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

COOP ID: 228445

Lon: 90°55W

Station: STONEVILLE EXP STN, MS

Climate Division: MS 4 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 50.3 32.8 41.6 82 1943 24 48.3 1989 -5 1936 31 31.2 1977 728 0 .0 .0 16.4 2.6 16.5 0. Jan 56.1 36.6 46.4 83 1999 10 55.0 1976 -5 1951 2 35.5 1978 523 0 .0 .0 19.5 1.1 10.2 0. Feb Mar 65.2 44.4 54.8 90 1995 24 59.8 1973 13 1943 3 50.2 1978 326 9 .0 @ 28.1 .1 2.8 0. 52.7 93 29+57.4 1983 79 Apr 74.7 63.7 1994 28 70.6 1981 1950 15 119 .0. .3 29.8 .0 .2 .0. May 83.1 62.1 72.6 100 1934 31 77.4 1996 40 1961 28 67.1 1976 16 251 .0 4.5 31.0 .0 0. .0 82.4 75.9 444 Jun 90.1 69.5 79.8 105 1936 20 1971 47+ 1930 10 1974 0 .1 16.1 30.0 .0 .0 .0 Jul 92.5 72.4 82.5 109 +1930 12 86.2 1993 52 1947 23 80.0 1984 541 1.2 22.4 31.0 0. 0 .0 .0 1992 91.7 70.2 81.0 106 1935 8 85.2 2000 51 1931 14 76.0 0 495 1.1 20.8 31.0 .0 .0 .0 Aug 36 7 Sep 86.4 63.4 74.9 104 2000 1 79.9 1998 1942 29 69.4 1974 304 .4 10.6 30.0 .0 .0 .0 25 58.4 107 Oct 76.8 51.7 64.3 95+ 1931 11 69.9 1971 1952 30 1976 83 .0 1.2 30.9 .0 .2 .0 63.9 43.1 53.5 87+ 1955 13 58.3 1985 15 1950 25 46.1 1976 354 8 .0 .0 26.7 4.5 0. Nov .1 Dec 53.8 35.9 44.9 83+ 1949 11 54.3 1984 1+ 1989 23 35.3 1989 626 1 .0 .0 19.7 1.5 12.3 .0 Jul Jul Feb Jan 73.7 52.9 63.3 109 +1930 12 86.2 1993 -5+ 1951 2 31.2 1977 2806 2215 2.8 75.9 324.1 5.4 46.7 .0 Ann

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

Issue Date: February 2004 060-A

(1) From the 1971-2000 Monthly Normals

Elevation: 127 Feet Lat: 33°27N

- (2) Derived from station's available digital record: 1920-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

[@] Denotes mean number of days greater than 0 but less than .05

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Station: STONEVILLE EXP STN, MS

COOP ID: 228445

Climate Division: MS 4 NWS Call Sign: Elevation: 127 Feet Lat: 33°27N Lon: 90°55W

										Pı	recipi	tation	(incl	nes)										
		Means/ Medians(1) Medians(1) Medians(1) Medians(1) Medians(1) Medians(1) Medians(1) Medians(1)									ean N of D	ays (3)	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	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	5.42	4.57	5.03	1951	3	13.82	1999	.74	1986	11.5	7.8	3.3	1.6	1.42	1.93	2.72	3.41	4.09	4.80	5.60	6.54	7.77	9.71	11.52
Feb	4.46	4.54	6.01	1991	19	10.31	1975	.91	1972	9.1	6.1	3.2	1.6	1.07	1.49	2.14	2.72	3.29	3.91	4.59	5.40	6.47	8.16	9.74
Mar	5.63	4.93	6.08	1955	21	13.91	1973	1.62	1978	10.0	7.2	3.8	1.9	1.91	2.44	3.22	3.88	4.51	5.16	5.88	6.71	7.78	9.43	10.96
Apr	5.44	4.75	7.17	1927	15	17.07	1991	.98	1981	8.9	5.9	3.5	1.9	1.16	1.66	2.46	3.18	3.91	4.69	5.56	6.61	8.00	10.21	12.30
May	5.25	5.30	6.14	1930	8	12.32	1978	.71	1988	10.3	6.9	3.6	1.5	1.35	1.84	2.61	3.28	3.94	4.64	5.42	6.34	7.54	9.44	11.22
Jun	4.02	3.67	4.12	1935	29	9.45	1989	.57	1988	8.9	6.0	2.8	1.2	1.18	1.56	2.13	2.63	3.11	3.62	4.17	4.83	5.68	7.00	8.24
Jul	3.86	3.30	4.92	1951	2	11.58	1994	.47	1983	9.3	5.6	2.6	1.2	.79	1.15	1.71	2.23	2.75	3.31	3.94	4.69	5.69	7.29	8.80
Aug	2.05	1.70	3.92	1943	11	4.49	1992	.00	2000	6.9	3.7	1.3	.6	.18	.41	.74	1.04	1.35	1.68	2.07	2.53	3.15	4.15	5.12
Sep	3.19	2.93	8.21	1958	21	7.00	1989	.72	1986	7.5	4.7	2.0	.9	.97	1.27	1.73	2.11	2.49	2.88	3.31	3.82	4.47	5.49	6.44
Oct	3.32	3.18	4.88	1929	31	10.99	1984	.27	1987	7.3	4.7	2.3	1.2	.39	.64	1.11	1.57	2.06	2.61	3.26	4.06	5.14	6.92	8.66
Nov	5.20	4.34	6.44	2001	29	12.98	1986	2.05	1999	9.7	6.6	3.6	1.9	1.63	2.12	2.86	3.48	4.09	4.72	5.41	6.22	7.27	8.89	10.40
Dec	5.45	4.99	6.25	1944	31	19.53	1982	.54	1980	10.5	7.4	3.6	1.7	1.37	1.88	2.68	3.38	4.08	4.81	5.63	6.59	7.86	9.87	11.74
Ann	53.29	52.70	8.21	Sep 1958	21	19.53	Dec 1982	.00	Aug 2000	109.9	72.6	35.6	17.2	38.20	41.13	44.88	47.72	50.24	52.68	55.19	57.97	61.33	66.21	70.42

