

CLIMATOLOGICAL DATA

15 MARYLAND AND DELAWARE SECTION

J. BILY, Jr.

PRICE: 5 CENTS A COPY; 25 CENTS A YEAR

VOL. XLIX BALTIMORE, MD., JUNE 1945 No. 6

GENERAL SUMMARY

This June was cooler than normal with rainfall below normal in western and north-central Maryland and was warmer than normal with rainfall above normal in southern Maryland and over the Eastern Shore.

The weather was quite cool for the season during the first decade. Freezing temperatures occurred on the 6th in the Allegheny Mountain region. Weather warmer than seasonal prevailed during the second and third decades, with a heat wave from the 14th to the 17th, inclusive, and from the 29th to July 1, inclusive.

Rainfall was of the summer shower type. Monthly amounts were mostly between 3 and 4 inches over the northern third, mostly between 4 and 6 inches over the central third, and mostly between 5 and 7 inches over the southern third of the section.

Monthly sunshine was normal in the Allegheny Mountain region and about 5 per cent above normal over the remainder of the section.

Fogs and thunderstorms were unusually frequent.

Crop growth was retarded by the coolness of the first decade, but made rapid advance thereafter under warm, sunny weather. Grains, crops, grasses, and pastures were mostly good to excellent. Barley ripened during the first decade; cutting and threshing were in progress thereafter; yields varied from poor to good. Wheat and rye headed well; they ripened, except in the Allegheny Mountain region; cutting was in progress in the eastern and central divisions during the second and third decades and in Washington and Allegany Counties during the third decade. Oats headed nicely, except were heading during the third decade in the Allegheny Mountain region. Winter oats at Queen Anne ripened. Early potato tubers were maturing, except in the Allegheny Mountain region; digging began during the third decade in the southern and central counties; yields were good. Field peas were being harvested for the markets and the canneries during the second and third decades, except in the Allegheny Mountain region; yields were good. Garden peas were harvested throughout the month; yields were good to heavy. Field corn and sweet corn plants were growing rapidly and were being cultivated. The strawberry harvest ended during the first decade in the eastern and central divisions and in the second decade in Washington and Allegany Counties. Strawberries were harvested during the third decade in the Allegheny Mountain region. The strawberry crop was short but the quality was good. Cherries were harvested; a short crop. Tree fruits were developing and sizing; they were scarce. Peaches were being thinned. The June drop of apples was heavy. Early apples and early pears were ripening during the third decade. Clovers, alfalfa, and other grasses were being cut; the hay crops were heavy. Setting out tomato, sweet potato, and tobacco plants ended. During the third decade early tomato plants were fruiting in southern and central counties and were blooming in the northern counties and sweet potatoes were vining.

HISTORIC HAIL STORM OF JUNE 2, 1945

This hailstorm will long be remembered by residents of the District of Columbia, nearby Virginia, and southern Maryland, not only for its severity, extent, and resulting damage, but also for the unusual size and shape of many of the hailstones.

This hailstorm struck the District of Columbia and adjoining northern Fairfax County of Virginia about 5:00 p.m., E.S.T., and moved southeastward across southern Prince Georges County and overspread the northern and central portions of Calvert County between 6:00 p.m. and 7:00 p.m., E.S.T. The path was 20 miles wide and 40 miles long. The hail was heaviest between Fairfax and Alexandria, Virginia, where the hailstones were the size of golf balls. It is estimated 14,000 window panes were smashed at Alexandria.

In the District of Columbia the hailstones varied from size of peas to 1 inch in diameter. At an auxiliary airport south of Washington considerable damage was caused by the hailstones to a number of surplus military airplanes on display.

Disc-shaped hailstones, many of which were nearly 2 inches in diameter, each containing a small hailstone as a nucleus at the center, gave evidence that smaller hailstones had been spinning rapidly through a layer of freezing rain. These fell over a wide area in Arlington County, Virginia, causing heavy damage to gardens.

