

Climatology of the United States

No. 20

1971-2000

Station: WAYNESBORO, TN

COOP ID: 409502

Climate Division: TN 3

NWS Call Sign:

Elevation: 750 Feet Lat: 35° 18N Lon: 87° 46W

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	47.2	25.0	36.1	79+	1943	22	44.6	1974	-21	1940	26	22.7	1977	897	0	.0	.0	13.6	4.0	23.2	1.0
Feb	52.6	27.2	39.9	82	1996	24	47.6	1990	-20	1951	2	28.2	1978	702	0	.0	.0	16.4	2.3	19.9	.2
Mar	61.8	35.0	48.4	91	1929	24	54.7	1973	2	1960	5	42.6	1996	516	1	.0	.0	25.8	.3	14.9	.0
Apr	71.3	42.2	56.8	91	1987	22	63.0	1981	19+	1940	13	51.2	1983	263	16	.0	.1	29.2	.0	6.3	.0
May	78.3	51.7	65.0	96+	1941	28	70.7	1987	27+	1944	7	59.7	1976	105	104	.0	.9	31.0	.0	.4	.0
Jun	85.6	60.7	73.2	106+	1936	28	76.6	1998	34	1966	1	69.0	1974	4	248	.0	8.1	30.0	.0	.0	.0
Jul	89.1	65.2	77.2	108	1952	29	80.9	1980	41	1947	23	74.9	1976	0	378	.5	17.0	31.0	.0	.0	.0
Aug	88.6	63.1	75.9	106	1954	17	79.9	1980	41	1946	31	70.9	1992	1	337	.4	13.8	31.0	.0	.0	.0
Sep	82.9	56.2	69.6	107	1954	5	74.0	1998	29+	1942	29	65.5	1974	35	170	@	5.4	30.0	.0	@	.0
Oct	72.6	43.2	57.9	96	1942	4	65.1	1971	16	1952	29	51.0	1987	255	36	.0	.1	30.7	.0	6.5	.0
Nov	61.1	35.1	48.1	86+	1984	1	54.4	1985	-5	1950	25	38.8	1976	508	1	.0	.0	24.7	.1	15.0	.0
Dec	50.7	28.4	39.6	76	1998	7	48.8	1971	-9+	1989	22	28.9	1989	790	0	.0	.0	17.2	2.3	20.6	.3
Ann	70.2	44.4	57.3	108	Jul 1952	29	80.9	Jul 1980	-21	Jan 1940	26	22.7	Jan 1977	4076	1291	.9	45.4	310.6	9.0	106.8	1.5

+ 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: 1927-2001

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

077-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: WAYNESBORO, TN

COOP ID: 409502

Climate Division: TN 3

NWS Call Sign:

Elevation: 750 Feet Lat: 35°18N

Lon: 87°46W

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	5.12	4.43	5.07	1999	22	13.65	1999	.69	1986	9.9	7.4	3.9	1.5	1.17	1.65	2.40	3.07	3.74	4.45	5.25	6.21	7.47	9.46	11.34
Feb	4.74	4.44	5.32	1948	13	10.40	1991	1.01	1978	8.6	7.0	3.5	1.4	1.85	2.29	2.91	3.43	3.92	4.42	4.96	5.58	6.38	7.59	8.70
Mar	6.39	5.62	5.10	1973	15	16.86	1973	2.65	1987	10.6	8.5	4.2	1.9	2.46	3.06	3.91	4.61	5.28	5.96	6.69	7.54	8.63	10.29	11.81
Apr	5.14	4.80	3.90+	1936	6	10.15	1998	.96	1986	9.0	7.4	3.5	1.5	1.80	2.28	2.98	3.58	4.15	4.73	5.37	6.11	7.06	8.52	9.87
May	6.21	5.41	5.65	1991	27	21.44	1991	1.66	1977	10.3	7.9	4.0	2.0	1.95	2.54	3.42	4.17	4.89	5.64	6.47	7.43	8.68	10.62	12.42
Jun	4.92	4.60	6.61	1999	27	10.09	1997	.04	1988	8.7	6.4	3.1	1.5	.95	1.39	2.11	2.77	3.45	4.17	5.00	5.99	7.30	9.42	11.43
Jul	5.26	5.19	6.37	1938	19	10.26	1972	1.30	1999	9.4	7.4	3.7	1.8	1.74	2.24	2.97	3.60	4.19	4.81	5.49	6.28	7.29	8.87	10.33
Aug	3.49	3.37	4.83	1985	17	10.03	1995	.00	1999	6.8	5.2	2.2	.9	.47	.91	1.51	2.00	2.50	3.02	3.60	4.30	5.22	6.69	8.07
Sep	4.09	3.29	6.30	1979	14	11.45	1977	.38	1984	7.7	5.8	2.3	1.2	.53	.85	1.43	2.00	2.60	3.27	4.04	5.00	6.29	8.40	10.45
Oct	3.47	3.43	5.30	1932	16	8.58	1984	.02	2000	6.9	5.4	2.6	1.2	.56	.85	1.36	1.84	2.33	2.87	3.49	4.24	5.25	6.88	8.44
Nov	5.55	5.18	5.00	1948	19	11.58	1986	1.75	1991	9.1	7.3	3.9	2.0	1.73	2.26	3.04	3.71	4.36	5.04	5.78	6.65	7.77	9.52	11.14
Dec	5.95	5.32	6.90	1956	13	13.62	1991	1.26	1980	10.1	7.9	3.9	1.7	1.78	2.35	3.19	3.92	4.63	5.37	6.18	7.14	8.37	10.30	12.10
Ann	60.33	61.73	6.90	Dec 1956	13	21.44	May 1991	.00	Aug 1999	107.1	83.6	40.8	18.6	44.42	47.54	51.52	54.52	57.18	59.74	62.38	65.29	68.80	73.87	78.24

