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: CENTRAL CITY, NE **COOP ID: 251560**

Climate Division: NE 6 **NWS Call Sign:** **Elevation: 1,695 Feet** **Lat: 41˚07N** **Lon: 98˚01W**

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	35.7	14.1	24.9	74	1990	10	36.1	1986	-28	1963	27	10.1	1979	1244	0	.0	.0	4.4	13.1	30.1	5.3
Feb	41.9	19.5	30.7	79+	1995	25	40.2	1999	-24	1962	28	16.4	1978	961	0	.0	.0	9.1	8.8	24.7	2.8
Mar	52.5	28.7	40.6	90+	1978	31	47.2	1986	-23	1960	4	33.1	1996	756	0	.0	@	18.0	2.5	19.9	.4
Apr	64.9	39.6	52.3	95+	1989	26	60.5	1981	1	1936	3	45.0	1983	391	8	.0	.6	26.6	.2	6.9	.0
May	74.2	51.3	62.8	105	1934	29	67.5	1977	24+	1967	4	56.3	1995	141	71	.0	1.1	30.9	.0	.3	.0
Jun	84.1	61.0	72.6	108+	1936	26	78.2	1988	35	1964	2	67.4	1982	14	239	.5	8.0	30.0	.0	.0	.0
Jul	87.4	65.4	76.4	116+	1936	25	81.3	1974	43	1971	30	69.8	1992	1	354	1.1	12.5	31.0	.0	.0	.0
Aug	85.6	63.6	74.6	113	1934	8	82.4	1983	39+	1964	12	69.1	1992	12	310	.2	10.3	31.0	.0	.0	.0
Sep	78.9	54.2	66.6	107	1931	6	72.6	1998	24	1951	28	61.7	1993	68	114	@	4.3	29.8	.0	.3	.0
Oct	67.9	41.9	54.9	97	1947	6	58.1	1974	9	1997	27	49.6	1976	317	4	.0	.3	28.5	.1	4.7	.0
Nov	49.6	28.1	38.9	84	1945	5	48.6	1999	-11	1964	30	28.9	1985	785	0	.0	.0	14.7	3.3	20.2	.4
Dec	38.3	18.0	28.2	82	1939	6	35.9	1979	-26	1989	22	9.8	1983	1144	0	.0	.0	5.5	9.9	29.4	2.8
Ann	63.4	40.5	52.0	116+	Jul 1936	25	82.4	Aug 1983	-28	Jan 1963	27	9.8	Dec 1983	5834	1100	1.8	37.1	259.5	37.9	136.5	11.7

+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1878-2001

(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: CENTRAL CITY, NE **COOP ID: 251560**

Climate Division: NE 6 **NWS Call Sign:** **Elevation: 1,695 Feet** **Lat: 41˚07N** **Lon: 98˚01W**

Precipitation (inches)

Precipitation Totals

Means/Medians(1)

Month	Mean	Median
Jan	.60	.50
Feb	.68	.57
Mar	2.09	1.70
Apr	2.85	2.43
May	4.47	4.62
Jun	3.44	3.09
Jul	3.54	3.56
Aug	2.71	2.46
Sep	2.77	2.19
Oct	1.69	1.49
Nov	1.55	1.28
Dec	.70	.62
Ann	27.09	28.16

Extremes

Month	Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	.89	1992	1	1.85	1992	.00+	1987
Feb	1.70	1971	18	2.80	1971	.00+	1996
Mar	3.14	1987	23	8.45	1987	.00	1994
Apr	2.76	1998	7	8.17	1978	.29	1989
May	3.89	1951	31	8.75	1982	.60	1994
Jun	4.83	1967	14	7.46	1975	.61	1978
Jul	4.39	1991	9	7.35	1993	.33	1974
Aug	3.96	1959	14	6.82	1987	.33	1988
Sep	3.30	1989	8	8.60	1985	.29	1984
Oct	3.45	1968	16	4.02	1979	.03	1976
Nov	3.19	1996	16	4.70	1996	.02	1989
Dec	1.42	1974	14	2.02	1973	.00	1995
Ann	4.83	Jun 1967	14	8.75	May 1982	.00+	Feb 1996

