

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.
VIRGINIA SECTION.

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GENERAL SUMMARY.

Though temperature averaged below normal for eight months of the year, the annual departure of -0.9° is not unusually large. Monthly extremes and averages were mostly well within the record, although May, with an average deficiency of 5.1° was within 0.8° of equaling the former low record for the month. The spring and summer months, with the exception of March, averaged below normal, and as a result the season became backward early in the year and remained so into late fall and early winter. Frosts occurred later in the spring than usual, but killing frosts in autumn were not general until the staple crops were harvested.

Precipitation was slightly below normal in the Great Valley, but there was a moderate excess in other districts. August was an especially wet month and crops were considerably damaged in some sections by excessive moisture. June was also a wet month, but owing to the stage of plant growth and the fact that the previous month had been considerably deficient in rainfall, crops were generally favorably affected. The dry weather of October and early November retarded fall seeding, but gave excellent opportunity for the harvesting of fall crops, most of which turned out satisfactorily in yield and quality.

THE WEATHER BY MONTHS.

JANUARY.—Temperature and precipitation were below normal. Much of the precipitation was in the form of sleet and ice storms. Snowfall was unusually light for January. There was a great deal of cloudy weather and a corresponding deficiency in sunshine. No thunder-storms were reported.

FEBRUARY.—Almost unbroken cold weather prevailed. Rains from the 3d to 6th were heaviest in eastern counties and, together with frequent light or moderate rains thereafter, caused a decided excess of precipitation in Tidewater and Middle Virginia. There was much cloudy, humid weather, and sunshine was far below the average. Sleet was rather general on the 4th and 5th. Farm work was greatly retarded and winter grain crops more or less injured by alternate freezing and thawing of the soil and the frequency of rainfall.

MARCH.—The month, as a whole, was mild, and ample rains were well distributed throughout the month. Snowfall was light. Auroras were observed in all sections on the 22d, and less generally on the 23d, 24th, and 25th. During the early part of the month the weather was too cold for crop growth and too wet for work in the soil. Owing to the lack of adequate snow-cover, the cold was positively harmful to winter grain crops. Conditions began to improve before the middle of the month and the last week was favorable for work and vegetation. At the end of the month, however, the season was still backward.

APRIL.—No very great departures from average April weather conditions occurred. Rainfall was somewhat heavier than average and the number of rainy days was large. The

month was almost without snow, except at a few Great Valley stations. Killing frosts, which were more or less general on the 6th, 11th, 14th, and 15th, caused little damage because of the backward condition of vegetation.

MAY.—Rains occurred with almost the usual frequency, but they were mostly light, and crops suffered for moisture. Cool weather was almost uninterrupted. On the 6th frosts occurred in southeastern counties, and locally they were of killing intensity, resulting in more or less damage to tender fruits and vegetables. On the 15th killing frosts were fairly general in Middle Virginia and the Great Valley. In general, these frosts were from two to four weeks later than the average dates of last killing frosts in spring. Thunder-storms were much less frequent than is usual in May.

JUNE.—Moderately cool, wet weather prevailed. After the cool, dry weather of May, which had retarded the growth of the principal summer crops, the beginning of a period of frequent rains about the 3d of June caused a general improvement which was accentuated by a change to warmer weather about the 10th. During the remainder of the month the weather was decidedly favorable for crop growth and fairly suitable for the prosecution of farm work.

JULY.—Until the 24th temperatures were daily slightly below normal most of the time. Then followed a change to comparatively cool weather, which lasted until near the end of the month. Rainfall was near normal. Cloudiness was below the average for July, permitting an abundance of sunshine. The weather of the entire month was, in general, favorable for farm work; also for growing crops, which advanced rapidly, and, on the whole, improved steadily in condition.

AUGUST.—Temperature averaged below normal, but no unusual extremes were registered. There was much cloudy weather and frequent rains occurred in all districts throughout the month. With plentiful moisture crops made good progress early in the month, but during the latter half continued heavy rains caused considerable damage to tobacco, and to wheat and oats in the shock, and greatly retarded all farm work.

SEPTEMBER.—Temperatures were generally below normal from the 15th to 23d; a shorter cool period occurred from the 2d to the 5th. The minimum readings for the month were comparatively high for this period of the year. Local rains fell in Tidewater and Middle Virginia from the 5th to 10th, and in the Great Valley from the 5th to 15th. Frequent showers occurred in all districts from the 23d to 30th, but the amounts were usually light to moderate, except on the 30th, when generally heavy rains fell. Except during the early portion of the month, when it was too cool and wet locally, the weather was favorable for the maturing and harvesting of fall crops and for other farm work.

OCTOBER.—Light precipitation and an unusually large number of clear days were noteworthy features of the month. On the 2d and 3d killing frosts occurred at some stations in the mountains, and light to heavy frosts formed at a number of stations in other districts. On the 29th and 30th killing frosts were rather general in the Great Valley and in favorable localities in Middle Virginia, while in Tidewater Virginia

the deposit was mostly heavy, though killing was recorded at scattered stations. The dry weather and abundant sunshine caused late corn and truck to mature rapidly. Seeding and germination of winter grains were retarded to some extent by dry soil.

NOVEMBER.—Temperature averaged below normal. The first generally killing frost of the season occurred in Middle and Tidewater Virginia on the 13th. A severe sleet-storm on the 15th and 16th caused heavy damage in several north-western counties. While the first half of the month was unfavorable for sowing and germination of wheat and winter oats, the latter half was favorable. Corn husking progressed rapidly early in the month, but was later somewhat retarded by heavy rains.

DECEMBER.—Temperature was unusually mild and equable throughout the month. Precipitation was ample in all sections, but snowfall was unusually light for the season. Early in the month, with moderate temperature and sufficient moisture, wheat and oats made rapid progress; later, however, these crops were somewhat unfavorably affected by freezing and thawing weather.—*W. F. F.*

KILLING FROSTS, 1920.