At Owings, Calvert County, the hailstones were the size and shape of a hen egg, a baseball, or an orange. Within a radius of half a mile the ground was covered by hail to a depth of two inches, entirely hiding the grass. Much damage was done to gardens, tobacco beds, and residences; trees were shorn of their foliage; window panes were shattered in 50 or more homes; the sides of houses were scarred; and shingles were torn from many homes. The hailstones were 2 1/2 inches in diameter at Ferry Landing; they broke window panes and damaged trees, tree fruits, and crops. Holes were made in the roofs of many homes at Chesapeake Beach and North Beach.

The fall of such large hailstones in the northern and central portions of Calvert County is unprecedented.

Light hail fell over southern Calvert County; the stones were one-quarter to three-eighths inch in diameter at Solomons and did no damage.

The attending wind gust blew down a line of trees in a woods 1 mile southwest of Prince Frederick, creating a narrow path. Lightning damaged some homes.

A severe hailstorm, without precedent in the history of Washington, D. C., occurred on April 29, 1938. Within 20 minutes it caused damage to greenhouse windows, automobile tops, and other property estimated at \$100,000.

MISCELLANEOUS PHENOMENA (WITH DATES)

Fogs, light.—2.4, 6-14, 17-23, 25, 26, 28-30. Fogs, heavy.—3, 4, 6, 9-11, 19-22, 26. Hail, light.—2, 15, 18, 21, 28. Hail, heavy.—Bel Air, 3:00 p.m., E.S.T., northeastward to Rising Sun, 4:00 p.m., E.S.T., 18th; path was 4 to 5 miles wide and 20 miles long; hailstones were size of peas to golf balls; some windows were broken; damage to crops was severe in some localities; no estimate of loss. Cumberland, 4:30 p.m., E.S.T., 25th; from west; centered over city; hailstones were size of marbles or moth balls and were the largest ever seen at Cumberland. No damage. Churchville, Harford County, 8:00 p.m., E.S.T., 25th; area was two miles square. Hailstones were size of moth balls to hen eggs and golf balls and fell for twenty minutes. Damage to crops was \$5,000 to \$8,000. Light hail, size of peas to large peas, fell over most of the remainder of Harford County from the northern border, 7:00 p.m., E.S.T., to Chesapeake Bay, 9:00 p.m., E.S.T.; an area 20 miles by 80 miles; no damage.

Lightning killed two girls walking along the Bel Air Road near Bel Air in the afternoon of the 18th.

Thundergusts, high.—2, 3, 11, 15, 17, 18, 19, 21, 25, 26, 28. Thundershowers, heavy.—Western Port, 2:00 p.m., E.S.T., 15th; 0.90 inch fell in about 5 minutes with much hail of the size of peas and with violent thundergusts; damage mostly to gardens; some branches were broken off trees. Cumberland, in the late afternoon and early night of the 25th, moving from west; caused high water in the downtown district and flooded stores, flooded

the subways beneath the railroads, washed soil from the highlands onto the city streets, and damaged many Victory gardens; lightning put out of order 200 telephone lines and 600 telephone stations and blew out many power-line fuses and transformers; the attending gust uprooted some trees.

Thunderstorms.—2, 3, 9-11, 13-19, 21, 22, 25, 26, 28-30. Winds, high.—23.

EVAPORATION STATION: Beltsville, Md. (Elevation, 120 feet)
U. S. Bureau Dairying Industry, Joseph B. Shepherd, in charge
(Evaporation Tank: 10 inches deep, 48 inches in diameter)

Precipitation, 4.15; evaporation, 6.311; average daily wind movement, 39.8.

