

# Climatography of the United States

No. 20

1971-2000

Station: FARMVILLE 2 N, VA

COOP ID: 442941

Climate Division: VA 2

NWS Call Sign:

Elevation: 450 Feet Lat: 37° 20N Lon: 78° 23W

## Temperature (°F)

Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number of Days (3)					
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	47.8	25.5	36.7	80+	1952	2	46.9	1974	-16+	1940	29	26.5	1977	880	0	.0	.0	13.1	2.3	24.1	.4
Feb	52.0	27.6	39.8	83	2000	26	49.2	1976	-9	1996	5	30.0	1979	706	0	.0	.0	15.6	1.5	20.6	.1
Mar	61.0	34.5	47.8	90	1945	17	53.2	1976	0	1960	6	41.5	1993	536	0	.0	.0	25.5	.2	14.5	.0
Apr	71.2	42.5	56.9	95+	1985	23	62.1	1985	16	1985	10	51.9	1997	256	10	.0	.7	29.2	.0	4.9	.0
May	78.0	52.1	65.1	98+	1941	23	70.2	1991	25	1963	2	59.6	1997	83	85	.0	1.5	31.0	.0	.1	.0
Jun	85.2	61.0	73.1	105	1952	27	77.2	1981	35	1945	6	69.0	1992	7	248	@	7.9	30.0	.0	.0	.0
Jul	89.0	65.4	77.2	105+	1954	14	80.5	1993	45+	1962	27	74.5	2000	0	379	.8	14.6	31.0	.0	.0	.0
Aug	87.1	63.8	75.5	106	1932	31	79.1	1983	41	1946	31	72.4	1992	0	323	.3	10.4	31.0	.0	.0	.0
Sep	80.9	56.9	68.9	106	1932	1	74.3	1998	30+	1956	21	65.3	1988	29	146	@	3.7	30.0	.0	.0	.0
Oct	71.3	44.1	57.7	100	1941	6	65.3	1984	12	1962	27	51.0	1988	252	26	.0	.1	30.8	.0	3.7	.0
Nov	61.2	35.6	48.4	88	1950	1	55.9	1985	9	1970	25	42.2	1996	499	1	.0	.0	25.4	.0	13.6	.0
Dec	51.2	28.8	40.0	82+	1998	8	49.0	1971	-6	1942	21	29.6	1989	775	0	.0	.0	16.4	1.3	21.0	.2
Ann	69.7	44.8	57.3	106+	Sep 1932	1	80.5	Jul 1993	-16+	Jan 1940	29	26.5	Jan 1977	4023	1218	1.1	38.9	309.0	5.3	102.5	.7

+ Also occurred on an earlier date(s)

@ Denotes mean number of days greater than 0 but less than .05

Complete documentation available from: [www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1914-2001

(3) Derived from 1971-2000 serially complete daily data

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# Climatography of the United States

