. Sandhill crane also killed by hail.
7/19/2007		Johnson	16 W Buffalo			19,380		Hail of 1.25 inch in diameter was reported near Linch.
7/2/2008		Johnson	1 N Linch					Golf ball sized hail reported near the Mayoworth Road.
7/19/2007		Johnson	8 NW Kaycee					The Powder River Rest Area along Interstate 90 was bombarded with hail of nickel to golf ball size.
8/7/2009		Johnson	28 ESE Buffalo					Hail of 1.75 to 2.00 inches in diameter fell at a ranch northwest of Kaycee on State Highway 191. The hail broke a vehicle window.
8/7/2009		Johnson	5 NW Kaycee Gosney Arpt					Hail of 1.25 inch in diameter was reported near Linch.
6/14/1926		Laramie	Dry Creek Basin			140,000		Severe hailstorm producing 2.51 inches of precipitation caused damages amounting to \$140,000.
7/15/1937		Laramie	Archer					Crops suffered on account of flood and hail. The most severe damage by hail occurred in the southern portion of Laramie County.
7/19/1937		Laramie	Archer					Crops suffered on account of flood and hail. The most severe damage by hail occurred in the southern portion of Laramie County.
5/1/1938		Laramie						Some damage from hail in the lower Big Horn Basin and portions of Sheridan, Platte, Goshen and Laramie Counties. However, in most places the hail was small and with only slight damage to vegetation.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/24/1943		Laramie	Pine Bluffs, Albin					Hail storms occurred over eastern Laramie and the southern portions of Goshen and Platte Counties on the 24th. There were two large hail areas in Laramie County. The largest extended from Pine Bluffs westward with damage in an area about 15 miles long and 6 miles wide at points in the path of the storm; another severe storm less in extent occurred west of Albin. Another storm occurred south of Torrington and extended westward into Platte County. The greatest damage was to winter wheat which had completely headed. In many fields there was not a single stalk standing and sweet clover along roads and highways was completely stripped of all foliage and branches and only stubble remained.
7/22/1943		Laramie	Archer				5,000	A hailstorm occurred at Archer on the 22nd. Grain just ready for harvest was severely damaged or destroyed and the loss of grain amounted to many thousand dollars.
6/7/1944		Laramie	Cheyenne					A hailstorms occurred on the afternoon of June 7th and caused serious damage in the south and central portions of Cheyenne. Victory gardens were ruined, foliage stripped from trees, and many window panes were destroyed. In south Cheyenne and areas to the east, hail covered the ground to a depth of five inches. An unofficial but reliable measurement gave the precipitation in south Cheyenne at 2.78 inches.
6/11/1944		Laramie	Cheyenne, Archer			500,000		A hailstorm occurred on the afternoon and evening of June 11th in Laramie and Southern Goshen Counties. This storm struck the city of Cheyenne resulting in approximately a half-million dollars property damage in the city alone which was covered by insurance, and a great deal more uncovered. This storm is probably the most destructive that ever visited Cheyenne. There were many stones in the city larger than baseballs, and at Archer, 7 miles east of Cheyenne, individual stones were reported to be as much as 6 inches in diameter, and some clusters were much larger. Stones were mostly the shape of door knobs, though some were nearly spherical. One large stone was cut into halves that showed 18 concentric circles. The principal damage resulted to windows, roofs, automobile tops and glasses, and Neon signs. Not a single Neon sign escaped destruction. Damage to crops in the adjacent area amounted to many thousands of additional dollars.
6/11/1944		Laramie	Lindberg					A tornado occurred near Lindberg on June 11 in connection with the hailstorm over the southeastern portion of the State. Damage in this storm was slight.
7/19/1944		Laramie						On the 19th, a hailstorm over the eastern portion of Laramie County resulted in almost complete destruction to crops over an area 2 to 3 miles wide, and 30 to 40 miles long.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/7/1945		Laramie	Carpenter, Dull Center					A storm that resulted in damage to growing crops occurred at Carpenter on the 7th.
7/14/1948		Laramie					100,000	A severe hailstorm occurred over eastern Laramie county on the 14th causing approximately \$100,000 damage to crops and property.
7/5/1950		Laramie					5,000	A damaging hailstorm occurred and covered the Wheatland area and eastern Laramie County on the 5th causing many thousands of dollars damage to growing crops as well as property damage.
7/21/1950		Laramie	Eastern Laramie County					Storms occurred over the Wheatland area and eastern Laramie County on the 21st, 25th, and 29th. These storms, while destructive, were not so severe as the one on the 5th.
7/25/1950		Laramie	Eastern Laramie County					Storms occurred over the Wheatland area and eastern Laramie County on the 21st, 25th, and 29th. These storms, while destructive, were not so severe as the one on the 5th.
7/29/1950		Laramie	Eastern Laramie County					Storms occurred over the Wheatland area and eastern Laramie County on the 21st, 25th, and 29th. These storms, while destructive, were not so severe as the one on the 5th.
9/16/1950		Laramie						A heavy rain and hail storm occurred over southeast portion of Laramie County on the evening of the 16th causing damage to property and growing crops. Flood waters from the rain washed out growing crops so that replanting of winter grains was necessary. Potatoes were washed from the ground and beans only recently pulled were washed away. The estimated damage from this storm is several thousands of dollars.
6/21/1951		Laramie	Pine Bluffs			100,000		The eastern portion of Laramie County was hit by a hail storm on the 21st which caused well over \$100,000 damage. Crops in the path of the storm suffered nearly 100% damage and buildings and automobiles in the town of Pine Bluffs were severely damaged.
7/1/1951		Laramie	Cheyenne					A hailstorm occurred at Cheyenne during the evening of the 1st and caused considerable damage to trees and shrubs.
9/6/1951		Laramie						A damaging rain and hail storm occurred over the eastern portion of Laramie County on the afternoon and evening of the 6th. Flood waters from the storm caused considerable damage to highways and railroads and all crops in the path of the storm were either destroyed or badly damaged.
8/23/1952		Laramie					10,000	A damaging hailstorm occurred over the east portion of Laramie County on the 23rd causing approximately \$10,000 damage to growing crops. The damage would have been considerably more had it not been that most of the crops had already been harvested.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
5/16/1954		Laramie	Pine Bluffs			1,000	10,000	On May 16, a hailstorm in the Pine Bluffs, Laramie County, area caused \$10,000 crop and \$1,000 property damage. Hailstones up to a half inch diameter fell during the storm with stones accumulating to five inches in Pine Bluffs.
6/6/1954		Laramie				88,500		Hailstorms in Laramie County on June 6 and 24 caused an estimated \$177,000 damage.
6/24/1954		Laramie				88,500		Hailstorms in Laramie County on June 6 and 24 caused an estimated \$177,000 damage.
7/16/1954		Laramie	Carpenter					Hail caused considerable damage near Clearmont and Carpenter on the 16th
8/30/1954		Laramie	Carpenter 3 E					Some damage to roofs and trees with greater losses of crops from hail at Carpenter 3 E occurred on the 30th.
9/6/1954		Laramie	Tennyson to Pine Bluffs					An intense hailstorm on the 6th caused considerable crop damage in the southeastern corner of the State, from Tennyson to Pine Bluffs. East of and near Pine Bluffs, traffic was delayed about half an hour by the fall of 7 to 8 inches of hail which piled up in draws to a depth of 6 to 8 feet. The observer at Tennyson station reported this storm to have been the most severe hailstorm during his 43 years of residence in the locality. Thunder and Lightning were reported as terrific. His rain gage registered 3.80 inches of precipitation during the period from 3 p.m. to 6 p.m., but was so jammed by hail most of the time that the true fall unquestionably was far more. Cattle were injured, but up to the end of the month no exact estimate of loss of livestock in general could be assessed. One motorist reported that near Pine Bluffs "hail along the highway was bumper deep and scraped along high center as we edged along the highway after the storm passed". Corn was completely macerated and some hay damaged but most of the wheat had been previously harvested.
7/5/1955		Laramie					20,000	On the 5th, hail during a thunderstorm caused about \$20,000 damage to crops over an area 3/4 miles wide and 7 miles long in the eastern part of Laramie County.
5/28/1956	5/29/1956	Laramie	Carpenter					Mr. A. R. Lowery, Meteorologist in Charge of the Cheyenne Weather Bureau station, has furnished the following report: Several damaging hailstorms occurred during the month. Probably the most damaging of these was near Carpenter during the evening of the 28th. This was a series of three storms; first near 6:00 p.m., the second near 8:00 p.m., and the third near midnight. The largest hailstones were about one and a quarter inches in diameter. Considerable damage resulted to crops and light damage to property.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
8/9/1956		Laramie	Tennyson					At Tennyson on the 9th hail almost covered the ground. Some stones were about an inch in diameter.
8/2/1957		Laramie	Cheyenne					Hail broke car and residence windows, neon signs, and even pierced car and house roofs.
8/2/1957		Laramie	Cheyenne					Though brief, (about 20 minutes duration) this storm was violent and destructive and caused very heavy damage along a southeastward path of 20 miles or more. Hailstones ranged mostly upward in size from one inch in diameter to as large as golf balls. Many people reported stones the size of eggs or large as lemons, tennis balls, etc. In the southwest and southern parts of the city reports of stones at least three inches in diameter and "the size of baseballs" were common. Hailstones 8 inches in circumference were reported at Orchard Valley in the southern part of Cheyenne. In Cheyenne most damage was done to automobiles, homes, and neon signs. Car roofs and windshields were broken, also roofs of houses. There was very little crop damage since the storm passed over little arable land. Some sewers were clogged by hailstones and debris which caused flooding of some basements in Cheyenne.
8/22/1957		Laramie	Tennyson					At Tennyson hail almost covered the ground and nearby some crops were almost a total loss.
8/28/1957		Laramie	Cheyenne					A sudden rain and hailstorm at 5:15 p.m. caused a flash flood and lightning damage along a path 15 miles long and 5 miles wide near Cheyenne.
6/18/1959		Laramie	30 N Cheyenne				275,000	Hailstorm deposited hail to a depth of 3 inches, destroying wheat and alfalfa crops in the area. Hail stones to about 1.5 inches in diameter
6/12/1962		Laramie	Cheyenne			275		Hail measuring 1 to 1.5 inches caused some minor damage.
6/15/1962		Laramie	Cheyenne			275		Hail 0.75 inch in diameter occurred in Cheyenne, 1.5-inch-diameter hail reported 3 miles south.
6/19/1962		Laramie	Cheyenne			275		Hail 0.5 inch in diameter with light damage.
6/20/1962		Laramie	Southeastern Laramie County			275,000		Two to 4 inches of 0.5-inch-diameter hail covering an area 1 to 2 miles wide and 10 to 12 miles long east-northeast of Carpenter 3 ESE, along with heavy rains, did up to 100 percent damage to crops and some damage to farmsteads.
7/13/1962		Laramie	Pine Bluffs			27,500		Heavy rains and hail did considerable damage to farmsteads and crops in the Pine Bluffs vicinity.
7/8/1964		Laramie	Carpenter to Burns			27,500	275,000	Hail from 0.25 to 0.75 inch in diameter totally destroyed crops and did damage to farm buildings. Area covered 50 square miles from 11 miles north of Burns to 3 miles east of Carpenter, averaging 7000 yards across. Most of the crop damage was between Burns and Carpenter.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/22/1966		Laramie	Cheyenne			27,500		Heavy rains up to 2 inches with hail measuring up to 0.75 inch caused flash flooding. Damage mostly in the central and eastern part of Cheyenne.
8/9/1966		Laramie	Cheyenne			275		Hail 0.75 inch in diameter fell in eastern Cheyenne causing minor damage to trees, gardens, and houses.
6/2/1967		Laramie	Cheyenne			275		A brief hailstorm with hail to 1.5 inches diameter caused some damage to roofs, etc.
6/12/1967		Laramie	Carpenter			27,500		One-inch hail destroyed crops and did damage to buildings east of Carpenter.
6/6/1968		Laramie	Laramie County			275,000		Hail up to 1.5 inches in diameter fell over a wide area around Burns, Carpenter, and Pine Bluffs doing damage to buildings, cars, and crops.
6/7/1968		Laramie	Laramie County			27,500		Hail up to 1 inch in diameter fell over the Burns and Carpenter area. Damage was less than the previous day's because there was less to destroy.
7/31/1969		Laramie	Burns			27,500		A few sections just north of Burns received 1-inch-diameter hail, which damaged un-harvested small grains and hay. Some buildings, trees, and motor vehicles were damaged.
5/24/1970		Laramie	Cheyenne			27,500		One-inch hail caused damage to buildings, cars, shrubs, trees, and gardens.
5/26/1972		Laramie	Cheyenne			27,500		Hail up to 1 inch diameter over an area 6 to 8 miles wide and 18 miles long along the north edge of Cheyenne caused damage to houses and vegetation.
6/10/1972		Laramie	Cheyenne			500,000		A heavy thunderstorm with 0.75-inch-diameter hail at 1955 MST and 1.5-inch hail at 2030 MST did \$500,000+ damage to roofs, cars, windows, trees, shrubbery, gardens, and signs.
6/11/1973		Laramie	Southern Laramie County			275,000		Heavy thunderstorm moving through the Colorado-Wyoming border area, produced winds and large hail, which resulted in considerable crop and property damage. Hardest hit were the rural areas near Carpenter and east of Cheyenne. The hail was reputed to be 1 to 1.5 inch in diameter near Carpenter and 2.5-inch-diameter hail occurred and was photographed just east of Cheyenne.
8/28/1974		Laramie	Cheyenne			27,500	2,750	Hail up to 1 inch fell over central and south Cheyenne doing damage to cars, gardens, houses, and trees.
6/16/1977		Laramie	Cheyenne			2,750,000		A mile wide strip of hail 1 to 2 inches in diameter cut across Cheyenne from NW to SE with much damage along the center of the strip to houses, cars, trees, gardens, etc.
6/16/1977		Laramie	SE Laramie County			275,000		Hail up to 1.5 inches in diameter did damage to several areas. Damage mainly to crops but includes homes and cars.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/18/1977		Laramie	SE Laramie County			275,000		Hail up to 1.5 inches in diameter did damage to crops, houses, cars, etc., in several areas in SE Laramie County.
7/14/1977		Laramie				275,000		Hail up to 0.75 inch from 4 to 5 miles wide starting NE of Cheyenne 20 miles SE to near Carpenter. Most damage to field crops with some damage to buildings and cars.
6/6/1978		Laramie					29,520	A thunderstorm moving from 15 miles north of Cheyenne to near Carpenter dropped 1-inch-diameter hail over a 45-mile path, damaging crops with an estimated loss of \$29,520.
7/19/1978		Laramie				27,500	27,500	An afternoon thunderstorm dumped 1 inch and larger hail in the Pine Bluffs area damaging roofs and windows of several homes and also damaging crops in its path. Area of damage was 4 miles wide by nearly 32 miles in length.
7/31/1978		Laramie				9,000,000	25	Two severe thunderstorms did considerable damage to portions of Cheyenne. Several funnel clouds were report ably seen south of Cheyenne after the thunderstorms had moved through town. Hail up to 3 inches in diameter did an estimated \$9 million in damages to homes, property, and vehicles. Wind gusts in excess of 50 mph were recorded.
6/15/1979		Laramie				27,500		Severe thunderstorms spread hail nearly 1.5 inch in diameter over much of Laramie County damaging private property as well as some 2000 acres of winter wheat.
7/28/1979		Laramie					275	Over 1500 acres of wheat was badly damaged by hail near the Pine Bluffs area. Size of the hail was not noted in the damage report.
7/30/1979		Laramie	Cheyenne			2,500,000		The extremely large and intense thunderstorm moving through the Cheyenne area caused extensive hail damage to cars, homes, and city buildings. Hail up to 2 inches in diameter was verified in town with reports of baseball-sized hail south of the city.
7/24/1981		Laramie				27,500	275,000	Thunderstorms with hail did severe crop and property damage to the eastern third of the county including the towns of Pine Bluffs and Burns.
8/6/1981		Laramie	Pine Bluffs				5,000,000	Heavy rain estimated between 1.25 to 4 inches in about 40 min. Hail up to grapefruit size. Damaging winds blew off roofs to wooden granaries and bent TV antenna poles. Most of the damage caused by hail and by aggravated wind and rain. Note: 7 in crop damage represent the total damage of this storm plus the two previous storms combined.
8/6/1982		Laramie	Pine Bluffs				2,750	A narrow hail belt threshed about 50 percent of a 100-acre field of wheat 6 miles south of Pine Bluffs

