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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR FEBRUARY, 1900.

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

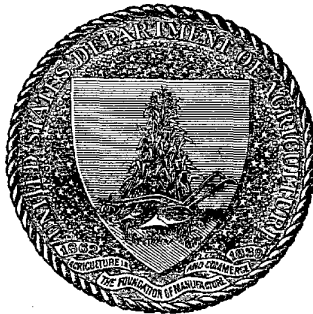
WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

BY

F. J. WALZ,

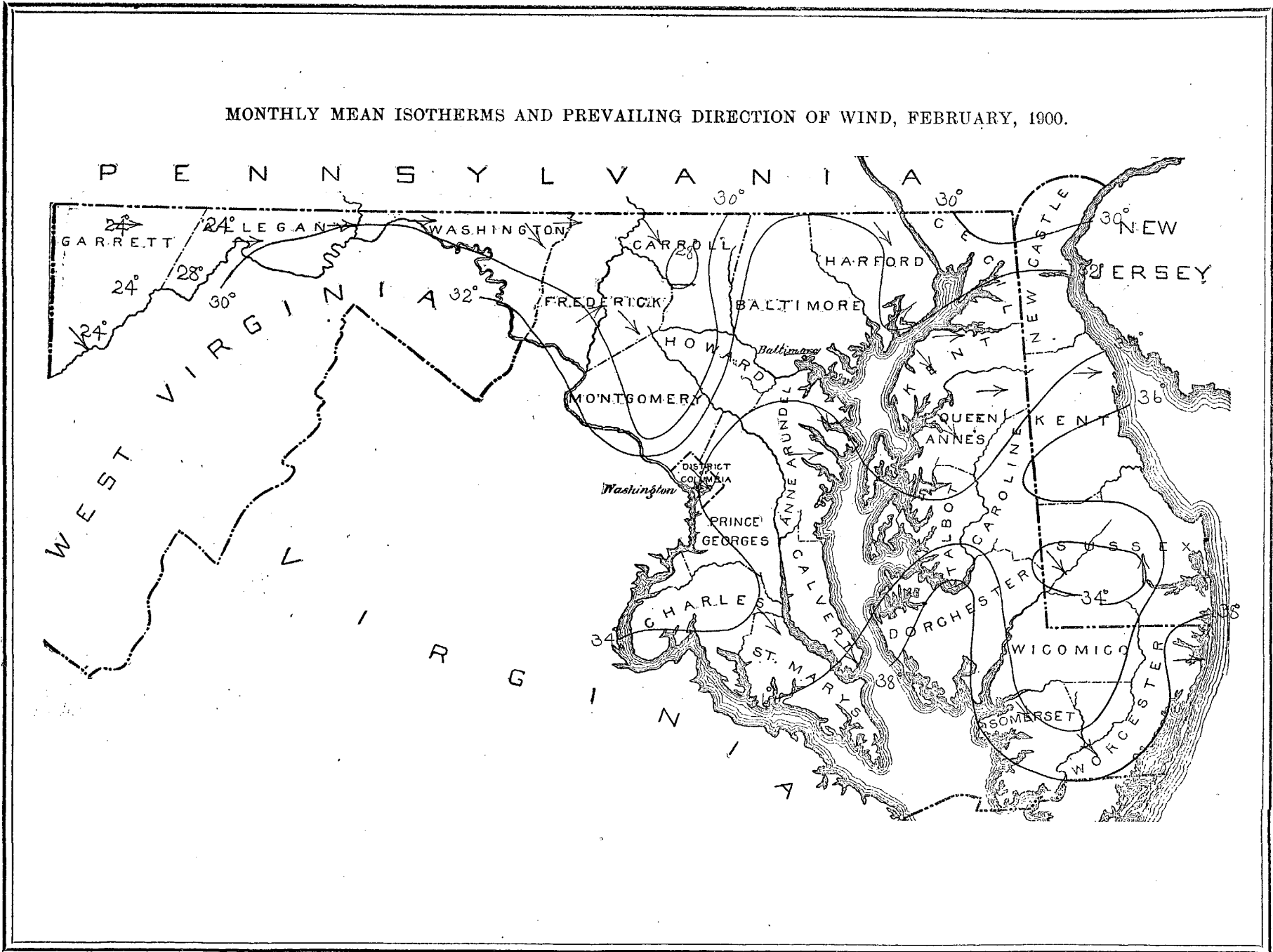
SECTION DIRECTOR.



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

1900.

MONTHLY MEAN ISOTHERMS AND PREVAILING DIRECTION OF WIND, FEBRUARY, 1900.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

BALTIMORE, MD.

