U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU

CHARLES F. MARVIN, Chief

In Cooperation with Maryland State Weather Service

CLIMATOLOGICAL DATA

MARYLAND AND DELAWARE SECTION

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Vol. XXXV

BALTIMORE, MD., YEAR 1930

No. 13

GENERAL SUMMARY

The year 1930 stands out conspicuously as the driest year since 1869 and 1870—a year of drought and marked crop injury. It was warm and sunshiny. A heat wave from July 18 to August 10, inclusive, produced the highest temperature of record (records begin with 1871), 110° at Millsboro, Del., on July 21, and the greatest number of days with temperature of 90° or higher and of 100° or higher in the 60-year period. Some damage was caused by lightning, thundergusts, and hail.

The drought caused a loss of \$40,000,000 to farmers in Maryland, according to the State Extension Service, while the loss from forest fires was placed at \$580,000 by the Maryland State

Forester.

The annual mean temperature, 55.0°, was 1.1° warmer than normal and the highest since 1922 when it was also 55.0°. January was mild; February was very mild; April and October were cool; May, June, July, and August were warm, while September was very warm; December was moderately cold; March and November were near normal.

Precipitation for the year averaged but 23.78 inches, which was 57 per cent of normal. In the 35 preceding years, with numerous records available, the smallest annual average was 34.47 inches in 1895. For the section, as a whole, precipitation was deficient in every month; in fact, the deficiency began in December, 1929. A drought of great duration and intensity began on June 27 and continued at the close of the year. January to June produced 63 per cent of the precipitation that the vear furnished, this being 71 per cent of normal for first half of year, while July to December produced but 43 per cent of normal for the second half of year. July to October produced only 34 per cent of normal for the four months. June had the greatest monthly average rainfall and October the least. However, August had the greatest monthly average deficiency and January the least. Annual amounts were 25 to 30 inches in the Allegheny Mountain highlands, the central and northeastern portions of Washington County, the northern portions of Frederick, Carroll, Baltimore, Harford, and Cecil Counties, and in Delaware, except between 30 and 35 inches in east-central Delaware; they were between 20 and 25 inches generally elsewhere over the section, except between 17 and 20 inches in central and eastern Allegany, southern Frederick, Howard, Montgomery, and northern Prince Georges Counties.

Annual snowfall averaged 22.4 inches, which was 3.9 inches below normal. The northern third of the Eastern Shore was the area of least annual snowfall, the totals ranging from 9 to 15 inches. Elsewhere over the section to eastward of the Allegheny Mountains annual amounts were usually between 15 and 30 inches, but were between 25 and 35 inches in central Washington County. In the Allegheny Mountain region they increased westward along the eastern Slope and were about 50 inches at the crest and between 55 and 70 inches in the highlands.

The annual number of days with 0.01 inch or more of precipitation for the section averaged 94, which was 15 less than normal.

The annual amount of sunshine was 63 per cent of possible, which was 5 per cent greater than normal and the greatest since 1912 when it was the same. Sunshine was unusually plentiful in March and was abundant in all other months, except normal in April and deficient in January, November, and December.

The growing season, or interval between the last general killing frost in spring and the first general killing frost in autumn, was shorter than normal by one to two weeks generally, except

three weeks in the Chesapeake Bay region.

Wheat, rye, and barley were good to excellent crops; oats yielded fair to good; strawberries, cantaloupes, and watermelons were fair crops; while field corn, sugar corn, early potatoes, late potatoes, sweet potatoes, peas, tomatoes, tobacco, truck,

apples, peaches, pears, and hay were poor crops.

Outstanding features during 1930: January.—Very mild first half; cold second half; cold wave 19-20th; heavy rain southern Maryland and central and northern Eastern Shore 14th; snowstorms 18th and 30th; heavy monthly snowfall; drift ice upper Chesapeake Bay last week; winter grains far advanced for season. February.—Unusual mildness; much pleasant weather; cold wave 15-17th; unseasonably warm 19-26th, maximum temperatures 25th highest of record so early in year; heavy rain 13-14th eastern half of section; light monthly snowfall; drift ice upper Chesapeake Bay first half month; grains, pastures, and grasses green and in good condition. March.—Much clear, pleasant weather; unusual abundance sunshine; light monthly snowfall, confined to western Maryland; winter grains and grasses ahead of normal; farming operations full swing eastern and central divisions; early plum, peach, and pear trees in bloom southern half of section. April.—Snowfall confined to Allegheny Mountain region; heavy rain 6th; third decade dry; warm period 11-14th; cold snap 23d-26th, damaging fruit blossoms; severe thundergust 7th caused loss

