

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JULY, 1898.

MARYLAND AND DELAWARE SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

IN COOPERATION WITH THE

MARYLAND STATE WEATHER SERVICE.

(Prof. Wm. B. Clark, Director; Prof. Milton Whitney, Secretary and Treasurer.)

PREPARED UNDER DIRECTION OF

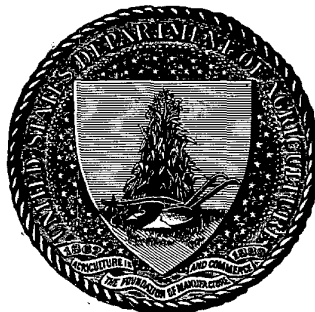
WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

BY

F. J. WALZ,

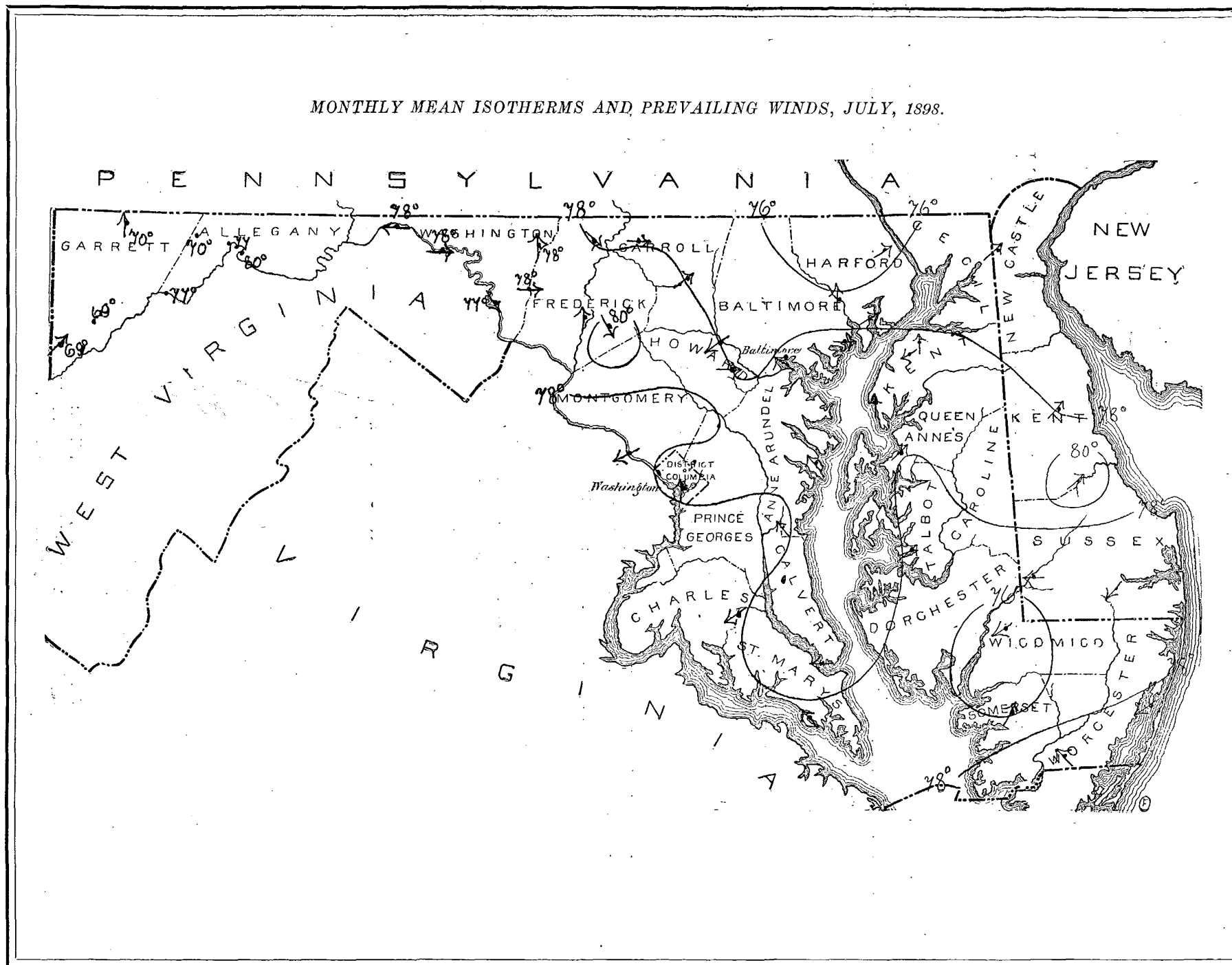
SECTION DIRECTOR.



BALTIMORE, MD.:
WEATHER BUREAU OFFICE.
JOHNS HOPKINS UNIVERSITY.

1898.

MONTHLY MEAN ISOTHERMS AND PREVAILING WINDS, JULY, 1898.



U. S. DEPARTMENT OF AGRICULTURE,
CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

BALTIMORE, MD.

