

Climate and Crop Service
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U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR SEPTEMBER, 1898.

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

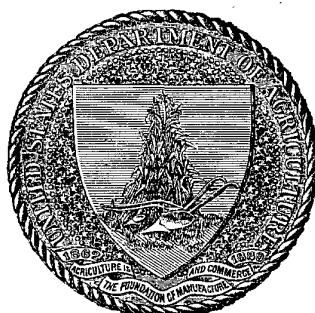
IN COOPERATION WITH THE
MARYLAND STATE WEATHER SERVICE.

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

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

BY

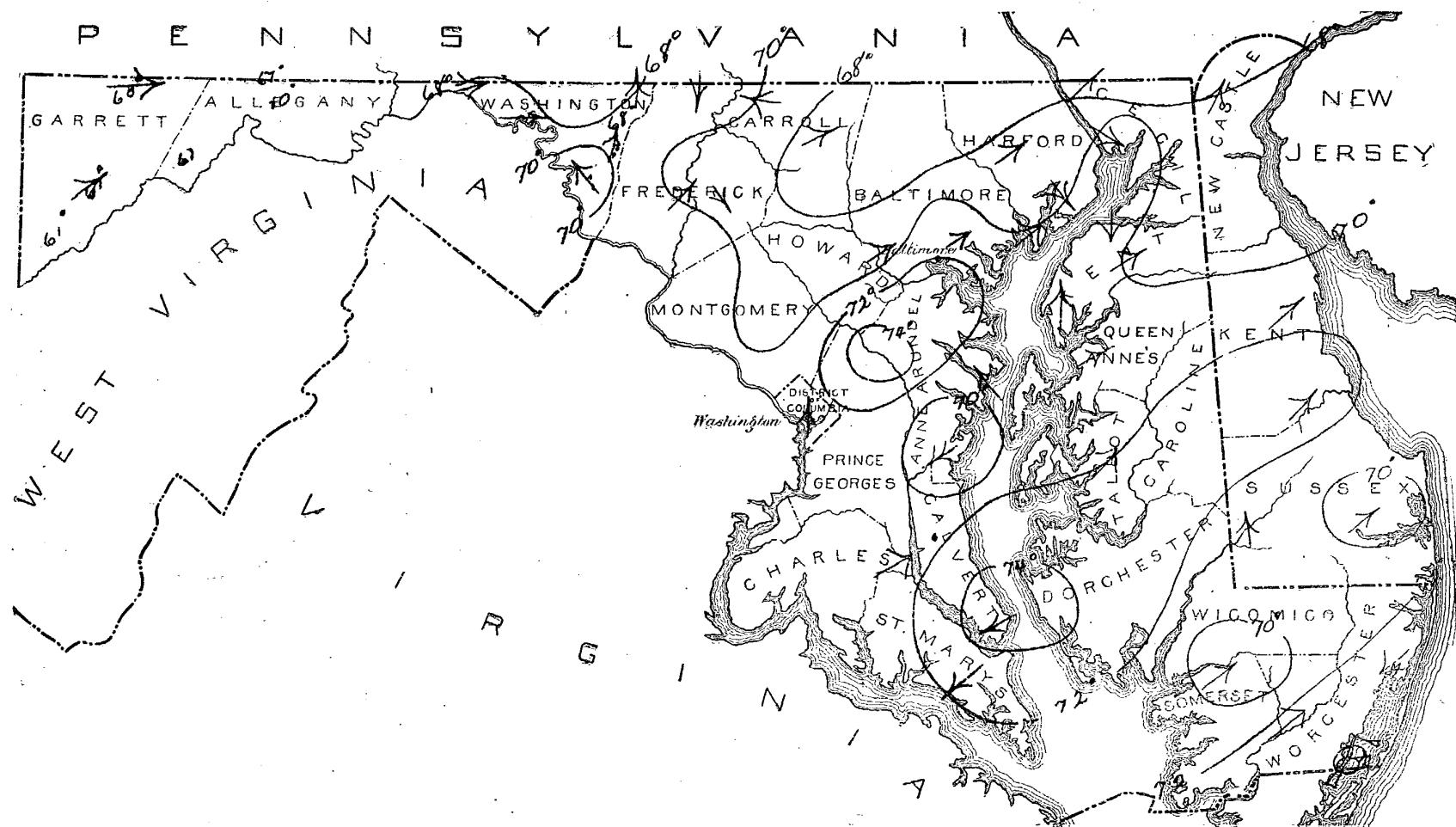
F. J. WALZ,
SECTION DIRECTOR.



