

Climatology of the United States

No. 20

1971-2000

Station: WINNSBORO, SC

COOP ID: 389327

Climate Division: SC 3

NWS Call Sign:

Elevation: 560 Feet

Lat: 34° 22N

Lon: 81° 06W

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	52.5	31.1	41.8	82	1974	25	53.1	1974	-1+	1985	22	30.9	1977	719	0	.0	.0	19.0	.7	17.8	.1
Feb	57.3	33.3	45.3	82+	1996	28	53.2	1990	4	1958	18	36.7	1978	551	0	.0	.0	20.3	.4	13.7	.0
Mar	65.7	40.7	53.2	89	1935	22	60.0	1997	5	1980	3	48.0	1971	372	6	.0	.0	29.0	.1	6.9	.0
Apr	74.2	48.3	61.3	92+	2001	11	65.5	1981	26+	1987	1	56.2	1983	147	35	.0	.5	29.7	.0	1.0	.0
May	81.1	57.3	69.2	102	1941	23	73.2	2000	32	1971	4	65.4	1997	35	165	.0	2.9	31.0	.0	@	.0
Jun	87.4	65.1	76.3	107	1954	28	80.3	1981	41	1972	1	72.1	1972	1	339	.3	12.1	30.0	.0	.0	.0
Jul	90.7	69.6	80.2	106	1983	21	85.5	1993	54	1951	7	76.1	1975	0	470	1.8	20.2	31.0	.0	.0	.0
Aug	88.5	68.3	78.4	105	1980	2	82.7	1999	51	1930	24	75.2	1976	0	416	.9	15.0	31.0	.0	.0	.0
Sep	82.8	62.0	72.4	101+	1939	10	77.1	1980	36	1967	30	69.7	1976	8	231	.0	6.2	30.0	.0	.0	.0
Oct	73.8	49.5	61.7	100	1954	7	69.4	1984	25	1976	29	55.0	1987	165	60	.0	.3	30.9	.0	.7	.0
Nov	64.7	41.0	52.9	88	1961	3	60.7	1985	11	1950	26	46.1	1976	370	6	.0	.0	28.4	.0	6.9	.0
Dec	55.3	33.7	44.5	81+	1978	4	52.5	1971	-1	1962	13	36.6	2000	636	0	.0	.0	21.6	.3	15.1	.0
Ann	72.8	50.0	61.4	107	Jun 1954	28	85.5	Jul 1993	-1+	Jan 1985	22	30.9	Jan 1977	3004	1728	3.0	57.2	331.9	1.5	62.1	.1

+ 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

Issue Date: February 2004

(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

060-A

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: WINNSBORO, SC

COOP ID: 389327

Climate Division: SC 3

NWS Call Sign:

Elevation: 560 Feet Lat: 34°22N

Lon: 81°06W

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	4.78	4.57	4.95	1943	18	8.77	1987	.58	1981	11.3	7.6	3.7	1.4	1.70	2.15	2.80	3.35	3.87	4.41	5.00	5.68	6.55	7.89	9.12
Feb	3.84	3.99	2.90	1998	4	7.89	1982	.56	1988	8.0	5.6	2.6	1.3	1.04	1.40	1.95	2.44	2.91	3.41	3.97	4.62	5.48	6.82	8.07
Mar	4.71	4.42	3.75	1977	13	11.20	1980	.62	1985	9.1	7.1	3.7	1.5	1.24	1.68	2.37	2.97	3.56	4.18	4.86	5.68	6.74	8.42	9.99
Apr	3.02	2.86	4.27	1969	16	8.44	1982	.21	1976	7.6	5.2	2.3	.9	.54	.80	1.25	1.66	2.08	2.53	3.05	3.68	4.52	5.87	7.16
May	3.45	3.34	2.70	1997	27	6.66	1984	.35	1987	8.3	5.8	2.5	1.0	.80	1.13	1.63	2.08	2.53	3.01	3.55	4.19	5.02	6.36	7.61
Jun	4.18	3.95	3.25	1986	16	7.96	1994	.98	1993	8.3	6.2	2.8	1.3	1.54	1.93	2.49	2.96	3.41	3.87	4.37	4.95	5.70	6.84	7.88
Jul	4.10	3.44	7.77	1959	10	12.30	1975	.61	1995	9.8	6.8	2.5	1.2	1.01	1.39	1.99	2.52	3.05	3.60	4.22	4.96	5.92	7.45	8.88
Aug	4.15	3.97	4.50	1986	18	10.45	1986	.53	1983	9.0	6.4	2.7	1.3	1.06	1.45	2.06	2.59	3.11	3.67	4.28	5.01	5.97	7.47	8.88
Sep	3.67	3.27	6.65	1998	4	9.43	1979	.00	1985	7.9	5.1	2.5	1.0	.72	1.24	1.85	2.35	2.83	3.32	3.86	4.50	5.32	6.61	7.80
Oct	3.44	3.63	4.83	1977	26	13.00	1990	.00	2000	5.9	4.1	2.1	1.0	.17	.48	.99	1.50	2.04	2.65	3.36	4.24	5.45	7.44	9.39
Nov	3.16	2.89	4.03	1957	18	8.45	1992	.69	1973	7.4	5.3	2.3	1.0	.82	1.12	1.58	1.98	2.38	2.80	3.26	3.81	4.53	5.66	6.73
Dec	3.34	3.04	3.80	1994	23	7.44	1981	.09	1988	8.4	6.3	2.3	.8	.65	.95	1.44	1.89	2.35	2.84	3.40	4.07	4.95	6.38	7.73
Ann	45.84	44.76	7.77	Jul 1959	10	13.00	Oct 1990	.00+	Oct 2000	101.0	71.5	32.0	13.7	36.42	38.32	40.72	42.50	44.07	45.57	47.10	48.78	50.80	53.68	56.14

