

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: MOUNT PLEASANT 1 N, TN

1971-2000

COOP ID: 406340

Climate Division: TN 3

NWS Call Sign:

Elevation: 778 Feet

Lat: 35° 33N

Lon: 87° 12W

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	46.9	26.6	36.8	76	1960	13	45.4	1974	-17	1985	21	24.4	1977	877	0	.0	.0	13.2	4.4	22.5	.6
Feb	52.1	29.6	40.9	84	1962	13	49.1	1990	-6+	1996	4	29.2	1978	677	0	.0	.0	16.1	2.3	18.4	.2
Mar	61.7	38.2	50.0	87+	1963	31	55.7	1973	5	1980	3	43.7	1996	472	4	.0	.0	25.7	.3	12.5	.0
Apr	71.4	46.4	58.9	93	1965	23	65.5	1981	21	1971	9	53.4	1983	211	28	.0	.2	29.3	.0	4.7	.0
May	78.4	55.5	67.0	96+	1962	17	72.6	1987	31+	1963	2	61.7	1976	74	134	.0	.9	31.0	.0	.1	.0
Jun	86.1	64.0	75.1	102+	1954	26	80.7	1998	38	1966	1	70.5	1974	3	305	.1	9.0	30.0	.0	.0	.0
Jul	89.7	68.1	78.9	105+	1954	13	82.2	1998	47	1972	6	75.6	1984	0	431	.7	17.8	31.0	.0	.0	.0
Aug	89.2	65.6	77.4	105	1954	16	81.7	1980	44+	1986	29	72.8	1992	1	385	.3	14.7	31.0	.0	.0	.0
Sep	83.1	58.2	70.7	105	1954	5	75.3	1972	33	1967	29	65.5	1974	30	199	.1	6.2	30.0	.0	.0	.0
Oct	72.7	45.4	59.1	93	1954	5	66.4	1971	23+	1961	27	53.3	1987	226	42	.0	.2	30.7	.0	4.2	.0
Nov	60.9	37.0	49.0	85	1984	1	55.7	1985	9	1976	30	40.9	1976	483	2	.0	.0	24.4	.1	12.6	.0
Dec	50.7	29.2	40.0	76+	1956	3	48.5	1984	-10+	1989	22	26.3	2000	777	0	.0	.0	17.0	2.1	20.0	.2
Ann	70.2	47.0	58.7	105+	Sep 1954	5	82.2	Jul 1998	-17	Jan 1985	21	24.4	Jan 1977	3831	1530	1.2	49.0	309.4	9.2	95.0	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: 1953-2001

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

051-A

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COOP ID: 406340

Climate Division: TN 3

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Elevation: 778 Feet Lat: 35°33N

Lon: 87°12W

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	4.61	4.18	7.10	1999	22	11.40	1999	.37	1986	10.6	7.4	3.3	1.3	1.18	1.61	2.28	2.88	3.46	4.07	4.76	5.57	6.63	8.30	9.87
Feb	4.60	4.08	3.70	1998	3	11.27	1998	1.12	1996	9.9	7.2	3.2	1.3	1.33	1.76	2.42	2.99	3.55	4.13	4.77	5.52	6.50	8.04	9.46
Mar	6.54	5.31	5.40	1975	13	14.06	1975	2.46	1988	11.9	9.0	3.9	2.2	2.44	3.06	3.93	4.67	5.36	6.07	6.85	7.74	8.88	10.64	12.25
Apr	5.08	4.63	4.00	1984	22	11.80	1998	1.28	1986	10.3	7.7	3.5	1.7	1.58	2.06	2.78	3.40	3.99	4.61	5.29	6.08	7.11	8.72	10.20
May	5.91	5.48	3.70	1967	13	12.39	1983	1.67	1988	10.9	8.2	3.9	1.8	1.89	2.46	3.28	3.99	4.68	5.38	6.16	7.06	8.23	10.05	11.73
Jun	4.23	3.85	4.55	1997	1	10.52	1997	.44	1988	9.4	6.7	3.2	1.2	.98	1.38	2.00	2.55	3.10	3.69	4.34	5.12	6.15	7.78	9.31
Jul	5.10	4.23	5.90	1998	14	18.45	1998	1.43	1977	10.4	7.4	3.4	1.4	1.43	1.91	2.65	3.28	3.91	4.56	5.29	6.14	7.25	8.99	10.61
Aug	3.46	3.31	3.38	1985	17	7.39	1979	.72	1990	7.9	5.4	2.6	1.0	1.01	1.34	1.84	2.26	2.68	3.11	3.59	4.15	4.88	6.02	7.08
Sep	4.28	3.61	7.00	1996	4	11.71	1977	.25	1984	8.4	5.8	2.9	1.4	.60	.95	1.57	2.16	2.78	3.47	4.26	5.23	6.54	8.68	10.74
Oct	3.43	2.75	4.90	1972	19	8.69	1984	.03	2000	7.3	5.1	2.5	.9	.60	.90	1.40	1.87	2.35	2.87	3.46	4.18	5.14	6.69	8.17
Nov	5.30	5.09	4.75	1973	27	10.80	1986	1.24	1971	9.3	6.8	3.7	1.7	1.65	2.16	2.90	3.54	4.16	4.81	5.51	6.34	7.41	9.07	10.61
Dec	5.51	4.68	6.74	1956	13	12.04	1990	1.06	1985	11.4	8.2	3.5	1.6	1.55	2.07	2.86	3.55	4.23	4.93	5.71	6.64	7.83	9.71	11.46
Ann	58.05	58.15	7.10	Jan 1999	22	18.45	Jul 1998	.03	Oct 2000	117.7	84.9	39.6	17.5	40.01	43.46	47.90	51.29	54.30	57.23	60.26	63.62	67.71	73.66	78.82

