

U. S. DEPARTMENT OF AGRICULTURE.

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REPORT FOR SEPTEMBER, 1899.

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MARYLAND AND DELAWARE SECTION  
OF THE  
CLIMATE AND CROP SERVICE  
OF THE  
WEATHER BUREAU.

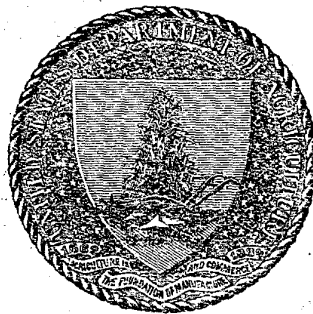
IN COOPERATION WITH THE  
MARYLAND STATE WEATHER SERVICE.

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

PREPARED UNDER DIRECTION OF  
WILLIS L. MOORE,  
CHIEF OF WEATHER BUREAU.

BY

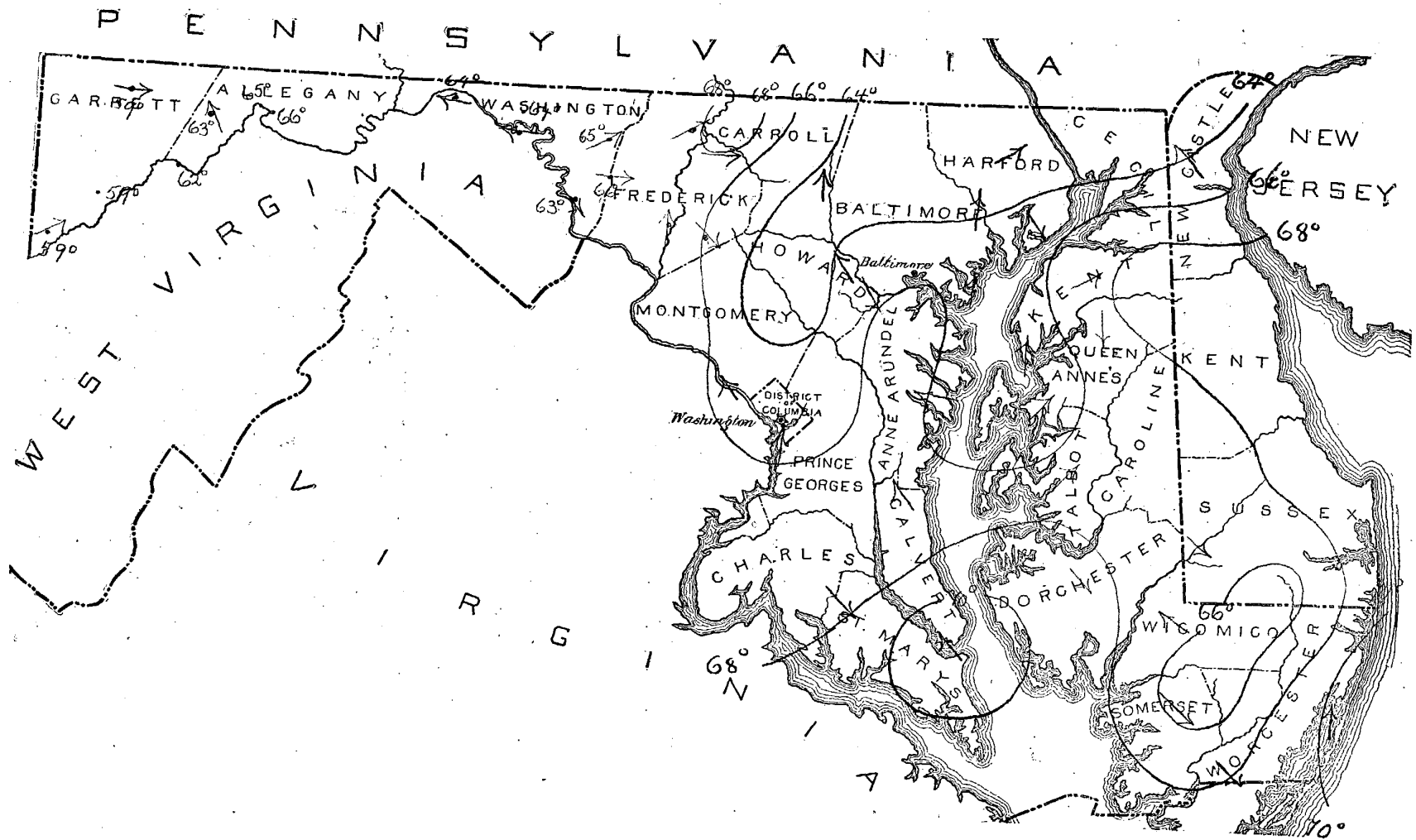
F. J. WALZ,  
SECTION DIRECTOR.



