

Climate and Crop Division.

JUL 29 1901

U. S. DEPARTMENT OF AGRICULTURE.

REPORT FOR JUNE, 1901.

MARYLAND AND DELAWARE SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

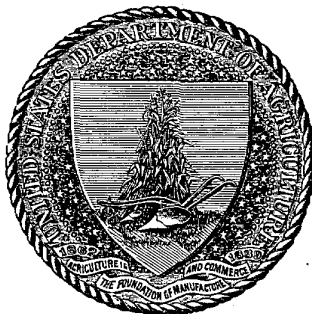
IN COOPERATION WITH THE

MARYLAND STATE WEATHER SERVICE.

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

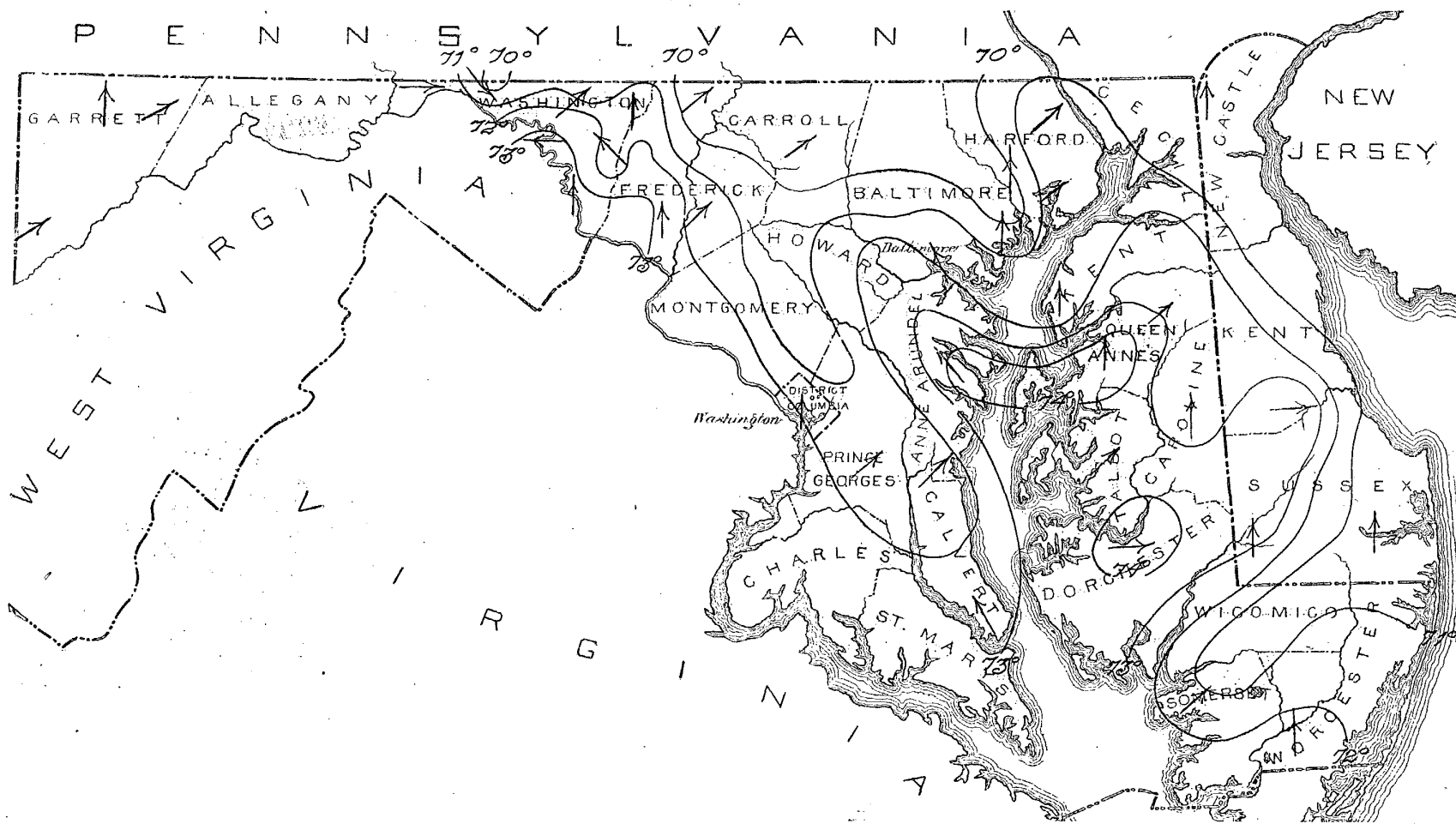
BY

OLIVER L. FASSIG,
SECTION DIRECTOR.



