

damage amounting to \$50,000 or more, also at Detroit, Mich., on the night of July 31-August 1, where much damage resulted from flooding.

The total fall was unusually heavy in portions of Pennsylvania; Nevada as a whole, had the second wettest July of record. On the other hand the monthly amounts in the Carolinas and Georgia were the least of record, or among the least, for July, in a period of nearly 50 years.

At the end of the month severe drought existed in the southern Appalachian region, and the lack of water for power and other purposes was becoming acute. In parts of western and northern Louisiana, and over much of Texas, drought has continued for many months, and the high temperature and excessive sunshine greatly intensified the injurious effects of deficient soil moisture.

SNOWFALL

As far as reports received indicate, no snow fell except at a few points in the high mountains of Colorado.

RELATIVE HUMIDITY

Over the greater part of the country relative humidity was less than normal, the deficiencies being large south of the Ohio River, in the area between the Mississippi River and the Rocky Mountains, and over most of the far Northwest. In portions of Washington it was abnormally low on the 18th and 19th when values of only 4 or 5 per cent were reported at several points.

There were moderate excesses generally from the upper Mississippi Valley eastward, and over the middle and southern Rocky Mountain and Plateau regions, and locally over the Pacific Coast States.

SEVERE LOCAL WIND AND HAIL STORMS, JULY, 1925

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path (yards) ¹	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Pocatello, Idaho.....	1	P. m.				Thunderstorm and hail.	Streets flooded; 2 horses killed.....	Official, U. S. Weather Bureau.
Salt Lake City, Utah (vicinity of).	1			1		Thunderstorm.....	Considerable property damage.....	Do.
Chattanooga, Tenn., and vicinity.	3	12.55 p. m.				Thunderstorm and rain.	Some trees damaged, others blown down; telephone service crippled.	Chattanooga Times.
Thomaston, Ga. (5 miles west of).	3	3.30 p. m.	880-1,760		\$14,000	Moderate hail and wind.	Loss to peaches over path 2 miles long; other minor damage.	Official, U. S. Weather Bureau.
Benton County, Iowa.....	3	4.30 p. m.				Hail.....	Crop loss about 25 per cent.....	Do.
Dubuque, Iowa.....	3	5 p. m.			50,000	Wind and heavy rain.	Extensive damage to buildings; trees blown down; basements flooded; traffic obstructed.	Do.
Rockford, Ill.....	3	5.45 p. m.	1,760		5,000	Thundersquall.....	Roofs, windows, and trees damaged; 2 persons injured.	Do.
Brooklyn, Wis.....	3	6.30 p. m.	1,760		1,000	Wind.....	Damage principally to silos and poles.....	Do.
Between Belleville and Monticello, Wis.	3	P. m.				Violent wind.....	Farm buildings, wires, trees, and shrubbery damaged.	Capital Times (Madison, Wis.).
Hazelhurst, Ga.....	3					High wind.....	Schoolhouse, trees, and poles blown down.....	Official, U. S. Weather Bureau.
Scottsville, Kans.....	4	1-2 a. m.	440			Heavy hail.....	Crops injured.....	Do.
Between Pocatello and Mink Creek, Idaho.	4	Noon				Tornado.....	Cloud moved northward; did not reach ground; observed 20 minutes.	Do.