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

1899.

MONTHLY MEAN ISOTHERMS AND PREVAILING WINDS, SEPTEMBER, 1899.



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

OF THE

**WEATHER BUREAU.**

CENTRAL OFFICE: WASHINGTON, D. C.

BALTIMORE, MD.

VOL. IV.

BALTIMORE, MD.

No. 9.

**REVIEW OF THE CROP SEASON.**

The weather conditions of the crop season of 1899 were unfavorable to wheat, rye, timothy, clover, potatoes, and peaches. Other crops did well, and gave average to abundant yields.

Winter grain and grasses suffered to some extent from lack of snow protection during December and January. They were saved from irretrievable injury during the extreme cold of February 9th to 15th by the heavy snows that fell at that time, but as the snow melted the ground underwent repeated freezings and thawings, and as a result the crops were much damaged; and, although the late spring and early summer were favorable, the yields of wheat, rye, and hay were light, considering the Section as a whole. Wheat yielded best in southern and eastern Maryland, but in the north-central counties, where the larger part of the crop is raised, the crop was much below the average. Hay was of good quality in all districts, and the yield was satisfactory in Western Maryland, but elsewhere it was light. The February cold killed all the peaches, except in a very few orchards situated on the shore line, and reduced the pear crop about one-half. Apples escaped injury, and have given, or will give, abundant yields over the greater portion of the Section. Plums also yielded well.

Oats were planted late owing to a backward spring, but were favored in their growth by the weather conditions that afterward prevailed, and gave fine yields in all districts.

Tobacco experienced an unbroken period of favorable weather for bedding, field planting and growth, until the severe wind and hail storm of August 2d, which was very destructive in portions of the tobacco growing districts, especially in St. Mary's County, where the crop was entirely ruined in some localities. As a whole, however, the crop has been large and saved in fine condition.

Corn prospects were threatened several times during the period of growth by lack of rainfall, but showers followed the dry periods before permanent injury had been sustained. Unusually fine yields of early corn have been obtained in many districts, and generally throughout the Section the crop is above the average. Late corn promises good returns, and it is hardly likely that the prospect will be changed by the weather conditions yet to come. (This promise has been fully realized.)

Both the early and late potato crops suffered on account of the dry weather periods that occurred during the season, and the yields were shortened in consequence. Tomatoes yielded remarkably well, and the canning factories were running day and night during the height of the season. The strawberry crop was excellent, and the berries of large size and fine quality. Watermelons and cantaloupes yielded abundantly; early in the season they

were very good, but later the heavy rains impaired their flavor somewhat.

The harvesting seasons were exceptionally favorable, and all crops, whatever their yield, were saved in good condition.

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**INTERCHANGE OF STANDARD CLIMATIC DATA.**

ALEX. G. McADIE, New Orleans, La.

As a first premise let us agree that the climatic data of a State or section, as now published in the monthly bulletins, are of sufficient accuracy to warrant use in the scientific discussion of the many problems in agriculture, engineering, and hygiene, daily brought to the meteorologist for solution. If it be conceded that the material already available is of this character, a plea for the increase and diffusion of such matter needs but a presentation of suitable methods to be acceptable.

Doubtless every director realizes the necessity of keeping himself informed of the climatic conditions of other sections as well as his own. Especially must he follow the conditions of districts competing with his own in the markets of the nation. We are all aware how carefully reports of the yield of wheat in Russia, Argentina, and Australia are studied in the United States. The value of our own yield is largely dependent upon conditions existing elsewhere. What is true on the large scale, is true on the small one where different sections are concerned. The conditions in Kansas concern the grain grower in California and *vice versa*.

In the National Crop Bulletin, the information is available in convenient form each week of the growing season. So well is the work accomplished that suggestions for improvement are not easily made. Perhaps, those most interested, the farmers themselves, do not get the full benefit of the information. Possibly it may occur to some one present to suggest a remedy. We admit, though cheerfully, that little more can be desired with regard to the collection and dissemination of standard crop data during the season. The effect of climatic conditions upon crops, while easily chief among the interests of the community, is not the only matter of importance. Manufacturing and the mechanical arts have their place in a publication like the monthly bulletin, and their importance should not be underestimated. In all sections, there are constant calls for rain data from railroad engineers, from electrical engineers, and from mechanical engineers. These calls are now generally answered by letter containing the data desired. Could not such data be preserved permanently by publication and made to serve a larger clientele? Again, there is much scattered information in the possession of each section director which should be published. For example, the fact that magnificent crops can be grown on certain soils in California, with a rainfall which would be considered totally inadequate in many sections, is of interest to every farmer as illustrating the fact that amount of rainfall is not the only matter to be considered in connection with crop yield. The character of the soil, and the mechanical action in the soil, may be of almost equal importance with either the intensity or frequency of rain. Information of this character is just what intending

settlers most wish to know, and to give such information is a proper function of climate and crop work. In the Year Book of the Department for 1897 instances are given where certain crops are grown without irrigation. In southern California "Less than an inch of rain," says Whitney (p. 432), "falls on an average during the five months of the growing season from May to September."