VOL. III.

BALTIMORE, MD.

No. 7.

AGRICULTURAL COLLEGES AND THE FARMER.

[From address of Secretary Wilson, of the Department of Agriculture, at College Park, Md., last June.]

The State of Maryland can well afford to sustain a college for the farmer's boy, for the sole purpose of keeping her soil in fertile condition. She can afford to maintain a college for the purpose of enabling the sons of toil to increase their earning capacity. The uneducated man earns on the farm from \$10 to \$20 a month; the educated man easily earns from \$50 to \$100. An improved pasture requires several acres. The native horse, without blood or development, in some of our Northwestern States, is valued at \$10 a head; a well-bred, well-developed horse is worth from \$100 to \$1,000. The native cow in some of our newer States yields \$7.50 worth of products in a year; the improved cow in the hands of a skilled dairyman yields \$75 worth of products in the same time. Corn in Iowa, some years, is worth 10 cents a bushel where it is the one crop of the farm; but the skilled feeder makes it worth 40 cents a bushel. The native pineapple weighs from three to four pounds, and sells from 10 to 20 cents apiece; the scientist hybridizes the same pineapple and makes it weigh from eight to twelve pounds, and sells it for 75 cents to \$1 apiece. The uneducated laborer produces cotton as his sole crop and sells it for 5 cents a pound; the educated laborer diversifies his industry and puts high-selling products on the market. The young man's labor when he comes to college is worth no more than that of the uneducated farm hand; but if he studies the sciences related to some one industry his labor is in demand everywhere. His earning capacity was equal to one laborer when he entered; it is equal to half a dozen when he graduates.

THE DEPARTMENT OF AGRICULTURE.

The good work done by college and experiment station is being recognized by all classes of society in our own land and by educated men abroad. The Department of Agriculture is a clearing-house for the colleges and stations of the several States with regard to their work. It cooperates with them, sympathizes with them, supplements their work, gives publicity to progressive work, yet avoids all appearance of dictation or meddling. The Department at Washington does work which is beyond the financial ability of State institutions, very often, however, through the scientists of the State institutions; many of whom, in their specialties, are not excelled in the wide world.

It is the aim of the Department to encourage work that bears directly upon the requirements of the farmers of the

country, to help in the solution of problems that the former cannot grapple with, for want of time, training, and apparatus; and with regard to education in the colleges, to insist, mildly, that it shall be along lines having regard to science as the major study, rather than to belles lettres.

Our agricultural colleges are endeavoring to induce young farmers to avail themselves of the facilities offered to study the sciences relating to their work. Many of them are succeeding as well as could have been expected, when we consider the influences that surround the farm boy and girl.

A POST-GRADUATE COURSE.

The graduates of the agricultural colleges of the several States, who have laid the foundations of a scientific education, should be invited by Congress to go to Washington to pursue their studies in special lines and get facilities and direction from the chiefs of divisions, without expense to the students. They could have access to the departmental and congressional libraries, to the museums of the departments and of the Smithsonian Institution, which contains departmental material. The university that George Washington had in mind is in existence now in the Capital City. It lacks only the students. I shall, in my next annual report to the President and Congress, ask that this authority be given to the Secretary of Agriculture. No additional appropriations would be necessary until large numbers required a lecture room, which Congress would promptly provide. I have strong faith in our great-hearted President and our far-seeing legislators that they will favor the farm boys and girls in this regard.

* * *

REVIEW OF THE CROP CONDITIONS.

The month opened very dry and intensely hot, temperatures of 100° or more being registered on several days over nearly all parts of the two States. In Allegany County the maximum of 108° was recorded. After the 4th when much needed showers were general, it was much cooler for a week or ten days, but the drought continued in southern Maryland, and light scattered showers that fell in other sections, while refreshing, were insufficient. The dry weather continued until the 19th, when general rains and heavy thundershowers occurred over all districts, except portions of Washington and Frederick counties. The drought in the southern counties was exceedingly severe and damaging, having been almost continuous since the middle of May, and had begun to assume a serious stage in the north-central counties, when relieved by the generous showers of the 19th. The last two weeks of the month were characterized by warm and sultry weather, with frequent and often heavy thunderstorms.

Harvesting of wheat had been very nearly completed by the first of the month, and threshing was nearly finished by the 18th. The yield averaged about twelve to fifteen bushels per acre, and ranged from three or four bushels per acre in some of the southern counties to probably twenty-five bushels in some of the northern counties. Corn made very little advance during the first half of the month on account of the drought, but held up quite well under the circumstances, and

was greatly improved by the rains in the latter part of the month, and by the time the month was over was in silk and tassel, and was reported as having generally a very good stand. The early varieties of potatoes were cut short by the drought, but the latter varieties promise much better. Owing to the drought and the scarcity of plants, not more than half the crop of tobacco was planted, and the partial crop planted did not show much growth until the latter part of the month, when it was revived by rains. Gardens and pastures were rapidly drying up, until relieved by the heavy showers of the 19th and following days. The tomato crop was late in being planted and obtaining a stand, but as the month closed the promise was good for a fair crop. The peach and apple orchards in many cases were almost failures, and the crops of these fruits were very poor. Pears, however, were plentiful, and grapes promising.

