Climatological Data for August, 1910.

DISTRICT No. 5, UPPER MISSISSIPPI VALLEY.

GEORGE M. CHAPPEL, District Editor.

GENERAL SUMMARY.

The weather during August was generally favorable for agricultural and other outdoor pursuits, although the month was somewhat cooler than usual and the first 10 or 15 days were very dry. The month, as a whole, was considered cool, notwithstanding the fact that the maximum temperatures were quite uniform and generally equal to or above the normal. There were, however, very few excessively hot days, and they were distributed between the 1st and 24th, and occurred mostly in Iowa. The night temperatures were moderately low during the larger part of the month and especially during the last decade. Frost was observed in northern Wisconsin on the 11th, 14th, 19th, and on the 26th or 27th, north of central Iowa and Illinois, and freezing temperatures were recorded at several stations in North Dakota, Minnesota, and Wisconsin on the 31st.

The drought, which had continued with few interruptions over the larger part of the district during June and July, was greatly relieved or entirely broken about the 15th, and the precipitation was about normal over the upper Mississippi Valley during the latter half of the month, with an excess in several localities. Vegetation revived quickly after the first good rain, and by the close of the month the fields were green again and the condition of late crops had improved materially.

Thunderstorms were more frequent during the second and third decades than during the preceding 2 months and they were more generally attended by hail and wind squalls, which did considerable damage to crops, windmills, and small buildings over small areas in various localities.

TEMPERATURE.

The average temperature was slightly below the normal in all of the States in the district, except Wisconsin and Iowa, where there was an excess of 0.6°. The monthly means by States ranged from 62.3° for North Dakota to 73.5° for Missouri. The warmest periods of the month were from the 1st to the 3d, 10th to 12th, 19th to 23d, and the 28th, and the coldest days were the 5th, 6th, 18th, 25th, 26th, 27th, 30th ,and 31st. The mean temperature for the district, as shown by the reports of 290 stations, was 69.4°, which is 2.1° below the normal. The highest monthly mean was 76.7° at Cobden, Ill., and the lowest, 59.4°, at Little Fork, Minn. The highest temperature recorded was 100° at Prairie du Chien, Wis., on the 24th; Bloomfield and Ottumwa, Iowa, on the 16th; Decorah, Iowa, on the 2d; Greene Iowa, on the 1st; Grinnell, Iowa, on the 22d; Marshalltown, Iowa, on the 24th; Ridgeway, Iowa, on the 21st; and Mexico, Mo., on the 23d. The lowest temperature recorded was 24° at McKinney, N. Dak., on the 31st.

PRECIPITATION.

The rainfall was generally very light during the first half of the month, and, while there was more precipitation during the latter half, there was a deficiency for the month in all of the States in the district, except South Dakota, Wisconsin, and Indiana. The departure in the other States was, however, less than 1 inch, except in North Dakota and Missouri, where it was −1.44 and −1.00 inch, respectively. Over the larger part of the district the rainfall was fairly well distributed geographically, and yet there were localities in all of the States where the rainfall was light, and droughty conditions continued during the entire month. The greatest amounts of rainfall occurred over eastern Iowa, central and northern Illinois, and southern Wisconsin, and the least over the Dakotas and northern Minnesota.

The average precipitation for the district, as shown by the records of 309 stations, was 2.96 inches, which is 0.32 inch below the normal. The greatest amount, 8.49 inches, occurred at Washington, Iowa, and the least, 0.34 inch, at Larimore, N. Dak. The greatest amount in 24 hours, 4.52 inches, occurred at Streator, Ill., on the 16th. A trace of snow fell at Aurora, Ill., on the morning of the 26th. Measurable precipitation occurred on an average of 7 days.

SUNSHINE AND CLOUDINESS.

The average number of clear days was 13; partly cloudy, 10; cloudy, 8. The duration of sunshine was nearly or slightly below normal.

WIND.

Over the northern half of the district, northwest winds largely prevailed, while over the southern half, southwest winds prevailed in corresponding measure. The highest velocity reported was 42 miles per hour from the northwest at Madison, Wis., on the 23d, and from the west at Devils Lake, N. Dak., on the 30th.

MISCELLANEOUS.

A number of prairie fires occurred in North Dakota during the forepart of the month.

But little or no damage was done by frost, notwithstanding the fact that the temperature was below freezing on 1 or more days in North Dakota, Minnesota, and Wisconsin. The frost in northern Iowa on the 26th was only a mere trace and was confined to low ground in the northern part of the State.

From the 21st to the 25th the air was so filled with smoke from the fires in the northwestern States that the sun was nearly obscured at stations in northern Wisconsin and quite dim in other localities in that State. At Moorhead, Minn., the smoke was so dense on the 22d and 23d, that artificial light was required in all dwellings and business houses.

During a shower at Keokuk, Iowa, on the 20th, some of the hailstones which attended the storm measured 9 inches in circumference, but as the quantity was not great and the area covered by the storm was small, the damage done was slight.

Considerable loss was caused by hail and lightning during the month, especially in Iowa. The following items have been gleaned from press dispatches: On the night of the 2d and morning of the 3d a great deal of damage was done by lightning over northeastern Iowa. Near Finchford, a barn was struck and a team was killed; 5 horses, 2 cows, and the new harvest of oats and hay were burned near Dike. A barn near Janesville was destroyed with 2 cows and much hay and grain. A barn burned near Sinclair and 4 horses perished and grain, hay, and machinery were destroyed. Several barns were burned near New Hartford during the same storm and much personal property was destroyed. At Mason City a dozen houses were struck by lightning, but none of them burned. On the 15th a barn near Nevada, Iowa, was struck by lightning and it and the contents burned.

A severe hailstorm occurred at Centralia and Lore, in Dubuque County, Iowa, about noon of the 20th. It is said to have been the heaviest fall of hail and the most devastating in the history of the county. The stones were 8 to 9 inches in circumference. At Centralia the hail covered the ground to a depth of several inches like frozen snowballs and was followed by a rain, which amounted to almost a cloudburst. At Lore the hail came after the rain. On the same afternoon, severe hailstorms passed over portions of Benton, Linn, Henry, Washington, and Van Buren counties, which did considerable damage to the corn crop and window glass. On the 25th a large barn near State Center was struck by lightning and burned with its contents. On the

30th a barn and its contents were burned near Eldon. On the night of the 24th a small wind squall struck the A. L. Ames farm near Traer, wrecking 2 silos and blowing down much of the corn in the fields.

RIVERS.

The average stage of all rivers in the district was generally below the normal. There was, however, a slight rise noted in most of the streams during the latter half of the month.

In Minnesota, river traffic and the operating of saw mills was generally suspended.

At Dubuque, Iowa, river conditions were much the same as during July, and none of the packets were able to run owing to low water. The river at Prairie du Chien and Dubuque rose slowly during the month, chiefly as a result of heavy rains in Wisconsin, but it did not reach a 1-foot stage on any date. The lowest stage from Dubuque to La Crosse was one or two tenths above the lowest stage of 1864. The Wisconsin River rose slowly during the last 15 days of the month, and at the close there was considerably more water in that river than at the close of July.—*J. H. Spencer, Local Forecaster.*

On the 9th, and from the 11th to the 15th, the stage of the river at Davenport was 0.2 foot, the lowest during any August since 1894. River traffic between this city and points to the northward remains suspended.—*J. M. Sherier, Local Forecaster.*

The observer at Hannibal, Mo., reports that the stage of the Mississippi River was much below the normal at that point, and even the lightest draft packets had to suspend operations early in the month.

Burlington, Iowa, August 3.—For the first time in 46 years in the navigation season, the Mississippi River at Burlington this morning touched the low-water mark established in 1864. The wing dams are high and dry and sand bars are numerous; steamboat navigation with light packets is practically at a standstill. The low water threatens to seriously cripple the lumber industry here, as rafters can make but slow and hazardous progress—*Times-Republican, Marshalltown, Iowa.*

DRAINAGE AND ENGINEERING NOTES.

The survey of the Des Moines River was continued by the United States Army Engineers, under the supervision of Mr. A. O. Rowse. During the month of August, topography on both sides of the river, covering area subject to overflow, soundings and probings of the river bottom, and levels to determine water slope were taken for a distance of 32 miles, completing the field work to a point 86 miles below Des Moines, measured along the river, and 14 miles of topography and soundings were platted.

Burlington, Iowa, August 23, 1910.—At a meeting in Burlington to-night a new drainage district was formed, which will include 10,000 acres of swamp land lying between the Burlington main line tracks and the Carthage and Quincy branch road just east of Burlington in Illinois. The land is of little value now, except for fishing clubs, and by the new drainage system, will become of great worth as farm lands.—*Des Moines Register and Leader.*

