

# Climatology of the United States

No. 20

1971-2000

Station: LEXINGTON, TN

COOP ID: 405210

Climate Division: TN 4

NWS Call Sign:

Elevation: 540 Feet Lat: 35° 39N Lon: 88° 24W

## 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	27.0	36.9	78	1972	25	47.5	1989	-17	1963	24	23.2	1977	871	0	.0	.0	12.6	4.0	21.5	.5
Feb	52.6	30.5	41.6	83	1982	24	48.5	1976	1+	1971	9	29.3	1978	656	0	.0	.0	16.0	2.0	16.6	.0
Mar	61.9	38.4	50.2	86+	1963	31	55.4	1973	6	1980	3	44.8	1978	462	2	.0	.0	26.3	.3	9.4	.0
Apr	71.8	45.9	58.9	91	1980	24	64.4	1981	23	1992	2	54.0	1983	208	24	.0	.2	29.4	.0	2.0	.0
May	79.5	55.7	67.6	94+	1977	30	72.8	1987	32+	1976	4	61.2	1976	72	152	.0	1.3	31.0	.0	.1	.0
Jun	87.4	64.9	76.2	99+	1996	16	79.5	1984	43	1972	1	71.7	1974	2	336	.1	10.8	30.0	.0	.0	.0
Jul	90.7	68.7	79.7	104	1986	20	83.5	1986	50	1972	6	76.8	1972	0	456	.7	19.2	31.0	.0	.0	.0
Aug	89.5	67.4	78.5	104	2000	30	82.8	1980	51+	1968	28	74.9	1976	0	418	.7	15.3	31.0	.0	.0	.0
Sep	83.7	60.6	72.2	101+	1980	10	77.4	1998	36	1983	22	66.7	1974	21	234	.1	6.5	30.0	.0	.0	.0
Oct	73.0	47.3	60.2	93	1963	13	67.2	1971	23	1993	31	53.1	1976	206	57	.0	.2	30.9	.0	1.6	.0
Nov	60.8	38.8	49.8	86	1984	1	56.5	1990	9	1976	30	39.8	1976	461	5	.0	.0	24.6	.1	9.0	.0
Dec	50.3	30.7	40.5	78	1984	15	51.2	1984	-8+	1989	22	27.8	1989	759	0	.0	.0	16.7	2.1	18.3	.2
Ann	70.7	48.0	59.4	104+	Aug 2000	30	83.5	Jul 1986	-17	Jan 1963	24	23.2	Jan 1977	3718	1684	1.6	53.5	309.5	8.5	78.5	.7

+ 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](http://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: 1962-2001

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

040-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: LEXINGTON, TN**

**COOP ID: 405210**

**Climate Division: TN 4**

**NWS Call Sign:**

**Elevation: 540 Feet Lat: 35°39N**

**Lon: 88°24W**

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	4.11	3.78	3.69	1999	23	9.34	1999	.25	1986	9.4	7.1	2.7	1.1	.79	1.16	1.76	2.32	2.88	3.49	4.17	5.00	6.10	7.87	9.55
Feb	3.83	3.58	4.50	1989	14	11.19	1989	.10	1995	8.4	6.6	3.0	.9	.81	1.16	1.73	2.24	2.75	3.30	3.91	4.66	5.63	7.19	8.67
Mar	5.40	4.91	3.42	1975	13	12.45	1975	1.94	2000	10.8	8.5	3.8	1.6	2.20	2.70	3.40	3.97	4.51	5.06	5.66	6.34	7.21	8.53	9.74
Apr	4.53	4.13	3.63	1973	20	9.15	1973	1.45	1976	9.2	7.1	3.1	1.1	1.66	2.09	2.70	3.21	3.70	4.19	4.73	5.36	6.16	7.40	8.53
May	5.76	5.36	3.74	1983	15	15.77	1983	2.03	1988	9.7	7.8	3.9	1.7	2.01	2.56	3.35	4.01	4.65	5.30	6.01	6.84	7.91	9.55	11.06
Jun	3.99	3.71	3.47	1974	1	10.31	1974	.39	1988	7.6	6.3	3.2	1.5	1.12	1.49	2.07	2.57	3.06	3.57	4.13	4.80	5.67	7.03	8.30
Jul	4.45	4.10	3.60	1972	17	10.51	1972	.38	1983	8.7	6.8	3.1	1.4	1.21	1.63	2.27	2.83	3.39	3.96	4.61	5.36	6.36	7.91	9.36
Aug	2.74	2.27	3.06	1972	13	8.56	1974	.00	1980	5.4	4.1	1.8	.7	.13	.37	.78	1.18	1.61	2.09	2.66	3.37	4.33	5.93	7.50
Sep	3.58	3.47	5.44	1979	14	11.15	1979	.00	1995	7.2	5.4	2.4	1.2	.40	.83	1.44	1.95	2.47	3.03	3.66	4.42	5.42	7.03	8.56
Oct	3.39	3.35	4.33	2001	14	8.53	1984	.23	1987	5.6	4.3	2.4	1.2	.69	1.00	1.50	1.95	2.41	2.90	3.45	4.12	5.00	6.41	7.75
Nov	4.45	4.20	5.62	1968	28	10.70	1973	1.24	1976	8.2	6.2	3.5	1.6	1.13	1.55	2.20	2.77	3.33	3.93	4.59	5.37	6.40	8.01	9.53
Dec	4.69	3.95	4.51	1978	4	11.63	1978	1.17	1976	9.3	6.9	3.0	1.5	1.22	1.66	2.34	2.94	3.53	4.15	4.85	5.67	6.74	8.43	10.01
Ann	50.92	49.53	5.62	Nov 1968	28	15.77	May 1983	.00+	Sep 1995	99.5	77.1	35.9	15.5	34.69	37.78	41.76	44.80	47.52	50.15	52.88	55.91	59.60	64.97	69.64