Furthermore, an interchange of data between climate and crop sections, whenever abnormal or unseasonable conditions prevail, would be of value. Imagine a physician about to send a patient to a locality ordinarily well suited in the matter of climatic conditions to bring about recovery. If the patient is sent thither at a time when abnormal conditions prevail, he might experience the very conditions he desired to avoid. Such abnormal periods happen. In California the rainy season—the winter—was almost wholly without the usual rain in 1897-98, and the coldest weather known for years was experienced in some sections. If section directors were in a position to know where abnormal conditions are prevailing, physicians consulting them would certainly appreciate the importance of the information.

Finally, there is room in every bulletin for items of scientific interest. Many reprint short notes, extracts, etc., from the Monthly Weather Review. Could not some plan be devised whereby standard matter could be prepared, and, as in the syndicated articles of the daily press, illustrated, if necessary, and sent to the various sections? To make this more plain, imagine an article on frost, properly illustrated with half tones showing effective smudging apparatus, frosted fruit, and the topography of frost belts. No individual director would care to stand the expense of illustrations; but if made in quantity and distributed among twenty, each would cheerfully pay his small proportional share. Such a system would also encourage directors to bring forward papers showing peculiar climatic conditions in their respective sections.

Some one may say that work of the character described is now performed by the Monthly Weather Review. The answer to this is that the circulation of the Monthly Weather Review must of necessity be restricted to three or four thousand copies. The combined circulation of the monthly bulletins approximates twenty-five thousand and is constantly increasing. Furthermore, the readers of the Monthly Weather Review are different from the readers of the bulletins, and what is suited for one class is not for the other. The fields covered are not the same.

We conclude, then, that in the monthly bulletins we have the means for the successful dissemination of valuable climatic data. Can we, by cooperation, improve the good work now being done?

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#### CLIMATOLOGY OF THE MONTH.

##### ATMOSPHERIC PRESSURE—IN INCHES AND HUNDREDTHS.

Monthly mean at Washington, D. C., 30.06; at Baltimore, 30.06; average, 30.06; highest, 30.42 at Washington, D. C., and at Baltimore, on the 16th; lowest, 29.70 at Baltimore, on the 26th.

##### TEMPERATURE—IN DEGREES FAHRENHEIT.

The monthly mean (entire territory), 65.8, is 2.5 below the normal.

The highest monthly mean was 71.4, at Solomons.

The lowest monthly mean was 58.6, at Deer Park and Grantsville.

The highest temperature recorded during the month was 99, at Frostburg, on the 3d and at Solomons, on the 6th.

The lowest temperature recorded during the month was 25, at Sunnyside, on the 25th.

The greatest local monthly range was 65, at Hancock and Sunnyside.

The least local monthly range was 37, at Cambridge.

The greatest daily range was 46, at Hancock, on the 5th.

The least daily range was 4, at Cumberland, on the 19th.

##### PRECIPITATION—IN INCHES AND HUNDREDTHS.

The monthly average (entire territory) 4.34, was 1.17 above the normal.

The greatest amount was 9.43, at McDonogh.

The least amount was 0.77, at Sandy Point.

The greatest amount in twenty-four hours was 5.35, at St. Charles College, on the 26th and 27th.

The average number of rainy days, 7.

##### WIND.

The prevailing direction was from the southwest.

The total movement was 3,362 miles, at Baltimore, and 4,145 miles, at Washington, D. C.

The maximum wind velocity was 34 miles per hour from the northwest, at Washington, D. C., on the 25th.

