

## SNOWFALL

The April snowfall was considerable over most portions of New York and eastern Ohio, in western and northern Pennsylvania, and the mountainous portions of Maryland, the Virginias, and North Carolina. On the other hand, the upper Lake region had comparatively little, and the greater part of the upper Mississippi and lower Missouri Valleys had either none whatever or too little to be measured.

In northwestern Kansas, the western half of Nebraska and much of South Dakota there was considerable snow, chiefly after the 20th of the month.

In the elevated portions of the regions near or to westward of the Continental Divide, the snowfall was mainly much below normal in the northern area and somewhat below in the southern. Certain districts in about latitudes 37° to 43° had considerable snowfall, especially the Sierra Nevada region.

## SUNSHINE AND RELATIVE HUMIDITY

Rather abundant sunshine prevailed generally during the month in the northern and central areas from the Great Plains eastward to the Atlantic and in the Pacific regions from southern Washington to central California. On the other hand, the sunshine was deficient throughout much of Texas, Oklahoma, eastern Colorado, and New Mexico. Elsewhere it was generally near or slightly below the normal. The relative humidity was above the average from southern Arizona eastward to central Texas and Oklahoma. The plus departures were rather large in some of the areas, as would be expected from the large amount of precipitation received in those regions. Elsewhere the relative humidity was generally near or slightly below the normal.

## SEVERE LOCAL STORMS, APRIL, 1931

[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	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Cattaraugus, Allegany, and Wyoming Counties, N. Y.	2					Snow	Trees, telephone and power lines considerably damaged.	Official, U. S. Weather Bureau.
Pittsburgh, Pa., and vicinity	3-4					Thunderstorm and heavy rain.	25 persons marooned on island; basements flooded; other property damage.	Do.
Havre, Mont., and vicinity	7-9					Wind	Minor damage to windows and signs; considerable loss by blowing soil.	Do.
Clark and Comanche Counties, Kans.	15	2-4 p. m.	9 mi.			Heavy hail	Character of damage not reported; path 19 miles long.	Do.
Edwards County, Kans.	15	4 p. m.	5 mi.		\$10,000	do	Character of damage not reported; path 10 miles long.	Do.
Pawnee County, Kans.	15	P. m.				do	Damage heaviest near Rozel; character not reported.	Do.
White Signal, N. Mex.	16	1-1:30 p. m.	1,760-3,520			do	Roofs considerably damaged; gardens destroyed.	Do.
Adair County, Iowa	18	4:30-5:30 p. m.			10,000	Wind, hail and probably a tornado.	Character of damage not reported	Do.
Dallas County, Iowa	18	P. m.	1,760		6,000	Hail	Buildings and crops damaged; path 3 miles long.	Do.
Lawrence, Monroe, Pike, and Wayne Counties, Miss.	19	P. m.				do	Considerable damage, character not reported.	Do.
Indianapolis, Ind. (7 miles south of)	20	A. m.				Thunderstorm	3 horses killed; truck and quantity of hay, feed, and other grains destroyed.	Do.
Washington and Oregon	21-23					Wind and dust	Severe injury to fruit blooms, vegetables, and truck; grains blown out; timber and communication lines prostrated.	Do.
Lynchburg, Va.	22	12:15-12:30 p. m.	50		4,500	Tornado	Roofs blown from 24 houses; 1 small building demolished.	Do.
Utah (northern)	22-23					Wind and sand	Overhead wires and trees blown down; 11 freight cars blown from track; many residences damaged and several small buildings wrecked; crops injured; traffic delayed.	Do.
Pallsade, Vineland, and Upper Orchard Mesa, Colo.	24	12.1 p. m.			12,000	Hail	Apricots considerably damaged; other fruits slightly injured.	Do.
Hosston to Gigaland, La.	25	9 p. m.	2-6 mi.		10,000	Thundersquall, hail, and tornadoic wind.	Buildings and crops damaged; much replanting required; path 55 miles.	Do.
Marletta to Kildare, Tex.	25		3,520			Hail	Corn and fruit severely hurt	Do.
Belen, N. Mex.	27	3:30 p. m.			2,000	do	Roofs, orchards, and gardens damaged	Do.
El Paso, Clint, and Sanderson, Tex.	28-29		1,760			Thunderstorm and hail.	Young crops destroyed; auto tops pierced; livestock killed; path 315 miles long.	Do.
Little Rock, Ark.	30					Severe thunderstorm.	Small buildings floated from foundations; plate glass broken.	Do.

## RIVERS AND FLOODS

By MONTROSE W. HAYES

There were more overflows in April, 1931, than in any other month since June, 1930, but those east of the Rocky Mountains were of minor importance.

Mild weather and rain near the middle of the month produced stages that were slightly above bankful in the Connecticut River, the Chenango (in New York) and the upper Susquehanna (in New York). There was no damage attendant upon the overflows. Some merchandise, valued at \$25,000, in Hartford, Conn., was saved

by being moved to a safe place before the overflow arrived.

Bankful stages were reached by some of the rivers in eastern North and South Carolina, western Alabama, northern Missouri, western Pennsylvania, and southeastern Ohio. The overflows were slight and the reported property damage was small, but three persons were drowned in Ohio.

Roads were damaged to an indeterminate extent by Pawnee Creek, in Pawnee County, Kans.

Floods in Oregon and Washington were of greater consequence than any of those east of the Rocky Moun-