TABLE 1.—*Climatological data for August, 1910. District No. 5, Upper Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days. .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Dakota.																				
Amenia	Cass	954	12	65.1	− 1.0	92	19	37	26†	46	0.90	− 2.32	0.42	0.0	3	13	11	7	nw.	C. E. Wood.
Bottineau	Bottineau	1,638	14	61.4	− 2.0	93	11†	28	26	51	0.77	− 0.79	0.60	0.0	5	11	5	15	se.	J. A. Kemp.
Cando	Towner	1,488	8	57.8[k]	.....	95	22	32	26	55	2.36	.....	1.40	0.0	4	.....	.....	.....	.....	G. Bennett.
Crosby	Williams	.....	3	60.2	.....	93	1	35	25†	41	2.68	.....	1.66	0.0	5	21	2	8	nw.	H. C. Kaschau.
Devils Lake	Ramsey	1,482	4	62.5	− 2.6	94	11	36	31	43	2.63	− 0.13	1.56	0.0	6	8	10	13	se.	U. S. Weather Bureau.
Donnybrook	Ward	1,760	10	60.6	− 3.8	93	19†	32	28†	47	0.86	− 2.02	0.45	0.0	2	13	6	12	nw.	C. J. De Vore.
Dunseith	Rolette	.....	12	59.8	− 2.8	95	20†	31	26	53	0.97	− 1.33	0.75	0.0	3	21	4	6	w.	L. H. Trowbridge.
Edmore	Ramsey	1,524	4	62.2	.....	93	10	31	31	49	1.23	.....	0.90	0.0	3	10	15	6	n.	H. R. Aslakson.
Forman	Sargent	1,249	15	.....	.....	.....	.....	.....	.....	.....	1.15	− 2.13	0.75	0.0	2	.....	.....	.....	.....	A. Maltby.
Grafton	Walsh	827	12	64.6	+ 0.3	87	3†	39	16	32	1.85	− 0.57	1.85	0.0	1	25	2	4	.....	H. La Moure.
Granville	McHenry	1,504	3	61.2	.....	97	28	33	30	47	0.60	.....	0.30	0.0	3	10	17	4	nw.	W. A. Christiansen.
Hannah	Cavalier	1,568	4	60.9	.....	95	11	29	25	49	0.71	.....	0.62	0.0	5	18	3	10	nw.	J. Moffatt.
Hansboro	Towner	.....	2	61.7	.....	94	20	32	31	46	1.47	.....	1.03	0.0	7	20	6	5	nw.	Geo. Dale.
Hillsboro	Traill	901	4	65.8	.....	93	20	35	31	41	1.78	.....	1.02	0.0	6	13	7	11	nw.	M. H. Norman.
Lakota	Nelson	1,519	3	61.3	.....	92	11	32	31	45	1.93	.....	0.90	0.0	5	9	17	5	w.	C. R. Pettes.
Langdon	Cavalier	1,615	14	60.0	.....	92	11	32	31	45	1.24	.....	0.91	0.0	4	14	0	17	sw.	J. Woolner.
Larimore	Grand Forks	1,134	14	63.4	− 0.6	95	21	37	31	44	0.34	− 2.68	0.30	0.0	3	.....	.....	.....	w.	Reuben Gray.
Lisbon	Ransom	1,091	5	65.0	.....	93	15†	31	31	52	0.73	.....	0.43	0.0	4	17	7	7	nw.	H. K. Adams.
McKinney	Ward	1,640	15	61.0	− 2.6	95	19†	24	31	56	0.42	− 0.96	0.42	0.0	1	11	15	5	nw.	N. P. Swenson.
Manfred	Wells	1,605	8	62.0	.....	95	11	33	31	46	0.92	.....	0.48	0.0	3	14	10	7	sw.	P. B. Anderson.
Mayville	Traill	975	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. C. McDonald.
Minot	Ward	1,557	11	63.2	− 2.6	95	11†	34	31	51	0.51	− 1.85	0.32	0.0	5	20	3	8	nw.	Wm. J. Farris.
Minto	Walsh	820	16	64.4	− 0.2	92	20	36	31	44	1.98	− 0.56	0.55	0.0	5	12	5	14	nw.	S. S. Marsh.
Oriska	Barnes	1,270	4	64.3	.....	91	21	40	31	42	2.53	.....	0.85	0.0	5	5	21	5	nw.	W. E. Williams.
Park River	Walsh	998	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Heyward.
Pembina	Pembina	789	11	60.0	− 3.8	90	11	32	31	40	1.32	− 1.29	0.94	0.0	5	13	0	18	nw.	C. W. Shumaker.
Power	Richland	1,020	17	63.8	− 3.1	91	20	30	31	50	0.78	− 1.75	0.58	0.0	2	12	9	10	nw.	J. A. Power.
Pratt	McHenry	.....	5	61.6	.....	96	19	30	18	55	1.03	.....	0.57	0.0	3	20	4	7	nw.	C. H. Butts.
Towner	....do	.....	.....	62.4	.....	95	11	32	31	46	0.85	.....	0.46	0.0	4	10	10	11	w.	Belle Bagley.
University	Grand Forks	830	18	64.8	− 0.1	94	11	33	31	52	0.89	− 1.63	0.35	0.0	7	8	16	7	nw.	W. R. Holgate.
Wahpeton	Richland	962	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. G. Burch.
Walhalla	Pembina	966	5	.....	.....	.....	.....	.....	.....	.....	0.86	.....	0.58	0.0	6	.....	.....	.....	.....	C. H. Lee.
Westhope	Bottineau	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Clark.
Willow City	....do	1,471	16	61.4	− 4.5	93	11†	33	25	49	1.26	− 1.58	0.95	0.0	3	8	15	8	nw.	M. A. Ostby.
Minnesota.																				
Albert Lea	Freeborn	1,229	20	71.8	+ 2.7	99	16	42	26	45[b]	3.85	− 0.09	1.20	0.0	11	14	13	4	se.	Edward Carey.
Alexandria	Douglas	1,391	16	65.2	− 2.2	89	11	40	31	39	3.08	− 0.62	0.80	0.0	7	14	4	13	nw.	P. O. Unumb.
Angus	Polk	870	8	62.8	.....	96	20	31	31	46	1.39	.....	0.97	0.0	5	10	11	10	ne.	John Nadvornik.
Bagley	Clearwater	.....	4	61.0	.....	91	20	28	31	50	0.71	.....	0.19	0.0	7	9	15	7	sw.	Jens Nelson.
Baudette	Beltrami	1,084	1	61.4	.....	89	11†	30	31	40	1.06	.....	0.40	0.0	7	12	6	13	nw.	Franz W. Schmidt.
Beardsley	Bigstone	1,090	17	66.8	− 1.3	95	12†	37	31	50	2.98	− 0.76	1.10	0.0	7	6	20	5	nw.	Roy A. Smith.
Beaulieu	Mahnomen	1,200	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Elizabeth S. Cooper.
Bird Island	Renville	1,039	20	67.8	− 1.2	91	12	40	26	39	2.97	− 0.50	0.73	0.0	8	12	14	5	nw.	Dr. F. L. Puffer.
Caledonia	Houston	1,179	17	69.1	+ 0.2	89	24	48	26	27	4.02	+ 0.21	1.86	0.0	12	9	10	12	sw.	W. D. Belden.
Campbell	Wilkin	984	.....	64.7	.....	92	11†	33	31	50	1.25	.....	0.30	0.0	9	17	0	14	nw.	J. T. Neisess.
Cass Lake	Cass	1,300	4	.....	.....	.....	.....	.....	.....	.....	0.40	.....	0.40	0.0	1	.....	.....	.....	.....	C. W. Burns.
Collegeville	Stearns	1,282	17	68.3	− 0.5	91	12	46	26	31	2.20	− 0.74	1.04	0.0	7	15	9	7	nw.	Fridolin Tembreul.
Crookston	Polk	863	20	64.2	− 1.8	91	20	38	31	37	1.42	− 2.02	0.45	0.0	7	13	6	12	s.	A. G. Anderson.
Detroit	Becker	1,364	14	63.6	− 1.3	91	11	31	31	47	0.66	− 3.53	0.20	0.0	6	12	14	5	.....	George W. Peoples.
Fairmont (near)	Martin	1,240	23	68.8	− 0.5	89	1†	45	26	30	1.95	− 1.00	0.59	0.0	9	13	15	3	nw.	W. F. Wherland.
Faribault	Rice	1,003	13	66.8[d]	− 2.3	90	2	40	26	42[d]	1.97	− 2.09	0.54	0.0	7	15	9	7	nw.	Dr. A. R. T. Wylie.
Farmington	Dakota	902	22	69.1	+ 0.4	91	11†	42	5	38	2.03	− 1.44	0.72	0.0	9	10	5	16	nw.	D. F. Akin.
Fergus Falls	Ottertail	1,210	18	66.8	− 1.0	91	12	42	31	35	0.78	− 2.14	0.33	0.0	10	12	11	8	se.	Chas. E. Kissenger.
Fort Ripley	Crow Wing	1,136	4	64.6	.....	93	12	35	5†	46	2.31	− 0.92	1.16	0.0	5	15	1	15	nw.	J. J. Tucker.
Fosston	Polk	1,289	1	63.8	.....	91	20	34	31	43	0.95	.....	0.38	0.0	9	9	15	7	sw.	O. N. Hem.
Fram	Marshall	.....	.....	60.6	.....	93	20	28	31	50[a]	0.88	.....	0.45	0.0	4	8[a]	19[a]	3[a]	sw.	A. W. Clark.
Glencoe	McLeod	1,000	14	67.9	− 0.3	90	20†	39	31	37	1.92	− 1.31	0.35	0.0	7	9	19	3	sw.	C. G. Selvig.
Grand Meadow	Mower	1,338	23	70.1	+ 1.6	95	1	40	5	46	3.53	+ 0.11	1.36	0.0	12	18	6	7	nw.	C. F. Greening.
Hallock	Kittson	815	11	63.8	− 0.5	93	11	33	31	46	2.64	− 0.81	1.05	0.0	9	14	5	12	n.	D. A. Robertson.
Halstad	Norman	870	4	64.2	.....	94	20	33	31	45	0.92	.....	0.50	0.0	5	15	8	8	nw.	Aaron G. Holstrom.
Hinckley	Pine	1,050	5	65.2	.....	92	12	34	26	45	3.66	.....	0.95	0.0	7	8	12	11	s.	W. R. Newman.
International Falls	Koochiching	1,112	2	61.8	.....	91	20	31	31	44	1.20	.....	0.52	0.0	4	13	12	6	sw.	Rees Roe.
Kelliher	Beltrami	.....	3	62.4	.....	92	20	30	31	42	0.55	.....	0.20	0.0	4	17	14	0	sw.	A. Gilmour.
Lake Crystal	Blue Earth	.....	3	67.8	.....	89	11†	40	26	33	4.48	.....	2.28	0.0	8	19	8	4	nw.	W. P. Cobb.
Leech Lake Dam	Cass	1,301	22	61.8	− 1.7	91	20	35	31	40	0.66	− 3.21	0.23	0.0	10	3	20	8	w.	Hans Olson.
Little Fork	Koochiching	.....	.....	59.4	.....	93	20	28	31	45	1.34	.....	0.64	0.0	5	19	1	11	.....	O. C. Olson
Long Prairie	Todd	1,299	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. M. Sheets.
Lynd (2)	Lyon	1,175	18	65.9	− 2.4	91	2†	37	31	39	2.84	− 0.55	0.86	0.0	9	15	12	4	nw.	J. W. Rouse.
Mankato	Blue Earth	747	11	.....	.....	.....	.....	.....	.....	.....	4.40	+ 0.85	1.41	0.0	10	9	5	17	sw.	Sadie H. Blake.
Mapleplain	Hennepin	1,023	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. W. Richards.
Milaca	Millelacs	1,072	13	64.8[c]	− 0.4	88	11†	32	31	45[c]	2.80	− 0.38	1.42	0.0	3[c]	9[c]	17[c]	2[c]	nw.	C. H. Foss.
Milan	Chippewa	955	16	66.1	− 2.7	98	21	42	26	39	4.03	+ 1.06	1.04	0.0	8	1	24	6	nw.	O. K. Opjorden.
Minneapolis	Hennepin	918	19	69.0	− 0.8	90	20	48	26	28	1.56	− 2.13	0.61	0.0	8	10	5	16	s.	U. S. Weather Bureau.
Montevideo	Chippewa	900	20	67.9	− 1.3	93	12	42	31	37	4.65	+ 2.10	0.94	0.0	10	12	6	13	nw.	Lloyd G. Moyer.
Moorhead	Clay	935	29	65.4	− 0.5	92	11	36	31	45	1.39	− 1.71	1.10	0.0	6	16	8	7	nw.	U. S. Weather Bureau.
Mora	Kanabec	.....	5	64.0	.....	91	11†	32	5	47	1.91	.....	1.01	0.0	6	19	9	3	nw.	Hans Peterson.
Morris	Stevens	1,170	25	66.8	− 0.8	93	12	43	31	36	3.44	+ 0.44	0.98	0.0	9	19	6	6	s.	D. T. Wheaton.
New London	Kandiyohi	1,215	16	64.2	− 5.2	93	12	40	27†	44	2.46	− 0.43	0.60	0.0	8	16	11	4	sw.	Harold Swenson.
New Richland	Waseca	1,180	16	69.6	− 1.0	91	16†	44	26†	37	5.22	.....	2.63	0.0	10	12	14	5	sw.	N. O. Tyrholm.
New Ulm	Brown	791	30	70.0	− 1.5	94	11†	41	10	47	5.97	+ 2.58	2.80	0.0	7	17	2	12	nw.	Andrew J. Eckstein.
Osakis	Douglas	1,343	3	64.8	.....	88	11†	36	26	42	2.89	.....	0.86	0.0	7	17	6	8	nw.	J. B. Johnson.
Park Rapids	Hubbard	1,426	20	63.8	− 0.4	94	12	34	31	45	0.68	− 3.27	0.38	0.0	8	13	1	17	nw.	Dr. P. A. Walling.
Pine River Dam	Crow Wing	1,251	23	65.1	− 0.7	91	11	39†	27	43	1.86	− 2.35	0.50	0.0	5	7	21	3	e.	Neil McKay.
Pokegama Falls	Itasca	1,280	23	61.1	− 2.1	87	20	33	31	42	2.36	− 1.40	0.79	0.0	8	9	14	8	nw.	Arthur L. Mampel.
Red Lake	Beltrami	1,152	2	64.2	.....	92	20	35	31	40	0.42	.....	0.15	0.0	5	8	21	2	w.	A. C. Goddard.
Red Wing	Goodhue	680	14	.....	.....	.....	.....	.....	.....	.....	2.52	− 1.58	0.88	0.0	9	12	1	18	se.	Louis Bach.
Redwood Falls	Redwood	1,050	3	69.2	.....	93	2†	43	31	37	3.62	+ 1.21	0.98	0.0	8	17	11	3	nw.	N. B. Anderson.
Reeds Landing	Wabasha	681	15	.....	.....	.....	.....	.....	.....	.....	3.74	− 0.13	0.68	0.0	10	14	0	17	se.	John Deechneau.
Rochester	Olmsted	991	6	68.0	.....	92	2	41	26	44	2.94	.....	0.75	0.0	10	12	2	17	s.	S. R. Case.
Roseau	Roseau	1,040	3	61.6	.....	90	11	31	31	48	2.64	.....	0.73	0.0	7	18	10	3	nw.	A. Waag.
St. Charles	Winona	850	19	68.8	+ 0.3	90	2†	44	31	42	5.68	+ 2.68	1.34	0.0	10	14	8	9	se.	S. W. Gleason.
St. Cloud	Sherburne	1,020	32	67.8	− 0.2	91	12	42	26	37	3.90	+ 0.40	1.49	0.0	6	10	11	10	sw.	Jos. H. Capser.
St. Paul	Ramsey	837	39	69.1	− 0.4	90	20	47	26	32	0.98	− 2.48	0.30	0.0	10	15	13	3	s.	U. S. Weather Bureau.
St. Peter	Nicollet	825	17	69.4	− 0.6	95	21	40	25	41[a]	3.03	− 0.40	0.64	0.0	8	5	14	12	nw.	Chas. C. Cavanaugh.
Sandy Lake Dam	Aitkin	1,234	17	62.9	− 2.1	89	12†	36	31	47	1.52	− 2.59	0.87	0.0	6	12	8	11	nw.	U. S. Engineer Corps.
State Sanatorium	Cass	.....	3	64.0	.....	92	20	40	31	38	0.92	.....	0.53	0.0	2	18	6	7	nw.	Walter J. Marclaey.
Stillwater	Washington	694	5	.....	.....	.....	.....	.....	.....	.....	0.92	.....	0.40	0.0	9	15	2	14	sw.	Oscar Ostrom.

