U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: TECUMSEH, NE **COOP ID: 258465**

Climate Division: NE 9 **NWS Call Sign:** **Elevation: 1,150 Feet** **Lat: 40˚22N** **Lon: 96˚13W**

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	34.0	12.5	23.3	72	1981	25	34.5	1989	-25	1974	12	9.8	1979	1294	0	.0	.0	3.9	14.0	30.3	6.8
Feb	40.3	17.9	29.1	79+	1995	26	38.9	1987	-24	1971	8	14.6	1979	1005	0	.0	.0	7.9	9.5	25.6	3.9
Mar	51.8	28.9	40.4	89	1986	30	45.7	1986	-22	1962	1	31.6	1975	765	0	.0	.0	16.5	2.7	20.3	.5
Apr	63.6	39.7	51.7	96+	1989	25	59.9	1981	2	1975	3	46.1	1983	408	7	.0	.6	25.6	.1	7.6	.0
May	73.8	50.8	62.3	99	2000	31	68.8	1977	22	1961	2	56.4	1995	159	74	.0	1.0	30.9	.0	.7	.0
Jun	84.1	61.0	72.6	107+	1988	26	78.1	1988	37	1990	4	67.2	1982	16	242	.6	8.4	30.0	.0	.0	.0
Jul	88.6	66.0	77.3	109+	1980	15	83.0	1980	41	1972	5	72.9	1992	0	381	2.5	14.6	31.0	.0	.0	.0
Aug	86.8	63.3	75.1	108	1983	17	82.8	1983	38	1950	20	69.6	1992	12	324	1.7	12.2	31.0	.0	.0	.0
Sep	79.1	52.9	66.0	107	2000	3	72.4	1998	23	1984	29	60.0	1993	83	114	.4	5.4	29.9	.0	.6	.0
Oct	67.3	39.8	53.6	95+	2000	1	58.3	2000	11	1997	27	47.1	1976	359	5	.0	.3	28.6	@	7.3	.0
Nov	50.5	28.0	39.3	84+	1999	14	47.9	1999	-10	1952	28	31.3	1991	774	0	.0	.0	15.5	2.5	21.3	.3
Dec	37.8	17.1	27.5	77	1964	23	32.9	1979	-29	1989	23	9.7	1983	1163	0	.0	.0	5.8	10.2	29.7	3.5
Ann	63.1	39.8	51.5	109+	Jul 1980	15	83.0	Jul 1980	-29	Dec 1989	23	9.7	Dec 1983	6038	1147	5.2	42.5	256.6	39.0	143.4	15.0

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

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

Issue Date: February 2004

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: TECUMSEH, NE **COOP ID: 258465**

Climate Division: NE 9 **NWS Call Sign:** **Elevation: 1,150 Feet** **Lat: 40˚22N** **Lon: 96˚13W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	.89	.74	1.52	1949	3	2.01	1979	.00+	1986
Feb	1.03	.96	1.78	1958	27	2.30	1998	.00	1977
Mar	2.68	2.38	2.38	1957	24	6.97	1973	.02	1994
Apr	2.88	2.41	2.02	1964	26	7.59	1984	.62	1989
May	4.43	4.14	3.95	2001	5	12.77	1996	1.29	2000
Jun	3.56	3.01	5.00	1963	24	8.26	1984	1.08	1973
Jul	4.64	3.81	5.42	1978	22	13.97	1993	.64	1983
Aug	3.60	2.60	5.82	1982	13	9.89	1982	.16	1976
Sep	3.33	2.76	4.54	1973	26	11.91	1973	.55	1990
Oct	2.25	1.91	3.49	1962	20	5.58	1973	.00	1975
Nov	2.02	1.84	2.20	1952	17	4.98	1971	.00	1989
Dec	1.10	.93	1.52	1982	28	2.74	1973	.03	1976
Ann	32.41	30.67	5.82	Aug 1982	13	13.97	Jul 1993	.00+	Nov 1989