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

1898.

MONTHLY MEAN ISOTHERMS AND PREVAILING WINDS, SEPTEMBER, 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. 9.

REVIEW OF THE CROP CONDITIONS.

THE FIRST WEEK IN SEPTEMBER. The weather during the past week was exceedingly hot and dry over the entire Section. The temperature at Baltimore averaged 11° daily above the normal, and the minimum temperatures reached each day were from 1° to 4° above the normal daily temperatures. No rain of any consequence fell in any part of the two States during the entire week. The week was the hottest seven day period on record for the time of year.

The weather was severe on vegetation, but favorable for maturing corn, which is ripening very rapidly. Cutting has begun in some of the eastern and southern counties. The crop will be fair. Pastures are fairly good as yet, but are beginning to show the effects of the hot dry weather. Late tobacco is suffering for the want of rain. The early crop is being cut and housed. Tomatoes are ripening, but in many cases prematurely. Reports regarding the crop are conflicting; they are good in some sections, but damage by blight has shortened the prospects in others. Potatoes are being dug; the yield is good in some sections, but very poor in others. The intense heat of the week interfered with farm labor, and is making the ground too hard for plowing.

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THE SECOND WEEK IN SEPTEMBER. The first three days of the past week were intensely hot. Thundershowers were general on Wednesday, except in the southern counties. A quite cool wave followed the showers on Wednesday night, and the remainder of the week, with its lower temperatures, was a great relief after the continued heat of the past fortnight.

The week on the whole was favorable for farm work, especially for the housing and curing of tobacco. Corn cutting is in progress, and the crop is turning out fair; the ears are well filled in the western counties. Fall plowing is nearly finished, except in the southern counties where it has been retarded by drought conditions. Tomatoes are being extensively picked, the crop, however, will be short. The reports continue variable with regard to potatoes, in some sections they are fair, in others very light; there will not be a full crop. Buckwheat is being harvested in the western counties; the crop will be short. Pastures continue good in the western and north-central counties and in Delaware, but in the eastern and southern counties they are drying up, and are very much in need of rain. Streams are failing and springs are running low in these latter districts.

THE THIRD WEEK IN SEPTEMBER. The weather during the past week has been a continuation of the dry spell which has largely prevailed over this Section for a month past. The only exception to an almost entire absence of rain during the week was in the extreme south counties of the eastern shore and in southern Delaware, where good showers occurred on Thursday and Friday. The first two or three days were very cool, heavy frosts occurring in Garrett County, and lighter frosts in one or two other counties, but the temperature rose steadily the rest of the week, and by Sunday was again registering 90° and over.

The week on the whole was favorable for farm work. While it was entirely too dry for plowing and preparing ground for seeding, yet it was just what was needed for corn and buckwheat cutting and fodder saving, and a vast amount of work was done along these lines. Rain is badly needed, however, in all parts of the two States. Pastures are suffering and in many sections burning up, and springs and water courses are going dry. Tobacco is ripening fast, and the early crop is being housed and cured in good condition; the late crop will give scarcely any returns unless rain falls soon. Buckwheat threshing has begun, and while the straw is heavy, the yield in grain is light. Early corn is about all cut, and the late half so. Neither sort is producing a full or nearly so good a crop as was expected. The bulk of the tomato crop has been picked; the yield is variable, some fields good, others fair; on the whole the crop is short.