COMPARATIVE DATA FOR MARYLAND AND DELAWARE

	•	Temper	ature				Pre	cipitati	on		
Year	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest local	Least local	Greatest in 24 hours	Snowfall	Number of days with 0.01 inch or more
1895	52. 6 54. 0 53. 6 54. 9 53. 5 55. 0	$ \begin{array}{r} -1.3 \\ +0.1 \\ -0.3 \\ +1.0 \\ -0.4 \\ +1.1 \end{array} $	102 103 102 109 102 106	-18 -13 -12 -20 -26 -15	34. 47 37. 11 44. 97 42. 11 40. 84 36. 66	-7.03 -4.39 +3.47 +0.61 -0.66 -4.84	42.07 64.94 63.85 65.77 51.38 52.19	14. 42 30. 18 32. 56 32. 59 28. 69 28. 21	4.80 4.50 14.75 5.93 5.35 5.58	29. 9 23. 0 18. 4 21. 6 40. 3 26. 8	94 92 109 109 98
1901. 1902. 1903. 1904. 1905. 1906. 1907. 1908. 1909. 1909.	52. 6 53. 6 53. 3 51. 2 53. 3 54. 6 52. 2 54. 1 54. 0 53. 8	$\begin{array}{c} -1.3 \\ -0.3 \\ -0.6 \\ -2.7 \\ -0.6 \\ +0.7 \\ -1.7 \\ +0.2 \\ +0.1 \\ -0.1 \end{array}$	106 104 100 102 104 101 99 102 99	-15 -17 -12 -20 -20 -15 -29 -21 -5 -15	45. 08 49. 20 46. 94 36. 49 43. 84 48. 01 48. 86 40. 01 37. 47 37. 42	+3.58 +7.70 +5.44 -5.01 +2.34 +6.51 +7.36 -1.49 -4.03 -4.08	70. 87 .61. 38 78. 72 50. 26 64. 64 62. 92 66. 59 52. 50 50. 45 52. 45	34. 63 33. 75 36. 58 25. 72 31. 88 36. 10 37. 55 31. 63 28. 30 26. 74	5. 45 6. 00 6. 00 5. 90 4. 65 8. 66 5. 00 7. 93 3. 80 7. 19	18.7 33.3 17.9 41.8 36.1 20.7 34.6 32.5 30.0 34.8	99 105 106 106 106 123 121 101 105 109
1911	54. 9 53. 3 56. 1 53. 4 54. 1 53. 2 51. 3 53. 8 54. 9 53. 3	$\begin{array}{c} +1.0 \\ -0.6 \\ +2.2 \\ -0.5 \\ +0.2 \\ -0.7 \\ -2.6 \\ -0.1 \\ +1.0 \\ -0.6 \end{array}$	106 102 102 102 103 101 102 109 105 98	- 5 -40 - 6 -21 - 6 -11 -32 -30 -19 -10	43. 61 43. 42 38. 98 35. 97 43. 58 40. 47 40. 65 57. 96 47. 62 44. 95	+2.11 +1.92 -2.52 -5.53 +2.08 -1.03 -0.85 -3.54 +6.12 +3.45	55. 58 52. 68 48. 96 43. 32 59. 39 49. 72 54. 22 46. 95 60. 84 56. 29	33. 62 35. 50 25. 41 29. 35 26. 82 26. 14 27. 17 28. 88 30. 69 32. 49	7, 35 6, 07 4, 05 3, 81 5, 11 6, 00 4, 52 4, 50 9, 02 4, 30	23. 2 32. 2 6. 1 37. 2 23. 1 28. 5 35. 7 31. 4 11. 9 20. 0	119 112 108 98 107 112 110 98 114
1921 1922 1923 1924 1925 1926 1927 1928 1929 1930	56.6 55.0 54.4 52.6 54.6 52.8 54.4 54.0 54.4 55.0	$\begin{array}{c} +2.7 \\ +1.1 \\ +0.5 \\ -1.3 \\ +0.7 \\ -1.1 \\ +0.5 \\ +0.1 \\ +0.5 \\ +1.1 \end{array}$	102 100 102 103 104 107 100 100 102 110	-15 -15 - 9 -13 -31 -16 - 5 -11 -13 -20	37. 72 40. 15 40. 27 46. 26 34. 91 43. 90 40. 37 45. 09 42. 46 23. 78	-3.78 -1.45 -1.23 +4.76 -6.59 +2.40 -1.13 +3.59 +0.94 -17.72	54. 12 55. 65 50. 38 52. 70 48. 37 54. 02 53. 56 55. 38 55. 60 33. 52	28. 89 24. 39 31. 47 37. 41 27. 87 32. 08 27. 89 34. 92 33. 09 17. 76	5. 60 6. 75 5. 17 4. 53 5. 25 6. 54 3. 92 11. 66 4. 58 3. 25	20. 5 34. 8 22. 0 30. 5 23. 0 24. 6 15. 3 25. 4 20. 0 22. 4	114 111 115 111 112 128 125 118 117 94

