

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU

IN COOPERATION WITH MARYLAND STATE WEATHER SERVICE

CLIMATOLOGICAL DATA

15 MARYLAND AND DELAWARE SECTION

J. R. WEEKS

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BALTIMORE, Md., JULY 1940

No. 7

GENERAL SUMMARY

This month was slightly cooler than normal, with monthly sunshine 5% above normal. The monthly rainfall averaged three-fourths of normal. The 1st-8th and 12-18th were cool. The 9-11th was warm. The 19th-31st was a very warm period, being the longest heat spell of such intensity since July 18-29, 1930. Rains were of the local summer-shower type, except prolonged during night of June 30-July 1 and during July 3-4.

Crops were fair to good, except good to excellent the first decade and good the second decade in western Maryland. Grasses and pastures in western Maryland were good to excellent the first decade, but only fair to good thereafter; in the central and eastern divisions they improved to fair to good the first decade, but deteriorated to fair the second decade and to poor the third decade. Harvesting wheat and rye ended in the eastern and central divisions the first week and in Washington and Allegany counties the third week; began the third week and ended the fourth week in Garrett County. Harvesting oats began the first week and ended the second week, digging early potatoes began the first week, picking early tomatoes began the first half of the month, and harvesting sugar corn began the third week in the southern and central counties. Harvesting oats, digging early potatoes, and picking early tomatoes began the third week in the northern counties, except Garrett County. Yields of hay the first half of the month were good to heavy. Picking early varieties of apples, peaches, and pears began the second week. Harvesting strawberries in Garrett County and harvesting peas in western Maryland ended the third week. Early corn tasseled and eared. During the third decade: Late potato plants in western Maryland were blooming; sweet potato tubers were making, developing, and sizing; early tobacco plants were buttoning; and the season advanced to one week backward of normal.—*J.B., jr.*

TEMPERATURE

The monthly mean for the section, 75.0° , is 0.3° below normal. The highest monthly mean was 78.8° at Baltimore; the lowest, 64.4° , at Oakland. The highest temperature, 103° , occurred at Dundalk and Solomons on the 26th; the lowest, 37° , at Oakland on the 5th and 14th and at Sines on the 5th. The greatest local monthly range was 58° at Bell; the least, 39° , at Crisfield. The greatest daily range was 40° at Sines on the 6th and Tonoloway on the 14th.

PRECIPITATION

The monthly average for the section, 3.30 inches, is 1.01 inches below normal. The greatest monthly amount was 7.87 inches at Emmitsburg; the least, 1.00 inch at Odessa. The greatest 24-hour rainfall was 3.06 inches at Keedysville on the 23d. The average number of days with 0.01 inch or more of precipitation, 9, is 1 below normal.

MISCELLANEOUS PHENOMENA (WITH DATES)

Hail, light.—Cumberland, 30; Newark, 28; Oxford, 16. *Hail, moderate.*—Tonoloway, 2:30 p.m., 24th; one-fourth to one-half inch in diameter; area one mile wide; 10 per cent of tree fruits damaged; no crops damaged. *Hail, heavy.*—Ridgely, 4 p.m. to 4:20 p.m., 28th; flat disks size 5-cent piece; area one mile wide, five miles long; 25 per cent tomatoes damaged; other crops damaged slightly. Lightning destroyed a barn and contents evening 31st near Catonsville. *Thunderstorms, strong.*—12, 13, 22, 23, 26 to 31.

Thundergust 4 p.m., 28th, at Ridgely, broke large limbs off trees and blew down some corn stalks; at 6:15 p.m., 28th, at Newark, uprooted many trees, broke limbs off other trees, uprooted some plants, and blew down many corn stalks. *Thunderstorms.*—4, 11 to 13, 16, 21 to 31. During a severe thunderstorm, 5 p.m. to 6 p.m., 22d, from nw. to se., in the Grantsville district lightning struck number of maple trees and killed four hogs and one cow, the gust uprooted some trees which, in falling, broke telephone and electric current wires, and the heavy rain washed soil and some potato plants from the fields. *Tornado, mild.*—5 p.m., 23d, from northeast of Rockville southward to near Bethesda; over a wooded area two miles wide and 10 miles long, in which are located Halpine, Montrose, and Randolph; several homes unroofed, loss \$2,500; many trees uprooted, which fell in all directions.

