

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

CHARLES F. MARVIN, Chief

In Cooperation with Maryland State Weather Service

CLIMATOLOGICAL DATA

15 MARYLAND AND DELAWARE SECTION
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VOL. XXXVIII BALTIMORE, MD., MAY, 1933 No. 5

GENERAL SUMMARY

This was the first mild May since 1930, but the third consecutive wet May. Average rainfall was the greatest in May since 1924. Number of days with rain was unusually large. There was an unusual amount of cloudiness. Clear days were few. Monthly sunshine was 10 per cent below normal, and the least in May since 1927. Relative humidity averaged nearly 10 per cent above normal. Thunderstorms were greatly in excess of the normal number for May. The first half of the month was mostly cloudy, with rain almost daily; the second half was featured by abundant sunshine and partly cloudy sky, but showers were frequent during the latter part. Slight damage was caused locally by thundergusts of 20th and 24th.

Mild or warm spells were 1st-3d, 10th, 13-15, and 20th-31st. Cool periods were 4-9th, 11-12th, and 16-19th. Nights of 21st and 22d were cool in the Allegheny Mountain region, with light frost in early morning of 22d in the highlands.

Monthly rainfall averaged one and six tenths times the normal. Totals were between 6 and 9 inches in Allegheny Mountain region; elsewhere they were mostly between 4 and 6 inches, except slightly below 4 inches in southeastern Washington, southern Frederick, and southeastern Harford Counties and above 6 inches in Charles County and the extreme southern portion of the Eastern Shore.

Wet weather of the first half of the month caused further delay in plowing, planting of corn and other crops, and other field work. These operations were resumed during the third week and continued thereafter. Growing crops, pastures, and grasses were benefited by the abundant moisture and favorable temperatures, made good progress, were nicely green, and were in good to excellent condition. At the close of the month wheat was blooming, rye was beginning to fill out, peas were podding, early potatoes were blooming, apples were sizing nicely, and strawberries were being harvested on the Eastern Shore and in southern Maryland; wheat was mostly headed, rye was in bloom, peas were in bloom, early potatoes were being cultivated, and apple trees were setting fruit in north-central and western Maryland; barley was filling out and beginning to ripen; early-sown oats were doing well; corn planted last week of April was up to good stand and was being cultivated; peaches, pears, plums, and cherries were sizing nicely; strawberries were maturing, except blooming in Allegheny Mountain region; early tomatoes were blooming; and tobacco, tomato, and sweet potato plants were being set out. — J. B., jr.

TEMPERATURE

The monthly mean for the section, 65.0°, is 2.6° above normal. The highest monthly mean was 68.3° at Crisfield; the lowest, 57.6°, at Sines. The highest temperature, 94°, occurred at Bell on the 27th; the lowest, 34°, at Oakland on the 22d. The greatest local monthly range was 58° at Bell; the least, 42°, at Frostburg. The greatest daily range was 43° at Hancock on the 23d.

PRECIPITATION

The monthly average for the section, 5.44 inches, is 2.03 inches above normal. The greatest monthly amount was 8.62 inches at Grantsville; the least, 3.79 inches, at Aberdeen. The greatest 24-hour amount was 1.83 inches at Wilmington (Municipal Building) on the 24th. The average number of days with 0.01 inch or more of precipitation, 16, is 6 above normal.

MISCELLANEOUS PHENOMENA (WITH DATES)

Fogs, light. — 1 to 3, 5 to 13, 16, 17, 21, 23, 25, 27, 28, 29, 30, 31.

Fogs, dense. — 6, 8, 9, 12, 13, 16, 23, 31.

Hail, heavy. — Coleman, hail size of quarters, 27; Hillsboro, Caroline County, area 1 mile wide and about 6 miles long, heavy damage to all crops, 27; Lincoln, Sussex County, heavy damage to crops, 24.

Halos, lunar. — 1, 2, 10, 11, 31; solar. — 1, 13, 15, 20, 31.

Thundergust, high. — Northeast, 24; southeast, 2; southwest, 27; northwest, 20, 27.

Thunderstorms. — 1, 2, 6, 8 to 16, 20, 24, 26 to 31.

Winds, high. — Northeast, 8, 24; southeast, 2; southwest, 14, 27; northwest, 4, 10, 20, 27.