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.	7:30 p. m.
Aberdeen, Md.	30.19	7	29.59	3	.....	.....	.....	.....	77	54	71	.....	65
Annapolis, Md.	30.18	6	29.57	3	7.5	.....	.....	.....	83	68	71	.....	74
Baltimore, Md.	30.19	7	29.59	3	8.9	38	sw.	15	74	50	62	88	118
Elkins, W. Va.	30.28	6	29.64	2	5.4	30	nw.	2	84	65	79	57	87
Harrisburg, Pa.	30.30	7	29.57	2	6.4	28	sw.	11	76	84	65	67	87
Norfolk, Va.	30.22	15	29.42	26	9.2	36	n.	26	79	57	70	72	130
Philadelphia, Pa.	30.19	7	29.57	3	7.0	33	w.	18	81	53	64	65	90
Pittsburgh, Pa.	30.24	7	29.61	2	8.6	38	sw.	16	79	54	82	60	50
Washington, D. C.	30.24	6	29.57	2	6.0	30	w.	18	75	47	62	68	97

COMPARATIVE DATA FOR JUNE

Year	FOR MARYLAND						FOR DELAWARE					
	Temperature			Precipitation			Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Average snowfall	No. of days with .01 in. or more	Mean	Highest	Lowest	Average	Average snowfall	No. of days with .01 in. or more
1895	73.1	102	37	4.15	0.0	8	73.9	101	47	2.91	0.0	8
1896	70.3	100	32	3.88	0.0	11	70.9	97	42	5.27	0.0	10
1897	68.6	97	29	2.82	0.0	9	65.9	95	34	2.93	0.0	9
1898	72.0	100	35	2.58	0.0	9	71.5	97	49	3.04	0.0	7
1899	73.4	102	36	2.94	0.0	7	74.2	100	51	1.88	0.0	7
1900	71.5	100	36	4.70	0.0	9	72.2	95	45	4.54	0.0	6
1901	71.0	102	32	3.15	0.0	8	72.1	101	48	2.32	0.0	5
1902	70.0	104	31	4.79	T.	9	71.3	101	45	6.25	0.0	7
1903	66.3	96	35	5.71	0.0	13	66.5	91	46	3.45	0.0	11
1904	70.2	98	30	4.60	0.0	12	70.5	99	44	3.99	0.0	12
1905	71.2	102	26	4.60	0.0	10	71.2	99	43	3.88	0.0	9
1906	71.9	101	36	5.96	0.0	15	73.0	97	51	7.37	0.0	14
1907	64.8	96	32	5.75	0.0	12	65.6	94	43	5.44	0.0	11
1908	70.4	99	39	2.14	0.0	5	71.7	98	46	1.98	0.0	3
1909	71.8	98	32	5.06	0.0	14	72.1	98	48	4.87	0.0	13
1910	67.7	96	30	5.74	T.	14	69.2	95	45	6.37	0.0	14
1911	71.5	102	39	4.14	0.0	12	72.0	101	50	3.62	0.0	9
1912	69.2	99	25	4.07	0.0	10	71.0	99	42	2.01	0.0	8
1913	71.1	100	27	2.25	0.0	7	71.7	98	43	2.39	0.0	7
1914	72.3	101	26	3.93	0.0	10	72.8	101	45	3.09	0.0	10
1915	68.4	98	31	5.03	0.0	10	69.4	94	43	5.30	0.0	12
1916	67.0	95	33	6.28	0.0	12	68.3	89	45	3.95	0.0	10
1917	70.1	97	32	4.07	0.0	10	71.6	96	48	4.48	0.0	10
1918	68.7	98	34	2.31	0.0	8	69.3	99	46	2.92	0.0	8
1919	72.2	98	40	3.27	0.0	9	71.5	96	43	2.24	0.0	7
1920	70.0	98	34	5.34	0.0	11	71.0	97	49	5.57	0.0	11
1921	72.3	102	34	2.47	0.0	7	72.6	100	42	2.73	0.0	6
1922	72.8	97	38	5.12	0.0	12	73.5	93	50	5.39	0.0	14
1923	73.5	102	34	3.06	0.0	9	74.8	100	44	2.37	0.0	8
1924	69.3	99	33	5.20	0.0	14	69.3	95	48	5.80	0.0	14
1925	75.4	104	36	2.37	0.0	7	77.5	102	45	1.81	0.0	7
1926	67.4	98	35	2.67	0.0	12	68.8	97	43	2.54	0.0	11
1927	66.7	98	31	3.55	0.0	9	67.2	95	42	3.44	0.0	9
1928	68.9	94	34	5.79	0.0	16	70.5	92	48	5.70	0.0	7
1929	70.2	98	31	5.00	0.0	10	71.6	97	41	3.38	0.0	9
1930	72.0	99	26	3.36	0.0	9	73.8	97	35	2.54	0.0	8
1931	70.7	102	35	3.38	0.0	8	71.9	98	49	3.76	0.0	7
1932	70.6	95	30	3.81	0.0	10	72.0	94	41	3.77	0.0	10
1933	72.4	102	28	2.73	0.0	8	73.4	100	43	2.70	0.0	7
1934	74.6	105	42	3.29	0.0	7	75.7	101	53	2.90	0.0	7
1935	70.4	97	34	4.49	0.0	12	71.2	96	46	5.16	0.0	11
1936	70.4	99	34	3.09	0.0	10	71.5	95	47	4.05	0.0	10
1937	72.3	99	41	4.91	0.0	12	72.3	92	48	5.50	0.0	12
1938	70.1	98	35	3.95	0.0	10	70.8	96	36	5.41	0.0	10
1939	72.8	100	40	5.19	0.0	12	73.5	95	47	3.46	0.0	12
1940	71.8	96	33	2.20	0.0	9	71.8	94	42	1.95	0.0	7
1941	70.4	97	34	5.01	0.0	11	70.9	95	45	4.45	0.0	11
1942	72.1	99	39	4.22	0.0	12	72.6	96	48	2.79	0.0	10
1943	76.5	100	41	2.52	0.0	8	77.0	98	52	3.38	0.0	9
1944	72.5	101	29	3.08	0.0	9	72.8	99	43	2.87	0.0	8
1945	71.3	102	29	4.19	0.0	10	72.4	99	39	4.76	0.0	10
Period	70.8	105	25	3.98	T.	10	71.6	102	34	3.83	0.0	9