Climatological Data for the Year 1930

	·		Temperature, degrees Fahrenbeit Precipitation										ny	Sky			5			
Stations	Counties	Elevation, feet	Length of record,	Annual mean	Highest	Date	Lowest	Date	Length of record, years	Total for the year	Greatest monthly	Month	Least monthly	Month	Total snowfall	Number of rain days	Number of clear days	Number of partly cloudy days	Number of cloudy days	Prevailing direction of wind
Manyland Aberdeen Annapolis Baltimore (U.S.W. B.) Bell I Boyds Cambridge (near) Cecilton Cheltenham Chewsville Clear Spring Colèman S College Park Crisfield Cumberland Darlington Easton Elikton Emmitsburg Fallston S Ferry LandingS Frederick Friendsville Frostburg Grantsville Great FallsS Hancock (Tonoloway) Keedysville Lutrlerville Maryland Line Mechanicsville Millington Nowburg Oakland Picardy Pleasant HillS Pocomoke City Princess Anne Public Landing S Ridgely Rock Hall Salisbury Sines (Deep River) Solomons State Sanatorium Stevensville Takona Towson Western Port Westerninster Woodstock	Anne Arundel Prince Georges Montgomery Dorchester Cecil Prince Georges Washingtondo Kent Prince Georges Somerset Allegany Harford Talbot. Cecil Frederick Harford Calvent Frederick Garrett Allegany Garrett Montgomery Washingtondo	450 110 275 1,501 1,929 2,351 200 455 400 320 340 840 840 165 27 110	12 65 60 110 111 12 12 12 12 12 12 12 12 12 12 12 12	54. 7 56. 6 58. 1 55. 7 56. 3 56. 4 56. 3 56. 3 56. 4 56. 3 56. 3 56. 4 56. 3 56. 3 56. 4 56. 3 56. 4 56. 3 56. 4 56. 3 56. 4 56. 3 56. 4 56. 3 56. 4 56. 3 56. 3 56. 4 56. 3 56. 3 56. 3 56. 4 56. 3 56. 3 57. 7 57. 7 58. 3 57. 6 57. 6 58. 3 57. 6 57. 6 58. 3 57. 6 58. 3 57. 6 58. 3 57. 6 58. 3 57. 6 58. 3 57. 6 58. 5 58. 6 58. 7 58. 6 58. 7 58. 6 58. 7 58. 6 58. 7 58. 6 58. 7 58. 6 58. 7 58. 7 58	103 105 104 105 106 104 106 107 107 100 107 101 108 108 108 108 108 108 108 108 108	July 21 July 21 July 21 July 21 July 21 July 21 July 20 Aug. 4 July 20 July 22 Aug. 4 July 21 July 20 July 28 Aug. 4 July 29 Aug. 4 July 29 Aug. 4 July 29 Aug. 4 July 20 July 20 July 20 July 21 July 21 July 21 July 21 July 20 July 21 July 20 July 21 July 20 July 21 July 21 July 20 July 21	6 8 9 9 -77 -18 2 2 2 2 -17 8 -8 6 -10 0 2 2 2 -1 -5 6 -10 -1 -1 -1 -1 -1 -3 3 3 2 2 2 2 6 6 -8 8 9 9 -1 1 9 4 4 -10 -10 -10 -10 -10 -10 -10 -10 -10 -10	Jan. 199 Feb. 16 Jan. 31 Jan. 31 Jan. 31 Jan. 31 Jan. 31 Jan. 31 Jan. 20 Feb. 16 Jan. 31 Jan. 20 Jan. 31 Jan. 20 Jan. 31 Jan.	57 60 10 11 37 12 30 33 43 11 58 89 40 4 61 61	24. 00 21. 16 21. 16 21. 17. 98 23. 63 24. 88 24. 57 27. 53 24. 88 19. 99 23. 98 18. 11 22. 04 22. 08 22. 01 19. 84 22. 01 29. 52 21. 99 22. 19. 90 24. 73 22. 29 19. 40 24. 73 25. 29 17. 76 24. 67 24. 67 25. 27 26. 69 27. 16 26. 69 27. 50 27. 16 28. 32 38. 30 21. 47 27. 16 26. 91 18. 83 28. 30 21. 47 27. 16 26. 91 27. 27 27. 16 28. 27 27. 16 28. 32 38. 30 21. 47 27. 16 27. 27 27. 16 28. 32 38. 30 21. 47 27. 16 27. 17 27. 16 28. 32 38. 30 21. 47 27. 16 20. 07	3. 42 3. 67 3. 14 3. 64 3. 78 5. 60 5. 52 3. 80 3. 85 3. 47 4. 21 4. 21 4. 21 4. 21 4. 21 5. 95 6. 60 7. 3. 75 3. 17 3. 17 3. 17 3. 17 3. 17 3. 17 3. 17 3. 17 3. 17 3. 17 4. 17 5. 17 6. 18 6. 18	Jan. Jan. Jan. Jan. Jan. Jan. Jan. Jan.	0. 38 0. 21 0. 37 0. 70 0. 71 12 0. 24 0. 13 0. 37 0. 70 0. 71 1. 22 0. 47 0. 10 1. 26 0. 27	Aug. Aug. Aug. YSept. Aug. Oct. Oct. Aug. Oct. Oct. Aug. Oct. Oct. Aug. Oct. Oct. Aug. Oct. Oct. Oct. Oct. Oct. Oct. Oct. Oct	16. 9 19. 14. 18. 22 24. 18. 22 25. 5 23. 9 11. 68. 24. 25. 24. 18. 25. 24. 25. 25. 25. 25. 25. 25. 25. 25. 25. 25	94 94 94 94 94 94 94 94 94 94 94 94 94 9	112 149 187 179 192 185 190 159 197 196 198 191 115 181 116 190 203 191 118 119 119 119 119 119 119 119 119	127 115 122 103 103 120 120 120 181 184 84 81 102 120 101 147 106 103 87 88 87 87 116 86 81 103 91 103 99 103 116 103 103 104 105 105 105 105 105 105 105 105 105 105	126 101 108 83 85 86 86 86 86 88 89 99 96 81 139 99 98 132 83 90 91 183 84 123 76 81 81 81 81 81 81 81 81 81 81 81 81 81	nw.
District of Columbia Washington (U.S.W. B.)		112	60	57.5	106	July 20	6	Jan. 31	60	21.66	3. 19	June	0.28	Oct.	18.0	86	145	113	107	nw.
Delaware Bridgeville Delaware City Dover Mifford Millshoro Wilmington	Sussex	45 12 34 20 20 86	7 44 41 38 28 37	56. 9 55. 9 56. 4 56. 2 56. 9 54. 8	105 103 104 105 110 102	July 21 July 21 July 21 July 21 July 21 July 21 July 21	0 6 3 -3 0 4	Feb. 17 Feb. 16 Feb. 17 Feb. 17 Feb. 17 Feb. 16	7 40 41 48 38 37	25, 72 24, 71 30, 60 33, 52 24, 94 23, 87	3. 45 3. 07 3. 81 6. 01 3. 40 3. 97	Jan. Jan. Jan. July Jan. Sept.	0.92 1.10 1.17 1.82 1.42 1.08	Aug. Aug. Oct. Sept. July Oct.	19.0 9.0 14.6 16.0 19.2 9.7	94 82 · 96 108 105 94	182 179 197 158 159 183	111 87 84 132 123 84	72 99 84 75 83 98	sw. s. nw. nw. sw.
For Maryland and District of Columbia For Delaware For entire section				54. 8 56. 2 55. 0	108 110 110	July 20* July 21 July 21	-20 -3 -20	Feb. 16 Feb. 17 Feb. 16		23, 29 28, 05 23, 78	‡3.36 ‡3.46 ‡3.27	June Jan. June	10.74 11.45 10.82	Oct. Oct. Oct.	23.2 14.5 22.4	94 96 94	168 176 169	104 104 104	93 85 92	nw. nw. nw.