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	3.6	1.6	.2	.0
Feb	3.9	2.0	.2	.1
Mar	5.9	3.9	1.4	.4
Apr	7.4	5.0	1.9	.8
May	9.5	7.1	3.0	1.2
Jun	7.2	5.6	2.5	.9
Jul	7.5	5.6	2.3	1.0
Aug	6.3	4.8	1.7	.7
Sep	5.6	4.1	2.0	.8
Oct	4.5	3.5	1.2	.4
Nov	4.9	3.0	1.1	.3
Dec	3.8	2.0	.4	.1
Ann	70.1	48.2	17.9	6.7

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	.08	.19	.29	.39	.49	.61	.75	.93	1.24	1.53
Feb	.00	.07	.18	.29	.40	.53	.67	.84	1.08	1.47	1.85
Mar	.03	.14	.38	.66	.99	1.39	1.88	2.51	3.41	4.96	6.51
Apr	.44	.68	1.09	1.48	1.89	2.34	2.85	3.48	4.32	5.70	7.01
May	1.46	1.88	2.51	3.04	3.55	4.08	4.66	5.33	6.20	7.55	8.80
Jun	.79	1.11	1.62	2.07	2.52	3.00	3.54	4.18	5.02	6.35	7.61
Jul	.95	1.28	1.79	2.24	2.68	3.15	3.66	4.27	5.06	6.30	7.46
Aug	.41	.64	1.03	1.41	1.79	2.22	2.71	3.31	4.11	5.42	6.68
Sep	.29	.50	.88	1.27	1.68	2.15	2.70	3.38	4.32	5.86	7.37
Oct	.09	.18	.38	.60	.86	1.17	1.55	2.04	2.73	3.90	5.08
Nov	.06	.14	.31	.51	.75	1.03	1.39	1.85	2.51	3.65	4.80
Dec	.05	.13	.24	.35	.45	.57	.70	.87	1.09	1.45	1.79
Ann	17.52	19.31	21.63	23.42	25.02	26.59	28.21	30.03	32.25	35.50	38.34

\+ 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: 1878-2001
(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: CENTRAL CITY, NE **COOP ID: 251560**

Climate Division: NE 6 **NWS Call Sign:** **Elevation: 1,695 Feet** **Lat: 41°07N** **Lon: 98°01W**

Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	3.7	2.8	3	2
Feb	4.8	4.6	2	1
Mar	4.3	4.5	1	1
Apr	.9	.0	#	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
Oct	.7	.0	#	0
Nov	3.6	2.0	1	#
Dec	5.6	4.8	2	1
Ann	23.6	18.7	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	6.4	1993	20	10.3	1999	19	1974	12	13	1974
Feb	12.4	1984	18	13.7	1978	14	1978	18	9	1979
Mar	9.2	1977	19	10.4	1984	17	1993	3	4	1993
Apr	6.3	1997	11	13.7	1997	7	1997	11	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	1.2	1985	29	1.2	1985	1	1985	29	#	1985
Oct	8.0	1997	26	11.5	1997	7	1991	31	#+	1997
Nov	10.0	1972	13	11.7	1983	11	1983	30	4	1991
Dec	12.2	1974	14	21.8	1973	17	1973	30	12	1983
Ann	12.4	Feb 1984	18	21.8	Dec 1973	19	Jan 1974	12	13	Jan 1974

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	3.0	1.4	.5	.1	.0
Feb	2.5	1.5	.4	.1	@
Mar	1.6	1.3	.6	.2	.0
Apr	.5	.3	.1	@	.0
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
Oct	.1	.1	.1	.1	.0
Nov	1.9	1.0	.3	.2	@
Dec	2.8	1.6	.5	.2	@
Ann	12.4	7.2	2.5	.9	@

