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: 411875

Lon: 99°25W

Station: COLEMAN, TX

Climate Division: TX 2

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 56.6 30.0 43.3 90+ 1943 23 49.8 2000 -5 1930 18 33.3 1979 673 0 .0 .0 23.6 1.2 15.4 Jan 62.1 35.0 48.6 99 1996 22 56.0 1976 -1 1933 8 39.0 1978 464 4 .0 .2 23.9 .6 8.3 0. Feb Mar 69.5 42.2 55.9 100 +1928 28 61.9 1974 9+ 1980 2 50.7 1987 293 9 .0 .9 29.9 .1 3.4 0. 25 1997 74 Apr 77.5 51.3 64.4 104 1925 18 68.8 1978 1938 8 58.6 92 .0 3.6 29.9 .0 .4 .0 May 83.7 60.1 71.9 110 2000 25 78.8 2000 36 1954 4 67.9 1976 21 234 .7 9.5 31.0 .0 0. .0 78.3 82.7 1990 41 3 75.2 Jun 89.7 66.8 110 1948 6 1919 1983 0 398 1.9 20.0 30.0 .0 .0 .0 Jul 93.7 81.8 113+ 1944 27 86.5 1978 54 1975 27 76.0 1976 519 6.1 27.1 31.0 0. 69.8 0 .0 .0 1971 93.2 69.0 81.1 114 1943 3 85.9 1999 50 1916 24 75.1 0 500 5.4 26.0 31.0 .0 .0 .0 Aug 10 Sep 87.1 62.4 74.8 111 1952 1 80.8 1977 36 1984 30 66.2 1974 302 1.4 15.1 30.0 .0 .0 .0 78.2 1937 5 25 31 Oct 51.8 65.0 104 70.7 1979 1993 56.0 1976 91 91 .1 3.4 30.8 .0 .2 .0 40.4 53.4 1934 59.2 1999 11+1959 17 45.2 1976 360 11 @ 27.8 .0 4.8 .0 Nov 66.4 96 1 .0 Dec 58.1 32.1 45.1 93 1955 24 49.5 1996 -4 1989 23 34.9 1983 618 0 .0 .0 25.3 .9 12.3 **(**a) Aug Jul Jan Jan 50.9 63.6 114 1943 3 86.5 1978 -5 1930 18 33.3 1979 2622 2142 15.6 105.8 344.2 2.8 44.8 @ 76.3 Ann

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

Issue Date: February 2004 070-A

(1) From the 1971-2000 Monthly Normals

Elevation: 1,727 Feet Lat: 31°49N

- (2) Derived from station's available digital record: 1896-2001
- (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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Climate Division: TX 2 NWS Call Sign: Elevation: 1,727 Feet Lat: 31°49N Lon: 99°25W

										Pı	recipi	tation	(incl	nes)										
	Me	Precipitation Totals Means/ Extremes									ean N	Numb Oays (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										
		ans(1)				Extreme	5			Daily Precipitation				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	1.03	.79	3.24	1961	7	3.05	1991	.00	1986	4.7	2.5	.6	.2	.04	.12	.26	.41	.57	.76	.98	1.26	1.64	2.28	2.92
Feb	1.75	1.29	3.25	1992	25	7.27	1992	.00	1999	4.7	3.1	1.1	.5	.06	.20	.45	.70	.98	1.30	1.67	2.14	2.79	3.88	4.95
Mar	1.84	1.86	2.85	1998	16	5.22	1979	.00+	1972	5.2	3.1	1.3	.5	.00	.26	.61	.91	1.20	1.52	1.88	2.30	2.88	3.81	4.70
Apr	2.19	1.87	4.30	1990	26	6.38	1990	.04	1998	5.0	3.5	1.6	.7	.30	.48	.79	1.10	1.42	1.77	2.17	2.67	3.35	4.45	5.52
May	4.11	3.35	7.26	1956	1	11.75	1994	.61	1977	7.2	5.4	2.7	1.4	.78	1.14	1.75	2.30	2.87	3.48	4.17	5.01	6.12	7.90	9.59
Jun	4.05	3.45	4.10	1906	3	12.86	2000	.00	1994	5.8	4.5	2.4	1.3	.41	.89	1.56	2.15	2.75	3.39	4.12	5.00	6.18	8.06	9.87
Jul	1.77	1.60	8.55	1932	2	6.87	1990	.00+	1997	4.3	2.8	1.1	.5	.00	.13	.41	.68	.98	1.31	1.70	2.19	2.86	3.99	5.10
Aug	2.58	2.02	5.50	1978	3	10.03	1978	.00	2000	5.2	3.8	1.6	.7	.10	.30	.67	1.04	1.45	1.92	2.47	3.16	4.11	5.70	7.26
Sep	3.25	2.78	6.70	1903	29	13.56	1980	.03	1979	5.7	4.3	2.0	1.1	.12	.27	.62	1.04	1.54	2.14	2.89	3.87	5.27	7.69	10.13
Oct	3.08	2.52	5.22	1930	6	9.77	1974	.00	1980	5.4	3.9	1.9	1.0	.09	.31	.72	1.16	1.66	2.22	2.90	3.77	4.96	6.98	8.98
Nov	1.57	1.23	4.00	1913	23	4.74	2000	.05	1988	4.3	2.8	1.1	.5	.08	.17	.35	.56	.80	1.09	1.44	1.89	2.52	3.60	4.68
Dec	1.48	1.06	5.25	1991	20	10.90	1991	.00+	1996	4.9	2.9	.7	.4	.00	.00	.12	.31	.55	.85	1.24	1.75	2.49	3.80	5.13
Ann	28.70	27.12	8.55	Jul 1932	2	13.56	Sep 1980	.00+	Aug 2000	62.4	42.6	18.1	8.8	18.27	20.20	22.72	24.67	26.42	28.12	29.90	31.89	34.32	37.89	41.01

