

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

In Cooperation with Maryland State Weather Service

CLIMATOLOGICAL DATA

15 MARYLAND AND DELAWARE SECTION

J. R. WEEKS

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VOL. XXXVIII BALTIMORE, MD., YEAR 1933 No. 13

GENERAL SUMMARY

On January 25-26, a northeast gale, attended by very high tide and heavy rain, caused much damage over the eastern half of the section.

On August 23, a tropical storm passed northward over the section. It caused severe northeast shifting to southeast gales, record high tide, and exceptionally heavy rain over the eastern and central divisions. Property and crop damage was very heavy.

This was the fourth consecutive warm year, with mean temperature 1° above normal. January was outstandingly warm; June was warm; February, May, and September were mild; April and December were slightly milder, and August was slightly warmer than normal; July and October were cool; and March and November were cold. Annual mean temperatures ranged from 47.0° at Sines to 58.5° at Crisfield and Solomons.

Annual precipitation averaged one and one-fifth times the normal, and was the most of record. Spring and summer averaged wet; autumn was dry. Rainfall was excessive in August; abundant in March, April, May, and July; slightly below normal in January, February, September, and December; and light in June, October, and November. August's rainfall, two and two-fifths times the normal, was the most of record for any month. Annual amounts were mostly between 40 and 50 inches, except slightly below 40 inches between the Allegheny and Blue Ridge Mountain regions, and except between 50 and 60 inches in Garrett County, the interior of north-central Maryland, the western and central portions of southern Maryland, and the eastern half of the Eastern Shore.

Snowfall was very light in January and April; light in March; normal in February; and above normal in November and December. The annual average was 77 per cent of normal. Snowfall was heavy on February 4 on the Eastern Shore; on February 11 in the northern-border counties; and on March 25-26 in the Allegheny Mountain region.

October was the sunniest month. Sunshine was abundant in January, April, and June; normal in February and July; and deficient in March, May, August, September, November, and December. Annual sunshine was slightly above normal.

February, March, April, and November were windy.

Crops and fruits yielded fair to good, except early potatoes, rye, corn, tobacco, and tree fruits poor to fair. — J. B., Jr.

CONDENSED SUMMARY OF CLIMATOLOGICAL DATA, 1932.

Months	Temperature			Precipitation		Number of days				Prevailing direction of wind	
	Mean	Highest	Lowest	Average	Greatest in 24 hours	Snowfall	With 0.01 inch or more of precipitation	Clear	Partly cloudy		Cloudy
January	41.0	70	-4	3.18	3.03	1.4	9	10	10	11	nw.
February	36.2	70	-8	3.01	1.52	7.8	11	13	5	10	nw.
March	40.3	80	0	4.28	2.63	3.0	13	9	9	13	nw.
April	52.8	88	20	5.44	2.50	0.1	11	13	9	8	se.
May	65.0	94	34	5.44	1.83	0.0	16	8	13	12	sw.
June	72.5	102	28	2.73	3.00	0.0	8	15	12	3	sw.
July	74.1	102	47	5.26	5.90	0.0	12	11	11	8	w.
August	74.0	100	40	10.23	7.62	0.0	12	10	11	10	sw.
September	70.2	94	37	3.21	3.68	0.0	11	11	7	8	nw.
October	55.0	91	16	1.95	1.89	T.	6	19	7	7	nw.
November	42.7	81	-8	1.41	1.56	1.8	7	11	7	12	nw.
December	36.5	73	-10	3.00	1.81	5.7	10	10	8	13	nw.

KILLING FROSTS, 1933.