Vol. V.

BALTIMORE, MD.

No. 2.

MARYLAND CLIMATE AND PEACH GROWING.

The comparative mildness of the past winter has revived the hopes of the peach growers of Maryland. Danger to their crop is not entirely past, but it is probable that no severe cold waves will follow, and that any later frosts can be met by protective measures such as were described in the April number of this bulletin.*

The loss of the peach crop for three successive seasons has caused much apprehension as to the future of this industry, and many growers have asked seriously whether or not the climate of their generally favored section has not undergone a radical and permanent change.

In reply to this, it may be stated that there is positively no evidence obtainable that the climate of this region has changed to a measurable degree since its first settlement. Meteorological observations have been made in Maryland and Delaware for over a century. These records are broken at intervals, but they afford a fairly accurate and complete account of the temperature and rainfall for that length of time.

A wide range of weather conditions may be expected in this section during even a short residence. This is a natural characteristic of our climate. We lie near the main storm track of the eastern United States, and seldom fail to fall within the influence of atmospheric disturbances, coming either from the far Northwest, the Middle Plateau, or the Gulf of Mexico. The transient atmospheric disturbances—the "highs" and "lows" following each other in rapid succession—cause the unstable weather of this region. The pioneers, for the most part accustomed in their native countries to a more equable climate, were prone to dwell on hot spells, cold winters, droughts, etc., such as, in their past experience, had never been known. It is evident from their own figures, however, that the marked extremes recorded left an impression of duration that was not warranted, for we find the next generation repeating the story of unprecedented weather phenomena, despite the fact that in the earlier, middle, and later series of observations there will be found about the same extremes of heat and cold.

The severe cold waves of winter are produced in this section by areas of high pressure that move from west to east across the country, and usually have their origin in the far northwest, beyond the limits of present observation. In some

years these areas are either lacking in intensity, or else their paths are so far to the north that we escape their full effects; in such seasons the winters are mild. In other years the highs are either of great energy, or it may be that they pass to the southward of their usual line of progress, and rigorous winters are the result.

It is evident, then, that a theory of climatic change is not required to account for the meteorological events of the past three years. It is only reasonable to expect that mild winters, such as we have had in the past, will occur again, and that disastrous freezes will from time to time equal those of recent experience. Even in those countries where the sequence of weather phenomena takes place with almost unbroken regularity, very abnormal conditions will occasionally afford exceptions to the rule. A recent example occurred in California, where the rainy season—the winter—was almost wholly without rain in 1897-'98, and the coldest weather for years was experienced in parts of that State.

To return to the subject of peach culture, it is well to remember that the crop in this section is subject to many adverse conditions beside that of climate. Just to what extent these several factors have combined to affect the yearly output, may be gathered from the following statements of reliable growers, furnished in response to letters of inquiry from this office.

COLEMAN, Md., February 26, 1900.

I have been practically interested in the peach crop here for the last forty years, and my experience and observation lead me to think that there has been no general climatic change in that time to affect the crop. During all that time, whenever the thermometer would drop lower than 7° or 8° below zero, the crop here would be a general failure except in a small strip along the bay where the temperature seemed to be influenced a few degrees by the water, and this frequently saved the peaches for a half mile to a mile inland. It has several times occurred that very low temperatures have fallen on very calm nights, when they would kill the buds in the low ground but not injure them much on the tops of high hills. After such calm low temperatures at blooming time, there would not be a blossom left in the valleys and low level grounds nor until an altitude near the tops of the hills was reached where they would begin and form a straight line, above which there would be a good bloom and a crop of peaches only on the very highest ground. If the wind was blowing during the very low temperatures, this marked line of killed and live buds would not appear, but after calm cold weather I have seen the line of bloom as straight as a wire could be stretched, above which would be bloom and fruit, below neither bloom nor fruit. During all these years I am satisfied that the greater number of failures of the peach crop has been caused by late frosts after early blooming—sometimes produced by open, warm winters bringing out the bloom prematurely, and the usual cold of April would then kill the young peach in the bud or blossom after the bloom opened; sometimes after blooming at their normal time (which is about April 15th here), there will be unusually late frosts that will kill. Taking any five years together, I do not think the above-mentioned crop-killing conditions have occurred any oftener during the last fifteen years than at any other part of my over forty years of experience in peach raising, during which I have planted in orchards over sixty thousand peach trees. The increasing frequency of failures of the Peninsula peach crop is brought about by other causes