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	14.5	9.4	5.8	2.0
Feb	11.0	8.0	5.6	1.6
Mar	5.3	3.1	2.0	.4
Apr	.4	.2	.1	.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
Oct	.2	.1	.1	.0
Nov	3.9	2.0	1.3	.3
Dec	10.4	5.4	2.8	.6
Ann	45.7	28.2	17.7	4.9

+ 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: CENTRAL CITY, NE **COOP ID: 251560**

Climate Division: NE 6 **NWS Call Sign:** **Elevation: 1,695 Feet** **Lat: 41˚07N** **Lon: 98˚01W**

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	5/09	5/06	5/04	5/02	4/29	4/27	4/24	4/20
32	5/07	5/03	4/30	4/27	4/25	4/23	4/20	4/17	4/13
28	4/24	4/20	4/17	4/14	4/11	4/09	4/06	4/03	3/29
24	4/15	4/11	4/08	4/05	4/03	3/31	3/29	3/25	3/21
20	4/06	4/01	3/28	3/25	3/22	3/19	3/16	3/12	3/07
16	4/02	3/27	3/22	3/18	3/15	3/11	3/07	3/03	2/25

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	9/16	9/20	9/23	9/26	9/29	10/01	10/04	10/07	10/11
32	9/24	9/30	10/03	10/07	10/10	10/13	10/16	10/20	10/25
28	10/05	10/10	10/14	10/17	10/20	10/22	10/25	10/29	11/03
24	10/19	10/23	10/26	10/29	10/31	11/03	11/05	11/08	11/12
20	10/20	10/26	10/31	11/04	11/08	11/11	11/15	11/20	11/27
16	10/31	11/07	11/11	11/15	11/19	11/22	11/26	12/01	12/07

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	157	153	149	146	142	137	130
32	185	179	174	170	167	163	159	155	149
28	209	203	198	194	191	187	183	178	172
24	228	222	218	214	211	207	204	199	194
20	255	247	240	235	230	225	219	213	204
16	278	268	260	254	248	242	236	229	218

***** 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: CENTRAL CITY, NE **COOP ID: 251560**

Climate Division: NE 6 **NWS Call Sign:** **Elevation: 1,695 Feet** **Lat: 41˚07N** **Lon: 98˚01W**

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	1244	961	756	391	141	14	1	12	68	317	785	1144	5834
60	1089	827	602	261	66	2	0	1	20	184	635	989	4676
57	997	749	515	194	37	0	0	0	8	120	550	896	4066
55	937	696	457	156	24	0	0	0	3	87	495	835	3690
50	793	569	321	79	6	0	0	0	0	34	362	691	2855
32	336	218	44	0	0	0	0	0	0	0	66	251	915

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	115	181	311	608	953	1216	1376	1322	1036	710	272	131	8231
55	3	15	11	73	264	526	663	609	350	84	10	1	2609
57	1	12	7	52	216	466	601	547	294	55	5	0	2256
60	0	6	1	28	152	378	508	455	217	26	0	0	1771
65	0	0	0	8	71	239	354	310	114	4	0	0	1100
70	0	0	0	1	25	126	213	184	48	0	0	0	597

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	12	48	152	392	713	983	1137	1087	802	476	116	15	12	60	212	604	1317	2300	3437	4524	5326	5802	5918	5933
45	1	16	85	262	559	833	982	932	653	336	57	2	1	17	102	364	923	1756	2738	3670	4323	4659	4716	4718
50	0	3	40	160	406	683	827	777	510	215	21	0	0	3	43	203	609	1292	2119	2896	3406	3621	3642	3642
55	0	0	13	87	270	534	672	622	365	112	6	0	0	0	13	100	370	904	1576	2198	2563	2675	2681	2681
60	0	0	2	38	153	385	517	467	239	47	0	0	0	0	2	40	193	578	1095	1562	1801	1848	1848	1848
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	17	44	114	251	442	654	771	731	517	301	79	17	17	61	175	426	868	1522	2293	3024	3541	3842	3921	3938

(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