Stations	Last in Spring	First in Autumn	Stations	Last in Spring	First in Autumn
<i>Maryland.</i>			<i>Maryland (cont.)</i>		
Aberdeen	Apr. 28	Oct. 26	Oakland	June 15	Oct. 14
Annapolis	Apr. 23	Oct. 26	Parkton	Apr. 27	Oct. 26
Baltimore	Apr. 23	Oct. 26	Picardy	Apr. 28	Oct. 14
Ball	Apr. 27	Oct. 26	Pleasant Hill	Apr. 27	Oct. 26
Boys	Apr. 27	Oct. 26	Pocomoke City	Apr. 27	Oct. 26
Cambridge	Apr. 27	Oct. 26	Princess Anne	Apr. 27	Oct. 26
Cecilton	Apr. 27	Oct. 26	Ridgely	Apr. 27	Oct. 26
Cheltenham	Apr. 27	Oct. 26	Rock Hall	Apr. 23	Oct. 26
Chewsville	Apr. 27	Oct. 14	Salisbury	Apr. 27	Oct. 26
Clear Spring	Apr. 27	Oct. 26	Sines	June 15	Oct. 14
Coleman	Apr. 23	Oct. 26	Snow Hill	Apr. 27	Oct. 26
College Park	Apr. 27	Oct. 26	Solomons	Apr. 23	Oct. 26
Crisfield	Apr. 23	Oct. 26	State Sanatorium	Apr. 27	Oct. 26
Cumberland	Apr. 28	Oct. 14	Stevensville	Apr. 23	Oct. 26
Darlington	Apr. 27	Oct. 26	Takoma	Apr. 23	Oct. 26
Easton	Apr. 27	Oct. 26	Towson	Apr. 27	Oct. 26
Elkton	Apr. 27	Oct. 26	Western Port	Apr. 28	Oct. 14
Emmitsburg	Apr. 27	Oct. 26	Westminster	Apr. 27	Oct. 26
Fallston	Apr. 27	Oct. 26	Woodstock	Apr. 28	Oct. 26
Ferry Landing	Apr. 23	Oct. 26	<i>District of Columbia.</i>		
Frederick	Apr. 27	Oct. 26	Washington	Apr. 23	Oct. 26
Friendsville	June 15	Oct. 14	<i>Delaware.</i>		
Frostburg	Apr. 28	Oct. 14	Bridgeville	Apr. 27	Oct. 26
Grantsville	June 15	Oct. 14	Rockaway City	Apr. 27	Oct. 26
Great Falls	Apr. 27	Oct. 26	Dover	Apr. 27	Oct. 26
Hancock	Apr. 28	Oct. 14	Milford	Apr. 27	Oct. 26
Keedysville	Apr. 27	Oct. 26	Millsboro	Apr. 27	Oct. 26
La Plata	Apr. 27	Oct. 26	Wilmington	Apr. 27	Oct. 26
Laurel	Apr. 27	Oct. 26			
Lutherville	Apr. 27	Oct. 26			
Maryland Line	Apr. 27	Oct. 26			
Mechanicsville	Apr. 27	Oct. 26			
Millington	Apr. 27	Oct. 26			