PRESSURE, HUMIDITY, SUNSHINE AND WIND

Stations	Atmospheric pressure reduced to sea level				Wind †				Mean relative humidity		Percentage of sunshine		
	Average	Highest	Date	Lowest	Date	Average hourly velocity	Maximum velocity	Direction	Date	8 a. m.		Local n'n	
Aberdeen, Md.	29.96	30.30	19	29.58	3	5.5	45	sw.	20	82	68	76	41
Baltimore Md.	29.96	30.29	18	29.59	3	9.8	37	n.	20	72	58	63	51
Elkins, W. Va.	29.97	30.32	18	29.59	3	6.2	36	nw.	9	83	63	73	38
Harrisburg, Pa.	29.95	30.27	18	29.58	3	6.9	31	ne.	24	76	59	69	48
Norfolk, Va.	29.97	30.31	19	29.58	3	11.4	31	nw.	30	77	56	72	71
Philadelphia, Pa.	29.97	30.31	19	29.57	3	11.6	68	nw.	24	73	56	68	54
Pittsburgh, Pa.	29.96	30.29	18	29.57	3	9.3	34	sw.	2	78	62	65	51
Washington, D. C.	29.96	30.29	19	29.58	3	6.3	27	nw.	20	76	60	68	50

† Velocity of wind in miles per hour by 4-cup anemometer.

COMPARATIVE DATA FOR MARYLAND AND DELAWARE FOR MAY

Year	Temperature				Precipitation				Number of days				
	Mean	Departure	Highest	Lowest	Average	Departure	Greatest	Least	Average snowfall	With 0.1 in. or more precipitate	Clear	Partly cly	Cloudy
1895	61.5	-0.9	101	20	3.33	-0.08	5.52	0.70	0.0	12	12	11	8
1896	67.5	+5.1	96	31	3.20	-0.21	6.44	0.87	0.0	10	10	12	9
1897	61.1	-1.3	86	27	5.06	+1.65	7.52	2.41	0.2	11	15	9	7
1898	62.9	+0.5	96	25	4.53	+1.12	12.29	2.30	0.0	13	10	10	11
1899	63.6	+1.2	96	31	3.70	+0.29	7.42	1.51	0.0	10	14	10	7
1900	63.2	+0.8	103	2	2.46	-0.95	4.93	1.00	0.0	6	16	8	7
1901	61.3	-1.1	95	25	4.47	+1.06	9.56	2.17	0.0	12	11	8	12
1902	63.9	+1.5	98	22	2.98	-1.33	4.76	0.73	T.	8	15	11	5
1903	64.0	+1.6	97	24	2.58	-0.83	4.78	0.35	T.	7	17	7	7
1904	64.2	+1.8	102	26	2.54	-0.87	4.29	1.33	T.	7	17	10	4
1905	64.7	+2.3	97	25	2.99	-0.42	6.12	0.70	0.0	8	13	11	7
1906	63.4	+1.0	97	22	2.72	-0.69	4.86	1.06	T.	7	16	10	5
1907	58.1	-4.3	91	23	4.78	+1.37	3.05	1.59	0.0	13	11	10	10
1908	63.6	+1.2	95	28	6.23	+2.82	15.32	1.66	0.1	14	11	11	9
1909	62.3	-0.1	98	22	3.60	+0.19	5.23	2.03	T.	9	16	8	7
1910	60.2	-2.2	90	16	2.92	-0.49	6.39	1.57	T.	12	12	7	7
1911	67.6	+5.2	100	19	1.65	-2.36	3.45	T.	4	20	9	2	
1912	64.2	+1.8	92	29	4.14	+0.73	7.63	1.99	T.	10	16	9	2
1913	62.7	+0.3	94	16	4.33	+0.92	7.94	2.18	0.0	9	15	9	4
1914	65.2	+2.8	100	18	2.06	-1.35	4.24	0.89	0.0	6	19	8	7
1915	60.9	-1.5	90	25	3.83	+0.42	6.34	2.18	0.0	13	12	10	9
1916	64.7	+2.3	101	27	3.73	+0.32	8.89	1.62	T.	10	14	11	6
1917	57.2	-5.2	98	27	3.03	-0.38	5.20	1.81	0.1	10	13	10	8
1918	67.7	+5.3	98	27	3.74	+0.33	5.83	2.22	T.	9	16	10	5
1919	62.9	+0.5	97	31	5.42	+2.01	7.84	3.33	0.0	13	14	7	10
1920	58.5	-3.9	91	22	1.99	-1.42	3.00	0.70	T.	7	17	7	7
1921	61.3	-1.1	93	27	5.29	+1.88	8.69	2.70	T.	13	12	8	11
1922	64.7	+2.3	93	25	3.08	-0.33	5.40	1.19	0.0	9	16	7	8
1923	61.2	-1.2	94	23	1.88	-1.53	4.73	0.63	0.2	6	18	9	4
1924	58.8	-3.6	94	26	6.44	+3.03	8.68	4.43	0.0	17	11	8	12
1925	59.0	-3.4	100	25	1.88	-1.53	3.47	0.66	0.1	8	15	11	5
1926	62.0	-0.4	94	25	2.08	-1.33	3.51	0.19	0.0	8	18	10	3
1927	61.7	-0.7	95	28	3.05	-0.36	6.39	1.70	T.	14	7	12	12
1928	60.5	-1.9	96	26	2.45	-1.96	4.81	0.75	0.0	12	11	11	9
1929	61.7	-0.3	96	27	2.21	-1.20	6.89	1.31	T.	13	12	10	9
1930	64.9	+2.5	96	27	2.21	-1.20	5.33	0.73	0.0	9	16	10	5
1931	62.3	-0.1	96	23	4.50	+1.09	7.64	2.20	T.	13	10	12	9
1932	62.3	-0.1	95	23	4.50	+1.09	7.64	2.20	T.	13	10	12	9
1933	65.0	+2.6	94	34	5.44	+2.03	8.62	3.79	0.0	16	6	13	12
Period.	62.4	.....	103	16	3.41	.....	15.32	T.	T.	10	14	10	7