⁺ 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: 1896-2001

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

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Station: COLEMAN, TX

Climate Division: TX 2 NWS Call Sign: Elevation: 1,727 Feet Lat: 31°49N Lon: 99°25W

										Snov	w (incl	hes)													
						Sno	ow To	tals									Mea	n Nui	mber	of Day	ys (1)				
	Mean	s/Medi	ians (1)	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	1.0	.0	#	#	6.0	1978	22	6.0	1978	6	1978	22	#+	1997	.7	.5	.2	.1	.0	.4	.1	.1	.0		
Feb	.7	.0	#	0	4.0	1994	1	4.0	1994	3	1994	1	#+	1997	.5	.2	.1	.0	.0	.2	.1	.0	.0		
Mar	.3	.0	#	0	5.0	1989	5	5.0	1989	1	1978	4	#+	1998	.1	.1	@	@	.0	@	.0	.0	.0		
Apr	#	.0	#	0	#	1996	6	#+	1996	#+	1996	6	#+	1996	.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	#	1980	28	#	1980	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Nov	.1	.0	#	0	1.0	1996	25	1.3	1980	1	1997	15	#+	2000	.1	@	.0	.0	.0	@	.0	.0	.0		
Dec	.5	.0	#	0	3.5	1986	12	6.5	1986	4	1986	12	#+	2000	.4	.1	.1	.0	.0	.2	.1	.0	.0		
Ann	2.6	.0	N/A	N/A	6.0	Jan 1978	22	6.5	Dec 1986	6	Jan 1978	22	#+	Dec 2000	1.8	.9	.4	.1	.0	.8	.3	.1	.0		

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

- (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

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^{-9/-9.9} represents missing values Annual statistics for Mean/Median snow depths are not appropriate

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Elevation: 1,727 Feet Lat: 31°49N Lon: 99°25W

				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	4/09	4/06	4/04	4/01	3/30	3/28	3/25	3/21						
32	4/08	4/02	3/29	3/26	3/23	3/20	3/17	3/13	3/07						
28	4/02	3/23	3/16	3/11	3/05	2/28	2/22	2/15	2/05						
24	3/16	3/06	2/27	2/22	2/16	2/11	2/05	1/29	1/20						
20	3/03	2/19	2/09	2/01	1/25	1/16	1/06	12/22	0/00						
16	2/20	2/10	2/02	1/27	1/20	1/12	12/31	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(*)														
remb (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	10/19	10/25	10/30	11/02	11/06	11/09	11/12	11/17	11/23						
32	10/28	11/03	11/06	11/10	11/13	11/16	11/19	11/23	11/28						
28	11/02	11/09	11/14	11/18	11/22	11/26	11/30	12/05	12/12						
24	11/18	11/25	12/01	12/05	12/09	12/13	12/18	12/23	12/30						
20	11/21	11/30	12/06	12/11	12/16	12/22	12/28	1/07	0/00						
16	12/10	12/20	12/27	1/03	1/10	1/18	2/03	0/00	0/00						
				Freeze F	ree Period										
Tomp (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days))							
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	239	231	226	222	217	213	209	203	196						
32	252	246	241	238	234	230	226	222	215						
28	296	284	275	268	261	255	247	239	227						
24	330	318	309	302	295	288	281	272	261						
20	>365	>365	>365	340	325	315	306	296	284						
16	>365	>365	>365	>365	>365	347	333	320	304						

^{*} 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	673	464	293	92	21	0	0	0	10	91	360	618	2622		
60	527	335	167	31	4	0	0	0	1	34	235	465	1799		
57	441	264	110	13	1	0	0	0	0	15	172	380	1396		
55	386	221	79	6	0	0	0	0	0	9	137	324	1162		
50	264	135	28	0	0	0	0	0	0	2	68	201	698		
32	25	5	0	0	0	0	0	0	0	0	0	7	37		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	376	468	739	972	1236	1388	1542	1523	1282	1023	642	412	11603
55	24	41	105	288	523	698	829	810	592	319	88	16	4333
57	17	27	73	235	462	638	767	748	532	264	64	10	3837
60	9	15	38	163	373	548	674	655	443	189	36	2	3145
65	0	4	9	74	234	398	519	500	302	91	11	0	2142
70	0	0	0	23	125	253	364	347	180	32	2	0	1326

	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	250	348	580	779	1035	1185	1328	1307	1083	839	475	280	250	598	1178	1957	2992	4177	5505	6812	7895	8734	9209	9489
45	147	232	430	629	880	1035	1173	1152	933	685	340	169	147	379	809	1438	2318	3353	4526	5678	6611	7296	7636	7805
50	78	138	296	482	725	885	1018	997	783	531	220	84	78	216	512	994	1719	2604	3622	4619	5402	5933	6153	6237
55	30	68	181	342	570	735	863	842	634	385	123	35	30	98	279	621	1191	1926	2789	3631	4265	4650	4773	4808
60	4	29	92	212	416	585	708	687	487	245	60	5	4	33	125	337	753	1338	2046	2733	3220	3465	3525	3530
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	182	237	375	501	687	796	871	859	717	543	300	191	182	419	794	1295	1982	2778	3649	4508	5225	5768	6068	6259

(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