COMPARATIVE DATA FOR MARYLAND AND DELAWARE

years	Temperature				Precipitation				Number of days				
	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest local	Least local	Snowfall	with 0.01 inch or more	Clear	Partly Cloudy	Cloudy
Period..	54.0	.....	110	-40	41.05	.....	78.72	14.42	25.6	109	163	104	98
1895.....	52.6	-1.4	102	-18	34.47	-6.55	42.07	14.42	23.9	94	176	105	94
1896.....	54.0	0.0	103	-13	37.11	-3.94	64.94	30.18	29.0	92	157	111	98
1897.....	53.6	-0.4	102	-12	44.97	+3.42	63.85	32.56	18.4	109	164	107	94
1898.....	54.9	+0.9	109	-20	42.11	+1.06	65.77	32.59	21.6	109	164	99	102
1899.....	53.5	-0.5	102	-26	40.84	-0.21	51.38	28.63	40.3	98	182	92	91
1900.....	55.0	+1.0	106	-15	38.66	-1.39	62.19	28.21	36.7	99	175	99	91
1901.....	52.6	-1.4	106	-15	45.08	+4.03	70.67	34.63	26.8	83	175	99	103
1902.....	53.3	-0.4	104	-17	49.20	+8.15	61.38	33.75	33.3	105	159	110	98
1903.....	53.3	-0.7	100	-12	46.94	+5.59	73.72	36.58	17.9	106	156	100	109
1904.....	51.2	-2.8	102	-20	36.49	-4.56	50.26	25.72	41.8	96	162	108	96
1905.....	53.3	-0.7	104	-20	43.84	+2.79	64.64	31.88	36.1	106	162	114	89
1906.....	54.6	+0.6	101	-15	48.01	+6.96	62.92	36.10	20.7	123	141	117	107
1907.....	52.2	-1.8	99	-29	48.86	+7.81	66.59	37.55	34.6	121	155	115	95
1908.....	54.1	+0.1	102	-21	40.01	-1.04	62.50	31.63	32.5	101	171	109	86
1909.....	54.0	0.0	99	-5	37.47	-3.58	50.45	28.30	30.0	105	170	105	90
1910.....	53.8	-0.2	99	-15	37.42	-3.63	62.45	26.74	34.8	109	159	117	89
1911.....	54.9	+0.9	106	-5	43.61	+2.56	55.58	33.62	32.2	119	155	110	100
1912.....	53.3	-0.7	102	-40	43.42	+2.37	52.68	35.50	23.2	112	167	109	90
1913.....	56.1	+2.1	102	-6	38.98	-2.07	48.96	25.41	6.1	108	165	104	96
1914.....	53.4	-0.6	102	-21	35.97	-5.08	43.32	29.35	37.2	98	171	102	92
1915.....	54.1	+0.1	103	-6	43.58	+2.53	59.39	26.82	23.1	107	167	114	84
1916.....	53.2	-0.8	101	-11	40.47	-0.58	49.72	26.14	28.5	112	171	104	91
1917.....	51.5	-2.7	102	-32	40.65	-0.40	54.22	27.17	35.7	110	169	98	97
1918.....	53.3	-0.2	109	-30	37.96	-3.09	46.95	28.88	31.4	98	173	100	92
1919.....	54.9	+0.9	105	-19	47.62	+6.57	60.84	30.69	11.9	114	175	91	99
1920.....	53.3	-0.7	98	-10	44.95	+3.90	56.29	32.49	20.9	113	166	93	107
1921.....	56.8	+2.6	102	-15	37.72	-3.33	54.12	28.89	20.5	114	168	102	95
1922.....	55.0	+1.0	100	-15	40.15	-0.90	55.66	24.39	34.8	111	163	96	106
1923.....	54.4	+0.4	102	-9	40.27	-0.78	60.38	31.47	22.0	115	174	96	95
1924.....	52.6	-1.4	103	-13	46.26	+5.21	62.70	37.41	30.5	111	165	98	103
1925.....	54.6	+0.6	104	-31	34.91	-6.14	48.37	27.87	23.0	112	165	101	99
1926.....	52.8	-1.2	107	-16	43.90	+2.85	54.02	32.06	24.6	128	149	105	111
1927.....	54.4	+0.4	100	-5	40.37	-0.68	53.56	27.89	15.3	125	143	104	112
1928.....	54.0	0.0	100	-11	45.09	+4.04	55.38	34.92	25.4	118	150	104	112
1929.....	54.4	+0.4	102	-13	42.46	+1.41	55.60	33.09	20.0	117	160	101	104
1930.....	55.0	+1.0	110	-20	23.78	-17.27	33.52	17.76	22.4	94	169	104	92
1931.....	56.0	+2.0	103	-8	38.68	-2.37	47.90	29.91	12.3	111	154	111	100
1932.....	55.2	+1.2	103	-6	47.15	+6.10	54.25	34.33	19.2	111	157	108	101
1933.....	55.0	+1.0	102	-10	49.30	+8.25	67.56	37.70	19.8	122	142	111	112

Climatological Date for the Year 1933

Table with columns: Stations, Counties, Elevation, Temperature (Annual mean, Highest, Date, Lowest, Date), Precipitation (Total for year, Greatest monthly, Month, Least monthly, Month, Total snowfall), Number of rainy days, Number of clear days, Number of partly cloudy days, Number of cloudy days, Prevailing direction of wind.