Climatological Data for June 1945

Table with columns: STATIONS, COUNTIES, Elevation, Length of record, Temperature (Mean, Departure from normal, Highest, Date, Lowest, Date), Precipitation (Total, Departure from normal, Greatest in 24 hours, Date), Number of days (Total snowfall, With precip., Clear, Partly cloudy, Cloudy), Prevailing direction of wind, OBSERVERS.

All departures from normal are computed from the averages of the entire period for stations having 10 or more years of record, except that for First-Order Weather Bureau Stations they are based on adopted normals. The normal may be found by adding the departures when minus (-) or subtracting when plus (+). T. Trace or 0.005 inch or less rain or melted snow. 1 Recording gage. Italics. Data interpolated. Elevations are of ground above mean sea level.

† Post addresses of these stations are as follows: Of Bell, Glendale, of Blackwater, Cambridge, of Coleman, Worton; of Edgemont, Smithsburg; of Ferry Landing, Owings; of Great Falls, Bethesda; of Mt. Savage Summit, Frostburg; of Picardy, Paw Paw, Va.; of Prettyboy Dam, Parkton; of Sines, Oakland; of Takoma Park No. 2, Silver Spring; of Tonoloway, Hancock; of Trappe, Oxford; of Wiltondale, Towson. *Custom House, Gay and Water Sts. **Weather Bureau Building, 24th and M Sts. † Also on other dates. § On mountain top, 24 miles northwest of Frostburg. ¶ Municipal Building. ¶¶ Porter Reservoir. ***Water Pumping Station. §§ University Farm. § 1 mile west. Figures and letters following station indicate distance and direction of the observation point from the City Post Office. † 1.8 miles west. ¶ Private instruments.