As the month closed, oats were being harvested, the crop proving poor generally, not averaging over twelve to eighteen bushels per acre, although fair in some of the western counties. Corn was making rapid growth, and fall plowing and fallowing for wheat had commenced in some localities. Sweet potatoes, melons, and backwheat all doing finely and giving promise of large crops.

* * *

CLIMATOLOGY OF THE MONTH.

ATMOSPHERIC PRESSURE—IN INCHES AND HUNDREDTHS.

Monthly mean at Washington, D. C., 30.05; at Baltimore, 30.04; average, 30.04; highest, 30.33 at Baltimore, on the 12th; lowest, 29.73 at Baltimore, on the 9th.

TEMPERATURE—IN DEGREES FAHRENHEIT.

The monthly mean (entire territory), 77.5, is 2.1 above the normal.

The highest monthly mean was 80.4, at Cumberland.

The lowest monthly mean was 69.0, at Deer Park and Sunnyside.

The highest temperature recorded during the month was 109, at Boettcherville, on the 3d.

The lowest temperature recorded during the month was 32, at Deer Park, on the 11th.

The greatest local monthly range was 69, at Boettcherville.

The least local monthly range was 37, at Annapolis and Solomons.

The greatest daily range was 47, at Boettcherville, on the 3d.

The least daily range was 1, at Solomons, on the 6th.

PRECIPITATION—IN INCHES AND HUNDREDTHS.

The monthly average (entire territory) 3.65, was 0.80 below the normal.

The greatest amount was 7.77 at Grantsville.

The least amount was 1.31, at Cumberland.

The greatest amount in twenty-four hours was 4.00, at Grantsville, on the 17th.

The average number of rainy days, 9.

WIND.

The prevailing direction was from the southwest.

The total movement was 3,765 miles, at Baltimore, and 3,950 miles, at Washington, D. C.

The maximum wind velocity was 32 miles per hour from the northwest, at Washington, D. C., on the 19th.

MISCELLANEOUS.

The following are dates on which various miscellaneous phenomena occurred:

Thunderstorms.—Annapolis, 19; Bachman's Valley, 4, 19, 20, 31; Baltimore, 4, 19, 21, 27, 28, 31; Boonsboro, 4, 8, 14, 15, 18, 19, 20, 21, 26, 27, 28, 31; Charlotte Hall, 4, 17, 19, 21, 22, 27; Chase, 4, 19, 20, 21, 27; Cherryfields, 4, 9, 21, 26, 27; Chestertown, 4, 19, 20, 27; Chewsville, 4; Coleman, 4, 19, 21, 22, 26, 27, 28; Cumberland, 4, 16, 17, 29, 31; Fallston, 4, 19, 20, 21, 26, 27, 28, 31; Frederick, 4, 8, 17, 19, 31; Frostburg, 31; Grantsville, 3, 4, 16, 17, 18, 19, 22, 23, 25 to 31; Green Spring Furnace, 4; Jewell, 4, 19, 27, 28, 30; Kensington, 18, 27; Laurel, 4, 18, 19, 27; Mardela Springs, 9, 16, 17, 18, 21, 22, 27, 28, 30, 31; Millsboro, Del., 4, 19, 26, 27, 30, 31; Mt. St. Mary's College, 4, 20, 22; Newark, Del., 4, 19, 20, 27; New Market, 4, 8, 19, 20, 27; Pocomoke City, 21, 27; Princess Anne, 4, 19; Rock Hall, 4, 19, 20, 21, 28; Seaford, Del., 19, 21, 26; Sharpsburg, 4, 31; Smithsburg, 4, 19, 20; Solomons, 4, 16, 19, 21, 27, 28, 30, 31; Sunnyside, 3, 4, 9, 16, 17, 18, 19, 25, 29, 31; Taneytown, 4, 8, 19, 20, 31; Washington, D. C., 4, 17, 19, 21, 26, 27, 28, 30; Woodstock, 4, 19, 20, 23, 27, 28, 29.

Halos, solar.—Jewell, 11, 17; Solomons, 28.

Sun dog.—Jewell, 25, 26.

Fog.—Mardela Springs, 27, 28; Green Spring Furnace, 8; Millsboro, Del., 19, 22; Princess Anne, 1, 19, 24; Sunnyside, 1, 17, 25.

Frost, light.—Deer Park, 11; Grantsville, 11; Sunnyside, 11.

High winds.—Annapolis, 4; Sunnyside, 14, 25; Taneytown, 4; Van Bibber, 20, 21.

Hail.—Clear Spring, 4; Solomons, 4; Taneytown, 4.

Aurora.—Millsboro, Del., 10.