TABLE 1.—*Climatological data for August, 1910. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Minnesota—Cont'd.																				
Taylors Falls	Chisago	759	3																	Mpls. Gen. Elec. Co.
Warroad	Roseau	1,069	1	59.8		89	11	29	31	43	2.25		0.55	0.0	7	17	10	4	w.	John H. Sawyer.
West Concord	Dodge	1,232	1	69.3		91	2	43	26	33	3.63		1.00	0.0	10	7	17	7	nw.	H. H. Orcutt.
Willow River	Pine	1,046	12																	J. A. Brandt.
Windom	Cottonwood	1,336	4	68.8		96	21	37	26†	44	1.86		0.50	0.0	8	7	21	3	s.	Taber C. Richmond.
Winnebago	Faribault	1,100	11	69.3	− 1.2	93	1†	42	5†	44	3.75	− 0.22	1.05	0.0	11	9	16	6	se.	H. H. Haight.
Winnibigoshish	Itasca	1,300	22	64.8	+ 0.4	90	20	43	31	34	0.53	− 3.21	0.19	0.0	6	18	8	5	nw.	John Duncan.
Winona	Winona	700	15	71.6	+ 1.7	93	22	43	26	37	4.24	+ 0.37	1.45	0.0	13	11	9	11	e.	Perry C. Meyrs.
Worthington	Nobles	979	15	70.2	+ 1.7	95	20†	40	31	41	1.91	− 1.52	0.67	0.0	8	18	4	9		Milton P. Mann.
Zumbrota	Goodhue	917	15	68.6	− 0.9	91	7	41	31	46	3.04		1.02	0.0	10	15	13	3	nw.	W. C. Rowell.
South Dakota.																				
Milbank	Grant	1,148	18	66.0	− 2.7	94	12	39	31	44	3.38	+ 0.59	0.67	0.0	9	11	4	16	nw.	I. T. Patridge.
Wisconsin.																				
Antigo	Langlade	1,489	16	66.1	+ 1.0	88	22	39	26	39	3.81		1.99	0.0	5	10	13	8	w.	Elton C. Larzelere.
Barron	Barron	1,115	18	65.4	+ 0.5	90	12	38	31	47	1.80	− 1.65	0.87	0.0	5	20	10	1	w.	Wm. A. Kent.
Beloit	Rock	750	23	72.0	+ 1.4	89	22†	47	26	30	4.48	+ 0.87	1.12	0.0	9	6	19	6	nw.	Smith Observatory.
Big St. Germain Dam§	Vilas	1,590	1	63.8		86	12†	36	31†	46	3.84		1.60	0.0	7	19	3	9	nw.	Oscar Brehmer.
Brodhead	Green	812	12	72.8	+ 2.2	94	22†	43	26	39	3.80	− 0.42	0.86	0.0	8	14	16	1	sw.	Hecktore D. Kirkpatrick.
Burnett	Dodge	880	6	69.6		91	12	44	26†	41	3.34		0.80	0.0	9	9	12	10	nw.	Geo. W. Smith.
Darlington	Lafayette	867	5	71.5		95	24	40	26	49	3.45		1.25	0.0	5	19	0	12	nw.	S. P. Nelson.
Deerskin Dam§	Forest	1,625	1			86	12†				3.09		1.52	0.0	5	16	13	2	ne.	Wm. E. O'Neal.
Delavan	Walworth	920	17	70.6	+ 0.8	92	12†	42	26	42	4.17	+ 0.78	1.92	0.0	9	13	8	10	sw.	Elwood S. Austin.
Dodgeville	Iowa	1,116	11																	Geo. W. Butler
Downing	Dunn	983	8	65.4		90	12	37	31	49	1.53		0.60	0.0	3	4	4	23	se.	Eugene F. Stoddard.
Eau Claire	Eau Claire	800	19	68.4	− 0.8	89	12	43	26	38	2.80	− 0.46	1.29	0.0	5	13	9	9	sw.	Robert D. Whitford
Grand Rapids	Wood	1,021	11	68.6	+ 0.6	89	22†	41	26	42	4.08	+ 1.47	0.97	0.0	10	9	11	11	sw.	Willis B. Raymond.
Grantsburg	Burnett	1,095	19	65.7	− 0.7	92	11	38	31	49	2.81	− 0.64	1.03	0.0	5	9	12	10	sw.	Theodore Olsen.
Hancock	Waushara	1,091	18	70.5	+ 1.9	91	22	44	26	39	3.46	+ 0.42	0.93	0.0	9	11	7	13	sw.	Frederick B. Hamilton.
Hatfield	Jackson	973	15	67.4	− 0.3	91	22	39	5	45	3.66	+ 0.57	1.51	0.0	13	11	12	8	sw.	Walter S. Woods.
Hayward	Sawyer	1,197	19	64.8[e]	− 0.9	88	12†	40	6†	41[e]	2.49	− 0.98	0.64	0.0	6	11[e]	6[e]	9[e]	w.	William E. Swain.
Hillsboro	Vernon	1,000	19	67.6	+ 0.2	91	22†	38	26†	46	3.12	− 0.07	1.20	0.0	6	11	14	6	sw.	Emil V. Wernick.
Koepenick	Langlade	1,683	20	63.4	− 0.9	88	3	33	26	43	3.30	− 0.11	1.15	0.0	5	0	26	5	sw.	Edward S. Koepenick.
Lac du Flambeau§	Vilas			66.2		89	12†	44	26	34	2.42		1.46	0.0	6	14	12	5	s.	W. J. Lovett.
La Crosse	La Crosse	714	38	70.5	+ 0.4	94	24	45	26	38	4.99	+ 1.58	1.97	0.0	13	11	8	12	s.	U. S. Weather Bureau.
Lake Mills	Jefferson	897	19	70.8	+ 1.6	92	12†	46	26	35	5.31	+ 1.77	1.72	0.0	10	9	20	2	sw.	S. Newton Dexter Smith.
Lancaster	Grant	1,070	20	71.4	+ 1.5	96	24	43	26	36	2.44	− 0.26	0.74	0.0	8	13	15	3	w.	Edward Pollock.
Long Lake	Oneida	1,592	2	63.2		91	12	32	6	49	3.31		1.05	0.0	7	14	9	8	nw	Louie Frank.
Madison	Dane	974	32	70.6	+ 1.1	91	24	50	26	27	6.56	+ 3.35	3.15	0.0	13	7	15	9	sw.	U. S. Weather Bureau.
Mather	Juneau	962	6	66.5		94	22	36	6	50	3.67		1.39	0.0	11	11	8	12	e.	Frank Evans.
Mauston	do	882	14	69.0	+ 1.2	90	22†	43	5	41	4.81	+ 1.47	1.20	0.0	9	17	8	6	sw.	Eugene L. Hitchcock.
Meadow Valley	do	974	19	68.0	+ 0.9	93	22	40	26†	46	3.69	+ 0.48	1.21	0.0	10	3	21	7	sw.	Charles H. Johnson.
Medford	Taylor	1,420	19	66.5	− 0.8	89	16	39	26	43	5.18	+ 1.66	1.48	0.0	7	18	9	4	w.	William Zeit.
Merrill	Lincoln	1,267	4	67.0		91	2	41	6†	45	3.47		1.24	0.0	6	18	7	6	w.	Frank M. McElroy.
Minocqua	Vilas	1,604	6	64.4		88	21	38	31	44	2.84		1.27	0.0	7	13	11	7	sw.	Benjamin W. Applebee.
Mondovi	Buffalo	738	2	67.9		90	12	38	26	41	4.34		1.85	0.0	12	16	5	10	nw.	Dr. Charles Hebard.
Mount Horeb	Dane	1,226	6	70.5		93	22	43	26	37	6.45		2.22	0.0	10	16	4	11	w.	W. M. Lewis.
Muscoda	Grant	666	1	72.2		98	24	43	26	45	6.25		2.14	0.0	11	9	10	12	w.	Henry Eckstein.
Neillsville	Clark	996	21	68.6	+ 1.5	90	22†	42	26†	44	5.26	+ 1.98	1.43	0.0	7				nw.	William Heaslett.
New Richmond	St. Croix	990	5	67.8		93	12†	40	31†	44	0.86		0.56	0.0	6	14	12	5	nw.	Frank A. R. Van Meter.
Osceola	Polk	806	19	67.8	+ 0.8	94	11	38	31	52	1.05	− 2.23	0.43	0.0	6	15	5	11	w.	Charles W. Staples.
Park Falls§	Price	1,492	18			88	21	36	31		3.14		1.40	0.0	7	10	11	10	nw.	Flambeau Paper Co.
Portage	Columbia	809	14	71.0	+ 2.3	95	12	45	26	41	3.98	+ 0.75	0.94	0.0	8	16	9	6	sw.	James Clear.
Prairie du Chien	Crawford	690	23	72.3	+ 1.2	100	24	44	6†	50	2.10	− 1.16	0.58	0.0	12	11	6	14	s.	Jas. A. Gillis.
Prentice	Price	1,551	12	61.2	− 3.3	85	22	31	19	44	3.03	− 1.10	1.26	0.0	7	6	10	15	sw.	Joseph G. Lash.
Rhinelander	Oneida	1,550	4	66.2		89	21	40	31†	44[a]	3.40		1.40	0.0	7	3	14	14	sw.	John Lind.
Sauk City	Sauk	758	2	71.6		96	22†	40	26	46[b]				0.0		9	14	8		Kilien Derleth.
Shullsburg	Lafayette	1,019	4	70.8		92	24	44	26	35	3.90		1.77	0.0	8	16	6	9	w.	Harrison B. Chamberlin.
Solon Springs	Douglas	1,083	4	63.6		88	12	33	31	45	2.20		0.85	0.0	5	12	7	12	sw.	John M. Sayles.
Spooner	Washburn	1,104	15	65.4	− 1.5	86	20	40	27	40	1.95	− 1.21	0.98	0.0	7	16	10	5	sw.	Horace A. Bresee.
Stanley	Chippewa	1,082	6	66.1		87	22†	37	26	43	4.14		2.00	0.0	9	15	6	10	nw.	W. Humphrey Scott.
Stevens Point	Portage	1,113	17								4.28	+ 1.39	0.99	0.0	7				nw.	Garry E. Culver.
Sugar Camp Dam§	Oneida	1,582	1								2.50		1.22	0.0	6				w.	Robert Hayes.
Twin Lakes Dam§	Vilas	1,625	1								2.89		1.20	0.0	6	5	20	6	nw.	Albert D. Hansen.
Valley Junction	Monroe	930	18	68.6	+ 1.5	92	22	40	6	45	6.09	+ 2.81	1.68	0.0	10	11	11	9	nw.	Frederick Muermann.
Viroqua	Vernon	1,412	19	71.6	+ 2.9	93	24	44	26	34	4.10	+ 0.32	1.76	0.0	11	9	15	7	sw.	Henry E. Rogers.
Vudesare	Vilas	1,600	2	62.0		88	21	34	19	44	0.96		0.96	0.0	1	14	15	2	w.	Louis L. Thomas.
Watertown	Jefferson	824	19	69.4	+ 1.0	89	22†	44	26	33	4.94	+ 2.21	1.20	0.0	12	12	14	5	sw.	Charles J. Salick.
Waukesha	Waukesha	864	14	70.6	+ 1.8	92	22	45	26†	30	2.80	− 0.33	0.85	0.0	10	9	22	0	sw.	Carroll College.
Wausau	Marathon	1,212	17	67.6	+ 1.1	89	22	42	26	37	5.39	+ 1.81	1.87	0.0	7	7	17	7	w.	George H. Halder.
Weyerhaeuser	Rusk	1,297	3	63.8		87	12†	34	31	45	2.44		0.92	0.0	7	7	17	7	ne.	Miss Etta Stiles.
Whitehall	Trempealeau	675	18	68.1	− 0.2	90	22	41	5	45	3.40	− 0.23	1.50	0.0	5	18	0	13	nw.	Hans J. Haugh.
Iowa.																				
Albia§	Monroe	959	12	72.6	− 0.8	97	16	42	26	33	0.55	− 3.60	0.28	0.0	7	17	7	7	sw.	J. I. Chenoweth.
Algona§	Kossuth	1,213	36	70.6	− 0.3	94	1	42	26	33	2.60	− 1.32	0.97	0.0	8	23	3	5	s.	Dr. F. T. Seeley.
Alta	Buena Vista	1,513	19	69.8	− 0.7	96	1	45	26	34	3.08	− 0.89	0.90	0.0	11	12	15	4	nw.	David E. Hadden.
Amana	Iowa	721	34	72.0	+ 1.1	96	1	45	26	37	7.50	+ 3.89	3.11	0.0	8	13	10	8	s.	C. Schadt.
Ames	Story	926	34	72.4	+ 0.2	98	24	40	26	40	2.75	− 0.92	1.00	0.0	9	16	10	5	s.	Iowa State College.
Baxter§	Jasper	998	10	72.3	+ 0.4	97	22	42	26	35	3.13	− 1.42	1.30	0.0	8	18	11	2	se.	W. R. Vandike.
Belleplaine	Benton	828	20	71.5	+ 0.7	96	1	42	26	36	3.26	− 0.89	1.40	0.0	9	13	10	8	s.	S. P. Van Dike.
Belmond	Wright			70.2		95	24	40	26	35	3.58		0.95	0.0	8	4	24	3	nw.	Geo. P. Hardwick.
Bloomfield§	Davis		3	73.4		100	16	42	26	38	3.72		2.87	0.0	2	8	16	7	sw.	C. R. Davis.
Bonaparte§	Van Buren		19	73.0	− 1.3	97	16	42	26	34	1.76	− 2.89	0.80	0.0	5					B. R. Vale.
Boone	Boone	1,134	5	72.8		98	1	46	26	31	2.97		0.89	0.0	9	16	4	11		Carl Fritz Henning.
Britt§	Hancock	1,236	13	69.6	− 0.4	93	1	40	26	36	2.40	− 1.65	1.09	0.0	12	16	11	4	s.	L. M. Goodman.
Buckingham	Tama		10								4.33	− 0.70	1.66	0.0	7					J. S. Gwynn.
Burlington	Des Moines	544	14	74.2	+ 0.1	97	16	46	26	33	0.43	− 5.01	0.40	0.0	3	18	6	7	s.	Max E. Poppe, jr.
Carroll	Carroll	1,265	20	69.5	− 1.6	94	21	42	25	36	7.92	+ 4.21	2.36	0.0	10	12	10	9	nw.	Mrs. Jos. J. Wolfe.
Cedar Rapids	Linn	733	28	73.0	+ 0.3	99	16	48	26†	38	6.10	+ 2.60	2.36	0.0	7	18	4	9	se.	W. J. Greene.
Charles City	Floyd	1,015	19	69.8	− 0.9	94	24	43	26	38	5.84	+ 2.42	1.46	0.0	13	7	9	15	sw.	U. S. Weather Bureau.
Clear Lake§	Cerro Gordo	1,241	12	72.0	+ 0.3	95	1	50	26†	30	3.23	− 1.08	1.80	0.0	4	21	0	10	s.	Oscar Stevens
Clinton	Clinton	593	43	72.5	+ 1.2	95	22	43	26	41	2.41	− 1.24	0.75	0.0	7	9	13	9	sw.	Luke Roberts.
Columbus Junction§	Louisa	595	9	73.1		93	2	47	26	29	4.82		2.48	0.0	8	19	11	1	nw.	J. B. Johnston.
Davenport	Scott	580	39	74.0	+ 1.0	94	22	50	26	28	4.31	+ 0.67	1.79	0.0	8	14	10	7	sw.	U. S. Weather Bureau.
Decorah	Winneshiek	875	17	72.9	+ 2.7	100	2	45	6	47	4.08	+ 1.04	1.60	0.0	7					F. H. Baker.
Delaware	Delaware	1,083	19	72.6	+ 3.0	95	2	45	26	37	2.10	− 1.44	0.50	0.0	9	13	15	3	s.	William Ball.
Des Moines	Polk	861	32	73.4	+ 0.4	97	22	45	26	31	2.40	− 1.21	0.79	0.0	9	9	10	12	s.	U. S. Weather Bureau.
De Soto§	Dallas	866	10	73.4	+ 0.4	98	1†	41	26	46	3.40	− 1.57	1.53	0.0	7	21	4	6	sw.	R. D. Minard.