PRESSURE, HUMIDITY, SUNSHINE, WIND, DEGREE DAYS

Stations	Atmospheric pressure reduced to sea level			Wind			Mean relative humidity			Percentage of sunshine	Cooling degree days (base 75°)	
	Highest	Date	Lowest	Date	Average hourly velocity	Maximum velocity	Direction	Date	7:30 a.m.	1:30 p.m.		
Aberdeen, Md.	30.33	6	29.79	31	7.1	24	n.	26	80	..	69	..
Annapolis, Md.	30.36	6	29.80	31	6.0	72	72	73	..	135
Baltimore, Md.	30.36	6	29.80	11	8.7	32	n.	28	78	50	67	76
Elkins, W. Va.	30.42	6	29.90	12	4.2	25	nw.	29	93	58	78	60
Harrisburg, Pa.	30.38	6	29.78	11	6.3	34	se.	27	78	47	62	78
Norfolk, Va.	30.35	6	29.85	31	7.5	30	nw.	28	82	58	76	67
Philadelphia, Pa.	30.35	6	29.80	11	10.2	43	n.	30	82	51	66	58
Pittsburgh, Pa.	30.37	6	29.83	11	8.4	38	nw.	29	80	50	63	64
Washington, D. C.	30.36	6	29.81	31	5.2	23	nw.	28	77	50	63	61