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
9/6/1982		Laramie	Carpenter				27,500	A destructive late summer hailstorm accompanied by up to 2 inches of rain and some high winds caused up to 50% damage to corn crops, damaged beans, packed beans, packed down just-planted wheat fields, and stopped winter wheat planting and ensilage cutting in an area 3 miles east and 2 miles south of town.
8/1/1985		Laramie	Cheyenne, Crow Creek, Dry Creek	12	70	65,000,000		A nearly stationary severe thunderstorm, or storms, produced the most damaging flash flood on record for Cheyenne and the state. Twelve people lost their lives, 70 were injured, and damage to homes, cars, and businesses was estimated at \$65 million, \$61.1 million (Wyoming Floods and Droughts, National Weather Summary 1988-89), and \$40 million (WEMA). At the NWS Forecast Office near the airport, 6.06 inches of rain fell in just over 3 hrs; 3.5 inches fell between 1900 and 2000 MST. Elsewhere in and around Cheyenne, rainfall from the storm totaled between 2 and 6 inches. Around 1900 MST cars and trucks were reported floating down Dry Creek in northwest Cheyenne. By 1930MST, in addition to blinding rain, hail up to 2 inches in diameter and winds to 70 mph were occurring in the Cheyenne area. Flood waters in the city were at their height from 1900 to 2200 MST. Dry Creek became a raging torrent through north Cheyenne. Ten of the twelve deaths occurred along Dry Creek when people were swept away in their cars as they tried to cross flooded streets. A Sheriff's Deputy and the child he was trying to rescue from a stranded vehicle were swept away. Many streets turned into 2 to 4 foot deep rivers with large amounts of hail floating on top. Basements of homes and businesses quickly filled up with water and hail as flood waters crashed through doors and windows. One man suffered a heart attack and died while bailing out water from his basement. An elderly woman, who had taken shelter in her basement due to an earlier tornado warning, became trapped and later drowned in her basement when the flood waters came crashing through basement windows and filled to the ceiling. Funnel clouds were observed at 1824 and 1841 MST 5 and 3 miles, respectively, southwest of the Weather Service Office. Some basements equipped with drains were still flooded with 2 to 5 feet of hail after the water drained away. In some low-lying areas of Cheyenne the hail had piled up into 4 to 8 foot drifts. 3.51 inches of rain in 1 hour (WEMA). Estimated peak discharge at Dry Creek location 5100 CFS (WEMA) and 5880 CFS (FEMA Flood Insurance Study, March 2,1994). Estimated peak discharge at Crow Creek 8000 CFS (FEMA Flood Insurance Study, March 2,1994).

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/8/1986		Laramie	1 NW Carpenter			2,750	27,500	Golf ball-sized hail was reported northwest of Carpenter at 1610 MST. At 1643 MST, softball-sized hail was reported 3 miles west of Carpenter. There was considerable damage to crops. Vehicles and houses were also damaged. At 1650 MST, Air Force personnel reported a tornado near Albin. At 1715 MST, golf ball-size hail fell 5 miles south of Hillsdale.
6/8/1986		Laramie	3 W Carpenter			27,500	275,000	Golf ball-sized hail was reported northwest of Carpenter at 1610 MST. At 1643 MST, softball-sized hail was reported 3 miles west of Carpenter. There was considerable damage to crops. Vehicles and houses were also damaged. At 1650 MST, Air Force personnel reported a tornado near Albin. At 1715 MST, golf ball-sized hail fell 5 miles south of Hillsdale.
7/31/1986		Laramie	Pine Bluffs			275,000		Up to golf ball-sized hail in Pine Bluffs at 1904 MST damaged vehicles, and roofs and windows of buildings.
5/26/1987		Laramie	22 E Cheyenne					A string of storms rumbled through southeast Wyoming and produced areas of heavy rain, high winds, and hail. Numerous reports of 0.5- to 0.75-inch hail were noted over sections of Cheyenne. One of these storms moved over the area between Burns and Albin and pelted crops in the area for 20 minutes. Crop damage was to wheat, strawberries, flowers, and plants. Winds of 50 mph blew 10 miles west of Cheyenne at about 1700 MST.
8/3/1987		Laramie	12 SW Cheyenne		3	2,750		At 1417 MST radar detected a severe thunderstorm about 12 miles southwest of Cheyenne. This thunderstorm produced a hail swath about 0.5 to 0.75 mile wide. The storm moved through the northeast section about 1 hour later. The storm pummeled Cheyenne with 0.5- to 2-inch-diameter hail. This hailstorm heavily damaged cars at three major car dealerships west of downtown. Many of the cars were severely dented, with numerous broken or cracked windshields. Another especially hard hit area was F.E. Warren Air Force Base where numerous vehicles were dented and windows shattered or broken on vehicles and some buildings. Three people were slightly injured during the hailstorm. The hail also ripped leaves and small limbs from trees and decimated gardens throughout the city of Cheyenne. Damage from this hailstorm was expected to exceed \$37 million. As this severe thunderstorm marched towards the northeast, a pilot spotted a funnel cloud 17 miles northwest of Cheyenne.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
8/3/1987		Laramie	1 N Cheyenne			27,500		At 1417 MST radar detected a severe thunderstorm 12 miles southwest of Cheyenne. This thunderstorm produced a hail swath about 0.5 to 0.75 mile wide. The storm moved through the northeast section about 1 hour later. The storm pummeled Cheyenne with 0.5- to 2-inch-diameter hail. This hailstorm heavily damaged cars at three major car dealerships west of downtown. Many of the cars were severely dented, with numerous broken or cracked windshields. Another hard hit area was F.E. Warren Air Force Base where numerous vehicles were dented and windows shattered or broken on vehicles and some buildings. Three people were slightly injured. The hail ripped leaves and small limbs from trees and decimated gardens throughout Cheyenne. Damage was expected to exceed \$37 million. As this severe thunderstorm marched towards the northeast, a pilot spotted a funnel cloud 17 miles northwest of Cheyenne.
8/3/1987		Laramie	3 SW Cheyenne			27,500		At 1417 MST radar detected a severe thunderstorm 12 miles southwest of Cheyenne. This thunderstorm produced a hail swath about 0.5 to 0.75 mile wide. The storm moved through the northeast section about 1 hour later. The storm pummeled Cheyenne with 0.5- to 2-inch-diameter hail. This hailstorm heavily damaged cars at three major car dealerships west of downtown. Many of the cars were severely dented, with numerous broken or cracked windshields. Another hard hit area was F.E. Warren Air Force Base where numerous vehicles were dented and windows shattered or broken on vehicles and some buildings. Three people were slightly injured. The hail ripped leaves and small limbs from trees and decimated gardens throughout Cheyenne. Damage was expected to exceed \$37 million. As this severe thunderstorm marched towards the northeast, a pilot spotted a funnel cloud 17 miles northwest of Cheyenne.
8/3/1987		Laramie	6 NE Cheyenne			27,500		At 1417 MST radar detected a severe thunderstorm 12 miles southwest of Cheyenne. This thunderstorm produced a hail swath about 0.5 to 0.75 mile wide. The storm moved through the northeast section about 1 hour later. The storm pummeled Cheyenne with 0.5- to 2-inch-diameter hail. This hailstorm heavily damaged cars at three major car dealerships west of downtown. Many of the cars were severely dented, with numerous broken or cracked windshields. Another hard hit area was F.E. Warren Air Force Base where numerous vehicles were dented and windows shattered or broken on vehicles and some buildings. Three people were slightly injured. The hail ripped leaves and small limbs from trees and decimated gardens throughout Cheyenne. Damage was expected to exceed \$37 million. As this severe thunderstorm marched towards the northeast, a pilot spotted a funnel cloud 17 miles northwest of Cheyenne.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
8/3/1987		Laramie	Cheyenne			27,500		At 1417 MST radar detected a severe thunderstorm 12 miles southwest of Cheyenne. This thunderstorm produced a hail swath about 0.5 to 0.75 mile wide. The storm moved through the northeast section about 1 hour later. The storm pummeled Cheyenne with 0.5- to 2-inch-diameter hail. This hailstorm heavily damaged cars at three major car dealerships west of downtown. Many of the cars were severely dented, with numerous broken or cracked windshields. Another hard hit area was F.E. Warren Air Force Base where numerous vehicles were dented and windows shattered or broken on vehicles and some buildings. Three people were slightly injured. The hail ripped leaves and small limbs from trees and decimated gardens throughout Cheyenne. Damage was expected to exceed \$37 million. As this severe thunderstorm marched towards the northeast, a pilot spotted a funnel cloud 17 miles northwest of Cheyenne.
8/3/1987		Laramie	1 W Cheyenne			2,750,000		At 1417 MST radar detected a severe thunderstorm 12 miles southwest of Cheyenne. This thunderstorm produced a hail swath about 0.5 to 0.75 mile wide. The storm moved through the northeast section about 1 hour later. The storm pummeled Cheyenne with 0.5- to 2-inch-diameter hail. This hailstorm heavily damaged cars at three major car dealerships west of downtown. Many of the cars were severely dented, with numerous broken or cracked windshields. Another hard hit area was F.E. Warren Air Force Base where numerous vehicles were dented and windows shattered or broken on vehicles and some buildings. Three people were slightly injured. The hail ripped leaves and small limbs from trees and decimated gardens throughout Cheyenne. Damage was expected to exceed \$37 million. As this severe thunderstorm marched towards the northeast, a pilot spotted a funnel cloud 17 miles northwest of Cheyenne.
8/3/1987		Laramie	2 NW Cheyenne			2,750,000		At 1417 MST radar detected a severe thunderstorm 12 miles southwest of Cheyenne. This thunderstorm produced a hail swath about 0.5 to 0.75 mile wide. The storm moved through the northeast section about 1 hour later. The storm pummeled Cheyenne with 0.5- to 2-inch-diameter hail. This hailstorm heavily damaged cars at three major car dealerships west of downtown. Many of the cars were severely dented, with numerous broken or cracked windshields. Another hard hit area was F.E. Warren Air Force Base where numerous vehicles were dented and windows shattered or broken on vehicles and some buildings. Three people were slightly injured. The hail ripped leaves and small limbs from trees and decimated gardens throughout Cheyenne. Damage was expected to exceed \$37 million. As this severe thunderstorm marched towards the northeast, a pilot spotted a funnel cloud 17 miles northwest of Cheyenne.

