

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

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In Cooperation with Maryland State Weather Service

CLIMATOLOGICAL DATA

MARYLAND AND DELAWARE SECTION

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GENERAL SUMMARY

This July was warm, sunny, and exceptionally dry. It was not the warmest July of record, however, when the monthly mean temperature is considered, though such an impression was created by the heat wave of unprecedented intensity and duration, which began on the 18th and continued at the close of the month. The maximum temperature of 110° at Millsboro on the 21st was the highest summer temperature ever recorded in the section. Highest temperatures of the month equaled or exceeded previous highest temperatures recorded in July, except between the Allegheny and Blue Ridge Mountains.

The month was 2° warmer than normal; 3° warmer than July, 1929; and the warmest July since 1921; but it was nearly 2° cooler than July, 1901, the second warmest July. July, 1872, was the warmest July of record.

This was the driest July of record in western and north-central Maryland. Southern Maryland and the Eastern Shore were better favored. For the section, as a whole, the average monthly rainfall was the least of record for July.

Monthly sunshine was 10 per cent above normal. Relative humidity was unusually low, being between 10 and 15 per cent below normal. There was considerable damage by lightning and by heavy hail on the Eastern Shore. (See "Miscellaneous Phenomena".) The heat wave caused many prostrations and deaths in Baltimore. The drought was the cause of many forest and grass fires in the section.

The period from 1st to 17th was very pleasant, and averaged 1° to 2° daily below normal. Moderately warm weather prevailed during the 1st-2d and 6-13th, while the 3d-5th and 14-17th were cool. The heat wave of the 18th-31st gave an average daily temperature of 8° to 10° above normal. The 15th was the coolest day, while the 19th-22d was the hottest period.

Highest temperatures were 100° to 110° in the divisions between the Allegheny Mountains and the Chesapeake Bay on the 19th, 25th, 26th, 27th, and 29th, and over the entire section, except the Allegheny Mountain region, on the 20th, 21st, and 22d. They were also 100° or slightly above in Washington and southern Frederick Counties on the 23d, 24th, and 30th; at Millsboro and Rock Hall on the 26th and 27th; at Ridgely on the 27th; and in Allegany, Washington, and southern Frederick Counties and at Newburg on the 28th. In the Allegheny Mountain region the highest temperatures occurred on the 28th and were 95° or slightly above.

Monthly rainfall averaged about two-fifths of normal. Rainfall was mostly in the form of thundershowers. Monthly amounts were 0.2 to 1 inch generally in western and north-central Maryland; 1 to 3 inches in southern Maryland; and 2 to 4 inches generally on the Eastern Shore, except 4 to 6 inches in the Milford district. They averaged 19 per cent of normal in western Maryland; 14 per cent in north-central Maryland; 33 per cent in southern Maryland; and 53 per cent on the Eastern Shore.

Thundershowers were light to moderate, except heavy at Washington, D. C., and in Anne Arundel, northern Calvert,

western Queen Annes, and southern Kent (Md.) Counties on the 1st; over the northern Eastern Shore at night of the 9-10th; over the central Eastern Shore on the 22d; in northwest Kent (Md.) County and central Somerset County at night of the 23d-24th; in the Darlington district on the 29th; and in the Milford district on the 1st, 3d, at night of the 23d-24th, and at night of the 24-25th.

Despite the drought that prevailed, beginning June 27, crops were in fair to good condition and pastures were poor to fair during the first and second decades. The heat wave of the 18th-31st, and the absence of rain, were severe on all crops and grasses. Most of the crops wilted or dried up, except in the Allegheny Mountain region and in those districts on the Eastern Shore favored by generous thundershowers.

During the first and second decades corn tasseled; tomatoes were fruiting; sweet potatoes were making vines; tobacco came into bloom; cowpeas and soy beans were doing well; truck and gardens were fair; peas were harvested in the Allegheny Mountain region; and a light hay crop was gathered.

At the close of the month the crop situation was serious.

Wheat and rye were threshed, oats were harvested, and early potatoes were dug in the eastern and central divisions. In Washington and Allegany Counties harvesting of wheat and rye ended during the first decade and threshing followed; oats were being cut and early potatoes were being dug during the second and third decades.—*J. B., jr.*

PRESSURE

The monthly mean sea-level pressure at Washington, D. C., was 29.93; at Baltimore, 29.92; at Aberdeen, 29.94 inches. The highest at Washington, D. C., was 30.22; at Baltimore, 30.21; at Aberdeen, 30.20 inches—all on the 4th. The lowest at Washington, D. C., was 29.63, and at Baltimore 29.65 inches—both on the 14th; at Aberdeen, 29.65 inches on the 21st.