+ 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: 1962-2001

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

Complete documentation available from:  
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**Station: LEXINGTON, TN**

**COOP ID: 405210**

**Climate Division: TN 4**

**NWS Call Sign:**

**Elevation: 540 Feet**

**Lat: 35°39N**

**Lon: 88°24W**

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	1.9	.2	#	#	4.5	1978	26	8.5	1985	5	1978	26	1+	1985	1.1	.9	.2	.0	.0	2.8	.7	.1	.0
Feb	1.5	.8	#	#	5.0	1979	18	10.0	1979	5	1979	19	1	1979	.9	.7	.1	.1	.0	1.2	.3	.1	.0
Mar	.3	.0	#	0	3.0	1980	1	3.0	1980	2	1980	2	#+	1991	.3	.1	.1	.0	.0	.1	.0	.0	.0
Apr	#	.0	0	0	#	1973	10	#	1973	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	.1	.0	#	0	1.5	1976	29	1.8	1976	#	1976	29	#	1976	.1	.1	.0	.0	.0	.0	.0	.0	.0
Dec	.2	#	#	0	1.3	1976	31	1.3+	1988	1	1988	8	#+	1989	.2	.1	.0	.0	.0	.2	.0	.0	.0
Ann	4.0	1.0	N/A	N/A	5.0	Feb 1979	18	10.0	Feb 1979	5+	Feb 1979	19	1+	Jan 1985	2.6	1.9	.4	.1	.0	4.3	1.0	.2	.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

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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	5/02	4/26	4/22	4/19	4/15	4/12	4/08	4/04	3/29
32	4/23	4/18	4/13	4/10	4/07	4/04	3/31	3/27	3/22
28	4/08	4/04	4/01	3/29	3/27	3/24	3/22	3/19	3/14
24	3/29	3/22	3/16	3/12	3/08	3/04	2/27	2/22	2/14
20	3/12	3/04	2/26	2/21	2/17	2/12	2/07	2/01	1/24
16	3/05	2/25	2/19	2/15	2/10	2/06	2/01	1/26	1/18
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	10/02	10/07	10/11	10/14	10/17	10/20	10/23	10/27	11/01
32	10/11	10/17	10/21	10/25	10/28	11/01	11/04	11/09	11/14
28	10/31	11/05	11/08	11/11	11/13	11/16	11/19	11/22	11/26
24	11/07	11/12	11/17	11/20	11/23	11/27	11/30	12/04	12/10
20	11/13	11/21	11/27	12/02	12/07	12/12	12/17	12/23	12/31
16	11/24	12/04	12/12	12/19	12/25	12/31	1/07	1/15	1/26
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	207	199	193	188	184	179	174	168	160
32	228	220	214	208	204	199	194	187	179
28	247	241	237	234	231	227	224	220	214
24	285	277	270	265	260	255	249	243	234
20	319	310	303	298	292	287	282	275	266
16	356	338	328	320	314	307	300	292	280

\* 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:  
[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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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	871	656	462	208	72	2	0	0	21	206	461	759	3718
60	724	523	320	106	26	0	0	0	5	116	326	614	2760
57	636	444	242	62	12	0	0	0	2	76	254	527	2255
55	579	394	197	40	7	0	0	0	1	55	211	471	1955
50	442	278	108	10	1	0	0	0	0	20	123	342	1324
32	109	37	2	0	0	0	0	0	0	0	3	58	209

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	261	306	565	805	1104	1324	1479	1441	1203	874	538	322	10222
55	18	18	47	156	398	634	766	728	514	216	55	21	3571
57	13	12	30	118	341	574	704	666	455	175	38	15	3141
60	8	7	15	71	262	484	611	573	368	122	21	9	2551
65	0	0	2	24	152	336	456	418	234	57	5	0	1684
70	0	0	0	5	73	196	301	266	125	21	0	0	987

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	99	158	344	575	857	1086	1239	1201	970	642	327	139	99	257	601	1176	2033	3119	4358	5559	6529	7171	7498	7637
45	49	84	219	431	702	936	1084	1046	820	488	213	74	49	133	352	783	1485	2421	3505	4551	5371	5859	6072	6146
50	21	39	126	296	547	786	929	891	670	342	125	35	21	60	186	482	1029	1815	2744	3635	4305	4647	4772	4807
55	3	13	63	182	395	636	774	736	520	218	61	13	3	16	79	261	656	1292	2066	2802	3322	3540	3601	3614
60	0	1	28	97	251	486	619	581	377	119	21	1	0	1	29	126	377	863	1482	2063	2440	2559	2580	2581
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	63	103	212	361	559	747	848	825	648	414	202	84	63	166	378	739	1298	2045	2893	3718	4366	4780	4982	5066

(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](http://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](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.

- |   |   |
|---|---|
| <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> |
|---|---|

## 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)