^{*}Also on other dates. †Also in October. †Greatest or least monthly average over this entire area. \$Post Office 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 Pleasant Hill, Owings Mills; of Public Landing, Snow Hill.

Data in italics determined from surrounding stations:

(Continued from page 49)

estimated \$50,000; vegetation good condition and well advanced for season. May.—Warm, dry, sunshiny, but breezy; first warm May since 1922; heat wave first decade; very cool 25th to 31st, damaging frost Allegheny Mountain region; strong thundergust 24th, slight damage. June.—Much clear sky; abundant sunshine; low humidity; moderate to heavy rain 9-10th; heavy showers different divisions 17th, 24th, 26th; damage locally by lightning and thundergusts 24th and 26th. July.—Average rainfall least of record for July; very pleasant 1st to 17th; hot wave began 18th; most crops and grasses wilted or dried up; damage various districts by heavy hail, lightning, or thundergusts. August.—Driest August of record; heat wave ended 10th; cool spell 11-24th; abundant sunshine; few days with rain; crops and grasses mostly wilted or dried up; water supply low; stock fed. September.—Second warmest September of record; abundant sunshine; low humidity; crops poor; pastures mostly dry; water supply low; stock fed; thundergust 16th caused slight damage. October.—

Second driest October of record; much clear sky; abundant sunshine; second driest October of record; much clear sky; abundant sunshine; low humidity; rainfall of shower type, mostly at night; warm period 7-17th; first general killing frost Allegheny Mountain highlands 1st, Allegany and Washington Counties 2d, central and eastern divisions 19th, except Chesapeake Bay region 21st; sowing grains delayed; pastures poor to dry; water supply low; stock fed. November.—Excess cloudiness; frequent rains, but light; much fog; warm period 9-24th; cold wave 27-29th produced lowest temperatures of record so early in winter season; winter grains came up, nest weap and grasses projected. grains came up; pastures and grasses revived and greened; water supply low; stock fed. December.—Most precipitation close of month; cold periods 2-3d, 15-17th, 23d-25th, 28th-31st; mild period 4-13th; exceptionally cold Christmas morning Allegheny Mountain region; rains 6-7th and 26-27th helpful; monthly snowfall heavy southern portion section; western half of section snow-covered 17th-31st; water supply low; stock fed.— J. B., jr.

Monthly and Annual Precipitation for the Year 1930, with Departures from the Normal

	Jan	uary	Feb	ruary	Ma	rch	. A ₁	pril	М	ay	Ju	ine	Jı	ıly	Au	gust	Sept	ember	Oct	obe r	Nov	ember	Dece	mber	An	nual
Stations	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure
Maryland Aberdeen Annapolls Baltimore (U.S.W.B.) Bell Boyds Cambridge (near) Cecilton Cheltenham Chewsville Clear Spring Coleman College Park Crisfield Cumberland Darlington Easton Eikton Emmitsburg Fallston Ferry Landing Frederick Friendsville Frostburg Grantsville Great Falls Hancock (Tonoloway) Keedysville Luttherville Maryland Line Mechanicsville Millington Newburg Oakland Picardy Pleasant Hill Pocomoke City Princess Anne Public Landing Ridgely Rock Hall Salisbury Sines (Deep Creek) Solomons State Sanatorium Stevensville Takoma Towson Western Port Westeninster Woodstock	2.94 2.87 3.59 3.79 3.75 1.51 3.03 2,17 3.93	-0.09 -0.35 -0.35 +0.48 +0.38 +0.11 -1.43	1. 97 1. 14 2. 33 1. 86 2. 27 1. 48 3. 15 1. 39 2. 37 3. 36	-1.50 -2.30 -0.77 -1.17 -0.97 -1.60 -1.57 -0.47	2. 04 2. 15 1. 77 1. 09 1. 72 1. 64 2. 54 0. 65 4: 45 2. 07	-1. 32 -1. 75 -2. 18 -2. 49 -1. 82 -2. 48 -2. 65 +1. 12	1. 77 2. 24 1. 63 3. 10 1. 64 2. 64 1. 53	-1.77 -1.42 -1.09 -1.78 -1.28 -0.85	3. 90 1.59 1.30 2.62 1.84 3.33 1.17 2.19	+0.28 +0.71 -1.98 -1.90 -0.81 +0.32 -2.81	2. 38 2. 38 2. 17 2. 46 2. 49 3. 95 3. 80 4. 66 3. 71 2. 50	-1. 37 -1. 66 -0. 96 -1. 26 -0. 03	2. 76 2. 57 1. 82 2. 56 1. 00 1. 09 1. 59 1. 86 3. 18	-1. 76 -2. 69 -2. 20 -2. 86 -2. 68 -2. 24	0.50 0.63 0.55 0.90 2.06 0.42 0.66 1.10	-3. 69 -4. 61 -3. 83 -3. 95 -4. 48 -3. 35 -3. 93	1. 20 2. 16 1. 01 0. 26 0. 99 1. 85 0. 95 2. 32 0. 78	-2.06 -3.63 -2.19 -1.70 -1.59	1.80 2.06 2.29 1.40 0.87 1.72 0.48 1.42 0.12	-1. 29 -1. 14 -0. 48 -1. 61 -1. 16 -1. 51 -1. 17 -2. 48	1.40 1.50 0.75 1.64 1.02 0.76 0.99 1.42	-1.08 -2.09 -1.17 -1.24 -1.39	2. 40 2. 04 1. 89 2. 28 1. 81 3. 20 1. 73 3. 21 1. 98	-1. 19 -1. 25 -0. 78 -1. 67 -0. 97 +0. 08	24. 69 25. 17 20: 32 21. 00 21. 67 25. 29 20. 71 26. 62 26. 91	-14.98 -16.81 -20.88 -20.17 -21.70 -15.59 -16.02
District of Columbia Washington (U.S.W.B.)		i l			i					- 1		.		- 1			ĺ				. '	100				
Delaware Bridgeville Delaware City Dover Milford Millsboro Wilmington	3, 45 3, 07 3, 81 3, 81 3, 40 3, 25	-0.02 +0.22 +0.47 +0.21 -0.16 -0.21	1.87 2.30 1.79 1.71 1.64 2.95	$ \begin{array}{r} -1.52 \\ -0.34 \\ -1.49 \\ -1.85 \\ -1.89 \\ -0.33 \end{array} $	1.83 2.10 1.63 2.27 1.62 2.57	-1.97 -1.16 -2.56 -1.88 -2.38 -0.97	1.93 2.11 2.32 2.05 1.70 1.80	-1.55 -1.21 -1.17 -1.45 -1.90 -1.62	2. 69 2. 75 2. 61 5. 38 2. 35 3. 15	$ \begin{array}{r} -1.00 \\ -0.52 \\ -1.00 \\ +1.74 \\ -1.12 \\ -0.42 \end{array} $	3. 01 2. 65 1. 97 3. 47 2. 20 1. 97	$ \begin{array}{r} -0.74 \\ -1.21 \\ -1.59 \\ -0.22 \\ -1.53 \\ -1.87 \end{array} $	2.53 1.70 3.75 6.01 1.42 2.61	-2.64 -1.90 -0.91 $+1.75$ -3.24 -2.45	0.92 1.10 3.06 1.40 1.73 1.34	-3.44 -2.68 -1.34 -3.14 -3.33 -3.30	2. 52 2. 36 4. 34 1.32 2. 32 3. 97	$ \begin{array}{r} -0.46 \\ -0.86 \\ +0.89 \\ -2.10 \\ -0.63 \\ +0.52 \end{array} $	1.34 1.35 1.17 1.52 2.25 1.08	-1.85 -1.13 -1.74 -1.74 -1.14 -2.00	1.71 1.45 2.04 2.56 2.72 1.73	$ \begin{array}{r} -0.87 \\ -0.69 \\ -1.11 \\ -0.46 \\ +0.09 \\ -1.09 \end{array} $	1.92 1.77 2.11 2.02 1.59 2.45	$ \begin{array}{r} -1.35 \\ -1.82 \\ -1.26 \\ -1.74 \\ -2.26 \\ -1.22 \end{array} $	25. 72 24. 71 30. 60 33. 52 24. 94 28. 87	$\begin{array}{r} -17.41 \\ -13.30 \\ -12.81 \\ -10.88 \\ -19.49 \\ -14.96 \end{array}$
For Maryland and District of Columbia	1	' /	1				- 1	- 1			٠		.)		j		J		- }			1	- 1	٠ . ا		