Stations.	Last in spring.	First in autumn.	Stations.	Last in spring.	First in autumn.
TIDEWATER VIRGINIA.			MIDDLE VIRGINIA—Con.		
Ashland.....	May 16	Nov. 12	Lincoln.....	Apr. 11	Nov. 13
Cape Henry.....	Mar. 9	Dec. 16	Lynchburg.....	Apr. 11	Nov. 4
Dahlgren.....	.....	Nov. 13	Mayhurst.....	May 15	Nov. 29
Diamond Springs.....	Apr. 11	Nov. 14	Mineral.....	May 16	Oct. 30
Franklin.....	Apr. 11	Oct. 30	Mount Weather.....	Apr. 15	Nov. 13
Hopewell.....	Apr. 14	Nov. 13	New Canton.....	May 16	Oct. 29
Langley Field.....	Mar. 9	Nov. 13	Randolph.....	Apr. 15	Oct. 29
Newport News.....	Apr. 14	Nov. 13	Rocky Mount.....	Apr. 15	Nov. 4
Norfolk.....	Mar. 9	Nov. 14	Washington, D. C.....	Apr. 14	Nov. 4
Onley.....	May 6	Nov. 12	THE GREAT VALLEY.		
Richmond.....	Mar. 22	Nov. 13	Blacksburg.....	May 15	Oct. 3
Runnymede.....	May 6	Oct. 30	Buchanan.....	May 15	Oct. 29
Warsaw.....	May 5	Oct. 30	Burkes Garden.....	May 15	Oct. 3
West Point.....	.....	Nov. 13	Catawba Sanatorium.....	Apr. 15	Nov. 4
Williamsburg.....	Apr. 15	Oct. 30	Dale Enterprise.....	May 15	Oct. 30
MIDDLE VIRGINIA.			Dante.....	Apr. 15	Oct. 30
Arcola.....	Apr. 11	Nov. 4	Hot Springs.....	May 16	Oct. 3
Callaville.....	Apr. 15	Nov. 4	Lexington.....	May 15	Oct. 29
Charlottesville.....	Apr. 14	Nov. 13	Pulaski.....	May 16	Oct. 3
Clarksville.....	Apr. 6	Oct. 30	Roanoke.....	Apr. 15	Oct. 29
Columbia.....	Apr. 15	Oct. 30	Staunton.....	May 15	Oct. 29
Culpeper.....	Apr. 15	Oct. 30	Winchester.....	Apr. 11	Nov. 13
Danville.....	Apr. 14	Oct. 30	Wise.....	.....	Oct. 2
Fredericksburg.....	Apr. 15	Oct. 30	Woodstock.....	.....	Nov. 4
Lawrenceville.....	May 15	Oct. 30	Wytheville.....	Apr. 15	Oct. 3
Leeds Manor.....	Apr. 15	Nov. 13			

CLIMATOLOGICAL DATA, 1920.

Month.	Temperature.			Precipitation.			Number of days.			
	Mean.	Highest.	Lowest.	Average.	Greatest 24-hour rain.	Average snow-fall.	Rainy.	Clear.	Partly cloudy.	Cloudy.
January.....	33.6	75	-9	2.46	1.81	1.3	8	11	6	14
February.....	34.0	65	-4	4.67	4.00	4.4	10	8	8	13
March.....	45.6	87	-8	3.51	2.70	0.3	8	16	8	8
April.....	53.6	96	17	3.84	2.00	0.2	13	12	8	10
May.....	59.9	92	22	1.87	1.76	T.	7	16	6	9
June.....	70.3	99	35	5.37	3.15	0.0	10	14	9	7
July.....	73.0	98	39	4.74	4.50	0.0	9	16	10	5
August.....	73.1	97	41	7.12	4.92	0.0	15	8	10	13
September.....	68.9	96	32	3.21	2.55	0.0	7	15	8	7
October.....	60.3	90	20	0.60	T.	T.	12	22	8	4
November.....	45.8	80	3	5.27	3.30	0.3	9	11	6	13
December.....	39.4	73	9	3.25	1.87	C.3	7	12	8	11

COMPARATIVE ANNUAL DATA.

Year.	Mean temperature.	Highest.	Lowest.	Average precipitation.	Average snow-fall.	No. of rainy days.	No. of clear days.	No. of partly cloudy days.	No. of cloudy days.
1892.....	54.8	106	-8	40.01	.....	95	163	101	102
1893.....	55.1	104	-26	45.83	23.1	103	150	100	109
1894.....	57.0	105	-11	35.97	17.0	88	168	104	95
1895.....	54.6	107	-13	38.99	38.8	94	174	108	88
1896.....	56.4	105	-10	42.89	12.3	93	163	108	97
1897.....	56.0	103	-15	40.81	11.8	92	171	99	95
1898.....	56.5	105	-9	44.80	8.7	108	162	101	102
1899.....	56.4	106	-23	43.18	36.7	98	176	95	94
1900.....	57.0	107	-8	39.33	18.6	86	181	91	93
1901.....	55.3	106	-14	50.17	9.5	100	167	94	104
1902.....	55.6	108	0	51.42	14.9	95	170	97	98
1903.....	55.1	105	-13	44.85	8.4	95	172	89	104
1904.....	58.8	100	-14	36.18	24.9	96	170	101	95
1905.....	54.8	98	-15	43.58	18.5	111	155	112	98
1906.....	56.3	102	-2	49.56	15.2	124	143	120	102
1907.....	54.3	97	-16	44.19	17.4	115	159	115	91
1908.....	55.4	102	-20	45.21	30.0	110	162	108	96
1909.....	55.5	102	-5	39.81	12.9	101	171	104	90
1910.....	54.7	102	-9	41.37	20.3	112	151	116	98
1911.....	56.8	104	0	41.50	9.2	115	149	110	105
1912.....	54.5	100	-25	39.19	24.6	103	165	106	96
1913.....	57.2	102	-3	42.75	4.0	100	178	98	89
1914.....	55.0	103	-17	37.17	39.8	101	168	100	97
1915.....	55.8	101	-5	39.12	13.5	97	160	116	89
1916.....	55.5	102	-11	39.36	18.6	103	165	106	95
1917.....	55.3	103	-27	40.82	23.7	114	158	107	100
1918.....	55.3	108	-22	44.43	24.7	105	159	97	109
1919.....	56.8	103	-16	41.58	7.4	102	161	99	105
1920.....	54.8	99	-9	46.30	7.1	106	162	89	105

Climatological data for the year 1920.