TEMPERATURE

The monthly mean for the section, 77.1°, is 1.9° above normal. The highest monthly mean was 80.6° at Baltimore; the lowest, 67.6°, at Grantsville. The highest, 110°, occurred at Millsboro on the 21st; the lowest, 38°, at Grantsville on the 4th and 15th. The greatest monthly range was 64° at Hancock; the least, 41°, at Crisfield. The greatest daily range was 51° at Clear Spring and at Hancock on the 16th.

PRECIPITATION

The monthly average for the section, 1.58 inches, is 2.75 inches below normal. The greatest monthly amount was 6.01 inches at Milford; the least, 0.18 inch, at Keedysville. The greatest 24-hour amount was 2.37 inches at Annapolis on the 1st. The average number of days with 0.01 inch or more, 6, is 4 below normal.

RELATIVE HUMIDITY

The average percentages were: Washington, D. C., 8 a. m., 70; 12 noon, 44; 8 p. m., 52. Baltimore, Md., 8 a. m., 61; 12 noon, 42; 8 p. m., 54. Aberdeen, Md., 8 a. m., 76; 4 p. m., 56. Philadelphia, Pa., 8 a. m., 70; 12 noon, 49; 8 p. m., 58.

WIND

(By 3-cup anemometer, except 4-cup at Aberdeen, Md.)

The prevailing direction for the section was southwest. The total movement at Washington, D. C., was 3,418; at Baltimore, 6,404; at Aberdeen, 4,621 miles. The maximum velocity at Washington, D. C., was 20 miles from the northwest on the

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Climatological Data for July, 1930

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 of days (With precip., Clear, Partly cloudy, Cloudy), Prevailing direction of wind, Observers.

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22d and 29th; at Baltimore, 31 miles from the southwest on the 22d; at Aberdeen, 40 miles from the northwest on the 24th.

SUNSHINE AND CLOUDINESS

At Washington, D. C., 75 per cent of the possible sunshine was recorded; at Baltimore, 71 per cent; at Aberdeen, 62 per cent. For the whole section the average number of clear days was 18; partly cloudy, 11; cloudy, 2.

MISCELLANEOUS PHENOMENA (WITH DATES)

Hail, heavy.—On 6th: Wilmington district, loss of crops and flowers several thousand dollars. On 9th: Georgetown, from Bohemia River to Sassafras River, from northwest, about 11 p. m.; size of marbles to 1 inch diameter; path about 8 miles wide; loss of corn and tomatoes about \$50,000. On 10th: Delmar, about 2 miles north of Delaware line, from

west, about 1 a. m.; path 2 miles wide and 5 or 6 miles long; size bird eggs to large hen eggs; loss of crops many thousand dollars. On 29th: Earlville, Cecil County, from northwest, between 7 p. m. and 8 p. m.; path 1/2 mile wide; size of chicken eggs; loss of crops \$5,000; some window panes broken. Millington, south side of Chester River, 5:30 p. m. to 6 p. m.; about 20 acres tomatoes severely damaged.

Lightning, damage by.—At night 3d: Three outbuildings, with bay and stable, destroyed near Church Hill, Md. At night 9th: Three horses killed at Hill Top Farm, near Christiana, Del. On 22d: At Baltimore, man killed while sheltered under tree; some buildings damaged.

Thunderstorms.—1, 2, 3, 6, 7, 9, 10, 11, 13, 14, 22, 23, 24, 29.

Winds, high.—Thundergust from northwest: Wilmington district, 6; northern Eastern Shore, night 9-10, 24; entire section, 22; Harford County, 24, 29; Cecil County, 29.

Winds, high (thundergusts), damage by.—A few houses unroofed at Baltimore on 22d. Thermometer shelter and rain gage demolished at Aberdeen on 24th.

Daily Precipitation for July, 1930

Table with columns for Stations, Watersheds, Day of month (1-31), and Total. Rows list numerous stations in Maryland, District of Columbia, and Delaware with their corresponding precipitation values for each day of July 1930.

Except as otherwise indicated, observations are generally made late in afternoon, near sunset, and precipitation recorded is for the 24 hours ending at time of observation.
***Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.
|||Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.
T, Trace, or less than 0.01 inch.
Data in italics determined from surrounding stations.

COMPARATIVE DATA FOR MARYLAND AND DELAWARE FOR JULY

Comparative climate data for July from 1895 to 1930. Columns include Year, Temperature (Mean, Departure from normal, Highest, Lowest, Average, etc.), Precipitation (Departure from normal, Greatest local, Least local, etc.), and Number of days with 0.01 inch or more.

Daily Temperatures for July, 1930

Table with columns for Stations, 1-31, and M. Rows list various locations in Maryland and Delaware with their daily maximum and minimum temperatures for July 1930.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from record. § Instruments are read in morning; maximum temperature then read is charged to preceding day. In which it almost always occurs. Temperatures at Aberdeen, Baltimore, and Washington are from midnight to midnight; other stations, except Cumberland, are for 24-hour period ending late in afternoon, near sunset. Data in italics determined from surrounding stations. (WB-3-6-30-900)