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Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
8/3/1987		Laramie	2 SW Cheyenne		3	37,000,000		At 1417 MST radar detected a severe thunderstorm 12 miles southwest of Cheyenne. This thunderstorm produced a hail swath about 0.5 to 0.75 mile wide. The storm moved through the northeast section about 1 hour later. The storm pummeled Cheyenne with 0.5- to 2-inch-diameter hail. This hailstorm heavily damaged cars at three major car dealerships west of downtown. Many of the cars were severely dented, with numerous broken or cracked windshields. Another hard hit area was F.E. Warren Air Force Base where numerous vehicles were dented and windows shattered or broken on vehicles and some buildings. Three people were slightly injured. The hail ripped leaves and small limbs from trees and decimated gardens throughout Cheyenne. Damage was expected to exceed \$37 million. As this severe thunderstorm marched towards the northeast, a pilot spotted a funnel cloud 17 miles northwest of Cheyenne.
8/4/1987		Laramie	Albin			27,500	175,000	An intense thunderstorm moved through the Albin area and produced heavy rain, high winds, and small hail. This storm damaged a number of crops, mainly beans, potatoes, oats, and sunflowers with some fields damaged as much as 80%.
9/27/1988		Laramie	8 NW Cheyenne			27,500		A line of severe afternoon thunderstorms developed across southeastern Wyoming. These were caused by the combination of a very intense, deepening upper-level low and a strong surface cold front. The result was an unusually late fall of large hail. The storms developed 15 miles northwest of Cheyenne, and moved east-southeast, against the upper-level southwest flow. In a 1.5 to 2 hour period, there were countless reports of hail with diameters ranging from 1 to 2.5 inches across southeastern Laramie County. From 1449 to 1535 MST, large hail fell across the northeastern half of Cheyenne, including the Cheyenne airport. The hail was soft, splashing and shattering into several pieces upon impact with the ground, buildings, cars, etc. That greatly minimized the damage. No catastrophic losses were reported.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
9/27/1988		Laramie	18 E Cheyenne			27,500		A line of severe afternoon thunderstorms developed across southeastern Wyoming. These were caused by the combination of a very intense, deepening upper-level low and a strong surface cold front. The result was an unusually late fall of large hail. The storms developed 15 miles northwest of Cheyenne, and moved east-southeast, against the upper-level southwest flow. In a 1.5 to 2 hour period, there were countless reports of hail with diameters ranging from 1 to 2.5 inches across southeastern Laramie County. From 1449 to 1535 MST, large hail fell across the northeastern half of Cheyenne, including the Cheyenne airport. The hail was soft, splashing and shattering into several pieces upon impact with the ground, buildings, cars, etc. That greatly minimized the damage. No catastrophic losses were reported.
9/27/1988		Laramie	7 E Cheyenne			27,500		A line of severe afternoon thunderstorms developed across southeastern Wyoming. These were caused by the combination of a very intense, deepening upper-level low and a strong surface cold front. The result was an unusually late fall of large hail. The storms developed 15 miles northwest of Cheyenne, and moved east-southeast, against the upper-level southwest flow. In a 1.5 to 2 hour period, there were countless reports of hail with diameters ranging from 1 to 2.5 inches across southeastern Laramie County. From 1449 to 1535 MST, large hail fell across the northeastern half of Cheyenne, including the Cheyenne airport. The hail was soft, splashing and shattering into several pieces upon impact with the ground, buildings, cars, etc. That greatly minimized the damage. No catastrophic losses were reported.
9/27/1988		Laramie	Cheyenne			27,500		A line of severe afternoon thunderstorms developed across southeastern Wyoming. These were caused by the combination of a very intense, deepening upper-level low and a strong surface cold front. The result was an unusually late fall of large hail. The storms developed 15 miles northwest of Cheyenne, and moved east-southeast, against the upper-level southwest flow. In a 1.5 to 2 hour period, there were countless reports of hail with diameters ranging from 1 to 2.5 inches across southeastern Laramie County. From 1449 to 1535 MST, large hail fell across the northeastern half of Cheyenne, including the Cheyenne airport. The hail was soft, splashing and shattering into several pieces upon impact with the ground, buildings, cars, etc. That greatly minimized the damage. No catastrophic losses were reported.
5/24/1990		Laramie	Near Pine Bluffs			275	275	
5/24/1990		Laramie	25-35 NE			275		

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
5/24/1990		Laramie	SE part			275	25	The largest single outbreak of tornadoes recorded in Wyoming occurred on the afternoon and evening in Laramie County. A severe thunderstorm complex was the culprit. A number of weak, short-lived tornadoes continually formed and dissipated, while hail from the size of dimes up to tennis balls pelted the same general area. Hardest hit was northern and eastern Laramie County. The strongest tornadoes were reported about 25 to 35 miles northeast of Cheyenne at about 1555 to 1630 MST. In the Meridan area, a few trees were uprooted, fences and windmills damaged, and a stock tank was moved a half mile. The most intense tornado was reported to be a 0.25 mile wide some 25 to 30 miles northeast of Cheyenne at 1623 MST. Hail was largest in the vicinity of Albin at 1705 MST (tennis ball-sized). Locally heavy rains also occurred.
5/24/1990		Laramie	Albin			2,750	275	
6/15/1990		Laramie	Near Carpenter			275	2,750	Severe thunderstorms moved through Laramie County from 1500 to 1630 MST, producing some funnel clouds, along with infrequent hail of golf ball and tennis ball size.
7/20/1990		Laramie	Near Carpenter			275		A severe thunderstorm developed near Cheyenne around 1625 MST, dropping hail up to 1 inch in diameter until 1635 MST. The storm continued east, producing 0.5- to 0.75-inch-diameter hail at Carpenter between 1715 and 1730 MST.
7/20/1990		Laramie	S Part Cheyenne			275		
5/15/1991		Laramie	7 E Cheyenne			27,500	27,500	
6/22/1995		Laramie	Cheyenne					Thunderstorms occurred in Laramie County during the late afternoon. These storms produced hail from 0.75 to 1.5 inch in diameter. Minor damage was reported to some automobiles.
7/17/1995		Laramie	Horse Creek			1,000		Large hail fell in and near Horse Creek. The hail injured a horse and broke all exterior lights on a house. The hail piled up to 6 to 8 inches deep in the 0.5 mile wide path.
7/13/1996		Laramie	3 N Albin to Albin			1,000,000		Large hail caused extensive crop damage to the north of Albin.
7/13/1996		Laramie	2 N Cheyenne to Cheyenne			4,000,000		Hail from 0.75 to 1.5 inches fell in the Cheyenne area. Damage was done to windows, roofs, and trees.
7/30/1996		Laramie	3 N Albin				300,000	Considerable hail as well as strong winds caused extensive crop damage north of Albin.
7/31/1996		Laramie	Cheyenne			3,400,000		Hail between 1 and 2.5 inches fell in Cheyenne.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
8/14/1996		Laramie	20 NE Cheyenne			20,000		
8/14/1996		Laramie	20 NE Cheyenne			20,000		
8/14/1996		Laramie	10 N Cheyenne			30,000		
8/14/1996		Laramie	Albin			50,000	10,000	Hail, ranging in diameter from 1 to 3 inches caused crop damage as well as roof and car damage. The hail was in a path about 1 mile wide.
8/15/1996		Laramie	8 NE Cheyenne			10,000		
8/29/1996		Laramie	13 W Cheyenne			5,000		
8/29/1996		Laramie	29 N Cheyenne			1,000		
8/29/1996		Laramie	Cheyenne			2,400,000		Large hail broke some car windows in Cheyenne and damaged numerous roofs.
9/2/1996		Laramie	5 S Pine Bluffs			1,000	1,000	
5/24/1997		Laramie	1 S Albin				24,000	Hail, 0.75 inch in diameter, fell one mile south of Albin, badly damaging 10 to 12 sections of cropland.
6/1/1997		Laramie	7 W Albin				5,000	
6/1/1997		Laramie	10 N Pine Bluffs				4,000	
6/2/1997		Laramie	Albin				4,000	
6/12/1997		Laramie	7 W Cheyenne			3,000		Hail piled up to a 4-inch depth.
6/12/1997		Laramie	17 W Cheyenne			20,000		
6/15/1997		Laramie	5 SE Cheyenne			2,000	2,000	
6/18/1997		Laramie	Cheyenne			25,000		
7/5/1997		Laramie	Cheyenne			10,000		
7/5/1997		Laramie	4 W Burns			10,000	5,000	