Climatological Data, May, 1933

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 in. or more			Clear	Partly cloudy	Cloudy
<i>Maryland</i>																				
Aberdeen	Harford	80	15	65.2	+4.2	90	24	44	5	31	3.79	+0.95	0.86	0.0	14	3	11	17	s.	U. S. Army.
Annapolis	Anne Arundel	45	68	66.7	+2.6	91	27	47	15	28	4.34	+0.33	0.78	0.0	17	7	12	12	sw.	Louis E. Foster.
Baltimore*	Baltimore	115	63	67.1	+2.7	93	24	46	8	29	5.17	+1.63	1.05	0.0	17	3	12	16	sw.	U. S. Weather Bureau.
Bellii	Prince Georges	151	13	65.8	+4.0	94	27	36	5	41	5.26	+1.81	1.00	0.0	14	8	13	13	sw.	Bureau Plant Industry.
Boysds	Montgomery	375	14	63.6	+1.7	89	24	39	5	35	6.24	+3.51	1.76	0.0	10	5	17	18	s.	Ralph F. Staley.
Cambridge (near)	Dorchester	25	40	66.6	+1.3	90	26	40	19	34	5.11	+1.69	1.15	0.0	13	7	15	9	s.	Matt Harding.
Cecilton	Cecil	85	15	65.3	+3.6	89	24	40	5	34	5.22	+1.92	1.70	0.0	14	8	12	11	sw.	James Reese Short.
Cheltenham	Prince Georges	230	33	65.9	+2.4	92	24	38	5	34	6.35	+2.04	1.30	0.0	17	5	15	11	sw.	Geo. Hartnell.
Chewsville	Washington	530	36	63.4	+2.6	88	20	43	5	33	4.55	+1.27	0.72	0.0	16	8	13	10	sw.	D. Paul Oswald.
Clear Spring	do.	600	36	64.6	+3.3	90	24	42	5	35	5.06	+1.30	0.79	0.0	19	8	13	10	w.	Mrs. Anna Bevan Cohill.
Colemanii	Kent	80	36	65.5	+2.0	90	24	44	18	31	5.34	+2.12	1.71	0.0	11	8	12	11	sw.	Walter B. Harris.
College Park	Prince Georges	87	47	64.0	+3.4	91	24	38	5	35	5.92	+2.17	1.35	0.0	15	6	13	12	sw.	Prof. Thos. H. White.
Crisfield	Somerset	5	14	68.3	+4.4	88	26	43	19	32	7.26	+4.16	1.69	0.0	12	6	17	8	sw.	A. B. Cochran.
Cumberland	Allegheny	623	61	65.6	+3.0	93	20	46	19	39	5.90	+2.61	0.73	0.0	20	8	12	11	s.	Harvey H. Weisse.
Darlington	Harford	300	43	63.7	+1.8	87	20	41	18	32	4.71	+1.37	1.00	0.0	13	4	12	15	sw.	Fred. C. Jones.
Easton	Talbot	35	43	66.2	+2.8	90	26	40	19	35	6.16	+2.98	1.42	0.0	16	7	15	9	sw.	Clement E. Bray.
Elkton	Cecil	28	7	64.6	.....	90	26	37	5	37	4.24	.....	0.90	0.0	15	8	12	11	sw.	H. W. Bouchelle.
Emmitsburg	Fredrick	720	65	64.4	+2.5	88	20	42	5	29	4.33	+0.24	0.85	0.0	14	8	12	11	s.	Mt. St. Mary's College.
Fallston II	Harford	450	64	64.2	+2.9	89	27	40	5	32	4.31	+0.65	0.81	0.0	18	4	13	14	s.	Miss Dora Curtiss.
Ferry Landing II	Calvert	110	17	66.0	+2.9	91	24	43	5	31	5.26	+1.80	1.15	0.0	15	9	11	11	se.	Thos. J. Bourne.
Fredrick	Fredrick	325	59	66.8	+3.2	92	24	41	5	34	3.84	+0.14	0.77	0.0	17	7	13	11	sw.	August T. Brust.
Friendsville	Garrett	1,501	15	60.4	+3.9	82	24	38	22	39	8.56	+5.32	1.20	0.0	20	4	10	17	w.	Joab J. Friend.
Frostburg	Allegheny	1,929	32	61.4	+1.7	84	24	42	15	35	6.12	+2.25	1.05	0.0	20	7	13	11	w.	F. T. Lewis.