Jackson, Tenn. (near)	4					Wind.....	Barn blown down; trees uprooted.....	Do.
Greenville, S. C., and vicinity.	4	2.15 p. m.		1	2,000	Thunderstorm and hail.	Crops damaged in small area; about 200 telephones out of order.	Greenville News (S. C.).
Wichita, Kans. (near)	6	3 p. m.	440		2,000	Violent wind.....	Path 1 mile long.....	Official, U. S. Weather Bureau.
Eastern Cherry and northwestern Brown Counties, Nebr.	6	4.45-5 p.m.	300-500			Hail.....	Windows broken, roofs damaged, and crops more or less harmed over small area.	Do.
Washington County, Md.....	6	5 p. m.			2,000	Thundergust.....	One building demolished, several damaged; trees uprooted; fences blown down.	Do.
Cherokee, Jasper, Johnson, and Appanoose Counties, Iowa.	6	8 or 9 p. m.	4-6 ml.		150,000	Wind and hail.....	Crop loss estimated at 80 per cent. Heavy property damage.	Do.
Dysart, Iowa, and vicinity.	6	P. m.				Hail.....	Considerable crop loss reported.....	Do.
McPherson County, Kans.....	6	P. m.		1		Violent wind.....	Damage principally to telephone lines and out buildings on farms.	Do.
Paducah, Tex. (near).....	7	4 p. m.	50		12,000	Small tornado.....	Houses and farm property damaged. One person injured.	Do.
Windsor, Conn.....	7				25,000	Thunderstorm and hail.	Tobacco and corn crops injured, 500 acres hail cut. Minor property damage.	Do.
Woodbury County, Iowa.....	8	4 p. m.	880		10,000	Hail.....	Heavy crop damage; no other losses reported.....	Do.
Cherokee County, Iowa.....	8	7 p. m.	3 mi.		75,000	Wind and hail.....	Heavy crop loss; many buildings and windmills damaged; poles split.	Do.
Kent County, Del. (north part of).	8	7 p. m.				Heavy hail.....	Severe crop damage.....	Do.
Marathon County, Wis.....	8	7-7.45 p.m.	2½ mi		75,000	Heavy hail and wind.	Farm buildings and crops extensively damaged.	Do.
Lakota, Iowa.....	8	P. m.				Wind.....	Two homes wrecked; wires blown down and trees prostrated; much crop loss; 5 persons injured.	Do.
Minneapolis-St. Paul and vicinity, Minn.	8	P. m.		4		Tornadoic wind, rain and hail.	Buildings damaged; basements flooded and crops injured by hail; 18 persons injured.	Pioneer (St. Paul, Minn.).
Whiting, Iowa.....	8	P. m.	3 mi.			Hail.....	Damage over path about 10 miles long estimated at 50 per cent.	Official, United States Weather Bureau.
Webster City to Fort Dodge, Iowa.	8	P. m.				Wind.....	Telephone poles leveled; small buildings blown over; crops flattened.	Do.
Blanca, Colo.....	9	2.30-3 p.m.			15,000	Hail.....	Head lettuce and other crops destroyed; many windows broken.	Do.
Western, N. Y.....	10	A. m.			30,000	Electrical and rain.	Several farm buildings struck by lightning causing loss of stock, hay, wheat and some farm machinery.	Democrat Chronicle (Rochester, N. Y.).
Millen, Ga.....	11	3 p. m.				Thunderstorm, wind and hail.	Some trees uprooted; house struck by lightning and burned.	Official, United States Weather Bureau.
Sturgeon Bay, Wis.....	11	4 p. m.		1		Tornadoic wind.....	Several buildings in business section damaged; 2 persons injured.	Press Gazette (Green Bay, Wis.).
Lane, Mont. (near).....	12		1 mi.			Wind and hail.....	Crops damaged; several small buildings destroyed.	Record - Herald (Helena, Mont.).