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
5/10/1998		Laramie	Albin				149,700	Hail 0.75 inch in diameter accumulated to a depth of 4 to 5 inches in and just to the west of Albin. This resulted in complete damage of 375 acres of alfalfa, 250 acres of wheat, and 300 acres of hay.
5/10/1998		Laramie	22 N Cheyenne			2,000		A thunderstorm produced golf ball-sized hail along Interstate 25, 22 miles north of Cheyenne.
5/19/1998		Laramie	20 N Cheyenne			4,000		A storm produced golf ball-sized hail 20 miles north of Cheyenne.
9/11/1998		Laramie	10 E Cheyenne					Considerable small hail occurred over southeastern Laramie County during the early afternoon. The result was a few hundred acres of crop damage mostly to corn, beans, wheat, alfalfa, and sunflowers.
5/30/1999		Laramie	Hillsdale			10,000		
9/3/1999		Laramie	3 W Carpenter				1,000	Hail 0.75 inch in diameter damaged some corn and sugar beet crops.
6/29/2001		Laramie	Burns			30,000		
8/26/2002		Laramie	Cheyenne			30,000,000		Hail from 1 to 2.75 inches in diameter fell over mainly the central and western parts of the city of Cheyenne. Significant damage was reported to automobiles and roofs.
6/1/2003		Laramie	8 W Pine Bluffs			2,000		
6/23/2003		Laramie	15 E Cheyenne to 20 E Cheyenne			30,000		Hail 1.5 to 2 inches-diameter hail reported.
9/10/2006	9/10/2006	Laramie	4 NW Carpenter to Carpenter			500		3/4 to 1 inch diameter hail reported with some skylights broken
6/18/1975		Laramie, Platte, and Goshen	SE ¾ of Laramie County and S ½ Platte/ Goshen Counties			2,750,000		Scattered thunderstorms, some severe, developed near the Laramie Mountains and moved east-northeast. Hailstones up to 2 inches in diameter coupled with hard rains caused considerable tree and roof damage in Cheyenne between 1700 and 1730 MST; much of the damage was in the northern part of the city. Hail also caused considerable property damage in Hawk Springs, in southern Goshen County. Widely scattered crop losses were reported in Laramie and Goshen counties.
7/1/2007		Laramie	2 N Albin					Mostly smaller, and rather soft hail. A severe thunderstorm drifted along the Wyoming/Nebraska border and produced some large hail near Albin, WY.
5/23/2008		Laramie	11 SE Cheyenne					Reports of hail around 1.00 inch in diameter from second storm that moved just east of Cheyenne.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/2/2008		Laramie	8 E Cheyenne					Many reports of hail from 3/4 inch to 1.25 inches in diameter.
6/7/2009		Laramie	9 SE Burns					A line of thunderstorms produced hail over eastern Laramie county and a landspout type tornado over extreme southeast Goshen County into far northwest Banner county of the Nebraska panhandle.
7/27/2009		Laramie	1 S Lynch					Upslope flow created an isolated severe thunderstorm over far southwestern Laramie county.
6/28/2007		Laramie	8 S Cheyenne, Hillsdale					A slow moving severe thunderstorm produced hail 1 to 1.75 inches in diameter along a track from south of Cheyenne to Hillsdale, Wyoming, about 16 miles east of Cheyenne. Some windows and skylights were broken in Hillsdale, WY.
7/11/2007		Laramie	8 S Cheyenne					Public report of hail up to 1.75 inches in diameter at the Terry Bison Ranch.
8/22/2007		Laramie	20 N Cheyenne					Nickel to golf ball hail reported along Interstate 25.
5/22/2008		Laramie	35 E Cheyenne					
6/2/2008		Laramie	18 E Cheyenne, 2 SW Burns					Hail from 1 to 1.75 inches in diameter reported. A few severe thunderstorms produced some large hail over Platte and Laramie counties.
6/23/2008		Laramie	22 N Cheyenne					Hail reported along Interstate 25. A couple of severe thunderstorms produced some hail over parts of Platte and Laramie counties.
6/7/2009		Laramie	9 E Cheyenne					Hail from 1 to 1.75 inches in diameter fell northeast of Cheyenne, WY, damaging some roofs and cars. A severe thunderstorm developed near Cheyenne and produced some a large hail.
8/8/2009		Laramie	Hillsdale, 7 N Burns					Most of the hail along track was around 1 inch in diameter. An upper level disturbance caused scattered thunderstorms to develop over southeast Wyoming with one storm producing some large hail.
6/29/1937		Lincoln	Afton					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined.
8/1/1938		Lincoln	Star Valley					Damage from hail was in the Star Valley where alfalfa was injured in many fields.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
5/28/1956		Lincoln	7 to 8 miles north and northeast of Border, western slope of Sublet Range, Bear River Valley					On the 28th a "cloudburst" with hail and strong wind occurred about 7 to 8 miles north and northeast of Border in Lincoln County on the western slope of Sublette Range, and at a few scattered places in the Bear River Valley. Heavy wind and hail accompanied this storm. All ditches and canals overflowed. Some grain fields were washed out but no extensive damage was incurred.
7/31/1957		Lincoln	North of Auburn					Hail caused extensive crop destruction.
7/31/1957		Lincoln	North of Auburn					North of Auburn in Lincoln County a heavy hailstorm caused complete crop destruction and some property loss in a 15-minute period, 3:15 - 3:30 p.m. of the 31st.
8/5/1977		Lincoln				275,000		Hail up to 0.75 inch destroyed crops and did damage to cars and buildings in a 3 square mile area in Star Valley between Freedom and Etna; also in a small area north of Smoot in Star Valley.
9/13/2001		Lincoln	5 N Kemmerer					Large hail broke windshields.
6/17/1950		Natrona	Riverton					A damaging hailstorms occurred in Natrona and Converse Counties, which also caused considerable damage to property and growing crops.
7/11/1950		Natrona	Midwest					A hail and wind storm occurred in the Salt Creek oil fields near Midwest on the 11th. Damage from hail was light but several oil derricks were destroyed by the wind.
6/25/1955	6/27/1955	Natrona	North Platte Valley					Hail and thunderstorms visited the North Platte Valley, and hail damage to many crop varieties was heavy.
6/26/1955	6/27/1955	Natrona	North Platte Valley					One of the worst series of thunderstorms in the North Platte Valley in recent years occurred June 26th - 27th. A survey of the area by a representative of the U.S. Weather Bureau, in cooperation with other interested agencies, indicated from unofficial reports that there were 6 inches to 8 inches of precipitation. This was one of the worst floods in the upper North Platte Valley in 25 years. On U.S. highway 26, two bridges were washed out between Ft. Laramie and Guernsey. About 75 persons were evacuated from their homes along the North Platte. Torrential rains with hail and consequent high water caused hundreds of thousands of dollars in damage to wheat, bean, and sugar beet crops in the valley. In some fields plantings were total losses. Trees were uprooted by high winds and two farmhouses were destroyed by a small tornado along a path from 2 to 7 miles southwest of Torrington the morning of the 27th. The North Platte River and the Interstate Canal

