

**Climatography
of the United States
No. 20**

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

Station: WOODBURY 1 WNW, TN

1971-2000

COOP ID: 409866

Climate Division: TN 3

NWS Call Sign:

Elevation: 750 Feet

Lat: 35° 51N

Lon: 86° 05W

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	46.8	24.7	35.8	75	1972	24	44.6	1974	-28	1985	21	22.7	1977	907	0	.0	.0	15.1	3.1	21.6	.8
Feb	51.8	26.8	39.3	83	1996	23	48.7	1990	-14+	1996	4	27.4	1978	719	0	.0	.0	18.3	1.4	18.1	.3
Mar	61.0	35.1	48.1	87	1982	18	54.5	1973	0	1980	3	42.8	1996	525	1	.0	.0	27.3	.2	12.4	@
Apr	70.2	42.5	56.4	91	1995	10	61.5	1999	18	1992	3	51.1	1983	269	10	.0	.1	29.6	.0	5.1	.0
May	77.7	52.0	64.9	97	1970	24	70.5	1987	28+	1963	1	60.2	1997	99	94	.0	.9	31.0	.0	.2	.0
Jun	85.7	60.6	73.2	103+	1988	23	75.8	1994	35	1966	1	69.2	1974	4	247	.2	9.2	30.0	.0	.0	.0
Jul	89.0	65.0	77.0	106	1980	16	81.1	1999	47+	1961	10	74.7	1984	0	373	.7	16.0	31.0	.0	.0	.0
Aug	88.6	63.2	75.9	105	1983	21	79.9	1995	44+	1964	13	72.1	1992	1	339	.7	14.4	31.0	.0	.0	.0
Sep	82.6	56.2	69.4	102+	1990	6	74.8	1998	31+	1983	24	65.9	1974	37	169	.1	5.8	30.0	.0	.1	.0
Oct	72.5	42.9	57.7	90+	1959	3	65.2	1971	19	1961	27	51.0	1988	258	32	.0	@	30.8	.0	4.9	.0
Nov	60.5	34.8	47.7	85	1961	2	55.5	1985	7	1976	30	38.7	1976	521	1	.0	.0	25.8	@	12.9	.0
Dec	50.7	27.7	39.2	77+	1982	2	48.3	1984	-15	1962	13	28.7	1989	801	0	.0	.0	19.3	1.7	19.7	.3
Ann	69.8	44.3	57.1	106	Jul 1980	16	81.1	Jul 1999	-28	Jan 1985	21	22.7	Jan 1977	4141	1266	1.7	46.4	319.2	6.4	95.0	1.4

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1954-2001

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

078-A

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NWS Call Sign:

Elevation: 750 Feet Lat: 35°51N

Lon: 86°05W

Precipitation (inches)

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	5.06	4.98	4.35	1999	23	10.60	1974	1.14	1986	11.5	8.8	3.6	1.2	1.73	2.21	2.91	3.50	4.06	4.64	5.28	6.02	6.98	8.45	9.81
Feb	4.41	4.30	3.96	1998	4	8.28	1991	.99	1978	10.0	7.4	3.1	1.4	1.67	2.08	2.67	3.16	3.62	4.10	4.61	5.21	5.97	7.14	8.20
Mar	6.26	5.06	7.13	1975	13	16.91	1975	2.99	1987	11.5	9.1	3.8	1.8	2.28	2.87	3.71	4.42	5.10	5.79	6.54	7.41	8.53	10.25	11.83
Apr	4.34	3.98	3.30	1970	2	8.91	2000	1.21	1986	10.0	7.6	3.1	1.0	1.55	1.96	2.55	3.04	3.52	4.00	4.53	5.15	5.94	7.15	8.27
May	5.35	5.04	4.58	1973	28	12.20	1984	1.41	1988	10.2	7.9	3.6	1.7	1.85	2.35	3.09	3.71	4.30	4.92	5.58	6.36	7.36	8.90	10.32
Jun	4.50	4.10	5.18	1970	21	11.38	1998	.48	1988	9.7	7.8	2.8	1.2	.85	1.26	1.92	2.53	3.15	3.81	4.57	5.48	6.69	8.64	10.49
Jul	4.79	4.92	4.38	1996	22	10.03	1996	.70	1997	9.8	8.2	3.4	1.4	1.54	2.00	2.67	3.24	3.79	4.36	4.99	5.72	6.66	8.12	9.47
Aug	3.98	3.88	3.77	1959	5	8.81	1985	.90	1990	7.9	6.4	2.6	1.2	.96	1.33	1.91	2.43	2.95	3.49	4.10	4.82	5.77	7.27	8.67
Sep	4.43	4.67	4.44	1997	25	8.78	1997	.32	1984	8.0	6.1	2.7	1.3	.81	1.21	1.86	2.46	3.07	3.73	4.48	5.39	6.60	8.55	10.40
Oct	3.69	3.10	4.46	1975	17	8.06	1975	.39	2000	6.6	5.6	2.6	1.3	.80	1.14	1.68	2.17	2.66	3.19	3.78	4.48	5.41	6.90	8.30
Nov	4.64	4.27	4.31	1986	9	9.97	1986	1.14	1971	8.9	7.4	3.2	1.2	1.52	1.96	2.61	3.16	3.69	4.24	4.84	5.54	6.45	7.85	9.15
Dec	5.66	5.06	4.08	1998	13	14.10	1990	1.79	1985	11.0	8.1	3.8	1.5	1.80	2.34	3.13	3.81	4.47	5.15	5.89	6.76	7.89	9.64	11.25
Ann	57.11	56.64	7.13	Mar 1975	13	16.91	Mar 1975	.32	Sep 1984	115.1	90.4	38.3	16.2	42.77	45.60	49.19	51.90	54.29	56.59	58.95	61.55	64.69	69.22	73.11

