

Climatology of the United States

No. 20

1971-2000

Station: WISE 3 E, VA

COOP ID: 449215

Climate Division: VA 6

NWS Call Sign:

Elevation: 2,549 Feet Lat: 37°00N

Lon: 82°32W

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	42.2	23.2	32.7	68+	1999	22	43.4	1974	-24	1985	21	19.1	1977	1003	0	.0	.0	9.0	6.3	23.1	1.2
Feb	46.6	26.1	36.4	74+	1997	21	44.1	1990	-15	1996	5	24.9	1978	802	0	.0	.0	12.4	4.2	19.3	.5
Mar	56.0	33.4	44.7	80	1986	31	50.5	1973	-8	1960	6	38.7	1971	630	0	.0	.0	22.2	.8	13.7	@
Apr	65.2	41.0	53.1	87	1986	27	58.1	1981	16	1964	1	46.7	1987	361	4	.0	.0	27.3	.1	5.4	.0
May	72.3	49.2	60.8	90	1996	19	66.2	1991	24	1963	2	55.8	1989	174	43	.0	@	30.7	.0	.5	.0
Jun	78.9	56.7	67.8	92+	1994	19	71.4	1994	31	1966	1	63.4	1974	30	114	.0	.1	30.0	.0	.0	.0
Jul	82.1	60.6	71.4	93+	1995	15	74.3	1999	40+	1963	10	68.6	1984	4	201	.0	.7	31.0	.0	.0	.0
Aug	80.9	59.4	70.2	94	1988	18	74.6	1995	38	1965	29	66.8	1992	10	169	.0	.6	31.0	.0	.0	.0
Sep	75.5	53.4	64.5	90+	1998	14	69.3	1998	31+	1967	30	61.2	1974	77	62	.0	.1	30.0	.0	@	.0
Oct	66.5	42.7	54.6	82+	1986	2	60.9	1984	14	1962	27	47.1	1988	334	12	.0	.0	30.2	.0	3.6	.0
Nov	55.6	34.8	45.2	77	1987	2	52.5	1985	4	1970	24	36.5	1976	593	0	.0	.0	20.9	.4	12.1	.0
Dec	45.9	27.2	36.6	73	2001	5	45.0	1971	-17	1962	13	25.5	1989	883	0	.0	.0	12.8	3.9	19.7	.5
Ann	64.0	42.3	53.2	94	Aug 1988	18	74.6	Aug 1995	-24	Jan 1985	21	19.1	Jan 1977	4901	605	.0	1.5	287.5	15.7	97.4	2.2

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1955-2001

(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: WISE 3 E, VA

COOP ID: 449215

Climate Division: VA 6

NWS Call Sign:

Elevation: 2,549 Feet Lat: 37°00N

Lon: 82°32W

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	3.90	3.70	2.38	1957	29	8.47	1972	1.13	1977	15.0	8.2	2.6	.7	1.26	1.63	2.17	2.64	3.09	3.56	4.07	4.67	5.44	6.63	7.74
Feb	3.74	3.65	2.45	1994	11	7.84	1994	1.15	1980	14.5	8.1	2.3	.7	1.65	1.98	2.45	2.83	3.18	3.54	3.93	4.37	4.92	5.77	6.53
Mar	4.39	3.80	2.80	1963	12	10.34	1975	1.94	1986	15.1	9.2	2.9	.8	1.62	2.03	2.62	3.12	3.59	4.07	4.60	5.20	5.98	7.18	8.27
Apr	3.94	3.60	5.50	1977	4	9.59	1977	1.00	1976	13.8	8.5	2.4	.6	1.45	1.82	2.35	2.79	3.22	3.65	4.12	4.67	5.37	6.44	7.43
May	4.56	3.97	2.53	1959	28	8.49	1975	1.98	1977	14.9	9.8	2.8	1.0	1.95	2.36	2.94	3.41	3.85	4.30	4.78	5.33	6.03	7.09	8.05
Jun	4.01	3.69	2.32	1964	1	11.61	1989	.72	1986	13.5	8.6	2.7	.8	1.42	1.79	2.34	2.80	3.25	3.70	4.19	4.77	5.50	6.64	7.68
Jul	4.87	4.90	3.25	1991	24	8.73	2000	1.05	1974	13.2	9.5	3.3	1.0	1.95	2.40	3.04	3.56	4.06	4.56	5.10	5.73	6.53	7.74	8.85
Aug	3.82	3.61	5.07	1981	16	7.96	1981	.33	1972	11.5	6.6	2.4	.8	1.16	1.52	2.06	2.53	2.98	3.45	3.97	4.58	5.36	6.59	7.72
Sep	3.58	3.44	4.72	1982	14	7.52	1989	1.00	1985	9.9	5.8	2.4	.9	1.17	1.51	2.01	2.44	2.85	3.27	3.73	4.28	4.97	6.05	7.05
Oct	3.00	2.85	2.70	1976	9	6.58	1977	.50	2000	10.2	6.1	1.9	.7	.89	1.18	1.60	1.97	2.33	2.70	3.11	3.60	4.22	5.20	6.11
Nov	3.60	3.45	2.35	1991	22	6.38	1973	1.38	1981	12.7	7.6	2.2	.7	1.35	1.69	2.17	2.57	2.96	3.35	3.77	4.26	4.89	5.85	6.73
Dec	3.59	2.92	3.35	1969	30	7.22	1991	1.07	1980	14.8	7.6	2.2	.5	1.30	1.64	2.13	2.53	2.92	3.32	3.75	4.25	4.89	5.88	6.79
Ann	47.00	46.95	5.50	Apr 1977	4	11.61	Jun 1989	.33	Aug 1972	159.1	95.6	30.1	9.2	35.97	38.17	40.95	43.04	44.88	46.65	48.47	50.46	52.86	56.31	59.27

