

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

For the section, as a whole, this was the driest August of record, and it marked the second month of a summer drought unprecedented for intensity and duration. The month was but 0.5° warmer than normal, despite the impression that it was a very warm August, which was created by the hot spell of the first decade. Highest temperatures did not exceed previous highest records in August, except at a few stations. The highest of 108° was 1° less than the highest of record for August and 2° less than the highest last July. Freezing temperatures were recorded in the Allegheny Mountain highlands on the 12th. The number of days with appreciable rain averaged 5, or one-half of normal, but ranged from 1 at Ferry Landing to 11 at Grantsville. Monthly sunshine, the greatest in August since 1925, was 10 per cent above normal. Relative humidity was unusually low, being between 15 and 20 per cent below normal. There were no damaging hailstorms, no violent thundergusts, and no damaging high winds. Many prostrations and some deaths were caused in Baltimore by the hot spell of the first decade. The prolonged dry weather gave opportunity for many forest and grass fires.

While monthly mean temperatures were between normal and 4° above over most of the section they were between normal and 2° below in the Allegheny Mountain region and in the Annapolis, Cambridge, Hancock, Milford, Millington, Princess Anne, Rock Hall, Solomons, and Wilmington districts.

The heat wave that began on July 18 was ended on August 10 by fresh to strong northwest winds, ushering in much cooler weather. This had been the longest and most intense summer heat wave of record, with an average daily temperature 8° to 10° above normal. The cool wave from the 11th to the 24th, with mean temperature 4° to 5° below normal, was a welcome relief. The 25th-31st was warm.

Highest temperatures were 100° to 108°, excepting the Allegheny Mountain region, in the western half of the section on the 3d, in western and north-central Maryland on the 4th and 8th, in the northern and central portions of the section on the 5th, and over the entire section on the 9th; also at Keedysville on the 2d, 7th, and 31st, in the Piedmont Plateau on the 6th, at Bell on the 7th, at Frederick on the 7th and 10th, at Elkton and Rock Hall on the 8th, at Newburg on the 8th and 10th, at Cheltenham on the 10th, at Woodstock on the 10th and 28th, and at Great Falls on the 31st.

Monthly rainfall averaged one-fourth of normal. Rain was mostly in the form of light showers. Monthly amounts were less than 1 inch generally, and the least of record in August, in southern and north-central Maryland, in eastern Washington County, and in the southern and central portions of the Eastern Shore; were between 1 and 2 inches in western Washington County, eastern and central Allegany County, and over the northern Eastern Shore, except between 2 and 4 inches in the Dover and Millington districts; and were between 2 and 3 inches in the Allegheny Mountain region. The area of least rainfall, 0.2 inch, embraced Anne Arundel and Calvert Counties.

Rainfall averaged 51 per cent of normal in western Maryland;

16 per cent in north-central Maryland; 13 per cent in southern Maryland; and 26 per cent on the Eastern Shore.

Some relief from the drought was afforded by heavy thunder-showers in the Cambridge, Dover, and Millington districts during night of July 31-August 1, by heavy showers in the Allegheny Mountain region on the 14th, and by moderate to heavy showers in western Maryland on the 17th and in the northern and central portions of the Eastern Shore during night of 22-23d; and slight relief by moderate thundershowers in the District of Columbia and in the Baltimore, Elkton, and Frederick districts on the 27th.

Crops wilted or dried up during the hot spell. Pastures and grasses were dry or burned up. Crops and pastures revived somewhat in the Allegheny Mountain region after the good rains of the 14th and 17th. Corn, sweet potatoes, tobacco, late potatoes, cowpeas, soy beans, truck, and gardens were failures generally. Tomatoes were affected by scald and rot. Cutting of corn with few or no ears for silo and shock and harvesting light crops of tomatoes, tobacco, apples, peaches, and pears were in progress. Tomatoes and tree fruit were small. Light to fair crops of cantaloupes and watermelons were marketed. Stock was fed. Streams, wells, and springs were very low. Water was hauled in some localities for stock and home. In the Allegheny Mountain region threshing of wheat, rye, barley and oats gave good to excellent yields; in the other divisions wheat, rye, and barley yielded good and oats yielded fair to good. The early potato crop was poor. Some plowing was done in western and north-central Maryland during the second half of the month. Corn, tomatoes, potatoes, buckwheat, and gardens were damaged by freezing temperature and frost in low places of the Allegheny Mountain highlands on the 12th.—J. B., jr.