METEOROLOGICAL OFFICE 1200 LIBRARY

TABLE 1.—*Climatological data for August, 1910. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days. .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Iowa—Cont'd.																				
Dubuque	Dubuque	639	37	72.8	+ 0.8	93	24	48	26	35	3.96	+ 0.92	1.51	0.0	10	11	9	11	s.	U. S. Weather Bureau.
Earlham	Madison		8								4.08		1.68	0.0	4					George Phillips.
Elkader	Clayton	727	31	73.3	+ 2.3	98	24	41	26	47	3.47	+ 0.57	1.25	0.0	11	17	12	2	nw.	Chas. Reinecke.
Elma	Howard		1	70.6		93	2	42	5	39	4.40		1.62	0.0	15	10	16	5	se.	H. A. Moore.
Estherville	Emmet	1,298	15	67.4	− 2.8	95	21	42	26†	39	1.60	− 2.00	0.40	0.0	9	20	0	11	s.	A. O. Peterson.
Fairfield	Jefferson		26	73.1	+ 1.8	95	16	45	27	34	3.47	− 0.61	2.88	0.0	6	19	6	6	s.	R. Monroe McKenzie.
Fayette§	Fayette	1,003	20	71.1	+ 2.0	95	1†	40	26	44	4.38	+ 1.11	1.10	0.0	10				nw.	R. Z. Latimer.
Forest City§	Winnebago	1,226	16	69.4	− 0.9	94	1	41	26	35	2.75	− 0.75	0.80	0.0	9	18	6	7	s.	J. A. Peters.
Fort Dodge	Webster	1,126	10	71.2	− 0.2	96	1†	43	26	35	5.21	− 0.43	1.64	0.0	10	14	3	14	s.	J. F. Monk.
Fort Madison	Lee	516	61								2.65		2.27	0.0	4	9	6	16	s.	Miss L. A. McCready.
Gilman	Marshall	1,052	11								1.94	− 1.84	0.60	0.0	7					J. L. Wylie.
Grand Meadow	Clayton	1,180	19	70.0	+ 1.1	91	24	45	26	32	3.03	− 0.30	1.42	0.0	11	9	15	7	sw.	F. L. Williams.
Greene	Butler		12	72.3	+ 0.8	100	1	43	26	41	5.78	+ 1.91	1.41	0.0	10	4	17	10	s.	J. L. Cole.
Grinnell	Poweshiek	1,023	18	73.8	+ 2.2	100	22	42	26	39	2.05	− 2.57	1.00	0.0	8	14	13	4	sw.	D. W. Brainard
Grundy Center§	Grundy	976	19	73.6	+ 1.6	97	24	43	26	37	4.92	+ 1.35	2.10	0.0	7	18	0	13	sw.	J. B. Calderwood.
Guthrie Center§	Guthrie	1,077	15	72.5	+ 0.3	96	1	44	26	36	6.11	+ 1.79	1.24	0.0	10	16	8	7	sw.	D. G. Beardsley.
Hampton	Franklin	1,155	20	72.4	+ 1.8	99	1	44	26	34	5.40	+ 2.03	2.15	0.0	11	7	16	8	nw.	E. C. Grenelle.
Humboldt	Humboldt	1,095	22	71.0	+ 3.1	96	1	40	26	36	3.86	+ 0.42	1.08	0.0	9	26	5	0	sw.	Henry S. Wells.
Independence§	Buchanan	921	46	72.4	+ 2.3	96	2†	42	26	38	2.36	− 0.83	0.79	0.0	10	18	8	5	sw.	George Donohoe.
Indianola	Warren	969	19	73.5	+ 0.7	98	22	46	26	35	2.28	− 2.40	0.90	0.0	10	13	5	13	nw.	John L. Tilton.
Iowa City	Johnson	683	50	71.5	− 0.2	93	1†	44	26	38	4.98	+ 0.74	1.18	0.0	6	16	0	15	se.	A. G. Smith.
Iowa Falls	Hardin	1,170	17	68.9	− 1.0	93	24	40	26	35	6.01	+ 2.63	1.55	0.0	9	24	1	6	sw.	J. B. Parmelee.
Jefferson§	Greene		11																	G. W. Jackson.
Keokuk	Lee	547	39	74.4	− 0.2	95	16	48	26	27	0.92	− 2.32	0.67	0.0	5	14	15	2	s.	U. S. Weather Bureau.
Keosauqua	Van Buren	644	18	72.2	− 1.8	96	16	44	26	32	3.50	− 0.32	2.57	0.0	6	7	14	10		J. H. Landes.
Knoxville§	Marion	920	15	74.2	+ 0.5	98	22	44	26	34	2.73	− 1.94	1.45	0.0	4	15	7	9		Casey & Belville.
Lacona	Warren		11								2.10	− 2.72	0.54	0.0	9	13	12	6		J. B. Alter.
Le Claire	Scott	576	10								3.62	+ 0.03	1.74	0.0	10					Miss M. T. Disney.
Marshalltown	Marshall	947	18	72.4	+ 0.6	100	24	43	26	41	3.38	− 0.26	1.56	0.0	7	17	2	12	nw.	Ralph B. Reasoner.
Mason City§	Cerro Gordo	1,132	13	69.7	− 0.3	92	1	40	26	34	4.84	+ 1.24	2.48	0.0	10	15	13	3	se.	J. S. Mills.
Mount Pleasant§	Henry	729	29	73.6	+ 0.3	95	2†	42	26	36	2.67	− 1.40	1.30	0.0	8	14	8	9	sw.	J. W. Edwards.
Muscatine	Muscatine		50								3.17	− 1.21	1.17	0.0	8					William Molis
New Hampton§	Chickasaw	1,169	13	71.6	+ 2.1	97	2	43	26	38	4.81	+ 1.78	1.35	0.0	11	17	4	10	s.	A. F. Kemman.
Newton§	Jasper	944	22																	J. P. Beatty.
Northwood§	Worth	1,222	14	69.6	+ 0.1	91	1†	42	26	36	3.75	− 0.29	1.15	0.0	13	18	5	8	sw.	Chas. H. Dwelle.
Olin§	Jones	760	12	75.0	+ 4.3	98	1	42	26	42	4.67	− 0.04	1.46	0.0	6					C. M. Miles.
Osage	Mitchell	1,184	23	72.2	+ 4.2	97	1	44	26	42	5.05	+ 2.02	1.78	0.0	6	11	12	8	nw.	A. D. Bundy.
Oskaloosa§	Mahaska	843	34	73.0	+ 1.1	97	22	41	26	35	1.42	− 1.80	0.53	0.0	6	20	2	9	se.	Joseph Boyd.
Ottumwa	Wapello	649	15	75.2	+ 0.2	100	16	47	26	34	3.65	− 0.44	2.46	0.0	6	5	9	17	se.	W. J. Mesmer.
Pella	Marion	877	8	73.0		99	22	38	26	40	1.43		0.63	0.0	7	23	6	2	nw.	John H. Ver Steeg.
Perry§	Dallas	975	9	72.0	− 0.5	99	1	45	26	34	4.60		0.95	0.0	12	15	12	4	sw.	Ed. S. Gray.
Plover	Pocahontas	1,426	14	69.6	− 1.3	95	1	36	26	38	3.12	− 1.41	1.72	0.0	6	24	3	4	s.	J. S. Smith.
Pocahontas	do	1,248	6	69.4		94	1	41	26	33	3.10		1.13	0.0	9	20	7	4	sw.	F. E. Hronek.
Ridgeway§	Winneshiek	1,215	12	72.8	+ 0.8	100	1	47	26	40	5.63	+ 1.91	2.41	0.0	15	14	14	3	s.	Arthur Betts.
Rockwell City§	Calhoun		14	71.8	− 0.5	96	1	46	26†	33	4.52	+ 0.44	1.05	0.0	7	23	6	2		C. M. Randall.
Sac City	Sac	1,278	34	71.2	+ 0.7	96	1	45	26	33	3.54	− 0.03	0.64	0.0	10	18	4	9	sw.	E. N. Baily.
St. Charles§	Madison	1,070	9	74.7		99	1†	46	26	32	2.44		1.37	0.0	5	18	8	5	sw.	R. D. Minard.
Sigourney§	Keokuk	877	14	73.6	− 0.2	96	16	43	26	35	1.40	− 2.45	0.63	0.0	7	2	28	1	sw.	J. T. Parker.
Stockport§	Van Buren		8	72.5		97	16	41	26†	37	2.43		1.54	0.0	8	20	4	7	s.	C. L. Beswick.
Storm Lake	Buena Vista	1,440	21	71.4	+ 0.7	96	1	42	26	32	2.66	− 0.66	0.84	0.0	10	18	7	6	s.	S. B. Fracker.
Stuart	Guthrie	1,216	11	72.4	− 0.8	97	22	44	26	35	4.41	+ 0.70	1.51	0.0	7	14	12	5	s.	J. P. Fox.
Tipton§	Cedar	807	11	74.6	+ 2.0	94	1†	51	26	31	5.44	+ 0.78	2.00	0.0	5	20	6	5	s.	F. K. Gregg.
Toledo§	Tama	856	16	72.4	+ 0.4	96	22	42	26	37	2.82	− 0.88	0.83	0.0	7	20	5	6	se.	I. F. Giger.
Wapello§	Louisa	588	12	71.6	− 1.9	90	22	49	26	33	3.33	− 1.67	2.33	0.0	4	18	11	2	se.	G. W. Schofield.
Washington	Washington	769	28	73.0	− 0.1	93	22	45	26	33	8.49	+ 4.78	4.22	0.0	7	12	14	5	sw.	Wm. A. Cook.
Waterloo	Black Hawk	862	27	72.5	+ 1.6	98	24	44	26	36	4.11	+ 0.50	1.31	0.0	11	17	8	6	se.	M. L. Newton.
Waukee	Dallas	1,039	7	73.6		97	1†	45	26	32	2.78		1.16	0.0	10	16	13	2	sw.	Samuel F. Foft.
Waverly§	Bremer	948	14	71.2	+ 0.4	94	24	43	26	34	4.51	+ 1.55	1.42	0.0	10	12	13	6		H. S. Hoover.
Webster City§	Hamilton		5	73.1	− 0.4	97	24	39	26	39	3.69		0.82	0.0	11	17	8	6	nw.	C. D. Carpenter.
West Bend§	Palo Alto	1,197	17	69.7	+ 0.1	96	1	40	26	35	2.61	− 1.33	1.32	0.0	8	11	14	6	s.	Joseph Dorweiler.
Whitten§	Hardin	1,036	13	71.4	+ 0.5	98	21	42	26	35	3.39	− 0.36	1.45	0.0	5	11	15	5	se.	F. P. Butler.
Winterset§	Madison	1,129	19	74.4	+ 1.8	98	1†	45	26	34	3.24	− 0.49	1.36	0.0	7	9	7	15	s.	Robert S. Cooper.
Missouri.																				
Gorin	Scotland	700	24								2.03	− 0.81	1.56	0.0	4	11	13	7	se.	J. W. Pulliam.
Hannibal	Marion	534	18	73.3	− 1.7	94	22	47	27	29	1.64	− 1.74	0.54	0.0	8	9	12	10	sw.	U. S. Weather Bureau.
Louisiana	Pike	500	32	72.4	− 2.4	95	16†	40	27	39	1.85	− 1.06	1.10	0.0	6	20	7	4	nw.	J. T. Farrell.
Mexico	Audrain	797	32	74.2	− 2.0	100	23	43	27	40	1.96	− 0.77	1.46	0.0	5	14	6	11	se.	J. F. Llewellyn.
Steffenville	Lewis	576	17	73.6	− 2.5	93	22†	48	26†	30	2.73	− 0.58	2.20	0.0	4	15	11	5	ne.	Frank Hall.
Sublett	Adair	1,000	30	72.9	− 1.6	94	23	42	26	31	2.50	− 0.77	2.00	0.0	2	9[b]	17[b]	3[b]	sw.	Lewis Spriggs.
Warrenton	Warren	865	20	74.8	− 1.9	97	23†	47	26	34	2.48	− 0.28	0.68	0.0	9	14	4	13	s.	Dr. J. H. Frick.
Indiana.																				
Collegeville	Jasper		11	68.8	− 3.4	90	2†	43	26	39	5.40	+ 1.38	1.25	0.0	9	9	16	6	sw.	Prof. L. C. Klosterman.
Knox	Starke	716	5	70.4		90	15	45	27	36	6.19		2.22	0.0	8	17	9	5	s.	W. R. R. Tatman.
Laporte	Laporte	810	14	70.2	− 1.2	93	15	44	27	39	3.53	+ 0.31	1.13	0.0	9	8	15	8	nw.	Wm. N. Walton, jr.
Plymouth	Marshall	790	7	69.6		90	15†	44	27	42	3.68		1.55	0.0	8	9	16	6	w.	J. W. Siders.
Illinois.																				
Aledo	Mercer	738	10	71.8	− 0.4	92	22	45	26	28	2.73	− 0.40	0.95	0.0	7	11	19	1	se.	Wm. B. Frew.
Alexander	Morgan	670	17	73.4	− 1.8	95	16†	42	26	35	3.62	+ 0.37	2.15	0.0	6	10	12	9	sw.	George H. Hall.
Antioch	Lake	861	9	71.5		95	22	44	26	35	3.61		1.50	0.0	5	10	18	3	w.	J. C. James, jr.
Astoria	Fulton	650	11	72.2[d]	− 0.4	94	22	42	26†	35[d]	1.16	− 1.94	0.80	0.0	4	14	12	5	s.	Ed. V. Bohl.
Aurora	Kane	687	31	71.2	+ 0.1	93	15	43	26	37	4.04	+ 0.58	1.37	T.	7	7	15	9	ne.	W. Holden.
Bement	Piatt	700	3	72.3		91	17	45	26	33	2.62		1.89	0.0	6	16	10	5	s.	Rev. C. S. Adams.
Benton	Franklin	598	8	75.8		95	17	53	27	34	0.73		0.28	0.0	3	7	11	13	ne.	F. H. Stamper.
Bloomington	McLean	840	19	73.1	− 0.9	94	15†	42	26	38	0.70	− 1.93	0.41	0.0	5	13	8	10	s.	Prof. H. N. Pearce
Cairo	Alexander	359	33	76.6	− 0.4	92	18	57	27	24	2.90	− 0.03	1.66	0.0	7	14	11	6	ne.	U. S. Weather Bureau.
Carbondale	Jackson	412		76.4		98	30	45	26	40	2.11		1.38	0.0	8	19	6	6	sw.	State Normal University.
Carlinville	Macoupin	663	20	73.4	− 2.5	95	16†	44	26	39	1.37	− 1.52	0.46	0.0	6	17	12	2	se.	R. O. Purviance.
Clinton	Dewitt	727		72.0		93	30	43	26	32	2.41		1.63	0.0	6	13	12	6	sw.	J. F. Ziegler.
Coatsburg	Adams	763	18	73.6	− 1.5	94	20	46	26	32	0.41	− 2.93	0.36	0.0	2	16	2	13	s.	Dr. J. R. Lambert.
Cobden	Union	656	27	76.7	− 0.8	96	21	50	27	37	1.89	− 1.75	1.05	0.0	3	15	13	3	n.	John Buck.
Dakota	Stephenson	929	5	71.3		92	22	45	26	35	4.06		2.05	0.0	6	11	18	2	s.	Rev. G. W. Kerstetter.
Decatur	Macon	685	19	73.0	− 1.7	95	30	44	26	36	3.81	+ 0.64	1.13	0.0	7	20	7	4	se.	Prof. J. H. Coonradt.
Dixon	Lee	725	20	73.2	+ 0.9	95	1†	45	26	47	3.14	+ 0.10	1.55	0.0	11	10	15	6		H. V. Bardwell.
Du Quoin	Perry	459	22	76.2	− 1.6	96	30	51	27	34	2.59	0.00	1.24	0.0	5	15	14	2	sw.	G. H. Knetsger.
Dwight	Livingston	600	17	72.6	− 0.4	95	15	43	26	39	4.66	+ 1.96	2.90	0.0	8	6	14	11	s.	Ed. O. Welch.
Elgin§	Kane	716	3	72.0		90	22	45	26	34	2.87		1.21	0.0	6	4	27	0	sw.	Elgin Observatory.
Galva	Henry	842	18	73.0	+ 0.3	96	22	42	26	34	0.80	− 2.56	0.37	0.0	9	14	7	10	sw.	Prof. F. U. White.

