

U. S. DEPARTMENT OF AGRICULTURE,

REPORT FOR MARCH, 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

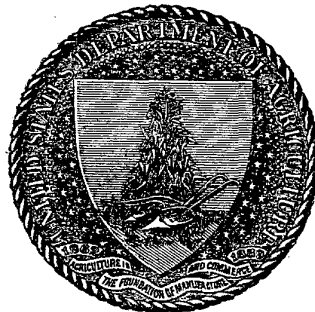
WILLIS L. MOORE,

CHIEF OF WEATHER BUREAU.

BY

F. J. WALZ,

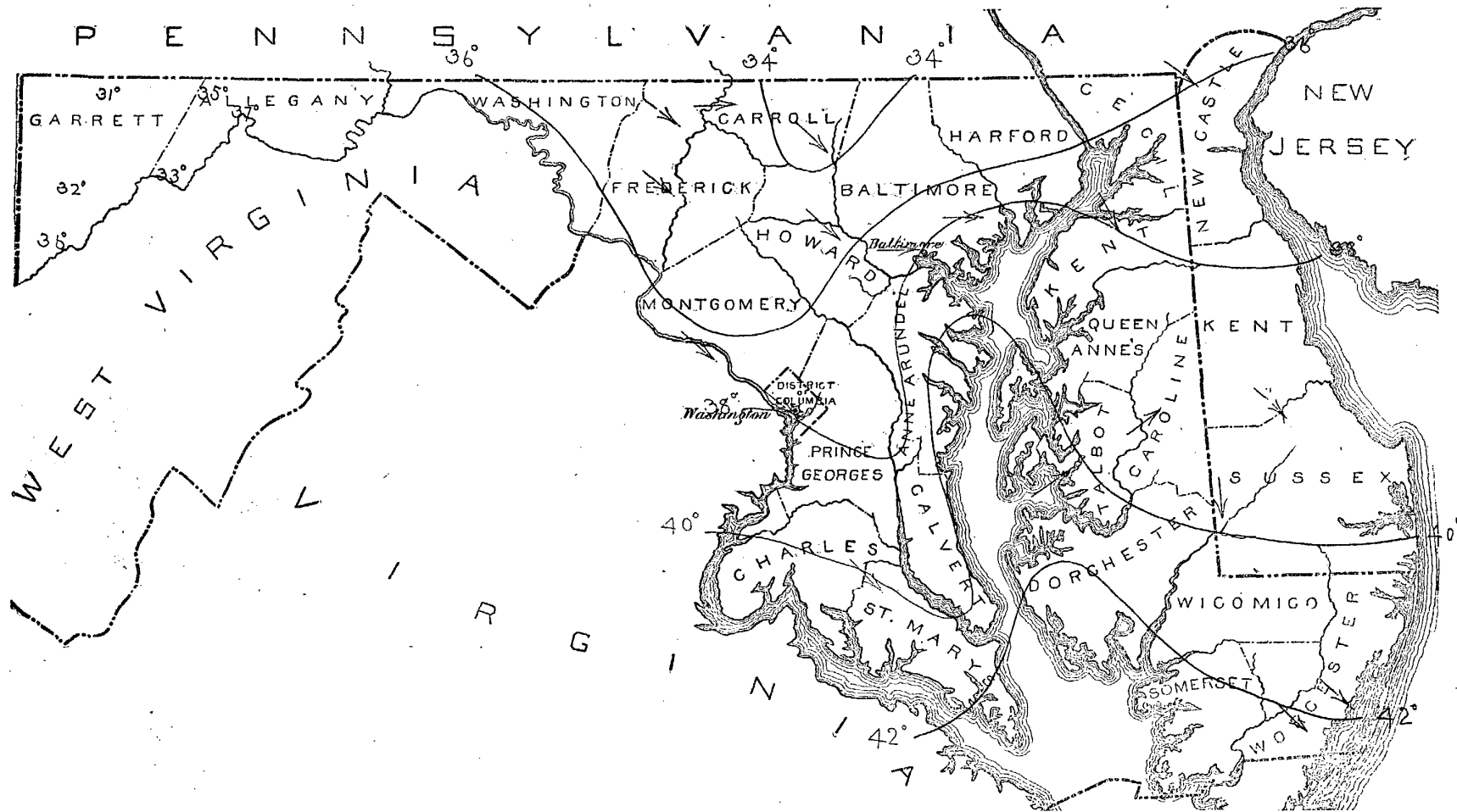
SECTION DIRECTOR.



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

1900.

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



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

OF THE
WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

MARYLAND AND DELAWARE SECTION,

F. J. WALZ, Section Director.

Vol. V. BALTIMORE, MD. No. 3.

MARYLAND CLIMATE AND PEACH GROWING.

(Continued from last issue.)

