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: COLUMBIA UNIV OF SC, SC **COOP ID: 381944**

Climate Division: SC 6 **NWS Call Sign:** **Elevation: 242 Feet** **Lat: 33˚59N** **Lon: 81˚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	58.1	36.5	47.3	84	1975	31	60.1	1974	1	1985	21	37.2	1977	562	0	.0	.0	24.5	.3	11.9	.0
Feb	63.2	39.5	51.4	86	1996	27	58.4	1990	10	1973	12	42.7	1978	388	6	.0	.0	24.1	.2	7.9	.0
Mar	71.3	46.5	58.9	90+	1985	30	65.3	1997	12	1980	3	53.5	1971	217	28	.0	.1	30.3	@	2.7	.0
Apr	79.5	53.1	66.3	96+	2001	10	70.3	1981	29	1983	20	61.1	1983	57	96	.0	2.2	30.0	.0	.2	.0
May	86.3	61.4	73.9	102+	2000	27	77.5	2000	39+	1989	8	70.4	1992	4	278	.2	8.2	31.0	.0	.0	.0
Jun	92.0	68.2	80.1	109	1998	29	84.6	1986	50+	1984	1	75.6	1997	0	453	2.2	18.8	30.0	.0	.0	.0
Jul	95.2	71.9	83.6	109	1999	31	88.4	1986	58+	1982	12	80.9	1984	0	575	4.8	25.5	31.0	.0	.0	.0
Aug	93.3	70.9	82.1	109+	1999	1	86.8	1983	55	1930	23	78.8	1981	0	530	2.6	22.0	31.0	.0	.0	.0
Sep	88.3	65.7	77.0	101+	1983	12	81.3	1980	43	1967	30	74.7	2000	0	360	.3	11.7	30.0	.0	.0	.0
Oct	78.7	53.8	66.3	99	1954	5	72.0	1984	28	1977	17	61.3	1987	79	117	.0	.6	31.0	.0	.2	.0
Nov	69.2	45.4	57.3	89+	1974	3	65.2	1985	15+	1950	26	50.9	1976	255	24	.0	.0	29.5	.0	3.5	.0
Dec	60.7	38.7	49.7	84	1998	4	58.9	1971	7+	1983	25	40.0	2000	482	8	.0	.0	26.2	.1	9.2	.0
Ann	78.0	54.3	66.2	109+	Aug 1999	1	88.4	Jul 1986	1	Jan 1985	21	37.2	Jan 1977	2044	2475	10.1	89.1	348.6	.6	35.6	.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: 1930-2001

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

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: COLUMBIA UNIV OF SC, SC

COOP ID: 381944

Climate Division: SC 6 **NWS Call Sign:** **Elevation: 242 Feet** **Lat: 33˚59N** **Lon: 81˚01W**

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	4.57	4.14	3.11	1993	8	9.46	2000	.74	1981
Feb	3.75	3.77	3.33	1962	22	8.01	1979	.64	1976
Mar	4.56	4.37	3.72	1960	30	10.01	1980	.70	1985
Apr	2.96	2.87	2.81	1956	11	7.31	1982	.25	1986
May	3.21	2.90	4.19	1991	6	7.42	1975	.68	1983
Jun	5.19	4.88	4.22	1984	21	12.60	1995	.86	1990
Jul	5.20	4.54	5.75	1959	9	14.93	1991	1.72	1980
Aug	4.51	3.73	4.53	1949	16	10.39	1986	.82	1983
Sep	3.83	3.79	5.90	1960	30	8.77	1980	.18	1985
Oct	2.89	2.35	4.02	1990	23	11.88	1990	.00	2000
Nov	3.11	2.89	2.88+	1986	12	7.45	1985	.34	1973
Dec	3.36	2.88	2.91	1970	16	9.82	1981	.43	1988
Ann	47.14	47.42	5.90	Sep 1960	30	14.93	Jul 1991	.00	Oct 2000

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	11.1	7.5	3.4	1.2
Feb	9.0	6.2	2.6	1.2
Mar	9.8	7.2	3.1	1.5
Apr	7.8	5.6	2.1	.8
May	9.5	6.2	2.0	.8
Jun	11.2	7.6	3.2	1.6
Jul	12.2	8.1	3.3	1.5
Aug	10.7	6.6	2.7	1.3
Sep	8.8	5.7	2.4	1.3
Oct	6.7	4.0	1.6	.9
Nov	8.1	4.9	2.4	.8
Dec	9.6	6.0	2.4	.8
Ann	114.5	75.6	31.2	13.7

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	1.51	1.94	2.58	3.12	3.64	4.17	4.76	5.45	6.33	7.70	8.97
Feb	1.00	1.36	1.90	2.38	2.84	3.33	3.88	4.52	5.36	6.68	7.91
Mar	1.21	1.64	2.30	2.88	3.45	4.05	4.71	5.50	6.53	8.14	9.66
Apr	.41	.65	1.07	1.48	1.91	2.39	2.94	3.62	4.53	6.02	7.46
May	.90	1.20	1.66	2.06	2.46	2.87	3.32	3.86	4.56	5.66	6.68
Jun	1.30	1.79	2.54	3.21	3.87	4.57	5.35	6.27	7.48	9.39	11.18
Jul	1.31	1.80	2.55	3.22	3.89	4.58	5.36	6.29	7.49	9.41	11.20
Aug	1.05	1.47	2.13	2.72	3.31	3.93	4.63	5.46	6.56	8.30	9.94
Sep	.45	.75	1.29	1.82	2.39	3.02	3.76	4.68	5.92	7.97	9.96
Oct	.09	.31	.71	1.13	1.59	2.12	2.75	3.54	4.64	6.48	8.30
Nov	.76	1.05	1.51	1.91	2.31	2.73	3.20	3.76	4.49	5.65	6.74
Dec	.73	1.04	1.53	1.98	2.43	2.90	3.44	4.08	4.92	6.27	7.54
Ann	36.64	38.74	41.39	43.38	45.12	46.80	48.51	50.40	52.66	55.91	58.69

