

Climatology of the United States

No. 20

1971-2000

Station: CHESTER 1 NW, SC

COOP ID: 381633

Climate Division: SC 3

NWS Call Sign:

Elevation: 520 Feet Lat: 34°43N Lon: 81°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	51.7	29.3	40.5	82	1949	12	53.0	1974	-3	1985	21	30.7	1977	760	0	.0	.0	19.1	.7	18.1	@
Feb	56.5	31.0	43.8	83	1996	28	52.1	1976	-1	1958	18	37.0	1978	596	0	.0	.0	20.4	.3	15.2	.0
Mar	64.5	38.0	51.3	88	1995	24	56.4	1976	4	1980	3	46.3	1993	430	3	.0	.0	28.9	@	8.8	.0
Apr	73.0	45.4	59.2	93+	1962	30	63.9	1977	21	1992	3	54.8	1997	192	17	.0	.4	29.7	.0	2.6	.0
May	80.0	55.2	67.6	98	1962	19	71.2	1975	28	1963	2	62.6	1997	49	130	.0	1.8	31.0	.0	.1	.0
Jun	86.4	64.0	75.2	105+	1954	27	79.0	1981	38	1966	2	71.5	1997	2	306	.1	10.4	30.0	.0	.0	.0
Jul	90.1	68.2	79.2	105+	1986	22	83.1	1993	50+	1963	11	76.7	1984	0	440	1.2	18.8	31.0	.0	.0	.0
Aug	88.2	67.1	77.7	106	1983	21	81.0	1980	47	1965	30	74.8	1992	0	392	.6	14.2	31.0	.0	.0	.0
Sep	82.9	60.6	71.8	105	1954	6	75.9	1980	37+	1993	30	68.5	1994	10	213	.0	5.4	30.0	.0	.0	.0
Oct	73.7	47.4	60.6	100+	1954	6	68.6	1984	16	1965	30	53.6	1987	190	52	.0	.3	31.0	.0	2.1	.0
Nov	64.2	38.3	51.3	90	1961	2	59.4	1985	9	1955	30	45.3	1997	418	5	.0	.0	28.1	.0	9.5	.0
Dec	54.8	31.4	43.1	79+	1998	7	52.9	1971	-5	1962	13	34.2	2000	679	0	.0	.0	21.2	.3	17.0	.0
Ann	72.2	48.0	60.1	106	Aug 1983	21	83.1	Jul 1993	-5	Dec 1962	13	30.7	Jan 1977	3326	1558	1.9	51.3	331.4	1.3	73.4	@

+ 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: 1948-2001

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

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No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: CHESTER 1 NW, SC

COOP ID: 381633

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NWS Call Sign:

Elevation: 520 Feet

Lat: 34°43N

Lon: 81°13W

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	4.76	4.76	3.54	1962	6	8.12	1975	.48	1981	9.9	7.8	3.6	1.5	1.72	2.17	2.82	3.36	3.87	4.40	4.98	5.64	6.50	7.81	9.02
Feb	3.77	4.15	2.84	1981	11	7.04	1979	.38	1978	7.3	6.1	2.5	1.2	.81	1.15	1.71	2.21	2.71	3.25	3.85	4.58	5.54	7.06	8.51
Mar	4.77	4.64	3.12	1983	18	11.39	1980	.35	1985	9.0	7.3	3.2	1.6	1.24	1.69	2.38	2.99	3.59	4.22	4.93	5.76	6.84	8.56	10.16
Apr	3.36	2.68	4.27	1973	1	8.04	1998	.54	1981	6.8	5.4	2.3	.9	.84	1.16	1.65	2.08	2.51	2.96	3.46	4.06	4.84	6.08	7.24
May	3.30	2.80	6.06	1966	28	6.72	1971	1.23	1988	7.3	5.9	2.3	.7	1.03	1.35	1.81	2.21	2.59	2.99	3.43	3.95	4.61	5.65	6.61
Jun	4.50	4.58	3.81	1973	16	12.25	1973	1.11	1990	8.3	6.7	3.1	1.4	1.50	1.92	2.55	3.08	3.59	4.12	4.70	5.37	6.24	7.58	8.82
Jul	3.99	3.42	4.52	1959	9	11.65	1989	.43	1995	8.2	6.9	2.9	1.0	.97	1.34	1.92	2.44	2.96	3.50	4.11	4.84	5.78	7.29	8.70
Aug	4.60	3.95	8.40	1967	23	14.98	1986	.53	1999	7.4	6.0	3.3	1.6	.84	1.25	1.92	2.55	3.19	3.88	4.66	5.61	6.88	8.92	10.86
Sep	4.19	3.22	6.46	1962	16	11.56	2000	.05	1985	6.2	4.8	2.4	1.4	.39	.68	1.25	1.83	2.47	3.19	4.04	5.11	6.58	9.03	11.43
Oct	3.55	2.91	4.00	1990	13	12.52	1990	.00	2000	5.1	4.0	2.1	1.3	.20	.53	1.08	1.60	2.16	2.77	3.49	4.38	5.59	7.58	9.52
Nov	3.59	3.62	3.32	1987	27	8.51	1985	.40	1981	7.1	5.5	2.7	1.1	1.01	1.35	1.87	2.31	2.75	3.21	3.72	4.32	5.10	6.32	7.46
Dec	3.49	2.99	3.70	1983	6	9.51	1983	.63	1988	8.6	6.7	2.3	.8	.97	1.30	1.80	2.24	2.67	3.11	3.61	4.20	4.96	6.16	7.27
Ann	47.87	47.82	8.40	Aug 1967	23	14.98	Aug 1986	.00	Oct 2000	91.2	73.1	32.7	14.5	36.93	39.11	41.88	43.95	45.78	47.53	49.32	51.30	53.67	57.07	59.99