* * *

The meteorological records for Hagerstown, Md., are, unfortunately, missing for June and July just past, owing to the absence of the regular voluntary observer, Prof. C. E. Carl. Temperature and rainfall reports are especially valuable in these months, being the height of the growing season, and any break in their continuity is to be deplored. Efforts have been made to provide for regular observations at Hagerstown during the summer months, but thus far without success. Professor Carl will turn over the instruments to anyone in the town who will be willing to take the thermometer readings and rain-gauge measurements, and render reliable reports to this office.

* * *

The death of Mr. H. L. Wallace, voluntary observer at Seaford, Del., is announced with deep regret. Mr. Wallace had been an invalid for several years, much of which time was spent in search of health, but without avail, and his death on July 31st occurred at Denver, Colo. His valued services as voluntary observer will be continued by his brother, Mr. W. T. Wallace, who has personally attended to this work much of the time during the last two years.

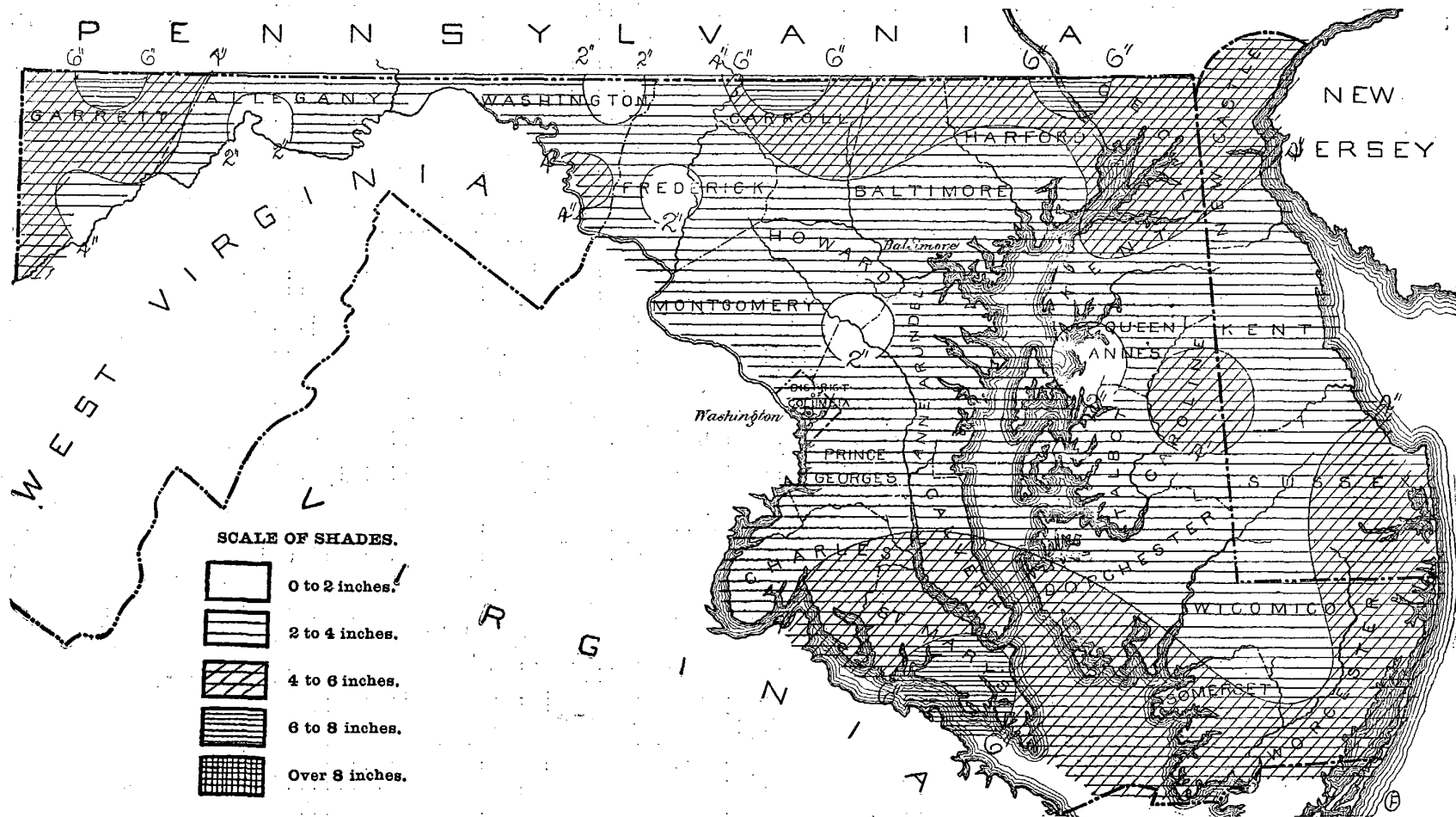
Climatological data for Maryland and Delaware, July, 1898.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.					Sky.				Prevailing direction of wind.	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 rainy days.	Number clear days.	Number partly cloudy days.	Number cloudy days.		
WESTERN MARYLAND.																				
Boettcherville.....	Allégany.....	700	8	76.8	+3.7	109	3	40	11	47	2.15	-1.25	0.60	.....	7	.....	.....	.....	.....	F. F. Brown.
Boonshoro 1.....	Washington.....	650	.....	78.1	.....	103	2	46	11	43	3.66	.....	1.20	.....	9	.....	.....	.....	.....	Chas. E. Huntzbury.
Boonshoro 2.....	Washington.....	900	.....	78.2	.....	104	3	50	11	31	2.49	.....	0.80	.....	12	8	17	5	W	Samuel L. Ford.
Chewsville.....	Washington.....	550	.....	77.0	.....	103	2	47	11	41	1.81	.....	0.86	.....	8	18	12	1	S	E. I. Oswald.
Clear Spring 1.....	Washington.....	500	.....	78.5	.....	107	3	48	11	39	3.15	.....	1.45	.....	9	21	5	2	.....	W. E. Loose, Jr.
Clear Spring 2.....	Washington.....	650	.....	77.6	.....	105	4	50	11	38	2.42	.....	1.10	.....	11	16	14	0	.....	W. W. Shriver.
Cumberland.....	Allégany.....	722	39	80.4	+4.7	103	3	55	11	32	1.31	-1.67	0.51	.....	9	.....	.....	.....	.....	Howard Shriver.