BALTIMORE, MD.:
WEATHER BUREAU OFFICE.
JOHNS HOPKINS UNIVERSITY.
1901.

MONTHLY MEAN ISOTHERMS AND PREVAILING DIRECTION OF WIND, JUNE, 1901



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

OF THE
WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

MARYLAND AND DELAWARE SECTION,

OLIVER L. FASSIG, Section Director.

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The Hot Spell of June 26-July 7, 1901, and the Death Rate. A remarkable feature connected with the recent hot spell was the excessively high mortality in Baltimore. The week preceding the hot weather was conspicuous for its low death rate, the lowest in the history of Baltimore for the last week in June. For the week ending July 7th there were 80 deaths due to excessive heat, while the death rate was the highest on record. During the month of August, 1900, a period remarkable for the breaking of all previous records of excessive heat in Baltimore, there were but 30 deaths attributed to sunstroke.

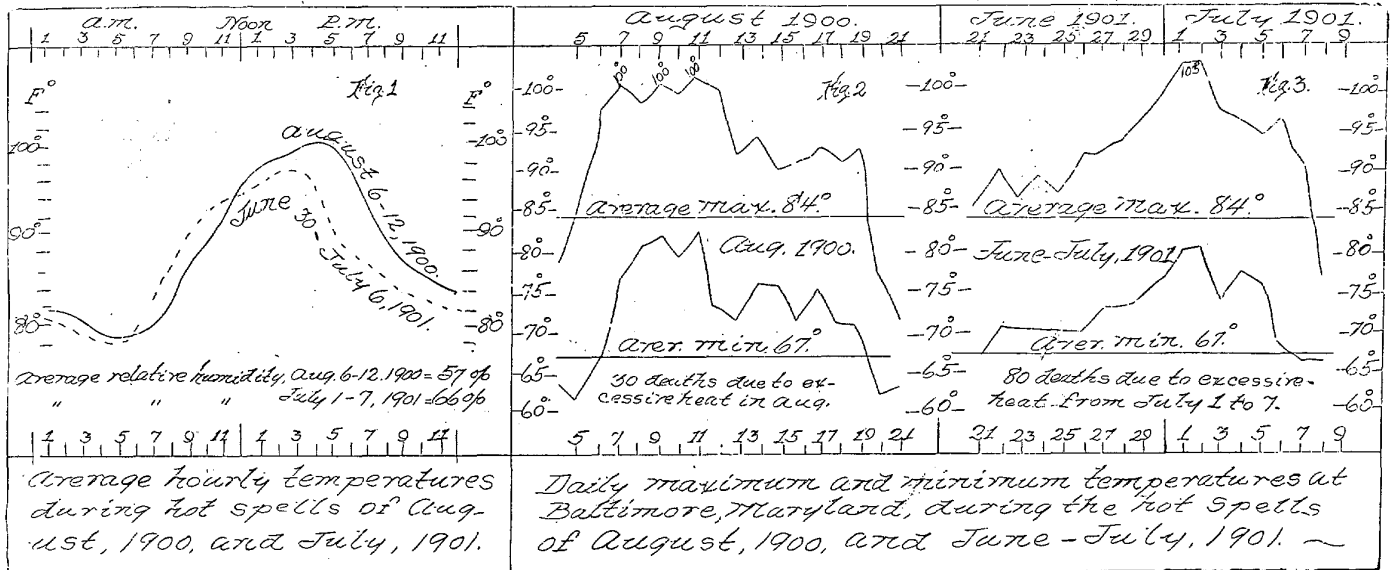
A comparison of the temperature records during the two hot spells does not readily offer an explanation for this great difference in mortality. In figures 1, 2, and 3, at the bottom of the page, the daily maximum and the average hourly temperatures are graphically indicated. A glance at the diagram will show that the heated term of August, 1900, was of longer duration and of higher average temperature than that of July, 1901. From August 6th to 12th, 1900, the temperature was above 95° during ten hours of each day; from July 1st to 7th, 1901, the temperature was above 90° during nine hours each day. In spite of this difference in favor of the greater severity of the August, 1900, period, the death rate during the week ending July 7th, 1901, was fully three times as great as during the week ending August 12th, 1900. The increased number of deaths during the first week

