

the lower Arkansas, escaping through unrepaired levees, did considerable damage to farm lands. Of these overflows the official in charge of the Weather Bureau office at Little Rock reports in part as follows:

If the levees had been intact no damage of consequence would have occurred, but water began going through a number of breaks before a stage of 20 feet had been reached at Georgetown. The water flowing through these breaks inundated 100,000 acres, about one-third of which was cultivated, and most of the highways in this section were under water * * *.

With a stage of 21.6 feet at Pine Bluff, on the Arkansas River, and about 15 feet at Memphis, water ran through the breaks at Southbend, Pendleton, and Medford, inundating about 100,000 acres, one-third of which was in crops. This is the fifth time this season this area has been inundated.

It is thought that water from the White destroyed 30,000 or more acres, and that from the Arkansas at least 33,000 acres, of crops; and as the value of the crops was probably more than \$10 an acre, the combined losses through these overflows amounted to at least \$630,000. No lives were lost and no loss of stock was reported. Owing to the previous floods there was little else to lose.

Report on the rise in the Osage River in August has not been received.

The flood in the Illinois River, report of which was deferred from the issues of this REVIEW for June and July, will be discussed in the special report of the great Mississippi River floods of this year.

MEAN LAKE LEVELS DURING AUGUST, 1927

By UNITED STATES LAKE SURVEY

[Detroit, Mich., September 6, 1927]

The following data are reported in the "Notice to Mariners" of the above date:

Data	Lakes ¹			
	Superior	Michigan and Huron	Erie	Ontario
Mean level during August, 1927:				
Above mean sea level at New York.....	Feet 602.77	Feet 579.46	Feet 572.01	Feet 245.77
Above or below—				
Mean stage of July, 1927.....	+0.08	-0.09	-0.15	-0.24
Mean stage of August, 1926.....	+1.75	+0.85	+0.71	+0.78
Average stage for August last 10 years.....	+0.59	-0.85	-0.30	-0.29
Highest recorded August stage.....	-1.16	-4.05	-2.10	-2.49
Lowest recorded August stage.....	+1.75	+1.02	+0.93	+1.42
Average departure (since 1860) of the August level from the July level.....	+0.11	-0.05	-0.18	-0.30

¹ Lake St. Clair's level: In August, 1927, 574.74 feet.

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, AUGUST, 1927

By J. B. KINCER

General summary.—Temperatures during the month tended to subnormal generally and retarded development of warm-weather crops considerably. During the first decade there was too frequent rain for cotton in the Southeast, while in the central Great Plains and more east-central areas beneficial showers occurred. Warm weather in southern sections promoted rapid growth, while farm work proceeded satisfactorily in more northern portions. The weather in northern areas was generally cool, but no materially harmful temperatures occurred, except that some more or less local frost damage was noted in parts of the upper western Lake region. It remained generally cool for the season in northern States east of the Rocky Mountains, but the South had warmer than normal weather.

The continuation of cool weather during the last decade east of the Rocky Mountains materially retarded warm-weather crops and higher temperatures were generally needed. Showers to generous rainfall, however, relieved the drought in some sections of the central-northern portions and in the Southwest; from western Texas westward showers were beneficial, but in other parts, including much of Texas, it continued too dry. There was considerable frost damage to tender vegetation in some parts of the Central Northern States, particularly on lowlands of Wisconsin and Minnesota, with some light frost in parts of Iowa. At the close of the month rain was still badly needed in much of Texas and also in most sections from Michigan to Minnesota, but elsewhere east of the Rocky Mountains the soil was in mostly good condition with fall plowing progressing rapidly in many places and some seeding of winter grains begun in the West. West of the Rocky Mountains conditions continued generally favorable, especially in the Pacific Northwest, though moisture was needed in some sections.

Small grains.—The threshing of winter grains made good progress under generally favorable weather the first part of the month, and in the spring wheat belt the cool, fair weather made exceptionally good conditions for harvest. Late spring wheat was badly damaged by rust in Minnesota, and there was considerable rust

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC DRAINAGE					
Neuse: Smithfield, N. C.....	Feet 14	26	27	15.0	27
MISSISSIPPI DRAINAGE					
Tippecanoe: Norway, Ind.....	6	2	2	6.0	2
Smoky Hill:					
Mentor, Kans.....	22	14	21	25.8	17
Solomon, Kans.....	24	15	23	26.8	21
Solomon: Beloit, Kans.....	18	3	3	20.5	3
		18	18	20.1	18
		23	26	24.5	26
Blue: Blue Rapids, Kans.....	20	8	9	23.6	9
		13	15	23.0	14
Osage:					
Osceola, Mo.....	20	8	12	27.9	10
		16	24	28.5	20
Warsaw, Mo.....	22	9	13	31.8	10
		18	24	25.9	21
Tuscumbia, Mo.....	25	10	15	30.5	13
		22	24	25.4	23
Arkansas:					
Fort Lyon, Colo.....	6			8.2	3
Dodge City, Kans.....	5	5	5	5.3	5
Great Bend, Kans.....	5	3	7	6.3	7
		13	13	5.8	13
		16	17	6.0	17
Wichita, Kans.....	9	14	22	13.5	17
Arkansas City, Kans.....	15	4	4	16.1	4
		17	22	17.2	23
Webbers Falls, Okla.....	23	6	6	23.2	6
Dardanelle, Ark.....	20	8	8	20.0	8
Little Arkansas: Sedgwick, Kans.....	18	15	17	23.2	16
		27	28	19.8	28
Neosho:					
Oswego, Kans.....	17	10	10	18.8	10
		15	22	22.1	18
Wyandotte, Okla.....	23	18	19	25.8	18
Fort Gibson, Okla.....	22	20	20	22.5	20
Cottonwood:					
Elmdale, Kans.....	32	18	18	32.5	18
Emporia, Kans.....	20	17	20	22.5	19
Cimarron: Perkins, Okla.....	11	4	4	12.2	4
Canadian: Logan, N. Mex.....	4			5.0	5
North Canadian:					
Woodward, Okla.....	4	3	6	5.1	4, 6
Oklahoma City, Okla.....	12	10	10	12.0	10
Petit Jean: Danville, Ark.....	20	11	12	20.2	11
White:					
Calico Rock, Ark.....	18	17	19	24.8	17
Batesville, Ark.....	23	18	20	29.3	19
Newport, Ark.....	26	19	22	27.4	21
Georgetown, Ark.....	22	24	24	22.0	24
Black:					
Corning, Ark.....	11	16	21	12.1	18
Black Rock, Ark.....	14	18	22	15.0	19
WEST GULF DRAINAGE					
Rio Grande:					
San Marcial, N. Mex.....	2			3.7	25