

Flood stages for the month of April, 1920—Continued.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From—	To—	Stage.	Date.
MISSISSIPPI DRAINAGE—continued.					
French Broad:					
Penrose, N. C.	13	2	5	16.7	3
Asheville, N. C.	4	2	6	7.1	2
Dandridge, Tenn.	12	3	3	18.7	3
Big Pigeon:					
Newport, Tenn.	6	2	2	17.0	2
Holston:					
Rogersville, Tenn.	14	3	3	15.0	3
North Fork—					
Mendota, Va.	8	2	2	8.0	2
Clinch:					
Kingston, Tenn.	25	3	4	27.0	3
Little Tennessee:					
McGhee, Tenn.	20	2	3	30.5	2
Hwassee:					
Charleston, Tenn.	22	2	5	30.5	3
Duck:					
Columbia, Tenn.	30	2	4	33.6	3
Mississippi:					
Winona, Minn.	16	(¹)	1	16.0	1
La Crosse, Wis.	12	(¹)	7	14.2	2
Prairie du Chien, Wis.	18	3	8	19.6	4,5
Dubuque, Iowa	18	3	12	21.0	7
Clinton, Iowa	16	6	15	19.0	8
Le Claire, Iowa	10	4	17	13.4	9
Davenport, Iowa	15	6	14	17.1	9
Muscataine, Iowa	16	6	13	18.0	8
Keokuk, Iowa	12	5	20	14.2	10
Keokuk, Iowa	14	3	25	16.8	11
Warsaw, Ill.	17	4	25	19.8	21
Quincy, Ill.	14	2,7	29	19.2	22
Hannibal, Mo.	13	(¹)	(¹)	19.5	22
Louisiana, Mo.	12	(¹)	(¹)	17.5	23
Grafton, Ill.	18	(¹)	(¹)	22.4	25
Alton, Ill.	21	(¹)	(¹)	25.1	24
Chester, Ill.	27	(¹)	2	27.3	1
Cape Girardeau, Mo.	30	(¹)	5	32.2	1.2
Do.	30	10	15	30.7	12
Do.	30	25	28	30.5	26
New Madrid, Mo.	34	(¹)	21	40.2	1
Do.	34	24	(¹)	37.9	30
Memphis, Tenn.	35	(¹)	(¹)	40.3	5
Helena, Ark.	42	(¹)	(¹)	50.1	8,9
Greenville, Miss.	42	4	(¹)	47.0	16
Vicksburg, Miss.	45	4	(¹)	50.8	19-28
Natchez, Miss.	46	9	(¹)	51.5	28
Baton Rouge, La.	35	12	(¹)	40.2	30
Donaldsonville, La.	28	13	(¹)	31.5	28-30
New Orleans, La.	18	15	(¹)	19.6	28-30
Arkansas City, Ark.	42	(¹)	(¹)	54.0	11
Wisconsin:					
Portage, Wis.	14	(¹)	3	14.9	* 31
Des Moines:					
Ottumwa, Iowa	10	20	21	12.0	21
Illinois:					
Morris, Ill.	13	19	26	17.8	21
Peru, Ill.	14	(¹)	(¹)	22.0	23
Henry, Ill.	7	(¹)	(¹)	16.2	24
Peoria, Ill.	16	(¹)	(¹)	22.9	25
Havana, Ill.	14	(¹)	(¹)	19.7	26-28
Beardstown, Ill.	12	(¹)	(¹)	21.3	27
Pearl, Ill.	12	(¹)	(¹)	19.1	27
Yazoo:					
Yazoo City, Miss.	25	2	(¹)	30.8	27-30
Tallahatchie:					
Swan Lake, Miss.	25	16	(¹)	28.7	30

¹ Continued into May. ² March. ³ Continued from March

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, APRIL, 1920.

By J. WARREN SMITH, Meteorologist in Charge.

The weather during April was, on the whole, unfavorable for the growth of vegetation and for farm operations in nearly all sections of the country. Cool weather for the season persisted throughout the month in most central and northern districts, and rainfall was frequent in many sections, particularly between the Mississippi River and Appalachian Mountains and in the Southeast, resulting in soil conditions unfavorable for spring planting.