CHESTERTOWN, MD., February 23, 1900.

I attribute our recent failures of the peach crop: (1) To severe weather conditions both in midwinter and early spring; (2) largely of late to insect pests and fungi; (3) to want of food, particularly noticeable in the season of 1899. In my orchard of 10,000 trees there were plenty of peaches on good land, many trees breaking down with fruit; but where the land was from ordinary to poor I had from some fruit to none, according to the quality of the soil. Our climate may have changed somewhat, but not enough to affect our peach crop as materially as it has been. We have had a full crop in late spring, and it was entirely destroyed by curculio—particularly, I think, in 1894—and I have known numbers of crops destroyed by the same insect. The yellows and other diseases had just begun to develop here, and we were in great fear of total annihilation as in other places, but the State came to our aid just in time to save us, and our State officers have banished all fear from that source. That they and their assistants could go over the whole State in two years and instruct and assist every one, was impossible, for some places required many days. But in spite of time lost in long trips and during bad weather, they have the trouble in a great measure under control. Furthermore, the growers themselves know now how to suppress it, and if they do not do so, the sooner we are rid of them and their trees the better.

R. S. EMORY.

* *

PROFIT IN FRUIT.

The Balance Sheet of a Small Maryland Peach Farm.

(W. B. Stottlemeyer in Review of Reviews.)

One of the most profitable agricultural industries of Maryland is that of peach growing. Thousands of acres on both the Eastern and Western Shores are given to the cultivation of peaches in order to meet the great demand created by Baltimore and Philadelphia markets. Not more than twenty years have elapsed since the birth of this thriving industry, for it is only possible since transportation has been facilitated by a network of railroads, yet within this period perhaps half of the farms in many counties of the State have abandoned wheat and corn and the ordinary agricultural

products, except for home consumption, and are now entirely devoted to peach growing.

Our peach orchard of 30 acres is situated in the Western Maryland peach belt, two miles from station, and has best slope for sure crop. These 30 acres were purchased in 1885 at \$70 per acre and planted in peach trees at once.

Of course varieties had to be selected, and to the uninitiated this would be a difficult task, as so many things have to be taken into consideration. For this section of the country we had previously learned that late varieties were the best in quality, stood shipping well, and commanded the highest prices in the city markets. Among the preferable late varieties selected we planted the Salway, Crawford's Late, Heath Cling, and Heath Freestone. We used great care in the purchasing of trees. This is of vital importance, for trees that are unsound when young will soon produce a diseased orchard. Many of the prevalent diseases are due to the careless nurserymen.

Our trees cost \$45 per thousand, though at the same time we would have been able to have procured the same varieties at some other nurseries for a great deal less. The shipping and planting cost us \$60.78 for the 30 acres. We planted 100 trees to the acre, thus giving sufficient room for cultivation. Our outlay, including machinery and incidentals, thus far was as follows:

Land,	\$2100 00
Trees,	135 00
Planting, etc.,	60 78
Machinery,	170 07
Incidentals,	4 04
Total,	\$2469 89

For four years the orchard was cultivated thoroughly, while only slight crops were realized the third and fourth years.

The fifth year we realized a fairly good crop, and during 14 years we secured six crops from the orchard. The average age of a healthy peach orchard in this section of the country ranges from 10 to 16 years, and generally a good crop is realized every other year.

By careful records kept we find that the average amount of fruit grown upon each tree for the six crops was two and eight-ninths crates, or a little over two and a half bushels. Of course the quantity varies very much. A large healthy tree often yields five, eight, ten, or even more bushels, but during the fourth year hardly any of the trees yield more than a peck apiece. Thus on an average each one of our trees produced 15 bushels during its lifetime. In fact, the orchard produced 44,364 bushels of saleable fruit.

From the sale of these 44,364 bushels we realized a net gain, over picking, crating, shipping, commission, express, etc., of \$46,361.07. The net profit per bushel would thus be a little over \$1, but in fact this varies from 5 cents to \$6 and \$8 per bushel.

Our expenditures were heavy, for the trees had to be well cultivated and fertilized during the 10 years of productiveness. Cultivation, including superintendence, amounted to

\$1320, while the fertilizer bills footed up \$769. Our expenses included also interest on capital and taxes during the period of 14 years.

The following gives an exact statement of expenditures and net returns:

Net returns for peach sales,		\$46,361 07
Land,	\$2,100 00	
Trees,	185 00	
Planting, etc.,	60 78	
Machinery,	170 07	
Cultivation,	1,320 00	
Fertilizers,	769 00	
Taxes,	312 06	
Interest,	2,520 90	
Incidentals,	11 88	
Total,		7,399 69
Profits,		\$38,961 38

Taking the difference between these two columns, we have an almost fabulous gain of \$38,961.38. This may seem a large gain to one not acquainted with the business, but we feel confident that other peach growers realized very much larger returns from their healthy orchards than we did.

