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: 415869

Station: MEXIA, TX

Climate Division: TX 3

NWS Call Sign:

Elevation: 535 Feet Lat: 31°41N Lon: 96°29W

									ŗ	Гетр	eratui	re (°F)									
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	Days (3)	
Month	Daily Max						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	57.5	33.7	45.6	87+	1911	31	51.3	1990	-2	1930	18	36.6	1978	602	1	.0	.0	22.3	1.1	14.5	.0
Feb	62.7	37.9	50.3	95	1996	22	57.3+	1999	0+	1951	3	40.1	1978	418	7	.0	.1	23.3	.7	7.6	.0
Mar	70.4	45.3	57.9	95	1946	30	62.7	1974	12+	1943	4	53.1	1996	235	13	.0	.1	29.5	@	2.6	.0
Apr	77.6	52.8	65.2	98	1987	29	70.2	1981	28	1920	5	60.1	1997	76	82	.0	1.2	29.9	.0	@	.0
May	84.3	61.1	72.7	99+	1996	30	77.4	1996	40	1909	2	69.2	1976	6	245	.0	6.2	31.0	.0	.0	.0
Jun	91.3	68.1	79.7	107	1980	28	84.4	1998	50	1984	3	76.3	1989	0	441	.9	20.5	30.0	.0	.0	.0
Jul	95.8	71.5	83.7	111	1917	10	88.0	1980	55+	1990	15	79.8	1989	0	578	6.8	28.1	31.0	.0	.0	.0
Aug	96.8	70.3	83.6	112	1909	18	87.5	1999	54	1984	2	79.2	1971	0	571	9.4	27.8	31.0	.0	.0	.0
Sep	90.7	64.6	77.7	110	1990	1	82.3	1998	40+	1981	19	71.4	1974	2	380	2.1	18.7	30.0	.0	.0	.0
Oct	80.9	54.1	67.5	102	1938	1	70.9	1992	26+	1917	31	59.9	1976	49	126	.1	4.8	30.9	.0	.3	.0
Nov	68.7	44.3	56.5	91	1980	10	62.2	1999	15	1991	4	49.0	1976	274	19	.0	.1	28.3	.0	3.5	.0
Dec	59.9	36.0	48.0	86	1916	7	56.1	1984	-5	1989	23	37.3	1989	534	5	.0	.0	24.3	.6	10.5	.1
Ann	78.1	53.3	65.7	112	Aug 1909	18	88.0	Jul 1980	-5	Dec 1989	23	36.6	Jan 1978	2196	2468	19.3	107.6	341.5	2.4	39.0	.1

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 194-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1904-2001
- (3) Derived from 1971-2000 serially complete daily data

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

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Station: MEXIA, TX

COOP ID: 415869

Climate Division: TX 3 NWS Call Sign: Elevation: 535 Feet Lat: 31°41N Lon: 96°29W

										Pı	recipi	tation	(incl	nes)										
		ans/	P	recip	itatio	on Total					ean N of D	ays (3)	Proba		M	nonthly/	annual j indic	precipitated and	babilit ation will nount vs Probal incomplet	ll be equ	els		ın the
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	2.44	2.19	3.91	1932	5	5.60	1991	.10	1971	8.2	4.9	1.7	.5	.36	.56	.91	1.25	1.60	1.99	2.43	2.97	3.71	4.90	6.04
Feb	3.08	2.74	8.63	1986	4	9.96	1986	.00	1999	6.9	4.6	2.1	.9	.31	.67	1.18	1.62	2.08	2.57	3.13	3.81	4.70	6.15	7.54
Mar	3.45	3.39	5.95	1965	30	10.26	1990	.53	1972	8.2	5.2	2.1	1.2	.74	1.06	1.57	2.02	2.49	2.98	3.53	4.19	5.07	6.47	7.78
Apr	3.14	2.98	5.71	1966	18	9.40	1997	.10	1983	6.9	4.5	2.3	1.1	.50	.77	1.23	1.66	2.11	2.60	3.15	3.83	4.74	6.22	7.64
May	4.91	4.57	5.85	1930	11	11.88	1989	.00	1998	8.2	6.1	3.4	1.5	.74	1.39	2.22	2.90	3.58	4.30	5.09	6.03	7.26	9.22	11.05
Jun	3.89	2.92	5.99	1981	14	14.60	1981	.42	1978	6.4	4.9	2.4	1.3	.47	.77	1.32	1.86	2.44	3.08	3.83	4.76	6.01	8.08	10.09
Jul	1.99	2.08	4.10	1936	1	5.18	1971	.00+	1997	4.2	2.9	1.3	.5	.00	.06	.29	.56	.89	1.28	1.77	2.39	3.29	4.84	6.40
Aug	2.56	1.66	7.48	1983	19	10.34	1983	.00	1999	4.5	3.3	1.7	.7	.09	.29	.65	1.02	1.43	1.89	2.45	3.14	4.09	5.69	7.27
Sep	4.16	3.61	11.80	1932	4	12.51	1974	.29	1982	6.5	4.8	2.8	1.3	.73	1.09	1.70	2.27	2.85	3.48	4.20	5.07	6.23	8.11	9.90
Oct	4.29	3.95	7.02	1927	2	11.52	1984	.21	1995	6.9	5.1	2.9	1.5	.49	.81	1.41	2.01	2.65	3.37	4.20	5.24	6.66	8.99	11.26
Nov	3.64	3.64	3.60	1940	23	8.86	1985	.00	1999	7.3	5.2	2.4	1.0	.58	1.07	1.69	2.19	2.69	3.21	3.79	4.47	5.37	6.78	8.10
Dec	3.85	3.18	4.70	1982	3	9.21	1991	.25	1981	8.1	4.9	2.6	1.2	.60	.92	1.48	2.01	2.56	3.17	3.86	4.70	5.84	7.68	9.44
Ann	41.40	41.17	11.80	Sep 1932	4	14.60	Jun 1981	.00+	Nov 1999	82.3	56.4	27.7	12.7	27.67	30.27	33.62	36.20	38.50	40.74	43.06	45.64	48.79	53.38	57.38