+ 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: 1955-2001

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

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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Station: WISE 3 E, VA

COOP ID: 449215

Climate Division: VA 6

NWS Call Sign:

Elevation: 2,549 Feet

Lat: 37°00N

Lon: 82°32W

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	13.7	12.2	1	1	14.3	1996	7	38.7	1996	17	1996	8	5	1996	7.9	4.2	1.5	.6	.1	8.8	5.0	2.6	.4
Feb	12.3	10.8	1	1	12.5	1985	12	29.0	1979	15	1985	13	5	1985	7.5	3.8	1.4	.5	.1	6.6	3.4	1.7	.5
Mar	8.7	6.4	#	#	26.0	1993	13	32.9	1993	21	1993	13	3	1993	4.6	2.5	.9	.3	@	2.3	1.2	.5	.1
Apr	2.9	1.9	#	#	10.5	1987	3	30.8	1987	21	1987	5	3	1987	1.7	.8	.3	.1	.1	.4	.3	.2	.1
May	.1	.0	#	0	3.3	1989	7	3.3	1989	1	1989	7	#	1989	@	@	@	.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	.3	.0	#	0	4.3	1993	31	4.3	1993	3	1993	31	#+	1997	.4	.1	@	.0	.0	@	@	.0	.0
Nov	2.9	2.3	#	#	10.2	1977	27	11.4	1977	11	1977	27	1	1977	2.8	1.0	.1	@	@	.7	.2	.1	@
Dec	8.8	8.0	1	#	9.5	1995	7	28.2	1997	11	1997	31	3	1989	5.8	2.7	1.1	.3	.0	5.1	2.3	.5	@
Ann	49.7	41.6	N/A	N/A	26.0	Mar 1993	13	38.7	Jan 1996	21+	Mar 1993	13	5+	Jan 1996	30.7	15.1	5.3	1.8	.3	23.9	12.4	5.6	1.1

+ 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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No. 20
1971-2000**

Station: WISE 3 E, VA

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Climate Division: VA 6

NWS Call Sign:

Elevation: 2,549 Feet

Lat: 37°00N

Lon: 82°32W

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	5/26	5/20	5/15	5/11	5/08	5/04	5/01	4/26	4/20
32	5/16	5/10	5/06	5/02	4/29	4/26	4/22	4/18	4/12
28	4/25	4/20	4/16	4/13	4/10	4/07	4/04	4/01	3/26
24	4/17	4/11	4/07	4/04	3/31	3/28	3/25	3/21	3/15
20	4/04	3/30	3/26	3/22	3/19	3/16	3/12	3/08	3/03
16	3/23	3/17	3/12	3/08	3/05	3/01	2/25	2/20	2/14
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	9/23	9/27	9/30	10/02	10/04	10/06	10/08	10/11	10/14
32	10/01	10/07	10/11	10/14	10/17	10/20	10/24	10/28	11/02
28	10/11	10/17	10/21	10/24	10/28	10/31	11/04	11/08	11/13
24	10/20	10/27	11/01	11/05	11/09	11/13	11/17	11/22	11/28
20	11/01	11/07	11/11	11/15	11/18	11/21	11/25	11/29	12/05
16	11/12	11/18	11/23	11/27	12/01	12/05	12/09	12/13	12/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	169	162	157	152	148	144	140	135	128
32	193	185	180	175	170	166	161	156	148
28	223	215	209	204	200	195	190	184	176
24	248	239	233	227	222	216	211	204	195
20	265	258	252	248	243	239	234	229	221
16	293	285	280	275	270	266	261	255	248

* 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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Climate Division: VA 6 NWS Call Sign: Elevation: 2,549 Feet Lat: 37°00N Lon: 82°32W

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	1003	802	630	361	174	30	4	10	77	334	593	883	4901
60	848	662	479	227	86	5	0	0	23	208	448	728	3714
57	760	578	393	160	49	1	0	0	9	147	366	643	3106
55	703	523	337	122	31	0	0	0	4	113	313	584	2730
50	558	393	216	51	8	0	0	0	0	51	199	442	1918
32	171	66	11	0	0	0	0	0	0	0	10	97	355

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	192	188	405	633	892	1074	1220	1183	975	701	407	237	8107
55	10	1	18	65	210	384	507	470	289	101	20	10	2085
57	6	0	11	43	165	325	445	408	234	73	13	7	1730
60	0	0	4	20	109	239	352	315	158	41	5	0	1243
65	0	0	0	4	43	114	201	169	62	12	0	0	605
70	0	0	0	0	11	34	77	63	13	1	0	0	199

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	58	95	238	429	668	854	988	953	754	481	237	100	58	153	391	820	1488	2342	3330	4283	5037	5518	5755	5855
45	27	44	143	297	515	704	833	798	604	337	140	46	27	71	214	511	1026	1730	2563	3361	3965	4302	4442	4488
50	2	18	74	188	362	554	678	643	454	204	71	18	2	20	94	282	644	1198	1876	2519	2973	3177	3248	3266
55	0	2	32	100	226	405	523	488	313	106	28	1	0	2	34	134	360	765	1288	1776	2089	2195	2223	2224
60	0	0	5	40	114	259	368	333	176	40	3	0	0	0	5	45	159	418	786	1119	1295	1335	1338	1338
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	29	54	142	257	403	558	672	642	471	284	130	44	29	83	225	482	885	1443	2115	2757	3228	3512	3642	3686

(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/normals/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
- 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">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html
Snow Climatology Project Description, 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