+ 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:
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Station: WINNSBORO, SC

COOP ID: 389327

Climate Division: SC 3

NWS Call Sign:

Elevation: 560 Feet

Lat: 34°22N

Lon: 81°06W

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	.9	.0	#	0	8.0	1988	8	8.0	1988	8	1988	8	1	1988	.3	.2	.2	.1	.0	.0	.0	.0	.0
Feb	1.2	.0	0	0	12.0	1973	10	12.0	1973	12	1973	12	1	1973	.3	.2	.1	.1	.1	.1	.1	.1	.1
Mar	.3	.0	#	0	3.3	1983	25	3.3	1983	4	1980	3	#+	1987	.1	.1	.1	.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	.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	24	#	1976	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.4	.0	#	0	3.0	1971	4	5.0	1971	5	1971	4	#+	1973	.2	.1	.1	.0	.0	.1	@	@	.0
Ann	2.8	.0	N/A	N/A	12.0	Feb 1973	10	12.0	Feb 1973	12	Feb 1973	12	1+	Jan 1988	.9	.6	.5	.2	.1	.2	.1	.1	.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:

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Station: WINNSBORO, SC

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Climate Division: SC 3

NWS Call Sign:

Elevation: 560 Feet

Lat: 34°22N

Lon: 81°06W

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	5/02	4/25	4/20	4/16	4/12	4/08	4/04	3/30	3/23
32	4/20	4/13	4/09	4/05	4/01	3/28	3/24	3/20	3/13
28	4/08	4/01	3/27	3/22	3/18	3/14	3/10	3/05	2/26
24	3/17	3/11	3/07	3/03	2/27	2/23	2/19	2/15	2/09
20	3/10	2/28	2/21	2/15	2/09	2/03	1/28	1/21	1/11
16	3/03	2/22	2/15	2/10	2/04	1/29	1/22	1/12	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	10/12	10/17	10/20	10/23	10/25	10/28	10/31	11/03	11/07
32	10/18	10/24	10/29	11/02	11/06	11/09	11/13	11/18	11/24
28	10/31	11/06	11/10	11/14	11/17	11/21	11/25	11/29	12/05
24	11/15	11/23	11/29	12/04	12/08	12/12	12/17	12/23	12/31
20	11/26	12/07	12/14	12/21	12/27	1/02	1/08	1/16	1/26
16	12/15	12/27	1/04	1/12	1/19	1/27	2/06	2/25	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	221	212	206	200	195	190	185	178	169
32	244	235	229	223	218	213	207	201	192
28	274	263	256	250	244	238	231	224	213
24	308	300	294	288	283	278	273	267	258
20	>365	338	326	318	311	305	298	291	281
16	>365	>365	>365	>365	351	336	325	314	302

* 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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Climate Division: SC 3 NWS Call Sign: Elevation: 560 Feet Lat: 34°22N Lon: 81°06W

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	719	551	372	147	35	1	0	0	8	165	370	636	3004
60	575	416	237	62	8	0	0	0	1	83	239	489	2110
57	489	338	170	31	2	0	0	0	0	50	173	403	1656
55	435	288	133	18	1	0	0	0	0	33	136	348	1392
50	310	181	61	3	0	0	0	0	0	10	63	229	857
32	44	8	0	0	0	0	0	0	0	0	0	17	69

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	348	381	658	878	1153	1328	1493	1439	1213	919	626	404	10840
55	26	18	77	205	440	638	780	726	523	238	71	22	3764
57	19	11	53	159	380	578	718	664	463	193	49	15	3302
60	11	6	27	100	293	488	625	571	374	134	25	8	2662
65	0	0	6	35	165	339	470	416	231	60	6	0	1728
70	0	0	0	7	74	198	317	264	110	20	0	0	990

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	160	222	434	648	914	1101	1259	1207	989	685	407	210	160	382	816	1464	2378	3479	4738	5945	6934	7619	8026	8236
45	86	131	295	500	759	951	1104	1052	839	530	276	120	86	217	512	1012	1771	2722	3826	4878	5717	6247	6523	6643
50	40	69	181	357	604	801	949	897	689	382	167	61	40	109	290	647	1251	2052	3001	3898	4587	4969	5136	5197
55	15	26	98	232	452	651	794	742	539	242	86	31	15	41	139	371	823	1474	2268	3010	3549	3791	3877	3908
60	0	10	40	128	303	501	639	587	390	131	35	9	0	10	50	178	481	982	1621	2208	2598	2729	2764	2773
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	106	153	278	417	607	751	865	835	670	440	256	134	106	259	537	954	1561	2312	3177	4012	4682	5122	5378	5512

(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