* *

CLIMATIC AND CROP CONDITIONS.

The climatic and crop conditions for the Maryland-Delaware Section during the month of March show a generally backward season.

In Western Maryland the snow falls did not remain on the ground long enough to fully protect wheat and grass from the alternate thawing and freezing of the month. The clover seeding has been damaged by the "heaving" of the frozen ground, particularly in low, poorly-drained lands. The peach crop has escaped serious damage up to the present time. The ground has been too wet for extended farming operations and the season's work is not so far advanced as usual.

In Northern-Central Maryland the large snow fall has proved favorable to the wheat crop except on low-lying lands. The clover seeding has been hurt to some extent by "heaving." The month was too wet for general farm operations.

In Southern Maryland the wheat is generally looking well. The fruit outlook is in the main favorable, though some peach orchards lying back from tide-water in the higher land are reported as damaged by frost. Truck operations have been delayed by wet weather, but early potatoes have been planted and oats and peas sowed. The tobacco beds are being seeded.

In Eastern Maryland and Delaware the wheat is in fair condition though some areas report a yellowing. The peach outlook is favorable. The cool weather has prevented unseasonable swelling of the buds and decreased the liability to damage from rapid temperature changes. Potatoes are being planted and oats and peas are being sowed. General farm operations have been somewhat delayed by excessive precipitation and the wetness of the ground.

CLIMATOLOGY OF THE MONTH.

ATMOSPHERIC PRESSURE.

Monthly mean at Washington, D. C., 30.04 inches; at Baltimore, 30.03 inches; average, 30.04 inches; highest, 30.60 inches, at Washington, D. C., and Baltimore, on the 8th; lowest, 29.36 inches, at Baltimore, on the 1st.

TEMPERATURE.

The monthly mean (entire territory), 39°, is 4.4° below the normal.

The highest monthly mean was 42.4°, at Pocomoke City.

The lowest monthly mean was 31°, at Grantsville.

The highest temperature recorded during the month was 74°, at Easton, on the 7th.

The lowest temperature recorded during the month was -8°, at Boettcherville, on the 18th.

The greatest local monthly range was 76°, at Boettcherville.

The least local monthly range was 46°, at Newark, Del.

The greatest daily range was 51°, at Boettcherville, on the 18th.

The least daily range was 10°, at Easton, on the 15th.

PRECIPITATION, in inches and hundredths.

The monthly average (entire territory), 3.22, was 0.36 below the normal.

The greatest amount was 5.05, at Sunnyside.

The least amount was 1.31, at Denton.

The greatest amount in twenty-four hours was 1.80, at Bachman's Valley, on the 1st.

The average number of rainy days, 9.

WIND.

The prevailing direction was from the northwest.

The total movement was 4,340 miles, at Baltimore, and 6,664 miles, at Washington, D. C.

The maximum wind velocity was 36 miles per hour from the northwest, at Washington, D. C., on the 2d.

MISCELLANEOUS PHENOMENA.

Hail.—Annapolis, 16, 17; Boettcherville, 25; Cambridge, Pocomoke City, Queenstown, Rock Hall, and Seaford, 15; Prince Fredericktown, 15, 16, 29; Princess Anne, 8, 15; Solomons, 15, 29; Sunnyside, 11, 26.

Sleet.—Denton, Queenstown, Seaford, and Solomons, 15; Easton, 16; Pocomoke City, Prince Fredericktown, 15, 16; Princess Anne, 16, 26; Frostburg, Sharpsburg, and Western Maryland College, 29; Washington, D. C., 15, 16, 29.

Fog.—Laurel, 26; Millsboro, 10; Princess Anne, 10, 27; Queenstown, 9, 10; Solomons, 9; Woodstock, 30.

Lunar Halo.—Baltimore, 7, 14; Clear Spring, 7, 9, 16; Green Spring Furnace, 9, Jewell, 7; Mount St. Marys, 1, 3.

Lunar Corona.—Millsboro, 6, 7; Solomons, 9.

Solar Halo.—Chase, 18; Green Spring Furnace, 10, 13; Jewell, 2, 4, 7, 27.