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
								overflowed their banks the evening and night of the 26th at Ft. Laramie. More than 75 percent of the town was inundated by 5 feet of water; 4 to 6 inches of mud was deposited on the floors of three-fourths of the homes and business buildings of the town. The worst bridge washout was at Cottonwood Creek five miles west of Ft. Laramie. Two spans were swept away and piling was torn out of the ground. The grade approach to a railroad bridge was washed out leaving 22 feet of track suspended. South of Chugwater 18 miles of railroad tracks were washed out. Temporary bridges were erected over Bear Creek on U.S. Highway 87. There were reports from four miles west of Torrington of hailstones as large as baseballs. Runoff from the hills north of Torrington flooded the town to a depth of 2 to 3 feet at the height of the storm on the 26th. Many basements in residential and business areas were filled with water and hail. The National Guard was mustered to direct traffic and police the area. A partially built frame house in Torrington collapsed, and a basement wall of another house caved in. A county road north of Torrington was undercut by the deluge and a 40-foot section washed out.
5/29/1959		Natrona	Casper Airport			25		
6/15/1962		Natrona	Casper 30 NW			275,000		Several inches of 1- to 2-inch hail along with heavy rain caused considerable damage to range land, and to flocks of sheep in the area. Some flash flooding occurred with resultant damage to roads and bridge.
7/31/1962		Natrona	Casper			2,750,000		Several inches of hail covered the southern half of Casper causing considerable damage to houses and cars.
6/15/1965		Natrona	Casper			275		Two-inch soft hail in Casper caused minor damage.
5/15/1969		Natrona	Casper			25		Hail 0.75 inch fell for 15 minutes at Casper airport.
5/27/1970		Natrona	Casper			275		Hail 0.75 inch in diameter at Casper Airport caused some damage to cars, trees, shrubs, and hay.
8/8/1972		Natrona	Casper			27,500		Hail up to 1.25 inch fell in western Casper doing damage to roofs, gardens, trees, shrubs, and cars.
6/23/1974		Natrona	Casper			275,000		Heavy rain with soft hail up to 2.75 inches caused damage to houses, trees, and cars. Rain caused brief minor flooding up to a few inches in downtown streets and into some stores.
6/13/1977		Natrona	Casper			2,750		Hail up to 1.75 inch diameter fell in lightly populated area with some damage to houses, cars, etc.
7/9/1978		Natrona	Casper			27,500	275	A brief 15-minute hailstorm sometime early Sunday morning dropped "golf ball sized and larger hail" in parts of Casper. Vehicle and house damages were reported.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/20/1978		Natrona				27,500	275	Late afternoon thunderstorms dumped additional 1.5-inch-diameter hail east of Casper. Damage to houses, trailers, vehicles, and crops was reported.
7/20/1978		Natrona				275,000	27,500	Severe thunderstorms with golf ball-sized hail and wind gusts in excess of 66 mph did considerable damage in Casper. Damage to windows, motor homes, commercial power equipment, mobile homes, boats, and vehicles was reported. Localized damage to crops and vegetation was also received. Funnel clouds were reportedly seen in the area also.
6/14/1984		Natrona	NW Natrona County			275		Golf ball-sized hail fell northeast of Arminto causing some damage to few cars.
9/2/1986		Natrona	Casper			29,000,00		A 1600 MST on Casper Mountain, about 5 miles south of Casper, thunderstorm winds damaged the roof of a house, toppled power poles, and uprooted 50 to 100 pine trees. At 1850 MST, hail up to 2 inches in diameter moved through Casper, causing extensive damage to vehicles, buildings, and vegetation.
7/24/1994		Natrona	Alcova			2,750		Numerous car windshields were damaged by hail up to 1 inch in diameter from a lone thunderstorm over central Wyoming.
7/20/2000		Natrona	Midwest to Edgerton			108,000		Extensive damage to homes and vehicles. At least 90 sparrows killed. Unofficial reports of some softball-sized hail.
8/7/2008		Natrona	2 S Fry			50,350		Penny sized hail was observed on Interstate 25 near the Converse County line. Severe thunderstorms formed over central Natrona County during the mid-afternoon hours. These storms produced a brief tornado on the south side of Casper and hail up to the size of golf balls.
5/7/2008		Natrona	3 WSW Mills					Large hail of 1.25 inch diameter fell for several minutes at Poison Spider School.
6/13/2009		Natrona	Bar Nunn					A trained spotter measured hail up to 1.25 inches in diameter.
8/22/2007		Natrona	5 S Casper					The Natrona County Sheriff's Office relayed a report of 1.50 inch diameter hail on Casper Mountain.
5/7/2008		Natrona	1 NNW Red Buttes Village					Emergency management officials observed 1.50 inch diameter hail southwest of Casper.
7/19/2007		Natrona	Powder River					Golf ball sized hail fell in Powder River for 10 to 15 minutes.
8/22/2007		Natrona	Casper					A CoCoRaHS spotter estimated hail to be the size of golf balls.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
5/23/1939		Niobrara	Lusk					A severe hail storm occurred in portions of Goshen, Platte and Niobrara Counties on May 23rd. Growing crops were severely damaged by this storm, as well as considerable property damage such as broken windows, and damage to roofs and automobiles in the vicinity of Lusk. Some livestock, especially young lambs, were killed by the storm.
6/12/1946		Niobrara	Lusk			125,000		A storm on June 12th caused about \$125,000 damage to the town of Lusk confined mostly to roofs and windows.
6/17/1948		Niobrara					100,000	A hailstorm and tornado that hit parts of Converse and Niobrara Counties on the 17th. This storm caused serious damage, not only to growing crops, but to ranch and farm property as well. Damage from the storm alone will amount to nearly \$100,000.
5/21/1956		Niobrara	North of Kirtley					A damaging hailstorm occurred north of Kirtley on the 21st, it caused some damage to growing crops.
5/29/1956		Niobrara	Bright 7 NE					At Bright 7 NE hail on the 29th caused some damage.
6/11/1960		Niobrara	South of Lusk			2,750	2,750	The rain caused flooding with some damage to buildings and roads. Some poultry and small livestock were killed by hail.
7/17/1962		Niobrara	Keeline 4 WSW			27,500		Severe thunderstorms with hail and a small tornado caused damage.
7/2/1965		Niobrara	Lance Creek			27,500		Hail 1 inch in diameter did damage to crops, gardens, trees, and roofs.
7/5/1965		Niobrara				27,500		Up to 1.5-inch-diameter hail did damage to crops, trees, gardens, and roofs in the Kirtley and Hat Creek areas.
6/6/1967		Niobrara	Lusk 5 S				275	Hail 2.5 inches in diameter fell on range land causing minor damage.
7/31/1969		Niobrara	Lusk 5 S				27,500	Hail up to 1.5 inches damaged un-harvested small grains and hay.
6/9/1972		Niobrara	Lusk			2,750		A severe thunderstorm with strong gusty winds and hail up to 0.75 inch caused damage to roofs, windows, cars, trees, and shrubbery.
6/14/1977		Niobrara				275,000		Hail up to 1-inch diameter did damage to homes, livestock, small grains, and 20,000 acres of range land in northern Niobrara County.
6/14/1977		Niobrara				275,000		Hail up to 2 inches diameter did damage to homes, livestock, small grains, and 20,000 acres of range land. Killed 15 antelope and one golden eagle.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
8/8/1977		Niobrara				275,000		Hail up to 2-inch diameter cut a swath as much as 4 miles wide across southern Niobrara County doing damage to crops, cars, machinery, and buildings. Most damage was to irrigated crops.
7/25/1980		Niobrara	Lusk area					"One of the most vicious storms" to hit the Lusk area left 4 to 7 inches of hail and up to 4 inches of rain in 20 minutes. Windows were broken, roofs damaged, and basements flooded. A severe electrical storm that preceded the hail killed 3 cows and 2 calves. Ranchers in the affected area lost most of their pastures.
7/17/1981		Niobrara				2,750		A thunderstorm with hail moved through Lance Creek damaging cars and roofs. Heavy rain from the storm caused high water which damaged some dikes on the creek.
7/4/1990		Niobrara	20-25 N Lusk			275		A thunderstorm produced hail up to 0.75-inch diameter and heavy rain 20 to 25 miles north of Lusk between 1840 and 1930 MST. A few cars were slightly damaged by the hail.
7/12/1992		Niobrara	30 N Lusk			27,500		Large hail broke car windows and damaged some ranch houses north of Lusk.
7/23/1992		Niobrara	Lusk			2,750		Minor damage occurred with this hailstorm in Lusk.
7/2/1993		Niobrara	Lusk					Hail up to 1.75-inch diameter in Niobrara County brought some roof and window damage in the town of Lusk.
8/28/1996		Niobrara	Redbird			5,000		Large hail broke windows in the area.
7/21/1973		Niobrara and Weston	Niobrara and Weston Counties			275,000		Torrential rains accompanied by hail caused flash flooding in the area creek and river, making roads impassable in spots and damaging bridges. Several earthen dams went out. Although hail size was not specified, banks of hail 3 to 4 feet high were observed along roads and creeks. Crop and property damage was substantial.
6/1/1938		Park						Hail storms were unusually numerous and destructive, the greater damage occurring in Park County, the irrigated area along the Big Horn basin and in the Platte and Goshen Counties. Sugar beets suffered the greatest damage. Severe hail in Park, Big Horn, Washakie, Goshen and Platte Counties caused considerable damage to sugar beets. The hail was reported to be the worst ever experienced in Park County with considerable damage to buildings and automobiles.
6/18/1938		Park	Powell					Considerable damage by hail was reported to growing crops in the Powell area on the 18th and 20th. In the Powell and Deaver districts, it was reported that the hail was the worst in the history of that section. The damage was confined entirely to growing crops. A number of roofs of buildings as well as automobile tops were damaged. The loss to turkeys and chickens will also run high.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/20/1938		Park	Powell					Considerable damage by hail was reported to growing crops in the Powell area on the 18th and 20th. In the Powell and Deaver districts, it was reported that the hail was the worst in the history of that section. The damage was confined entirely to growing crops. A number of roofs of buildings as well as automobile tops were damaged. The loss to turkeys and chickens will also run high.
7/22/1938		Park						Severe local hail damage to crops occurred in Goshen County on the 13th and in Park County on the 22nd. Damaging hail storms were reported from the Torrington area on the 13th with damage amounting to about 75% in some fields.
8/14/1955		Park	Powell				1,000,000	A hailstorm at Powell and vicinity on the 14th resulted in extensive damage to crops and property with total loss estimated in excess of \$1,000,000. Some of the hailstones were an inch and a half in diameter. A considerable number of window panes and neon signs were broken. This hailstorm covered an area about 3 miles wide and 20 miles in length.
8/8/1956		Park	Sunshine					On the 8th there was hail in the vicinity of Sunshine but none at the station. Power was off from 1:10 a.m. to 10:00 p.m.
6/29/1964		Park	Powell				27,500	Hail 1 to 2 inches in diameter did considerable crop damage along a line from lower Heart Mountain to the North End. The area covered averaged 1 to 2 miles wide.
6/30/1977		Park	Powell				275,000	Hail up to 0.75-inch diameter caused severe crop losses in the area south of Powell.
7/5/1977		Park				2,750,000		Hail up to 1 inch fell over a 2 by 9 mile area starting just south of Powell and extending eastward. Most damage was to buildings and cars.
7/11/1977		Park				2,750,000		Hail up to 1 inch fell over a 3 by 9 mile area between Heart Mountain and Powell. Most damage was to irrigated crops with some damage to buildings and cars.
7/26/1977		Park				2,750,000		Hail up to 1.75 inches fell in a strip from 5 to 6 miles from north of Powell southeast for 10 miles. Most damage was to irrigated crops with some damage to buildings and cars.
6/13/1984		Park	Powell				27,500	Golf ball-sized hail heavily damaged grain crops in the Powell area.
6/7/1986		Park	20 SW Powell					Hail up to 0.75 inch in diameter damaged around 1000 acres of barley, sugar beets, and alfalfa hay in the Heart Mountain area, 20 miles southwest of Powell.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
5/26/1987		Park	22 NE Cody					A thunderstorm developed north of Cody. It moved over Heart Mountain and Powell during the evening. This storm pounded crops in the area with 0.5-inch-diameter hail. Crop damage was not easily assessed. The hail struck a widespread area around Powell. One farmer reported the hail came down so hard that the beet fields were completely bare after the storm ended.
6/8/1987		Park	Cody 22 NE					A strong thunderstorm moved over the Heart Mountain area and dumped over 1.5 inches of rain. The accompanying hail also pounded crops. In some places the hail looked just like a snow storm. The hail was confined mostly to a very narrow strip not even a mile in length. Sugar beet fields were especially damaged by the hail. This strong thunderstorm also affected the town of Cody and the town of Meeteetse with washed roads and some water filled basements.
5/18/1991		Park	Cody			275,000		
9/10/1991		Park	Cody			275,000		
8/4/1994		Park					60,000	Thunderstorms with hail up to marble size produced pockets of crop damage from Heart Mountain to Garland.
7/12/1995		Park	Cody				35,000	Thunderstorms moved through Park County producing strong winds and hail; 0.5-inch-diameter hail fell to the south and east of Powell, damaging crops and fields. The hail piled up to a depth of 6 to 8 inches in places.
7/20/1995		Park				50,000		Hail damaged crops and fields south and east of Powell. Some crops were totally destroyed. Some roofs south of Powell were also damaged.
7/1/1998		Park	Cody			35,000		West side of town.
6/9/2000		Park	Powell			500,000		
5/29/2008		Park	5 ESE Meeteetse			35,245		Penny sized hail was reported along State highway 120 south of Meeteetse.
5/1/1938		Platte						Some damage from hail in the lower Big Horn Basin and portions of Sheridan, Platte, Goshen and Laramie Counties. However, in most places the hail was small and with only slight damage to vegetation.
6/1/1938		Platte						Hail storms were unusually numerous and destructive, the greater damage occurring in Park County, the irrigated area along the Big Horn basin and in the Platte and Goshen Counties. Sugar beets suffered the greatest damage. Severe hail in Park, Big Horn, Washakie, Goshen and Platte Counties caused considerable damage to sugar beets.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/18/1938		Platte	Wheatland					Considerable damage by hail was reported to growing crops in Wheatland on the 18th and 20th. Damage from hail to 2000 acres of growing crops in the Wheatland district as well as breakage of approximately 1500 window glasses was reported.
6/20/1938		Platte	Wheatland					Considerable damage by hail was reported to growing crops in Wheatland on the 18th and 20th. Damage from hail to 2000 acres of growing crops in the Wheatland district as well as breakage of approximately 1500 window glasses was reported.
5/23/1939		Platte						A severe hail storm occurred in portions of Goshen, Platte and Niobrara Counties on May 23rd. Growing crops were severely damaged by this storm, as well as considerable property damage such as broken windows, and damage to roofs and automobiles in the vicinity of Lusk. Some livestock, especially young lambs, were killed by the storm.
6/4/1940	6/5/1940	Platte	Wheatland					Damaging hail storms were reported from the Wheatland area on the 4th and 5th. Damage in the Wheatland storm was confined principally to alfalfa and small grain.
6/24/1943		Platte						Hail storms occurred over eastern Laramie and the southern portions of Goshen and Platte Counties on the 24th. There were two large hail areas in Laramie County. The largest extended from Pine Bluffs westward with damage in an area about 15 miles long and 6 miles wide at points in the path of the storm; another severe storm less in extent occurred west of Albin. Another storm occurred south of Torrington and extended westward into Platte County. The greatest damage was to winter wheat which had completely headed. In many fields there was not a single stalk standing and sweet clover along roads and highways was completely stripped of all foliage and branches and only stubble remained.
5/21/1948		Platte	Wheatland					On the 21st of May, a severe thunderstorm occurred in the Wheatland area with some hail stones at least an inch in diameter. The main part of this storm was a strip about one mile wide extending from about three miles west of Wheatland to about three miles south. In that strip, rain and hail was reported by numerous farmers to be from 3 to 4 inches and fell within a 2 hour period from 6 to 8 p.m. The official weather station just north of Wheatland reported 1.43 inches from the storm. Hail damaged some crops and buildings but the greatest damage was caused by floods and erosion. Water washed out some highway bridges and also a bridge of the C&SRR track, causing a train wreck which killed two railway employees. A flood in the vicinity of Wheatland in May caused approximately \$100,000 damage.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/13/1950		Platte					5,000	Hailstorms occurred in Platte County on the 13th and 19th, which caused many thousands of dollars damage, principally to growing crops.
6/19/1950		Platte					5,000	Hailstorms occurred in Platte County on the 13th and 19th, which caused many thousands of dollars damage, principally to growing crops.
7/5/1950		Platte	Wheatland				5,000	A damaging hailstorm occurred and covered the Wheatland area and eastern Laramie County on the 5th causing many thousands of dollars damage to growing crops as well as property damage.
7/21/1950		Platte	Wheatland					Storms occurred over the Wheatland area and eastern Laramie County on the 21st, 25th, and 29th. These storms, while destructive, were not so severe as the one on the 5th.
7/25/1950		Platte	Wheatland					Storms occurred over the Wheatland area and eastern Laramie County on the 21st, 25th, and 29th. These storms, while destructive, were not so severe as the one on the 5th.
7/29/1950		Platte	Wheatland					Storms occurred over the Wheatland area and eastern Laramie County on the 21st, 25th, and 29th. These storms, while destructive, were not so severe as the one on the 5th.
6/27/1952		Platte	Guernsey					A tornado was sighted about 20 miles south of Guernsey on the afternoon of the 27th. While no damage resulted from the tornado itself, hail from this storm did considerable damage to growing crops.
7/2/1953		Platte	Chugwater					Flash Floods occurred. The flood damage came to Chugwater with the hailstorm on the 2nd.
7/2/1953		Platte					125,000	A destructive hail and rainstorm occurred in southern Platte and Goshen Counties on the 2nd, causing nearly \$125,000 damage to crops and property.
6/25/1955	6/27/1955	Platte	North Platte Valley					Hail and thunderstorms visited the North Platte Valley, and hail damage to many crop varieties was heavy.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/26/1955	6/27/1955	Platte	North Platte Valley					One of the worst series of thunderstorms in the North Platte Valley in recent years occurred June 26th - 27th. A survey of the area by a representative of the U.S. Weather Bureau indicated from unofficial reports that there were 6 inches to 8 inches of precipitation. This was one of the worst floods in the upper North Platte Valley in 25 years. On U.S. highway 26, two bridges were washed out between Ft. Laramie and Guernsey. About 75 persons were evacuated from their homes along the North Platte. Torrential rains with hail and consequent high water caused hundreds of thousands of dollars in damage to wheat, bean, and sugar beet crops in the valley. In some fields plantings were total losses. Trees were uprooted by high winds and two farmhouses were destroyed by a small tornado along a path from 2 to 7 miles southwest of Torrington the morning of the 27th. The North Platte River and the Interstate Canal overflowed their banks the evening and night of the 26th at Ft. Laramie. More than 75 percent of the town was inundated by 5 feet of water; 4 to 6 inches of mud was deposited on the floors of three-fourths of the homes and business buildings of the town. The worst bridge washout was at Cottonwood Creek five miles west of Ft. Laramie. Two spans were swept away and piling was torn out of the ground. The grade approach to a railroad bridge was washed out leaving 22 feet of track suspended. South of Chugwater 18 miles of railroad tracks were washed out. Temporary bridges were erected over Bear Creek on U.S. Highway 87. There were reports from four miles west of Torrington of hailstones as large as baseballs. Runoff from the hills north of Torrington flooded the town to a depth of 2 to 3 feet at the height of the storm on the 26th. Many basements in residential and business areas were filled with water and hail. The National Guard was mustered to direct traffic and police the area. A partially built frame house in Torrington collapsed, and a basement wall of another house caved in. A county road north of Torrington was undercut by the deluge and a 40-foot section washed out.
5/19/1957		Platte	North of Meadowdale					During the evening of the 19th a whirlwind accompanying a heavy rain and hailstorm north of Meadowdale in the northeast corner of Platte County caused some property damage. A number of persons, who saw the funnel cloud touch the ground numerous times, considered it a small tornado. Roofs lifted from sheds, a chicken house wrecked, a windmill damaged, and windows broken by wind and hail. Some hail "as big as baseballs" fell. Several persons sought refuge in cellars but no one was injured. There was considerable runoff from this storm and Willow Creek flooded.
8/19/1957		Platte	Wheatland					About 3:30 p.m. hail and lightning caused considerable damage about 4 miles southwest of Wheatland along a 3-mile stretch.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/5/1962		Platte	Platte County			27,500		Heavy rains and several inches of hail caused severe crop damage and flooding of homes and out-buildings in the Wheatland area.
8/2/1966		Platte	Glendo			27,500		Storm located just south and west of Glendo shredded gardens, trees, wind blew over trees and a garage, and hail broke numerous windows.
7/9/1968		Platte	Wheatland 4 W				27,500	Hail up to 1-inch diameter damaged crops on the Everette Nagel, Phil Jenkins, and Archie Preuit farms.
6/3/1971		Platte	Guernsey				27,500	Hail 2.75-inch diameter reported from near Glendo to Guernsey.
6/20/1977		Platte	Wheatland 10 ESE				2,750	Hail up to 1.5 inches fell over open range land.
6/20/1977		Platte	Wheatland 13 SW			2,750		Tornado touched down briefly. Three funnels aloft seen just south of Wheatland at same time. Most damage done by hail up to 1.75 inches in diameter in this area from 1730 to 1830 MST. Tornado caused little or no damage as it was over open range.
8/16/1977		Platte				27,500		Hail up to 0.75 inch covered an area 4 by 6 miles just southwest of Wheatland. Most damage to crops with some to vehicles and buildings.
8/1/1978		Platte				27,500		A late afternoon thunderstorm dumped 0.75-inch-diameter hail over 18 square miles of ranch land just north of Wheatland. Widespread crop damage along with some personal property damage was reported.
6/7/1986		Platte	Guernsey				25	Golf ball-sized hail fell in the town of Guernsey at 1720 MST. The hail was reported at Guernsey State Park, just northwest of the town 35 minutes before.
7/31/1986		Platte	7 S Wheatland			27,500		At an Air Force installation 7 miles south of Wheatland, vehicles were damaged by 0.5- to 0.75-inch-diameter hail, which covered the ground.
6/7/1987		Platte	Wheatland			275,000	27,500	A severe thunderstorm developed over Laramie Peak after 1815 MST and moved southeast. This severe thunderstorm moved over the town of Wheatland and dumped between 2 to 5 inches of rain over the Wheatland area in a little more than 1 hour. Hail between 0.75 and 1.75 inches in diameter accompanied these torrential rains. The heavy rains caused flooding mostly along the North Laramie River and Cottonwood Creek, and some if this flooding extended into the town of Wheatland. Many houses in the west section of Wheatland were flooded with between 4 inches to 4 feet of water. There was a report of extensive crop damage to corn and beans. As the severe thunderstorm continued southeast, 2 funnel clouds were spawned. This severe thunderstorm also pelted Chugwater with 1.75-inch-diameter hail, but no damages were reported. Later, as the storm moved into Laramie County, 0.5-inch-diameter hail fell 6 miles north of Cheyenne.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/17/1988		Platte	Wheatland			275,000	27,500	During the afternoon and evening, the combination of a cold front moving southeast through Wyoming and moist upslope southeasterly surface winds caused scattered severe thunderstorms to develop across the eastern high plains of the state. Three tornadoes from a thunderstorm occurred in open country just southwest of Wright. The twisters occurred between the town and a coal mine. Near Fort Laramie, thunderstorm winds tipped over a 45-foot semi-tractor-trailer van. There were also several trees uprooted. Near the LaGrange area, in Goshen County, several creeks flooded from the brief heavy rains. In Wheatland, hail damage was done to over a hundred cars and more than 10 building roofs. This hail also stripped corn and flattened beans in the Wheatland area. No major property damage was reported in the city of Torrington. Finally, the tornado near Upton occurred in open prairie and did no damage to buildings.
8/11/1990		Platte	Near Chugwater			2,750		Hail up to 2 inches in diameter fell in the Chugwater area from 1325 to 1330 MST.
7/1/1992		Platte	Wheatland					A large thunderstorm broke windows and damaged crops with 15 minutes of marble-to golf ball-sized hail in and around Wheatland. Roof and car damage was widespread.
7/14/1994		Platte	Wheatland			2,750		A severe thunderstorm developed over central Platte County during the evening and struck the area near Wheatland. This storm produced a small tornado southwest of Wheatland which moved northeast and struck the southern part of town. Two garages were leveled, one of which was torn from its foundation and thrown into a heap on the opposite side of the road. A covered porch was also torn from a house and thrown across the street. Several large trees were twisted off at their bases and tossed about. Large hail, damaging winds and heavy rain also accompanied the storm. Hail up to the size of golf balls, piling from 4 to 6 inches deep, demolished a car dealership causing \$15,000 damage. This storm also produced damaging winds north of Wheatland which sheared off acres of 6-foot corn stalks at the ground and snapped four power poles at their bases. No one was injured in the storm.
5/30/1996		Platte	Chugwater			300		Hail 1 inch in diameter piled to a depth of 4 inches and broke a car windshield.
8/15/1996		Platte	5 SE Glendo			10,000		
8/15/1996		Platte	Glendo			5,000		
8/23/1996		Platte	Wheatland			5,000		
8/29/1997		Platte	5 SE Glendo			10,000		Nickel-sized hail at Glendo marina.
6/26/1999		Platte	Chugwater			25,000		

