

# Climatography of the United States

No. 20

1971-2000

Station: WYTHEVILLE 1 S, VA

COOP ID: 449301

Climate Division: VA 6

NWS Call Sign:

Elevation: 2,450 Feet Lat: 36° 56N

Lon: 81° 06W

## 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	41.5	20.3	30.9	78	1950	25	41.9	1974	-20	1985	21	18.1	1977	1057	0	.0	.0	9.1	5.4	26.3	1.1
Feb	46.0	21.6	33.8	78+	1977	27	40.1	1990	-9+	1996	6	23.9	1978	873	0	.0	.0	12.9	3.3	22.9	.4
Mar	54.8	28.4	41.6	83+	1985	30	47.8	1973	0	1968	1	36.5	1971	725	0	.0	.0	22.6	.6	18.9	.0
Apr	64.0	35.5	49.8	88	1976	18	54.4	1981	12	1985	10	46.1	1997	459	0	.0	.0	27.4	.0	9.9	.0
May	72.5	45.3	58.9	91+	1941	22	64.8	1991	23	1968	7	53.0	1997	221	32	.0	.0	30.8	.0	2.6	.0
Jun	79.2	53.5	66.4	96	1944	18	69.0	1987	30+	1966	2	61.3	1972	46	87	.0	.5	30.0	.0	@	.0
Jul	83.4	58.1	70.8	98+	1988	17	74.6	1993	39+	1988	2	67.9	1976	6	183	.0	3.6	31.0	.0	.0	.0
Aug	82.4	56.4	69.4	97+	1988	18	73.3	1995	35+	1968	30	66.0	1976	15	152	.0	2.9	31.0	.0	.0	.0
Sep	76.5	50.0	63.3	95+	1998	14	67.0	1978	25	1983	24	60.0	1984	99	46	.0	.8	30.0	.0	.6	.0
Oct	66.8	37.0	51.9	89	1941	6	59.4	1984	12	1962	27	46.8	1988	409	3	.0	.0	30.2	.0	9.3	.0
Nov	55.6	29.3	42.5	80	1961	5	50.5	1985	2	1950	26	35.3	1976	676	0	.0	.0	22.1	.2	17.7	.0
Dec	45.3	23.1	34.2	76+	2001	6	40.9	1984	-13	1989	24	23.5	1989	956	0	.0	.0	12.1	2.9	23.7	.5
Ann	64.0	38.2	51.1	98+	Jul 1988	17	74.6	Jul 1993	-20	Jan 1985	21	18.1	Jan 1977	5542	503	.0	7.8	289.2	12.4	131.9	2.0

+ 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/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1930-2001

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

069-A

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## No. 20 1971-2000

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

**Station: WYTHEVILLE 1 S, VA**

**COOP ID: 449301**

**Climate Division: VA 6**

**NWS Call Sign:**

**Elevation: 2,450 Feet Lat: 36°56N**

**Lon: 81°06W**

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	2.94	2.73	2.23	1995	15	6.50	1998	.89	1981	10.3	6.4	1.8	.5	1.10	1.37	1.77	2.10	2.41	2.73	3.08	3.48	4.00	4.79	5.51
Feb	2.86	2.78	2.24	1994	11	5.25	1984	.41	1978	9.8	5.8	2.0	.5	.92	1.19	1.59	1.93	2.26	2.60	2.98	3.41	3.98	4.86	5.67
Mar	3.25	3.02	2.14	1954	1	6.65	1993	.85	1988	10.8	7.4	2.0	.6	1.29	1.59	2.02	2.37	2.70	3.04	3.41	3.83	4.36	5.18	5.93
Apr	3.19	2.98	2.33	1977	5	7.59	1987	.42	1976	11.0	6.6	1.9	.7	.89	1.19	1.65	2.05	2.44	2.85	3.31	3.84	4.54	5.63	6.65
May	4.27	4.15	3.47	1942	19	8.02	1998	1.21	1977	12.4	8.4	3.0	1.1	1.58	1.98	2.56	3.04	3.49	3.96	4.47	5.06	5.81	6.97	8.03
Jun	3.40	2.87	3.49	1972	21	8.85	2000	1.01	1999	11.1	7.1	2.1	.6	.93	1.25	1.74	2.17	2.59	3.03	3.52	4.10	4.85	6.03	7.14
Jul	3.73	3.83	4.85	1964	18	7.41	1980	1.18	1998	11.1	7.2	2.3	.9	1.46	1.81	2.30	2.71	3.09	3.49	3.91	4.40	5.02	5.98	6.85
Aug	3.14	2.61	3.45	1985	18	8.27	1985	1.34	1995	10.1	6.3	1.7	.8	.94	1.24	1.68	2.07	2.44	2.83	3.26	3.76	4.42	5.44	6.38
Sep	3.09	3.10	3.90	1959	30	8.86	1989	.11	1978	9.5	6.1	2.3	.6	.47	.73	1.17	1.60	2.05	2.53	3.09	3.78	4.70	6.19	7.63
Oct	2.88	2.51	2.73	1966	19	7.23	1990	.08	2000	8.4	5.0	1.7	.9	.38	.61	1.02	1.42	1.85	2.31	2.85	3.52	4.42	5.90	7.32
Nov	2.68	2.62	3.67	1935	12	7.64	1985	.61	1998	9.0	5.6	1.8	.4	.85	1.10	1.48	1.80	2.11	2.44	2.79	3.20	3.74	4.57	5.34
Dec	2.42	2.28	2.00	1948	3	4.91	1983	.77	1980	9.5	5.7	1.4	.4	.73	.96	1.30	1.60	1.89	2.19	2.52	2.91	3.41	4.19	4.92
Ann	37.85	37.75	4.85	Jul 1964	18	8.86	Sep 1989	.08	Oct 2000	123.0	77.6	24.0	8.0	30.55	32.04	33.90	35.29	36.51	37.67	38.85	40.15	41.70	43.92	45.81