in July was probably due to two causes: In the first place, during the preceding months of spring and early summer, especially June, the weather was seasonable. There were no antecedent hot spells to prepare the system gradually for the period of excessive heat, as was the case in the summer of 1900, but a sudden plunge from the moderate, and even cool, days of June into a period of heat that has been exceeded but once in the history of Baltimore weather. Secondly, the relative humidity during the heated term of July, 1901, was nearly ten per cent higher than it was during that of August, 1900.

Weather and Crop Conditions.

June temperatures were cool and pleasant until the final decade, which was marked by an intensely hot spell. Light frosts formed in Garrett County on the 2d and 10th, and the temperatures were generally low on the 1st, 2d, 8th to 10th, and 15th to 18th. They passed above normal on the 22d; and the heated term steadily increased in severity until extremes of 89° to 102° were reached on the 30th. The rainfall was heaviest in the extreme western, northern central, and interior southern counties, where four to six inches fell, and lightest over the northeast, east, and extreme south. Precipitation was general on the 1st, 6th, 7th, and 13th to 17th. After the last date only light and scattered showers occurred outside of the extreme western counties, but there rainy conditions prevailed during the rest of the month. Thunderstorms were frequent, but caused only slight damage.

The month as a whole was favorable to crops, although tobacco suffered from heat during the latter part, and tomatoes, melons, and cantaloupes continued backward and unpromising during the entire period. Harvesting of wheat, rye, and barley began about the 20th, and made rapid progress afterwards. The straw was heavy but the yield of grain generally unsatisfactory, especially in the south and east. Oats grew fairly well, but were injured somewhat by rust. Corn was well cultivated, and the crop made rapid headway. Grass grew well, but stands were thin, and light yields were



reported in most districts. Tobacco planting was finished during the latter part of the month; the stands were generally good, although cut worms had caused local damage. The fall in all kinds of fruit continued during the month; pears and apples were reduced in prospect; peaches were shortened in places, but the outlook continues promising on the Eastern Shore and in Delaware; cherries produced abundantly in all districts. Potatoes were exceptionally fine at the close of the month, and garden truck gave satisfactory returns. Strawberries and peas were shipped in large quantities, but gradually failed after the 20th.

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CLIMATOLOGY OF THE MONTH.

ATMOSPHERIC PRESSURE.

Monthly mean at Washington, D. C., 30.00 inches; at Baltimore, 29.99 inches; average, 30.00 inches; highest, 30.22 inches, at Washington, D. C., on the 10th; lowest, 29.76 inches, at Baltimore, on the 2d.

TEMPERATURE.

The monthly mean (entire territory), 71.1°, is 0.6° below the normal.

The highest monthly mean was 75.2°, at Sharpsburg.

The lowest monthly mean was 64.3°, at Sunnyside.

The highest temperature recorded during the month was 102°, at Hancock and Sudlersville, on the 30th, and at Sharpsburg on the 29th and 30th.

The lowest temperature recorded during the month was 32°, at Deer Park, on the 10th.

The greatest local monthly range was 62°, at Hancock.

The least local monthly range was 38°, at Solomons.

The greatest daily range was 49°, at Deer Park, on the 10th.

The least daily range was 1°, at Queenstown, on the 15th.

PRECIPITATION, in inches and hundredths.

The monthly average (entire territory) 3.14, was 0.20 below the normal.

