

Climatography of the United States

No. 20

1971-2000

Station: WALKERTON 2 NW, VA

COOP ID: 448829

Climate Division: VA 1

NWS Call Sign:

Elevation: 50 Feet

Lat: 37°45N

Lon: 77°03W

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	48.3	25.8	37.1	81+	1950	26	45.7	1974	-15	1940	27	25.3	1977	867	0	.0	.0	12.5	2.7	22.7	.6
Feb	52.4	27.9	40.2	82+	1985	24	48.6	1976	-12	1936	8	28.3	1979	695	0	.0	.0	15.5	1.3	19.7	.3
Mar	61.2	34.9	48.1	91+	1998	30	52.3	1977	6	1960	11	43.9	1981	526	0	.0	.1	26.1	.1	13.7	.0
Apr	71.5	43.0	57.3	97	1976	17	62.7	1994	20	1965	1	52.6	1975	242	10	.0	.7	29.7	.0	4.2	.0
May	78.0	53.3	65.7	99+	1941	29	71.2	1991	28	1966	11	61.9	1992	60	80	.0	1.5	31.0	.0	.0	.0
Jun	84.8	62.0	73.4	106	1952	26	76.9	1994	37	1977	8	69.2	1979	3	255	.0	7.0	30.0	.0	.0	.0
Jul	88.3	66.5	77.4	104	1936	10	80.8	1993	48	1978	13	74.1	2000	0	384	.2	14.0	31.0	.0	.0	.0
Aug	86.9	64.8	75.9	104	1953	31	79.0	1980	42	1965	30	72.6	1992	0	336	.2	10.4	31.0	.0	.0	.0
Sep	81.5	57.7	69.6	103+	1954	7	74.6	1998	33+	1963	25	66.8	1984	22	159	.1	3.4	30.0	.0	.0	.0
Oct	71.3	44.8	58.1	101	1941	6	64.9	1984	22+	2000	29	52.5	1988	245	29	.0	.2	30.9	.0	2.9	.0
Nov	61.7	36.0	48.9	87	1950	1	56.0	1985	8	2000	22	40.9	1976	486	1	.0	.0	25.7	.0	11.7	.0
Dec	52.1	28.7	40.4	83	1998	7	48.2	1971	-7	1958	16	28.9	1989	762	0	.0	.0	17.2	1.2	19.8	.2
Ann	69.8	45.5	57.7	106	Jun 1952	26	80.8	Jul 1993	-15	Jan 1940	27	25.3	Jan 1977	3908	1254	.5	37.3	310.6	5.3	94.7	1.1

+ 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: 1932-2001

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

059-A

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: WALKERTON 2 NW, VA

COOP ID: 448829

Climate Division: VA 1

NWS Call Sign:

Elevation: 50 Feet

Lat: 37°45N

Lon: 77°03W

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	3.73	3.31	2.49	1935	23	7.44	1978	.73	1981	11.3	7.5	2.7	.8	1.41	1.76	2.26	2.67	3.07	3.47	3.90	4.41	5.05	6.04	6.95
Feb	3.14	3.26	3.04	1994	11	6.16	1994	.64	1978	9.7	6.5	2.0	.7	.91	1.21	1.66	2.05	2.43	2.82	3.26	3.77	4.43	5.47	6.44
Mar	4.23	3.60	2.80	1994	2	9.47	1984	1.06	1986	11.7	7.6	3.0	1.2	1.29	1.69	2.29	2.81	3.31	3.83	4.40	5.07	5.94	7.29	8.55
Apr	3.03	2.82	2.00	1987	16	6.14	1983	1.16+	1986	10.3	6.2	2.2	.7	1.11	1.40	1.80	2.14	2.47	2.80	3.16	3.58	4.12	4.94	5.70
May	4.06	3.77	3.30	1969	20	7.80	1990	.99	1991	11.8	6.8	2.9	1.2	1.43	1.81	2.37	2.84	3.28	3.74	4.24	4.83	5.58	6.73	7.79
Jun	3.58	2.96	3.87	1963	3	10.88	1972	.57	1980	9.9	6.3	2.5	.8	.64	.96	1.48	1.97	2.46	3.00	3.62	4.36	5.35	6.95	8.47
Jul	4.52	4.56	3.75	1946	23	9.75	1975	.30	1993	11.1	6.9	3.1	1.4	1.08	1.50	2.16	2.75	3.33	3.95	4.65	5.47	6.55	8.27	9.88
Aug	3.53	3.25	8.10	1955	12	7.13	1979	.79	1998	9.3	5.9	2.3	1.0	.81	1.13	1.65	2.12	2.58	3.07	3.62	4.28	5.15	6.53	7.83
Sep	3.96	2.90	8.79	1935	6	13.06	1999	.61	1984	8.7	5.8	2.4	1.1	.63	.97	1.54	2.09	2.65	3.27	3.97	4.83	5.98	7.85	9.64
Oct	3.36	2.75	3.74	1954	1	6.94	1971	.00	2000	8.9	5.2	2.4	1.2	.42	.85	1.41	1.89	2.37	2.88	3.45	4.14	5.04	6.48	7.85
Nov	3.18	3.00	3.70	1959	7	6.52	1985	.76	1981	10.6	6.3	2.2	.6	.96	1.27	1.72	2.10	2.48	2.87	3.30	3.81	4.46	5.48	6.43
Dec	3.26	3.54	3.16	1986	24	6.70	1986	.51	1985	11.3	6.5	2.4	.6	.78	1.09	1.56	1.99	2.41	2.85	3.35	3.94	4.72	5.95	7.11
Ann	43.58	42.36	8.79	Sep 1935	6	13.06	Sep 1999	.00	Oct 2000	124.6	77.5	30.1	11.3	32.13	34.37	37.23	39.39	41.30	43.14	45.03	47.12	49.64	53.29	56.42