+ 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: 1954-2001

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

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Station: WOODBURY 1 WNW, TN

COOP ID: 409866

Climate Division: TN 3

NWS Call Sign:

Elevation: 750 Feet

Lat: 35°51N

Lon: 86°05W

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	2.0	1.6	#	#	6.0	1978	20	6.6	1973	7	1973	8	2	1977	.8	.5	.2	.1	.0	.4	.1	.1	.0
Feb	1.1	#	#	0	3.5	1976	3	5.5	1980	7	1996	2	4	1979	.3	.3	@	.0	.0	.2	.1	.0	.0
Mar	.7	.0	#	0	7.0	1993	13	10.0	1993	7	1993	13	#+	1996	.2	.1	.1	@	.0	.1	@	@	.0
Apr	.0	.0	0	0	.1	1973	11	.1	1973	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	0	.5	1993	31	.5	1993	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.1	.0	#	0	2.5	1976	12	2.5	1976	3	1976	12	#+	1996	.1	.1	.0	.0	.0	@	@	.0	.0
Dec	.3	#	#	0	1.5	1973	21	1.5+	1976	5	1997	29	#+	2000	.2	.1	.0	.0	.0	.1	.0	.0	.0
Ann	4.2	1.6	N/A	N/A	7.0	Mar 1993	13	10.0	Mar 1993	7+	Feb 1996	2	4	Feb 1979	1.6	1.1	.3	.1	.0	.8	.2	.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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No. 20 1971-2000

Station: WOODBURY 1 WNW, TN

COOP ID: 409866

Climate Division: TN 3

NWS Call Sign:

Elevation: 750 Feet

Lat: 35°51N

Lon: 86°05W

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	5/22	5/16	5/12	5/09	5/06	5/03	4/29	4/26	4/20
32	5/04	4/29	4/25	4/22	4/19	4/16	4/13	4/10	4/04
28	4/24	4/19	4/15	4/12	4/09	4/06	4/03	3/31	3/26
24	4/10	4/04	3/30	3/27	3/23	3/19	3/16	3/11	3/05
20	3/31	3/23	3/17	3/12	3/08	3/03	2/26	2/21	2/13
16	3/14	3/07	3/02	2/25	2/21	2/17	2/13	2/08	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	9/23	9/27	9/30	10/02	10/05	10/07	10/09	10/12	10/16
32	10/01	10/05	10/08	10/10	10/12	10/15	10/17	10/20	10/24
28	10/06	10/12	10/17	10/21	10/24	10/28	11/01	11/06	11/12
24	10/21	10/27	10/31	11/03	11/06	11/09	11/12	11/16	11/22
20	11/02	11/08	11/13	11/17	11/20	11/24	11/28	12/03	12/09
16	11/12	11/21	11/27	12/02	12/07	12/12	12/17	12/23	1/01
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	168	162	158	154	151	147	144	139	133
32	194	187	183	179	175	172	168	163	157
28	215	209	204	201	197	194	190	186	180
24	251	243	237	232	227	223	217	212	203
20	284	275	268	262	257	252	246	239	230
16	322	310	302	295	288	281	274	266	254

* 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: WOODBURY 1 WNW, TN

COOP ID: 409866

Climate Division: TN 3 NWS Call Sign: Elevation: 750 Feet Lat: 35°51N Lon: 86°05W

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	907	719	525	269	99	4	0	1	37	258	521	801	4141
60	757	579	381	149	39	0	0	0	10	152	379	646	3092
57	671	499	299	94	18	0	0	0	4	103	299	561	2548
55	612	447	250	66	11	0	0	0	2	77	250	503	2218
50	474	321	149	20	2	0	0	0	0	31	148	366	1511
32	125	43	5	0	0	0	0	0	0	0	4	59	236

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	241	248	503	731	1018	1233	1396	1361	1122	798	473	282	9406
55	15	8	35	106	316	543	683	648	433	161	30	12	2990
57	11	4	23	75	262	483	621	586	375	126	19	9	2594
60	4	0	11	40	189	394	528	493	292	81	9	0	2041
65	0	0	1	10	94	247	373	339	169	32	1	0	1266
70	0	0	0	1	35	118	221	194	78	9	0	0	656

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	107	159	338	535	811	1015	1173	1134	903	584	298	152	107	266	604	1139	1950	2965	4138	5272	6175	6759	7057	7209
45	51	83	220	394	656	865	1018	979	753	434	193	81	51	134	354	748	1404	2269	3287	4266	5019	5453	5646	5727
50	24	38	127	262	502	715	863	824	603	292	106	36	24	62	189	451	953	1668	2531	3355	3958	4250	4356	4392
55	2	12	64	152	349	565	708	669	455	178	52	19	2	14	78	230	579	1144	1852	2521	2976	3154	3206	3225
60	0	2	28	73	213	415	553	514	313	87	16	1	0	2	30	103	316	731	1284	1798	2111	2198	2214	2215
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	70	120	230	363	531	685	792	762	597	406	205	104	70	190	420	783	1314	1999	2791	3553	4150	4556	4761	4865

(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