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THE FOURTH WEEK IN SEPTEMBER. The earlier days of the past week continued dry, but beneficial rains were received in all sections on the 22d and 23d. As a result pastures and late crops have improved, the ground has been put in a mellow condition, and fall seeding, so long delayed, is again being pushed where the soil is not too wet. Corn cutting and fodder saving has advanced rapidly. The fodder has been saved in fine condition. The yield of corn is short in all portions of the two States. Buckwheat threshing is in progress in Western Maryland, but only moderate yields are being obtained. Late vegetables will make some advancement owing to the rains, but light yields are all that can be looked for. Late tobacco is short. Early tobacco is all cut and housed.

The past year has not been favorable to agriculture in this Section. The season at the beginning was forward and promising, but a disastrous cold wave from April 4th to 7th ruined the fruit prospects, and injured the young wheat, although the latter, together with all other field products, suffered more from the prolonged drought periods that prevailed during the critical periods of crop development and maturity. Scarcely any crop in the Section gave average returns, and the late plantings of the various products were especially short in yields. The only exception to poor yields was the hay crop, which was large, and saved in fine condition.

CLIMATOLOGY OF THE MONTH.**ATMOSPHERIC PRESSURE—IN INCHES AND HUNDREDS.**

Monthly mean at Washington, D. C., 30.10; at Baltimore, 30.09; average, 30.10; highest, 30.42 at Baltimore, on the 21st; lowest, 29.72 at Baltimore, on the 23d.

TEMPERATURE—IN DEGREES FAHRENHEIT.

The monthly mean (entire territory), 69.9, is 1.8 above the normal.

The highest monthly mean was 74.4, at Laurel and at Solomons.

The lowest monthly mean was 60.6, at Deer Park.

The highest temperature recorded during the month was 100, at Laurel, on the 3d.

The lowest temperature recorded during the month was 29, at Deer Park and Sunnyside on the 12th.

The greatest local monthly range was 65, at Boettcherville.

The least local monthly range was 41, at Chestertown.

The greatest daily range was 45, at Boettcherville, on the 12th, and at Chewsville, on the 8th.

The least daily range was 4, at Millsboro, Del., on the 16th; at Seaford, Del., on the 20th, and at Solomons, on the 15th.

PRECIPITATION—IN INCHES AND HUNDREDS.

The monthly average (entire territory) 2.01, was 0.77 below the normal.

The greatest amount was 4.28 at Seaford, Del.

The least amount was 0.51, at Smithsburg (1).

The greatest amount in twenty-four hours was 2.50, at Jewell, on the 22d and 23d.

The average number of rainy days, 5.

WIND.

The prevailing direction was from the southwest.

The total movement was 3,425 miles, at Baltimore, and 3,608 miles, at Washington, D. C.

The maximum wind velocity was 30 miles per hour from the northwest, at Washington, D. C., on the 24th.

MISCELLANEOUS.

The following are dates on which various miscellaneous phenomena occurred:

Thunderstorms.—Baltimore, 26; Boonsboro, 5, 7, 15; Chase, 27; Cherryfields, 4, 5, 7, 26; Chestertown, 26; Coleman, 7, 23, 29; Dover, Del., 26; Fallston, 4, 7, 26; Frederick, 7; Grantsville, 3, 4, 5, 6, 7, 26; Green Spring Furnace, 5, 26; Millsboro, Del., 7, 26; Mt. St. Mary's College, 26; Newark, Del., 7, 26; Pocomoke City, 4, 7; Port Deposit, 7, 26; Princess Anne, 26; Queenstown, 7, 26; Rock Hall, 26; Seaford, Del., 7, 26; Smithsburg, 3, 4, 26; Solomons 5, 7, 26; Sunnyside, 3, 4, 5, 18, 26; Taneytown, 7; Washington, 4, 5; Western Maryland College, 26.