†Also on other dates. §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. ¶Drum Point Light Station. ¶¶Municipal Bldg. ¶¶¶Porter Reservoir. *Also September.

Monthly and Annual Precipitation for the Year 1933, with Departures from the Normal

Table with columns for Stations, months (January-December), and Annual. Rows list various locations in Maryland, District of Columbia, and Delaware, with numerical data for precipitation and departure from normal.

* Determined from surrounding stations.

\$ *11.69

Monthly and Annual Mean Temperatures for the Year 1933, with Departures from the Normal

Stations	January		February		March		April		May		June		July		August		September		October		November		December		Annual		
	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	
<i>Maryland</i>																											
Aberdeen	39.5	+8.3	35.0	+0.9	39.9	-3.0	52.7	+1.5	65.2	+4.2	73.0	+2.2	74.5	-0.5	74.6	+1.8	69.8	+1.9	54.9	-1.1	42.2	-2.6	34.4	-0.3	54.6	+1.1	
Annapolis	42.4	+7.8	38.8	+3.8	42.0	+1.5	53.2	-0.2	66.7	+2.6	74.5	+2.6	76.6	-1.1	76.4	+0.3	72.4	+2.7	57.3	-0.8	45.2	-1.7	37.9	+0.8	57.0	+1.2	
Baltimore (U.S.W.B.)	43.5	+9.5	38.0	+2.6	42.8	+0.5	54.7	+1.1	67.1	+2.7	76.0	+3.3	77.2	0.0	77.0	+1.5	73.0	+4.5	58.9	-0.9	45.2	-1.1	38.2	+1.0	57.6	+2.2	
Bell	40.4	+2.0	36.8	+1.0	41.0	-3.5	53.6	+1.0	65.8	+4.0	72.3	+0.9	73.8	-1.7	74.3	+1.7	70.5	+1.9	53.8	-0.9	42.9	-1.9	36.4	+1.1	55.1	+0.9	
Boys	39.2	+7.1	34.6	-0.9	39.8	-4.6	52.4	-0.2	63.6	+1.7	71.1	-0.1	73.3	-2.1	73.2	+0.2	69.8	+1.1	53.2	-2.7	41.8	-3.1	35.2	+0.6	53.9	-0.4	
Cambridge (near)	43.6	+7.9	40.1	+4.2	43.2	-2.0	54.4	-0.4	66.6	+1.3	73.4	0.0	74.8	-3.2	75.8	-0.3	73.0	+2.5	57.2	-1.9	45.5	-2.1	39.8	+1.9	57.3	+0.7	
Cecilton	41.0	+8.2	36.6	+0.9	40.4	-4.4	52.6	-0.1	65.3	+3.6	72.9	+1.0	74.4	-1.5	75.2	+1.6	70.6	+1.5	55.5	-2.0	43.0	-3.5	34.8	-1.4	55.2	+0.3	
Cheltenham	42.6	+8.1	38.6	+3.3	42.4	-2.7	54.2	+0.1	65.9	+2.4	74.0	+2.0	74.4	-1.3	75.0	+1.5	71.8	+3.5	56.5	-0.7	44.9	-0.9	38.8	+3.0	56.5	+1.5	