Grantsville	Garrett	2,351	40	58.3	+1.8	81	20	37	22	39	8.62	+4.70	0.84	0.0	25	3	11	17	w.	Floyd J. Miller.
Great Falls II	Montgomery	200	44	66.0	+2.6	93	24	39	5	38	6.50	+3.17	1.20	0.0	15	6	14	11	sw.	Chas. E. Sullivan.
Hancock (Tonoloway)	Washington	455	23	63.3	+1.0	90	20	39	5	43	5.34	+2.20	1.02	0.0	16	8	13	10	sw.	American Fruit Growers.
Hancock (City)	do.	421	9	.....	.....	.....	.....	.....	.....	.....	5.39	+2.25	1.02	0.0	16	.....	.....	.....	.....	Marvin K. Murray.
Keedysville	do.	400	29	65.8	+2.7	91	20	40	5	34	3.81	+0.62	0.80	0.0	17	7	13	11	s.	J. A. Miller.
La Plata	Charles	190	16	65.4	+2.0	88	24	40	5	33	8.12	+4.93	1.45	0.0	20	7	13	11	sw.	Walter M. Page.
Laurel	Prince Georges	320	39	64.4	+1.6	90	24	42	5	32	4.83	+1.43	1.09	0.0	16	6	12	13	.....	Evan G. Chaney.
Luthersville	Baltimore	340	7	64.4	.....	90	24	38	5	35	4.58	.....	1.10	0.0	19	4	13	14	sw.	August W. Clark, P. M.
Maryland Line	do.	840	9	63.6	.....	86	24	37	5	29	4.67	.....	1.36	0.0	17	4	13	14	sw.	Chester L. Fulton.
Mechanicsville	St. Marys	165	7	.....	.....	.....	.....	.....	.....	.....	6.33	.....	1.57	0.0	16	7	13	11	sw.	Zach S. Graves.
Millington	Kent	27	36	66.0	+2.8	89	27	40	5	34	4.59	+1.53	1.03	0.0	18	8	12	11	w.	Henry L. Higman.
Oakland	Garrett	2,461	34	59.8	+4.3	83	26	34	22	41	6.47	+2.18	1.05	0.0	23	3	11	17	w.	R. E. Weber.
Parkton	Baltimore	780	3	63.6	.....	88	27	38	5	32	5.79	.....	1.27	0.0	22	3	14	14	sw.	C. B. Cornell.
Picardy	Allegheny	900	7	64.6	.....	88	20	44	9	35	5.04	.....	1.17	0.0	14	8	12	11	w.	American Fruit Growers.
Pleasant Hill II	Baltimore	660	9	.....	.....	.....	.....	.....	.....	.....	5.10	.....	1.60	0.0	18	3	14	14	sw.	J. E. Henry.
Pocomoke City	Worcester	37	28	.....	.....	.....	.....	.....	.....	.....	6.06	+3.34	1.37	0.0	14	6	17	8	.....	Wm. H. Dryden.
Princess Anne	Somerset	17	58	67.2	+4.3	92	26	39	19	38	6.02	+2.84	1.57	0.0	14	3	20	8	sw.	James R. Stewart.
Ridgely	Caroline	57	43	66.0	+2.7	89	27	40	15	35	4.84	+1.46	0.92	0.0	12	7	14	10	sw.	Albert White.
Rock Hall	Kent	25	19	65.6	+3.1	93	24	43	9	32	3.96	+0.88	0.80	0.0	17	7	13	11	sw.	Charles Judefind.
Salisbury	Wicomico	23	28	66.6	+2.8	91	26	40	19	34	4.87	+1.63	0.95	0.0	13	6	17	8	sw.	Homestead Dairy Farms.
Sines (Deep Creek)	Garrett	2,040	6	57.6	.....	81	23	37	14	40	8.03	.....	0.87	0.0	22	3	11	17	.....	C. E. MacMurray.
Snow Hill	Worcester	15	3	66.6	.....	91	27	36	19	39	4.40	.....	1.20	0.0	10	6	17	8	sw.	Richard Leake.
Solomons	Calvert	20	42	67.0	+2.1	90	24	42	5	26	4.85	+1.92	0.95	0.0	12	9	11	11	se.	J. J. Daley.
State Sanatorium	Fredrick	1,460	25	63.8	+2.6	87	20	40	9	26	4.08	+0.28	0.83	0.0	15	8	12	11	sw.	Dr. V. F. Cullen.
Stevensville	Queen Annes	12	7	67.0	.....	93	27	43	8	33	5.59	.....	1.40	0.0	14	7	13	11	s.	T. R. Price.