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	5.1	2.7	.3	@
Feb	5.2	2.8	.6	.1
Mar	7.4	5.1	1.9	.8
Apr	9.6	6.1	2.0	.6
May	11.5	7.3	2.9	1.1
Jun	9.1	5.9	2.6	.9
Jul	9.3	6.7	3.2	1.4
Aug	8.1	5.7	2.4	.9
Sep	7.6	5.1	2.1	1.0
Oct	6.7	4.5	1.4	.5
Nov	6.2	4.1	1.4	.5
Dec	5.2	3.0	.5	.2
Ann	91.0	59.0	21.3	8.0

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.00	.14	.32	.46	.60	.75	.92	1.12	1.39	1.82	2.23
Feb	.11	.23	.40	.55	.70	.86	1.04	1.27	1.56	2.03	2.48
Mar	.19	.36	.70	1.07	1.48	1.96	2.53	3.25	4.25	5.94	7.62
Apr	.65	.92	1.34	1.72	2.10	2.50	2.95	3.49	4.20	5.32	6.38
May	1.33	1.75	2.38	2.92	3.45	4.00	4.61	5.32	6.24	7.67	9.00
Jun	1.04	1.38	1.89	2.33	2.76	3.20	3.69	4.27	5.02	6.19	7.28
Jul	1.04	1.47	2.15	2.76	3.37	4.02	4.75	5.63	6.78	8.61	10.33
Aug	.37	.63	1.13	1.63	2.17	2.78	3.49	4.39	5.61	7.64	9.62
Sep	.61	.91	1.40	1.85	2.31	2.81	3.38	4.06	4.97	6.43	7.83
Oct	.22	.48	.85	1.18	1.52	1.88	2.29	2.78	3.44	4.51	5.53
Nov	.09	.27	.57	.87	1.18	1.54	1.96	2.49	3.20	4.39	5.56
Dec	.11	.19	.34	.50	.66	.85	1.06	1.34	1.71	2.33	2.93
Ann	21.11	23.22	25.97	28.08	29.97	31.81	33.73	35.87	38.48	42.31	45.64

\+ 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: 1948-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

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: TECUMSEH, NE **COOP ID: 258465**

Climate Division: NE 9 **NWS Call Sign:** **Elevation: 1,150 Feet** **Lat: 40°22N** **Lon: 96°13W**

Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	7.3	5.9	2	1
Feb	7.0	6.3	2	1
Mar	4.5	2.3	1	#
Apr	1.2	.0	#	#
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.4	.0	#	0
Nov	2.6	1.0	#	#
Dec	4.3	3.0	1	#
Ann	27.3	18.5	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	8.0	1979	13	19.0	1975	14	1971	4	8	1979
Feb	12.0	1978	13	19.5	1978	16	1978	20	10	1979
Mar	12.0	1998	8	19.0	1984	18	1978	2	6	1978
Apr	11.0	1992	21	11.0	1992	11	1992	21	1+	1997
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	4.0	1996	23	4.5	1997	5	1997	27	#+	1997
Nov	8.0	1975	26	11.5	1991	8	1975	26	1	1992
Dec	8.5	1981	17	16.0	1981	12	1983	29	6	1983
Ann	12.0+	Mar 1998	8	19.5	Feb 1978	18	Mar 1978	2	10	Feb 1979

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	3.9	2.6	.9	.5	.0
Feb	3.0	2.1	.7	.3	.1
Mar	1.7	1.4	.6	.3	.1
Apr	.6	.4	.1	@	@
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.2	.2	.1	.0	.0
Nov	1.2	.8	.4	.1	.0
Dec	2.9	2.1	.6	.2	.0
Ann	13.5	9.6	3.4	1.4	.2

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	14.0	9.8	6.1	.8
Feb	10.8	7.5	4.4	1.6
Mar	4.1	2.3	1.1	.5
Apr	.5	.2	@	@
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.3	.1	@	.0
Nov	2.0	.9	.2	.0
Dec	8.0	4.0	1.7	.4
Ann	39.7	24.8	13.5	3.3