Deer Park.....	Garrett.....	2,457	7	69.0	+3.2	94	3	32	11	40	3.76	-4.06	1.35	.....	14	.....	.....	.....	.....	S. P. Specht.
Frostburg.....	Allégany.....	2,100	3	70.4	.....	89	2	41	11	41	4.24	.....	1.58	.....	14	.....	.....	.....	.....	G. G. Townsend.
Grantsville.....	Garrett.....	2,400	3	69.8	+1.7	94	3	37	11	38	7.77	+0.77	4.00	.....	12	5	19	7	S	J. S. Miller.
Green Spring Furnace.....	Washington.....	500	6	78.7	+3.0	104	3	47	11	32	3.42	-0.49	1.12	.....	10	18	12	1	W	E. G. Kinsell.
Hagerstown.....	Washington.....	550	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. C. E. Carl.
Hancock.....	Washington.....	455	.....	77.8	.....	103	3	46	11	37	3.48	.....	2.15	.....	8	8	21	2	E	J. D. Stottemeyer.
Sharpsburg.....	Washington.....	450	4	77.2	+3.6	102	3	48	11	32	4.21	+0.70	2.00	.....	10	17	9	4	NW	R. L. Hiberger.
Smithsburg 1.....	Washington.....	750	1	77.4	+2.6	103	3	49	11	34	1.56	.....	0.93	.....	8	17	9	5	S	Joseph L. Miller.
Smithsburg 2.....	Washington.....	900	.....	78.1	.....	103	3	53	11	30	2.29	.....	0.80	.....	9	16	12	2	SW	Dr. D. W. Crowther.
Sunnyside.....	Garrett.....	2,440	6	69.0	+1.9	93	3	33	11	37	5.56	-0.74	1.19	.....	15	11	0	20	SW	J. G. Knauer.
Westernport.....	Allégany.....	1,000	4	77.0	+3.3	107	3	42	10	43	4.54	+0.34	1.38	.....	13	.....	.....	.....	.....	Prof. O. H. Bruce.
Average.....				75.9	+3.1						3.40	-0.80			10	11	12	5	S	
NORTHERN-CENTRAL MD.																				
Bachman's Valley.....	Carroll.....	860	5	76.8	+2.9	103	3	46	11	34	4.62	+0.80	1.94	.....	8	23	4	4	SE	J. M. Myers.
Baltimore.....	Baltimore.....	123	64	78.8	+1.0	104	3	57	11	28	3.51	-1.29	1.17	.....	8	14	10	7	SE	U.S. Weather Bureau.
Baltimore, J. H. Hospital.....	Baltimore.....	124	4	78.4	+2.9	104	3	55	11	31	2.61	.....	0.90	.....	10	13	13	5	NE	W. L. Woods.
Chase.....	Baltimore.....	20	.....	79.4	.....	98	3	55	10	42	3.70	.....	1.38	.....	6	19	8	4	W	J. W. Crouch.
Darlington Academy.....	Harford.....	300	9	76.4	+1.8	98	3	53	11	28	6.27	+2.27	1.60	.....	7	18	8	5	SW	Prof. A. F. Galbreath.
Fallston School.....	Harford.....	450	30	75.5	+1.4	95	3	52	11	23	3.33	-1.15	1.35	.....	10	4	27	0	S. NE	G. G. Curtiss, A. M.
Frederick.....	Frederick.....	250	26	79.4	+3.6	104	2	52	11	31	1.64	-1.91	0.44	.....	8	12	15	4	S	McClintock Young.
Great Falls.....	Montgomery.....	150	10	77.2	+5.2	100	3	48	11	33	2.42	-0.69	0.94	.....	7	21	0	10	NE	Col. T. A. Bingham.