Thermometers are read in morning; maximum temperature then read is charged to preceding day, on which it almost always occurs. Temperatures at Aberdeen, Annapolis, Baltimore, Sines, and Washington are from midnight to midnight; at Dundalk, Mt. Savage Summit, Ocean City, and Snow Hill the thermometers are read at 1:30 a. m. the extremes are charged to the preceding day; at other stations temperatures are for a 24-hour period ending in late afternoon or near sunset, except 8 p. m. at Chestertown. Italics. Data interpolated.

Daily Precipitation for June 1945

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						
<i>Maryland</i>																																						
Aberdeen ¹	Atlantic.	.06	T.							T.	.71	.02	T.							.01	.30	1.02	.07	1.02							.02	1.88	.10	.09	5.30			
Annapolis ¹	do	.98	.01							T.	.68	.07	T.									.35	.28	.04	1.38							.01	T.			3.83		
Baltimore ¹	do	.20								.08	.76	.01	T.									.20	.60	.22	.03							T.	T.			2.65		
Bell	do	.20	.99								.98	.96	.25	1.4	T.								.02	.26	.05							T.	T.			6.27		
Beltsville ²	do		.82								.54	.44	.02		.04								.16	.08		1.75											4.15	
Blackwater	do		2.35							T.	.20	.75		.03								.20	.45	.96		.48			.52					.40			6.34	
Charlotte Hall	do		2.02								13.2	.70		.12	T.								.45				.78											6.20
Cheltenham ²	do		.95								1.4	1.90	.15	.08	.01								.22	.26			.90			.03			T.				5.14	
Chestertown	do		.25								.24	.95											.96	.71	.45		.91			.06			1.35				5.28	
Chewsville	do		.25								.30	.57	T.									.41	.42	.29	.09	.06											2.41	
Clear Spring	do		.02								* 1.35	T.										.11	.20	.48		.11											3.35	
Coleman	do	.04	T.								.32	.42										.40	.35	.67	.53				.03			1.20				5.07		
College Park	do	.10	.64								.57	.96	.12	.22	.01								.30	.24	.07	T.	1.25											4.38
Conowingo Dam ²	do	T.	.02								.30	.22	T.									T.	1.22	.99		.45							2.81				6.11	
Crisfield	do		.62								.53	.76										.15	.40	.15		.21			2.30			.65				4.37		
Cumberland ²	do		.20	T.							.08	T.	.03									T.	.25			.21			2.47			.30				3.02		
Dundalk ³	do	.35	.20								.38	.95										.10	.30	.87	T.	.78			.01								4.37	
Easton	do		1.21								.38	.95										.30	.10	.32	.42		1.80			.13			.16				4.95	
Edgemont ²	do		.15	.12							.10	.47	.22									.30	.10	.32	.42		.05										1.93	
Elkton	do	.06	T.								.63	.32	T.									.10	.28	.70		.69			.08			1.43				4.29		
Emmitsburg	do	.42	.09								.44	.44	.04	.05								.20	.25	.20		.10										2.23		
Fallston	do	.08	.07			T.					.40	.38	T.	.02								.22	.52	.18	T.	.54						.71	.01			3.08		
Ferry Landing	do		.59	.46							.23	.99		.31								.25	.06	.64	.17	.01	.95			.02							4.70	
Fort George G. Meade	do		.19	.53							.53	.41	.01	T.								.27	.17	.67	.02	1.01											3.81	
Frederick	do	T.	.07								.14	.39	.01	T.								.92	.73	.46		1.04						.01				3.77		
Frederick Airport ³	do	.06									.12	.40	.01	T.	T.							.32	.45	.60		1.19										4.15		