##### MISCELLANEOUS.

The following are dates on which miscellaneous phenomena occurred:

*Thunderstorms.*—Annapolis, 26; Bachman's Valley, 2, 8, 25; Baltimore, 2, 8, 25; Boettcherville, 1, 2, 7, 8, 25; Boonsboro, 3, 8, 25; Cambridge, 11, 19, 26; Charlotte Hall, 25; Chestertown, 23, 25; Chase, 25; Chewsville, 1, 8, 25; Fallston, 9, 25; Frederick, 2, 8, 25; Frostburg, 25; Green Spring Furnace, 2, 25; Jewell, 25; Laurel, 2, 25; Mt. St. Mary's, 2, 8; Newark, Del., 8, 23, 25; New Market, 25; Princess Anne, 9, 20, 21; Queenstown, 1, 8, 25; Rock Hall, 2, 25, 26; Sharpsburg, 25; Solomons, 6, 8, 9, 19, 23, 25; Taneytown, 2, 8, 25; Sunnyside, 2, 7, 8, 25; Washington, 2, 25; Woodstock, 2, 8, 25.

*Frost, light.*—Annapolis, 29; Bachman's Valley, 27; Boettcherville, 28, 30; Boonsboro, 30; Charlotte Hall, 28; Chestertown, 15, 27, 30; Chase, 27, 28; Chewsville, 27; Cumberland, 29; Darlington, 28; Frederick, 28, 29; Frostburg, 14, 15, 28; Grantsville, 14, 15, 28; Green Spring Furnace, 14, 15; Harney, 26, 30; Laurel, 28, 29; Mardela Springs, 29, 30; Md. Agricultural College, 30; Milford, Del., 28; Millsboro, Del., 15, 27, 28; Mt. St. Mary's, 28; Newark, Del., 28; New Market, 14, 15, 22, 26, 28; Pocomoke City, 15, 16, 22, 27; Princess Anne, 15; Queenstown, 14; Seaford, Del., 28; Sharpsburg, 28; Taneytown, 15; Sunnyside, 14, 15, 28; Van Bibber, 27, 30; Washington, 15, 27, 28.

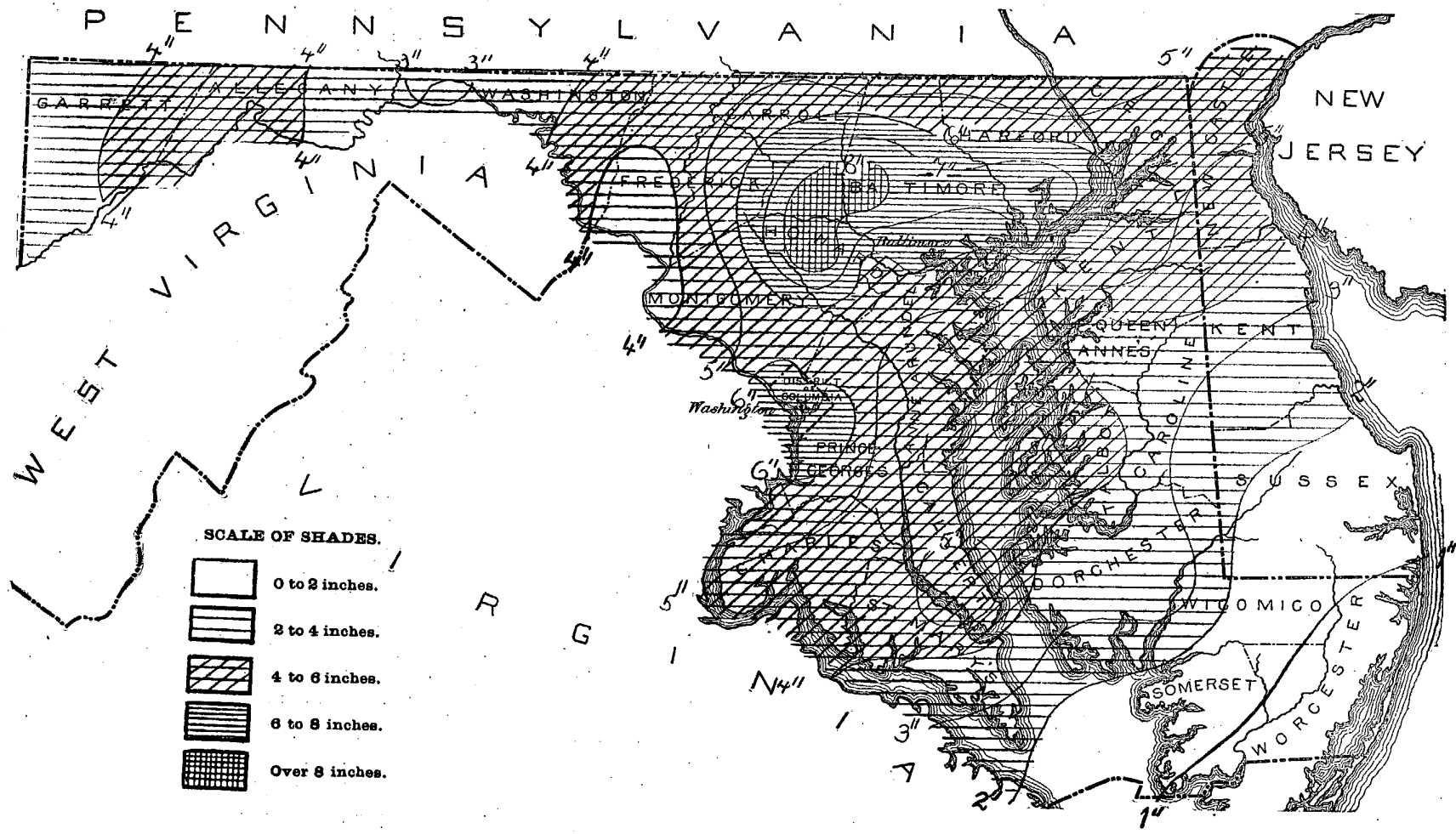
*Frost, killing.*—Annapolis, 30; Cumberland, 28, 29, 30; Darlington, 30; Deer Park, 14, 15; Frostburg, 30; Princess Anne, 28; Taneytown, 28, 30; Sunnyside, 30.

