## 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: SANDHILL RESEARCH ELGIN, SC

COOP ID: 387666

Climate Division: SC 6 NWS Call Sign: Elevation: 440 Feet Lat: 34°09N Lon: 80°52W

									ŗ	Гетр	eratui	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	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	54.0	32.4	43.2	78+	1997	1	54.8	1974	-2	1985	21	33.2	1977	677	0	.0	.0	20.2	.5	15.8	.1
Feb	58.4	34.7	46.6	84	1997	28	53.7	1976	9+	1996	5	38.0	1978	517	0	.0	.0	21.4	.3	12.0	.0
Mar	66.2	42.0	54.1	89	1961	6	60.5	1997	6	1980	3	48.6	1971	347	8	.0	.0	29.1	.1	5.4	.0
Apr	74.7	49.6	62.2	94	2001	11	66.9	1981	24	1985	3	57.1	1983	130	44	.0	.5	29.9	.0	.5	.0
May	81.6	58.2	69.9	98+	2000	26	74.1	2000	37	1966	11	66.3	1972	24	176	.0	4.2	31.0	.0	.0	.0
Jun	87.8	65.7	76.8	104+	1998	29	81.7	1998	47	1984	1	72.8	1972	1	354	.7	12.0	30.0	.0	.0	.0
Jul	91.2	69.8	80.5	106	1986	20	85.6	1993	57+	1988	2	77.3	1984	0	480	1.7	19.7	31.0	.0	.0	.0
Aug	89.2	68.2	78.7	105+	1983	24	83.1	1999	52+	1987	15	75.4	1981	0	424	.9	15.4	31.0	.0	.0	.0
Sep	84.1	62.4	73.3	99+	1993	2	77.3	1980	40	1967	30	70.3	1974	4	251	.0	6.5	30.0	.0	.0	.0
Oct	74.8	50.4	62.6	95	1986	3	69.1	1984	23	1989	21	56.8	1987	140	66	.0	.3	30.9	.0	.4	.0
Nov	66.2	42.1	54.2	88+	1973	26	61.6	1985	15	1970	24	48.0	1976	336	9	.0	.0	28.7	.0	4.8	.0
Dec	57.1	34.8	46.0	80+	1978	9	53.6	1984	4	1962	13	37.6	1989	591	0	.0	.0	22.9	.3	13.2	.0
Ann	73.8	50.9	62.3	106	Jul 1986	20	85.6	Jul 1993	-2	Jan 1985	21	33.2	Jan 1977	2767	1812	3.3	58.6	336.1	1.2	52.1	.1

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 050-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1957-2001
- (3) Derived from 1971-2000 serially complete daily data

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

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**COOP ID: 387666** 

Station: SANDHILL RESEARCH ELGIN, SC

Climate Division: SC 6 NWS Call Sign: Elevation: 440 Feet Lat: 34°09N Lon: 80°52W

										Pı	recipi	tation	(incl	nes)										
	Me	ans/	P	recip	itatio	on Total						ays (3	5)	Proba	ability th		nonthly/	annual j	precipita ated an	babilit ation will nount vs Probal	ll be equ		less tha	an the
	Medi	ans(1)				Extremes	\$			1	aily Pre	стрпацю	n		Th	ese value	s were det	termined	from the	incomplet	te gamma	distributi	ion	
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	4.51	3.09	1993	8	9.76	1978	.84	1981	11.1	7.6	3.6	1.3	1.67	2.12	2.77	3.32	3.84	4.38	4.97	5.65	6.53	7.88	9.12
Feb	3.56	3.60	3.25	1984	14	6.78	1985	.60	1986	9.0	5.8	2.2	1.0	1.06	1.40	1.90	2.34	2.77	3.21	3.70	4.27	5.02	6.18	7.26
Mar	4.61	4.35	4.42	1983	18	10.84	1980	.07	1985	9.6	7.3	3.4	1.5	.92	1.34	2.02	2.64	3.27	3.94	4.70	5.61	6.82	8.76	10.60
Apr	3.09	3.31	3.09	1979	26	7.56	1998	.21	1976	7.6	5.5	2.0	.8	.38	.62	1.06	1.49	1.95	2.45	3.05	3.78	4.77	6.40	7.98
May	3.28	2.85	3.48	1984	7	8.38	1984	.67	1983	8.8	6.0	2.2	.9	1.01	1.32	1.78	2.18	2.57	2.97	3.42	3.94	4.61	5.66	6.63
Jun	3.99	3.21	4.07	1965	15	11.88	1973	1.48	1986	9.2	6.4	2.9	1.1	1.26	1.64	2.21	2.69	3.15	3.63	4.16	4.78	5.58	6.82	7.96
Jul	5.04	4.37	7.30	1959	9	10.84	1984	1.19	1980	10.2	7.9	3.5	1.3	1.79	2.26	2.95	3.53	4.08	4.65	5.27	5.98	6.90	8.32	9.63
Aug	4.85	4.29	6.30	1986	20	13.93	1986	.89	1975	9.6	7.0	3.2	1.2	1.09	1.54	2.25	2.89	3.53	4.21	4.97	5.89	7.09	9.00	10.80
Sep	4.05	3.94	4.67	1979	5	9.00	2000	.28	1984	8.4	5.5	2.5	1.1	.62	.97	1.55	2.11	2.69	3.32	4.05	4.94	6.13	8.07	9.93
Oct	3.14	2.60	6.00	1990	11	12.24	1990	.00	2000	6.6	4.3	2.0	1.0	.16	.45	.93	1.39	1.89	2.43	3.08	3.87	4.95	6.74	8.49
Nov	3.11	2.92	2.76	1963	6	7.59	1985	.56	1973	8.0	5.3	2.4	.9	.91	1.20	1.65	2.03	2.41	2.80	3.23	3.74	4.40	5.43	6.39
Dec	3.39	2.72	3.70	1994	23	7.83	1983	1.00	2000	10.0	6.4	2.2	.8	.92	1.24	1.73	2.16	2.58	3.02	3.51	4.08	4.83	6.01	7.11
Ann	46.87	45.63	7.30	Jul 1959	9	13.93	Aug 1986	.00	Oct 2000	108.1	75.0	32.1	12.9	37.43	39.34	41.75	43.54	45.11	46.62	48.15	49.84	51.85	54.74	57.20