Stations.	Counties.	Elevation, feet.	Temperature, degrees Fahrenheit.						Precipitation, in inches.						Number of rainy days.	Sky.			Prevailing direction of wind.	
			Length of record, years.	Annual mean.	Highest.	Date.	Lowest.	Date.	Length of record, years.	Total for the year.	Greatest monthly.	Month.	Least monthly.	Month.		Total snowfall.	Number of clear days.	Number of partly cloudy days.		Number of cloudy days.
Tidewater Virginia.																				
Ashland.....	Hanover.....	221	29	55.0	94	July 24	8	Jan. 3*	29	48.45	10.92	Aug.	0.29	Oct.	9.2	105	208 ^b	41 ^k	111 ^k	ne.
Cape Henry.....	Princess Anne.....	20	46	58.0	97	June 17	18	Jan. 4	46	49.41	7.92	Feb.	1.00	May	0.3	119	142	92	132	sw.
Dahlgren.....	King George.....	21	1	.....	96	July 24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diamond Springs II.....	Princess Anne.....	25	10	58.6	93	June 17*	14	Jan. 6	10	57.70	8.03	Feb.	1.10	Oct.	0.2	91	170 ^a	106 ^a	89 ^a	ne.
Franklin.....	Southampton.....	21	2	.....	95	July 24	9	Jan. 6	2	51.23	7.35	July	0.74	Oct.	2.0	112	220 ^b	64 ^b	80 ^b	nw.
Hopewell.....	Prince George.....	40	4	.....	.....	.....	9	Jan. 6	4	.....	.....	.....	.....	.....	0.8	.....	.....	.....	.....	w.
Langley Field II.....	Elizabeth City.....	5	1	57.5	93	June 17	14	Jan. 6	1	54.26	8.69	Feb.	0.38	Oct.	2.4	103	112 ^b	129 ^b	123 ^b	s.
Newport News.....	Warwick.....	13	17	57.6	95	June 17	12	Jan. 3*	17	58.24	9.85	Aug.	0.39	Oct.	2.0	123	171	91	104	sw.
Norfolk.....	Norfolk.....	91	50	59.0	95	June 17	14	Jan. 5	50	42.91	6.33	Feb.	0.94	Oct.	1.8	119	140	98	128	s.
Onley.....	Accomac.....	40	2	.....	.....	.....	9	Jan. 6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	s.
Richmond.....	Henrico.....	144	41	56.5	95	June 12	10	Jan. 3	41	50.83	8.69	Aug.	0.66	Oct.	3.6	119	129	73	164	sw.
Runnymede (near) II.....	Surry.....	25	32	57.8	96	July 3*	6	Jan. 6	32	53.23	9.34	Feb.	1.03	Oct.	1.5	89	177	43	146	nw.
Warsaw (near).....	Richmond.....	160	28	56.7	94	July 24	6	Jan. 3	28	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	s.
West Point.....	King William.....	16	8	.....	98	June 29	10	Jan. 5	8	47.59	10.43	Aug.	0.95	Oct.	1.8	111	137	98	131	sw.
Williamsburg.....	James City.....	70	29	57.6	96	June 17	8	Jan. 6	26	53.50	9.08	July	1.36	May	1.5	120	162 ^c	59 ^c	142 ^c	sw.
Means and extremes.....		.....	.....	57.3	98	June 29	6	Jan. 3*	.....	51.58	10.92	Aug.	0.29	Oct.	2.6	110	149	83	134	sw.
Middle Virginia.																				
Arcola.....	Loudoun.....	300	4	53.6	96	July 24	5	Jan. 19	4	44.49	9.89	Aug.	0.97	Oct.	13.3	121	184	108	74	sw.
Callville.....	Brunswick.....	250	26	56.0	97	June 13*	2	Jan. 6	26	53.01	7.99	Aug.	2.03	Oct.	5.0	71	215	91	60	n.
Charlottesville (near).....	Albemarle.....	854	29	55.5	93	June 11*	6	Jan. 3	29	48.87	7.22	May	0.08	Oct.	4.0	96	143	72	151	w.
Clarksville.....	Mecklenburg.....	286	26	.....	94	June 17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	s.
Columbia.....	Fluvanna.....	246	22	54.4	93	June 16	2	Jan. 5	22	54.68	8.02	June	0.25	Oct.	6.5	88	208	26	132	w.
Culpeper.....	Culpeper.....	450	13	54.0	94	June 11	6	Jan. 3*	13	43.08	8.65	Aug.	0.45	Oct.	6.3	86	.....	.....	.....	s.
Danville.....	Pittsylvania.....	413	20	58.7	99	June 17	9	Jan. 6	20	51.95	8.86	Aug.	0.48	Oct.	6.0	115	164	99	103	s.
Dry Bridge II.....	Chesterfield.....	325	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fredericksburg (near).....	Spottsylvania.....	100	31	55.3	96	July 24	4	Jan. 3	31	51.60	11.95	Aug.	0.63	Oct.	7.5	112	176	101	89	nw.
Hawfield II.....	Orange.....	400	3	.....	.....	.....	.....	.....	3	52.62	7.91	Aug.	0.70	Oct.	0.2	.....	.....	.....	.....	.....
Lassiter.....	Goochland.....	100	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lawrenceville.....	Brunswick.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leeds Manor II.....	Fauquier.....	550	7	52.9	91	July 24	3	Jan. 3	7	43.56	7.56	Aug.	0.65	Oct.	26.5	111	208	79	79	sw.
Lincoln II.....	Loudoun.....	500	19	54.5	95	June 11	1	Feb. 16	19	.....	.....	.....	.....	.....	25.0	.....	.....	.....	.....	w.