Climatological data for Maryland and Delaware, September, 1899.






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.			
<b>WESTERN MARYLAND.</b>																					
Boettcherville.....	Allegany.....	780	9	65.4	+0.4	97	5	33	28	39	4.26	+1.56	2.10	.....	8	.....	.....	.....	.....	.....	F. F. Brown.
Boonsboro a.....	Washington.....	600	1	66.0	.....	94	8	38	28	38	3.64	.....	1.18	.....	8	15	14	1	W	.....	C. E. Huntzberg.
Boonsboro b.....	Washington.....	800	1	64.6	.....	91	6	69	3	34	4.68	.....	1.15	.....	9	15	12	3	SW	.....	W. A. Henneberger.
Chewsville.....	Washington.....	530	1	63.6	.....	91	9	36	30	33	3.75	.....	1.03	.....	9	24	5	1	.....	.....	Samuel L. Ford.
Clear Spring.....	Washington.....	590	1	66.0	.....	88	6	34	30	29	4.26	+1.53	2.18	.....	9	8	7	15	.....	.....	E. I. Oswald.
Cumberland.....	Allegany.....	722	40	56.0	-2.9	88	6	35	22	38	3.05	+0.10	3.05	.....	9	6	.....	.....	.....	.....	W. W. Frantz.
Deer Park.....	Garrett.....	2,457	8	58.6	-1.9	88	6	35	22	38	3.05	+0.10	3.05	.....	9	6	.....	.....	.....	.....	Howard Shriver.
Frostburg.....	Allegany.....	2,200	4	63.2	.....	99	3	36	30	39	4.47	.....	2.08	.....	15	20	0	10	SE	.....	Mrs. G. G. Townsend.
Grantsville.....	Garrett.....	2,400	4	58.6	-4.5	86	6	31	28	40	3.77	+0.96	1.66	.....	6	12	12	6	W	.....	J. S. Miller.
Green Spring Furnace.....	Washington.....	450	7	64.4	-3.6	94	8	36	30	38	3.03	+0.25	1.04	.....	7	21	8	1	E	.....	E. G. Kinsell.
Hagerstown.....	Washington.....	552	8	64.4	.....	97	8	32	28	46	2.89	.....	1.03	.....	4	9	16	4	E	.....	Prof. C. E. Carl.
Hancock.....	Washington.....	455	1	63.3*	-4.6	92	6	39	28	32	4.04	+2.16	1.33	.....	8	14	5	6	NW	.....	J. D. Stottlemeyer.
Sharpsburg.....	Washington.....	420	5	63.3*	-4.6	92	6	39	28	32	4.04	+2.16	1.33	.....	8	14	5	6	NW	.....	R. L. Hibberger.
Smithsburg a.....	Washington.....	750	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Joseph L. Miller.
Smithsburg b.....	Washington.....	900	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. D. W. Crowther.
Sunnyside.....	Garrett.....	2,440	1	58.8	-2.4	90	7	25	38	42	3.76	+0.70	1.53	.....	9	16	10	4	SW	.....	J. G. Knauer.
Westport.....	Allegany.....	1,000	5	62.0	-5.0	90	6	29	30	31	4.05	+1.65	1.87	.....	10	.....	.....	.....	.....	.....	Prof. O. H. Bruce.
Average.....	.....	.....	.....	63.0	-3.1	.....	.....	.....	.....	.....	3.83	+1.11	.....	.....	8	15	9	5	SW	.....	.....
<b>NORTHERN-CENTRAL MD.</b>																					
Bachman's Valley.....	Carroll.....	860	6	62.8	-2.2	86	8	37	28	32	7.28	+3.67	2.27	.....	8	23	4	3	S	.....	J. M. Myers.
Baltimore.....	Baltimore.....	123	65	67.0	-1.0	94	6	42	30	29	7.09	+3.86	2.90	.....	10	17	10	3	SE	.....	U. S. Weather Bureau.