The greatest amount was 6.72, at Maryland Agricultural College.

The least amount was 0.70, at Johns Hopkins Hospital.

The greatest amount in twenty-four hours was 2.90, at Frederick, on the 13th.

The average number of rainy days, 8.

WIND.

The prevailing direction was from the southwest.

The total movement was 3,263 miles, at Baltimore, and 3,890 miles, at Washington, D. C.

The maximum wind velocity was 30 miles per hour from the north, at Washington, D. C., on the 13th.

MISCELLANEOUS PHENOMENA.

Thunderstorms.—Bachman's Valley, 13; Boettcherville, 2, 5, 6, 7, 12, 13, 20, 22, 23, 24, 26, 27, 28; Boonsboro, 6, 13, 20, 22, 27; Cheltenham, 1, 3, 6; Chewsville, 6, 7, 13, 20, 22, 27, 28; Clear Spring, 6, 13, 20, 27; Cumberland, 27, 28, 29; Fallston, 21, 22; Frederick, 2, 6, 13, 22; Frostburg, 12, 13, 26, 27, 28; Grantsville, 2, 6, 11, 12, 13, 20, 22, 23, 26, 27, 28, 29; Green Spring Furnace, 6, 22, 28; Hagerstown, 20, 22; Hancock, 6, 13, 20, 22; Harney, 6, 16, 27; Jewell, 6, 13, 21; Laurel, 1, 13, 21; Longwoods, 2, 13; Millsboro, 2, 13; Mount St. Marys, 1, 3, 27; Newark, 22; New Market, 2, 13; Prince Fredericktown, 1, 2, 3; Princess Anne, 3; Queenstown, 21; Seaford, 1, 13; Sharpsburg, 6, 13, 20, 21, 22, 27; Smithsburg a, 7, 13, 15, 16, 22, 27, 28; Smithsburg b, 2, 6, 13, 22, 27; Solomons, 1, 2, 3, 6, 7, 13, 21; Sudlersville, 21; Sunnyside, 1, 2, 5, 6, 11, 12, 13, 15, 18, 20, 22, 23, 26, 27, 28, 30; Takoma, 21; Washington, 1, 6, 13, 22; Western Maryland College, 2, 6, 12, 14; Woodstock, 2, 6, 13, 22, 27, 29; Wyoming, 4, 10, 11.

Hail.—Boettcherville, 13, 22; New Market, 13; Washington, D. C., 13.

Light Frost.—Deer Park, 2; Sunnyside, 2, 10.

Fog.—Chewsville, 1, 28; Frostburg, 16; Jewell, 4; Millsboro, Del., 1, 2, 20; Prince Fredericktown, 2, 5; Princess Anne, 2, 20; Woodstock, 1.

High Winds.—Chewsville, 23; Frostburg, 22; Queenstown, 6; Sunnyside, 7, 8.

Solar Halo.—Green Spring Furnace, 13.

Solar Corona.—Solomons, 21.

Lunar Halo.—Chewsville, 21, 24, 25; Solomons, 1, 2.

Lunar Corona.—Easton, 29; Laurel, 24; Millsboro, Del., 20, 27; Rock Hall, 25, 26.