Data in italics determined from surrounding stations. CONDENSED SUMMARY OF CLIMATOLOGICAL DATA, 1980

		Temper	ature				Precipita	N	ion						
Months	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest local	Least local	Greatest in 24 hours	Snowfall	With 0.01 inch or more of precipitation	Clear	Partly cloudy	Cloudy	Prevailing direct of wind
anuary ebruary farch pril fay une uly ugust eptember clober ovember ceember	39.4 42.4 50.6 64.9 72.2 77.1 73.8 73.0 54.1 44.9	+1.5 +6.4 -0.2 -1.9 -+2.3 +1.3 +1.9 +0.6 +5.5 -2.2 +0.3 -1.7	75 85 77 98 96 99 110 108 102 89 75 62	-17 -20 4 18 27 26 38 30 33 7 -16 -17	2. 75 2. 06 2. 14 2. 48 2. 21 3. 27 1. 58 1. 12 1. 47 0. 82 1. 28 2. 60	-0. 62 -0. 98 -1. 52 -0. 88 -1. 38 -0. 66 -2: 75 -3. 15 -1. 79 -2. 04 -1. 26 -0. 69	4. 31 3. 36 4. 45 3. 79 5. 38 5. 95 6. 01 3. 33 4. 34 2. 29 2. 72 4. 35	0.56 1.14 0.65 1.29 0.73 1.36 0.18 0.15 0.26 T. 0.48 1.58	1. 45 2. 28 2. 82 2. 23 3. 25 2. 35 2. 37 2. 17 3. 20 1. 79 2. 65	11. 2 2. 9 1. 5 0. 5 0. 0 0. 0 0. 0 0. 0 0. 0 0. 1 0. 8 5. 4	11 9 7 9 9 6 5 6 5 9	10 13 16 13 16 18 18 15 15 16 11 8	6 6 8 10 8 11 12 12 9 5	15 9 7 9 5 4 2 4 3 6	nw. nw. nw. nw. sw. sw. sw. sw. nw. nw.