* See also, "Notes on Frost," by Prof. E. B. Garriott—Farmers' Bulletin No. 104, 1899.

than change of climate, I am satisfied. The situation has been, and is, about in this way: Twenty to thirty years ago, and longer, a very large part of the Peninsula was covered with healthy peach orchards, and in many years the weather would be favorable for a full crop over the entire area; an enormous crop would ripen, only the best of which would be marketed, while tens of thousands of baskets would go to waste. In other years the weather conditions would be favorable in the upper and not favorable in the lower, or favorable in the lower and not favorable in the upper end of the Peninsula; then the crops on the favored part of the area would be more closely marketed, owing to the better prices prevailing, and to market people and consumers there would appear to be a full crop. But during the last fifteen years the deadly disease of peach yellows has almost utterly destroyed the orchards of the upper and most of those of the middle Peninsula, leaving but a small remnant of healthy peach orchards, mainly on the middle and lower Peninsula. The largest peach-growing sections—that is, the sections that produced the bulk of the crop twenty-five and thirty years ago—cannot grow orchards at all owing to the deadly nature and prevalence of this disease. One of the causes of increased failures lies in this fact. Supposing the climate to be the same that it always has been, when those years come that furnish unfavorable conditions for a crop on the lower Peninsula and favorable in the upper, there are no trees on the upper end to bear a crop, and consequently there is a general failure. Among other causes of such frequent short crops are the increased swarms of insects, mainly the curculio; these have increased with the increase of orchards that began years ago, but while the orchards have since declined in number, these pests remain to sting and destroy much more extensively the fruit on the fewer number of trees. In these three facts are to be found the main causes for the increased frequency of peach failures.

JAMES S. HARRIS.

(Letter of Mr. R. S. Emory will be published in next issue.)

* *

GENERAL CONDITIONS.

The salient features of the weather for February were the low temperatures that prevailed during the first and last few days; the snowstorms of the 17th–18th (the heaviest of the winter) and of the 25th; and two thunderstorms, reported at various stations on the 4th and 24th. Dense fogs were prevalent in the coastal region on the 8th.

The general snowstorm of the middle of the month was beneficial to wheat, but February as a whole was open, and some damage resulted from freezings and thawings, and in the lowlands from heavy rains. Peaches were slightly damaged by frost in the western counties, and the condition of winter wheat is hardly as favorable as a month ago in that section. Elsewhere there has been but little change in the outlook since January.

* *

CLIMATOLOGY OF THE MONTH.

ATMOSPHERIC PRESSURE.

Monthly mean at Washington, D. C., 30.06 inches; at Baltimore, 30.04 inches; average, 30.05 inches; highest, 30.73 inches, at Washington, D. C., on the 27th; lowest, 29.27 inches, at Baltimore, on the 22d.

TEMPERATURE.

The monthly mean (entire territory), 33.5°, is 1.4° below the normal.

The highest monthly mean was 38°, at Sandy Point.

The lowest monthly mean was 23.2°, at Sunnyside and Frostburg.

The highest temperature recorded during the month was 72°, at Deer Park and Sunnyside, on the 8th.

The lowest temperature recorded during the month was –15°, at Sunnyside and Deer Park, on the 27th.

The greatest local monthly range was 87°, at Sunnyside and Deer Park.

The least local monthly range was 46°, at Cambridge.

The greatest daily range was 55°, at Sunnyside, on the 20th.

The least daily range was 0°, at Easton, on the 16th, and at Sandy Point, on the 2d.

PRECIPITATION. in inches and hundredths.

The monthly average (entire territory), 4.66, was 1.14 above the normal.

The greatest amount was 8.22, at Bachman's Valley.

The least amount was 2.28, at Cumberland.

The greatest amount in twenty-four hours was 2.80, at Bachman's Valley, on the 22d.

The average number of rainy days, 9.

WIND.

The prevailing direction was from the northwest.

The total movement was 4,547 miles, at Baltimore, and 5,957 miles, at Washington, D. C.

The maximum wind velocity was 40 miles per hour from the northwest, at Washington, D. C., on the 13th.

MISCELLANEOUS PHENOMENA.

Thunderstorms.—Baltimore, 4, 24; Harney, 21; Solomons, 4; Sunnyside, 24.

Hail.—Boettcherville, 21; Milford, 10; Princess Anne, 25; Woodstock, 28.

Sleet.—Boettcherville, 21; Fallston, 6; Frostburg, 20; Laurel, 6; Mount St. Marys, 24; Smithsburg b, 28; Sunnyside, 22.