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
9/1/1999		Platte	15 NE Chugwater			6,000		Hail 1.5-inch diameter damaged a roof and broke a window.
7/20/2000		Platte	Guernsey			30,000		
7/6/2009		Platte	Chugwater					Hail from 3/4 to 1.25 inches in diameter reported around Chugwater, WY. A couple of strong to severe thunderstorms produced some hail over far southeast Wyoming.
7/12/2007		Platte	4 N Chugwater					Reported on Interstate 25 near mile marker 58.
6/2/2008		Platte	18 E Cheyenne, 2 SW Burns					Hail from 1 to 1.75 inches in diameter reported. A few severe thunderstorms produced some large hail over Platte and Laramie counties.
6/23/2008		Platte	22 N Cheyenne					Hail reported along Interstate 25. A couple of severe thunderstorms produced some hail over parts of Platte and Laramie counties.
6/5/2009		Platte	1 E Chugwater					Hail reported to be from 1 to 1.75 inches in diameter.
7/2/2009		Platte	Chugwater					Hail from 1.75 to 2 inches in diameter reported.
6/14/2009		Platte	Chugwater					Golfball to softball sized hail reported in the Chugwater, Wyoming area.
6/14/2009		Platte	7 WNW Hawk Spgs					Quarter to softball sized hail reported along the storm track with hail drifts from 12 to 18 inches at the junction of county roads 38 and 55. An isolated supercell thunderstorm produced large hail and a tornado as it tracked across parts of Platte and Goshen counties.
6/17/1937		Sheridan	Dome Lake					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined.
5/1/1938		Sheridan						Some damage from hail in the lower Big Horn Basin and portions of Sheridan, Platte, Goshen and Laramie Counties. However, in most places the hail was small and with only slight damage to vegetation.
10/3/1940		Sheridan	Clearmont			1,500	10,000	A damaging hail storm occurred near Clearmont on the afternoon of October 3rd. Damage to crops was estimated at about \$10,000 and buildings at about \$1500. Due to the storm striking late in the season, the principal crop damage was to beets and alfalfa.
7/12/1943		Sheridan	Sheridan					A damaging storm occurred at the Sheridan Field Station on the same

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
								date.
7/9/1944		Sheridan	Sheridan					On the afternoon of the 9th, a hailstorm in the vicinity of the Sheridan Field Station did considerable damage to growing crops.
6/18/1951		Sheridan	Northeast portion of the state			40,000		A series of hail storms over the northeast portion of the State on the 18th caused about \$40,000 damage. While some damage occurred to growing crops, the principal damage was to buildings and automobiles.
7/16/1954		Sheridan	Clearmont					Hail caused considerable damage near Clearmont and Carpenter on the 16th
9/4/1954		Sheridan	Clearmont 5 SW					An intense hailstorm at Clearmont 5 SW, during the evening of the 4th, caused flood damage of about \$1000 to reservoirs and irrigation ditches.
7/6/1956		Sheridan						Moderate losses were reported from hail in Sheridan County on July 6.
8/27/1956		Sheridan						During the afternoon of the 27th a hail and windstorm moved northeastward over Johnson and southern Sheridan Counties causing crop damage along a 50-mile path down the Powder River Valley. Most damage was in the vicinity of Clearmont. Sheridan Weather Bureau Airport station reported some hail about three-fourths inch in diameter, but distribution was spotty with little damage. Local hail storms with less damage occurred in many areas.
5/28/1957		Sheridan	Clearmont					On the 28th, a thunderstorm with some hail at Clearmont 5 SW caused considerable damage to crops and irrigation ditches.
6/2/1957		Sheridan	Arvada					In the vicinity of Arvada the evening of the 2nd hail broke windows, damaged roofs, and extensively damaged growing wheat.
6/6/1957		Sheridan	Clearmont					On the 6th more hail fell. Crops suffered appreciable damage.
5/20/1961		Sheridan	Dayton			2,750	2,750	Thunderstorms with hail, mostly under 1 inch in diameter but some from 1.5 to 2 inches.
6/12/1962		Sheridan	Sheridan 8 W				275	Hail measuring 1 to 1.5 inches caused some damage to range land.
7/5/1962		Sheridan	Banner				27,500	Heavy rains and several inches of hail caused flash flooding and hail damage to crops in the Banner vicinity.
7/9/1962		Sheridan	Big Horn				27,500	Heavy rains and several inches of hail caused flash flooding and hail damage to crops in the Big Horn vicinity.
7/27/1965		Sheridan				2,750		Heavy rains and some 1.5-inch-diameter hail caused considerable damage to crops and property east and southeast of Sheridan. Hardest hit were the Cat and Clear Creek areas.
8/5/1966		Sheridan	Sheridan 25 NW				275	Hail 0.75-inch diameter fell, small damage to range.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/5/1976		Sheridan	Sheridan 25 NE				2,750	Hail 1.75-inch diameter fell over open range.
7/5/1976		Sheridan	Leiter			27,500		Hail up to 1.75 inches did damage to buildings, gardens, crops, etc. in and west of Leiter.
6/16/1977		Sheridan	Sheridan			27,500		Hail 1 to 2-inch diameter did damage to houses, cars, crops, etc., and lightning killed one horse.
8/6/1977		Sheridan				275,000		Hail up to 0.75 inch fell intermittently from just west of Sheridan 0.5 to 1 mile wide for 20 miles to the east. Most damage was to crops with some cars and buildings.
7/25/1979		Sheridan				2,750,000		"Extensive" damage to several school buildings, homes, and vehicles occurred when a severe evening thunderstorm dumped golf ball- to baseball-sized hail over parts of the city and nearby wheat fields.
8/1/1979		Sheridan				275,000		A late afternoon hailstorm hit the Sheridan area causing damage to school buildings, homes, and vehicles. Size of hail was not reported.
6/6/1981		Sheridan				275,000		A thunderstorm dropped golf ball-sized hail for 15 minutes in the town of Dayton. Between 75 and 100 homes received damage as well as trees and vehicles.
5/4/1993		Sheridan				27,500		Hail up to an inch was recorded at the airport as well as the Law Enforcement Center in town. Damage was slight with no injuries.
7/14/2001		Sheridan	5 NE Sheridan					Windshield broken and vehicle damaged.
8/7/2009		Sheridan	4 WNW Dayton			300,000		
7/7/2007		Sheridan	Sheridan					
6/19/2008		Sheridan	1 SW Sheridan					Ping pong ball size hail was reported on the south side of Sheridan at Sheridan College.
7/18/2008		Sheridan	6 NNE Banner					
7/18/2008		Sheridan	1 SW Ulm					Severe thunderstorms producing large hail moved across Sheridan County during the early evening hours of the 18th.
6/2/2008		Sheridan	10 NNE Kendrick					Storm damage reports consisted of vehicle damage, skylight broken, and screens ripped.
6/18/2008		Sheridan	1 SE Ranchester					Severe thunderstorms producing large hail moved across Sheridan County during the late afternoon and evening hours of the 18th.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/22/2008		Sheridan	3 NE Acme					A severe thunderstorm producing strong winds and hail moved across Ranchester and Sheridan, Wyoming during the evening of the 22nd.
8/7/2009		Sheridan	1 SE Dayton					The largest severe weather outbreak of the summer occurred during the afternoon and evening hours of the 7th. A moist and very unstable atmosphere was in place across South Central and Southeast Montana, as well as Northern Wyoming. An upper level disturbance combined with a cool front moving across the Billings County Warning Area allowed for the development of severe thunderstorms producing high winds and large hail. Very heavy rain also accompanied the thunderstorms. The bulk of the severe weather occurred across Southern and Southeast Montana.
6/5/1937		Sublette	Pinedale					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined.
6/17/1937		Sweetwater	Rock Springs					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined.
7/13/1937		Sweetwater	Rock Springs					Crops suffered on account of flood and hail. Severe hail occurred over much of the State, particularly in Sweetwater, Carbon, and Washakie Counties, but due to the absence of crops, it resulted in only slight damage.
9/18/1947		Sweetwater	Eden Valley				30,000	A damaging hail storm occurred during the afternoon of September 18th in the Eden Valley. The storm was accompanied by strong wind and caused approximately \$30,000 damage principally to small grain.
5/28/1951		Sweetwater	Rock Springs			600		A hailstorm at Rock Springs on the 28th caused about \$600.00 damage mostly confined to neon signs, trees and shrubs.
5/21/1954		Sweetwater	Stansbury					A hailstorm at Stansbury, Sweetwater County, on the 21st caused negligible damage. Hail accumulated to six inches in the streets.
8/19/1956		Sweetwater	Rock Springs					At Rock Springs, during the afternoon of the 19th, rain and hail followed by a flash flood caused extensive damage, primarily due to flooding in a new section of the city known as White Mountain. Flood waters reached a depth of five feet in some low areas. About 200 telephones were put out of order. Refuse from a nearby garbage dump, and debris from boardwalks and fences littered the streets. In a few places silt was deposited to a depth of 12 to 18 inches.
9/15/1959		Sweetwater	Green River to Superior			27,500		