	Mo	nthly	and	Anı	nual	Mea	n Te	mper	atur	es fo	r the	Yes	r 19	930,	with	Dep	artu	res fi	om 1	the N	Torm	al				
	Jan	uary	Feb	ruary	Ма	rch	A	oril	М	ау	Ju	me	Ju	ıl y	Au	gust	Septe	ember	Oct	ober	Nove	mber	Dece	mber	Anr	iual
Stations	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
Maryland Aberdeen. Annapolis Baltimore (U.S. W. B.) Bell. Boyds. Cambridge. (near) Cecilton Cheltenham Cheltenham College Park Crisfield Cumberland Darlington Easton Easton Elkton Emmitsburg Fallston Ferry Landing Frederick Friendsville Great Falls Hancock. (Tonoloway) Keedysville Laurel Laurel Laurel Laurel Laurel Princess Anne Public Landing Ridgely Ridgely Rock Hall Salisbury Sines (Deep Creek) Soiomons Stevensville State Sanatorium Stevensville State Sanatorium Stevensville State Sanatorium Stevensville Takloma Western Port Westninster Western Port	35. 2 33. 5 35. 36. 2 36. 2 37. 8 8 36. 2 36. 2 37. 8 8 36. 2 36. 2 37. 8 8 36. 2 36. 2 37. 8 36. 2 37. 8 37	+0.9 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1	42. 0 43. 4 43. 4 41. 4 41. 4 41. 4 41. 4 39. 0 40. 0 40. 7 43. 0 40. 1 40. 2	+5.46.66 +3.66.15 +3.11.73.74 +7.37.46.44 +5.91.46.15 +5.16.91 +5.16.91 +6.17.87 +6.17.87 +6.17.87 +6.17.87 +6.17.87 +6.17.87 +6.17.87 +6.17.87 +6.17.87 +7.66.17 +7.	42. 4. 46. 41. 44. 44. 47. 44. 48. 49. 44. 41. 44. 48. 49. 44. 41. 41. 41. 41. 41. 41. 41. 41. 41	+0.6 +0.4 +0.2 +0.5 +0.2 +0.2 +0.2 +0.2 +0.2 +0.2 +0.2 +0.2	51. 6 50. 8 50. 4 65. 6 50. 8 50. 8 50. 8 50. 8 50. 8 50. 8 50. 1 6 50. 8 50.	-1.0 -2.3 -3.0 -2.5 -1.4 -1.7 -1.6 -2.3 -1.5 -1.2 -1.1 +0.9 -3.8 -3.6 -1.2 -1.2 -1.2 -1.3 -1.5 -1.3 -1.5 -1.3 -1.5 -1.3 -1.5 -1.3 -1.5 -1.3 -1.5 -1.3 -1.5 -1.3 -1.5 -1.3 -1.5 -1.5 -1.5 -1.5 -1.5 -1.5 -1.5 -1.5	65. 4.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.6.	+3.6 +1.1 +1.1 +1.2 +1.3 +1.3 +1.3 +1.3 +1.3 +1.3 +1.3 +1.3	73. 5 74. 4 70. 8 72. 4 66. 9 73. 1 16. 6 73. 1 73. 1 74. 6 75. 8 77. 8	+1.3 -0.2 -1.4 +2.7 +2.7 +2.2 +3.8 +3.7 +2.7 +1.8 +2.7 +1.1.5 +1.6 -0.8 +3.0 -0.7 +1.6 -1.8 +1.6 -1.8 +1.7 -0.9 +1.6 +1.7 +1.7 +1.7 +1.7 +1.7 +1.7 +1.7 +1.7	78. 8. 6. 6. 77. 0. 77. 6. 6. 6. 6. 77. 0. 77. 8. 9. 77. 8. 9. 77. 8. 9. 77. 8. 9. 77. 8. 9. 77. 8. 9. 77. 8. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 9. 77. 9. 77. 9. 77. 9. 9. 77. 9. 77. 9. 9. 77. 9. 9. 77.	+1.1	77. 1 . 6. 74. 1 . 6. 77. 1 . 6. 77. 1 . 6. 77. 1 . 77. 1 . 77. 2 . 77. 77. 1 . 77. 2 . 77. 77. 1 . 77. 77. 77. 77. 77. 77. 7	-0.4 +2.1 +1.5 -1.7 +0.1 +1.5 -1.7 +0.1 +1.5 -1.7 +0.7 +0.7 +0.7 +0.7 +0.7 +0.7 +0.7 +0	76. 8 . 1 . 74. 4 . 77. 77. 6 . 4 . 77. 6 . 6 . 77. 6 . 77. 6 . 77. 6 . 77. 6 . 77. 6 . 77. 6 . 77. 77	+5.7.7.2	56. 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	-1.8 -1.0 -2.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1.1 -1.1	45. 44. 44. 44. 44. 44. 45. 44. 47. 48. 44. 47. 48. 44. 47. 48. 44. 48. 49. 49. 49. 49. 49. 49. 49. 49. 49. 49	-0.6	36.0 0 33.2 4 4 33.6 0 35.2 4 4 33.6 0 35.2 4 4 33.6 0 35.2 4 4 33.6 0 35.2 4 4 33.6 0 35.2 4 4 33.6 0 35.2 4 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	-1.1 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0	54. 1.17 55. 6. 6. 9 1 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	+2, +2, +2, +2, +2, +2, +2, +2, +2, +1, +1, +1, +1, +1, +1, +1, +1, +1, +1
District of Columbia Washington (U.S. W.B.)	35. 6	.+2.2	41.9	+6.6	45.0	+2.4	53. 2	-0.1	67.3	+3.6	75.1	+2.9	80.4	+3.7	76.8	+1.8	76.0	+7.9	56.2	-1.2	46.7	+1.5	35.7	-0.9	57.5	+2.
Delaware Bridgeville Delaware City Dover Milford Milsboro Wilmington	38. 0 34. 7 36. 4 37. 0 38. 6 33. 4	+3.1 +2.2 +1.4 +1.3 +3.4 +0.7	41. 8 38. 8 40. 6 40. 4 41. 9 87. 8	+5.1	44. 4 43. 4 44. 0 43. 8 44. 1 42. 4	$+2.1 \\ +1.2$	50.9 50.6	-1.4	65.4	+2.3	73.8	+1.7	77.8	+1.2	75.0 74.6	$\pm 0.3 \\ \pm 0.2$	73.6 74.3 74.0	$+5.2 \\ +5.2 \\ +5.0$	55.2 55.2 54.6	-2.4 -2.0 -3.2 -3.1	46.8 47.0 47.5	$\begin{array}{c c} +0.9 \\ +1.3 \\ -0.2 \\ +1.1 \end{array}$	35.4 35.4 36.6	-0.6 -1.3 -2.6	56. 9 55. 9 56. 4 56. 2 56. 9 54. 8	+1.9 +1.4 +1.3 +0.3 +1.7
For Maryland and District of Columbia			. .		42. 2 43. 7 42. 4	-0.3 +0.3 -0.2					1. 1						72.9 73.8 73.0	+5.6 +5.2 +5.5	53. 9 54. 9 54. 1	-2.2 -2.6 -2.2	44. 6 46. 8 44. 9	+0.2 +0.8 +0.3	33. 1 35. 5 33. 4	-1.8 -1.2 -1.7	54. 8 56. 2 55. 0	+1. +1. +1.