Frost, light.—Bachman's Valley, 12, 28; Boettcherville, 12; Grantsville, 12, 21; Green Spring Furnace, 9; New Market, 27; Queenstown, 28; Sunnyside, 28; Westernport, 12.

Frost, killing.—Deer Park, 29; Sunnyside, 12.

Fog.—Chestertown, 17; Green Spring Furnace, 8, 9, 17, 26; Jewell, 16, 17, 30; Laurel, 17; Milford, Del., 17; Millsboro, Del., 16, 17, 18, 20; Mt. St. Mary's, 26; Princess Anne, 17, 18, 19; Queenstown, 16; Rock Hall, 30; Seaford, Del., 17, 18; Smithsburg, 15; Sunnyside, 1, 16, 29, 30; Taneytown, 26, 30; Van Bibber, 17.

Hail.—On 26th, at Chestertown, Clear Spring, Laurel, Coleman, Darlington, Fallston, Rock Hall, Van Bibber.

Auroras.—Fallston, 2, 9; Jewell, 28; Queenstown, 7, 26.

High winds.—Chestertown, 26; Green Spring Furnace, 5; Mt. St. Mary's, 23, 24; Queenstown, 7; Van Bibber, 22; Washington, 24.

Halo, solar.—Jewell, 10.

Halo, lunar.—Mt. St. Mary's, 28.

Corona, lunar.—Rock Hall, 21, 30.

REVIEW OF THE CROP SEASON OF 1898.

The crop season just closed was marked by a succession of unusual weather conditions from beginning to end. March was one of the mildest on record, with abundant and well distributed rains. The month was devoid of the usual stormy weather and injurious frosts. Vegetation was forced from two to three weeks in advance of the average season. The weather was exceptionally favorable for farm work and crop growth. At the close of the month, wheat, rye, grass, and clover were well advanced and generally in excellent condition; an unusually large acreage had been planted in wheat; fruit trees and strawberries were in bloom.

The first week in April brought about a decided change. Cold north winds, with freezing temperatures, accompanied by snow and sleet, did much injury to fruit in bloom, and retarded all plant growth. On the whole, crops made but little progress during April.

May opened with cold wet weather, delaying the transplanting of tobacco and all farm work. The month closed with showery conditions and mild temperatures.

The first two weeks in June were warm and dry, with cool nights, high midday temperatures, and bright sunshine. During the third and fourth weeks the temperature was below normal, and there was very little rain.

July opened with one of the hottest periods on record in the State. Temperatures reached 108° in Allegany County. A second hot spell occurred toward the close of the month; while the temperatures were not so high during this period the humidity was very great, making the days and nights excessively oppressive. Very little rain fell during June and July, and drought conditions became serious before the close of July in the southern counties of Maryland.

The hot sultry weather continued into the early days of August. Heavy rains during the second week ended the drought period, which, in the southern counties of the State, had prevailed for about six weeks.

The first week in September was the hottest seven-day period on record at the Baltimore station for this month, the daily average being 11° above normal. Temperatures remained continuously above 90° from four to six days throughout the State, reaching a maximum of 100° at Laurel on the 8d.

There were two well marked dry spells during the crop season. The first covered the period from the middle of May to the middle of July; the second continued from the middle of August to the middle of September. During the active growing period from March to July there was a deficiency in rainfall over the two States amounting to 2.50 inches.

On the whole, the season has not been a favorable one for the farmer in Maryland and Delaware. With the exception of the bay crop, nearly all crops yielded below the average; late planted crops were especially short. In most sections of Maryland and Delaware the peach crop was an entire failure. Wheat yielded from 12 to 15 bushels to the acre. Strawberries and melons were abundant. Early tobacco was housed and cured in good condition, but the crop was small.

TOTAL PRECIPITATION, SEPTEMBER, 1898.