¹ Mi, signifies miles, instead of yards.

Severe local wind and hail storms, July, 1925—Continued

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Clayton County, Iowa.....	12	1 a. m.				Wind and hail.....	Crops damaged about 30 per cent.....	Official, United States Weather Bureau.
Jones County, Iowa.....	12	2 a. m.				do.....	Crops damaged about 60 per cent; other damage considerable.	Do.
Galesburg, Ill. (vicinity of).....	12	4-4.30 a. m.	3 mi.			do.....	Crops prostrated; trees torn up.....	Do.
Southeast Cecil and north-east Kent Counties, Md.....	12	2 p. m.	1-4 mi.		\$20,000	Heavy hail.....	Corn and tomato crops nearly total loss on four farms; crops on 20 farms damaged 20 to 75 per cent.	Do.
Washington, D. C. (southeastern Potomac Park).....	12	2.30 p. m.				Strong wind.....	About 12 large willows uprooted or broken off and many others damaged at Hains Point; 4 autos damaged; 1 person injured.	Do.
Anne Arundel County, Md.....	12				10,000	Electrical.....	Warehouse and contents of Camp Meade Salvage Co. destroyed.	Do.
Indianapolis, Ind., and vicinity.....	12	P. m.			500,000	Severe thunderstorm and wind.....	Street car and telephone service paralyzed; windows shattered; much crop damage.	Indianapolis (Ind.) Star.
Lyon County, Iowa.....	13	2.30 and 9 p. m.	1-3 mi.		25,000	Wind and hail.....	Damage principally to crops.....	Official, United States Weather Bureau.
Nashville, Tenn., and vicinity.....	13	2-3 p. m.	880-1,760		6,000	Hail.....	Greenhouses and truck crops damaged. Path 13 miles long.	Do.
Linton, Tenn.....	13	4 p. m.		2		Wind.....	Large limb blown down onto tent. Others hurt.	Do.
Franklin, Wake, Nash, Durham, and Stokes Counties, N. C.....	13	P. m.	2-3 mi.			Heavy hail.....	Cotton, corn, and tobacco seriously damaged over 20-mile track; on several farms crops almost entirely destroyed.	Do.
Macon, Ga.....	13	6:40 p. m.				Electrical and wind.....	Chimneys blown over; wires down; one house struck by lightning.	Do.
Driftwood, Okla., and vicinity.....	13					Tornado.....	Almost every building in town wrecked; 1 person injured; stock suffered.	Wichita (Kans.) Eagle.
Yankton, S. Dak., and vicinity.....	13	8:18 p. m.			10,000	Severe thunderstorm.....	Several roofs blown off; plate glass window shattered; trees and cornfields flattened.	Official, United States Weather Bureau.
Mobile, Ala.....	13					Thunderstorm and wind.....	Sign, smokestack and some poles blown down.	Do.
Farmersville, Tex.....	14	5:30 p. m.		1	10,000	Tornado.....	Two persons injured; damage to crops and buildings. Storm moved to southeast.	Do.
Grand Haven, Mich. (near).....	14-15					Thunderstorm.....	One home struck by lightning; 1 person injured.	Do.
Sierra Nevada Mountains, northeast of Fresno, Calif.....	14-15				1	Electrical, wind and rain.....	A score of fires started by lightning; 8 persons injured and many cabins damaged by falling trees.	Morning Republican (Fresno, Calif.).
Holland, Mich., and vicinity.....	15	A. m.				Wind.....	One barn wrecked; trees uprooted; windows shattered.	Grand Rapids Press (Mich.).
Wright and Hancock Counties, Iowa.....	15	7 p. m.	1,760		100,000	Wind and hail.....	Corn and oat crops suffer most; barns and small buildings demolished.	Official, United States Weather Bureau.
Escanaba, Mich., and vicinity.....	15	7 p. m.	20-30 mi.		50,000	Tornadic wind.....	Two barns wrecked and several buildings damaged; trees and poles prostrated; highways obstructed; crops and orchards injured.	Do.
Sentinel and Casa Grande, Ariz.....	15					Electrical and wind.....	Character of damage not reported.....	Do.
Baltimore County, Md. (north part of).....	15				58,881	Thunderstorm accompanied by heavy rain.....	Road beds and bridges badly washed; crops injured and cellars flooded.	Do.