Fog (dense).—Cambridge, Chase, Jewell, St. Charles College, 8; Laurel, 8, 12; Millsboro, 11, 12; Princess Anne, 8, 10; Queenstown, 7, 8, 9; Rock Hall, 9; Solomons, 8, 12; Van Bibber, 8, 21; Woodstock, 4, 8, 12.

Lunar Halo.—Green Spring Furnace, Laurel, Taneytown, 14; Clear Spring, 8, 9, 11, 14; Hancock, 9, 11; Jewell, 7, 14; Millsboro, 7, 8; Mount St. Marys, 8, 11; Smithsburg b, 9, 10, 14; Solomons, 9, 14; Washington, D. C., 9, 14.

Solar Halo.—Green Spring Furnace, 9, 10, 20; Jewell, 17, 20; Princess Anne, 26; Smithsburg b, 11; Washington, D. C., 20, 24.

Aurora.—Princess Anne, 1, 2.

Navigation blocked by ice.—At Queenstown, 1, 2, 3, 4, 5, 26, and 27.

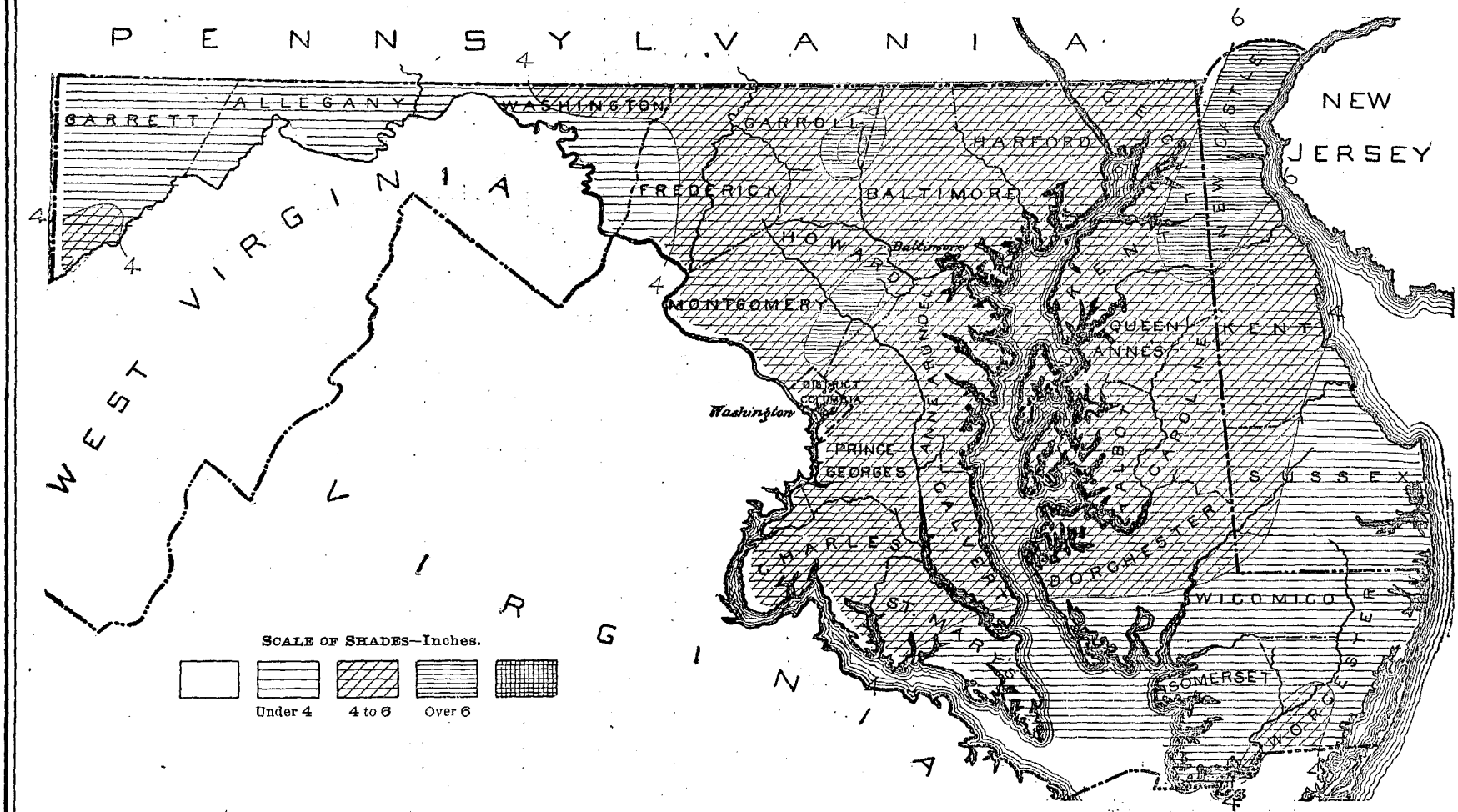
ERRATA.