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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: 1920-2001

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

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COOP ID: 228445

Station: STONEVILLE EXP STN, MS

Climate Division: MS 4 NWS Call Sign: Elevation: 127 Feet Lat: 33°27N Lon: 90°55W

										Snov	w (inc	hes)												
						Sn	ow To	tals							Mean Number of Days (1)									
	Means/Medians (1)					Extremes (2)											Snow Fall >= Thresholds						ı ds	
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	1.2	.0	#	0	3.8	1985	4	4.9	1977	4+	1988	10	1	1988	1.1	.4	.1	.0	.0	.8	.3	.0	.0	
Feb	.4	.0	#	0	1.3	1978	1	2.5	1985	1	1979	18	#+	1984	.4	.2	.0	.0	.0	.1	.0	.0	.0	
Mar	.1	.0	#	0	1.0	1971	3	1.0	1971	1	1971	3	#+	1987	.1	.1	.0	.0	.0	@	.0	.0	.0	
Apr	#	.0	0	0	#	1971	7	#	1971	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	.1	1975	23	.1+	1976	#+	1976	29	#+	1976	.1	.0	.0	.0	.0	.0	.0	.0	.0	
Dec	.1	.0	#	0	1.5	1983	17	1.5+	1983	#	1973	20	#	1973	.1	.1	.0	.0	.0	.0	.0	.0	.0	
Ann	1.8	.0	N/A	N/A	3.8	Jan 1985	4	4.9	Jan 1977	4+	Jan 1988	10	1	Jan 1988	1.8	.8	.1	.0	.0	.9	.3	.0	.0	

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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[@] 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

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S Call Sign: Elevation: 127 Feet

				Freez	ze Data										
			Spri	ng Freeze D	ates (Month	/Day)									
Temp (F)		P	robability of	later date i	n spring (thr	ru Jul 31) tha	n indicated((*)							
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	4/13	4/08	4/04	3/31	3/28	3/25	3/21	3/17	3/12						
32	3/31	3/24	3/19	3/15	3/11	3/07	3/03	2/26	2/19						
28	3/15	3/07	3/02	2/25	2/21	2/16	2/12	2/06	1/30						
24	3/09	2/28	2/22	2/16	2/11	2/06	1/31	1/24	1/13						
20	2/22	2/12	2/05	1/30	1/23	1/16	1/07	0/00	0/00						
16	2/10	1/30	1/20	1/09	0/00	0/00	0/00	0/00	0/00						
			Fa	ll Freeze Da	tes (Month/I	Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	10/14	10/20	10/24	10/27	10/31	11/03	11/07	11/11	11/17						
32	10/26	11/01	11/05	11/09	11/12	11/16	11/20	11/24	11/30						
28	11/08	11/15	11/20	11/24	11/28	12/02	12/06	12/12	12/19						
24	11/18	11/30	12/09	12/16	12/23	12/30	1/06	1/15	1/30						
20	12/10	12/18	12/25	12/30	1/05	1/11	1/19	0/00	0/00						
16	12/21	1/01	1/12	1/23	0/00	0/00	0/00	0/00	0/00						
				Freeze F	ree Period			•							
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)								
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	239	231	225	221	216	211	207	201	193						
32	277	266	258	252	246	239	233	225	214						
28	309	299	292	285	280	274	268	261	251						
24	>365	349	329	318	309	301	293	284	272						
20	>365	>365	>365	>365	352	337	326	316	303						
16	>365	>365	>365	>365	>365	>365	>365	>365	341						

^{*} 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.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	728	523	326	119	16	0	0	0	7	107	354	626	2806		
60	581	393	196	51	3	0	0	0	1	43	225	482	1975		
57	494	317	135	26	1	0	0	0	0	21	162	398	1554		
55	438	271	101	16	0	0	0	0	0	12	127	346	1311		
50	309	172	40	3	0	0	0	0	0	2	60	233	819		
32	39	10	0	0	0	0	0	0	0	0	0	21	70		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	335	411	707	950	1258	1434	1564	1518	1287	999	644	420	11527
55	20	28	94	276	545	744	851	805	597	298	81	32	4371
57	14	19	66	226	484	684	789	743	537	245	56	22	3885
60	8	10	35	161	393	594	696	650	447	174	29	13	3210
65	0	0	9	79	251	444	541	495	304	83	8	1	2215
70	0	0	1	29	134	295	386	341	178	30	0	0	1394

	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	164	254	468	709	1003	1191	1310	1269	1050	755	420	224	164	418	886	1595	2598	3789	5099	6368	7418	8173	8593	8817
45	93	157	332	560	848	1041	1155	1114	900	603	290	129	93	250	582	1142	1990	3031	4186	5300	6200	6803	7093	7222
50	49	89	212	416	693	891	1000	959	750	450	185	71	49	138	350	766	1459	2350	3350	4309	5059	5509	5694	5765
55	20	36	119	280	538	741	845	804	600	310	104	36	20	56	175	455	993	1734	2579	3383	3983	4293	4397	4433
60	1	12	55	163	387	591	690	649	453	189	49	11	1	13	68	231	618	1209	1899	2548	3001	3190	3239	3250
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	thly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	96	146	272	441	679	827	910	870	709	489	249	124	96	242	514	955	1634	2461	3371	4241	4950	5439	5688	5812

(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