Lynchburg.....	Campbell.....	681	49	55.9	94	June 11*	9	Jan. 3	49	43.60	7.14	Nov.	0.10	Oct.	4.2	121	150	116	100	nw.
Mayhurst II.....	Orange.....	500	5	56.7	95	June 13	8	Jan. 5	5	42.57	6.06	June	0.23	Oct.	1.6	83	201	90	75	s.
Mineral (near).....	Louisa.....	300	4	52.8	95	July 24	2	Jan. 3*	4	42.27	5.79	Aug.	0.27	Oct.	2.6	101	194 ^d	45 ^d	123 ^d	w.
Mount Weather II.....	Loudoun.....	1,726	16	49.8	87	July 24	2	Jan. 5	16	43.96	6.05	Aug.	0.24	Oct.	13.0	107	70 ^e	94 ^e	199 ^e	w.
New Canton.....	Buckingham.....	900	26	55.2	94	June 11*	0	Jan. 5	26	53.98	8.07	Aug.	0.24	Oct.	8.5	114	115	161	90	sw.
Quantico.....	Prince William.....	17	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Randolph.....	Charlotte.....	334	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.3	.....	.....	.....	.....	.....
Rocky Mount.....	Franklin.....	1,150	26	.....	86	June 11*	6	Jan. 3	26	52.21	7.67	Aug.	0.12	Oct.	4.0	95	200 ^f	10 ^f	150 ^f	.....
Washington.....	Dist. Columbia.....	112	50	54.7	95	June 11*	9	Jan. 3*	50	40.41	5.71	July	0.40	Oct.	7.3	128	111	102	153	nw.
Means and extremes.....		.....	.....	54.7	99	June 17	2	Jan. 5	.....	48.18	11.95	Aug.	0.08	Oct.	7.7	103	177	89	100	w.
The Great Valley.																				
Blacksburg.....	Montgomery.....	2,170	29	.....	86	July 1	1	Jan. 3*	29	46.15	7.84	Nov.	0.04	Oct.	6.5	99	131	84	151	w.
Buchanan.....	Botetourt.....	820	19	55.8	98	July 24	7	Jan. 3*	19	41.71	8.34	Aug.	0.36	Oct.	3.0	97	179	31	156	.....
Burkes Garden.....	Tazewell.....	3,250	25	47.3	82	July 24	9	Jan. 3	25	46.78	5.83	June	0.70	Oct.	13.0	92	120	64	182	w.
Catawba Sanatorium.....	Roanoke.....	2,100	9	53.4	94	July 24	2	Jan. 3	9	37.59	6.56	Aug.	0.08	Oct.	2.3	108	175	96	95	.....
Dale Enterprise.....	Rockingham.....	1,350	41	52.9	97	July 24	1	Jan. 3	41	33.51	5.89	Aug.	0.19	Oct.	15.5	118	137	146	83	s.
Dante.....	Russell.....	2,000	3	52.9	89	June 16*	4	Jan. 5	3	44.60	6.86	June	0.47	Oct.	11.7	135	141	76	149	.....
Hot Springs.....	Bath.....	2,195	28	50.2	87	July 24	1	Jan. 3	28	40.62	5.29	Nov.	0.59	Oct.	10.6	182	148	139	79	.....
Ivanhoe.....	Wythe.....	2,028	14	.....	.....	.....	.....	.....	14	39.32	7.67	Aug.	0.12	Oct.	.....	108	.....	.....	.....	.....
Lexington.....	Rockbridge.....	1,023	43	52.4	94	July 24	3	Jan. 5	43	39.34	5.58	Nov.	0.24	Oct.	4.7	99	193	61	106	.....
Mendota.....	Washington.....	1,350	16	.....	.....	.....	.....	.....	16	32.80	8.14	Aug.	0.94	Oct.	5.5	129	.....	.....	.....	.....
Monterey (near).....	Highland.....	3,008	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Narrows.....	Giles.....	1,519	7	.....	.....	.....	.....	.....	7	38.58	11.92	Aug.	0.32	Oct.	.....	56	.....	.....	.....	.....
North Holston.....	Smyth.....	1,850	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pulaski.....	Pulaski.....	1,919	1	.....	89	July 24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	w.
Radford.....	Montgomery.....	1,773	25	.....	.....	.....	.....	.....	25	34.58	5.13	Aug.	0.08	Oct.	2.0	85	.....	.....	.....	.....
Roanoke.....	Roanoke.....	907	17	.....	.....	.....	7	Jan. 3*	.....	.....	.....	.....	.....	.....	T.	.....	.....	.....	.....	se.
Saint Charles.....	Lee.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Speers Ferry.....	Scott.....	1,221	24	.....	.....	.....	.....	.....	24	47.56	8.05	June	0.14	Oct.	5.0	97	.....	.....	.....	.....
Staunton.....	Augusta.....	1,380	28	53.4	95	June 12	2	Jan. 5	28	45.74	7.80	Aug.	0.24	Oct.	13.4	121	148	117	101	sw.
Winchester.....	Frederick.....	717	16	53.0	99	June 11	4	Jan. 3*	13	32.97	5.73	Aug.	0.57	Oct.	32.5	.....	142	133	91	nw.
Woodstock.....	Shenandoah.....	927	29	.....	.....	.....	8	Jan. 12*	29	32.21	5.11	Aug.	0.48	Feb.	T.	73	170	42	154	w.
Wytheville.....	Wythe.....	2,293	27	51.4	86	June 11*	3	Jan. 3	27	42.80	8.99	Aug.	0.08	Oct.	9.4	139	153	105	108	w.
Means and extremes.....		.....	.....	52.3	99	June 11	9	Jan. 3	.....	40.99	11.92	Aug.	0.01	Oct.	9.6	106	153	91	122	w.
State means and extremes.....		.....	.....	54.8	99	June 11*	9	Jan. 3	.....	46.30	11.95	Aug.	0.04	Oct.	7.1	106	162	89	115	w.