December, 1899, Report: Pages 5 and 8.—Total precipitation at Hagerstown, 1.70, should read 2.07. Page 5.—Precipitation at Harney, 1.02, should read 2.24; number rainy days, 4, should read 5. Page 8.—Precipitation at Hagerstown on the 19th, 1, should read .37. Precipitation at Harney on the 12th, 7, should read .20; on the 19th, 2, should read .42; total, 1.62, should read 2.24.

Climatological data for Maryland and Delaware, February, 1900.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.					Sky.				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.		Prevailing direction of wind.
WESTERN MARYLAND.																			
Boettcheville.....	Allegheny.....	780	10	31.7	+0.7	66	8	-5	1	39	2.58	-0.34	0.95	4.0	6	.....	.....	.....	F. F. Brown.
Boonsboro a.....	Washington.....	600	2	30.8	.....	60	8	2	1	33	3.50	.....	1.14	10.0	8	13	6	9	W.
Boonsboro b.....	Washington.....	800	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. E. Huntzberg.
Chewsville.....	Washington.....	530	2	31.2	.....	61	10	-4	21	40	3.82	.....	0.98	8.0	7	12	11	5	nw.
Clear Spring.....	Washington.....	500	2	28.2	.....	54	16	6	1	45	4.17	.....	1.65	6.0	10	15	8	5	.....
Cumberland.....	Allegheny.....	722	41	30.1	-6.4	59	8	2	25	29	2.28	-0.44	1.09	2.5	6	6	2	20	w.
Deer Park.....	Garrett.....	2,457	9	24.4	+3.1	72	.....	-15	27	54	3.29	+0.46	0.95	17.0	9	.....	.....	.....	W. W. Frantz.
Frostburg.....	Allegheny.....	2,200	5	23.2	.....	63	.....	-4	1	33	.....	.....	.....	7.0	.....	12	0	16	w.
Grantsville.....	Garrett.....	2,400	7	24.1	-1.8	69	.....	-10	27	46	3.88	-0.10	0.70	10.0	11	3	8	17	w.
Green Spring Furnace	Washington.....	450	8	30.0	-1.7	53	15	1	2	34	.....	.....	.....	6.0	.....	13	4	11	e.
Hagerstown.....	Washington.....	552	9	30.6	-4.2	59	13	0	20	35	4.14	+0.78	1.28	6.0	9	13	7	8	nw.
Hancock.....	Washington.....	455	2	29.3	.....	57	13	0	20	35	3.32	.....	1.03	6.0	9	7	8	13	nw.
Sharpsburg.....	Washington.....	420	2	31.6	+1.4	60	.....	4	20	31	3.81	+0.70	0.88	8.5	11	7	8	13	nw.
Smithsburg a.....	Washington.....	750	2	30.3	.....	63	9	-3	20	37	3.59	.....	1.33	6.0	8	1	19	8	w.
Smithsburg b.....	Washington.....	900	2	30.0	.....	63	9	-1	25	37	4.18	.....	1.56	6.8	8	10	8	10	w.
Sunnyside.....	Garrett.....	2,440	8	23.2	-1.5	72	8	-15	27	55	5.28	+0.28	1.08	13.0	13	6	5	17	nw.
Westernport.....	Allegheny.....	1,000	6	27.8	-1.0	60	8	3	24	35	3.60	+1.41	1.07	4.2	8	.....	.....	.....	Prof. O. H. Bruce.
Average.....	.....	.....	.....	28.5	-1.3	.....	.....	.....	.....	.....	3.67	+0.34	.....	7.7	9	10	7	11	w.
NORTHERN-CEN. MD.																			
Bachman's Valley...	Carroll.....	860	7	28.8	-0.3	56	9	0	2	28	8.22	+4.40	2.80	12.0	10	15	6	7	nw.