Kensington.....	Montgomery.....	545	23	78.4	.....	102	3	50	10	35	2.48	.....	1.22	.....	9	.....	.....	.....	.....	G. H. Hicks.
Mt. St. Mary's College.....	Frederick.....	720	38	77.6	+2.4	102	3	55	12	32	3.17	-1.04	0.94	.....	7	9	13	9	NW	J. A. Mitchell, Ph. D.
New Market.....	Frederick.....	550	15	79.7	+2.7	105	3	53	12	32	2.41	-1.87	0.61	.....	12	6	23	2	NW	H. H. Hopkins, M. D.
St. Charles College.....	Howard.....	500	4	77.1	+4.3	101	3	51	11	28	3.73	-0.41	1.25	.....	14	7	16	8	W	Rev. George L. Harig.
Taneytown.....	Carroll.....	495	6	77.9	+0.7	103	3	48	11	32	6.30	+2.09	0.78	.....	9	7	19	5	W	Prof. H. Meier.
Van Bibber.....	Harford.....	20	3	77.2	+0.7	97	3	53	10	29	3.37	-2.49	0.90	.....	12	10	20	1	SW	H. A. Wroth.
Western Maryland Coll.....	Carroll.....	720	4	77.2	+0.7	97	3	53	10	29	3.37	-2.49	0.90	.....	12	10	20	1	SW	Prof. Roland Watts.
Woodstock College.....	Baltimore.....	392	29	78.1	+3.7	102	2	51	11	38	3.15	-0.79	1.02	.....	9	14	10	7	NE	T. J. A. Freeman, S. J.
Average.....				77.9	+2.3						3.51	-0.54			9	13	13	5	SE	
SOUTHERN MARYLAND.																				
Annapolis.....	Anne Arundel.....	20	25	78.6	+0.1	95	2	58	11	27	3.17	-2.11	1.20	.....	8	20	10	1	SE	J. E. Abbott.
Charlotte Hall School.....	St. Mary's.....	167	5	78.1	+2.1	102	3	49	11	38	4.27	+0.39	1.68	.....	9	14	12	3	NE	J. F. Coad.
Cherryfields 2.....	St. Mary's.....	20	.....	77.5	+0.9	.....	.....	.....	.....	.....	7.64	+2.00	2.65	.....	13	6	21	4	SE	Col. J. E. Coad.
Distributing Reservoir 3.....	Dist. of Columbia.....	120	8	79.0	+2.1	98	3	.....	.....	.....	2.31	-1.61	1.02	.....	8	.....	.....	.....	.....	Col. T. A. Bingham.
Jewell.....	Anne Arundel.....	165	11	76.7	+0.9	99	2	53	12	29	3.57	-3.23	1.97	.....	7	19	8	4	SE	J. Plummer.
Laurel.....	Prince George's.....	150	4	78.1	+3.8	104	2	52	11	36	1.72	-4.11	0.90	.....	7	10	16	5	.....	Dr. T. M. Baldwin.
Md. Agricultural College.....	Prince George's.....	170	7	79.1	+5.7	105	2	48	11	36	2.11	-1.30	1.27	.....	4	.....	.....	.....	.....	Prof. J. H. Patterson.
Receiving Reservoir 3.....	Dist. of Columbia.....	160	8	77.9	+1.0	97	3	.....	.....	.....	2.49	-1.30	0.94	.....	6	.....	.....	.....	.....	Col. T. A. Bingham.
Solomon's.....	Calvert.....	20	7	79.0	+1.0	99	2	62	11	27	4.09	+0.61	1.80	.....	10	9	6	16	E	W. H. Marsh, M. D.
Washington.....	Dist. of Columbia.....	112	28	78.8	+2.0	101	2	54	11	28	2.84	-1.70	1.11	.....	10	11	14	6	S	U.S. Weather Bureau.