TABLE 1.—*Climatological data for August, 1910. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Illinois—Cont'd.																				
Greenville	Bond	635	32	73.8	− 1.9	92	15†	50	8†	28	2.35	+ 0.37	1.10	0.0	8	17	7	7	se.	M. S. Oudyn.
Griggsville	Pike	650	25	73.2	− 3.0	92	22	46	27	33	0.85	− 1.81	0.42	0.0	3	10	16	5	nw.	Geo. F. Kneeland.
Halfway	Williamson	569	14	76.1	− 2.2	98	18	50	27	31	4.50	+ 1.93	1.90	0.0	7	17	7	7	s.	E. L. Hearn.
Havana	Mason	475	18	72.5[d]	− 0.8	98	22†	48	26	36[d]	0.58	− 2.45	0.26	0.0	4	12	19	0	s.	F. & C. Borgelt.
Henry	Marshall	500	22	73.6	+ 1.1	93	1†	42	26	34	1.77	− 1.23	0.70	0.0	6	15	11	5	sw.	Dr. F. A. Powell.
Hillsboro	Montgomery	675	16	73.0	− 3.2	94	16	48	26†	37	5.19	+ 1.76	2.02	0.0	6	18	2	11	s.	Ira L. Woodward.
Joliet	Will	541	19	72.4	+ 0.5	93	15	47	26	33	3.17	− 0.24	1.33	0.0	6	12	7	12	sw.	F. M. Muhlig.
Kishwaukee	Winnebago	730	22	71.8	+ 0.9	93	15	45	26	40	3.58	+ 0.12	1.09	0.0	7	14	16	1	se.	Geo. Stevens.
La Grange	Cook	657	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. F. E. Sanford.
La Harpe	Hancock	698	31	71.6	− 2.8	95	22	40	26	35	0.38	− 3.49	0.18	0.0	3	16	11	4	sw.	Jno. S. Campbell.
Lanark	Carroll	883	21	72.1	+ 1.6	96	1	40	26	49	3.26	− 0.17	1.22	0.0	8	25	5	1	sw.	M. N. Wertz.
La Salle	La Salle	536	33	72.9	+ 0.9	92	22	48	26	32	3.74	+ 0.88	3.31	0.0	7	11	11	9	sw.	U. S. Weather Bureau.
Lincoln	Logan	482	22	71.2	− 2.7	93	30	37	26	37	0.79	− 2.17	0.25	0.0	6	12	15	4	s.	Prof. C. S. Oglevee.
Martinton	Iroquois	633	23	72.4	+ 0.3	96	15	43	26	39	5.80	+ 2.22	2.30	0.0	6	15	6	10	se.	Jos. H. Peltier.
Mascoutah	St. Clair	425	20	75.8	− 0.4	97	22†	46	27	42	5.08	+ 2.31	3.90	0.0	8	15	8	8	se.	Geo. Henrich.
Minonk	Woodford	745	17	73.2	0.0	95	2†	42	26	37	2.46	− 0.70	1.68	0.0	7	15	15	1	sw.	O. M. Davison.
Monmouth	Warren	784	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Hugh R. Moffet.
Morrison	Whiteside	685	16	72.4	+ 0.5	93	1†	42	26	40	2.44	− 1.30	0.67	0.0	7	15	15	1	sw.	S. A. Maxwell.
Morrisonville	Christian	638	11	72.2[b]	− 2.7	92	16†	44	26	33[b]	2.19	− 0.59	1.41	0.0	5	19	10	2	sw.	J. D. Lowis.
Mount Vernon	Jefferson	511	16	74.2	− 2.8	95	15†	49	27	37	2.07	− 0.63	0.71	0.0	6	16	8	7	s.	Theo. P. Stelle.
Oregon	Ogle	702	1	72.6	.....	94	22	45	26	36	2.54	.....	0.87	0.0	8	13	13	5	s.	Samuel Ray.
Ottawa	La Salle	500	24	72.9	+ 0.5	94	2†	42	28	39	3.91	+ 0.73	3.15	0.0	6	12	4	15	s.	Miss M. M. Harris.
Pana	Christian	692	24	73.5	− 1.0	92	15†	48	26	27	6.71	+ 3.24	2.68	0.0	8	27	2	2	se.	C. W. Sibley.
Peoria	Peoria	609	33	72.2	− 0.3	94	22	41	26	35	0.68	− 2.25	0.52	0.0	6	8	17	6	s.	U. S. Weather Bureau.
Pontiac	Livingston	546	8	73.6	.....	94	15	46	26	37	4.39	.....	2.33	0.0	7	12	9	10	sw.	Geo. Butterworth.
Riley	McHenry	956	51	71.5	+ 2.1	90	1†	44	26	37	3.68	+ 0.26	1.60	0.0	8	10	14	7	sw.	John West James.
Rockford	Winnebago	763	18	71.8	+ 0.3	91	22	46	26	33	3.66	+ 0.25	0.95	0.0	12	17	5	9	.....	Hosmer C. Porter.
Rushville	Schuyler	670	19	73.2	− 0.9	93	22	46	26	29	2.04	− 1.18	1.28	0.0	5	15	12	4	s.	H. F. Dyson.
St. Charles	Kane	700	15	72.2	+ 1.1	91	15†	45	27	36	2.99	− 0.85	0.95	0.0	10	12	19	0	sw.	Dr. Wm. H. Bishop.
St. Peter	Fayette	.....	.....	74.6	.....	95	30	49	26†	36	1.90	.....	0.85	0.0	3	14	14	3	nw.	M. L. Lansford.
Sparta	Randolph	538	24	73.6	− 2.3	95	30	46	27	34	4.06	+ 0.84	2.38	0.0	9	19	9	3	s.	Jas. A. Caldwell.
Springfield	Sangamon	644	33	73.8	− 0.2	93	16	49	26	29	0.78	− 2.02	0.34	0.0	7	8	14	9	s.	U. S. Weather Bureau.
Streator	La Salle	626	17	73.2	0.0	96	15	42	26	42	5.38	+ 2.15	4.52	0.0	7	21	3	7	sw.	Edw. F. Sweetser.
Sullivan	Moultrie	530	10	72.4	− 1.8	94	30	45	25†	37	4.05	+ 0.85	1.83	0.0	5	16	13	2	sw.	C. A. Corbin.
Sycamore	De Kalb	855	30	72.4	+ 2.5	95	22	42	26	41	4.22	+ 0.65	1.25	0.0	7	13	2	16	sw.	Miss E. J. Davis.
Tiskilwa	Bureau	798	16	73.0	+ 0.8	95	22	44	26	33	1.67	− 2.41	0.76	0.0	10	18	5	8	s.	F. I. Smucker.
Walnut	....do	717	19	74.0[d]	+ 0.3	94	2†	45	26	35[d]	4.12	+ 0.69	2.77	0.0	7	10	19	2	se.	O. C. Nussle.
White Hall	Greene	573	2	72.3	.....	95	22†	41	27	38	1.12	.....	0.45	0.0	5	17	7	7	w.	Dr. R. A. Pritchett.
Windsor	Shelby	681	11	72.9	− 1.2	94	17†	43	27	39	3.55	− 0.03	1.67	0.0	7	12	14	5	s.	Herbert Rose.
Winnebago	Winnebago	900	23	72.4	+ 1.5	95	15	44	26	43[a]	3.70	+ 0.18	1.45	0.0	7	18	11	2	w.	Frank Osborn
Yorkville	Kendall	584	23	71.9	+ 1.2	94	15	42	26	41	3.90	+ 0.62	1.12	0.0	7	15	7	9	w.	Herman A. Grimwood.
Zion	Carroll	938	16	72.0	+ 1.8	94	1†	42	26	42	4.60	+ 1.38	1.82	0.0	5	23	5	3	w.	Robt. F. Gillogly.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for August, 1910. District No. 5, Upper Mississippi Valley.*

Stations.	River basins.	Day of month.																																Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
North Dakota.																																		
Amenia	Red				T.			.42								.13	.25																.90
Bottineau	Mouse		T.		.02		.06	T.	T.	.02							T.	.01													.60		0.77
Cando	Sheyenne						T.		.03							1.40															.91	.02	2.36
Crosby	Mouse		T.				.68									1.66									.22					.07	.05		2.68
Devils Lake	Sheyenne	T.	T.	.03			.01		.01							1.01	T.			T.		T.						.01		1.56			2.63
Donnybrook	Mouse		T.				.45									T.	.41								T.								0.84
Dunseith	...do	T.	T.	T.	T.	.12	.10	T.	T.								T.	T.												.75			0.97
Edmore	Sheyenne			T.	T.				T.							.23	.10			T.										.90	T.		1.23
Forman	...do	T.	T.										T.	T.		.40													.75				1.15
Grafton	Red																													1.85			1.85
Granville	Mouse		T.				.25					T.				T.	T.									.05			.30				0.60
Hannah	Pembina	T.		.01			T.	.03	.01			T.				T.	.04													.62			0.71
Hansboro	Red	T.		.10			.05	.20	.03				.01							T.							.05			1.03			1.47
Hillsboro	...do		.03	.25				.27	.02								1.02														.19		1.78
Lakota	Sheyenne	.01	T.	T.			.10		.12						T.	.80	T.					T.							T.	.90			1.93
Langdon	Pembina						T.									.11	.20				.02									.91			1.24
Larimore	Red						.30			.01							.03																0.34
Lisbon	Sheyenne	T.						T.					T.	.12		.43	.13														.05		0.73
McKinney	Mouse		T.	T.		.42																								T.			0.42
Manfred	Sheyenne		T.	T.			.09								T.	.48	T.											T.		.35			0.92
Mayville	Red																																
Minot	Mouse				.05		.10								.03		.01														.32		0.51
Minto	Red	T.					.61		.40							.32				.10										.55			1.98
Oriska	Sheyenne						.78								.08	.34	.48			.85										T.			2.53
Park River	Red																																
Pembina	...do			.12	.04		T.			T.			T.			T.	.02			.20											.94		1.32
Power	Sheyenne												.12		.58	.20																	0.78
Pratt	Mouse						.44							.02																.57			1.03
Towner	...do						.21		T.							.09									.09					.46			0.85
University	Red		.02				.29		.08							.07	.02											.06		.35			0.89
Wahpeton	...do																																
Walhalla	Pembina	T.	.01				.12		.04						.07															.58			0.86
Westhope	Mouse																																
Willow City	...do	T.		.13			.18																							.95			1.26
Minnesota.																																		
Albert Lea	Mississippi	.35	.10						T.			.40	.25	.40	.05	.20		.50			1.20								.10	.30	T.		3.85
Alexandria‖‖	...do	T.	.24					T.	.50					.80			.40	.30			T.					.04					.80		3.08
Angus	Red			T.			.27			T.			.06			.04	.05	T.										T.		.97			1.29
Bagley	...do		.07	.15				.19					.13				.04											.06			.07		0.71
Baudette	Rainy			.16			.08		.05				.09				.02			.40						.26							1.06
Beardsley	Minnesota			.18					.23				.60	.60		T.	1.10	.07													.20		2.98
Beaulieu	Red																																
Bird Island	Minnesota	.21	.24						.42					.73		.12	.23				.44				T.						.58		2.97
Caledonia‖‖	Mississippi	.25		T.					.05	.45			.15		.45	.24	.03	.09	.32		.11				T.	.02	T				1.86	T.	4.02
Campbell‖‖	Red	T.	.24		.02			.15	.17	T.	.02			.25		.04	.30	T.													.06		1.25
Cass Lake‖‖	Mississippi		.40									T.																					0.40
Collegeville	...do		.17						.01					1.04		.05	.09	.50													.34		2.20
Crookston‖‖	Red			T.	.06			.08	T.	.11			T.				.30	T.			.45					T.			.15		.27		1.42
Detroit‖‖	...do			T.	T.			.10	.12	.04			T.	.20		.08	T.	T.			T.							T.			.12		0.66
Fairmont (near)	Minnesota	.06		.13					.09					.23		.05	.15	.59											.25	T.	.40		1.95
Faribault	Mississippi	.20	.29						.35					.15		.37	.07												T.		.54		1.97
Farmington	...do	.10	.05					.15	.40				.72	.08		.07	T.	.33												T.	.13		2.03
Fergus Falls	Red	.01		T.				.10	.01	.03			T.	.33	.02	.12	.05			.05								T.		.06			0.78
Fort Ripley‖‖	Mississippi								.12				.80				.04	.19													1.16		2.31
Fosston	Red		.02	.02			.06	.07		.07			.38				.13											.05			.15		0.95
Fram	...do			.04			.45		T.	T.						T.	.17	T.													.22		0.88
Glencoe	Mississippi	.28	.12				.25		.34					.35	T.		T.	.34												T.	.24		1.92
Grand Meadow	...do		T.					.18	.02			T.	.46	.07	.03	.17		.83	.07		.26					.05			T.	.03	1.36		3.53
Hallock	Red			.06			.15	.07	.02	.02			.17			1.05				.10										1.00			2.64
Halstad	...do			.05	T.			.31		.04						.02	.50														T.		0.92
Hinckley	St. Croix				.25					.80			.95	.95				.33							.05						.33		3.66
International Falls	Rainy			T.				T.	.52	.03			.48	.17						T.													1.20
Kelliher	Red		T.	.08			T.	.20	T.	.14			.13													T.							0.55
Lake Crystal	Minnesota	.11	.18						T.			T.		.38		.40		.78			2.28								.09		.26		4.48
Leech Lake Dam	Mississippi			.02	.06			.23		.02			.02	.08	.02											.01		.03			.16		0.66
Little Fork	Rainy							.07	.41	.09			.64													.13							1.34
Long Prairie	Mississippi																																
Lynd (2)	Minnesota		.52	.53					.25					.86		.15	.22	.02							.20						.09		2.84
Mankato‖‖	...do	.46	.25									.28		.26		.85	.22	.21	.08		1.41										.38		4.40
Mapleplain	Mississippi																																
Milaca	...do													1.42				.63													.75		2.80
Milan	Minnesota		.49						.32					.63		.88	.28	.12			1.04				T.						.27		4.03
Minneapolis	Mississippi		.02				T.	.24	.12					.13		T.	.38	.06							T.	T.				.07	.54		1.56
Montevideo‖‖	Minnesota	.40	.33	.51				T.	.35					.84		.18	.24	.55			.94					T.					.31		4.65
Moorhead	Red			T.					.12	T.					.12	.01				1.10						.02				.01			1.39
Mora	St. Croix	.16							.07					1.01				.33							.06						.28		1.91
Morris	Minnesota	.20							.13				.30	.08			.68	.24		.98						.03		T.			.80		3.44
New London	Mississippi	.15							.24					.60		.28	.20	.42							.03					.54			2.46
New Richland	Minnesota	.24	.21					T.	.26			.09		.08		.44		.79			2.63				T.				.11	T.	.37		5.22
New Ulm‖‖	...do	.65	.95	T.								.10		.40	T.	T.		.83	T.		2.80										.24		5.97
Osakis	Mississippi		.25					.01	.44	T.				.86			.38	.30								T.					.65		2.89
Park Rapids‖‖	...do			T.	.03			.07	.04		T.			.38		.03	T.				T.		T.			.03			.03		.07		0.68
Pine River Dam	...do		.24	.12			.50	.50	T.				T.																		.50		1.86
Pokegama Falls	...do		.45	.27				.79	.04	T.			.10	.50												T.		.05			.16		2.36
Red Lake	Red		T.	T.	.07		T.	.15					.06															.08			.06		0.42
Red Wing‖‖	Mississippi			.16					.10	.18			T.	.02	.08		.70	.88	.22							T.					.18		2.52
Redwood Falls	Minnesota		.54	T.					.42					.82		.04	.23	.19			.40										.98		3.62
Reeds Landing‖‖	Mississippi		.04	.16					.50	.68			.38				.22	.52	.50							.18					.56		3.74
Rochester‖‖	...do	.15							.12				.68	.09	.05		.46	.50	.05		T.					.09					.75		2.94
Roseau	Red		.06				.18				.07		.43				.73			.59											.58		2.64
St. Charles‖‖	Mississippi	.21		.42					.05	1.34			.95				.27	1.15	.07							.02					1.20		5.68
St. Cloud	...do	1.49	.18						T.					1.03		T.	.06	.39							T.						.75		3.90
St. Paul	...do		.01					.05	.12			.06		.15		.10	.15	.15							T.	T.				.05	.14		0.98
St. Peter	Minnesota	.23	.64						.07			T.		.45		.18		.57			.48									T.	.41		3.03
Sandy Lake Dam	Mississippi			.23					.09				.30													.02		.01			.87		1.52
State Sanatorium	...do							.39						.53																			0.92
Stillwater‖‖	St. Croix	T.	.04	T.					.04	.06				.16	.04	.02	.14	.02													.40		0.92
Taylors Falls	...do																																
Warroad	Rainy			.47			.08		.16			.24				.55				.55											.20		2.25
West Concord	Mississippi	.50	.10					1.00	.03			.25		.18		.40		.75			T.								T.	.02	.40		3.63
Willow River	St. Croix																																
Windom	Des Moines		.22	.04								.10		.20			.22	.35											.23		.50		1.86
Winnebago‖‖	Minnesota	T.	.25	T.						.35		.01		.12	T.	.71	.22	1.05	.13		.46	T.				T.			.05		.40		3.75
Winnibigoshish	Mississippi		.02	.08			T.	.19					T.	T.												.07		.04			.13		0.53

