

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.

The month was decidedly cool with a mean temperature of 63.2°, or 3.9° below normal. This was within 0.6° of the mean temperature of the coolest September of record, namely, 62.6°, in 1917. There was much cloudiness, and the resultant monthly sunshine averaged only about 50 per cent of the possible amount, or 15 per cent below normal; this was the least in September since 1913. Rainfall was deficient, except at the close of the month when a "southeaster" produced heavy rains on the 29-30th, which raised the monthly amounts to greatly in excess of the normal. Average rainfall for the month was the next greatest of record in September, or but 0.21 inch less than that of the wettest September, namely, 6.23 inches, in 1907.

Mean monthly temperatures were 3° to 4° below normal generally over the section, except 5° to 6° below normal in the Allegheny Mountain region.

The warm wave that set in on August 26 terminated on September 2. The 1st was a hot day with maximum temperatures between 90° and 100°, except slightly below 90° in the Allegheny Mountain region. Persistent cool weather from the 3d to the close of the month was interrupted briefly by mild spells on the 8th, 12-13th, 22d, and 28-29th. Crests of the cool periods were 5-7th, 10-11th, 16-17th, and 24-25th.

Freezing temperatures occurred and killing frosts formed in the Allegheny Mountain region on the 7th, 11th, 24th, and 25th; in Allegany and Washington Counties and in the valley district of extreme northern Baltimore County on the 11th; and in extreme northeastern Washington County on the 24th. Corn, tomatoes, late potatoes, buckwheat, and late truck crops were damaged somewhat. Light frosts formed on the above dates elsewhere over the section, except in the Chesapeake Bay region and along the Atlantic coast, and also on the 6th in western Maryland and in extreme northern north-central Maryland.

Monthly rainfall over the section averaged one and one-half to two times the normal, except two to two and one-half times the normal in the southern and central portions of the western half of the Eastern Shore, in southern Maryland, and the Piedmont Plateau region of north-central Maryland.

The maximum rainfall recorded during the storm of the 29-30th was between 5 and 6 inches over an area about 30 miles wide, extending from the District of Columbia and northern Prince Georges County north-northwestward to the Pennsylvania line. The rainfall decreased in amount on both sides of the area just mentioned to slightly less than 2 inches in the Allegheny Mountain region at the extreme west and the Atlantic coast of Delaware at the extreme east. This distribution is reflected in the monthly amounts which decrease from between 7 and 8 inches over the narrow area mentioned above to slightly below 5 inches over western Maryland and in extreme eastern Delaware.

Streams within the area of heaviest rainfall of the 29-30th overran their banks and interrupted traffic on highways during the latter part of the storm, particularly on the 30th.

Crops.—The cool weather of the month greatly retarded growth of late potatoes and late truck crops and the maturing of corn, tomatoes, tobacco, sweet potatoes, tree fruits, etc. Crops and

pastures were in fair to good condition generally, except poor between the Allegheny and Blue Ridge Mountains. The corn crop is unusually short this year. Cutting of early corn began during the second decade over the eastern portion of the section and became general during the third decade. Late corn eared well during the first decade; it was maturing very slowly during the closing week, but much of it was then still green. Late potatoes were good, but grew slowly; they were in bloom throughout the month. Digging of sweet potatoes began during the third decade over the southern half of the section. Harvesting of tomatoes, apples, and pears continued throughout the month; harvesting of sugar corn and peaches ended during the third decade; cutting of tobacco began during the second decade; water-melons were harvested during the first decade. Tomatoes were of good quality, but a short crop; the season was at its peak around the 20th. In the Allegheny Mountain region harvesting of oats ended during the first decade; during the second and third decades oats were threshed, and digging of potatoes, harvesting of buckwheat, and sowing of wheat and rye were in progress. Sowing of wheat and rye began during the closing week on the northern Piedmont Plateau. The growing season continued two to three weeks behind normal throughout the month.—*J. B., jr.*

PRESSURE.