Average.....				78.3	+2.0						3.48	-1.24			8	13	12	6	SE	
EASTERN MARYLAND.																				
Bertton.....	Kent.....	80	.....	79.1	.....	101	3	58	25	30	4.37	.....	2.08	.....	5	13	11	4	S	E. A. Carey.
Chestertown.....	Kent.....	80	14	77.6	+1.8	97	2	54	11	26	3.05	-1.63	1.28	.....	8	15	15	1	SW	Hon. M. de K. Smith.
Coleman.....	Kent.....	80	.....	78.6	.....	102	2	55	11	32	5.15	.....	2.52	.....	7	15	13	3	NE	James S. Harris.
Denton.....	Caroline.....	42	9	78.6	+3.0	102	2	60	12	28	5.75	+2.47	2.50	.....	4	.....	.....	.....	.....	F. C. Ramsdell.
Easton.....	Talbot.....	35	9	78.4	+2.4	101	2	54	11	31	2.26	-2.25	0.90	.....	7	16	10	5	NE	Henry Shreve.
Mardela Springs.....	Wicomico.....	25	11	75.6	+0.7	98	2	52	14	31	3.91	-1.46	0.52	.....	12	10	11	10	S. SW	A. E. Acworth.
Pocomoke City.....	Worcester.....	37	5	79.4	+1.4	101	2	59	11	26	4.74	+0.32	2.54	.....	9	11	16	4	SE	R. M. Stevenson.
Port Deposit.....	Cecil.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. I. France.
Princess Anne.....	Somerset.....	20	24	76.4	-0.9	95	2	54	11	26	2.12	-3.89	1.18	.....	7	4	23	4	SW	J. R. Stewart.
Queenstown.....	Queen Anne.....	10	.....	77.6	.....	99	2	51	8	35	1.88	.....	1.10	.....	7	19	4	8	SW	Dr. W. K. Carroll.
Rock Hall 1.....	Kent.....	40	.....	78.6	.....	100	2	49	12	27	4.04	.....	1.01	.....	10	18	11	2	S	Chas. N. Satterfield.
Rock Hall 2.....	Kent.....	40	.....	77.5	.....	99	2	49	11	30	3.43	.....	1.00	.....	8	13	12	6	S	Isaac L. Leary.
Sandy Point.....	Worcester.....	12	.....	77.6	.....	97	2	59	8	22	4.74	.....	1.50	.....	8	13	10	8	NE	J. B. Dirickson.
Average.....				77.9	+1.4						3.75	-1.07			8	13	12	5	S. SW	
DELAWARE.																				
Dover.....	Kent.....	40	22	76.8	+0.1	99	3	55	11	28	2.92	-0.78	1.31	.....	8	15	12	4	SW	A. A. Bateman.
Milford.....	Kent.....	20	19	80.0	+3.8	99	3	60	11	25	3.56	-0.55	0.89	.....	8	24	2	5	SW	J. Y. Foulk.
Millsboro.....	Sussex.....	23	6	76.9	+1.0	98	4	59	11	30	6.99	+1.99	2.02	.....	10	13	13	5	NE	Rev. L. W. Wells.
Newark (Delaware Coll.).....	Newcastle.....	135	5	76.6	+1.9	98	3	51	11	29	4.44	+0.32	2.20	.....	8	16	6	9	SW	Prof. W. H. Bishop.
Seaford.....	Sussex.....	40	8	77.2	+2.4	98	2	57	11	24	2.52	-2.72	1.07	.....	4	15	2	14	E	W. T. Wallace.
Average.....				77.5	+1.8						4.09	-0.35			8	17	7	7	SW	
General average.....				77.5	+2.1						3.65	-0.80			9	13	11	6	SW	