TABLE 2.—*Daily precipitation for August, 1910. District No. 5*—Continued.

Stations.	River basins.	Day of month. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Minnesota—Cont'd.																																	
Winona	Mississippi		.05	.29					.11	.11		.32	.25		.01	.32		1.02	.13		T.		T.		T.	.04			.14	1.45			4.24
Worthington‖	Des Moines		.67	.17											.22	.03	.22	.20													.05	.35	1.91
Zumbrota	Mississippi		.10					.10	.20			T.	.30	.08	.81			1.02								.03					.10	.30	3.04
South Dakota.																																	
Milbank	Minnesota		.56						.44					.67		.07	.38	.22			.24					.21					.59		3.38
Wisconsin.																																	
Antigo	Wisconsin	.31		.32					T.				T.	T.	T.	T.		.20						T.	T.	1.99					.99		3.81
Barron	Chippewa	.12			.02			T.	.08					.35		T.		.26							.10						.87		1.80
Beloit	Rock	.10		.81											.03	1.12				.30	.48			1.11		.26					.30		4.48
Big St. Germain Dam.	Wisconsin	.30	1.05					.03		T.				T.				.23							.48	.15					1.60		3.84
Brodhead	Rock	.10		.35											T.	.72	.07		.36		.73					.61				.86			3.80
Burnett	do	T.		.09					T.	.10						.80	.63		.05		.10		T.	.45		.65				T.	.47		3.34
Darlington	do													.40		.60					.80					1.25					.40		3.45
Deerskin Dam	Wisconsin			1.52	.02													.13					T.		T.	.42					1.00		3.09
Delavan	Rock	.05		.30											.01	.53		T.	.13		.27		1.92		.73					.23			4.17
Dodgeville	do																																
Downing	Chippewa								T.					.35				.58							T.					T.	.60		1.53
Eau Claire	do								.34					T.		T.		.88						T.	.22	.06				T.	1.29		2.80
Grand Rapids‖	Wisconsin	.30	T.						T.	.29					.38		.54		.14		.32			.02		.82					.97	.30	4.08
Grantsburg	St. Croix								.18					1.03				.60							.15	T.					.85		2.81
Hancock	Wisconsin	.25							.30	.35				.05	.55	T.	T.	T.			.75			.13		.15					.93		3.46
Hatfield	Black	.22	.03	.01					.21	.12	.09				.10	.09		.64	.02				.47			.15					1.51		3.66
Hayward	St. Croix			.40				.18	T.	T.				.42				.25							.64						.60		2.49
Hillsboro	Wisconsin	T.							.16				T.	T.	1.10	.15	T.	.05			T.		.46		T.	T.				T.	1.20		3.12
Koepenick	do			.37				T.										.42							1.15	.61					.75		3.30
Lac du Flambeau	Chippewa		.23	T.					.03					T.				.05							.59	.06					1.46		2.42
LaCrosse	Mississippi	.02	T.	.02				.08	1.95	.02		T.	T.	T.	.86	.16	T.	.14	.01						.03	.09				.62	.99		4.99
Lake Mills	Rock	.06		.12										T.	.02	1.38	.06		.11		.27			1.24		1.72					.23		5.31
Lancaster	Mississippi	.12												.03	.21	.52			.48		.09					.25			T.		.74		2.44
Long Lake	Wisconsin	.05	.34		.02									T.				.84							.63	.38					1.05		3.31
Madison	Rock	.11		.03						T.			T.	.61	.08	.86	T.	.02	.15		.12		.15	3.00		1.55				.01	.47	T.	6.56
Mather‖	Wisconsin	.11		.25						1.02	T.				.17	T.	.04	.02	.10		.05					.49				T.	1.39	.03	3.67
Mauston	do	.12							.11	.25					.58	.90			.08		.52			1.20							1.05		4.81
Meadow Valley	do	.22		.04					.18	.90				T.	.09	.06		.20		.40				T.	T.	.39				T.	1.21		3.69
Medford	Black	.22		.35					.20									.70							1.48	.78					1.45		5.18
Merrill	Wisconsin			.28					.02	T.				T.		T.		.74							1.24	.39					.80		3.47
Minocqua	do	.17		.44	.08			.03										.18								.67					1.27		2.84
Mondovi	Mississippi	.34	.15						.45	.06				.18		.10	.01	1.85	.01						T.	.11			T.	.03	1.05		4.34
Mount Horeb	Rock	.10											T.	.09	.04	.70	.03		.14		1.25			1.25		2.22				T.	.63		6.45
Muscoda‖	Wisconsin	.30												T.	.96	.04	.12		.10	T.	2.14	.25		.08		.60	T.				1.58	.08	6.25
Neillsville	Black	.30		.70						.21								1.43						1.42		.45					.75		5.26
New Richmond	St. Croix								.64					.09		.04	.10	.03												T.	.56		0.86
Osceola	do	T.		.08									T.		.05	.05		.43							.03						.41		1.05
Park Falls	Chippewa	.42		.05					.20					.10				.15							*	.73					1.40		3.14
Portage	Wisconsin	.15								T.					.84	.35				.45	.08			.27		.94					.80		3.98
Prairie du Chien‖	Mississippi	.10							.04				.10		.58	.08	.08		.10		.06	.04				.24					.52	.16	2.10
Prentice	Chippewa		.31					.02	T.	.03				T.				.34							1.03	.04					1.26		3.03
Rhinelander	Wisconsin	.26		.51	.01									T.				.37							.46	.39					1.40		3.40
Sauk City	do																																
Shullsburg	Mississippi	.11												.34	.03	.56			.61		.14					1.77					.34		3.90
Solon Springs	St. Croix			.30				.50					.85					.30								T.		T.		.25			2.20
Spooner	do		T.	.08					.04	.03				.20	.98										.12	T.					.50		1.95
Stanley	Chippewa	.28		.30	T.		T.		.49		.01			.05		T.		.65							.05	.31					2.00		4.14
Stevens Point	Wisconsin	.92	T.	T.					.20	.60						.75									.43	.39					.99		4.28
Sugar Camp Dam	do	.28		.43								T.		.02				.22								.33					1.22		2.50
Twin Lakes Dam	do	.10		1.04	.04													.10							T.	.41					1.20		2.89
Valley Junction	do	.43		T.					.28	.83	.23			.63	1.12	.19		.49	.21		T.		T.	T.	T.	*					1.68		6.09
Viroqua	Mississippi	.17							T.	.58				.01	.81	.09		.05	.05		.44					.11				.03	1.76		4.10
Vudesare	Wisconsin	T.		.96		T.												T.											T.				0.96
Watertown‖	Rock	T.			.52										.07	.15	1.20		.18		.11	.30		.55		1.12	.34				.05	.35	4.94
Waukesha	Fox			.59					.14						.09	.02	.85		.05		.03			*		.85					.18		2.80
Wausau	Wisconsin	.26		1.87					.07					T.				.70			.04					1.35					1.10		5.39
Weyerhaeuser	Chippewa			.33					.21					.26	T.			.24							.43	.05					.92		2.44
Whitehall	Mississippi	T.	T.	.10					.75	T.						T.		.75						.30		T.					1.50		2.40
Iowa.																																	
Albia‖	Des Moines			.12			.03											.02	.04			.28									.05	.01	0.55
Algona	do		.41	.31										.20		.21	.15	.97								T.			T.	.18	.17		2.60
Alta‖	Raccoon			.90								.05		.12	.06	.64	.24	.30	.35							.02				.10	.29		3.08
Amana	Iowa	T.		.32											T.	.65		1.65	.77		3.11			T.		.67				.01	.32		7.50
Ames	Skunk			.29										.13	.12	1.00		.03								.17			.40	.14	.47		2.75
Baxter	do			1.30										.01	.02	.82		.01			T.					.50				.34	.13	T.	3.13
Belle Plaine	Iowa			.46											.03	.60		1.40		.01	.08					.47				.08	.13		3.26
Belmond	do		T.	.44										.27	.94	.17	T.	.60					T.			.13			T.	.08	.95		3.58
Bloomfield	Mississippi																	.85		T.	2.87												3.72
Bonaparte	Des Moines			T.												.05		.70				.80				.05					.16		1.76
Boone‖	do			.17										.14	.13		.89	.06	.30		T.					.12				.38	.78	T.	2.97
Britt	Iowa		.28	.08								T.		.29	.03	.15	.04	1.09	T.		.01					.08			.02	.06	.27		2.40
Buckingham	Cedar			1.02												.28		1.66			.19					.51			.02		.65		4.33
Burlington‖	Mississippi							.01											T.			.40									T.	.02	0.43
Carroll‖	Raccoon		.64										.96	1.43	.05	2.36	.43	.12							.12				.70	1.11			7.92
Cedar Rapids‖	Cedar		.12	.25													.61		1.78		T.	2.36			T.	.60				T.	.38	T.	6.10
Charles City	do	.04	.20	.06					.27			.34		.40	.28	.33		1.46			.99					.15			T.	.39	.93		5.84
Clear Lake	do			1.80											.35						.10										.98		3.23
Clinton	Mississippi			.32												.65		*	.19		.39					.75					.11		2.41
Columbus Junction	Iowa			.15											T.	2.48	.25	.75	.25		.35					.34				T.	.25		4.82
Davenport	Mississippi			.13											T.	.86		.73	1.06		.81					.09					.62	.01	4.31
Decorah	do	.20						T.	.10		T.	.18		1.00	.50			.50												1.60			4.08
Delaware	do	.10		.21										.30	.02	.14			.26		.43					.20					.50		2.10
Des Moines	Des Moines	T.		.70										.25	.02	.38	T.	T.			T.					.18			.61	.18	.05	.02	2.40
De Soto	Raccoon			.41										.92	.27	.11		.04								T.			T.	1.53	.12		3.40
Dubuque	Mississippi	.01		.04										.03	.02	.10	T.	.60	.91		.91				T.	.90				T.	.44		3.96
Earlham	Raccoon		.74											1.55												T.			T.	1.68	.11		4.08
Elkader	Mississippi	.05		.08					T.					.10	1.25	.16		.05	.08		.20					.20					.30	.90		3.47
Elma	Wapsipinicon	.08	.08	.03					.10			.01	.05	.05		.18	.01	1.00	.02		.67					.10				.40	1.62		4.40
Estherville‖	Des Moines			.11				T.		.05				.20	.22	T.	.30	.10	.17											.05	.40		1.60
Fairfield	Skunk			.19										T.		T.	T.	.18			2.03	.85				.14					.08	T.	3.47
Fayette	Mississippi	.28	T.	.21								T.			.93	.25		.80	.20		.55					.06				.05	1.05		4.38
Forest City‖	Cedar		.12	.80								T.		.35	.16		.10	.67	T.							.05			.17		.33		2.75
Fort Dodge‖	Des Moines			.35										.36	1.64	.15	.63	.62	.17							.15				.24	.90		5.21
Fort Madison	Mississippi			T.				.12								T.		.21			2.27				T.	.05					T.		2.65
Gilman	Iowa			.19											T.	.31		.25	T.		.03				T.	.60				.11	.45	T.	1.94
Grand Meadow	Mississippi	.19			.01					.05					.48	.37		.24	.09		.15					.03				.02	1.40		3.03
Greene	Cedar		.23	.65								.38			.55	.31		1.41			.66					.15			T.	.15	1.29		5.78
Grinnell	Iowa			.30												.21		1.00	.03							.33			.15	.02	.01		2.05

TABLE 2.—*Daily precipitation for August, 1910. District No. 5*—Continued.