Cheswold	39.0	+8.5	33.2	+2.3	37.7	-3.7	51.4	+0.7	63.4	+2.6	70.6	+1.4	72.6	-1.5	71.8	-0.1	67.6	+1.5	52.4	-2.1	40.8	-2.1	32.9	+0.2	52.8	+0.7	
Clear Spring	39.6	+9.6	34.4	+4.7	38.8	-1.8	53.0	+2.6	64.6	+3.3	73.0	+4.4	73.0	.....	74.7	+0.3	70.8	+1.5	56.8	-1.5	43.5	-2.9	36.1	+0.1	55.7	+0.7
Coleman	41.4	+8.0	37.5	+3.7	41.5	-2.4	52.8	-0.3	65.5	+2.0	73.0	+1.2	74.8	-1.8	74.7	+0.3	70.8	+1.5	56.8	-1.5	43.5	-2.9	36.1	+0.1	55.7	+0.7	
College Park	41.2	+7.8	37.7	+3.1	41.7	-2.1	53.8	+0.8	66.0	+3.4	73.0	+1.9	74.4	-0.9	74.9	+1.3	71.2	+3.3	54.5	-1.6	44.0	-0.7	37.7	+1.7	53.8	+1.5	
Crisfield	43.9	+6.7	42.0	+2.1	45.0	-2.4	55.0	-0.1	68.3	+4.4	74.2	+1.0	76.0	-1.0	77.0	+0.0	75.8	+4.3	59.6	-0.7	45.0	-5.0	40.6	+0.1	53.5	-0.9	
Cumberland	40.3	+9.3	34.7	+1.6	39.0	-1.2	54.4	+2.4	65.6	+3.0	74.4	+4.0	75.4	+1.3	74.0	+2.0	69.7	+4.0	54.0	-0.3	41.4	-1.2	35.3	+1.3	54.8	+2.1	
Darlington	37.8	+6.9	33.8	+2.6	38.6	-2.9	50.8	+0.7	63.7	+1.8	72.0	+2.0	73.0	-1.6	72.8	+0.3	68.0	+1.4	53.2	-1.9	40.9	-2.9	32.8	+0.8	53.1	+0.3	
Easton	42.4	+7.8	38.8	+3.8	42.9	-1.8	53.2	-0.2	66.2	+2.8	73.4	+2.1	74.6	-1.5	75.2	+1.0	72.0	+3.3	56.1	-1.6	44.0	-2.5	37.4	+0.5	50.3	+1.1	
Elkton	39.2	.....	34.6	.....	39.8	.....	52.3	.....	64.6	.....	73.2	.....	74.4	.....	74.5	.....	69.6	.....	54.4	.....	41.8	.....	33.5	.....	54.3	.....
Emmitsburg	40.8	+10.0	34.5	+2.3	39.8	-0.7	52.5	+0.4	64.4	+2.5	73.4	+3.4	73.8	-1.4	73.0	+0.5	68.3	+2.2	54.0	-1.0	41.7	-1.5	35.0	+1.6	54.3	+1.6	
Fallston	39.8	+8.7	34.8	+2.8	39.2	-0.9	51.9	+1.2	64.2	+2.9	72.5	+3.0	74.2	+0.2	73.6	+1.6	69.2	+3.1	54.6	-0.6	41.4	-2.2	33.8	-0.1	54.1	+1.6	
Ferry Landing	43.4	+8.2	38.6	+1.4	42.9	-3.4	53.8	0.9	66.0	+2.9	73.3	+1.2	74.8	-0.9	75.2	+1.4	71.8	+3.1	56.8	-0.9	45.1	-1.6	39.6	+1.7	56.7	+1.2	
Frederick	41.0	+8.3	36.0	+2.8	41.6	-0.8	55.2	+2.9	66.8	+3.2	75.4	+3.5	75.6	+0.2	75.9	+1.9	71.4	+3.8	55.8	+0.1	42.6	-1.6	35.9	+1.0	56.2	+2.1	
Friendsville	36.8	+7.6	31.0	-1.4	34.1	-5.2	49.1	+1.2	60.4	+3.9	64.8	-0.2	67.6	-1.2	66.4	-0.3	65.0	+1.9	50.8	-1.3	37.3	-3.4	34.6	+2.9	49.8	+0.4	