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: TECUMSEH, NE **COOP ID: 258465**

Climate Division: NE 9 **NWS Call Sign:** **Elevation: 1,150 Feet** **Lat: 40˚22N** **Lon: 96˚13W**

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	5/20	5/15	5/12	5/09	5/06	5/03	4/30	4/27	4/22
32	5/12	5/07	5/04	5/01	4/28	4/25	4/22	4/19	4/14
28	4/29	4/25	4/22	4/19	4/17	4/15	4/12	4/09	4/05
24	4/19	4/14	4/11	4/08	4/05	4/02	3/30	3/27	3/22
20	4/11	4/05	4/01	3/28	3/25	3/21	3/18	3/13	3/08
16	4/01	3/26	3/21	3/17	3/14	3/10	3/06	3/01	2/23

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	9/15	9/19	9/22	9/24	9/26	9/29	10/01	10/04	10/08
32	9/20	9/26	9/30	10/03	10/06	10/10	10/13	10/17	10/22
28	9/27	10/02	10/06	10/09	10/12	10/15	10/19	10/22	10/28
24	10/11	10/17	10/21	10/25	10/29	11/01	11/05	11/10	11/16
20	10/18	10/24	10/29	11/03	11/06	11/10	11/15	11/19	11/26
16	10/31	11/07	11/11	11/15	11/19	11/23	11/27	12/02	12/09

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	162	155	150	146	143	139	135	130	124
32	179	173	168	164	161	157	153	149	142
28	196	190	185	181	178	174	170	166	159
24	229	221	216	211	206	201	196	191	183
20	256	246	238	232	226	220	214	206	196
16	280	270	262	256	250	244	238	230	220

***** 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/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: TECUMSEH, NE **COOP ID: 258465**

Climate Division: NE 9 **NWS Call Sign:** **Elevation: 1,150 Feet** **Lat: 40˚22N** **Lon: 96˚13W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1294	1005	765	408	159	16	0	12	83	359	774	1163	6038
60	1139	865	611	276	81	3	0	2	30	223	624	1008	4862
57	1046	790	525	207	48	1	0	0	14	155	537	915	4238
55	985	737	467	167	33	0	0	0	7	117	482	853	3848
50	836	608	332	87	10	0	0	0	0	50	349	709	2981
32	362	240	51	0	0	0	0	0	0	0	57	261	971

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	91	158	309	590	938	1215	1404	1335	1021	669	273	121	8124
55	1	12	12	67	258	525	691	622	338	72	9	0	2607
57	0	8	8	47	212	466	629	560	285	49	4	0	2268
60	0	0	1	25	151	378	536	469	211	24	0	0	1795
65	0	0	0	7	74	242	381	324	114	5	0	0	1147
70	0	0	0	1	28	130	237	197	51	0	0	0	644

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	9	43	148	367	696	983	1161	1092	784	439	124	19	9	52	200	567	1263	2246	3407	4499	5283	5722	5846	5865
45	0	19	83	248	542	833	1006	937	637	306	62	4	0	19	102	350	892	1725	2731	3668	4305	4611	4673	4677
50	0	4	41	153	392	683	851	782	493	193	25	0	0	4	45	198	590	1273	2124	2906	3399	3592	3617	3617
55	0	1	15	84	258	533	696	627	356	100	5	0	0	1	16	100	358	891	1587	2214	2570	2670	2675	2675
60	0	0	3	39	146	388	541	474	235	47	2	0	0	0	3	42	188	576	1117	1591	1826	1873	1875	1875
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	11	43	110	235	429	651	777	723	506	290	90	23	11	54	164	399	828	1479	2256	2979	3485	3775	3865	3888

(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.
Compete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

a. Temperature/ Precipitation Tables
   1. 1971-2000 Monthly Normals
   2. Cooperative Summary of the Day
   3. National Weather Service station records
   4. 1971-2000 serially complete daily data

b. Degree Day Table
   1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
   2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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