

Climatography of the United States

No. 20

1971-2000

Station: LINDEN 2, TN

COOP ID: 405278

Climate Division: TN 3

NWS Call Sign:

Elevation: 498 Feet Lat: 35° 38N Lon: 87° 50W

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	48.8	24.4	36.6	76+	1967	25	44.8	1974	-18	1963	24	23.9	1977	880	0	.0	.0	13.2	3.8	23.6	.6
Feb	54.6	27.4	41.0	82	1996	26	48.1	1990	-10	1971	9	29.8	1978	673	0	.0	.0	16.4	2.0	19.8	.2
Mar	64.1	34.9	49.5	89	1967	14	55.4	1973	6	1996	11	42.8	1996	485	5	.0	.0	26.0	.2	13.4	.0
Apr	73.2	42.7	58.0	90+	1963	2	63.8	1981	20	1966	9	52.4	1983	234	23	.0	.1	29.2	.0	5.1	.0
May	80.0	52.5	66.3	96	1982	30	72.1	1987	30+	1971	4	61.3	1976	84	124	.0	.7	31.0	.0	.2	.0
Jun	87.2	61.3	74.3	100+	1964	23	77.3	1998	36	1966	1	70.4	1974	3	281	@	8.2	30.0	.0	.0	.0
Jul	90.6	66.0	78.3	105	1980	17	81.5	1977	46	1983	7	75.1	1996	0	413	.3	15.9	31.0	.0	.0	.0
Aug	90.1	63.7	76.9	105	2000	30	80.8	1980	41	1986	29	72.8	1992	0	369	.5	13.6	31.0	.0	.0	.0
Sep	84.4	56.3	70.4	101+	1999	6	74.8	1972	35+	1982	22	66.2	1974	27	187	.2	5.6	30.0	.0	.0	.0
Oct	74.1	42.9	58.5	92	1963	13	65.6	1971	21	1980	31	52.0	1987	240	39	.0	.2	30.8	.0	4.8	.0
Nov	62.5	35.1	48.8	86	1984	1	55.1	1985	6	1976	30	40.8	1976	488	1	.0	.0	24.5	.1	13.7	.0
Dec	52.3	27.9	40.1	80+	1998	5	49.3	1984	-8+	1989	22	29.3	1989	773	0	.0	.0	17.4	1.9	21.2	.2
Ann	71.8	44.6	58.2	105+	Aug 2000	30	81.5	Jul 1977	-18	Jan 1963	24	23.9	Jan 1977	3887	1442	1.0	44.3	310.5	8.0	101.8	1.0

+ 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: 1962-2001

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

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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: LINDEN 2, TN

COOP ID: 405278

Climate Division: TN 3

NWS Call Sign:

Elevation: 498 Feet Lat: 35°38N

Lon: 87°50W

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	4.93	5.22	3.13	1974	11	11.34	1974	.77	1986	8.5	6.7	3.0	1.4	1.32	1.78	2.50	3.12	3.74	4.38	5.10	5.94	7.05	8.78	10.40
Feb	4.48	4.14	5.00	1975	23	11.01	1975	1.00	1995	8.1	6.4	3.3	1.4	1.47	1.89	2.52	3.05	3.56	4.09	4.67	5.35	6.22	7.58	8.83
Mar	5.85	4.73	6.97	1975	13	14.37	1975	2.65	1987	9.9	8.0	3.7	1.6	2.20	2.75	3.53	4.19	4.81	5.44	6.13	6.92	7.94	9.50	10.92
Apr	4.64	4.28	3.73	1998	27	10.35	1973	1.09	1992	8.9	7.0	3.0	1.2	1.40	1.84	2.50	3.06	3.62	4.19	4.82	5.56	6.52	8.01	9.40
May	5.99	5.49	5.90	1991	27	15.19	1991	2.74	1988	9.4	7.7	4.0	1.7	2.25	2.81	3.61	4.28	4.91	5.56	6.27	7.08	8.12	9.72	11.19
Jun	4.80	4.48	3.38	1994	9	10.03	1974	.06	1988	8.2	6.6	3.2	1.5	.84	1.27	1.97	2.62	3.29	4.02	4.85	5.85	7.19	9.35	11.41
Jul	4.70	4.26	6.52	1998	13	13.36	1998	.35	1983	8.2	6.1	3.1	1.3	1.15	1.59	2.28	2.89	3.49	4.13	4.84	5.68	6.79	8.54	10.19
Aug	3.25	3.10	3.12	1969	19	7.51	1997	.40	1990	6.5	4.8	2.4	.9	.55	.84	1.31	1.76	2.22	2.71	3.28	3.97	4.89	6.37	7.79
Sep	4.17	3.27	3.85	1996	16	10.70	1977	.76	1984	7.2	5.9	2.8	1.3	.80	1.18	1.79	2.35	2.93	3.54	4.24	5.08	6.20	8.00	9.70
Oct	3.44	3.05	4.03	1972	19	8.49	1972	.33	2000	6.1	4.6	2.3	1.1	.78	1.10	1.60	2.06	2.51	2.99	3.53	4.17	5.01	6.36	7.62
Nov	5.06	4.92	4.44	1988	20	10.50	1988	1.32	1971	8.9	7.4	3.3	1.8	1.62	2.10	2.81	3.41	4.00	4.60	5.27	6.05	7.05	8.61	10.05
Dec	5.88	5.01	3.60	1996	17	12.62	1991	1.68+	1985	9.7	7.9	3.9	2.0	1.71	2.27	3.11	3.84	4.55	5.29	6.10	7.06	8.31	10.26	12.07
Ann	57.19	57.28	6.97	Mar 1975	13	15.19	May 1991	.06	Jun 1988	99.6	79.1	38.0	17.2	39.95	43.27	47.52	50.76	53.64	56.44	59.32	62.52	66.40	72.04	76.93