Estimated and incomplete data not considered in means.

All other records are used in determining section and division means, but the mean departures from normal temperature and precipitation are based only on records from stations that have ten or more years of observation.

Reference letters, a, b, c, appearing in the tables indicate number of days missing; for example, b represents two days, etc.

* Also on other dates.

II Post-office addresses of these stations are as follows: Diamond Springs, Norfolk; Runnymede, Elberton; Dry Bridge, Midlothian; Hawfield, Rapidan; Leeds Manor, Markham; Lincoln, Purcellville; Mayhurst, Orange; Mount Weather, Blumont; Langley Field, Norfolk.

T. Precipitation is less than 0.01 inch rain or snow.

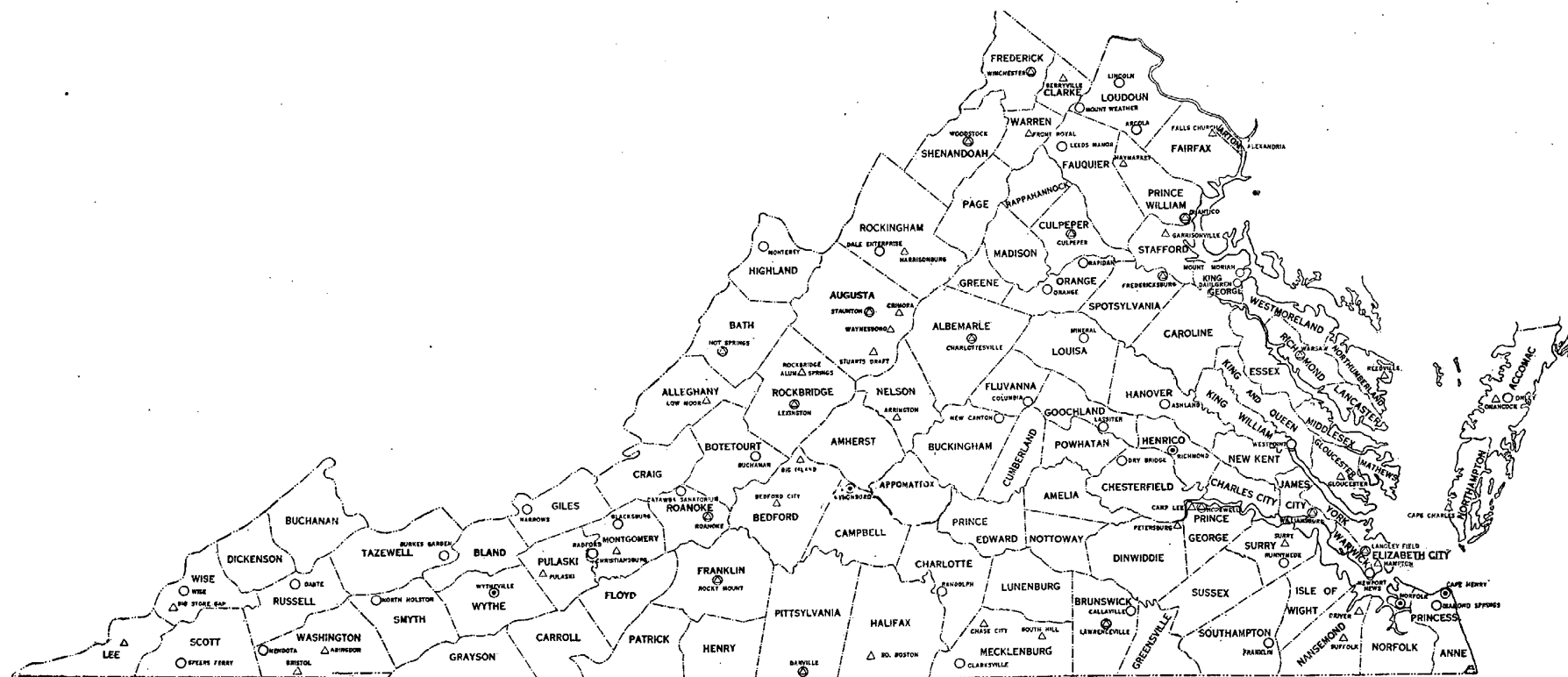
Monthly and annual precipitation for the year 1920, with departures from the normal.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Annual.	
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.
Tidewater Virginia.																										
Ashland	2.33	-0.30	6.74	+3.84	2.90	-0.60	2.55	-0.22	1.66	-1.49	5.84	+2.77	4.89	+1.37	10.92	+7.48	2.51	+0.05	0.29	-2.42	6.38	+4.60	1.44	-0.87	48.45	+14.21
Cape Henry	2.29	-1.06	7.92	+4.03	3.76	-0.56	5.16	+1.24	1.00	-3.03	5.29	+0.87	6.31	+0.46	5.83	-0.27	2.97	-1.10	1.58	-2.30	2.93	+0.19	4.36	+0.93	49.41	-0.60
Dahlgren	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diamond Springs	1.98	-1.72	8.03	+5.42	4.41	+1.04	4.57	+1.61	1.90	-1.86	7.50	+2.60	3.85	-1.63	11.41	+8.30	3.90	-0.70	1.10	-1.56	4.90	+2.92	4.15	+0.58	57.70	+16.25
Franklin	2.52	.....	6.54	.....	4.97	.....	5.68	.....	1.46	.....	5.19	.....	7.35	.....	4.97	.....	1.87	.....	0.74	.....	4.41	.....	5.53	.....	51.23	.....
Hopewell	2.58	.....	7.47	.....	4.20	.....	2.22	.....	1.84	.....	6.89	.....	.....	.....	6.03	.....	3.87	.....	1.37	.....	6.02	.....	3.21	.....	.....	.....
Langley Field	1.36	-1.35	8.69	+5.06	4.16	+0.21	4.97	+1.69	0.95	-2.71	7.61	+8.81	4.26	-0.69	6.80	-1.88	4.54	+1.67	0.38	-2.89	6.64	+4.08	3.90	+0.91	54.26	+11.76
Newport News	2.25	-1.05	9.21	+5.89	4.59	+0.88	6.36	+3.40	1.00	-2.32	5.22	+0.37	3.35	-3.05	9.85	+4.13	3.95	+1.49	0.39	-2.42	6.04	+3.82	6.03	+2.19	58.24	+13.33
Norfolk	2.14	-1.23	6.33	+2.46	2.39	-1.89	4.25	-0.46	1.99	-2.08	5.05	+0.72	4.33	-1.47	3.83	-2.14	3.11	-0.95	0.94	-2.97	3.64	+0.92	4.91	+1.42	42.91	-6.51
Onley	2.45	.....	6.90	.....	5.72	.....	3.18	.....	0.50	.....	5.15	.....	6.79	.....	.....	.....	.....	.....	0.90	.....	5.92	.....	3.22	.....	.....	.....
Richmond	2.02	-1.00	6.67	+3.46	3.11	-0.61	2.96	-0.49	3.06	-0.79	6.34	+2.82	6.05	+1.63	8.69	+4.23	2.71	-0.72	0.66	-2.66	6.69	+4.30	1.87	-1.13	50.83	-9.09
Runnymede (near)	1.62	-1.53	9.34	+5.37	4.47	+0.03	3.70	-0.24	1.66	-2.47	7.65	+2.82	5.33	-0.65	4.67	-0.66	3.93	+0.62	1.03	-2.81	6.01	+3.24	3.82	+0.51	53.23	+4.23
Warsaw (near)	.....	.....	6.47	+3.13	1.80	-1.86	2.67	-0.41	1.92	-1.54	4.85	+0.69	2.95	-1.56	5.98	+3.37	2.00	-0.61	1.40	-1.87	6.00	+3.46	.....	.....	.....	.....
West Point	1.67	-1.48	5.93	+3.14	3.47	-0.40	2.06	-1.50	0.97	-2.70	6.44	+2.69	4.72	-0.81	10.43	+7.09	2.33	-1.49	0.95	-2.47	5.66	+3.82	2.96	-0.31	47.59	+5.58
Williamsburg	2.33	-0.93	8.29	+5.21	4.70	+0.80	3.12	-0.58	1.36	-1.86	6.05	+1.51	9.03	+3.23	5.82	-1.13	2.19	-1.33	1.54	-1.69	6.96	+3.76	3.11	+0.91	53.50	+7.90
Means	2.12	-1.16	7.47	+4.27	3.90	-0.27	3.82	+0.45	1.50	-2.08	6.07	+1.97	5.27	-0.29	7.89	+2.93	3.08	-0.15	0.92	-2.36	5.53	+3.13	3.63	+0.60	51.58	+5.71
Middle Virginia.																										
Arcola	2.44	.....	3.70	.....	2.34	.....	4.61	.....	1.36	.....	4.60	.....	4.10	.....	9.89	.....	3.27	.....	0.97	.....	4.42	.....	2.79	.....	44.49	.....
Callaville	2.41	-0.95	7.21	+3.54	4.26	-0.26	3.60	+0.06	2.62	-1.34	4.44	+0.39	4.31	-0.94	7.99	+3.02	4.21	+1.07	2.03	-0.35	6.35	+4.25	3.58	+0.20	53.01	+8.66
Charlottesville (near)	1.97	-1.38	3.87	+0.76	3.87	+0.53	4.69	+1.47	1.20	-3.42	7.22	+1.74	5.06	+0.17	6.59	+1.59	4.77	+0.59	0.08	-3.59	4.95	+2.38	4.60	+1.31	48.87	+2.15
Clarksville	2.75	-0.47	.....	.....	.....	.....	5.03	-0.21	2.82	-1.07	4.99	+0.81	5.82	+1.80	5.86	+2.32	1.88	-1.02	1.13	-1.75	6.72	+4.12	4.55	+0.79	.....	.....