### PRESSURE

The monthly mean sea-level pressure at Washington, D. C., and Aberdeen was 30.00; at Baltimore, 29.99 inches. The highest at Washington, D. C., and Baltimore was 30.34; at Aberdeen, 30.33 inches—all on the 13th. The lowest at Washington, D. C., Baltimore, and Aberdeen was 29.72 inches—all on the 10th.

### TEMPERATURE

The monthly mean for the section, 73.8°, is 0.5° above normal. The highest monthly mean was 77.6° at Baltimore; the lowest, 64.7°, at Grantsville. The highest, 108°, occurred at Keedysville on the 4th; the lowest, 30°, at Oakland on the 12th. The greatest local monthly range was 68° at Western Port; the least, 38°, at Solomons. The greatest daily range was 52° at Western Port on the 4th.

### PRECIPITATION

The monthly average for the section, 1.12 inches, is 3.15 inches below normal. The greatest monthly amount was 3.33 inches at Millington; the least, 0.15 inch, at Ferry Landing. The greatest 24-hour amount was 2.17 inches at Millington from 9 p. m. to 11 p. m., of July 31. The average number of days with 0.01 inch or more, 5, is 5 below normal.

### RELATIVE HUMIDITY

The average percentages were: Washington, D. C., 8 a. m., 69; 12 noon, 41; 8 p. m., 50. Baltimore, Md., 8 a. m., 60; 12 noon, 43; 8 p. m., 52. Aberdeen, Md., 8 a. m., 74; 4 p. m., 49. Philadelphia, Pa., 8 a. m., 71; 12 noon, 46; 8 p. m., 55.

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Climatological Data for August, 1930