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/21/1987		Sweetwater	Green River 20 S			2,750		Severe thunderstorms moved through south Sweetwater County at about 1815 MST. These thunderstorms deposited 0.75-inch-diameter hail and heavy rain over the Flaming Gorge National Recreational Area.
7/12/1989		Sweetwater	5 S Rock Springs					Weak upper-level southerly flow, very moist tropical air, and an upper-level disturbance caused a slow-moving torrential rain-producing thunderstorm to hit Rock Springs during the late afternoon and early evening. The heaviest precipitation occurred just south of the town between 1640 MST and 1740 MST. The Rock Springs airport recorded 0.88 inches of rain along with wind gusts up to 52 mph. Hail as large as dimes covered the ground to 1.5 feet deep 5 miles south of the community. A tremendous surge of water and mud 3 to 4 feet deep invaded the town between 1700 MST and 1830 MST. This surge came northward into the south part of Rock Springs by way of Dead Horse Canyon Creek. The water and mud rapidly inundated the downtown section of the community. The result was catastrophic losses to homes, businesses, and cars. Automobiles were washed down streets onto lawns, and basements flooded. Not including costs associated with automobiles, a preliminary total damage figure of more than \$1.5 million was given by county and city officials. Rock Springs is located on a 100-year flood plain. At 1815 MST, a storm-related death occurred to a conductor who was on a westbound Union Pacific Railroad engine cab that struck a stationary, empty rail car. The combination of the flooding waters and strong winds caused the empty rail car to lean over the railroad tracks that the engine cab was traveling on. A brakeman was also injured in the accident. M34V.
4/25/2009		Sweetwater	1 W Red Desert, Wamsutter					Golf ball sized hail fell along Interstate 80 from nine miles west of Wamsutter to Wamsutter.
8/5/1954		Teton	Alta				1,000	At Alta on the 5th moderate hail caused \$1,000 damage to crops.
8/15/1960		Teton	Jackson			27,500	27,500	

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/21/1987		Teton	Teton Village			27,500		Some unusually severe thunderstorms swarmed over northwest Wyoming during the afternoon. One of the first indications of these severe thunderstorms was the 60 mph wind gusts reported by a radio station in Jackson at 1300 MST. As these severe thunderstorms moved northeast, additional reports of hail between 1 and 2.25 inches in diameter were observed along with winds gusting above 58 mph. Also, torrential rains were noted from Jackson northeast to Cody. When these severe thunderstorms moved northeast of Jackson over the Teton Wilderness Area it spawned the highest elevation F4 tornado ever documented. The devastating winds from the tornado produced a massive blow down of 15,000 acres of mostly mature lodge pole pines that ranged from 80 to 100 feet tall. The massive blow down stretched slightly over 24 miles from Box Creek Trailhead, 10 miles east-northeast of Moran Junction, on the south to beyond the Yellowstone River on the north and was about 1 to 2 miles wide, 2.5 miles at the widest. An eyewitness to the blow down stated, You could look up a hillside where there had been a dense forest and count the trees left standing. Later, as these severe thunderstorms moved over the East Entrance of Yellowstone National Park, torrential rains produced mudslides that closed highways for a few hours. The Park County sheriff reported that some of these mudslides buried about 50 yards of highway to a depth of 2 feet.
8/6/2009		Teton	2 W Moran			12,000		Nickel sized hail and wind gusts approaching 50 mph were reported at the Signal Mountain Marina.
6/11/1937		Washakie	Tensleep					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined.
6/17/1937		Washakie	Tensleep					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined.
7/7/1937		Washakie	Tensleep					Crops suffered on account of flood and hail. Severe hail occurred over much of the State, particularly in Sweetwater, Carbon, and Washakie Counties. Due to the absence of crops, it resulted in only slight damage.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/11/1937	7/12/1937	Washakie						Heavy flood damage also occurred in the Big Horn Basin, particularly in the Wind River Canyon and in the vicinity of Shoshoni. The damage in the Wind River Canyon resulted from land slides, which took out several sections of highway and railroad. In all highways suffered damage in 12 counties. Crops suffered severely from hail and floods, but there were compensating benefits from the excess moisture.
7/14/1937		Washakie	Worland (near)					Crops suffered on account of flood and hail. Severe hail occurred over much of the State, particularly in Sweetwater, Carbon, and Washakie Counties. Due to the absence of crops, it resulted in only slight damage.
5/1/1938		Washakie	Big Horn Basin					Some damage from hail in the lower Big Horn Basin and portions of Sheridan, Platte, Goshen and Laramie Counties. However, in most places the hail was small and with only slight damage to vegetation.
6/1/1938		Washakie						Hail storms were unusually numerous and destructive, the greater damage occurring in Park County, the irrigated area along the Big Horn basin and in the Platte and Goshen Counties. Sugar beets suffered the greatest damage. Severe hail in Park, Big Horn, Washakie, Goshen and Platte Counties caused considerable damage to sugar beets.
6/18/1938		Washakie	Worland					Considerable damage by hail was reported to growing crops in Worland on the 18th and 20th.
6/20/1938		Washakie	Worland					Considerable damage by hail was reported to growing crops in Worland on the 18th and 20th.
6/14/1944		Washakie	Worland					A hailstorm occurred north of Worland on the 14th. Principal damage in the storm was to growing crops and was not excessive.
9/1/1957		Washakie	South of Worland					Damage from hail was considerable in a 2 by 4 mile strip south of Worland.
9/1/1957		Washakie	Worland					The worst storm of the month, as reported by the State Climatologist, occurred about two miles south of Worland on the 1st. A hailstorm, accompanied by strong winds proceeded northeastward along a path about two miles wide for a distance of four and one-half miles. Hail caused considerable crop damage.
6/16/1965		Washakie	Worland			275,000		Large amounts of 1-inch-diameter hail did considerable damage along irrigated farm lands in the area 15 miles south of Worland. Most of the damage was to crops.
6/22/1966		Washakie	Worland			275,000		A hailstorm with 0.5-inch-diameter hail did an estimated \$350,000 damage to crops and buildings in the Worland area; an estimated 3500 acres of sugar beets destroyed and another 3500 acres damaged.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/4/1978		Washakie				275,000	275,000	Tennis ball-sized hail from a heavy thunderstorm was dumped near Orchard Bench doing extensive damage to crops of beans, beets, and grain, as well as to homes, sheds, and vehicles. One resident said that it hit so hard "... we watched some hailstones hit the grass and bounce back onto the roof."
8/15/1987		Washakie	2 S Worland					A severe thunderstorm moved through central Washakie County and dropped hail ranging from 0.5 to 1.75 inches in diameter. The county sheriff reported 1.75-inch-diameter hail to the west and south of Worland. Only 0.5-inch-diameter hail fell in downtown Worland with 1-inch-diameter hail at Worland Airport southeast of the city. This hailstorm damaged an estimated 3000 acres of sugar beets south of Worland. Damage was also done to fields of pinto beans, corn, and hay.
6/21/1991		Washakie	Worland			1,000,000		An afternoon thunderstorm caused over \$1 million in property damage in Worland at 1545 MST.
7/6/1994		Washakie						What became one of the most destructive hailstorms to hit Washakie County developed near Gooseberry Creek during the afternoon and traveled through the Worland area. This storm left a 13-mile swath of destruction to various crops in southwest and central Washakie County. Most of the hail ranged from pea to marble size, but a few stones were as large as 1 inch in diameter. Over 10,000 acres of malt barley and 8000 acres of sugar beets, in addition to various other crops, were damaged by the storm. Total crop loss was unavailable at publications time.
6/2/2002		Washakie	5 E Ten Sleep					Two cars were damaged.
8/6/2007		Washakie	Winchester					A lone severe thunderstorm brought large hail and heavy rain to portions of northern Hot Springs and western Washakie counties.
8/6/2007		Washakie	7 W Winchester					Golf ball sized hail fell at two ranches along Little Cottonwood Creek.
6/12/1937		Weston	Rochelle					Hail storms were numerous in all parts of the state. The damage was considerable in Campbell, Converse, Hot Springs, Johnson, Lincoln, Sheridan, Sublette, Sweetwater, Washakie, and Weston Counties. Large numbers of lambs, calves, and fowls were killed and crops ruined.
6/5/1940		Weston	Newcastle					Damaging hail storms were reported from parts of Crook, Weston and Campbell Counties on the 3rd, 5th and 22nd. Slight damage occurred to growing crops in the storms over the northeast portion of the State.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
7/12/1943		Weston	Rochelle					A storm occurring near Rochelle on the 12th was sufficiently heavy to warrant mention. Considerable damage to crops as well as property resulted from this storm. A number of sheep were killed by the hail. The stones were so large and fell with such force as to break their backs.
8/10/1950		Weston	Four Corners				12,500	Only one damaging hail storm was reported during the month. This occurred near Four Corners in Weston County on the 10th. Damage was confined to approximately 500 acres of farm land and crop loss is estimated at about \$12,500.
6/18/1951		Weston	Northeast portion of the state			40,000		A series of hail storms over the northeast portion of the State on the 18th caused about \$40,000 damage. While some damage occurred to growing crops, the principal damage was to buildings and automobiles.
5/28/1953		Weston	37 stations					Hail was reported at 37 stations one or more times during the month. The largest hailstones were the size of golf balls and fell in eastern Weston County on the 28th causing some damage to buildings, signs, automobiles, etc.
8/29/1954		Weston	Four Corners 5 S, Newcastle				15,000	On the 29th at Four Corners 5 S, rain and hail damaged crops and property to the extent of \$15,000, and wind and hail at Newcastle resulted in limited losses to crops over a small area.
9/20/1955		Weston					5,000	A severe hailstorm in the southwestern part of Weston County between 9 a.m. and 10 a.m. on September 20th covered a strip approximately 3 miles in width and 12 miles in length. The hail was about the size of peas but it lasted long enough to cause appreciable damage to range grass. Wind accompanying the storm was estimated to be as high as 60 m.p.h. Damage to range grass was estimated at \$5,000, and one small dam washed out with a \$500 loss.
7/6/1956		Weston	Four Corners				75,000	Hailstones as large as golf balls fell on the 6th near Four Corners causing an estimated \$75,000 damage to crops.
7/6/1956		Weston	Weston 1 E					A heavy shower fell at Weston 1 E dumping 1.15 inches of rain in 30 minutes, and was accompanied by hailstones up to 2 inches in diameter.
8/7/1956		Weston	Four Corners					At Four Corners on the 7th hail caused about 10 percent damage to crops
8/29/1962		Weston	Newcastle			27,500		Wind and hail caused considerable damage to crops on the prairie and damage to the Newcastle airport and planes.
6/25/1971		Weston	Newcastle			275,000		Hail 2.5 inches in diameter in a 6-mile strip from the Engle Ranch west of Newcastle, through Newcastle to the LAK Ranch east of Newcastle, did damage to houses, cars, trees, and shrubs.
6/15/1977		Weston	Newcastle			27,500		Hail up to 1.75 inches in diameter fell over the northern part of Newcastle with damage to homes, cars, etc.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/16/1977		Weston	Osage			275,000		Hail with some stones 3 to 4 inches in diameter and depths up to 10 inches in some areas did damage, west of and in Osage, to crops, houses, cars, etc.
7/17/1988		Weston	Newcastle			275		During the afternoon and evening, the combination of a cold front moving southeast through Wyoming and moist upslope southeasterly surface winds caused scattered severe thunderstorms to develop across the eastern high plains of the state. Three tornadoes from a thunderstorm occurred in open country just southwest of the town of Wright. The twisters occurred between the town and a coal mine. Near Fort Laramie, thunderstorm winds tipped over a 45-foot semi-tractor-trailer van. There were also several trees uprooted. Near the LaGrange area, in Goshen County, several creeks flooded from the brief heavy rains. In Wheatland, hail damage was done to over a hundred cars and more than 10 building roofs. This hail also stripped corn and flattened beans in the Wheatland area. No major property damage was reported in the city of Torrington. There was also some minor street flooding. Finally, the tornado near Upton occurred in open prairie and did no damage to buildings.
6/22/1996		Weston	10 SW Clareton			500		Spotter reported broken windows from large hail and wind.
6/2/2008		Weston	19 SW Upton			251,750		Baseball sized hail was reported as a severe thunderstorm moved from Montana across northern Campbell and Crook counties.
6/13/2009		Weston	Newcastle			50,000		A severe thunderstorm produced hail to the size of quarters in the Newcastle area.
8/7/2007		Weston	12 SE Newcastle					A severe thunderstorm produced hail to half dollar size over southeastern Weston County
7/9/2009		Weston	9 N Newcastle					A severe thunderstorm produced large hail and strong wind gusts across northern Weston County and caused damage in Osage.
6/25/2007		Weston	3 N Newcastle					
6/10/2008		Weston	3 SE Four Corners					
7/22/2008		Weston	4 SSW Lightning Flat					A severe thunderstorm clipped far northern portions of Campbell and Crook Counties with hail to golf ball size and heavy rain. Three to six inches of rain fell from near Weston to the Wyoming/Montana border