+ 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: 1953-2001

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

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Station: MOUNT PLEASANT 1 N, TN

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Climate Division: TN 3

NWS Call Sign:

Elevation: 778 Feet

Lat: 35°33N

Lon: 87°12W

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	1.2	-99.9	#	0	5.8	1982	13	5.8	1982	6	1982	13	1	1982	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Feb	1.2	#	#	0	3.0	1996	16	6.0	1971	4	1996	2	#+	1997	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Mar	.5	.0	#	0	4.0	1996	19	4.0	1996	4	1971	26	#	1971	-9.9	-9.9	-9.9	-9.9	-9.9	.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	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Sep	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Oct	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0
Nov	.2	.0	#	0	1.0	1996	10	1.0	1996	1	1976	29	#+	1996	.2	.1	.0	.0	.0	.1	.0	.0	.0
Dec	.4	.0	#	0	2.0	1988	8	2.0	1988	2	1988	8	#+	2000	-9.9	-9.9	-9.9	-9.9	-9.9	.1	.0	.0	.0
Ann	3.5	-9.9	N/A	N/A	5.8	Jan 1982	13	6.0	Feb 1971	6	Jan 1982	13	1	Jan 1982	-9.9	-9.9	-9.9	-9.9	-9.9	.2	.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

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No. 20 1971-2000

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COOP ID: 406340

Climate Division: TN 3

NWS Call Sign:

Elevation: 778 Feet

Lat: 35°33N

Lon: 87°12W

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	5/06	5/02	4/28	4/24	4/21	4/17	4/12	4/06
32	4/28	4/23	4/20	4/17	4/14	4/11	4/08	4/05	3/31
28	4/18	4/13	4/09	4/06	4/03	3/31	3/28	3/24	3/19
24	4/09	4/02	3/29	3/24	3/21	3/17	3/13	3/08	3/02
20	3/19	3/12	3/07	3/03	2/26	2/22	2/18	2/13	2/05
16	3/13	3/04	2/26	2/20	2/15	2/09	2/04	1/28	1/19
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	10/05	10/07	10/10	10/12	10/15	10/18	10/22
32	10/04	10/10	10/13	10/17	10/20	10/23	10/26	10/29	11/04
28	10/16	10/22	10/26	10/30	11/02	11/05	11/09	11/13	11/19
24	10/31	11/06	11/11	11/14	11/18	11/22	11/25	11/30	12/06
20	11/09	11/16	11/20	11/24	11/28	12/02	12/06	12/10	12/17
16	11/22	12/01	12/07	12/12	12/17	12/22	12/27	1/02	1/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	190	183	177	172	168	163	159	153	145
32	205	199	195	191	188	184	181	176	170
28	234	227	221	217	212	208	203	198	190
24	268	259	252	247	242	236	231	224	215
20	301	292	285	279	274	268	263	256	246
16	342	329	320	312	305	297	289	280	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: MOUNT PLEASANT 1 N, TN

COOP ID: 406340

Climate Division: TN 3 NWS Call Sign: Elevation: 778 Feet Lat: 35° 33N Lon: 87° 12W

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	877	677	472	211	74	3	0	1	30	226	483	777	3831
60	725	537	331	113	26	0	0	0	7	128	344	629	2840
57	640	460	254	69	12	0	0	0	3	84	266	542	2330
55	582	408	210	47	7	0	0	0	1	61	220	485	2021
50	444	286	119	14	0	0	0	0	0	22	125	354	1364
32	105	33	2	0	0	0	0	0	0	0	3	61	204

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	251	281	558	806	1083	1292	1454	1407	1159	839	511	307	9948
55	15	11	52	163	377	602	741	694	470	187	38	18	3368
57	11	7	34	125	320	542	679	632	411	148	25	13	2947
60	4	1	18	79	241	452	586	539	326	99	12	8	2365
65	0	0	4	28	134	305	431	385	199	42	2	0	1530
70	0	0	0	7	60	172	276	240	100	13	0	0	868

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	94	145	320	539	819	1035	1195	1150	913	590	295	135	94	239	559	1098	1917	2952	4147	5297	6210	6800	7095	7230
45	47	79	206	396	664	885	1040	995	763	438	193	74	47	126	332	728	1392	2277	3317	4312	5075	5513	5706	5780
50	20	38	119	266	509	735	885	840	613	296	112	36	20	58	177	443	952	1687	2572	3412	4025	4321	4433	4469
55	3	12	61	158	359	585	730	685	467	182	57	11	3	15	76	234	593	1178	1908	2593	3060	3242	3299	3310
60	0	0	23	80	227	435	575	530	323	94	19	0	0	0	23	103	330	765	1340	1870	2193	2287	2306	2306
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	59	106	218	353	537	705	813	784	606	394	197	91	59	165	383	736	1273	1978	2791	3575	4181	4575	4772	4863

(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