+ 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: 1932-2001

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

Complete documentation available from:
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Station: WALKERTON 2 NW, VA

COOP ID: 448829

Climate Division: VA 1

NWS Call Sign:

Elevation: 50 Feet

Lat: 37°45N

Lon: 77°03W

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	4.3	2.5	1	#	15.0	2000	25	20.1	1996	15	2000	25	3	1996	1.9	1.3	.6	.3	@	3.8	1.9	.9	.2
Feb	4.6	1.5	#	#	12.0	1983	11	18.0	1979	9	1979	20	3	1979	1.5	1.3	.7	.5	@	2.9	1.5	.8	.0
Mar	1.1	.0	#	0	5.0	1971	26	8.0	1980	8	1980	2	1	1980	.5	.4	.2	.1	.0	.3	.1	.1	.0
Apr	.0	.0	0	0	1.0	1990	7	1.0	1990	0	0	0	0	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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.3	.0	#	0	3.0	1976	12	3.0+	1987	3	1987	11	#+	1989	.1	.1	.1	.0	.0	@	@	.0	.0
Dec	2.0	.0	#	0	6.0	1982	12	11.8	1989	6	1989	13	3	1989	.8	.6	.2	@	.0	1.5	.8	.1	.0
Ann	12.3	4.0	N/A	N/A	15.0	Jan 2000	25	20.1	Jan 1996	15	Jan 2000	25	3+	Jan 1996	4.8	3.7	1.8	.9	@	8.5	4.3	1.9	.2

+ 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: WALKERTON 2 NW, VA

COOP ID: 448829

Climate Division: VA 1

NWS Call Sign:

Elevation: 50 Feet

Lat: 37°45N

Lon: 77°03W

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	4/27	4/23	4/20	4/18	4/16	4/14	4/11	4/08	4/05
28	4/18	4/14	4/10	4/07	4/05	4/02	3/30	3/27	3/22
24	4/06	4/01	3/28	3/25	3/22	3/19	3/16	3/12	3/07
20	3/27	3/20	3/15	3/11	3/07	3/03	2/26	2/21	2/14
16	3/17	3/10	3/04	2/28	2/24	2/19	2/15	2/09	2/02
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	9/29	10/03	10/06	10/09	10/11	10/14	10/16	10/19	10/24
32	10/08	10/13	10/16	10/19	10/22	10/24	10/27	10/30	11/04
28	10/15	10/21	10/24	10/28	10/31	11/03	11/06	11/10	11/16
24	10/30	11/05	11/09	11/13	11/16	11/20	11/24	11/28	12/04
20	11/08	11/15	11/20	11/25	11/29	12/03	12/07	12/12	12/19
16	11/26	12/03	12/08	12/12	12/16	12/20	12/24	12/29	1/05
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	181	175	170	166	162	159	155	150	144
32	206	200	195	192	188	185	181	176	170
28	230	223	217	213	209	204	200	195	187
24	261	253	248	243	239	234	230	224	216
20	290	282	276	271	266	262	257	251	243
16	322	313	306	300	294	289	283	276	267

* 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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Station: WALKERTON 2 NW, VA

COOP ID: 448829

Climate Division: VA 1 NWS Call Sign: Elevation: 50 Feet Lat: 37°45N Lon: 77°03W

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	867	695	526	242	60	3	0	0	22	245	486	762	3908
60	712	555	373	126	14	0	0	0	4	140	345	612	2881
57	626	478	288	76	4	0	0	0	1	92	265	525	2355
55	567	425	234	50	2	0	0	0	0	67	218	468	2031
50	426	302	126	13	0	0	0	0	0	25	121	336	1349
32	84	38	2	0	0	0	0	0	0	0	2	49	175

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	240	267	499	758	1043	1241	1407	1359	1127	807	507	310	9565
55	10	10	19	118	331	551	694	646	438	162	32	16	3027
57	7	7	10	84	272	491	632	584	378	125	20	11	2621
60	0	0	2	45	189	401	539	491	291	79	9	5	2051
65	0	0	0	10	80	255	384	336	159	29	1	0	1254
70	0	0	0	1	21	127	233	189	61	7	0	0	639

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	90	124	282	531	812	1021	1182	1130	908	581	301	130	90	214	496	1027	1839	2860	4042	5172	6080	6661	6962	7092
45	43	69	172	385	657	871	1027	975	758	427	192	69	43	112	284	669	1326	2197	3224	4199	4957	5384	5576	5645
50	17	33	93	253	502	721	872	820	608	284	106	34	17	50	143	396	898	1619	2491	3311	3919	4203	4309	4343
55	2	14	45	147	349	571	717	665	460	167	51	11	2	16	61	208	557	1128	1845	2510	2970	3137	3188	3199
60	0	1	19	75	216	424	562	510	317	80	17	1	0	1	20	95	311	735	1297	1807	2124	2204	2221	2222
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	57	92	195	345	522	696	812	783	605	373	195	85	57	149	344	689	1211	1907	2719	3502	4107	4480	4675	4760

(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

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