Columbia	2.90	-0.53	6.06	+2.96	3.29	0.00	3.16	-0.25	1.58	-2.35	8.02	+3.63	7.35	+3.61	6.45	+1.89	5.60	+2.44	0.25	-3.11	7.22	+5.02	2.80	-0.71	54.68	+12.60
Culpeper	1.27	-2.17	2.70	+0.20	1.91	-0.80	3.80	+0.41	1.25	-2.49	4.95	-0.64	4.15	+0.74	8.65	+4.11	4.70	+1.52	0.45	-2.35	6.85	+4.78	2.40	-0.78	43.08	+2.53
Danville	2.76	-0.11	3.85	+0.51	3.79	+0.49	4.73	+1.85	2.88	-0.82	6.56	+2.53	3.63	-0.17	8.86	+4.02	1.90	-1.20	0.48	-2.68	7.64	+5.55	4.87	+1.39	51.95	+11.36
Dry Bridge	2.19	.....	6.68	.....	3.21	.....	.....	.....	1.73	.....	4.05	.....	8.11	.....	7.37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fredericksburg (near)	3.75	+0.55	4.20	+1.08	3.98	+0.55	4.14	+0.67	1.90	-2.04	6.37	+1.66	2.60	-1.77	11.95	+7.46	3.03	-0.31	0.63	-2.80	5.21	+2.91	3.84	+0.50	51.60	+8.46
Hawfield	2.31	-1.15	5.95	+2.67	3.46	-0.15	4.95	+1.60	1.14	-3.54	5.96	+1.37	5.43	+0.56	7.91	+4.28	6.05	+2.46	0.70	-2.64	6.42	+3.99	2.34	-0.70	52.62	+8.75
Lassiter	.....	.....	.....	.....	1.45	.....	1.66	.....	1.24	.....	6.80	.....	5.35	.....	7.75	.....	1.80	.....	1.40	.....	4.30	.....	3.40	.....	.....	.....
Lawrenceville	1.72	.....	6.01	.....	4.10	.....	4.35	.....	4.30	.....	4.95	.....	4.30	.....	10.74	.....	3.25	.....	1.65	.....	6.75	.....	4.15	.....	56.27	.....
Leeds Manor	2.46	.....	3.62	.....	3.95	.....	3.61	.....	1.05	.....	4.61	.....	3.59	.....	7.56	.....	4.67	.....	0.65	.....	4.72	.....	3.07	.....	43.56	.....
Lincoln	2.82	-0.45	3.36	+0.78	2.38	-0.65	4.97	+1.45	1.48	-1.91	4.06	-1.70	3.98	+0.61	.....	.....	2.07	-1.01	0.94	-2.01	4.46	+2.52	2.93	+0.17	.....	.....
Lynchburg	1.64	-2.08	4.03	+0.41	2.82	-0.99	3.53	+0.36	0.79	-3.20	5.12	+1.23	4.82	+0.79	6.76	+2.51	4.51	+0.88	0.10	-3.23	7.14	+4.35	2.34	-0.93	43.60	+0.05
Mayhurst	2.00	.....	2.88	.....	3.73	.....	4.40	.....	1.20	.....	6.06	.....	3.77	.....	5.30	.....	5.13	.....	0.23	.....	4.59	.....	3.28	.....	32.57	.....
Mineral (near)	2.38	.....	4.54	.....	3.81	.....	4.57	.....	1.02	.....	5.02	.....	4.43	.....	5.79	.....	3.57	.....	0.27	.....	3.90	.....	2.97	.....	42.27	.....
Mount Weather	2.00	-1.30	3.97	+0.81	3.44	-0.54	4.76	+1.69	3.25	-0.50	4.92	+0.12	4.94	+0.28	6.05	+2.43	3.63	+0.78	0.24	-2.18	4.48	+1.62	2.28	-0.81	43.96	+2.40
New Canton	2.75	-0.64	6.68	+3.66	3.48	-0.57	3.85	+0.39	1.29	-2.31	6.05	+2.42	6.13	+2.62	8.07	+3.04	4.77	+1.47	0.24	-3.08	7.14	+4.91	3.52	+0.39	53.98	+12.74
Quantico	2.06	-1.40	2.40	-0.05	.....	.....	3.80	+0.65	1.17	-2.21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.50	-1.73	.....	.....
Randolph	1.50	-1.61	5.22	+2.44	3.51	+0.22	3.56	+1.14	1.64	-2.55	5.30	+2.16	.....	.....	4.82	+0.02	3.25	-0.56	0.27	-3.00	7.45	+5.31	2.70	-1.06	.....	.....
Rocky Mount	1.91	-1.41	6.54	+2.07	4.37	+0.23	4.16	+0.87	2.34	-1.70	6.45	+2.03	5.05	+0.34	7.67	+3.81	2.69	-0.80	0.12	-3.84	7.17	+4.58	4.64	+0.90	52.23	+8.58
Washington, D. C.	2.30	-1.07	3.47	-0.06	2.89	-1.46	4.69	+1.44	1.42	-2.41	4.80	+0.62	5.71	+1.06	4.70	+0.30	2.87	-0.72	0.40	-2.69	4.51	+1.80	3.15	-0.01	40.41	-3.20
Means	2.29	-1.01	4.57	+1.44	3.31	-0.24	4.12	+1.02	1.77	-2.12	6.51	+1.22	4.89	+0.69	7.46	+2.88	3.70	+0.21	0.59	-2.62	5.84	+3.89	3.26	-0.13	48.18	+6.64
The Great Valley.																										
Blacksburg	2.59	-0.39	3.47	+0.34	3.56	-0.11	3.21	+0.19	3.24	-0.58	4.08	-0.22	7.05	+2.09	4.18	+0.19	3.99	+0.76	0.04	-2.84	7.84	+5.70	2.90	0.00	46.15	+5.13
Buchanan	2.33	-1.22	3.29	+0.52	3.35	+0.64	3.30	+0.81	1.86	-2.42	4.03	+0.03	3.95	-0.78	8.34	+4.46	2.00	-1.73	0.36	-3.55	4.93	+2.93	3.97	+0.54	41.71	+0.23
Burkes Garden	4.82	+1.31	2.81	-0.84	3.23	-1.99	4.27	+0.38	2.88	-1.48	5.83	+0.58	4.22	-0.33	5.75	+1.37	3.77	+0.07	0.70	-2.39	5.23	+2.35	3.22	-0.55	46.78	-1.52
Catawba Sanatorium	1.92	.....	3.17	.....	2.49	.....	2.73	.....	2.55	.....	5.13	.....	3.18	.....	6.56	.....	3.15	.....	0.08	.....	3.90	.....	2.73	.....	37.59	.....
Dale Enterprise	2.03	-0.78	1.76	-1.13	2.54	-0.60	3.51	+0.52	1.46	-2.82	2.79	-2.63	4.49	+0.08	5.89	+1.83	2.70	-0.68	0.19	-2.68	3.39	+1.19	2.76	+0.03	33.51	-7.67
Dante	4.03	.....	3.05	.....	5.10	.....	4.63	.....	1.54	.....	6.86	.....	3.37	.....	4.77	.....	3.52	.....	0.47	.....	3.07	.....	4.19	.....	44.60	