Friendsville	Ohio.	.22	*	.19							.45	.70	T.	.18								.20	.20	T.		T.										2.29		
Frostburg	Atlantic.	.65	.30	.08							.15	.25	.05	.23								.26	.14	.36	.18				1.15							3.68		
Germantown	do	.40	.13								.15	.67	T.	.13								.01	.44	.25	.60	1.58											5.36	
Great Falls ²	do		.92								.52	.53	.15									.13	.04			.43											3.81	
Hancock ²	do		.22	.18							* .78	T.										.32	.21	.25	T.												2.35	
Huntingtown	do		1.60								.25	1.45		.14								.01	.15	.45	.12	.03			.03			.17				6.01		
Keedysville	do	.34	.12								.06	1.03	.03	.08	T.							.02	.11	.45	.12	.03											3.39	
La Plata	do		1.50								.35	.35		.25									1.10	.40		1.00											7.95	
Laurel	do	.75	.05								.54	.34	.03	T.	.01							.27	.48	.20	.18	1.15											4.00	
Luke ²	do	T.	.38								.05	.30	.10	T.								1.05	T.	.12	.03	.14	T.		.07								2.24	
Maryland Line	do		.53								.30	.50	T.	T.									.72	.32	.94	T.	.35									.83	4.49	
Millington	do		.13	.02							.61	.40										.18	.21	.23	.16	.12	.53		.05			2.73				5.20		
Mt. Savage Summit ³	do	.30	.08								.42	.06		.02								.02	.06	.09	.26	.12	.08		.05								1.59	
Oakland	Ohio.	.25	.38	.07	T.						T.	.08										.10	.17	.50	.38	.28			.05	1.61		.72	.32			3.11		
Ocean City ³	Atlantic.	1.60	.08	T.							1.88	T.		.02	T.								.56	.78		.59			.05	1.11		.02				5.22		
Oxford	do		1.88	T.							T.	1.15	T.	.03	.02								.56	.78		.59			.03								5.67	
Perry Point	do	.08	.05								.65	.40	T.									.20	.34	.15		.50			.03			2.82				6.22		
Picardy	do	.15	.35								1.10	.10	T.									.40	.40	T.	.15	.95	T.		.25							T.	3.25	
Prettyboy Dam	do		.41								.24	.24	T.	T.								.64	.57	1.11		.56							.21				3.98	
Ridgely	do		.42								.05	1.00										.06	1.62	.14		.54			.15							.89	4.87	
Rock Hall	do	.16	.44								.22	.37										.24	.91	.08		.89			.04				.06				3.41	
Salisbury	do		1.70								.12	.74										.12	.18	.63		.63			1.71				.53				5.73	
Sines ¹	Ohio.	.02	.75	.08	.05						.25	.50	.56	.03								.04	.14	.09	.15	.11			T.								2.77	
Snow Hill ³	Atlantic.	.93	.09							.03	.82	.28											.80		.28	.10			.22	1.19		.34	1.32			6.46		
Solomons	do		1.17								.30	2.24		.04	.01								.01	.37	.02		.67		.22			.02				5.07		
State Sanatorium	do		.38								* .90	.03	T.									.23	.21	.11		.01											1.87	
Takoma Park, No. 1	do		.70								.71	1.02	.21	.30								.38	.35	.22	T.	1.25											5.14	
Takoma Park, No. 2	do		.54	.12							.64	.79	.16	.24									.38	.32	.23	T.	1.22										4.64	
Tonoloway	do	.20	.20								.09	1.08	.09									.50	.07	.14	.51	.40	.04										3.32	
Towson ²	do		.07								.35	.41	.03																									

Daily Temperatures for June 1945-Continued

Table with columns for Stations (Maryland), days 1-31, and Mean. Rows list various locations like Aberdeen, Annapolis, Baltimore, etc., with their respective temperature data.

See page 22 for explanation of reference marks.

(WBO, Philadelphia, Pa. - 9-18-45-1,300)