## No. 20 1971-2000

National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
www.ncdc.noaa.gov

**Station: FARMVILLE 2 N, VA**

**COOP ID: 442941**

**Climate Division: VA 2**

**NWS Call Sign:**

**Elevation: 450 Feet**

**Lat: 37°20N**

**Lon: 78°23W**

### Precipitation (inches)

	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount											
	Means/ Medians(1)		Extremes							Daily Precipitation				Monthly/Annual Precipitation vs Probability Levels These values were determined from the incomplete gamma distribution											
Month	Mean	Med-ian	Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year	>= 0.01	>= 0.10	>= 0.50	>= 1.00	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95	
Jan	4.03	4.18	2.80	1936	19	8.16	1978	.90	1981	9.0	7.5	3.3	1.0	1.47	1.85	2.39	2.85	3.28	3.73	4.21	4.77	5.49	6.60	7.61	
Feb	3.32	3.33	3.33	1991	8	6.74	1979	.63	1978	7.7	6.6	2.6	.8	1.14	1.45	1.91	2.30	2.67	3.05	3.47	3.95	4.57	5.54	6.42	
Mar	4.26	3.77	2.73	1936	17	9.41	1994	.95	1985	9.0	7.6	3.2	1.1	1.43	1.83	2.42	2.92	3.40	3.90	4.44	5.08	5.89	7.15	8.32	
Apr	3.35	3.09	3.63	1937	25	7.21	1983	.20	1985	8.3	6.1	2.1	.8	.88	1.20	1.68	2.11	2.53	2.97	3.46	4.04	4.80	5.99	7.10	
May	4.26	4.33	3.23	1933	30	8.74	1971	1.39	1975	9.8	7.3	3.1	1.1	1.63	2.03	2.59	3.06	3.51	3.96	4.45	5.02	5.75	6.86	7.88	
Jun	3.23	2.46	6.62	1972	22	9.04	1972	.50	1986	7.8	5.7	2.0	.8	.64	.94	1.41	1.84	2.28	2.75	3.29	3.93	4.78	6.14	7.43	
Jul	4.19	3.73	4.03	1975	14	7.79	1975	1.13	1993	8.7	6.5	2.6	1.3	1.10	1.50	2.10	2.64	3.16	3.72	4.33	5.06	6.00	7.50	8.90	
Aug	3.86	3.42	4.97	1940	14	11.29	1985	.36	1980	8.0	5.6	2.7	1.2	.56	.88	1.44	1.98	2.53	3.15	3.85	4.72	5.88	7.78	9.60	
Sep	3.94	3.38	3.62	1974	7	10.11	1999	.56	1984	7.5	6.0	2.4	1.1	.70	1.05	1.62	2.16	2.71	3.30	3.98	4.80	5.89	7.65	9.33	
Oct	3.82	3.34	4.04	1961	21	12.17	1971	.00	2000	7.0	5.5	2.6	1.3	.33	.75	1.38	1.94	2.51	3.14	3.85	4.72	5.88	7.77	9.57	
Nov	3.41	3.16	6.15	1993	28	9.56	1985	.94	1981	8.0	5.8	2.4	1.0	.96	1.28	1.77	2.20	2.61	3.05	3.53	4.10	4.84	6.00	7.08	
Dec	3.20	3.28	3.41	1958	29	8.00	1973	.31	1980	7.6	6.1	2.5	.9	.67	.96	1.43	1.86	2.29	2.75	3.27	3.89	4.72	6.03	7.28	
Ann	44.87	44.03	6.62	Jun 1972	22	12.17	Oct 1971	.00	Oct 2000	98.4	76.3	31.5	12.4	34.74	36.76	39.32	41.24	42.92	44.54	46.20	48.02	50.20	53.35	56.04	

+ Also occurred on an earlier date(s)  
# Denotes amounts of a trace  
@ Denotes mean number of days greater than 0 but less than .05  
\*\* Statistics not computed because less than six years out of thirty had measurable precipitation

(1) From the 1971-2000 Monthly Normals  
(2) Derived from station's available digital record: 1914-2001  
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:  
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Station: FARMVILLE 2 N, VA

COOP ID: 442941

Climate Division: VA 2

NWS Call Sign:

Elevation: 450 Feet

Lat: 37°20N

Lon: 78°23W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (1)					Extremes (2)										Snow Fall >= Thresholds					Snow Depth >= Thresholds			
Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	4.5	2.5	1	#	10.0	1987	23	23.0	1987	19	1987	26	4	1996	1.5	1.2	.7	.2	.1	3.8	2.5	.9	.3
Feb	4.9	1.5	1	#	13.0	1987	17	18.0	1983	13+	1987	17	6	1987	1.5	1.3	.7	.4	.1	3.6	2.5	1.4	.3
Mar	1.7	.0	#	0	9.5	1971	26	10.0	1980	10	1971	26	1	1993	.7	.6	.2	.1	.0	.9	.5	.2	@
Apr	.0	.0	#	0	.5	1971	7	.5+	1990	#	1990	7	#	1990	.1	.0	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	#	.0	0	0	#	1979	11	#+	1979	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.6	.0	#	0	6.0	1987	12	6.0	1987	6	1987	12	#+	1989	.2	.2	.1	.1	.0	.1	@	@	.0
Dec	2.1	.0	#	0	12.0	1973	17	14.3	1989	14	1973	18	4	1989	.7	.5	.2	.1	@	1.6	1.0	.6	.1
Ann	13.8	4.0	N/A	N/A	13.0	Feb 1987	17	23.0	Jan 1987	19	Jan 1987	26	6	Feb 1987	4.7	3.8	1.9	.9	.2	10.0	6.5	3.1	.7