CLIMATE AND CROPS: MARYLAND AND DELAWARE SECTION.

JULY, 1898-

TOTAL PRECIPITATION, JULY, 1898.



Daily precipitation for Maryland and Delaware, July, 1898.

Stations.	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.		
WESTERN MARYLAND.																																	
Boettcherville.....				†					.20						.30		.60			.23	.30	.10					.15	.10		.20	.60	2.15	
Boonsboro 1.....				.78					.27										.23	.30	.10						.17	.10			.18	3.66	
Boonsboro 2.....				.80					.28					.04	.03				.04	.12	.31	.11					.23	.09	.03		.41	2.49	
Chewsville.....				.86				.24	.07										.15								.17	.04	.08		.20	1.81	
Clear Spring 1.....				1.45				.12	.38										.10	.37							.33	.26	.04	.10		3.15	
Clear Spring 2.....				1.10				.20	.10						.05	.20	.04	.36	.02		.09						.32	.10	.16	.02	.19	2.42	
Cumberland.....				†																						.02	.05			.06		.51	1.31
Deer Park.....				.21				.28					.17	.24	.15	.74		.20									1.35	.42				3.24	
Frostburg.....				.02				.02					.04	.07	.33	1.58	.10	.02									.35	.20	.05	.10	.07	1.29	2.44
Grantsville.....				.13				.15					.06	.07	.60	.13	4.00		.65							.30	.82		.34	.52	7.77		
Green Spring Furnace.....				1.10				.26					.06	.07	.05			†	.24								1.12	.03		.23	.32	.07	3.42
Hagerstown.....																																	
Hancock.....								.10							.06		.21		.75			.15					.04	.02			.215	3.48	
Sharpsburg.....				.88				†	.06			†	†	.06	.04	.07		.32	.02						†		2.00	.35	.10	†	†	.31	4.21
Smithsburg 1.....				.93				.23											.05	.15					.05		.03	.02			.10	1.56	
Smithsburg 2.....				.86				.35					†	.27	.59	.28	.08	1.19	†	.33		.45					.17	.06	.09	.08	.41		2.22
Sunnyside.....				.08	.47			†	.15				†	.27	.59	.28	.08	1.19	†	.33		.45				†	1.00	.35	.15	.02	†	.15	5.56
Westernport.....				†				.15					.04	.08	.36	.06	.74	.78	†	.12						.43	.05	.17	.18		1.38	4.54	
NORTHERN-CENTRAL MARYLAND.																																	
Bachman's Valley.....				.60				†	.64				†	†	†				.45	.11							.19	.58	.11		†	1.94	4.62
Baltimore.....				.07	.01			†				†	†	†		.01	.01		†	1.17		.51		.06		.03	.51	1.15	†			3.51	
Baltimore, Johns Hopkins Hospital.....				.10															.90	.40	.03			.08			.22	.45	.41			2.61	
Chase.....				1.38															.41		.54	.03					.37	.97				3.70	
Darlington Academy.....				1.60															1.40	.11	.31						.71	1.54				6.27	
Fallston School.....				.08	†	†		.11				†	†	†				†	.53	1.35	.38		.01			†	.49	.28		.06	.04	3.33	
Frederick.....				.41				.29	†			†	†	.03		.01			†	.24	†	.44					.16	†			.06	1.64	
Great Falls.....				.12											.03		.03		.35		.94						.52	.45			.07	2.48	
Kensington.....				.22	†				.12					.03		.02	.03	.84								.04	1.22	.01		.01	†	2.42	
Mt. St. Mary's College.....				.94				.12				†	†	†	†			.10	.02	†	†	†				.89		.67	.10		.15	3.17	
New Market.....				.61				.30	.06			†	†	.03	.03				.35							.57		.19		.02	.48	2.41	
Sandy Spring.....				2.20	.08			.06											.35								.30	.74			.14	1.27	5.14
St. Charles College.....				1.11	.01			.02				†	.01	†	.03			.02	1.01	.02	1.25	.01	.02			.25	.30	.67				3.73	
Tanertown.....				1.32				.57	†			†		.04				1.78	.54							.29	.30	.01				1.45	6.30
Van Bibber.....				.78	.01			.14	.02			†		†			†	†	.23	.46	.90		.10			.21	.35	.18		.05	†	3.37	
Western Maryland College.....																																	
Woodstock College.....				.06				.02							†				.73	1.02			.01				.54	.74	.02	†	.01	†	3.15
SOUTHERN MARYLAND.																																	
Annapolis.....	.05			.04															1.20	.50		†	†	†	†	1.10	.12	.10	.06			3.17	
Charlotte Hall School.....				.05	.23	.27						.12	.03						1.30		.27	†	†	†	†	†	1.98	.02				4.27	
Cherryfields.....				.95	.02	.43		†				.20			.01	.10	.07		1.27		.33	.01	†	†	†	†	.05	1.55	†		†	2.65	7.64
Distributing Reservoir, D. C.....				.28			.04												.13	.04		1.02		.42				.26	.12			2.31	
Jewell.....				†	.40	.10						.12		†		.08			1.97								.80	.10				3.57	
Lake Shore.....																																	
Laurel.....				†		.10									.12	†			.90	.05							.55					1.72	
Maryland Agricultural College.....				.09								†		.01	†	†		1.27										.74	†		†	2.11	
Receiving Reservoir, D. C.....					.24		.05											.08	.04		.94		.31				.07	.76		.07		2.49	
Solomon's.....				.77	.07	.21						.16	†	†		.24	†		1.80					.90			.46	.07	.01		†	4.69	
Washington, D. C.....				.01	.29	.06		†				†	.01	.04	†	.03		.07	1.11		†		†				.86	.36		†		2.84	
EASTERN MARYLAND.																																	
Berlin.....																																	
Betterton.....				.30															.81		1.10	.08					2.08					4.37	
Chestertown.....				.46	†							.04	†	†					.51	.62	.06		.05				1.28	.03				3.05	
Coleman.....				.45	.04														.13		1.60	.21					2.52	.20				5.15	
Denton.....				.50															1.50		2.50											5.75	
Easton.....						.36												.27		.90												2.26	
Mardela Springs.....				.20			1.41						.32					.39			.58						.80	†		.21		3.91	
Ocean City.....																																	
Pocomoke City.....					.17	2.54						.29	.46					.14	.07		1.03			†			.04					4.74	
Port Deposit.....																																	
Princess Anne.....				.36	.04	1.18						.14	.24		.01			.15										†				2.12	
Queenstown.....				.35	.08	.10												.10	.10	.05							†					1.88	
Rock Hall 1.....				.68	.51	.15				.02		†	†	†				.14	.15	.34	1.01	.04										4.04	
Rock Hall 2.....				1.00	.12	.11		†										.20	.26	.90		.09								.75		3.43	
Sandy Point.....				1.04		1.00						1.00	.50	.07					.19								†			.04		4.74	
DELAWARE.																																	
Dover.....					.13	†					†	.55							1.31	.02		.02				.33	.10		.35	.10	.01	2.92	
Milford.....						.59						.59							.76		.13						.89	.18	.42			3.56	
Millsboro.....				.45	.15	.57					.35	.44							.28								1.42	2.02		.41	.90	6.99	
Newark (Delaware College).....				.39					.11										1.49	.07	.0												