\+ 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: 1930-2001
(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: COLUMBIA UNIV OF SC, SC **COOP ID: 381944**

Climate Division: SC 6 **NWS Call Sign:** **Elevation: 242 Feet** **Lat: 33°59N** **Lon: 81°01W**

Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	.0	#	0	2.5	2000	23	2.5	2000	4	2000	25	1	2000	.2	.1	.0	.0	.0	.4	.1	.0	.0
Feb	.9	.0	#	0	12.5	1973	10	13.5	1973	14	1973	10	1	1973	.3	.2	.2	@	@	.2	.1	.1	@
Mar	.2	.0	#	0	4.0	1980	2	4.0	1980	1	1971	25	#+	1983	@	@	@	.0	.0	.0	.0	.0	.0
Apr	.0	.0	#	0	.0	0	0	.0	0	#	1998	22	#	1998	.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	#	1976	14	#	1976	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	#	0	.2	1989	19	.2	1989	#	1989	23	#	1989	@	.0	.0	.0	.0	.0	.0	.0	.0
Ann	1.2	.0	N/A	N/A	12.5	Feb 1973	10	13.5	Feb 1973	14	Feb 1973	10	1+	Jan 2000	.5	.3	.2	@	@	.6	.2	.1	@

+ 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: COLUMBIA UNIV OF SC, SC **COOP ID: 381944**

Climate Division: SC 6 **NWS Call Sign:** **Elevation: 242 Feet** **Lat: 33˚59N** **Lon: 81˚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	4/15	4/10	4/06	4/02	3/30	3/27	3/24	3/20	3/15
32	4/07	3/31	3/26	3/22	3/18	3/14	3/10	3/05	2/26
28	3/12	3/07	3/03	2/28	2/25	2/22	2/19	2/15	2/10
24	3/07	2/26	2/19	2/14	2/09	2/03	1/29	1/22	1/11
20	2/23	2/13	2/07	1/31	1/25	1/18	1/09	0/00	0/00
16	2/09	1/30	1/21	1/12	12/27	0/00	0/00	0/00	0/00

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	10/14	10/20	10/25	10/29	11/01	11/05	11/09	11/13	11/20
32	10/26	11/01	11/05	11/09	11/12	11/15	11/19	11/23	11/29
28	11/08	11/17	11/23	11/29	12/04	12/09	12/14	12/20	12/29
24	11/28	12/07	12/13	12/18	12/23	12/28	1/03	1/09	1/20
20	12/12	12/22	12/29	1/05	1/11	1/18	1/28	0/00	0/00
16	1/01	1/12	1/21	1/30	2/15	0/00	0/00	0/00	0/00

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	240	231	225	220	215	210	205	199	190
32	261	253	247	243	238	234	229	224	216
28	307	298	292	286	281	276	271	264	255
24	>365	346	332	323	315	308	301	292	281
20	>365	>365	>365	>365	>365	339	327	317	305
16	>365	>365	>365	>365	>365	>365	>365	>365	345

***** 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: COLUMBIA UNIV OF SC, SC **COOP ID: 381944**

Climate Division: SC 6 **NWS Call Sign:** **Elevation: 242 Feet** **Lat: 33˚59N** **Lon: 81˚01W**

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	562	388	217	57	4	0	0	0	0	79	255	482	2044
60	423	262	116	14	0	0	0	0	0	30	149	341	1335
57	346	196	72	5	0	0	0	0	0	14	100	266	999
55	300	159	49	2	0	0	0	0	0	8	74	222	814
50	204	85	15	0	0	0	0	0	0	1	27	134	466
32	19	1	0	0	0	0	0	0	0	0	0	4	24

Base — Cooling Degree Days (1)

Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	492	543	834	1029	1296	1443	1598	1553	1349	1061	759	553	12510
55	60	57	170	341	583	753	885	840	659	356	143	58	4905
57	45	38	131	284	521	693	823	778	599	300	110	40	4362
60	28	20	83	204	428	603	730	685	509	223	68	22	3603
65	0	6	28	96	278	453	575	530	360	117	24	8	2475
70	0	0	7	30	147	304	420	375	215	46	6	0	1550

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	259	346	580	782	1033	1192	1334	1288	1096	804	517	319	259	605	1185	1967	3000	4192	5526	6814	7910	8714	9231	9550
45	153	230	428	632	878	1042	1179	1133	946	649	376	201	153	383	811	1443	2321	3363	4542	5675	6621	7270	7646	7847
50	82	140	294	483	723	892	1024	978	796	496	244	113	82	222	516	999	1722	2614	3638	4616	5412	5908	6152	6265
55	38	70	177	340	568	742	869	823	646	345	144	56	38	108	285	625	1193	1935	2804	3627	4273	4618	4762	4818
60	10	28	92	208	416	592	714	668	496	215	70	23	10	38	130	338	754	1346	2060	2728	3224	3439	3509	3532
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	153	214	365	507	695	808	895	878	749	527	323	187	153	367	732	1239	1934	2742	3637	4515	5264	5791	6114	6301

(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