Data in italics determined from surrounding stations.

KILLING FROSTS, 1930

Stations	Last in spring	First in autumn	Stations	Last in spring	First in autumn	Stations	Last in spring	First in autumn
Maryland Aberdeen Annapolis Baltimore Bell Boyds Cambridge Ceciton Cheltenham Chewsville Colear Spring Coleman College Park Crisfield Cumberland Darlington Easton Elikton Emmitsburg Fallston Ferry Landing	Apr. 24 Apr. 24 Apr. 27 Apr. 26 Apr. 27 Apr. 24 Apr. 26 Apr. 27 Apr. 24 Apr. 24 Apr. 24 Apr. 24 Apr. 24 Apr. 24 Apr. 25 Apr. 25 Apr. 25	Oct. 19 Oct. 21 Oct. 21 Oct. 21 Oct. 19 Oct. 19 Oct. 19 Oct. 21 Oct. 2 Oct. 19		June 1 Apr. 27 June 1 Apr. 26 Apr. 25 Apr. 25 Apr. 27 Apr. 24 Apr. 24 Apr. 24 Apr. 24 Apr. 24 Apr. 25 Apr. 26 Apr. 26 Apr. 26 Apr. 26 Apr. 26 Apr. 26	Oct. 19 Oct. 19 Oct. 1 Oct. 2 Oct. 1 Oct. 1 Oct. 19	Maryland—Continued Rock Hall Salisbury Sines Solomons State Sanatorium Stevensville Takoma Towson Western Port Westminster Woodstock District of Columbia Washington Bridgeville Delaware City Dover Milford Millsboro Wilmington	Apr. 26 June 1 Apr. 24 Apr. 25 Apr. 24 Apr. 25 June 1 Apr. 25 Apr. 27 Apr. 24 Apr. 26 Apr. 25 Apr. 25 Apr. 25 Apr. 25	Oct. 19 Oct. 21 Oct. 21 Oct. 21 Oct. 21 Oct. 21 Oct. 21 Oct. 19 Oct. 19 Oct. 19 Oct. 19