COMPARATIVE DATA FOR JULY

Year	FOR MARYLAND						FOR DELAWARE					
	Temperature			Precipitation			Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Average snowfall	No. of days with 0.1 in. or more	Mean	Highest	Lowest	Average	Average snowfall	No. of days with 0.1 in. or more
1895	71.0	102	32	3.40	0.0	..	72.5	100	52	3.04	0.0	8
1896	75.7	99	40	5.39	0.0	11	77.2	99	53	4.71	0.0	11
1897	75.6	102	41	6.82	0.0	12	75.9	94	59	8.46	0.0	17
1898	77.4	109	52	3.53	0.0	9	77.5	99	51	4.09	0.0	8
1899	75.6	100	37	3.45	0.0	10	76.9	98	52	6.11	0.0	10
1900	77.2	108	35	3.25	0.0	8	78.7	100	54	2.69	0.0	7
1901	78.7	106	40	5.41	0.0	11	80.2	104	59	5.62	0.0	9
1902	75.7	104	43	3.76	0.0	10	76.4	104	52	3.22	0.0	9
1903	75.1	100	41	5.63	0.0	11	75.3	100	50	4.20	0.0	8
1904	73.4	102	35	5.19	0.0	12	74.2	98	51	5.97	0.0	13
1905	75.2	101	42	7.63	0.0	14	75.9	101	56	5.25	0.0	12
1906	73.9	96	42	5.08	0.0	12	74.9	95	55	6.95	0.0	13
1907	74.6	99	39	3.98	0.0	9	75.9	96	53	3.66	0.0	7
1908	76.5	102	38	4.80	0.0	11	78.2	100	52	5.46	0.0	10
1909	73.1	98	32	1.57	0.0	5	73.9	98	49	2.12	0.0	6
1910	75.9	98	42	2.43	0.0	8	77.0	95	51	3.53	0.0	9
1911	76.9	106	35	2.67	0.0	6	78.0	102	49	2.87	0.0	7
1912	74.2	99	43	5.40	0.0	11	75.4	98	51	4.44	0.0	9
1913	75.6	102	38	2.88	0.0	9	77.2	98	50	2.22	0.0	7
1914	74.3	101	35	2.74	0.0	10	75.3	99	53	5.43	0.0	10
1915	74.2	103	36	3.31	0.0	12	76.4	100	55	3.11	0.0	10
1916	75.9	100	42	5.46	0.0	10	76.4	93	53	5.91	0.0	9
1917	74.8	102	45	6.41	0.0	14	75.8	100	56	6.07	0.0	13
1918	72.4	99	38	3.16	0.0	9	74.0	97	46	2.34	0.0	6
1919	75.5	105	41	7.38	0.0	12	75.7	105	47	10.90	0.0	12
1920	72.8	98	37	4.65	0.0	9	74.3	96	43	4.89	0.0	9
1921	77.6	101	45	4.32	0.0	10	78.4	98	58	3.50	0.0	10
1922	74.7	99	43	5.83	0.0	12	75.3	96	56	6.39	0.0	10
1923	73.9	101	39	4.48	0.0	11	78.6	97	49	5.58	0.0	10
1924	72.9	100	42	2.36	0.0	7	73.7	94	52	3.31	0.0	6
1925	74.6	100	36	5.04	0.0	10	76.2	98	49	5.24	0.0	11
1926	74.8	107	38	5.21	0.0	12	75.9	102	51	10.47	0.0	14
1927	74.0	100	39	3.64	0.0	10	75.0	96	48	5.46	0.0	9
1928	75.5	99	40	4.22	0.0	10	76.7	98	51	4.88	0.0	11
1929	74.2	101	34	1.76	0.0	7	75.6	102	46	1.28	0.0	5
1930	76.9	108	38	1.41	0.0	6	78.3	110	50	3.00	0.0	8
1931	77.5	103	44	4.70	0.0	12	78.9	100	55	3.12	0.0	11
1932	74.6	99	41	3.10	0.0	9	76.2	91	53	2.44	0.0	9
1933	74.0	102	37	5.34	0.0	8	75.0	99	50	5.50	0.0	7
1934	78.4	107	42	2.97	0.0	8	78.7	101	52	7.19	0.0	10
1935	76.9	101	42	4.23	0.0	10	77.1	97	53	4.33	0.0	9
1936	75.8	109	38	4.20	0.0	10	76.1	105	55	4.01	0.0	11
1937	74.8	100	39	3.96	0.0	10	76.0	97	53	2.64	0.0	8
1938	75.8	99	42	7.00	0.0	14	76.7	96	50	9.69	0.0	16
1939	73.8	97	39	3.59	0.0	11	75.0	94	50	2.22	0.0	8
1940	74.9	103	37	3.45	0.0	9	75.5	102	46	2.37	0.0	8
Period.....	75.1	109	32	4.26	0.0	10	76.1	110	46	4.69	0.0	10

Climatological Data for July 1940

The departures from normal temperatures are computed from the averages of the entire period for stations having 10 or more years of record. Departures of precipitation with 15 years or more of record are computed from a normal or "standard mean", adjusted to a uniform 35-year period; for stations of 10 to 14 years the means for the period of record are used. Data in italics determined from surrounding stations. T. Precipitation is less than 0.01 inch rain or melted snow.

of records are used. Data in italics determined from surrounding stations. Precipitation is less than one-half inch of melted snow.
Post addresses of these stations are as follows: of Bell, Glenndale; of Coleman, Worton; of Fallston, Bagley; of Ferry Landing, Owings; of Great Falls, Bethesda; of Mt. Savage Summit, Frostburg; of Odessa, Middletown; of Picard, Paw Paw, W. Va.; of Pleasant Hill, Owings Mills; of Prettyboy Dam, Parkton; of Sines, Oakland; Tonaway, Hancock. *Custom House, Gay and Water Sts. **Weather Bureau Building, 24th and M Sts. †Also on other dates. ½ miles northwest of Frostburg. Municipal Building. Porter Reservoir. University Farm. ||Water Pumping Station.