+ 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: 1927-2001

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

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Station: WAYNESBORO, TN

COOP ID: 409502

Climate Division: TN 3

NWS Call Sign:

Elevation: 750 Feet

Lat: 35°18N

Lon: 87°46W

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	1.0	.0	#	0	3.0	1973	8	8.0	1977	7	1988	10	1	1988	.7	.4	.1	.0	.0	.4	.0	.0	.0
Feb	.3	.0	#	0	3.0	1971	8	3.0	1971	5	1985	2	2	1978	.3	.2	.1	.0	.0	.1	.0	.0	.0
Mar	.1	.0	#	0	1.0	1987	31	1.0	1987	3	1980	2	#+	1980	.1	.1	.0	.0	.0	.0	.0	.0	.0
Apr	#	.0	0	0	#	1987	3	#	1987	0	0	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	#	1993	31	#+	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	#	0	.5	1976	15	.5+	1976	#	1995	15	#	1995	@	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.1	.0	#	0	1.0	1974	1	1.0	1974	3	1985	20	#+	1985	.2	.1	.0	.0	.0	.0	.0	.0	.0
Ann	1.5	.0	N/A	N/A	3.0+	Jan 1973	8	8.0	Jan 1977	7	Jan 1988	10	2	Feb 1978	1.3	.8	.2	.0	.0	.5	.0	.0	.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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1971-2000**

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COOP ID: 409502

Climate Division: TN 3

NWS Call Sign:

Elevation: 750 Feet

Lat: 35° 18N

Lon: 87° 46W

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	5/24	5/17	5/12	5/07	5/03	4/29	4/25	4/20	4/13
32	5/07	5/01	4/27	4/24	4/21	4/18	4/14	4/10	4/05
28	4/23	4/18	4/14	4/11	4/08	4/05	4/02	3/30	3/25
24	4/13	4/07	4/02	3/29	3/25	3/21	3/17	3/13	3/06
20	4/02	3/26	3/20	3/15	3/11	3/06	3/01	2/23	2/16
16	3/15	3/08	3/02	2/26	2/22	2/17	2/13	2/07	1/31
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	9/25	9/29	10/02	10/04	10/06	10/09	10/11	10/14	10/18
32	9/30	10/05	10/08	10/11	10/13	10/16	10/18	10/22	10/26
28	10/08	10/14	10/18	10/22	10/25	10/29	11/02	11/06	11/12
24	10/25	10/31	11/04	11/07	11/11	11/14	11/18	11/22	11/28
20	11/05	11/11	11/16	11/19	11/23	11/26	11/30	12/04	12/10
16	11/14	11/23	11/30	12/06	12/12	12/17	12/23	12/30	1/09
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	172	166	160	155	150	145	139	130
32	195	188	183	179	175	171	167	162	155
28	219	212	207	203	200	196	192	187	180
24	255	246	240	235	230	225	220	213	205
20	285	275	268	262	257	251	245	238	228
16	324	313	305	299	292	286	280	272	261

* 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: TN 3 NWS Call Sign: Elevation: 750 Feet Lat: 35°18N Lon: 87°46W

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	897	702	516	263	105	4	0	1	35	255	508	790	4076
60	745	562	372	150	44	0	0	0	9	151	368	641	3042
57	660	484	291	98	22	0	0	0	3	103	288	553	2502
55	601	431	242	70	14	0	0	0	2	77	240	496	2173
50	463	307	142	23	3	0	0	0	0	31	141	362	1472
32	117	39	4	0	0	0	0	0	0	0	3	62	225

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	243	261	512	743	1023	1234	1401	1359	1125	804	486	295	9486
55	15	9	37	123	323	544	688	646	437	168	33	16	3039
57	11	6	24	91	270	484	626	584	379	132	21	11	2639
60	3	0	12	53	199	394	533	491	294	87	11	7	2084
65	0	0	1	16	104	248	378	337	170	36	1	0	1291
70	0	0	0	3	41	120	226	193	77	11	0	0	671

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	140	302	511	778	999	1154	1114	885	559	277	126	90	230	532	1043	1821	2820	3974	5088	5973	6532	6809	6935
45	41	79	191	372	623	849	999	959	735	407	173	72	41	120	311	683	1306	2155	3154	4113	4848	5255	5428	5500
50	15	33	105	244	469	699	844	804	585	272	97	33	15	48	153	397	866	1565	2409	3213	3798	4070	4167	4200
55	1	8	49	143	321	549	689	649	438	159	50	11	1	9	58	201	522	1071	1760	2409	2847	3006	3056	3067
60	0	0	17	70	196	401	534	494	299	79	16	0	0	0	17	87	283	684	1218	1712	2011	2090	2106	2106
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	60	113	214	350	513	672	785	744	583	385	199	88	60	173	387	737	1250	1922	2707	3451	4034	4419	4618	4706

(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