Stations	Counties	Elevation, feet	Length of record, years	Temperature, in degrees Fahr.						Precipitation, in inches				Number of days			Prevailing direction of wind	Observers		
				Mean	Departure from the normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from the normal	Greatest in 24 hours	Total snowfall (unmelted)	With precip., 0.01 inch or more	Clear			Partly cloudy	Cloudy
<i>Maryland</i>																				
Aberdeen	Harford	80	12	75.4	+2.9	97	5	52	24	30	0.38	-4.39	0.17	0.0	5	10	15	6	s.	U. S. Army.
Annapolis	Anne Arundel	45	65	75.8	-0.4	97	8	57	12	29	0.21	-4.38	0.17	0.0	4	14	12	5	se.	Louis E. Foster.
Baltimore*		115	60	77.6	+2.1	104	5	60	12	29	0.78	-3.59	0.56	0.0	6	10	17	4	n.	U. S. Weather Bureau.
Bell II	Prince Georges	151	10	74.1	+1.5	103	14	42	12	43	0.33	-3.67	0.12	0.0	6	14	15	2	nw.	Bureau Plant Industry.
Boys	Montgomery	424	11																	
Cambridge (near)	Dorchester	25	37	74.6	-1.7	102	9	45	13	39	1.83	-2.52	1.20	0.0	3	21	5	5	s.	Matt Harding.
Cecilton	Cecil	85	12	74.4	+0.8	102	5	50	12	39	0.71	-4.19	0.35	0.0	4	21	4	6	s.	James Reese Short.
Cheltenham	Prince Georges	230	30	75.2	+1.7	102	9	47	12	37	0.79	-3.53	0.54	0.0	5	19	10	2	se.	Geo. Hartnell.
Chewsville	Washington	530	33	72.7	+0.7	104	4	42	12	38	0.73	-3.08	0.38	0.0	7	10	18	3	nw.	D. Paul Oswald.
Clear Spring	do	640	33																	
Coleman II	Kent	80	33	74.9	+0.5	99	13	55	13	33	1.14	-3.87	0.74	0.0	4	22	5	4	nw.	Mrs. Leo A. Cobill.
College Park	Prince Georges	87	44	75.3	+1.7	104	5	43	12	42	0.71	-3.22	0.24	0.0	7	19	9	3	nw.	Walter B. Harris.
Crisfield	Somerset	5	11	75.9	+0.7	97	9	54	13	25	0.42	-4.26	0.21	0.0	5	15	11	5	sw.	Prof. Thos. A. White. A. B. Cochrane.
Cumberland	Allegany	623	58	73.0	+1.0	104	4	45	12	46	1.87	-1.61	0.85	0.0	8	18	9	4	.....	Harvey H. Weiss.
Darlington	Harford	300	40	73.2	+0.8	102	9	46	13	45	0.31	-4.44	0.13	0.0	3	18	9	4	nw.	Fred. C. Jones.
Easton	Talbot	35	40	75.2	+1.0	100	15	51	13	34	1.00	-3.15	0.64	0.0	4	21	6	4	sw.	Clement E. Bray.
Elkton	Cecil	28	4	73.5	.....	103	5	44	12	41	2.07	.....	0.73	0.0	6	21	6	4	sw.	H. W. Bouchelle.
Emmitsburg	Frederick	720	62	75.5	+3.0	104	5	49	12	32	0.52	-3.46	0.30	0.0	5	14	14	3	s.	Mt. St. Mary's College.
Fallston	Harford	450	61	73.6	+1.6	103	5	51	12	33	0.48	-4.40	0.23	0.0	5	10	18	3	nw.	Miss Dora Curtiss.
Ferry Landing II	Calvert	110	14	75.0	+1.3	103	9	47	13	35	0.15	-4.82	0.15	0.0	1	19	10	2	se.	Thos. J. Bourne.
Frederick	Frederick	275	56	76.6	+2.7	106	4	47	12	42	1.26	-2.39	0.59	0.0	6	16	11	4	sw.	A. T. Brust.
Friendsville	Garrett	1,501	12	66.6	-0.1	97	4	37	12	47	2.57	-1.45	1.00	0.0	6	18	9	9	.....	Joab J. Friend.
Frostburg	Allegany	1,929	29	70.9	+0.9	101	6	39	13	45	2.27	-1.90	0.88	0.0	6	15	12	4	w.	T. F. Lewis.
Grantsville	Garrett	2,351	37	64.7	-1.7	96	4	34	12	48	2.78	-1.16	1.13	0.0	11	12	11	8	w.	Floyd J. Miller.
Great Falls II	Montgomery	200	41	74.9	+1.5	105	4	44	12	43	0.47	-3.28	0.30	0.0	3	11	17	3	sw.	Chas. E. Sullivan.
Hancock (Tonoloway)	Washington	455	20	71.2	-1.9	105	4	38	13	50	2.25	-0.88	0.93	0.0	8	17	11	3	.....	American Fruit Growers.
Keedysville	do	400	26	75.4	+2.0	108	4	45	12	43	0.90	-3.32	0.44	0.0	6	18	9	4	nw.	J. A. Miller.
Laurel	Prince Georges	320	36	75.1	+1.8	104	5	52	13	40	0.67	-3.90	0.51	0.0	5	18	10	3	.....	Evan G. Chaney.
Lutherville	Baltimore	340	4	73.6	.....	105	5	42	12	42	1.03	.....	0.49	0.0	6	14	13	3	s.	August W. Clark, P. M.
Maryland Line	do	840	6	74.0	.....	102	6	49	12	37	1.03	.....	0.69	0.0	5	16	12	3	sw.	Chester L. Fulton.
Mechanicsville	St. Marys	165	4																	
Milington	Kent	127	33	73.6	-0.3	99	5	47	12	38	3.33	-1.01	2.17	0.0	4	19	8	4	s.	Henry L. Higman.
Newburg	Charles	110	5	76.4	.....	104	9	50	13	38	0.27	.....	0.12	0.0	3	16	10	5	sw.	John P. Burdette.
Oakland	Garrett	2,481	31	65.0	-0.5	96	4	30	12	50	2.37	-1.75	1.05	0.0	6	15	10	6	w.	R. E. Weber.
Picardy	Allegany	900	4	72.0	.....	104	4	42	12	44	1.49	.....	0.60	0.0	6	17	11	3	w.	American Fruit Growers.
Pleasant Hill II	Baltimore	660	6								0.45	.....	0.19	0.0	5	17	11	3	nw.	J. E. Henry.
Pocomoke City	Worcester	37	25								0.61	-3.69	0.43	0.0	4	11	15	5	.....	Wm. H. Dryden.
Princess Anne	Somerset	17	55	72.7	-1.7	102	9	44	13	40	0.50	-4.61	0.22	0.0	4	10	14	7	sw.	James R. Stewart.
Public Landing II	Worcester	10	15																	
Ridgely	Caroline	57	9	75.7	+1.6	104	15	48	13	40	0.63	-3.83	0.33	0.0	3	13	14	4	n.	Albert White.
Rock Hall	Kent	25	16	75.6	+0.6	102	8	47	13	37	0.55	-3.95	0.23	0.0	5	22	7	2	s.	Charles Judefind.
Salisbury	Wicomico	23	25	75.8	+1.0	102	9	47	13	37	0.90	-4.48	0.35	0.0	6	21	5	5	sw.	Homestead Dairy Farms.
Sines (Deep Creek)	Garrett	2,040	3	65.0	.....	94	14	40	12	44	2.06	.....	0.92	0.0	8	13	9	9	.....	C. E. MacMurray.
Solomons	Calvert	20	39	76.1	-0.9	98	5	60	12	33	0.42	-3.35	0.33	0.0	3	7	17	7	se.	Dr. W. H. Marsh.
State Sanatorium	Frederick	1,460	22	74.7	+3.7	104	4	48	12	34	0.66	-3.99	.....	0.0	6	11	17	3	.....	Dr. V. F. Cullen.
Stevensville	Queen Annes	12	4	75.4	.....	97	8	52	13	32	1.10	.....	0.59	0.0	3	11	17	3	n.	T. R. Price.
Takoma	Montgomery	320	32																	
Towson	Baltimore	465	18								0.27	-4.41	0.16	0.0	5	10	17	4	.....	L. M. Mooers.
Western Port	Allegany	1,000	37	71.6	-0.2	106	4	38	13	52	2.25	-1.15	1.07	0.0	8	.....	.....	.....	.....	Metropolitan District.
Westminster	Carroll	770	21	74.6	+1.5	104	5	49	12	35	1.89	-2.52	0.90	0.0	8	15	13	3	.....	Norris Bruce.
Woodstock	Baltimore	415	60	75.3	+2.7	103	14	44	12	44	0.50	-3.79	0.25	0.0	5	16	11	4	nw.	Prof. S. P. Caltrider. Woodstock College.
<i>Dist. of Columbia</i>																				
Washington**		112	60	76.8	+1.8	102	5	55	13	30	0.62	-3.39	0.37	0.0	5	10	15	6	nw.	U. S. Weather Bureau.
<i>Delaware</i>																				
Bridgeville	Sussex	45	7	74.6	+0.4	102	9	47	13	39	0.92	-3.44	0.61	0.0	3	20	9	2	sw.	George Ray.
Delaware City	New Castle	12	44	75.0	+0.3	101	5	49	12	35	1.10	-2.68	0.60	0.0	3	15	10	6	s.	James E. Maden.
Dover	Kent	34	41	74.6	+0.2	99	9	50	13	34	3.06	-1.34	1.13	0.0	6	19	8	4	sw.	Arthur G. Livingston.
Milford	Sussex	20	48	74.4	-0.6	101	9	46	13	37	1.40	-3.14	0.75	0.0	2	15	14	2	sw.	Chas. J. Holzmueller.
Millsboro	do	20	38	73.9	-0.6	101	5	46	13	34	1.73	-3.33	0.90	0.0	6	12	15	4	sw.	Rev. M. P. S. Huntington.
Wilmington	New Castle	86	37	73.9	-0.4	98	5	49	13	32	1.34	-3.30	0.58	0.0	7	16	11	4	sw.	Street and Water Depts.
<i>Means and extremes:</i>																				
For Maryland and District of Columbia.				73.7	+0.6	108	4	30	12	52	1.06	-3.18	2.17	0.0	5	15	12	4	sw.	
For Delaware				74.4	-0.1	102	9	46	13	39	1.59	-2.87	1.13	0.0	4	16	11	4	sw.	
For entire section				73.8	+0.5	108	4	30	12	52	1.12	-3.15	2.17	0.0	5	15	12	4	sw.	