Baltimore, J. H. Hospital.....	Baltimore.....	112	5	66.0	-3.6	94	6	41	27	32	7.21	.....	2.25	.....	10	21	6	3	SW	.....	W. L. Woods.
Chase.....	Baltimore.....	25	1	65.0	.....	93	6	37	28	41	5.75	.....	1.93	.....	6	15	13	2	S	.....	J. W. Crouch.
Darlington Academy.....	Harford.....	339	10	64.4	-2.3	86	6	40	28	27	4.75	+1.14	1.79	.....	10	8	20	2	S	.....	Prof. A. F. Galbreath.
Fallston School.....	Harford.....	450	31	63.7	-1.9	87	6	40	27	28	7.29	+2.97	3.00	.....	10	8	20	2	S	.....	G. G. Curtiss, A. M.
Frederick.....	Frederick.....	275	27	66.3	-0.3	91	6	39	28	30	3.93	+0.49	1.10	.....	9	17	9	4	S	.....	McClintock Young.
Great Falls.....	Montgomery.....	200	11	65.4	-3.1	90	9	38	28	31	4.27	+1.20	2.21	.....	5	20	0	10	SE	.....	Washington Aqueduct.
Harney.....	Frederick.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Warren Hill.
McDonogh.....	Baltimore.....	.....	.....	64.2	-1.3	88	6	42	2	34	9.43	+5.94	3.80	.....	7	21	2	7	.....	.....	W. T. Purdum.
Mt. St. Mary's College.....	Frederick.....	720	39	65.4	-0.6	90	6	40	17	36	5.48	+1.88	1.50	.....	5	13	8	6	SW	.....	J. A. Mitchell, Ph. D.
New Market.....	Frederick.....	550	16	65.2	-0.9	85	1	40	30	34	5.29	+1.51	0.91	.....	9	13	15	2	NW	.....	H. H. Hopkins, M. D.
St. Charles College.....	Howard.....	500	5	65.2	-4.1	90	6	38	24	34	9.35	+5.35	5.35	.....	8	13	8	9	NW	.....	Rev. George L. Harig.
Takoma Park.....	Montgomery.....	.....	.....	66.9	.....	95	6	40	30	38	5.95	.....	2.86	.....	.....	.....	.....	.....	.....	.....	G. A. Warren.
Taneytown.....	Carroll.....	490	7	68.6†	-0.3	.....	.....	38	28	35	4.86	+1.62	1.63	.....	7	13	15	2	NW	.....	Prof. H. Meier.
Van Bibber.....	Harford.....	22	4	63.9	-3.1	88	6	41	27	31	7.00	+4.31	1.89	.....	10	16	8	6	NW	.....	H. A. Wroth.
Walbrook.....	Baltimore.....	.....	.....	65.6	.....	91	6	41	27	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. J. Walz.
Western Maryland Coll.....	Carroll.....	720	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Cleveland Abbe, Jr.
Woodstock College.....	Baltimore.....	392	30	64.0	-1.1	88	8	37	28	31	5.96	+2.39	2.47	.....	9	20	7	3	SE	.....	T. J. A. Freeman, S. J.
Average.....	.....	.....	.....	65.3	-1.8	.....	.....	.....	.....	.....	6.18	+2.79	.....	.....	8	17	9	4	SW	.....	.....
<b>SOUTHERN MARYLAND.</b>																					
Annapolis.....	Anne Arundel.....	45	26	67.8	-1.7	91	8	42	30	28	4.25	+0.53	1.90	.....	6	11	18	1	E	.....	J. E. Abbott.
Charlotte Hall School.....	St. Mary's.....	167	6	66.6	-5.1	95	6	39	28	31	4.36	+3.11	1.83	.....	6	19	10	1	S	.....	J. F. Coad.
Distributing Reservoir.....	Dist. of Columbia.....	120	9	67.2	-1.7	90	6	42	30	26	5.39	+3.22	2.52	.....	5	.....	.....	.....	.....	.....	Washington Aqueduct.