Daily Precipitation for July 1940

Stations	Drainage basin	Day of month																														Total				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				
Maryland																																				
Aberdeen ²⁺	Atlantic	.17	1.04	.16							T.	.04	.07				T.					T.	.70										T.	2.25		
Annapolis ¹⁺	do	.22	.84	.16							T.	.56	.50				T.					T.	.18	.71									T.	3.19		
Baltimore ¹⁺	do	.26	.80	.12							T.	.03	T.	.14			T.	.05				T.	.28										T.	2.85		
Bell	do	.29	1.80	.73	.13						T.		.17	.48			T.	.30				T.		.31	.07								T.	4.57		
Cambridge(near)	do	.15	.50	.25	T.						T.			.35	.57		T.	T.				T.			.21	T.								T.	2.03	
Charlotte Hall	do	.14	.03	.44	T.						T.			.10	.56		T.	T.				T.			1.34	1.28								T.	4.69	
Cheltenham ⁴	do	.28	.14	.40	.37						T.			T.	1.08		T.	.12				T.			.15	1.63	.02							T.	5.35	
Chestertown	do	.38		1.20						T.			T.	.62	T.		T.	.02				T.			1.82								T.	5.20		
Chewsville	do	.32	.46	.19						T.			T.	.15	.01	T.	.01	T.	.28			T.			.01	.18	.07						T.	2.68		
Coleman	do	.28	1.81	.22						T.			T.			T.	.24				T.			1.75	T.								T.	3.67		
College Park	do	.24	.60	1.06	.17					T.			T.		.31	.27		T.	T.			T.			.35	T.								T.	3.33	
Conowingo Dam ⁴	do	.14	.47	.04						T.			T.			T.					T.			.12								T.	1.77			
Crisfield	do	T.	.05	.24						T.			T.			T.	.14	.27			T.			.84	.03								T.	3.43		
Cumberland ⁴	do	.52	.40						T.			T.			T.	.21	.02	T.	.10	T.	.12	T.			.02	.20	T.	.03				T.	2.55			
Darlington	do	.25	.48	.30	T.					T.			T.			T.			T.		T.			.48	T.								T.	1.77		
Dundalk ²	do	.23	1.25	.08						T.			T.			T.	.03	.08			T.			.12								T.	5.49			
Easton	do	.35	.35	.30	T.					T.			T.			T.	.20	.53			T.			.07								T.	1.85			
Edgemont ⁴	do	.40	.60	T.					T.			T.			T.	.36	T.			T.			.03	.50	.10	T.	.54						T.	4.55		
Elkton	do	.10	1.35	.12					T.			T.			T.	.07				T.			.06	T.								T.	3.00			
Emmitsburg	do	.12	.54	.50	T.				T.			T.			T.		.25	T.			T.			.95	.75	.05							T.	7.87		
Fallston	do	.28	.38	.38	T.					T.			T.			T.	.03				T.			1.35	.24								T.	2.72		
Ferry Landing	do	.20	.12	.73	T.				T.			T.			T.	.81	.65			T.			.03	.95	.02								T.	3.67		
Frederick ⁴	do	.39	.105	.01					T.			T.			T.	.02	T.			T.			.44	.03	.80	T.	T.	.51	.18				T.	4.21		
FRIENDSVILLE	Ohio	.70	T.						T.			T.			T.	.96	.10			T.			.37	.10	T.	T.		T.	.53	.90	T.	4.38				
Frostburg	Atlantic	.60	.17	.02					T.			T.			T.	.52				T.			.02	T.	.15							T.	2.43			
Georgetown	do	.15	.40	.00					T.			T.			T.			T.																T.	3.15	
Great Falls ⁴	do	.30	.15	.50	.18				T.			T.			T.	.22				T.			.10	T.								T.	5.54			
Hancock ⁴	do	.39	.42					T.			T.			T.	.62	.40	.03		T.		T.	.05	T.			.10	.53	.02	T.				T.	2.25		
Huntingtown	do	.13	.17	.52	.02			T.			T.			T.		.77	.54		T.			.04	T.			.26	.88							T.	3.33	