+ 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: 1930-2001

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

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**Climate Division: VA 6**

**NWS Call Sign:**

**Elevation: 2,450 Feet**

**Lat: 36°56N**

**Lon: 81°06W**

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	7.1	5.1	1	1	16.0	1996	7	30.5	1996	22	1996	8	5+	1996	4.1	1.7	1.0	.3	.1	6.4	3.5	2.1	.4
Feb	5.8	5.0	1	#	10.7	1996	2	22.4	1987	13	1996	3	3	1996	3.3	1.5	.7	.4	@	5.9	3.1	1.4	.3
Mar	2.9	.8	#	#	12.0	1993	13	18.0	1993	18	1993	14	3	1993	1.6	.7	.4	.1	.1	1.6	.9	.3	.1
Apr	1.2	.0	#	0	10.2	1987	4	10.9	1987	10	1987	5	1	1987	.6	.3	.1	.1	@	.4	.2	.2	.1
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	1.0	1993	31	1.0	1993	1	1993	31	#+	1993	.1	@	.0	.0	.0	@	.0	.0	.0
Nov	.6	.0	#	0	3.6	1971	24	5.6	1971	6	1971	25	#+	1996	.4	.2	@	.0	.0	.3	.0	.0	.0
Dec	3.2	.7	#	#	14.4	1974	1	16.6	1974	15	1974	2	4	1974	2.2	.9	.3	.2	@	3.5	1.5	.6	.1
Ann	20.8	11.6	N/A	N/A	16.0	Jan 1996	7	30.5	Jan 1996	22	Jan 1996	8	5+	Jan 1996	12.3	5.3	2.5	1.1	.2	18.1	9.2	4.6	1.0

+ 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

Complete documentation available from:

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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	6/08	6/01	5/28	5/24	5/21	5/17	5/13	5/09	5/03
32	5/24	5/19	5/15	5/12	5/09	5/05	5/02	4/28	4/23
28	5/15	5/08	5/04	4/29	4/26	4/22	4/18	4/13	4/06
24	4/28	4/21	4/17	4/13	4/10	4/06	4/02	3/29	3/23
20	4/12	4/06	4/02	3/29	3/26	3/22	3/19	3/14	3/08
16	3/29	3/22	3/17	3/12	3/08	3/04	2/27	2/22	2/15
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	9/11	9/16	9/19	9/22	9/25	9/27	9/30	10/04	10/08
32	9/17	9/23	9/26	9/29	10/02	10/05	10/08	10/12	10/17
28	10/02	10/06	10/10	10/12	10/15	10/18	10/21	10/24	10/28
24	10/13	10/18	10/22	10/25	10/28	10/31	11/03	11/07	11/12
20	10/20	10/28	11/02	11/06	11/11	11/15	11/19	11/25	12/02
16	11/06	11/13	11/18	11/22	11/26	11/30	12/04	12/09	12/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	148	140	135	131	127	122	118	113	105
32	170	162	156	151	146	141	136	130	122
28	196	188	182	177	172	167	162	156	147
24	221	214	209	204	200	196	192	187	179
20	261	250	242	235	229	223	216	208	197
16	289	280	273	267	262	257	251	244	235

\* 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	1057	873	725	459	221	46	6	15	99	409	676	956	5542
60	902	733	570	312	120	10	0	1	33	269	527	801	4278
57	809	649	478	229	75	3	0	0	14	197	439	708	3601
55	747	593	420	179	52	1	0	0	7	155	383	646	3183
50	605	456	281	80	16	0	0	0	1	75	252	501	2267
32	188	87	18	0	0	0	0	0	0	0	14	110	417

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	154	139	316	532	834	1032	1201	1159	937	617	328	178	7427
55	0	0	5	21	172	343	488	446	254	59	7	0	1795
57	0	0	2	11	133	285	426	384	201	39	3	0	1484
60	0	0	0	3	86	201	333	292	131	18	0	0	1064
65	0	0	0	0	32	87	183	152	46	3	0	0	503
70	0	0	0	0	8	21	68	54	8	0	0	0	159

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	41	64	188	366	631	832	988	949	740	429	185	68	41	105	293	659	1290	2122	3110	4059	4799	5228	5413	5481
45	16	25	98	237	477	682	833	794	590	283	101	33	16	41	139	376	853	1535	2368	3162	3752	4035	4136	4169
50	1	5	45	134	330	532	678	639	443	162	43	6	1	6	51	185	515	1047	1725	2364	2807	2969	3012	3018
55	0	0	11	62	203	385	523	484	299	78	13	0	0	0	11	73	276	661	1184	1668	1967	2045	2058	2058
60	0	0	2	19	95	243	372	329	174	27	0	0	0	0	2	21	116	359	731	1060	1234	1261	1261	1261
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	31	59	147	257	407	550	665	638	481	300	136	50	31	90	237	494	901	1451	2116	2754	3235	3535	3671	3721

(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:  
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## 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.

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| <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> |
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## 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)