Stations.	River basins.	Day of month.																																	Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Iowa—Cont'd.																																			
Grundy Center	Cedar			.73								.02				1.03		2.10	.03											.27	.74		4.92
Guthrie Center	Raccoon		.12	.68								T.		1.19	.68		1.22						T.	T.	.18	.25			.22	1.24	.33	T.	6.11
Hampton	Cedar	.08	1.45									.06	.03	.22		.50	.30	.40							.16				.05	2.15			5.40
Humboldt	Des Moines			.56										.60	.13	.35	.04	1.08								.12				.28	.70		3.86
Independence	Wapsipinicon	.16		.26												.18		.20	.02		.79			.02		.34				.04	.35		2.36
Indianola	Des Moines			.50										.06	.04	.05	.17	.50			.02					.01			T.	.90	.03		2.28
Iowa City‖	Iowa			.85											T.		1.18		1.04			.86				.80					.25		4.98
Iowa Falls‖	do			1.12									.09		1.03		.46	.51	1.55			T.				.14				.08	1.03	T.	6.01
Jefferson	Raccoon																																		
Keokuk	Mississippi			.04			.02	.10								T.		.09			.67					T.					T.	T.	0.92
Keosauqua‖	Des Moines			.36				.02									T.		.43			2.57				.10					.02	T.	3.50
Knoxville	do			.90										T.	T.	1.45	T.	.03	T.							T.				.35	T.	T.	2.73
Lacona	do			.48									.01	.01		.54	.01	.49												.54	.01	.01	2.10
Le Claire‖	Mississippi		.30	T.												T.	1.75		.59	.12	.02	.44				.10	.01				.01	.28	3.62
Marshalltown‖	Iowa			.49											T.		.30	1.56	.02		T.					.33				.09	.59	T.	3.78
Mason City	Cedar		.25	2.48										.11	.28	.09		.48			.60					.05				.05	.45		4.84
Mount Pleasant	Skunk			.52												.37		.21	.03		1.27	.03				.22				T.	.02		2.67
Muscatine‖	Mississippi			.40												T.	1.17		.18	.15		.12				.38					.10	.67	3.17
New Hampton	Wapsipinicon	.23	.03	.08										T.	.57	.08		1.35	.05		1.01					.04				.05	1.32		4.81
Newton	Skunk																																		
Northwood	Cedar		.06	.12					T.			.02		.66	.10	.40		.67			1.15				.01	.03			.11	.02	.40		3.75
Olin	Wapsipinicon			.20												.25			1.46		1.11			T.		1.12			T.	.53			4.67
Osage	Cedar		.17												.11	.50		1.23			1.78								T.	T.	1.26		5.05
Oskaloosa	Des Moines	.53					.02								T.	.31					.43				.08				T.		.05		1.42
Ottumwa	do			.22			T.							T.				.63			2.46					.12					.02	.20	3.65
Pella	do			.63										T.	.03	.42		.01	T.	T.	T.					.03				.23	.08		1.43
Perry	Raccoon	.20	.04	.85										.70	.22	.60		.31	.03							.25			.12	.83	.45		4.60
Plover	Des Moines			.35										.20		.60	.05	1.72					T.	T.		T.			T.		.20		3.12
Pocahontas	do		.31	.24										.32	.07	.57		1.12								.13			.02		.31		3.10
Ridgeway	Mississippi	.09	.02					.13	.02			.28		.12	.08	.16	.02	2.00	.07		.17				.06	T.				.25	2.16		5.63
Rockwell City	Raccoon			1.00										1.05	.50	.45										.45			.57	.50			4.52
Sac City	do		.37	.38										.64		.52	.02	.47								.18			.50	.05	.41		3.54
St. Charles	Des Moines			1.37												T.		.11								.01				.90	.05		2.44
Sigourney	Skunk			.32											.03	.15		.63			.10					.10				T.	.07		1.40
Stockport	do		.22					.01								.12		.25			1.19	.35				.12				T.	.07		2.43
Storm Lake	Raccoon	.26	T.	.32								T.			.16	.47	.12	.84			.15	.13				.08			.13				2.66
Stuart	do			.62										1.01	.67			.28	T.										.18	1.33	.32	T.	4.41
Tipton	Cedar															.51		1.83	.67							2.00					.43		5.44
Toledo	Iowa			.28												.30		.60	.20		T.					.83				.18	.42		2.82
Wapello	do			.13												2.33		.57			T.										.30		3.33
Washington	Skunk		.11													4.22		.15	.35		3.08					.14					.14		8.49
Waterloo‖	Cedar			1.26									.03	T.	.04		.34	.04	1.27		.47				T.	.10				.05	.47	.04	4.11
Waukee	Raccoon			.44										.60	.18	.18		.05	.04		T.					T.			.02	1.14	.10	.03	2.78
Waverly	Cedar		T.	.68								.04			.10	.20		1.01	.11		.94					.01				.38	1.04		4.51
Webster City	Des Moines			.66										.04	.16	.55	.05	.78			.08					.20			.20	.21	.82		3.69
West Bend	do		T.	.43										.16	.02	.42	.02	1.32								.02				T.	.22		2.61
Whitton	Iowa													T.		1.45		.50			.26									.58	.60		3.39
Winterset	Des Moines			.81						T.				.83	.02	.05		.11			T.			T.		T.				1.36	.06	T.	3.24
Missouri.																																			
Gorin	Mississippi							.09								.03		.35				1.56												2.03
Hannibal	do			.12			.12	.38		T.						.07		.05	.36		.01	.53			T.						T.	T.	1.64
Lousiana	do			.15			.02	1.10		.02									.32			.24									T.		1.85
Mexico‖	do			.03				1.46		.04									.09			.24										T.	1.96
Steffenville	do			T.			T.	.16	T.	T.						.13	T.	T.				2.20			T.	T.					T.	.21	2.73
Sublett	do						T.									T.		.50										2.00					2.50
Warrenton‖	do			.20	.53			.68	.01	.03									.61	.26		.04										.12	2.48
Indiana.																																			
Collegeville	Iroquois	T.						.15		.02						.60	.80	.79	.69					1.25	T.	.10						1.0	5.40
Knox	Kankakee	T.		T.				T.		.66							.32	.33	.76		.15			1.64		.11					T.	2.22	6.19
Laporte	do	.20								.13						.14	.33		.05		.27			1.13							.80	.48	3.53
Plymouth	do	.02						T.								T.	.28	.02	.32		.08			1.29	.12	T.						1.55	3.68
Illinois.																																			
Aledo	Mississippi															.95	.68	.73	.02		.16					.10					.09		2.73
Alexander	Illinois						T.	.41		T.						T.	.07	2.11	.04			.24				T.						.75	3.62
Antioch	do			T.											T.		.63		T.		.90				1.50	.50				.08			3.61
Astoria	do									.05							.06	T.	.80		T.	T.			T.	T.						.25	1.16
Aurora	do	.04	.52	.07						T.						T.	.93		.13		.98			1.37			T.			T.			4.04
Bement	Mississippi							.27									1.89		.06					.36		.02						.02	2.62
Benton	do			T.				.25		.28									.20														0.73
Bloomington	Illinois			T.				.05											.08		.03			.13								.41	0.70
Cairo	Mississippi			.21			T.	.02		.15												T.		1.66		.79	.04					.03	2.90
Carbondale	do			.15	.05			.20		.15										.04				1.38		.04						.10	2.11
Carlinville	Illinois							.35		T.						.02	T.	.01	.34			.19				T.						.46	1.37
Carlyle	Mississippi							.80								.20	.35			.25		.40		1.60								.20	3.80
Chester‖	do			.12	1.14			.58		T.	.24							T.		.70			.44	1.24			T.						4.46
Clinton	Illinois							.24		T.						T.	1.63	T.	.12			.01		.14	T.							.27	2.41
Coatsburg	Mississippi							T.										.05	.36														0.41
Cobden	do			T.				T.		.47									T.			T.		1.05			.37						1.89
Dakota	do	.20														.52	.04		.25		2.05					1.00							4.06
Decatur‖	Illinois							.50		T.							1.13		.78			.24		.05		.10					1.03		3.81
Dixon‖	Mississippi	.03	.21	.49	.05												1.55		.08	.06	.55	.02				.02						.08	3.14
Du Quoin	do			.24				.58		.18						T.			T.			T.		1.24		.35							2.59
Dwight	Illinois	T.		.01				.01		T.							2.90	.03	.50		.05			1.15						T.		.01	4.66
East St. Louis‖	Mississippi			.22	.11			.83	T.								.31			.23			.02										1.72
Edwardsville	do			.19				.80								.28			.70					.41								.04	2.42
Elgin	Illinois	.06														.94			.08		.57			1.21		.01				T.			2.87
Galva‖	do			.17				.05								.26	.11	.01	.05		.10					.04				T.		.01	0.80
Grafton‖	Mississippi			.12	.04			.70											.48													1.74	3.08
Greenville	do						.04	.80									.02	.50	.26			.48		1.10		.15							3.35
Griggsville	Illinois			T.				.42									T.		.28			.15				T.						T.	0.85
Halfway	Mississippi			.05				.41		.11							T.		1.80					1.00		.12	.11					T.	4.50
Havana	Illinois							.09		.03									.26													.20	0.58
Henry	do			.57				.06								.28	.70	T.	.10		.06												1.77
Hillsboro‖	Mississippi								.75										2.02			.55	.65	.92								.30	5.19
Joliet	Illinois	.08		T.						T.						.82	.51		.05		.81			.90									3.17
Kishwaukee	Mississippi	.20		.28												.73			.11		1.09					.91					.26		3.58
La Grange	Illinois																																		
La Harpe	do			.05				.18		T.						T.		T.				.15											0.38
Lanark	Mississippi	.04	T.	.04											T.	.27	.05	T.	1.22	.45						.71				T.	.48		3.26
La Salle	Illinois	T.		.22				.01								2.62	.69	T.	.15		.02			.03	T.	T.					T.	T.	3.74
Lincoln	do							.19		T.						.05	.25	.05	.15		T.	T.		T.	T.	T.					T.	.10	0.79
Loami	do						T.	.47		T.						T.		.15	T.			.08			T.	T.						T.	0.70
Martinton‖	do									T.					T.	1.03		.53	.07		.47		2.30							1.40	T.	5.80
Mascoutah	Mississippi			.16			.02	.55		.05						T.	T.		.18			.11		3.90		.11							5.08

TABLE 2.—*Daily precipitation for August, 1910. District No. 5*—Continued.

Stations.	River basins.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Illinois—Cont'd.																																	
Minonk	Illinois			.05				.07		T.						T.	1.68	.30	.06		T.			.20								.10	2.46
Monmouth	Mississippi																																
Morrison	do			.42											T.	.67	.45		.20		.33					.27			T.		.10		2.44
Morrisonville	Illinois						T.	.28									.05		.39			1.41		.06		T.							2.19
Mt. Vernon‖	Mississippi							.45			.10							.71					.03	.20			.58						2.07
Oregon	do	.15	.15	.30													.50		.20		.87					.15					.22		2.54
Ottawa	Illinois		.05	.13												3.15		.06		.22				.30									3.91
Pana	Mississippi							.12		.02							.40	1.37	2.68			1.87		.18		T.						.07	6.71
Peoria	Illinois			.03			T.	.08								.04		.51	.01		.01					T.					T.	T.	0.68
Pontiac	do							.30		T.							2.33	1.08	.10		T.			.54		.01					T.	.03	4.39
Riley	Mississippi	.08		.13											T.	.87			.14		.59			1.60		.21				T.	.06		3.68
Rockford‖	do	.30	.13	.20	.09											T.	.74		.22	T.	.95			.28		.45	.09				.04	.17	3.66
Rushville	Illinois						T.	.18		T.						.15		1.28			.12			T.								.21	2.04
St. Charles	do	.22		.06						T.					T.		.93		.15		.68			.95		T.					T.		2.99
St. Peter	Mississippi			T.			T.	.50		T.							.55	T.	T.			T.		T.		.85							1.90
Sparta	do			.25				.58		.08							.09		.02			.40		2.38		.06						.20	4.06
Springfield	Illinois						.06	.28		T.						T.		T.	.03		T.	.25	.03		T.	T.					.11	.02	0.78
Streator‖	do				.04			.08			T.						4.52		.21	.10	.02			.41	T.								5.38
Sullivan	Mississippi							.45		T.							1.83		.37				.29	1.11									4.05
Sycamore‖	do		.20		.50											.18	.78		.07		1.24			1.25		T.							4.22
Tiskilwa	Illinois			.09				.06		T.						.39	.76		.22		.10				.01	.02					.01	.01	1.67
Walnut	Mississippi			.86				T.								1.24	1.53		.32		.15				T.	.02					T.		4.12
Warsaw‖	do							.08										.07			.68												0.83
White Hall	Illinois			T.			.01	.44		T.									.15			.07				T.						.45	1.12
Windsor	Mississippi							.20		.02							1.67		.70			.03		.90		.03							3.55
Winnebago	do	.32		.20											T.	.43			.19		1.45			T.		.73					.38		3.70
Yorkville	Illinois		.40	.08												.30	.80		.10		1.12			1.10							T.		3.90
Zion	Mississippi			T.												.57		.45	1.82		T.					.99				.77			4.60