The monthly mean sea-level pressure at Washington and Baltimore was 30.08, and at Aberdeen, 30.07 inches. The highest at Washington was 30.53; at Baltimore, 30.54; at Aberdeen, 30.56 inches; all on the 27th. The lowest at Washington was 29.63, on the 2d; at Baltimore, 29.61, and at Aberdeen, 29.59 inches, both on the 30th.

TEMPERATURE.

The monthly mean for the section, 63.2°, is 3.9° below normal. The highest monthly mean was 67.6° at Crisfield; the lowest, 55.0°, at Grantsville and Oakland. The highest temperature, 101°, occurred at Hancock on the 1st; the lowest, 30°, at Grantsville on the 7th, 11th, and 24th, at Oakland on the 7th and 11th, and at Chewsville on the 24th. The greatest local monthly range was 69° at Hancock; the least, 41°, at Crisfield. The greatest daily range was 45° at Western Port on the 7th.

PRECIPITATION.

The monthly average for the section, 6.02 inches, is 2.82 inches above normal. The greatest monthly amount was 8.07 inches at Laurel; the least, 3.83 inches, at Cumberland. The greatest amount in 24 hours was 4.53 inches at Washington on the 29-30th. The average number of days with 0.01 inch or more, 12, is 6 above normal.

WIND.

The prevailing direction for the section was southwest. The total movement at Washington was 4,553; at Baltimore, 4,593; at Aberdeen, 5,249 miles. The maximum velocity at Washington was 48 miles per hour from the northwest on the 2d; at Baltimore, 27 miles from the southeast on the 30th; at Aberdeen, 36 miles from the northwest on the 30th.

SUNSHINE AND CLOUDINESS.

At Washington 45 per cent of the possible sunshine was recorded; at Baltimore, 52 per cent; at Aberdeen, 52 per cent. For the whole section the average number of clear days was 11; partly cloudy, 6; cloudy, 13.

Climatological Data for September, 1924.

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 ten or more years of record, but all complete reports are used in determining section or division means. Data in italics determined from surrounding stations. Reference letters, a, b, c, appearing in the table indicate number of days missing; for example, b represents two days, etc. 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 Ichester, Elkridge; of Public Landing, Snow Hill. Also on other dates. T. Precipitation is less than 0.01 inch rain or melted snow. *Customhouse Building, Gay and Water Streets. **Weather Bureau Building, 24th and M Streets.

MISCELLANEOUS PHENOMENA (WITH DATES).

Aurora.—Night 23.
Fogs.—Aberdeen, 17, 18, 19, 27, 29, 30; Ferry Landing, 18, 19; Oakland, 7.
Fogs, dense.—Frostburg, 21, 22, 27, 28; Millsboro, 18, 20.

Frosts.—See "General Summary".
Thunderstorms.—1, 2, 5, 8, 9, 13.
Winds, high.—Thundergust from northwest, 2; from south-east-south, 29, 30.

Daily Precipitation for September, 1924.

Table with columns for Stations, Watersheds, Day of month (1-31), and Total. Rows list various locations in Maryland and Delaware with their respective precipitation amounts for each day of the month.

Except as otherwise indicated observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observation.

***Regular Weather Bureau station; precipitation is for the 24-hour period, midnight to midnight.

**Precipitation is for 24-hour period, midnight to midnight.

†††Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

*Precipitation included in the next following measurement.

T. Trace, or less than 0.01 inch.

Data in italics determined from surrounding stations.

COMPARATIVE DATA FOR MARYLAND AND DELAWARE FOR SEPTEMBER.

Table comparing monthly climate data for Maryland and Delaware from 1895 to 1924. Columns include Year, Temperature (Mean, Departure from normal, Highest, Lowest, Average), and Precipitation (Departure from normal, Greatest local, Least local, Greatest in 24 hours, Snowfall, Number of days with 0.01 inch or more).

Daily Temperatures for September, 1924.

Table with columns for Stations, days 1-31, and Mean. Rows list various locations in Maryland, District of Columbia, and Delaware, with their respective daily temperature readings.

* , ° , etc., indicate respectively 1, 2, 3, etc., days missing from the record. Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs. Data in italics determined from surrounding stations.