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

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

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1957-2001

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**COOP ID: 387666** 

Station: SANDHILL RESEARCH ELGIN, SC

Climate Division: SC 6 NWS Call Sign:

Elevation: 440 Feet Lat: 34°09N Lon: 80°52W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	<b>ys</b> (1)		
	Mean	s/Medi	ans (1)	1					Extre	mes (2)							ow Fa					Depth esholo	
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	#	.0	0	0	#	1991	25	#+	1991	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.6	.0	0	0	4.0	1971	26	4.0	1971	0	0	0	0	0	.2	.2	.2	.0	.0	.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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.1	.0	0	0	.5	1973	17	.5	1973	0	0	0	0	0	.1	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.7	.0	N/A	N/A	4.0	Mar 1971	26	4.0	Mar 1971	0	0	0	0	0	.3	.2	.2	.0	.0	.0	.0	.0	.0

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**COOP ID: 387666** 

Lon: 80°52W

Lat: 34°09N

Station: SANDHILL RESEARCH ELGIN, SC

**Climate Division: SC 6** 

**NWS Call Sign:** 

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	Day)			
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated(	*)	
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	4/21	4/15	4/12	4/09	4/06	4/03	3/30	3/27	3/22
32	4/14	4/08	4/04	3/31	3/28	3/25	3/21	3/17	3/11
28	4/08	3/31	3/25	3/20	3/15	3/10	3/05	2/27	2/19
24	3/16	3/09	3/03	2/27	2/23	2/19	2/14	2/09	2/02
20	3/09	2/28	2/21	2/16	2/10	2/05	1/30	1/22	1/08
16	2/28	2/17	2/09	2/02	1/27	1/19	1/10	12/24	0/00
•			Fal	l Freeze Dat	tes (Month/D	ay)	•		1
To (E)		Pro	bability of ea	arlier date ii	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/13	10/19	10/23	10/26	10/29	11/02	11/05	11/09	11/15
32	10/24	10/30	11/04	11/07	11/11	11/14	11/18	11/22	11/28
28	11/03	11/10	11/15	11/19	11/23	11/27	12/01	12/06	12/12
24	11/17	11/25	12/01	12/06	12/11	12/15	12/20	12/26	1/03
20	12/01	12/12	12/20	12/26	1/02	1/08	1/15	1/25	2/11
16	12/18	12/30	1/08	1/16	1/24	2/02	2/14	0/00	0/00
<u>.</u>				Freeze F	ree Period				
Tomp (F)			<b>Probability</b>	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	225	219	214	210	206	202	198	193	187
32	254	245	238	232	227	222	216	209	199
28	276	268	262	257	252	247	242	236	228
24	320	310	302	296	290	284	277	270	260
20	>365	>365	338	325	317	310	303	295	285
16	>365	>365	>365	>365	>365	353	337	325	311

<sup>\*</sup> 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.

Complete documentation available from:

Elevation: 440 Feet

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Climate Division: SC 6 NWS Call Sign: Elevation: 440 Feet Lat: 34°09N Lon: 80°52W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	677	517	347	130	24	1	0	0	4	140	336	591	2767
60	534	384	215	53	4	0	0	0	0	66	209	447	1912
57	449	306	151	26	1	0	0	0	0	37	148	364	1482
55	396	258	116	14	0	0	0	0	0	23	114	312	1233
50	276	157	50	2	0	0	0	0	0	6	49	202	742
32	32	5	0	0	0	0	0	0	0	0	0	13	50

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	379	412	684	904	1175	1344	1503	1447	1237	949	663	445	11142
55	29	21	87	228	462	654	790	734	547	259	87	31	3929
57	21	13	61	180	401	594	728	672	487	211	61	21	3450
60	12	7	31	117	311	504	635	579	397	147	32	12	2784
65	0	0	8	44	176	354	480	424	251	66	9	0	1812
70	0	0	0	10	78	214	325	269	122	21	1	0	1040

										Gro	wing l	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (N	Ionthly)								Growi	ng Degre	ee Units (	Accumu	lated Mo	onthly)			
	Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         D           40         185         248         455         672         938         1113         1262         1210         1013         720         443         2												Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	185     248     455     672     938     1113     1262     1210     1013     720     443       183     451     317     533     793     963     1407     1955     963     565     306												185	433	888	1560	2498	3611	4873	6083	7096	7816	8259	8501
45	5         103         151         317         523         783         963         1107         1055         863         565         306											141	103	254	571	1094	1877	2840	3947	5002	5865	6430	6736	6877
50	48 83 200 379 628 813 952 900 713 413 192											75	48	131	331	710	1338	2151	3103	4003	4716	5129	5321	5396
55	23	36	106	248	474	663	797	745	563	271	104	36	23	59	165	413	887	1550	2347	3092	3655	3926	4030	4066
60	1	12	46	137	325	513	642	590	415	155	44	10	1	13	59	196	521	1034	1676	2266	2681	2836	2880	2890
Base	e Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	<b>10/86</b> 112 161 281 423 619 759 860 837 688 453 271 143												112	273	554	977	1596	2355	3215	4052	4740	5193	5464	5612

(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

#### 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

- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

### 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