(Continued from page 29)

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 3,253; at Baltimore, 6,099; at Aberdeen, 4,255 miles. The maximum velocity at Washington, D. C., was 20 miles from the northwest on the 10th; at Baltimore, 28 miles from the southwest on the 29th; at Aberdeen, 24 miles from the south on the 14th.

SUNSHINE AND CLOUDINESS

At Washington, D. C., 70 per cent of the possible sunshine was recorded; at Baltimore, 71 per cent; at Aberdeen, 57 per

cent. For the whole section the average number of clear days was 15; partly cloudy, 12; cloudy, 4.

MISCELLANEOUS PHENOMENA (WITH DATES)

Fogs, dense.—Aberdeen, 16; Milford, 8, 16, 25; Princess Anne, 25; on the coast, 31.

Frost, killing.—Low places in highlands of Garrett County, 12.

Hail, light.—Chewsville and Lutherville, 1.

Lightning, damage by.—Two horses killed 2 miles west of Somerset, Montgomery County, 27.

Thunderstorms.—1, 15, 26, 27, 29.

Winds, high.—Eastern Shore and on the coast: Northeast, 21, 22; north, 23.



Daily Temperatures for August, 1930

Table with columns for Stations, days 1-31, and Mean. Rows list various stations in Maryland and Delaware, including Aberdeen, Annapolis, Baltimore, etc., with their respective maximum and minimum temperatures for each day.

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-10-9-30-950)