⁺ 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: 1904-2001

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

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Station: MEXIA, TX

Climate Division: TX 3 NWS Call Sign: Elevation: 535 Feet

Lat: 31°41N

Lon: 96°29W

COOP ID: 415869

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Da	ys (1)		
	Mean	s/Medi	ans (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	.3	.0	#	0	3.3	1977	31	3.5	1977	2	1979	2	#+	1982	.1	.1	.1	.0	.0	.0	.0	.0	.0
Feb	.2	.0	#	0	1.5	1975	23	1.5	1975	2	1975	23	#+	1981	.1	.1	.0	.0	.0	.1	.0	.0	.0
Mar	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.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	.1	.0	#	0	1.0	1980	26	1.0	1980	1	1980	26	#	1980	.1	.1	.0	.0	.0	@	.0	.0	.0
Dec	#	.0	#	0	#	1978	31	#	1978	#+	2000	28	#+	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.6	.0	N/A	N/A	3.3	Jan 1977	31	3.5	Jan 1977	2+	Jan 1979	2	#+	Dec 2000	.3	.3	.1	.0	.0	.1	.0	.0	.0

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

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

[@] 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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COOP ID: 415869

Station: MEXIA, TX

Climate Division: TX 3 NWS Call Sign: **Elevation: 535 Feet**

Lat: 31°41N Lon: 96°29W

				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 (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	4/11	4/05	4/01	3/29	3/26	3/22	3/19	3/15	3/09
32	3/31	3/22	3/16	3/11	3/06	3/02	2/25	2/19	2/10
28	3/16	3/08	3/02	2/25	2/20	2/16	2/11	2/05	1/28
24	3/04	2/23	2/17	2/12	2/07	2/01	1/26	1/19	1/05
20	2/24	2/14	2/07	1/31	1/25	1/18	1/09	12/24	0/00
16	2/13	2/02	1/25	1/15	12/30	0/00	0/00	0/00	0/00
			Fal	l Freeze Da	tes (Month/D	ay)			
Tomp (F)		Pro	bability of e	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	ed(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/22	10/28	11/02	11/06	11/10	11/13	11/17	11/22	11/28
32	10/28	11/05	11/11	11/15	11/20	11/24	11/29	12/04	12/12
28	11/08	11/16	11/23	11/28	12/03	12/08	12/13	12/19	12/27
24	11/13	11/24	12/02	12/09	12/16	12/22	12/30	1/08	1/26
20	11/29	12/10	12/18	12/25	1/01	1/09	1/19	0/00	0/00
16	12/13	12/27	1/08	1/22	0/00	0/00	0/00	0/00	0/00
·				Freeze F	ree Period				
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days))	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	253	244	238	233	228	223	218	212	204
32	293	281	272	265	258	250	243	234	222
28	319	307	298	291	285	278	271	262	251
24	>365	>365	327	316	307	300	292	283	272
20	>365	>365	>365	>365	354	335	321	308	292
16	>365	>365	>365	>365	>365	>365	>365	344	320

^{*} 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:

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Station: MEXIA, TX

Climate Division: TX 3 NWS Call Sign: Elevation: 535 Feet Lat: 31°41N Lon: 96°29W

				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	602	418	235	76	6	0	0	0	2	49	274	534	2196
60	459	291	121	23	0	0	0	0	0	13	163	392	1462
57	375	224	73	9	0	0	0	0	0	4	112	313	1110
55	323	185	49	4	0	0	0	0	0	2	84	265	912
50	211	107	13	0	0	0	0	0	0	0	35	167	533
32	14	2	0	0	0	0	0	0	0	0	0	8	24

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	436	515	801	996	1262	1431	1601	1594	1369	1100	735	502	12342
55	31	54	137	310	549	741	888	881	679	389	130	46	4835
57	22	37	99	254	487	681	826	819	619	329	97	32	4302
60	12	20	55	179	394	591	733	726	529	244	58	18	3559
65	1	7	13	82	245	441	578	571	380	126	19	5	2468
70	0	0	1	25	120	292	423	416	242	48	4	0	1571

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growing	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 De													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	247	344	571	766	1020	1199	1356	1351	1131	863	506	295	247	591	1162	1928	2948	4147	5503	6854	7985	8848	9354	9649
45	147	232	424	616	865	1049	1201	1196	981	709	367	181	147	379	803	1419	2284	3333	4534	5730	6711	7420	7787	7968
50	76	140	284	467	710	899	1046	1041	831	556	248	95	76	216	500	967	1677	2576	3622	4663	5494	6050	6298	6393
55	32	72	170	328	555	749	891	886	681	411	146	45	32	104	274	602	1157	1906	2797	3683	4364	4775	4921	4966
60	7	28	80	193	401	599	736	731	534	269	74	17	7	35	115	308	709	1308	2044	2775	3309	3578	3652	3669
Base	Base Growing Degree Units for Corn (Monthly)												•	Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)	•		
50/86	20/86 169 226 357 490 685 812 894 879 745 561 321 195												169	395	752	1242	1927	2739	3633	4512	5257	5818	6139	6334

(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.

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