

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 was the first warm July since 1921. Prevalence of warm weather was interrupted by moderate coolness on the 10th, 12th to 15th, and on the 21st, and by a cool wave from the 29th to 31st. There were no prolonged hot spells, though maximum temperatures were between 95° and 100° on several days, except in the mountain districts.

There was much clear weather, and the monthly sunshine was about 5 per cent above normal.

Rainfall was of the thundershower type. Monthly amounts were well above normal in the northern third of the section, being between 4 and 8 inches generally; they were quite deficient in the central and southern thirds of the section, being mostly between 2 and 3 inches. The average rainfall for the section was close to normal.

Heavy thundershowers occurred locally over the section on the 10th, in the northern counties on the 11th, 12th, and 13th, locally in the eastern half of the section on the 14th, in Frederick County on the 22d, and in extreme northeastern Maryland on the 23d and at night of 27th.

At Aberdeen, 1.23 inches of rain fell from 9:03 p. m. to 9:30 p. m. on the 27th.

Thunderstorms occurred on the 2d, 4th, 5th, 9th, 10th, 11th, 12th, 13th, 14th, 19th, 20th, 21st, 22d, 23d, 27th, and 28th. Light hail fell at Grantsville and Hancock on the 4th.

Damage by wind, hail, and rain appears under that heading. The month was favorable for rapid growth of all crops. Corn was good to excellent. Late potatoes were planted and came up nicely. Sweet potatoes, truck, and gardens did well. During the third decade corn was earing in the southern and tasseling and silking in the northern counties; tomatoes were ripening and tobacco was blooming; and harvesting of oats began in the eastern half of the section. Wheat, rye, and barley were harvested, except in the Allegheny Mountain region, and threshing was in progress. Early potatoes were very good. The hay crop was good. Marketing of early apples began about the 12th and of early peaches during the third decade.—*J. B., jr.*

DAMAGE BY WIND, HAIL, AND RAIN

Wind.—On 4th: Northern Washington County, locally; number of trees uprooted or blown down, and telephone and electric wires broken by falling trees. On 11th: Frederick, after 6 p. m.; number of buildings partly unroofed, some windows blown in, few shutters blown off, number of trees uprooted, some fences blown down, some chimneys damaged, and some automobiles and buildings damaged by falling trees; damage estimated at \$20,000. On 22d: Vicinity of Belair, 5 p. m.; some corn and oats blown down. On 22d: A severe local storm, reported by some as a waterspout and by others as a tornado, struck the Potomac River shore of southern Charles County, south of Morgantown—from the west—in the vicinity of Cuckholds Creek, at about 5:30 p. m.; summer cottage wrecked, another partly wrecked; garage and car, stable, several tobacco barns and contents, and some small farm buildings also wrecked; loss estimated at \$10,000. Man killed and his wife seriously injured.

Hail.—On 11th: Northeastern Washington County, between Chewsville on north, Beaver Creek and Bagtown on south, and South Mountain on

east, 5 p. m. to 5:20 p. m.; path 1½ to 3 miles wide, from northwest to southeast; hailstones were flattened, discus-like, and 2½ inches in diameter; window glass broken, roofs damaged, young orchards and raspberry plantations ruined, and birds, young rabbits, and chickens killed; damage to crops estimated at \$50,000. Frederick, after 6 p. m.; from northwest; hail size of walnuts fell for 15 minutes; about 4,000 panes of window and greenhouse glass broken, gardens damaged, trees stripped of fruit and branches, and some poultry killed; damage estimated at \$10,000.

Rain.—On 11th: Frederick, after 6 p. m.; interiors of homes and buildings damaged, due to window glass broken by hail and roofs damaged by wind; cellars flooded; damage estimated at \$10,000. In surrounding territory, fields and roads badly washed. On 13th: Cumberland, 6 p. m. to 8 p. m.; 2.64 inches of rain fell; Wills Creek rose 9 feet and the Potomac River 7 feet; cellars flooded, paving torn up, foundation of silk mills on Wills Creek collapsed, gardens and farms washed out, and several washouts along the railroad between Cumberland and Ellerslie; damage estimated between \$50,000 and \$100,000.—*J. B., jr.*

PRESSURE

The monthly mean sea-level pressure at Washington and Baltimore was 29.97; at Aberdeen, 29.98 inches. The highest at Washington was 30.28; at Baltimore, 30.27—both on the 30th; at Aberdeen, 30.28 inches on the 31st. The lowest at Washington was 29.75; at Baltimore, 29.70; at Aberdeen 29.66 inches—all on the 5th.

TEMPERATURE

The monthly mean for the section, 75.7°, is 0.5° above normal. The highest monthly mean was 79.2° at Baltimore; the lowest, 65.8°, at Oakland. The highest temperature, 99°, occurred at Bell on the 8th; the lowest, 40°, at Oakland on the 30th. The greatest monthly range was 51° at Bell; the least, 31°, at Solomons. The greatest daily range was 36° at Grantsville on the 7th, at Friendsville on the 7th and 31st, and at Bell, Easton, Milford, and Ridgely on the 31st.

PRECIPITATION

The monthly average for the section, 4.30 inches, is 0.03 inch below normal. The greatest monthly amount was 8.20 inches at Pleasant Hill; the least, 1.29 inches, at Takoma. The greatest 24-hour amount was 4.12 inches at Wilmington on the 13-14th. The number of days with 0.01 inch or more, 10, is normal.

RELATIVE HUMIDITY

The average percentages were: Washington, D. C., 8 a. m., 76; 12 noon, 58; 8 p. m., 66. Baltimore, Md., 8 a. m., 69; 12 noon, 55; 8 p. m., 66. Aberdeen, Md., 8 a. m., 78; 4 p. m., 61. Philadelphia, Pa., 8 a. m., 77; 12 noon, 62; 8 p. m., 71.

WIND

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

The prevailing wind direction for the section was southwest. The total movement at Washington was 3,049; at Baltimore, 5,673; at Aberdeen, 4,385 miles. The maximum velocity at Washington was 28 miles; at Baltimore, 34 miles; at Aberdeen, 31 miles—all from the northwest on the 4th.

SUNSHINE AND CLOUDINESS

At Washington 66 per cent of the possible sunshine was recorded; at Baltimore, 69 per cent; at Aberdeen, 72 per cent. For the whole section the average number of clear days was 18; partly cloudy, 8; cloudy, 5.

Climatological Data for July, 1928

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

The departures from normal temperature and precipitation are computed only for such stations as have 10 or more years of record, but all complete reports are used in determining section or division means. Data in italics determined from surrounding sections. T. Precipitation is less than 0.01 inch rain or melted snow. Reference letters, a, b, c, appearing in the table indicate number of days missing: For example, b represents two days, etc. If post office addresses of these stations are as follows: Of Bell, Glendale; of Coleman, Worton; of Fallston, Bagley; of Ferry Landing, Owings; of Great Falls, Bethesda; of Pleasant Hill, Owings Mills; of Public Landing, Snow Hill. *Also on other dates. *Custom House, Gay, and Water Streets. **Weather Bureau Building, 24th and M Streets.

Daily Temperatures for July, 1928

Table with columns for Stations, days 1-31, and Mean. Rows list various locations in Maryland and Delaware, such as Annapolis, Baltimore, and Washington, D.C., with their respective daily temperature ranges and monthly averages.

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, on 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-8-30-28-800)