Frostburg	38.0	+8.3	33.4	+2.9	36.1	-3.3	50.6	+0.8	61.4	+1.7	70.0	+2.5	70.5	-1.0	70.4	+0.7	66.8	+2.1	51.8	-2.3	39.0	-2.8	34.6	+2.8	51.9	+1.1	
Grantsville	35.2	+8.2	29.4	+2.4	31.6	-5.1	46.8	+0.8	58.3	+1.8	65.1	+1.8	65.0	-0.6	66.1	-0.1	64.2	+3.1	48.7	-1.3	35.2	-3.7	34.0	+4.4	48.5	+1.0	
<i>District of Columbia</i>																											
Washington (U.S.W.B.)	42.6	+9.2	38.4	+8.1	43.0	+0.4	55.7	+2.4	67.3	+3.6	74.7	+2.5	76.1	-0.6	76.0	+1.0	71.8	+3.7	56.5	-0.9	45.0	-0.2	38.5	+1.9	57.1	+2.1	
<i>Delaware</i>																											
Bridgeville	43.4	+8.4	39.2	+4.0	42.6	-1.7	53.4	+0.3	66.4	+3.2	73.2	+2.0	74.8	-1.1	75.3	+1.1	72.2	+3.7	56.8	-0.5	44.6	-2.1	39.0	+1.8	56.7	+1.6	
Delaware City	40.3	+7.7	36.9	+2.9	40.4	-1.2	53.0	+0.9	65.8	+2.8	73.4	+1.5	75.2	-1.4	75.2	+0.5	70.6	+2.2	56.2	-1.3	43.1	-2.8	35.2	-0.8	55.4	+0.9	
Dover	42.8	+7.8	38.2	+2.7	42.1	-0.9	53.1	-0.1	66.6	+3.2	74.2	+1.9	75.0	-1.6	75.8	+1.4	71.6	+3.1	56.2	-0.9	44.0	-1.8	36.8	+0.1	56.4	+1.3	
Milford	43.4	+7.7	39.2	+3.6	43.0	-2.0	53.7	-0.1	67.0	+3.1	73.9	+2.0	76.0	-0.6	76.2	+1.3	72.2	+2.9	57.7	-0.6	45.2	-2.1	38.8	+0.9	57.2	+1.4	
Millsboro	43.7	+8.3	39.4	+3.9	43.4	-0.9	53.4	+0.6	66.8	+3.9	73.5	+2.2	75.0	-1.2	76.6	+2.1	73.1	+4.2	58.0	+0.3	45.6	-1.1	40.8	+3.3	57.4	+2.1	
Wilmington	40.4	+7.8	35.6	+2.9	39.6	-3.0	52.1	-0.5	64.7	+1.6	72.4	+1.0	74.3	-2.0	74.4	+0.4	69.7	+1.6	55.6	-1.3	42.4	-3.0	34.1	-0.9	54.6	+0.4	
For Maryland and District of Columbia	40.8	+8.1	35.9	+2.1	40.1	-2.8	52.8	+0.5	64.8	+2.5	72.4	+1.8	74.0	-1.0	73.8	+0.8	70.0	+2.4	54.7	-1.4	42.5	-2.3	36.3	+1.1	54.8	+0.9	
For Delaware	42.3	+7.8	38.1	+3.2	41.8	-1.9	53.1	-0.1	66.2	+2.7	73.4	+1.4	75.0	-1.7	75.6	+0.8	71.6	+2.4	56.8	-0.7	44.2	-2.5	37.4	+0.4	56.3	+1.0	
For entire section	41.0	+8.1	36.2	+2.2	40.3	-2.7	52.8	+0.4	65.0	+2.6	72.5	+1.7	74.1	-1.1	74.0	+0.8	70.2	+2.4	55.0	-1.2	42.7	-2.4	36.5	+1.1	55.0	+1.0	

*Determined from surrounding stations.