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
6/13/2009		Weston	16 SW Clareton					
7/8/2009		Weston	Osage					A severe thunderstorm produced large hail and strong wind gusts from Osage to Newcastle and caused minor damage.
7/9/2009		Weston	10 SSW Upton					A severe thunderstorm produced large hail and strong wind gusts across northern Weston County and caused damage in Osage.
7/8/2009		Weston	5NNE Newcastle					
6/24/1992		Yellowstone Park	Canyon Village					A large thunderstorm brought hail and gusty winds to portions of Yellowstone Park. Some cars and campers received damage at Canyon Village because of the hail.
7/13/1962			Midvale Irrigation District			27,500		Heavy rains and hail caused severe damage to farmsteads and crops in the irrigation district.
7/13/1962			Southern Big Horn Basin			27,500		Severe thunderstorms with high gusty winds and hail caused much damage in the Thermopolis vicinity.
8/4/1966			Heart Mountain Area			27,500		A hailstorm severely damaged 800 acres of sugar beets.
6/20/1977			Yellowstone Park			275,000		Hail up to 1.25 inches diameter and up to 4 inches deep in the Hayden Valley area caused damage to campers, trailers, tents, etc.
6/13/1984			Northeast Wyoming			2,750		Strong thunderstorms scattered throughout northeast Wyoming produced widespread minor damage to ranch outbuildings and mobile homes as marble-sized hail and winds up to 50 mph struck the area. Some hail as large as golf balls fell near Ranchester, 20 miles northwest of Sheridan. Winds were also reported to be near 60 mph in the Upton and Sundance areas.
7/22/1984			Southeast corner			2,750	2,750,000	Golf ball-sized hail, wind gusts to 80 mph and very heavy rain hit area a few miles west of Wheatland in Platte County. Couple houses had 4 to 5 feet of water in them. Millions of dollars damage to crops. Severe thunderstorm with golf ball-sized hail in Burns and Hillsdale area of east Laramie County did half a million dollars damage to crops, vehicles, and buildings.

Table 9.1—Damaging Hailstorms in Wyoming.

Start Date	End Date	County	Location	Deaths	Injured	Estimated Property Damage	Estimated Crop Damage	Information
9/6/1984			North-central and northeast Wyoming			27,500	27,500	Wind gusts to 61 mph were logged at Worland Airport in Washakie County. They occurred as a strong cold front moved through early in the afternoon. A double-wide trailer was tipped over. Slight crop damage also occurred. Later in the afternoon, roof damage in Natrona County and tree and building damage in Crook County was reported.

Wyoming Government Property Loss Analysis

Historically Wyoming State Government property has experienced 98 damaging hail events totaling \$1.8 million in the 307-month period from August, 1985 through February, 2011. If we can assume past experience will continue into the future, the state can anticipate 3-4 damaging hail events to its structures each year ([98 events / 307 months = .32 events each month] * 12 months = 3.84 events annually). Historical experience would indicate annual hail event damages of \$70,380 can be anticipated ([\$1,800,542.99 / 307 months] * 12 months = \$70,379.52). Reference State Building Insurance Claims Appendix.

Impacts

Hailstorms have occurred in every county in Wyoming, although hail damage has only occurred in 21 counties. Sublette and Uinta counties have no recorded hail damage. **Figure 9.2** shows the distribution of the number of damaging hailstorms, the number of deaths and injuries, and the amount of damage in 2006 dollars. The total documented hail damage for 1926 to present is \$304 million. In 2010 USD the damage would be \$695.1 million.

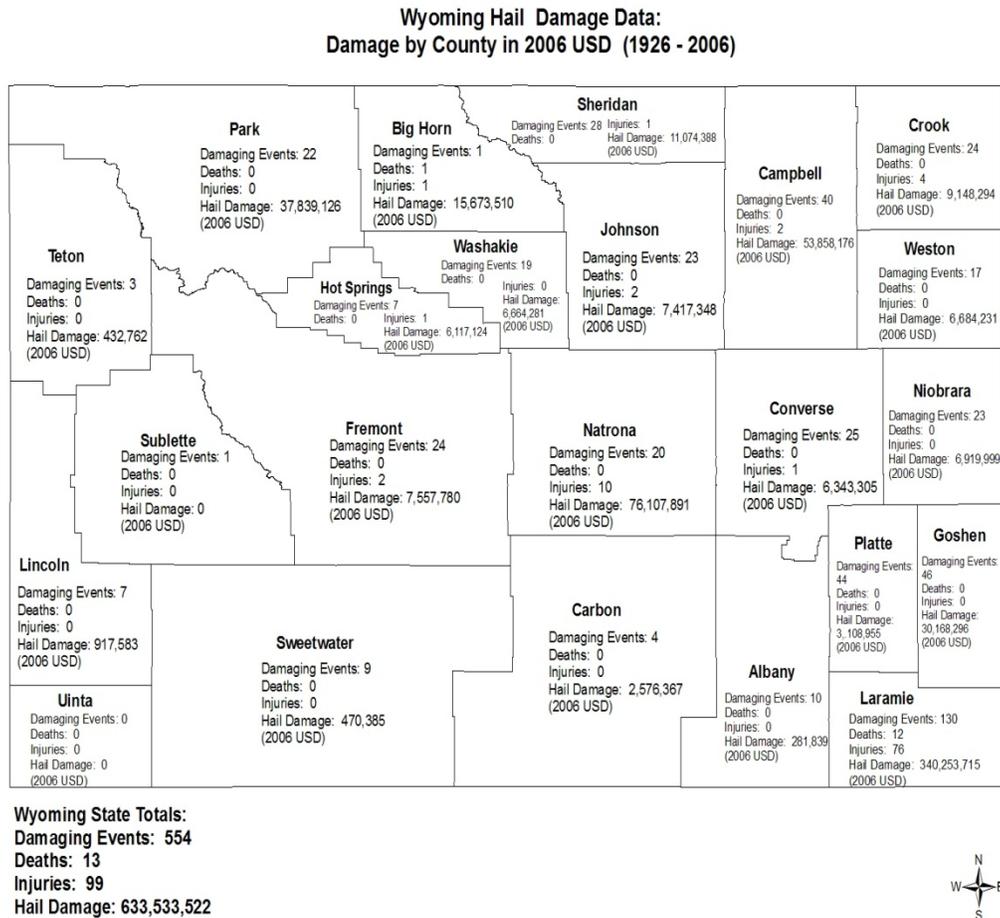


Figure 9.2 - Wyoming Hail Damage Data

Table 9.2 represents dollar damages reported as damages converted to 2010 USD. Laramie County has had the most significant hail impacts in Wyoming with \$373.4 million (2010 USD) in damage. Southwestern, western, and south-central Wyoming have reported the least hail damage impact. In the years since 2006 hail storms continue to be impactful in Wyoming. While no fatalities were experienced, two were injured and the storms were financially significant. The events of the last four years resulted in little change in the county ranking, with the greatest damage occurring in Crook and Sweetwater counties, \$712,000 and \$700,000 respectively.

Table 9.2—County Rankings by Hail Damage 1926 - 2010.				
County	Damaging Events	Deaths	Injuries	Hail damage (2010 USD)
Laramie	130	12	76	373,406,023
Natrona	20	0	10	86,513,328
Campbell	40	0	2	59,338,675
Park	22	0	0	41,537,650
Goshen	46	0	0	33,163,726
Big Horn	20	1	1	17,302,765
Sheridan	28	0	0	12,151,946
Crook	24	0	4	10,750,439
Johnson	23	0	2	8,160,069
Fremont	24	0	2	8,318,165
Johnson	23	0	2	8,160,069
Niobrara	23	0	0	7,593,327
Washakie	19	0	0	7,312,727
Converse	25	0	1	6,975,520
Hot Springs	7	0	1	6,712,331
Weston	17	0	0	4,043,213
Platte	44	0	0	3,536,462
Carbon	4	0	0	2,827,052
Sweetwater	9	0	0	1,216,154
Lincoln	7	0	0	1,006,865
Teton	3	0	2	474,870
Albany	10	0	0	309,262
Sublette	1	0	0	0
Uinta	0	0	0	0
Regional	8	0	0	7,594,609
TOTAL	554	13	101	692,650,569

Future Impacts

Laramie County has had the most significant hail damage in Wyoming. The most significant hail-related event in Wyoming also occurred in Laramie County on August 1, 1985. Damage amounted to \$132.27 million in 2010 USD, 12 deaths occurred, and 70 were injured. This event was also associated with the most significant flood in Wyoming's history.

It is suggested that \$120,540,000 be used as the potential cost of the worst-case future hailstorm in Wyoming. As hailstorms are a fairly common occurrence in Wyoming, such an event could occur at least every 100 years.

Local Mitigation Plan Risk Assessments

A review of the local mitigation plans reflects hail as a common hazard addressed in local plans. They have utilized data researched and available to them through the State Multi-Hazard Mitigation Plan and have added some limited additional information. Each county has ranked hail risk within their borders based on the population impacted, probability of occurrence within their borders and the property impacted.

Below is a table outlining information mined from the local plans' hail hazard sections. The table shows previous historical incidents of hail within each county's borders as outlined in their plans and extrapolates, based on population impacted, probability of occurrence within their borders, and property impacted, the risk perceived by each county relative to hail hazards. You will note nearly all counties consider hail to rank as a 'medium' hazard within their borders, with three counties ranking the hazard as 'high.' Potential losses quoted within the local plans vary widely. In those counties providing estimated loss potential, potential losses vary from \$41,000 to \$17 million per event. It can be noted hail events in Natrona, Laramie and Sheridan Counties are likely to have the greatest impact on the population because of the composition and density of populations there.

Hail
Information Mined from Local Plans

COUNTY	Plan Y/N	Year Approved	Included in Plan	Rank-High, Medium, Low	Loss Potential	Previous Incident(s)
ALBANY	Y	2010	Y	Medium	Not Stated	5-9 Xs each season
BIG HORN	Approvable	2010	Y	High	Historical Totals Only	24-1 death
CAMPBELL	Expired	2005	Y	Medium-High	Historically \$517 million + per event	multiple ea yr
CARBON	Y	2008	Y	Medium	\$1.1 million	2
CONVERSE	N/Draft	2005			Incomplete Information	
CROOK	N/Draft	2003	Y		State-level Info from State Plan	
FREMONT	Expired	2005	N			
GOSHEN	Y	2007	Y	High	6.8 million	36
HOT SPRINGS	N					
JOHNSON	Y	2008	Y	Medium	\$6.5 million	48
LARAMIE	Expired	2005	N			
LINCOLN	Y	2006	Y	Medium	\$850,000	2
NATRONA	Approvable	2010	Y	Medium	Not Stated	6
NIOBRARA	Y	2009	Y	Medium	\$41,000 avg./event	68 since 1965
PARK	Y	2006	Y	High	\$8.5 million	19 - 1 every 2 yrs
PLATTE	Expired	2004	Y	Medium	\$194,000	multiple ea yr
SHERIDAN	Y	2009	Y	Medium	\$7.1 million	16 since 1961-1 every 2.7 yrs
SUBLETTE	Y	2008	N			
SWEETWATER	N					
TETON	Y	2009	Y	Medium	\$340,000 +	3 since 1959-1 every 15 yrs
UINTA	N/Draft	2011	N			
WASHAKIE	Expired	2005	Y	Medium	\$5 million	8 in last 38 yrs
WESTON	N					
NORTHERN ARAPAHO TRIBE	N					
EASTERN SHOSHONE TRIBE	N					

Proposed State Mitigation Projects

The following mitigation projects have been proposed by state, federal, and local entities in the process of generating the Wyoming Multi-Hazard Mitigation Plan. Chapter 22 has all proposed mitigation projects.

- Education.
- Provide all-hazards weather radios to all residences in Wyoming.
- Identify and inspect shelters in hazard prone areas.
- Research feasibility and costs of adding new frontage roads /detour routes to I-80, I-90, and I-25 to prevent significant delay in traffic flow and resultant economic loss and possible loss of life.
- Provide hazards info to shelters, emergency facilities in public buildings, campgrounds, and phone books.
- Provide emergency phones at strategic locations with direct lines to emergency dispatch services.
- Develop reseeding plans for losses due to all hazard events.
- GIS training for local jurisdictions with emphasis on hazards recognition and analysis for application to mitigation planning.
- Investigate opportunities for developing or improving warning systems as a means to reduce loss of life, damage to property, and economic losses.
- Education programs encompassing multi-hazard insurance for business, resident and government application.
- Planning studies regarding transportation of essential and/or key personnel during all hazard events.

- Continue outreach to counties identifying cost effective and feasible mitigation projects.
- Promote Continuity of Operations and Continuity of Government, statewide.
- Maintain and continue to expand hazards databases that were generated for the State Hazard Mitigation Plan. Seek new sources of information.
- Identify, document, and advertise all volunteer agency's locations and contact information.