Takoma	Montgomery	320	35	66.4	+3.6	92	24	42	5	31	5.33	+2.21	1.11	0.0	17	6	13	12	.....	Milton L. Seaman.
Towson	Baltimore	465	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Metropolitan District.
Western Port	Allegheny	1,000	40	64.2	+2.3	89	20	44	18	38	6.55	+3.19	0.75	0.0	22	.....	.....	.....	.....	Norris Bruce.
Westminster	Carroll	770	24	64.4	+1.7	90	26	36	5	32	4.67	+1.03	0.90	0.0	14	6	14	11	sw.	Harry J. Mathias.
Woodstock	Baltimore	415	64	65.8	+2.8	90	24	37	6	38	5.66	+2.06	1.60	0.0	18	3	14	14	sw.	Woodstock College.
<i>Dist. of Columbia</i>																				
Washington**	.....	112	63	67.3	+3.6	91	24	47	9	29	6.26	+2.56	1.21	0.0	18	4	13	14	s.	U. S. Weather Bureau.
<i>Delaware</i>																				
Bridgeville	Sussex	45	43	66.4	+3.2	91	27	38	5	36	4.24	+0.72	1.13	0.0	12	7	15	9	sw.	George Ray.
Delaware City	New Castle	12	47	65.8	+2.8	92	26	45	19	28	5.85	+2.69	1.05	0.0	13	7	12	12	s.	James E. Maden.
Dover	Kent	34	44	66.6	+3.2	92	27	44	15	33	4.63	+0.93	1.04	0.0	13	8	13	10	se.	Arthur G. Livingston.
Milford	Sussex	20	51	67.0	+3.1	92	27	39	5	37	5.82	+2.22	1.77	0.0	16	7	15	9	s.	Chas. J. Holzmueller.
Millsboro	do.	20	41	66.8	+3.9	93	27	37	19	40	5.45	+2.08	0.99	0.0	12	7	15	9	sw.	G. L. Ellis.
Wilmington	New Castle	86	40	.....	.....	.....	.....	.....	.....	.....	6.10	+2.64	1.83	0.0	17	7	12	12	sw.	Street Department.
Wilmington	do.	260	22	64.7	+1.6	87	21	42	5	28	6.16	+2.70	1.42	0.0	16	7	12	12	sw.	Water Department.
<i>Means and extremes:</i>																				
For Maryland and District of Columbia	.....	.....	.....	64.8	+2.5	94	27	34	22	43	5.45	+2.05	1.76	0.0	16	6	13	12	sw.	.....
For Delaware	.....	.....	.....	66.2	+2.7	93	27	37	19	40	5.33	+1.88	1.83	0.0	16	7	14	10	sw.	.....
For entire section	.....	.....	.....	65.0	+2.6	94	27	34	22	43	5.44	+2.03	1.83	0.0	16	6	13	12	sw.	.....

The departures from normal temperature and precipitation are computed only for such stations as have 10 or more years of record, but all complete

Daily Temperatures for May, 1933

Table with columns for Stations, 31 days (1-31), and Mean. Rows list various Maryland and Delaware stations such as Aberdeen, Annapolis, Baltimore, etc., with their respective temperature readings for each day.

§§ Instruments are read in morning; maximum temperature then read is charged to preceding day, on which it almost always occurs. Temperatures at Aberdeen, Baltimore, Sines, and Washington are from midnight to midnight; other stations, except Cumberland, are for 24-hour period ending late in afternoon, near sunset. (W. B. Richmond, Va. 6 15 33-930)