Baltimore.....	Baltimore.....	123	60	33.1	-3.0	65	13	8	1	47	4.65	+1.11	0.99	13.0	13	7	10	11	w.
Baltimore, J. H. Hosp.	Baltimore.....	112	6	30.9	-1.1	60	13	5	1	41	6.45	.....	1.60	21.0	12	13	3	12	nw.
Chase.....	Baltimore.....	25	2	32.0	.....	60	13	-3	19	40	6.02	.....	1.26	14.0	10	9	10	9	e.
Darlington Academy.	Hartford.....	339	11	31.2	+1.0	61	13	3	2	30	5.42	+2.22	1.57	11.0	6	11	10	7	nw.
Fallston School.....	Hartford.....	450	32	31.4	-1.0	61	13	4	2	42	5.57	+1.50	1.36	11.8	14	6	14	8	sw.
Frederick.....	Frederick.....	275	28	32.4	-1.5	57	13	6	2	27	4.52	+1.65	0.81	10.0	12	11	9	8	w.
Great Falls.....	Montgomery.....	200	12	30.6	-3.0	67	9	-2	26	46	4.66	+1.63	1.40	.....	9	18	0	10	ne.
Harney.....	Frederick.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.70	6.0	11	12	7	9	.....
McDonogh.....	Baltimore.....	.....	.....	31.6	-2.3	62	13	3	1	35	5.03	+1.49	1.40	.....	5	23	1	4	.....
Mt. St. Mary's College	Frederick.....	720	40	29.2	-3.4	59	13	1	1	31	4.91	+1.71	1.70	8.0	11	9	14	5	sw.
New Market.....	Frederick.....	550	17	30.3	-2.9	59	13	3	2	27	.....	.....	.....	.....	10	10	8	8	nw.
St. Charles College.....	Howard.....	500	6	30.8	-6.4	65	13	2	2	34	6.41	+2.59	1.48	13.0	9	13	7	8	se.
Takoma Park.....	Montgomery.....	.....	.....	33.4	.....	67	13	4	2	45	6.69	.....	1.54	17.5	12	.....	.....	.....	Rev. A. Warren.
Taneytown.....	Carroll.....	490	8	29.7	-2.7	55	13	4	1	31	4.21	-0.87	1.40	7.2	13	5	13	10	nw.
Van Bibber.....	Hartford.....	22	5	30.3	-2.7	58	13	8	1	41	5.82	+1.40	1.77	.....	11	11	6	11	sw.
Walbrook.....	Baltimore.....	.....	.....	.....	.....	65	13	4	2	29	.....	.....	.....	.....	.....	.....	.....	.....	Prof. H. Meier.
West'n Maryland Coll.	Carroll.....	900	6	30.4	-1.8	58	5	3	1	35	5.08	+1.44	1.38	11.0	6	.....	.....	.....	F. J. Walz.
Woodstock College.....	Baltimore.....	392	31	31.9	-1.0	63	13	5	2	44	4.39	+0.98	1.24	19.7	11	10	9	9	nw.
Average.....	.....	.....	.....	31.1	-2.1	.....	.....	.....	.....	.....	5.45	+1.76	.....	12.6	10	11	8	9	nw.
SOUTHERN MARYLAND																			
Annapolis.....	Anne Arundel...	45	27	34.0	-1.6	64	13	5	25	31	4.62	+0.98	1.30	.....	9	12	5	11	w.
Charlotte Hall School	St. Mary's.....	167	7	34.2	-0.7	70	13	3	1	37	4.44	+1.27	1.60	8.0	7	12	11	5	nw.
Distributing Reservoir	Dist. of Columbia	120	10	33.6	-0.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	.....	.....	.....	Washington Aqueduct
Jewell.....	Anne Arundel...	165	13	34.5	-1.0	67	8	4	1	47	5.00	+2.04	1.55	15.0	6	12	7	9	nw.
Laurel.....	Prince George's..	150	6	33.2	-1.5	70	8	3	2	37	5.12	+1.90	1.50	16.0	8	8	9	11	.....
Md. Agricultural Coll.	Prince George's..	170	9	33.0	-1.6	64	8	4	2	35	5.69	+1.69	1.46	9.0	8	15	2	11	.....