+ 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

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NWS Call Sign:

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Lat: 34° 43N

Lon: 81° 13W

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	.8	.0	#	0	6.0	1973	8	6.0+	1982	8	2000	25	1+	2000	.2	.2	.2	@	.0	.5	.3	.1	.0
Feb	1.6	.0	#	0	6.5	1979	19	15.5	1979	7	1979	19	1	1979	.4	.4	.2	.1	.0	.5	.4	.2	.0
Mar	.7	.0	#	0	7.0	1983	25	7.0	1983	8	1980	3	#+	1998	.2	.2	.2	@	.0	.1	.1	@	.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	#	1976	15	#	1976	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.3	.0	#	0	3.5	1971	4	6.5	1971	7	1971	4	#+	1993	.2	.2	.1	.0	.0	.1	.1	@	.0
Ann	3.4	.0	N/A	N/A	7.0	Mar 1983	25	15.5	Feb 1979	8+	Jan 2000	25	1+	Jan 2000	1.0	1.0	.7	.1	.0	1.2	.9	.3	.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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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	5/07	5/01	4/27	4/24	4/21	4/18	4/14	4/10	4/05
32	4/26	4/20	4/15	4/11	4/08	4/04	3/31	3/27	3/21
28	4/13	4/06	4/01	3/28	3/24	3/20	3/15	3/10	3/03
24	3/22	3/14	3/09	3/05	3/01	2/25	2/20	2/15	2/08
20	3/15	3/06	3/01	2/24	2/19	2/14	2/09	2/03	1/26
16	3/02	2/20	2/13	2/07	2/02	1/27	1/21	1/13	1/01
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	10/06	10/10	10/14	10/17	10/20	10/22	10/25	10/29	11/03
32	10/11	10/18	10/22	10/26	10/30	11/03	11/07	11/12	11/18
28	10/20	10/27	11/01	11/06	11/10	11/14	11/18	11/23	11/30
24	11/04	11/11	11/17	11/21	11/26	11/30	12/05	12/10	12/18
20	11/18	11/26	12/01	12/06	12/11	12/15	12/20	12/26	1/03
16	12/05	12/14	12/21	12/26	1/01	1/06	1/12	1/19	1/31
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	206	197	191	186	181	176	171	165	157
32	235	225	217	211	205	199	192	185	174
28	261	251	243	236	230	224	218	210	200
24	302	291	283	276	269	263	256	248	236
20	321	312	305	300	294	289	283	276	267
16	>365	>365	349	337	329	321	313	304	292

* 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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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	760	596	430	192	49	2	0	0	10	190	418	679	3326
60	610	456	289	90	12	0	0	0	2	102	283	532	2376
57	523	375	214	49	4	0	0	0	0	65	213	445	1888
55	466	324	171	30	2	0	0	0	0	45	172	390	1600
50	332	203	87	6	0	0	0	0	0	15	90	265	998
32	45	7	0	0	0	0	0	0	0	0	0	26	78

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	308	335	596	815	1104	1295	1463	1415	1192	885	577	369	10354
55	16	8	55	155	392	605	750	702	502	217	59	20	3481
57	11	3	35	115	333	545	688	640	443	175	39	14	3041
60	5	0	17	65	248	455	595	547	354	119	20	8	2433
65	0	0	3	17	130	306	440	392	213	52	5	0	1558
70	0	0	0	2	52	169	285	240	96	17	0	0	861

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	144	207	412	610	878	1075	1230	1189	975	663	376	194	144	351	763	1373	2251	3326	4556	5745	6720	7383	7759	7953
45	74	118	279	463	723	925	1075	1034	825	508	251	109	74	192	471	934	1657	2582	3657	4691	5516	6024	6275	6384
50	32	60	166	323	568	775	920	879	675	361	147	53	32	92	258	581	1149	1924	2844	3723	4398	4759	4906	4959
55	12	26	88	202	416	625	765	724	525	229	77	27	12	38	126	328	744	1369	2134	2858	3383	3612	3689	3716
60	1	5	41	108	274	476	610	569	378	126	31	4	1	6	47	155	429	905	1515	2084	2462	2588	2619	2623
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	97	149	270	400	581	736	843	819	661	430	249	127	97	246	516	916	1497	2233	3076	3895	4556	4986	5235	5362

(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.

- 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/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