Jewell.....	Anne Arundel.....	165	12	66.4	-3.1	93	6	42	30	26	4.81	+1.12	1.92	.....	6	22	6	2	SE	.....	J. Plummer.
Laurel.....	Prince George's.....	150	5	65.6	-3.9	95	6	37	28	32	5.49	+3.20	2.20	.....	6	14	12	4	.....	.....	Dr. T. M. Baldwin.
Md. Agricultural College.....	Prince George's.....	170	8	63.8	-5.3	87	2	36	28	35	5.45	+3.01	2.35	.....	6	12	13	5	.....	.....	Prof. J. H. Patterson.
Receiving Reservoir.....	Dist. of Columbia.....	160	9	66.8	-1.3	90	6	40	28	30	6.78	+4.25	2.70	.....	.....	.....	.....	.....	.....	.....	Washington Aqueduct.
Solomon's.....	Calvert.....	20	8	71.4	-0.9	99	6	47	27	27	5.17	+3.22	3.45	.....	10	15	6	9	SE	.....	W. H. Marsh, M. D.
Washington.....	Dist. of Columbia.....	112	29	65.7	-2.0	94	6	41	30	31	6.14	+2.64	2.71	.....	10	19	6	5	S	.....	U. S. Weather Bureau.
Average.....	.....	.....	.....	66.8	-2.8	.....	.....	.....	.....	.....	5.32	+2.70	.....	.....	7	16	10	4	S	.....	.....
<b>EASTERN MARYLAND.</b>																					
Berlin.....	Worcester.....	.....	.....	69.0†	.....	85	.....	48	15	26	4.30	.....	2.25	.....	4	12	2	.....	NW	.....	Dr. E. J. Dirickson.
Cambridge.....	Dorchester.....	.....	.....	66.0	-1.9	89	6	43	28	24	5.27	+2.28	2.62	.....	9	19	8	4	N	.....	J. A. Jordan.
Chestertown.....	Kent.....	80	15	68.7	.....	90	6	42	28	30	7.45	.....	2.62	.....	9	18	8	4	SW	.....	Hon. M. de K. Smith.
Coleman.....	Kent.....	80	1	68.7	.....	90	6	42	28	30	7.45	.....	2.62	.....	9	18	8	4	SW	.....	James S. Harris.
Denton.....	Caroline.....	42	10	67.4	-1.6	93	6	41	15	39	4.33	+2.16	2.78	.....	8	20	8	2	SW	.....	F. C. Ramsdell.
Easton.....	Talbot.....	35	10	67.4	-1.6	93	6	41	15	39	4.33	+2.16	2.78	.....	8	20	8	2	SW	.....	Henry Shreve.
Mardela Springs.....	Wicomico.....	25	12	67.0	-1.2	92	5	40	28	33	3.68	+0.25	1.07	.....	7	16	9	5	SE	.....	A. E. Acworth.
Ocean City.....	Worcester.....	10	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. M. Scott.
Pocomoke City.....	Worcester.....	37	6	68.4	-3.9	94	6	43	28	32	0.80	-2.37	0.36	.....	4	23	2	5	NW	.....	R. M. Stevenson.
Port Deposit.....	Cecil.....	25	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. I. France.
Princess Anne.....	Somerset.....	20	25	65.8	-3.8	94	6	35	28	43	1.40	-1.39	0.63	.....	6	8	22	0	NW	.....	J. R. Stewart.
Queenstown.....	Queen Anne.....	20	1	66.2	.....	90	6	39	30	34	4.03	.....	2.60	.....	9	17	12	1	SW	.....	Dr. W. K. Carroll.
Rock Hall a.....	Kent.....	20	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. N. Satterfield.
Rock Hall b.....	Kent.....	25	1	65.0	.....	90	6	41	15	32	3.37	.....	1.49	.....	8	19	8	3	S	.....	Isaac L. Leary.
Sandy Point.....	Worcester.....	12	1	70.6	.....	95	3	42	27	41	0.77	.....	0.50	.....	3	24	0	6	S	.....	