Monthly and annual mean temperatures for the year 1920, 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.
Tidewater Virginia.																										
Ashland.....	34.5	-2.1	34.0	-2.4	47.0	+0.2	54.5	-1.4	59.8	-6.0	70.7	-1.9	73.6	-3.5	73.6	-1.9	68.9	-0.6	57.6 ^k	-0.2	46.0	-1.4	39.4	+1.2	55.0	-1.6
Cape Henry.....	37.4	-2.8	37.0	-4.2	47.6	+1.0	56.4	+1.8	59.6	-4.6	73.1	+0.2	75.0	-2.5	76.0	-0.9	73.0	+1.2	62.1	+2.1	52.4	+0.3	45.5	+1.8	58.0	-0.6
Dahlgren.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Diamond Springs.....	39.1	.....	38.6	.....	51.2	.....	57.1	.....	60.8	.....	73.0	.....	75.7	.....	76.6	.....	71.5	.....	63.4	.....	51.2	.....	44.9	.....	58.6	.....
Franklin.....	36.2	.....	36.8	.....	47.0	.....	57.2	.....	61.2	.....	72.4	.....	75.4	.....	73.6	.....	71.5	.....	63.4	.....	49.8 ^b	.....	46.0	.....	.....	.....
Hopewell.....	38.0	.....	37.8	.....	50.2	.....	58.6	.....	63.4	.....	74.8	.....	.....	.....	78.4	.....	73.7	.....	64.0	.....	49.3	.....	43.3	.....	.....	.....
Langley Field.....	37.4	-3.2	35.7	-3.5	48.1	+0.2	56.2	+0.3	57.9	-8.3	72.8	-1.8	75.4	-3.7	76.6	-1.2	72.2	+0.2	62.6	+1.6	50.8	+0.8	43.7	+1.6	57.5	-1.5
Newport News.....	36.8	-5.4	35.8	-4.1	47.6	-0.6	56.0	-1.4	60.4	-7.8	73.4	-0.4	75.6	-3.1	75.8	-1.7	72.0	-0.8	63.2	+1.4	50.6	+0.1	43.8	+1.8	57.6	-1.8
Norfolk.....	37.4	-3.0	38.0	-3.8	50.0	+2.3	57.3	+1.3	61.4	-4.8	74.3	-0.1	76.4	-2.0	76.8	+0.1	73.9	+2.2	64.6	+3.3	52.6	+1.4	45.6	+2.6	59.0	-0.1
Onley.....	39.2 ^u	.....	35.4	.....	44.4 ^v	.....	54.6 ^t	.....	58.6 ⁿ	.....	72.3 ^a	.....	75.1 ^l	.....	.....	.....	.....	.....	62.0	.....	50.3	.....	41.8	.....	.....	.....
Richmond.....	34.2	-3.8	35.5	-4.4	48.2	+1.3	55.2	-2.0	60.8	-6.5	72.4	-2.7	75.4	-3.8	75.2	-2.3	71.0	+0.2	61.8	+2.0	47.3	-1.5	41.0	0.0	56.5	-2.0
Runnymede (near).....	39.0	-0.6	38.5	-0.2	50.0	+2.3	57.6	+1.5	59.7	-6.8	73.0	-0.3	75.0	-2.6	75.5	-0.4	71.0	+1.2	61.4	+3.1	49.0	+0.2	43.4	+3.0	57.8	+0.1
Warsaw (near).....	36.6 ^m	-0.2	34.2	-1.6	47.0	+1.2	53.8	-1.1	60.0	-5.7	71.2	-1.8	74.2	-2.5	74.6	-1.0	69.2	-0.7	62.3	+4.1	46.8	-0.1	38.0 ^m	+0.2	55.7	-0.7
West Point.....	34.4	.....	35.4	.....	46.2	.....	.....	.....	.....	.....	74.3	.....	77.2	.....	77.0	.....	71.6	.....	62.8	.....	48.6	.....	41.5	.....	.....	.....
Williamsburg.....	37.3	-3.4	37.0	-3.7	48.7	+0.3	57.2	+0.4	60.8	-4.2	73.3	+1.1	75.5	-1.6	75.9	+0.5	70.1 ^e	+0.3	62.7	+3.0	49.0	+0.8	43.2	+2.4	57.6	-0.3
Means.....	36.8	-3.0	36.5	-3.1	48.4	+0.9	56.4	-0.1	60.3	-6.1	72.9	-0.9	75.3	-2.7	75.7	-1.0	71.3	+0.4	62.4	+2.6	49.4	+0.1	42.6	+1.6	57.3	-0.9
Middle Virginia.																										
Arcola.....	28.1	.....	31.2	.....	43.1	.....	50.4	.....	58.4	.....	70.4	.....	74.0	.....	74.6	.....	68.7	.....	61.0	.....	45.0	.....	38.4	.....	53.6	.....
Callville.....	35.9	-3.3	35.2	-2.8	47.3	-1.2	54.2	-2.5	59.3	-7.0	72.4	-0.8	74.4	-2.9	75.2	-0.9	70.3	-0.1	60.4	+1.3	45.6	-2.4	40.2	-0.3	56.0	-1.9
Charlottesville (near).....	31.4	-1.0	33.6	-2.8	47.4	+1.2	53.8	-2.4	61.0	-5.3	72.0	-0.5	74.1	-2.4	73.0	-1.6	70.0	+1.3	63.4	+5.3	46.9	-0.9	39.8	+1.9	55.5	-0.6
Clarksville.....	34.4	.....	.....	.....	.....	.....	58.0	.....	63.4	.....	73.6	.....	76.4	.....	75.0	.....	72.2	.....	60.4	.....	46.4	.....	36.6 ^g	.....	.....	.....
Columbia.....	33.3	-4.3	34.8	-1.6	46.6	+0.4	54.2	-0.7	60.4	-5.3	68.4	-3.2	70.4	-5.3	71.0	-3.7	68.0	-0.4	59.9	+2.6	45.8	-0.4	40.1	+2.9	54.4	-1.6
Culpeper.....	30.3	-3.7	33.2	-1.7	45.6	+1.7	53.3	-1.3	60.1	-5.3	71.0	-0.2	73.6	-1.6	73.4	+0.3	67.4	+0.2	58.9	+4.2	43.7	0.0	37.6	+3.3	54.0	-0.4
Danville.....	33.8	.....	37.8	.....	49.4	.....	57.5	.....	65.0	.....	74.8	.....	78.8	.....	76.0	.....	72.5	.....	63.9	.....	47.8	.....	41.8	.....	58.7	.....
Fredericksburg (near).....	33.0	-3.5	34.6	-0.7	46.4	+0.2	55.0	0.0	60.4	-4.9	70.0	-2.4	73.8	-3.0	74.3	-1.0	69.2	0.0	61.3	+3.7	45.6	-1.2	39.6	+2.7	55.3	-0.8
Leeds Manor.....	27.0	.....	30.2	.....	43.3	.....	49.4	.....	59.0	.....	70.4	.....	72.8 ^g	.....	72.0	.....	68.0	.....	62.0	.....	44.2	.....	36.8	.....	52.9	.....