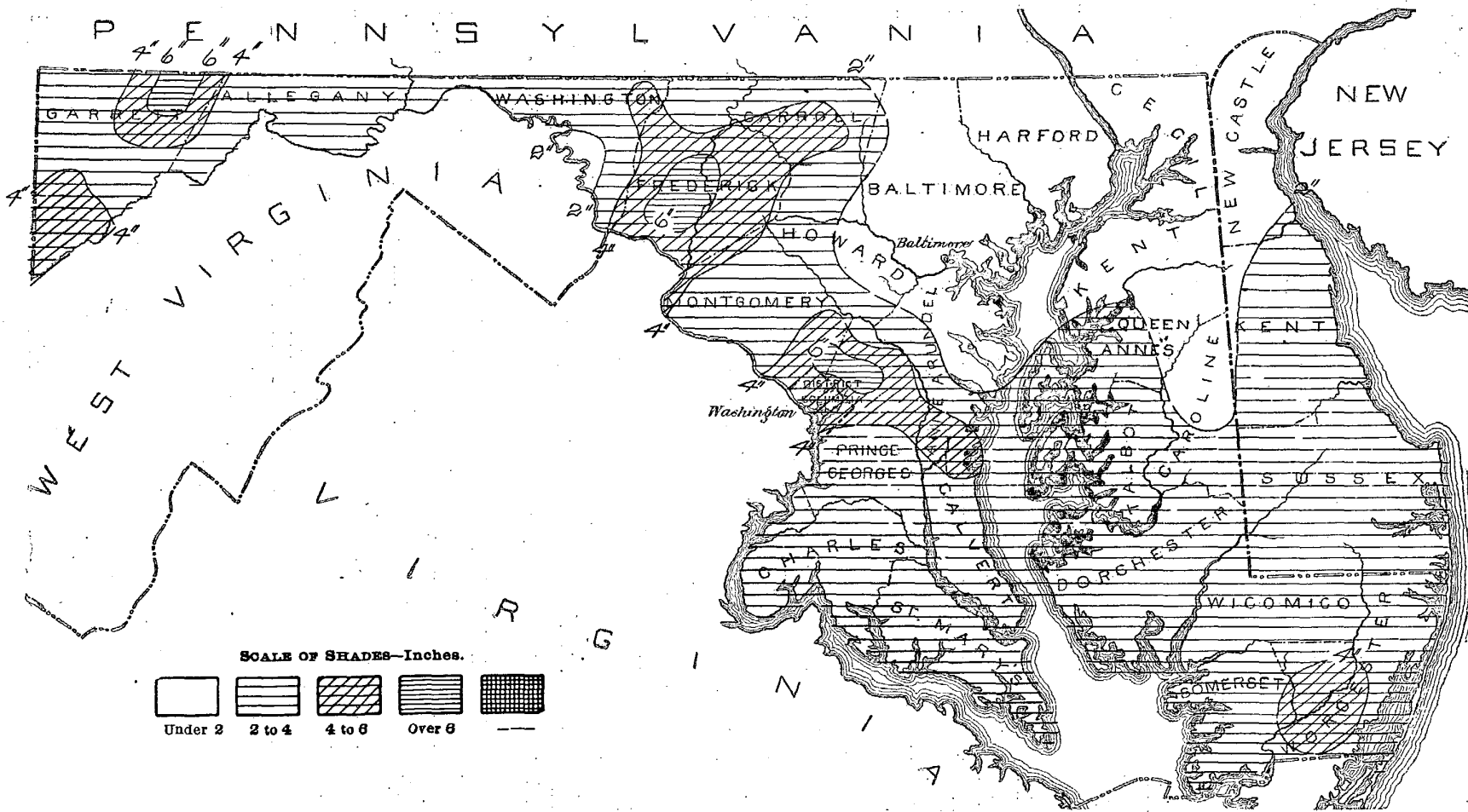
Loss by Lightning.—On the 13th, four horses and three cattle killed by lightning near New Market. The following report of loss on the 26th is furnished by Mr. J. S. Miller, Voluntary Observer at Grantsville: "About 4 p. m., while two of my boys were plowing, lightning struck and killed one of the horses. The other horse was stunned, but has recovered. Both boys were rendered unconscious for some time. When they recovered, one was under the plow and the other behind the singletree of the horse that was killed. The singletree and one of the plow handles were splintered. No rain at the time and none fell for about an hour afterwards."

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ERRATA.

April, 1901, Report: Page 5.—Total precipitation at Harney probably incomplete, through absence of amounts for the 14th-15th. Western Maryland College, total precipitation, blank, should be 3.74. *Page 8.*—Precipitation probably occurred at Harney on the 14th and 15th; total for month, 3.30, should be marked incomplete. Western Maryland College, 1.10 on the 9th, represents the total fall from the 1st to that date; total, blank, should be 3.47.

TOTAL PRECIPITATION, JUNE, 1901.



SCALE OF SHADES—Inches.