Keadysville	do	.41	.50	.25				T.			T.			T.			.02	.04	.01		T.			.11	.42	.11							T.	6.11		
Laurel	do	.24	.60	.60	.27				T.			T.			T.			.02	.12			T.			.06	.65	.06							T.	2.81	
Leonardtown	do	.03	.15	.43	T.				T.			T.			T.			.16	.60			T.			.06	.22							T.	2.06		
Luke ⁴	do	1.54	.40					T.			T.			T.			.27	T.			T.			.01	.07	T.			T.	.36	T.			T.	2.85	
Lutherville	do	.35	.60	.50	T.				T.			T.			T.			.01	.07	T.			T.			.42	T.							T.	1.87	
Maryland Line	do	.24	.68	.17	T.				T.			T.			T.			.06	.47			T.			.08	.47							T.	2.09		
Millington	do	.30	.41	.24				T.			T.			T.			.79	.12			T.			.09	T.			.01	T.				T.	1.66		
Mt. Savage Summit ⁵	do	.52	.01					T.			T.			T.			.54	.05	.06		T.			.01	.02	.01							T.	3.15		
Oakland	Ohio	1.84	.16					T.			T.			T.			.01	1.03	.08		T.			.12	.56	T.			T.				T.	4.05		
Ocean City	Atlantic	T.	.89	2.06					T.			T.			T.			.01	1.46	.58		T.			.12	.12	T.							T.	5.13	
Oxford	do	.31	.23	.33	T.				T.			T.			T.			.13	.43			T.			.26	.09							T.	2.32		
Perryville	do	.14	.94					T.			T.			T.			.03	T.			T.			.45									T.	1.56		
Picardy	do	.82	.48	T.				T.			T.			T.			.10	.65			T.			.53	.35	T.			T.				T.	3.53		
Pleasant Hill	do	.48	.69	.58	T.				T.			T.			T.			.21	.60			T.			.62	.08							T.	3.26		
Pocomoke City	do	T.	* 1.68					T.			T.			T.			.20	T.			T.			.16	T.								T.	5.15		
Prettyboy Dam	do	.20	.91	T.				T.			T.			T.			.05	T.			T.			.77			.08	.50							T.	2.86
Princess Anne ³	do	T.	.77	.06				T.			T.			T.			.06	T.			T.			.06	.06								T.	2.81		
Ridgely	do	.26	.36	.57				T.			T.			T.			.05	.48			T.			.13	.08								T.	3.92		
Salisbury	do	T.	.55	.53	.40			T.			T.			T.			.05	.60			T.			.25									T.	2.60		
Silver Spring	do	.25	.97	.66	.03			T.			T.			T.			.22	.19			T.			.24	.37								T.	2.97		
Suites ² ¹	do	.72	T.					T.			T.			T.			.47	.09			T.			.04	.07	.36								T.	2.07	
Snow Hill	Atlantic	T.	.17	.80				T.			T.			T.			.10	.90			T.			.04	.30	T.			T.				T.	5.60		
Solomons	do	.01	.35	.30	T.				T.			T.			T.			.21	.32			T.			.06	.60								T.	2.40	
State Sanatorium	do	.65	.35					T.			T.			T.			.20	T.			T.			.18	.60									T.	5.26	
Stevensville	do	.27	1.10	.05	T.				T.			T.			T.			.50	.62			T.			.01	.13								T.	1.95	
Takoma	do	.28	* 1.82	T.				T.			T.			T.			.42	.23			T.			.03	.70	T.										

Daily Temperatures for July 1840—Continued

are read in morning; maximum temperature then read is charged to preceding day, on which it almost always occurs. Temperatures at Aberdeen, Annapolis, Baltimore, Chestertown, Conowingo Dam, Sines, and Washington are from midnight to midnight; other stations, except Cheltenham and Cumberland, are for 24-hour period ending late in afternoon, near sunset, except 9:30 p.m. at Princess Anne. (WBO, Richmond, Va., 9-12-40-1,150)