During the first decade of the month heavy rains fell from the lower Mississippi Valley eastward, and the planting of corn and cotton was further retarded in that area, owing to the continued saturated condition of the soil; these crops germinated rather poorly in Texas, necessitating considerable replanting. Winter wheat made some improvement, but it was too cool for best results, and the unfavorable weather in the spring-wheat belt caused considerable delay in the preparation of soil for seeding, although some seeding was done in the southern portion of the belt. The cold, stormy weather in the northwestern districts during the first decade of the month was very unfavorable for stock.

During the second decade, continued cool weather

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MISSISSIPPI DRAINAGE—continued.					
Ouachita:					
Arkadelphia, Ark.	18	27	27	19.9	27
Camden, Ark.	30	(²)	3	33.8	* 31
Do.	30	29	(¹)	35.1	30
Atchafalaya:					
Simmesport, La.	41	15	(¹)	44.8	30
Melville, La.	37	8	(¹)	41.6	30
Missouri:					
St. Charles, Mo.	25	9	10	25.2	10
Blairs, Nebr.	16	4	5	16.9	5
Pierre, S. Dak.	13	1	1	13.1	1
Grand:					
Chillicothe, Mo.	18	(²)	1	26.9	* 30
Do.	18	13	13	18.7	13
Do.	18	19	26	25.8	23
Brunswick, Mo.	10	(²)	10	11.6	8
Do.	10	20	27	10.8	21-25
Do.	10	30	(¹)	10.3	30
James:					
Huron, S. Dak.	9	(²)	8	15.6	* 28
l'etite Jean:					
Danville, Ark.	20	27	29	21.8	28
White:					
Newport, Ark.	26	(²)	1	29.3	* 29
Georgetown, Ark.	22	(²)	11	25.5	2
Black:					
Black Rock, Ark.	14	(²)	12	20.9	* 27
Sulphur:					
Finley, Tex.	24	(²)	2	28.0	* 29-30
Ringo Crossing, Tex.	20	27	29	21.2	27
WEST GULF DRAINAGE.					
Trinity:					
Trinidad, Tex.	28	(²)	6	36.7	2

¹ Continued into May. ² March. ³ Continued from March.

MEAN LAKE LEVELS DURING APRIL, 1920.

By UNITED STATES LAKE SURVEY.

[Dated: Detroit, Mich., May 5, 1920.]

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 April, 1920:				
Above mean sea level at New York	Feet. 602.26	Feet. 580.54	Feet. 571.64	Feet. 245.55
Above or below				
Mean stage of March, 1920	+0.34	+0.54	+0.79	+0.50
Mean stage of April, 1919	+0.26	-0.49	-1.41	-0.88
Average stage for April, last 10 years	+0.62	-0.28	-0.76	-0.81
Highest recorded April stage	-0.43	-2.69	-2.54	-2.88
Lowest recorded April stage	+1.72	+1.32	+0.38	+0.71
Average relation of the April level to—				
March level		+0.3	+0.6	+0.7
May level		-0.3	-0.8	-0.3

¹ Lake St. Clair's level: In April, 574.80 feet.

and saturated soil were unfavorable for farm operations in all central and northern districts, and also in most southern sections, and at the same time drought prevailed in the lower and west-central Great Plains. This period was too cool for cotton and corn and too wet in most sections, but winter wheat made fair advance in many districts, particularly in the Plains region. It continued unfavorable for seeding spring wheat, and that work was considerably delayed.

During the last decade of the month, the higher temperatures that prevailed in the Southern States were more favorable, and corn showed considerable improvement in germination and growth, while cotton planting made better advance than previously. Winter grains showed general, though mostly slow, advance during this period, although the improvement was substantial in the central Great Plains area. The weather continued cloudy, rainy, and cold in the spring-wheat belt and little progress in seeding could be made. The latter part of the month was more favorable for potatoes and truck crops in the southern States, but the planting of truck and gardens was delayed in central and northern districts on account of low temperatures and wet soil.