Biglerville, Pa.....	16	12.30-4 p. m.				Thunderstorm with heavy rain.....	Fields flooded; no other damage reported.....	Do.
Elmira, N. Y., and vicinity.....	16	2-3 p. m.				Electrical and wind.....	Loss to telephone and electric light companies heavy.	Star Gazette (Elmira, N. Y.).
Northern New York.....	16			2		Electrical, wind, and rain.....	Telephone and light services crippled; trees and crops damaged.	Star (Oneonta, N. Y.).
Venango, Crawford, and Mercer Counties, Pa.....	16			1		Electrical and wind.....	Severe damage to crops; cattle killed; traffic impeded by fallen trees.	Pittsburgh Gazette Times (Pa.).
Elk and McKean Counties, Pa.....	16					do.....	Barn demolished; other buildings unroofed; much damage to crops.	Do.
Washington County, Pa.....	16			1		do.....	Several cows killed; considerable injury to buildings.	Do.
Pittsburgh, Pa.....	16	3.30 p. m.		4		Thunderstorm.....	Considerable property damage; much traffic delay.	Official, United States Weather Bureau.
Lebanon, Lancaster, and Berks Counties, Pa.....	16	4-7 p. m.			100,000	Thunderstorms, hail and wind.....	Barns struck by lightning and destroyed; other damage; 12 militiamen injured by lightning.	Do.
Riverside, N. J., and vicinity.....	16	10 p. m.			250,000	Wind.....	Enormous loss in orchards; highway for 2 miles blocked by fallen trees; several persons hurt by flying glass.	Do.
Helena, Mont.....	17	6.15 p. m.			20,000	do.....	Large circus tent torn to shreds.....	Official, United States Weather Bureau; Record-Herald (Helena, Mont.).
San Luis Obispo, Calif. (vicinity of).....	17	P. m.				Series of thunderstorms.....	Several fires started by lightning; grain fields burned; garage and service station damaged.	Official, United States Weather Bureau.
Fresno, Calif.....	17					Thunderstorm and wind.....	Grain field fired; old building wrecked; oak trees uprooted.	Do.
Stevens County, Kans.....	18	3 p. m.				Heavy hail and high wind.....	Crops greatly injured in path of storm; small buildings damaged.	Do.
Waxahachie, Tex. (near).....	18	5.30 p. m.	1,320		5,000	Tornado.....	Path 3 miles long; slight damage as area covered was sparsely settled; 5 persons injured.	Dallas Morning News.
Hardin County, Iowa.....	19	6 p. m.				Wind and hail.....	Considerable crop damage, especially to corn; 3 barns demolished.	Official, United States Weather Bureau.
Salt Lake City, Utah.....	19			1		Electrical.....	Considerable property damage.....	Do.
Mobile, Ala.....	19			1		do.....	One residence damaged.	Do.
Holland and Zeeland, Mich.....	19-20				5,000	Thunderstorm.....	One home destroyed.	Do.
Berne, Ind. (near).....	20					Heavy hail.....	Oats and corn much damaged.	Do.
Twin Falls, Idaho, and vicinity.....	21	P. m.			200,000	Wind, rain, and hail.....	Trees uprooted; windows broken; basements flooded.	Tribune (Pocatello, Idaho).
Pocatello, Idaho (3½ miles north of).....	21		3,520		15,000	Severe hail.....	Crops beaten down.....	Official, United States Weather Bureau.
Grand Junction, Colo.....	21				15,000	High wind.....	Fear orchards considerably damaged.....	Do.
Pocatello, Idaho (4 to 6 miles south of).....	22		880-1,760		8,000	Wind, rain, and hail.....	Heavy damage on a few farms.....	Tribune (Pocatello, Idaho).
Western Massachusetts.....	22					Wind, electrical, and rain.....	Widespread crop damage; barns torn from foundations; several fires started and much damage to highways and buildings.	Watertown Times (N. Y.).
Wilmington, N. C.....	23	A. m.		1		Thunderstorm.....	Some loss caused by lightning.....	Official, United States Weather Bureau.
Buckhorn, Wyo.....	23	5-6 p. m.	2,200		1,000	Heavy hail.....	Wheat, oats, and potatoes badly damaged.....	Official, United States Weather Bureau.