Lincoln.....	28.9 ^b	-2.8	31.4	+0.2	44.0	+0.8	51.8	-1.5	59.5	-4.5	70.4	-0.2	74.4	-1.5	76.7 ^h	+3.4	69.8 ^h	+2.0	63.6	+7.1	45.5	+1.3	37.5	+4.6	54.5	+0.8
Lynchburg.....	34.4	-1.4	35.4	-2.9	47.4	+2.0	54.3	-1.3	61.8	-4.1	71.9	-1.6	74.8	-2.5	73.7	-1.1	69.5	+1.1	60.8	+3.9	46.4	+0.3	40.2	+1.9	55.9	-0.5
Mayhurst.....	33.6	.....	35.6	-6.0	48.2	.....	55.3	.....	63.0	.....	73.7	.....	75.6	.....	74.0	.....	70.6	.....	63.8	.....	47.0	.....	40.5	.....	56.7	.....
Mineral (near).....	31.4	.....	34.5	.....	44.8	.....	53.0 ^h	.....	58.4	.....	69.2	.....	72.8 ^g	.....	73.3	.....	67.3	.....	58.4	.....	44.3	.....	35.3 ^h	.....	53.8	.....
Mount Weather.....	24.9	-2.4	27.8	-1.3	40.8	+4.0	46.2	-2.2	56.0	-3.5	65.6	-2.0	68.9	-2.5	68.8	-0.6	64.2	+1.8	58.8	+7.3	41.8	+1.4	34.0	+2.5	49.8	+0.2
New Canton.....	34.6	-2.1	35.2	-1.0	47.2	+0.7	55.0	-0.3	59.9	-5.8	70.2	-2.3	73.2	-3.6	73.1	-2.0	68.6	-0.7	59.8	+2.8	45.7	-0.7	40.4	+3.2	55.2	-1.0
Randolph.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	73.4	.....	62.0	.....	49.2	.....	.....	.....	.....	.....
Rocky Mount.....	35.8	-2.7	35.8 ^h	-1.7	46.5	-0.6	54.0	-2.5	61.0	-4.6	68.2	-4.6	70.2	-5.6	69.9	-4.9	.....	.....	.....	.....	45.8	-2.4	39.6	+0.4	.....	.....
Washington, D. C.....	28.7	-4.2	32.7	-1.8	45.5	+3.3	52.6	-0.5	60.0	-4.2	71.6	-1.1	75.0	-1.8	74.8	+0.4	68.8	+0.6	61.2	+4.5	45.9	+0.8	39.3	+3.2	51.7	0.0
Means.....	32.2	-2.9	33.5	-1.6	45.8	+1.1	53.4	-1.4	60.4	-5.0	70.8	-1.7	73.8	-3.0	73.7	-1.3	69.3	+0.7	61.2	+4.3	45.8	-0.4	38.9	+2.7	54.7	-0.6
The Great Valley.																										
Blacksburg.....	30.9	-1.9	29.8	-2.6	41.6	-1.0	47.2	-3.2	53.8	-6.7	63.2	-4.8	67.2	-3.7	66.4 ^m	-3.6	61.6 ^e	-3.0	.....	.....	41.2	-1.0	35.4	+1.1	.....	.....
Buchanan.....	35.2	.....	34.8	.....	46.3	.....	54.7	.....	62.6	.....	71.2	.....	75.0	.....	74.2	.....	71.0	.....	59.2	.....	45.8	.....	39.2	.....	55.8	.....
Burkes Garden.....	32.2	+0.6	29.1	-1.3	38.7	-2.0	46.9	-0.1	52.9	-4.9	61.0	-3.0	64.0	-3.0	64.2	-1.9	60.0	-0.5	48.6	-0.7	38.6	-1.5	31.9	+0.3	47.3	-1.5
Catawba Sanatorium.....	34.6	.....	33.0	.....	43.6	.....	51.3	.....	59.6	.....	69.7	.....	71.6	.....	70.4	.....	66.4 ^h	.....	58.4	.....	45.0	.....	37.2	.....	53.4	.....
Dale Enterprise.....	30.7	-2.4	32.0	-1.7	44.0	+1.7	50.9	-1.6	59.2	-3.7	69.8	-0.6	71.8	-2.0	71.0	-1.1	67.8 ^h	-1.2	59.9 ^h	+4.7	42.6	-1.2	35.6	+0.7	52.9	-0.5
Dante.....	35.4	.....	34.8	.....	43.4	.....	52.8	.....	59.6	.....	67.2	.....	70.0	.....	69.6	.....	66.6	.....	56.8	.....	41.9	.....	37.0	.....	52.9	.....
Hot Springs.....	31.0	-0.2	30.8	+0.4	41.2	-0.7	49.5	-0.2	57.0	-3.0	65.5	-1.9	67.4	-1.8	68.0	-0.3	63.8	+1.4	54.2	+2.1	40.8	-0.5	34.2	+0.7	50.2	-0.4
Lexington.....	31.3	-2.8	31.6	-3.4	43.0	-0.8	51.2	-2.0	59.6	-3.5	67.5	-3.3	71.2	-3.4	71.3	-1.8	66.6	+0.1	56.3	+1.1	42.6	-0.9	37.1	+1.8	52.4	-1.6
North Holston.....	35.2	.....	34.6	.....	43.5	.....	.....	.....	56.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pulaski.....	.....	.....	.....	.....	.....	.....	.....	.....	59.2	.....	67.6	.....	70.6	.....	61.6	.....	67.2	.....	56.0	.....	43.0	.....	37.4	.....	.....	.....
Roanoke.....	33.1	-0.7	36.4	+1.0	46.5	0.0	54.4	-1.6	61.6	-3.9	70.6	+0.2	.....	.....	73.1	-1.4	69.3	+2.6	59.4	+3.0	46.1	+0.5	39.6	+3.5	.....	.....
Staunton.....	32.2	-3.3	32.6	-2.0	44.9	+0.5	51.6	-2.0	59.7	-4.0	69.6	-1.0	71.2	-3.0	71.4	-1.7	67.2	-0.4	59.2	+3.1	43.9	-1.6	37.9	+0.8	53.4	-1.3
Winchester.....	28.4	-5.2	30.8	-2.8	43.2	+1.6	51.2	-2.2	59.7	-4.5	70.8	-1.5	73.0	-2.9	72.8	-0.9	67.6	+0.3	58.5	+2.8	43.6	-1.1	36.5	-0.4	53.0	-1.4
Woodstock.....	25.5	-8.1	25.3	-6.9	36.4	.....	45.6 ^g	-7.6	.....	.....	62.0	-8.4	66.0	-9.5	70.4 ^d	-3.2	.....	.....	.....	.....	37					
Wytheville.....	32.2	-0.8	31.4	-3.7	42.2	-0.1	49.6	-2.4	58.0	-3.4	68.5	-2.2	69.4	-3><												

Chart Showing Various Classes of Stations Maintained by the U. S. Weather Bureau.

**KEY TO SYMBOLS.**

- ⊙ Meteorological observations (regular Weather Bureau stations).
- Meteorological observations (substations).
- △ Display or distribution of forecasts.