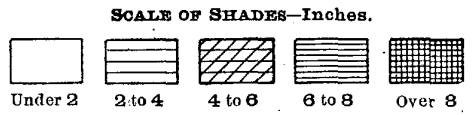
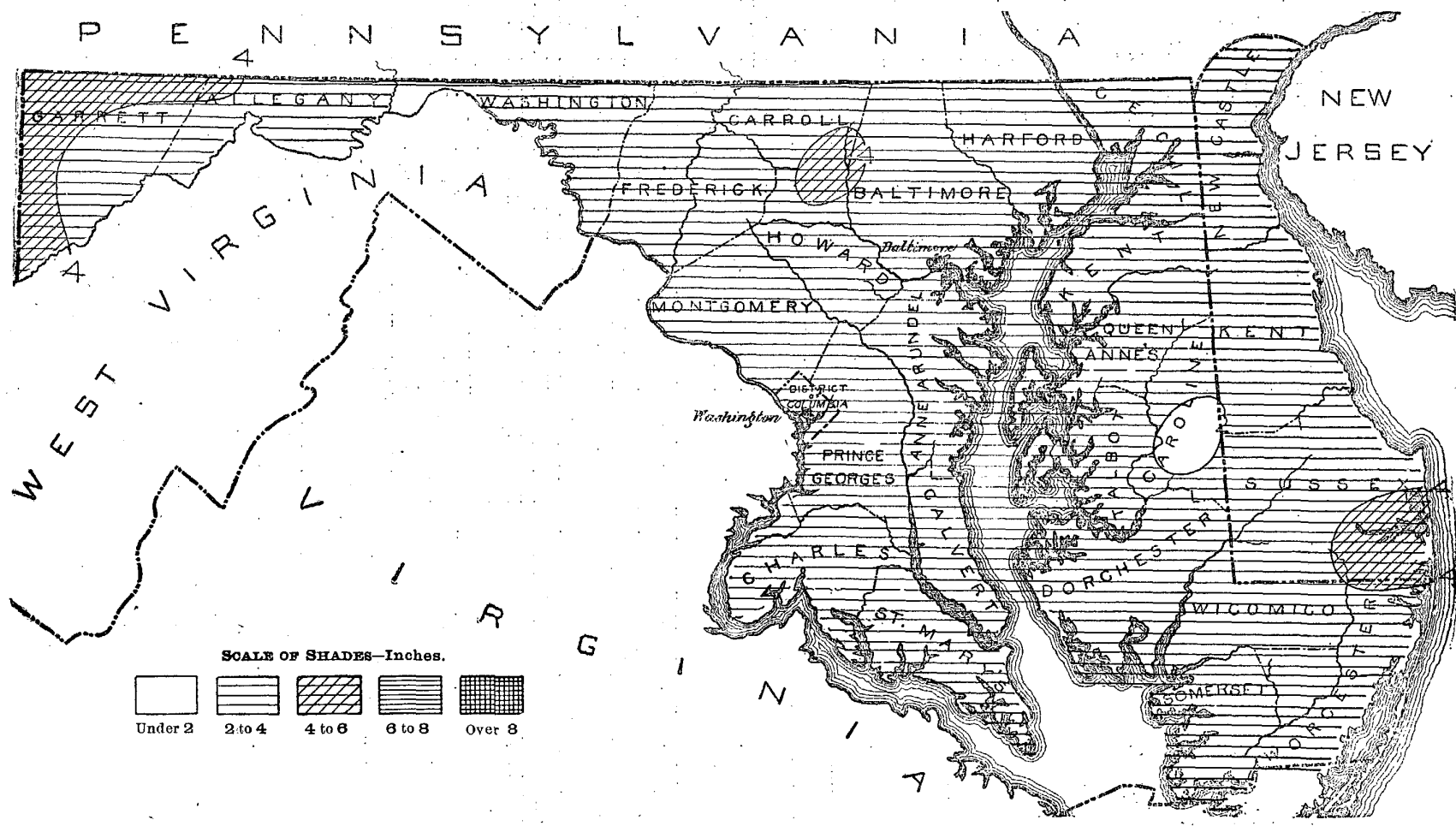
Aurora.—Princess Anne, 4.

Climatological data for Maryland and Delaware, March, 1900.

Table with columns: Stations, Counties, Elevation, Length of record, Temperature (Mean, Departure from normal, Highest, Date, Lowest, Date, Greatest daily range), Precipitation (Total, Departure from normal, Greatest in 24 hours, Total snowfall, Number rainy days), Sky (Number clear days, Number partly cloudy days, Number cloudy days), Prevailing direction of wind, Observers.

NOTE.—All records are used in determining State or district means, but State and district departures are determined by comparison of current data of only such stations as have normals. Superior letters of the alphabet indicate the number of days missing. † Mean of 7 a. m. + 2 p. m. + 2. † Incomplete record.

TOTAL PRECIPITATION, MARCH, 1900.



Daily precipitation for Maryland and Delaware, March, 1900.

Table with columns for Stations, Day of month (1-31), and Total. Rows are categorized by region: WESTERN MARYLAND, NORTHERN-CENTRAL MARYLAND, SOUTHERN MARYLAND, EASTERN MARYLAND, and DELAWARE. Each cell contains a numerical value representing precipitation or a symbol like '†' for incomplete records.

† Trace, when precipitation is less than 0.01 inch.

‡ Incomplete record