TABLE 3.—*Maximum and minimum temperatures at selected stations, August, 1910. District No. 5, Upper Mississippi Valley.*

Date.	North Dakota.										Minnesota.																	
	Bottineau.§§		Devils Lake.		Lisbon.§§		Minot.§§		Pembina.§§		Collegeville.		Crookston.§§		Grand Meadow.		Montevideo.§§		Moorhead.		New Ulm.§§		Pine River Dam.		St. Paul.		Winnibigoshish.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min
1...	79	55	77	52	76	54	88	54	74	43	85	57	81	52	95	65	83	57	82	53	90	63	82	62	85	64	80	55
2...	76	52	83	57	88	50	86	57	81	52	90	63	79	59	92	64	92	61	88	57	91	64	90	58	84	65	84	60
3...	68	52	70	51	80	54	73	55	72	50	89	63	73	55	84	65	82	57	74	56	84	64	70	60	82	66	70	59
4...	75	45	77	44	80	47	83	47	79	48	73	54	71	49	82	55	78	53	76	48	82	56	69	54	75	59	69	52
5...	83	51	83	49	88	43	88	55	82	46	82	52	80	53	86	40	86	49	84	45	87	48	76	52	82	52	81	48
6...	78	58	82	61	89	55	79	55	80	50	88	58	87	55	81	50	83	55	87	60	92	53	87	57	88	56	80	48
7...	75	47	80	55	87	61	79	51	74	52	86	66	82	62	80	58	86	59	84	63	90	61	78	61	84	63	75	60
8...	63	47	70	51	78	50	69	52	71	50	82	62	75	54	87	62	83	57	76	52	88	61	78	56	79	58	77	55
9...	78	45	76	53	81	54	80	43	72	48	78	57	75	58	79	54	79	55	78	56	79	56	73	53	76	57	72	54
10...	86	44	86	43	89	37	90	46	82	46	83	55	83	48	86	51	86	49	87	42	88	41	83	54	84	55	81	54
11...	93	55	94	59	92	46	95	66	90	50	89	58	90	54	87	58	92	57	92	54	94	54	91	56	89	59	86	53
12...	80	62	83	56	88	67	79	57	88	52	91	64	85	62	88	61	93	66	90	65	92	63	88	50	89	64	86	62
13...	80	50	78	49	85	56	76	49	82	49	86	61	78	55	80	64	80	62	82	58	82	68	86	54	76	65	82	63
14...	72	55	69	50	75	55	72	51	74	50	78	58	77	50	82	63	74	60	78	56	83	56	80	56	78	62	76	50
15...	79	56	76	57	93	58	76	53	78	48	76	56	83	61	69	64	83	61	82	58	84	65	72	55	75	65	77	57
16...	70	43	64	49	75	53	68	47	62	40	78	65	71	56	90	65	79	63	74	55	85	63	82	62	86	66	80	61
17...	73	36	69	44	79	50	72	43	72	46	77	56	71	51	77	60	75	57	75	52	71	62	79	52	67	59	80	49
18...	82	43	78	43	81	40	83	35	85	46	76	52	77	46	81	56	79	53	81	45	82	52	79	46	80	53	78	44
19...	92	50	88	59	88	50	94	43	86	50	83	57	87	53	82	53	83	55	86	51	85	54	84	41	81	54	81	52
20...	93	55	91	60	93	58	95	53	82	50	88	61	91	59	87	59	88	58	90	58	90	59	90	49	90	63	90	56
21...	69	54	83	52	90	51	79	58	68	46	84	61	85	55	91	62	92	63	88	57	94	65	82	53	83	68	84	58
22...	78	46	74	48	60	50	70	44	74	40	81	63	75	53	94	70	71	61	64	46	85	69	76	55	83	62	73	58
23...	68	45	66	48	63	44	67	46	60	43	66	54	62	48	86	58	68	50	60	44	70	57	63	47	69	57	65	51
24...	61	45	58	43	64	45	58	48	55	39	62	51	60	45	91	68	65	51	63	47	65	57	60	53	69	56	60	50
25...	68	34	66	38	72	45	68	38	64	38	64	49	67	44	70	51	69	48	69	48	68	50	70	48	67	52	63	47
26...	79	28	75	44	83	38	79	40	74	37	75	46	76	39	75	43	79	44	80	42	79	43	76	52	77	47	78	45
27...	67	30	61	44	76	37	68	45	62	40	74	56	59	45	76	49	78	49	74	44	80	49	68	39	74	50	69	44
28...	77	46	74	41	76	46	77	42	70	40	75	51	75	47	75	52	74	54	79	48	73	56	70	50	78	60	72	44
29...	75	50	76	57	86	58	88	44	75	50	78	58	81	49	79	61	82	58	84	61	82	61	74	46	80	64	77	55
30...	68	45	64	43	76	49	68	45	63	49	73	55	65	54	72	58	75	54	71	46	73	57	82	50	73	58	73	55
31...	67	33	69	36	70	31	71	34	70	32	74	51	70	38	77	46	74	42	78	36	73	45	74	39	74	47	74	43
Mns	75.9	47.0	75.5	49.5	80.7	49.4	78.0	48.3	74.2	45.8	79.5	57.1	76.5	51.9	82.6	57.6	80.4	55.4	79.2	51.7	82.6	57.3	77.8	52.4	79.3	78.9	76.6	53.0

Date.	Wisconsin.														Iowa.													
	Delavan.		Eau Claire.		La Crosse.		Madison.		Mauston.		Spooner.		Wausaw.		Algona.		Cedar Rapids.§§		Charles City.		Davenport.		Des Moines.		Dubuque.		Keokuk.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	90	62	85	62	91	64	86	63	85	60	80	57	80	51	94	66	96	62	94	66	90	68	96	69	93	69	88	68
2...	85	56	78	65	88	67	83	62	84	60	85	58	79	56	89	67	95	68	93	64	91	71	90	71	90	68	85	72
3...	91	63	84	65	87	68	86	65	86	68	79	60	83	58	83	73	88	68	85	64	90	70	86	67	89	71	88	71
4...	80	54	76	52	77	58	74	61	79	62	70	50	80	57	77	56	82	63	79	53	82	63	78	61	80	62	80	64
5...	82	46	82	45	81	43	78	56	79	43	73	43	75	47	81	48	84	54	82	46	82	57	80	54	81	53	81	56
6...	86	44	86	48	86	48	82	58	85	44	84	44	81	44	85	52	88	50	86	48	84	57	80	54	85	50	80	58
7...	84	59	87	58	90	58	82	62	86	50	84	61	84	58	85	56	90	55	86	54	85	67	86	57	87	65	77	63
8...	89	61	81	56	83	60	85	62	85	58	79	54	84	59	87	63	88	65	86	60	83	64	81	65	88	66	79	61
9...	87	61	78	56	76	61	79	63	75	61	76	51	77	59	77	56	82	66	79	57	82	64	80	62	81	64	82	65
10...	84	59	84	54	81	56	78	59	78	56	80	48	77	55	85	54	86	56	84	51	84	59	85	54	83	59	82	57
11...	88	49	88	52	87	54	85	58	88	50	88	53	85	49	89	62	91	58	84	58	87	63	87	62	88	56	85	62
12...	92	56	89	52	90	63	88	62	88	55	91	62	86	59	89	64	91	60	87	61	86	64	88	62	88	65	85	59
13...	86	56	84	66	82	68	82	64	84	64	77	61	85	64	77	67	86	61	81	66	81	68	80	67	83	65	85	65
14...	80	61	80	61	76	66	79	65	73	65	78	58	76	64	79	68	92	68	81	65	89	71	88	68	84	67	88	67
15...	88	62	68	62	71	65	83	64	72	63	74	55	71	53	79	66	86	62	77	66	87	67	85	66	85	67	87	70
16...	86	64	85	65	85	68	84	65	85	64	82	64	81	60	88	65	99	65	90	68	89	68	96	69	88	69	95	71
17...	87	61	81	60	72	65	81	66	80	66	68	55	83	61	79	63	81	68	72	64	84	70	76	69	83	68	91	71
18...	76	61	79	53	79	58	76	62	78	61	75	46	78	52	78	56	78	67	77	60	78	66	77	67	77	63	79	71
19...	83	48	81	52	83	53	81	56	80	49	80	48	79	50	82	56	85	64	81	54	84	61	84	67	83	58	85	63
20...	83	61	85	62	80	64	80	61	76	61	86	59	84	53	89	62	81	65	87	58	79	67	89	70	75	64	87	66
21...	88	64	84	65	90	65	85	63	85	62	85	62	85	61	90	67	89	65	89	64	88	66	94	69	87	64	89	67
22...	92	67	86	68	91	71	91	67	90	72	72	61	89	68	93	68	94	57	91	71	94	72	97	73	92	71	93	72
23...	88	64	81	58	79	64	80	63	85	63	70	52	86	62	78	58	94	74	80	63	84	72	90	70	83	72	90	77
24...	90	72	78	60	94	72	91	72	90	68	66	57	84	66	86	66	95	75	94	62	90	75	97	67	93	73	92	77
25...	77	53	69	51	72	49	76	53	84	53	61	46	80	56	67	50	66	50	65	48	83	55	68	52	80	51	86	63
26...	74	42	74	43	76	45	70	50	72	46	75	50	70	42	75	42	74	48	73	43	73	50	76	45	73	48	74	48
27...	76	46	73	48	76	51	73	52	74	50	65	40	73	44	77	47	77	48	75	49	76	52	78	53	75	54	76	50
28...	78	52	72	54	78	53	74	54	74	48	73	54	74	54	74	55	81	51	77	55	79	59	83	56	77	56	82	55
29...	77	59	75	60	76	64	75	61	74	49	78	58	72	55	75	62	78	61	71	64	82	62	79	63	74	64	85	60
30...	80	63	69	61	74	55	75	61	72	62	70	59	73	59	73	59	74	54	72	53	76	65	77	62	76	60	82	71
31...	71	51	75	46	74	49	71	57	72	46	71	54	74	44	78	45	75	54	73	48	74	58	72	56	74	53	72	63
Mns	83.8	57.3	79.9	56.8	81.5	59.4	80.4	60.9	80.6	57.3	76.6	54.2	79.6	55.6	81.9	59.3	85.4	60.7	81.4	58.2	83.7	64.2	84.0	62.8	83.1	62.4	84.2	64.6

TABLE 3.—*Maximum and minimum temperatures at selected stations, August, 1910. District No. 5*—Continued.

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois. Cairo.		Greenville.		La Salle.		Monmouth.		Mt. Vernon.§§		Peoria.		Springfield.		Winnebago.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	88	64	84	51	86	68	88	63	91	64	.....	.....	86	61	89	63	89	64	90	62
2	83	69	88	64	85	70	84	66	92	67	.....	.....	87	62	89	67	87	68	89	65
3	86	69	90	61	85	68	87	67	87	69	.....	.....	83	65	88	69	87	70	91	64
4	79	61	83	65	86	71	86	65	81	64	.....	.....	89	67	80	61	82	65	80	59
5	77	55	81	48	83	66	85	60	82	53	.....	.....	88	57	81	52	82	59	84	49
6	77	57	83	49	82	67	89	61	85	54	.....	.....	87	60	83	52	83	60	89	50
7	74	61	77	57	84	68	69	62	78	62	.....	.....	75	61	77	60	71	62	86	60
8	78	57	89	50	82	64	78	50	85	61	.....	.....	83	58	81	57	81	60	88	58
9	82	66	81	61	79	68	78	62	85	64	.....	.....	81	58	83	61	83	66	85	60
10	80	56	80	61	85	64	82	58	83	59	.....	.....	85	62	83	54	82	60	86	55
11	82	58	85	51	83	66	80	60	88	56	.....	.....	85	55	86	55	82	63	91	55
12	83	58	87	55	84	65	86	66	88	60	.....	.....	85	55	87	55	85	60	93	60
13	84	62	86	55	88	64	88	62	84	61	.....	.....	87	57	84	57	86	62	90	58
14	87	68	88	55	90	70	89	68	89	65	.....	.....	92	65	89	64	89	68	84	58
15	85	70	93	60	90	71	92	68	92	65	.....	.....	95	65	90	66	90	68	95	60
16	93	71	85	60	89	72	92	69	87	68	.....	.....	92	69	93	71	93	73	88	65
17	90	80	86	64	92	74	88	70	84	68	.....	.....	92	69	90	72	92	72	86	66
18	79	70	76	68	92	75	78	72	79	63	.....	.....	85	69	80	64	78	67	81	62
19	84	65	82	54	83	73	85	64	83	57	.....	.....	85	64	84	57	83	61	86	53
20	87	64	80	55	89	71	87	65	80	65	.....	.....	90	64	83	64	87	66	83	60
21	88	66	89	60	89	72	88	68	88	68	.....	.....	91	66	89	66	88	69	88	63
22	94	73	85	65	91	72	92	67	92	68	.....	.....	95	66	94	67	93	67	94	68
23	92	79	89	62	82	66	84	67	88	67	.....	.....	86	68	89	69	87	71	86	67
24	90	77	84	72	86	73	87	71	85	73	.....	.....	88	68	84	71	85	72	92	74
25	83	54	80	64	85	64	78	60	81	52	.....	.....	83	71	78	58	80	57	76	48
26	72	47	70	45	71	58	73	50	73	48	.....	.....	74	58	73	41	71	49	75	44
27	75	47	71	44	76	57	78	52	76	51	.....	.....	80	49	78	43	76	51	89	46
28	80	54	80	45	83	61	81	55	79	54	.....	.....	83	51	83	48	81	53	.....	.....
29	86	60	83	55	89	67	87	60	83	59	.....	.....	90	53	85	56	85	56	80	60
30	90	68	90	57	90	68	92	64	85	64	.....	.....	93	61	91	65	93	66	79	62
31	76	63	75	63	88	71	83	68	77	61	.....	.....	90	62	76	63	80	64	75	54
Means	83.4	63.2	83.2	57.3	85.4	67.9	84.3	63.2	84.2	61.6	.....	.....	86.6	61.8	84.5	60.0	84.2	63.5	86.0[a]	58.8[a]