+ Also occurred on an earlier date(s) #Denotes trace amounts

@ Denotes mean number of days greater than 0 but less than .05

-9/-9.9 represents missing values

Annual statistics for Mean/Median snow depths are not appropriate

(1) Derived from Snow Climatology and 1971-2000 daily data

(2) Derived from 1971-2000 daily data

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Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/13	5/09	5/06	5/04	5/01	4/29	4/27	4/24	4/20
32	4/29	4/25	4/22	4/20	4/18	4/15	4/13	4/10	4/06
28	4/19	4/14	4/11	4/08	4/06	4/03	3/31	3/28	3/24
24	4/10	4/04	3/31	3/28	3/24	3/21	3/18	3/14	3/08
20	4/01	3/25	3/19	3/15	3/11	3/06	3/02	2/25	2/17
16	3/17	3/10	3/05	2/28	2/24	2/20	2/16	2/11	2/04
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/30	10/03	10/05	10/07	10/09	10/11	10/13	10/15	10/18
32	10/06	10/11	10/14	10/17	10/20	10/23	10/26	10/30	11/04
28	10/13	10/18	10/22	10/25	10/28	10/31	11/04	11/07	11/13
24	10/29	11/04	11/07	11/10	11/13	11/16	11/20	11/23	11/29
20	11/08	11/15	11/19	11/23	11/26	11/30	12/04	12/08	12/14
16	11/22	11/29	12/05	12/09	12/14	12/18	12/22	12/28	1/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	175	170	166	163	160	157	154	150	145
32	202	196	192	188	185	181	178	173	167
28	224	218	213	209	205	201	197	192	186
24	258	250	243	238	233	228	223	217	208
20	285	277	270	265	260	255	250	243	235
16	319	310	303	297	291	286	280	273	264

\* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

**0/00** Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:

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Degree Days to Selected Base Temperatures (° F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	880	706	536	256	83	7	0	0	29	252	499	775	4023
60	725	566	389	139	26	0	0	0	6	144	357	623	2975
57	635	484	306	87	10	0	0	0	2	96	277	537	2434
55	579	433	255	60	5	0	0	0	1	70	228	479	2110
50	436	307	150	18	0	0	0	0	0	26	130	345	1412
32	86	34	4	0	0	0	0	0	0	0	2	51	177

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	229	253	491	744	1025	1232	1402	1346	1107	797	495	299	9420
55	9	7	30	114	317	542	689	633	418	154	30	14	2957
57	3	3	19	81	260	482	627	571	359	118	19	10	2552
60	0	0	9	43	183	392	534	478	273	73	9	3	1997
65	0	0	0	10	85	248	379	323	146	26	1	0	1218
70	0	0	0	1	27	126	227	178	55	6	0	0	620

Growing Degree Units (2)																								
Base	Growing Degree Units (Monthly)												Growing Degree Units (Accumulated Monthly)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	77	117	278	506	784	999	1159	1104	875	552	279	124	77	194	472	978	1762	2761	3920	5024	5899	6451	6730	6854
45	37	63	170	365	629	849	1004	949	725	404	174	67	37	100	270	635	1264	2113	3117	4066	4791	5195	5369	5436
50	15	28	93	237	475	699	849	794	575	266	97	29	15	43	136	373	848	1547	2396	3190	3765	4031	4128	4157
55	1	10	41	137	327	549	694	639	426	154	48	13	1	11	52	189	516	1065	1759	2398	2824	2978	3026	3039
60	0	0	19	69	194	399	539	485	286	74	15	0	0	0	19	88	282	681	1220	1705	1991	2065	2080	2080
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	60	94	199	340	504	675	793	752	575	366	193	86	60	154	353	693	1197	1872	2665	3417	3992	4358	4551	4637

(1) Derived from the 1971-2000 Monthly Normals

(2) Derived from 1971-2000 serially complete daily data

**Note:** For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86

Complete documentation available from:  
[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

## Notes

- a. The monthly means are simple arithmetic averages computed by summing the monthly values for the period 1971-2000 and dividing by thirty. Prior to averaging, the data are adjusted if necessary to compensate for data quality issues, station moves or changes in station reporting practices. Missing months are replaced by estimates based on neighboring stations.
- b. The median is defined as the middle value in an ordered set of values. The median is being provided for the snow and precipitation elements because the mean can be a misleading value for precipitation normals.
- c. Only observed validated values were used to select the extreme daily values.
- d. Extreme monthly temperature/precipitation means were selected from the monthly normals data.  
Monthly snow extremes were calculated from daily values quality controlled to be consistent with the Snow Climatology.
- e. Degree Days were derived using the same techniques as the 1971-2000 normals.  
Complete documentation for the 1971-2000 Normals is available on the internet from:  
[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)
- f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set.  
Documentation of the serially complete data set is available from the link below:
- g. Snowfall and snow depth statistics were derived from the Snow Climatology.  
Documentation for the Snow Climatology project is available from the link under references.

## Data Sources for Tables

Several different data sources were used to create the Clim20 climate summaries. In some cases the daily extremes appear inconsistent with the monthly extremes and or the mean number of days statistics. For example, a high daily extreme value may not be reflected in the highest monthly value or the mean number of days threshold that is less than and equal to the extreme value. Some of these difference are caused by different periods of record. Daily extremes are derived from the station's entire period of record while the serial data and normals data were for the 1971-2000 period. Therefore extremes observed before 1971 would not be included in the 1971-2000 normals or the 1971-2000 serial daily data set. Inconsistencies can also occur when monthly values are adjusted to reflect the current observing conditions or were replaced during the 1971-2000 Monthly Normals processing and are not reconciled with the Summary of the Day data.

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html)  
Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,  
[www1.ncdc.noaa.gov/pub/data/special/serialcomplete\\_jam\\_0900.pdf](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)