+ 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:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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Station: LINDEN 2, TN

COOP ID: 405278

Climate Division: TN 3

NWS Call Sign:

Elevation: 498 Feet

Lat: 35°38N

Lon: 87°50W

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	.6	.0	0	0	6.5	1982	13	6.5	1982	2	1977	20	2	1977	.4	.2	.2	.1	.0	.0	.0	.0	.0
Feb	.3	.0	#	0	3.0	1971	8	3.0	1971	5	1985	2	1	1985	.2	.1	.1	.0	.0	.1	.0	.0	.0
Mar	#	.0	#	0	#	1992	12	#+	1992	#	1998	11	#	1998	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	0	0	.3	1976	29	.3	1976	0	0	0	0	0	.1	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.3	.0	#	0	3.5	1997	29	3.5	1997	3	1997	29	#+	1999	.2	.1	.1	.0	.0	.2	.1	.0	.0
Ann	1.2	.0	N/A	N/A	6.5	Jan 1982	13	6.5	Jan 1982	5	Feb 1985	2	2	Jan 1977	.9	.4	.4	.1	.0	.3	.1	.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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Climate Division: TN 3

NWS Call Sign:

Elevation: 498 Feet

Lat: 35° 38N

Lon: 87° 50W

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	5/12	5/06	5/03	4/29	4/26	4/23	4/20	4/16	4/11
32	5/02	4/27	4/23	4/20	4/17	4/15	4/12	4/08	4/03
28	4/20	4/15	4/11	4/08	4/05	4/02	3/29	3/25	3/20
24	4/12	4/05	3/31	3/26	3/22	3/18	3/14	3/09	3/02
20	3/18	3/12	3/07	3/03	2/28	2/24	2/20	2/16	2/09
16	3/14	3/06	2/28	2/24	2/19	2/15	2/10	2/04	1/27
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	9/28	10/02	10/04	10/07	10/09	10/11	10/13	10/16	10/19
32	10/04	10/09	10/13	10/16	10/19	10/22	10/25	10/29	11/03
28	10/15	10/20	10/25	10/28	10/31	11/04	11/07	11/11	11/17
24	10/28	11/02	11/06	11/09	11/12	11/15	11/18	11/22	11/27
20	11/08	11/13	11/17	11/21	11/24	11/27	11/30	12/04	12/10
16	11/16	11/24	11/30	12/05	12/10	12/15	12/20	12/26	1/03
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	182	176	172	168	165	161	158	154	148
32	201	195	191	187	184	180	176	172	166
28	228	222	217	213	209	205	201	196	190
24	257	249	244	239	234	230	225	219	211
20	291	283	278	273	269	264	259	254	246
16	328	316	307	300	293	286	279	270	259

* 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: 498 Feet Lat: 35° 38N Lon: 87° 50W

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	880	673	485	234	84	3	0	0	27	240	488	773	3887
60	725	533	343	130	32	0	0	0	6	139	347	625	2880
57	641	453	267	83	15	0	0	0	2	93	269	537	2360
55	583	402	222	58	9	0	0	0	1	69	221	480	2045
50	443	278	129	19	1	0	0	0	0	26	125	348	1369
32	99	28	3	0	0	0	0	0	0	0	2	57	189

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	242	279	546	779	1062	1268	1436	1392	1150	822	505	307	9788
55	12	9	52	147	358	578	723	679	461	178	34	17	3248
57	9	5	35	112	303	518	661	617	402	140	22	12	2836
60	0	1	18	69	226	428	568	524	316	93	10	7	2260
65	0	0	5	23	124	281	413	369	187	39	1	0	1442
70	0	0	0	5	53	148	258	220	86	12	0	0	782

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	87	146	320	533	800	1019	1177	1131	900	571	293	126	87	233	553	1086	1886	2905	4082	5213	6113	6684	6977	7103
45	42	81	206	390	645	869	1022	976	750	418	187	69	42	123	329	719	1364	2233	3255	4231	4981	5399	5586	5655
50	18	36	116	262	490	719	867	821	601	283	108	35	18	54	170	432	922	1641	2508	3329	3930	4213	4321	4356
55	2	15	60	160	342	569	712	666	452	166	56	10	2	17	77	237	579	1148	1860	2526	2978	3144	3200	3210
60	0	0	23	78	209	419	557	511	312	82	20	1	0	0	23	101	310	729	1286	1797	2109	2191	2211	2212
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	63	113	226	358	525	689	803	768	598	392	205	89	63	176	402	760	1285	1974	2777	3545	4143	4535	4740	4829

(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