TOTAL PRECIPITATION, SEPTEMBER, 1899.



**SCALE OF SHADES.**

-  0 to 2 inches.
-  2 to 4 inches.
-  4 to 6 inches.
-  6 to 8 inches.
-  Over 8 inches.

Daily precipitation for Maryland and Delaware, September, 1899.

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.					
<b>WESTERN MARYLAND.</b>																																				
Boettcherville		.11					.10	.20			2.10									.72	.04				.95					.04			4.26			
Boonsboro <sup>a</sup>			.35						.15		.83									1.18	.39				.61					.22			3.64			
Boonsboro <sup>b</sup>											1.15															.92							4.68			
Chewsville	1.05							.13		.11	.57	.23	.02							.88	.39					.26				.18			3.75			
Clear Spring	.61	.12						.10	.20		2.18									.40	.38					.78				.19			4.26			
Cumberland							.20				1.57									.85	.18					.10	.15				.07			3.05		
Deer Park							.11	.01	.19		2.08		.05							.58	.15	.09				.57	.31	.04		.07	.02			4.47		
Frostburg	.05	.15					.46	.04			1.66									.65						.78							3.77			
Grantsville	.26								.13		1.04										.99	.39					.20				.17			3.08		
Green Spring Furnace		.08									1.50									1.03		.16								.20			2.89			
Hagerstown											.91									.91	.39	.39				.14	.56			.26			4.04			
Hancock											1.50																									
Sharpsburg											.54		.91																							
Smithsburg <sup>a</sup>																																				
Smithsburg <sup>b</sup>																																				
Sunnyside		.02	†					.19	.27			.53								1.00	.03					.22	.20	.19			.11			3.76		
Westport	.15	.01						.16	.22		.87	.07	.02							.89	†					.62	.04							4.05		
<b>NORTHERN-CENTRAL MARYLAND.</b>																																				
Bachman's Valley	1.36							.27			1.40										.90	.70	.38			1.30	.97			†				7.28		
Baltimore	.60							.11			.27									1.18	1.62	.33				2.14	.76			.04	.04			7.09		
Baltimore, Johns Hopkins Hospital	.85	.05									.66	.06	.28								2.28	.60					2.85				.15			7.21		
Chase								.41			1.49	.33									1.93	.60					1.10				.26			5.75		
Darlington Academy											.68										1.78	.93	1.57											4.75		
Fallston School	.02							.53		.43			†							.01	.95	1.07				1.11	1.89			.05	.23			7.29		
Frederick	.11							†	.21	.01	.88										1.10	.66	.23			1.08	.25			†				3.93		
Great Falls																																				
Harney	.10								.07		.83	.03									1.75	.25				1.10				.10				4.23		
McDonogh			.10					2.60			.59										1.65	.68				3.80				.10				9.33		
Mt. St. Mary's College	.63								1.25																	.95				1.50				5.48		
New Market	.38								.50		.76										.69	.85	.51			.57	.91			.12				5.29		
St. Charles College	.31								.53		.59										1.53	†	1.02			1.87	3.48			.02				9.35		
Takoma Park	.06									.80											1.64	.44					2.86			.15				5.95		
Taneytown	.84									†			.68		.07						1.63	.32				1.29				.03				4.86		
Van Bibber	.40	.02							1.07		.47										1.89	.69	.28			1.86	.06			.26				7.00		
Western Maryland College																																				
Woodstock College		.67							.40		.55										1.20	.55	.01				2.45	.02			.11				5.96	
<b>SOUTHERN MARYLAND.</b>																																				
Annapolis											.60										1.90	.25				.40	.80			.30				4.25		
Charlotte Hall School											.55										1.83		.49			†	.85	.43		.21				4.36		
Distributing Reservoir, D. C.																																				
Jewell		†							.03		.55										1.78		.30			1.92	†		.23					4.81		
Laurel								.08			.78										2.00		.39			2.20			.13					5.49		
Maryland Agricultural College																																				
Receiving Reservoir, D. C.																																				
Solomon's									†	.14	†	.50									3.00	.45	.36			†	.57	1.10		.05				5.17		
Washington, D. C.	.02								.02		.69										1.07	.99	.52			1.10	1.61		.10	.02				6.14		
<b>EASTERN MARYLAND.</b>																																				
Berlin											.65										2.25															
Cambridge											.39																.85								*4.30	
Chestertown	.02								.65		.11										2.90	.35				1.05	.10		.10					5.67		
Coleman	.69								2.62		.67										1.85		.56						.26						7.45	
Denton																																				
Easton				.04						.07	.35																									
Mardela Springs		†						.11			.55																								4.33	
Pocomoke City											.26																								3.68	
Port Deposit																																				0.80
Princess Anne										.14	.32																								1.40	
Queenstown	.08	.04									.32										2.60	.16	.02				.74	.02			.05				4.03	
Rock Hall <sup>a</sup>																																				
Rock Hall <sup>b</sup>		.39									†	.37									.09	1.40	.29				.24	.37							3.37	
Sandy Point										.02	.50										.25														0.77	
Sudlersville																																				
<b>DELAWARE.</b>																																				
Milford									.22		.33																								2.36	
Millsboro									.05		.62																								1.57	
Newark (Delaware College)									.26		.71										1.38	.97	.52				.80			.16					5.27	
Seaford									.09		.42																									2.05
Wyoming																																				

† Trace, when precipitation is less than 0.01 inch.

\* Incomplete record.