Receiving Reservoir	Dist. of Columbia	160	10	33.3	-0.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	.....	.....	.....	Prof. J. H. Patterson.
Solomon's.....	Calvert.....	20	9	35.4	-0.3	62	8	9	1	32	3.51	-0.46	0.77	9.0	9	9	6	13	nw.
Washington.....	Dist. of Columbia	112	30	34.0	-1.0	69	13	6	2	37	5.26	+1.62	0.94	.....	12	10	7	11	nw.
Average.....	.....	.....	.....	33.9	-1.0	.....	.....	.....	.....	.....	4.66	+1.17	.....	11.0	9	11	7	10	nw.
EASTERN MARYLAND.																			
Berlin.....	Worcester.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cambridge.....	Dorchester.....	.....	.....	37.6	.....	68	15	11	1	36	.....	.....	.....	.....	10	3	15	.....	Dr. E. J. Dirickson.
Chestertown.....	Kent.....	80	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. A. Jordan.
Coleman.....	Kent.....	80	2	.....	.....	66	14	.....	.....	.....	5.64	.....	1.53	11.0	8	16	3	9	w.
Denton.....	Caroline.....	42	11	35.9	+2.9	65	14	5	2	38	4.39	+0.43	1.25	14.5	9	0	16	12	e.
Easton.....	Talbot.....	35	11	33.7	-1.2	65	13	7	2	37	4.89	+1.18	1.31	10.0	10	13	10	5	nw.
Mardela Springs.....	Wicomico.....	25	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. C. Ramsdell.
Ocean City.....	Worcester.....	10	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Henry Shreve.
Pocomoke City.....	Worcester.....	37	7	36.9	-0.9	66	13	10	2	34	3.98	+0.10	0.98	.....	11	9	13	6	nw.
Fort Deposit.....	Cecil.....	25	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. E. Acworth.
Princess Anne.....	Somerset.....	20	26	35.3	-3.6	67	13	5	2	36	3.76	0	0.76	10.5	12	3	17	8	nw.
Queenstown.....	Queen Anne.....	20	2	33.5	.....	63	13	7	25	26	5.58	.....	1.40	14.0	13	12	9	7	nw.
Rock Hall a.....	Kent.....	20	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. W. K. Carroll.
Rock Hall b.....	Kent.....	25	2	33.8	.....	61	13	5	2	42	4.91	.....	1.14	10.0	9	9	7	12	nw.
Sandy Point.....	Worcester.....	12	2	38.0	.....	60	9	9	1	45	.....	.....	1.40	14.0	6	12	1	14	w.
Sudlersville.....	Queen Anne.....	.....	2	35.1	.....	65	13	5	2	46	6.39	.....	1.64	14.0	13	10	8	10	w.
Average.....	.....	.....	.....	35.6	-0.6	.....	.....	.....	.....	.....	4.94	+0.57	.....	11.0	10	9	9	10	nw.
DELAWARE.																			
Milford.....	Kent.....	20	21	36.4	+1.5	69	13	6	2	30	3.16	-1.30	1.30	.....	12	18	0	12	ne.
Millsboro.....	Sussex.....	23	8	33.0	-1.4	61	9	4	2	47	3.14	-1.12	0.68	.....	11	13	5	10	s.
Newark (Del. Coll.)...	Newcastle.....	136	7	30.8	+0.5	59	13	4	2	36	6.18	+2.90	1.95	8.5	12	9	8	11	w.
Seaford.....	Sussex.....	40	10	34.6	-0.4	66	13	7	2	39	4.49	+0.62	1.03	11.0	8	10	6	12	nw.
Wyoming.....	Kent.....	.....	2	34.0															