Severe local wind and hail storms, July, 1925—Continued

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Scott County, Iowa	24	2 p. m.			\$225,000	Tornado, wind, and hail.	Extensive damage to crops and buildings. Tornado was confined to Blue Grass Township only.	Do.
Cedar County, Iowa	24	3 or 4 p. m.	3 mi.		100,000	Hail	Severe crop loss.	Do.
Henry County, Iowa	24		3,520			Wind and hail	Corn and oats severely damaged; many windows broken; poultry killed.	Do.
Eastern Washington	24					Wind	Fruit blown off.	Do.
Spencer, Wyo.	24	5-6 p. m.	3,520		6,000	Heavy hail	Crops total loss in places; several buildings damaged.	Do.
Tampa, Fla. (4 mi. west of)	24	5:45 p. m.	20		20,000	Tornado	Two houses destroyed; 2 garages damaged and 1 demolished; other minor damage. Path 300 yards long.	Do.
Republic County, Kans.	24	7:30-8 p. m.	2-3 mi.		10,000	Severe hail	Much damage to crops.	Do.
Lake County, Ill. (north part of)	24	11 p. m.	440			Wind	Small buildings overturned; apple trees damaged; poles down.	Do.
Henry, Knox, Mercer, Rock Island, and Warren Counties, Ill.	24	P. m.	1/2-5 mi.		400,000	Wind and hail	Damage principally to corn crop. One person injured.	Do.
Bond County, Ill.	25	12:40 p. m.	1,760		4,500	do	Crops and windows damaged.	Do.
Johnson County, Iowa	25	3 p. m.				do	Considerable crops damage in places; some glass broken.	Do.
Linwood, N. Y., and vicinity	25	4 p. m.	3 mi.		250,000	Heavy hail	Corn, beans, fruits, wheat, and barley badly damaged. Path 15 mile long.	Do.
Jefferson and Henry Counties, Ky.	25					Wind	Roofs, wire systems, and timber damaged.	Do.
Shelby County, Ohio	25	4 p. m.	3 1/2 mi.	1	750,000	do	Chautauqua tent collapsed burying about 1,200 people and injuring 30. Heavy losses sustained by farmers and public utilities companies.	Sidney Daily News (Ohio).
McPherson County, Kans.	25	P. m.				Tornado	Total damage not great.	Official, United States Weather Bureau.
Fairfield County, Ohio	25	P. m.			500,000	Tornadoic wind	Corn crop severely damaged.	Do.
Evansville, Ind., and vicinity	25					Thunderstorm and wind	Overhead wires, cornices, chimneys, and signs damaged; some corn blown down.	Do.
Lebanon, Colebrook, and Mount Greta, Pa.	25		2 mi.		1,000,000	Thunderstorm and downpour	Railroads washed out; mines flooded; crops washed away. Several hurt by lightning.	Do.
Jefferson County, N. Y.	25-26				35,000	Electrical and rain	Wire communication interrupted; buildings on one farm burned.	Watertown Times (N. Y.).
Powershiek County, Iowa	26	1-2 a. m.	880-2,640			Hail	Corn badly shredded; garden truck ruined.	Official, United States Weather Bureau.
Union Bridge, Md. (1/2 mi. south of)	26	3:30 p. m.	880		5,000	Thunderstorm and hail	Crops injured.	Do.
Beltsville, Md.	26	4 p. m.	880-1,760		13,000	do	Grapes, cantaloupes, and melons damaged; poles blown down; farm machinery damaged.	Do.
Nansemond, Va.	26	4 p. m.				Tornado	Considerable property and crop damage; several persons injured.	Do.
Sumter, S. C.	26	P. m.			7,000	Thunderstorm, squall, and hail	Details not reported.	Do.
Alden, Iowa (west of)	26	7 p. m.	2 1/2-3 mi.		25,000	Wind and hail	Three barns demolished; crop loss considerable over path 6 miles long.	Do.
Harrold, S. Dak. (west of)	26	7 p. m.	1,760			Hail	Corn damaged 50 to 100 per cent and flax 35 per cent.	Capital Journal (Pierre, S. Dak.)
Circle, Mont. (near)	26					Wind	Buildings unroofed.	Record-Herald (Helena, Mont.)
Mildred, Mont. (west of)	26		2 mi.			Wind and hail	Much standing grain totally destroyed; trees broken; buildings demolished. Two persons injured.	Official, United States Weather Bureau.
Winneahiek County, Iowa	26	8 p. m.	3 mi.			do	Crops damaged from 10 to 80 per cent; 1 silo and several windmills blown down.	Official United States Weather Bureau.
Fayette County, Iowa	26	9 p. m.				do	Damage chiefly by wind; many cornfields total loss, others damaged about 50 per cent. A number of buildings damaged.	Do.
Gilbert, Iowa	26	10 p. m.				do	Trees and wires down; corn foliage shredded over wide area.	Do.
Le Roy, Colo.	26	11:30 p. m.	2,640		4,000	Hail	Grain crops and gardens destroyed; trees injured; windows broken.	Do.
Loveland, Colo. (near)	26	Night				Hail	Crops on one farm beaten into ground.	Do.
Brown and Oconto Counties, Wis.	29	11 a. m.-1 p. m.	880-3,520		5,000	Heavy hail	Corn and oats damaged.	Do.
Marshall, Wyo.	29	3:30-4:50 p. m.	3 mi.		3,000	do	Gardens and 50 per cent of grains ruined.	Do.
Iola, Kans.	29	6:45 p. m.		1	4,000	Violent wind	Roof of store torn off and small building blown over; several fires started by lightning; 2 persons injured.	Topeka Daily Capital (Kans.).
Dodge City, Kans. (near)	29	p. m.	4 mi.			Electrical, rain, hail	All crops in path of hail ruined; livestock killed.	Official, United States Weather Bureau.
Deerlodge and Powell Counties, Mont. (parts of)	29					Hail, wind, and rain	Crops injured; poultry killed; roads damaged.	Record-Herald (Helena, Mont.)
Vernon County, Wis. (central part)	30	2 a. m.	880		1,000	Moderate hail	Tobacco crop damaged.	Official, United States Weather Bureau.
Dodson, La.	30	6 p. m.	100		4,000	Tornado	Houses and barns blown down or damaged; path 1,000 yards long.	Do.
Richland, Tex.	30	8 p. m.	880		100,000	do	Damage mainly to buildings and oil-field property; 1 person hurt. Storm moved to southeast.	Do.
Caroline, Queen Anne, and Talbot Counties, Md.	31				2,650	Rain	Roadbed washed out; fields inundated by breaking of dam; 3 bridges washed away.	Do.
Mobile, Ala., and vicinity	31				2,100	Thunderstorm	Telephones and other wire systems damaged and window panes broken.	Do.