TOTAL PRECIPITATION, FEBRUARY, 1900.



Daily precipitation for Maryland and Delaware, February, 1900.

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.																																					
Boethcheville.....				.45				.60				.95				.30	.10					.18														2.58	
Boonsboro.....				.23				.45				.91				.20	.33					1.14	.03		.20											3.50	
Chewsville.....				.39				.58				.94				.80						.98		.16												3.82	
Clear Spring.....								.85	.08			.09	.82	.03		.50	.10					1.65	.04		.01											4.17	
Cumberland.....				.42				.62				1.09					.15																			2.28	
Deer Park.....				.49			.15					.95				.20	.50	.30					.10	.40	.20											3.29	
Frostburg.....												.16	.70			.35	.10					.30	.25	.26												3.88	
Grantsville.....				.50	.30	.36	.60					.16	.70			.35	.10					.30	.25	.26												3.88	
Green Spring Furnace.....												.16	.70			.35	.10					.30	.25	.26												3.88	
Hagerstown.....				.38				.38				.90				.50						1.28	.70													4.14	
Hancock.....				.35				.53				.96	.08			.36						1.03	†													3.32	
Sharpsburg.....					.24			.46				.80				.20	.65	.50				.88	†	.08												3.81	
Smithsburg.....				.12				.48				.40	†			.20	.40	.50				.50	1.33	.16												3.59	
Smithsburg b.....				†	.20			.53				.55	.74			.20	.28					†	1.56	†	.12											4.18	
Sunnyside.....		.20		.41	.45	.26		.54	.10			.34	1.08			.25	.35					.59	.42	.29												5.28	
Westernport.....							1.07					.02	.90	.15			.38	.05				.39														3.60	
NORTHERN-CENTRAL MARYLAND.																																					
Bachman's Valley.....				.60	.45			1.00				.87	1.30			.20	.80					.20	2.60		†	.20										8.22	
Baltimore.....				.53	.59	†		.33	†			.46	.99			.10	.26	.04				.40	.54	.01	.15	.25										4.65	
Baltimore, Johns Hopkins Hosp.					1.00			.01	.25	.25		.04	1.60	.07		1.00	1.10					.95	.05		.13											6.45	
Chase.....								.47				.36	1.16			.20	1.00	.20				1.00	.05	.32												6.02	
Darlington Academy.....								.41				1.57				.47						1.42	†	.22												5.42	
Fallston School.....				†				.09	1.27	†		.37	1.36			.05	.35	.01				†	1.34	.11	†	.20										5.57	
Frederick.....				.42	.02			.03	.37			.50	.77			.24	.81					.62	.70	.13												4.62	
Great Falls.....					.85			.45	.12			.05	.90			.55	.12					1.40		.12												4.56	
Harney.....								.50				.70				.85						1.25		.20												5.30	
McDonogh.....				.35				1.08				.70				1.40						.60														4.63	
Mt. St. Mary's College.....				.35	.02			.42				.55	.57			.20	.40	.20				.30	1.70		.20										4.91		
New Market.....												.22																								4.91	
St. Charles College.....					.97			.71				.61	1.20			.60	.70				1.16	1.48														6.61	
Takoma Park.....					.92	.01		.46				.06	1.37	.05	†		.95	.80				1.54	.05	.28												6.49	
Taneytown.....					.60			.46				1.40				.17						1.21														4.21	
Van Bibber.....				1.33				.24	.26			1.77	.15			.23	.26					1.04	.09	.25												5.82	
Western Maryland College.....				.60				.30				1.38				.10						1.70														5.08	
Woodstock College.....				.75				.34				.02	1.05	.02		.35	.48					1.24	.02	.08	.04											4.39	
SOUTHERN MARYLAND.																																					
Annapolis.....				1.30				.60				.20				.12						1.00	.20		.30											4.62	
Charlotte Hall School.....				1.60								.39	1.10			.20	.50					.55	†		.10											4.44	
Distributing Reservoir, D. C.					.81			.37	.03			.03	1.30	.04		.24	.26					.18	1.00		.13											4.39	
Jewel.....				1.55				.26				†	1.55										.89		.13	†										5.80	
Laurel.....				1.25				.50				1.27				.30						1.30	.05		.25											5.12	
Maryland Agricultural College.....				1.05				.50				1.46				.60	.30					1.20		.25												5.60	
Receiving Reservoir, D. C.....					.75			.44				.10	.17			.27	.05					1.35		.15												3.28	
Solomon's.....				.77		.01		.16				†	.53	.54		.33	.42					.60		.15	†											3.51	
Washington, D. C.....				.69	.24	†		.40				†	.51	.86		.36	.64	.03				.34	.59	.11	.14											5.26	
EASTERN MARYLAND.																																					
Cambridge.....																																					
Chestertown.....																																					
Coleman.....				1.18				.42				1.53	.19			.16	.80					1.10		.21	.05												5.64
Denton.....				.75					.16			†	.68	.10		.40	.50	.40				1.25		.15													4.39
Boston.....				1.31				.32				†	1.02	.10		.40	.91					1.00		.33													4.89
Mardela Springs.....																																					
Pocomoke City.....					.98	.02						.34				.98							.51		.45												3.98
Port Deposit.....																																					
Princess Anne.....																																					
Queenstown.....				.41	†			.25				.06	.40	.76		.30	.45	.10					.29	.40		.08	.26										3.76
Rock Hall a.....				1.40		†	.20	.23			.05	.10	1.10	.15		.40	.50					1.10	.02		.30											5.58	
Rock Hall b.....																																					
Sandy Point.....				.50			.30					1.40				.20	.20																				3.60
Sudlersville.....				1.64				.50				1.30				1.37						1.25		.33													6.39
DELAWARE.																																					
Milford.....					.87			.40				.04		.40		*						1.30				.15										3.16	
Millsboro.....				.50				.20				.02	.25	.55		.25	.35								.68		.34										3.14
Newark (Delaware College).....				1.14				.41	.02				.95			.75						1.71	.04	.02													6.18
Seaford.....				.62		†		.38			†		.98			.98						1.03		.50													4.49
Wyoming.....																																					