Station: DUMAS, TX

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: 412617

Climate Division: TX 1 NWS Call Sign: Elevation: 3,655 Feet Lat: 35°52N Lon: 101°58W

									r	Гетр	eratur	re (°F)									
	Mea	n (1)						Extr	emes					Degree Base To	•		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	47.3	20.8	34.1	79+	1970	25	42.7	1986	-18+	1959	5	23.3	1979	961	0	.0	.0	15.4	5.2	28.6	.6
Feb	52.5	24.4	38.5	86	1963	2	45.6	1976	-9	1986	11	27.5	1978	743	0	.0	.0	17.1	3.2	23.4	.6
Mar	60.4	30.9	45.7	92	1971	28	51.4	1986	-2	1948	5	40.9	1998	600	0	.0	.1	24.8	1.2	17.3	.0
Apr	69.4	39.4	54.4	99	1943	29	61.0	1981	13	1945	5	46.8	1997	332	15	.0	.6	27.8	.1	6.5	.0
May	78.2	49.8	64.0	102	1996	17	69.5	1998	27	1994	1	59.3	1983	114	81	.2	4.0	30.7	.0	.4	.0
Jun	87.6	59.7	73.7	109	1980	28	79.3	1990	41+	1970	4	68.0	1989	14	274	2.4	12.9	30.0	.0	.0	.0
Jul	91.7	65.0	78.4	109	1940	10	84.6	1980	47+	1995	2	75.0	1972	0	415	3.2	21.6	31.0	.0	.0	.0
Aug	89.2	63.8	76.5	108	1944	1	81.4	1983	49+	1950	21	72.2	1974	1	359	1.2	18.2	31.0	.0	.0	.0
Sep	81.7	55.7	68.7	105	1939	3	75.0	1998	28	1985	30	62.2	1974	44	155	.3	7.3	29.7	.0	.2	.0
Oct	71.7	43.4	57.6	96+	2000	3	61.7	1979	9	1993	31	51.5	1976	243	11	.0	.9	29.4	.1	2.6	.0
Nov	57.8	30.5	44.2	87	1980	9	51.0	1999	-2	1976	28	35.9	1972	624	0	.0	.0	21.8	1.2	17.9	.1
Dec	48.6	22.8	35.7	79	1939	6	42.1	1980	-9	1989	23	24.0	1983	908	0	.0	.0	16.1	4.4	27.8	1.0
Ann	69.7	42.2	56.0	109+	Jun 1980	28	84.6	Jul 1980	-18+	Jan 1959	5	23.3	Jan 1979	4584	1310	7.3	65.6	304.8	15.4	124.7	2.3

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 093-A

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

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1937-2001

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

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										Pı	recipi	tation	(incl	nes)										
	Mea Medi		P	recipi	itatio	n Total					ean N of D	ays (3)	Proba	ability th		nonthly/ onthly/An	annual j indic	precipita ated am	ount vs Probal	l be equ	els		n 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	.47	.46	1.59	1939	8	1.15	1978	.00+	1998	2.8	1.5	.2	.0	.00	.00	.04	.14	.23	.33	.45	.60	.80	1.13	1.46
Feb	.58	.47	1.40	1948	27	1.79	1978	.00+	1999	3.4	2.0	.3	.0	.00	.00	.00	.13	.25	.38	.54	.73	1.00	1.44	1.88
Mar	1.13	.81	1.50+	1998	15	4.54	1973	.00+	1997	5.0	2.6	.7	.3	.00	.03	.16	.31	.49	.72	.99	1.35	1.87	2.77	3.67
Apr	1.31	.96	4.05	1999	14	6.11	1999	.00	1996	4.3	2.8	.8	.2	.01	.07	.22	.39	.60	.85	1.16	1.57	2.16	3.17	4.20
May	2.74	2.24	4.10	1988	31	7.61	1988	.00	1996	6.8	4.7	2.0	.6	.46	.83	1.30	1.67	2.04	2.43	2.85	3.35	4.01	5.04	6.01
Jun	2.41	2.17	3.76	1954	14	7.00	1992	.03	1998	6.6	4.3	1.6	.7	.26	.44	.78	1.11	1.47	1.88	2.35	2.94	3.75	5.08	6.38
Jul	2.42	2.20	3.98	1971	1	7.14	1971	.31	1978	5.8	3.7	1.6	.7	.22	.39	.71	1.05	1.42	1.83	2.33	2.95	3.81	5.23	6.63
Aug	2.47	2.27	3.06	1945	21	5.29	1981	.08	2000	7.4	4.9	1.6	.5	.49	.72	1.08	1.41	1.75	2.11	2.51	3.00	3.65	4.68	5.67
Sep	1.95	1.45	2.61	1960	9	10.90	1996	.00	1998	5.6	3.6	1.5	.5	.07	.23	.51	.79	1.10	1.45	1.87	2.39	3.11	4.31	5.49
Oct	1.11	.57	3.11	1968	16	5.19	2000	.00+	1998	3.5	2.3	.8	.2	.00	.02	.14	.28	.46	.68	.96	1.32	1.85	2.78	3.72
Nov	.66	.52	1.57	2001	16	2.13	1971	.00+	1999	3.3	2.0	.3	@	.00	.00	.10	.22	.34	.48	.63	.83	1.10	1.53	1.96
Dec	.50	.27	1.75	1959	17	2.83	1991	.00+	2000	3.1	1.6	.2	.0	.00	.00	.08	.16	.24	.34	.46	.61	.82	1.17	1.52
Ann	17.75	17.99	4.10	May 1988	31	10.90	Sep 1996	.00+	Dec 2000	57.6	36.0	11.6	3.7	13.09	14.00	15.16	16.04	16.82	17.56	18.33	19.18	20.21	21.69	22.96

⁺ 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: 1937-2001

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

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COOP ID: 412617

Station: DUMAS, TX

Climate Division: TX 1 NWS Call Sign: Elevation: 3,655 Feet Lat: 35°52N Lon: 101°58W

			Snow Snow Depth Daily Snow Depth Snow Snow Depth Snow Snow Depth Snow Snow Snow Snow Snow Snow Snow Snow																				
		Sanow Fall Sanow Depth Median M															Mea	n Nu	mber	of Day	VS (1)		
	Mean	s/Medi	ans (1))					Extre	mes (2)							ow Fa					Depth esholo	
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	3.9	4.0	1	#	10.0	1999	30	10.0	1999	9	1990	19	2	1983	2.1	1.5	.4	.2	@	4.3	1.9	.5	.0
Feb	3.8	1.4	#	#	9.0	1971	22	19.0	1978	12	1983	6	3	1983	1.9	1.4	.4	.1	.0	3.4	1.6	.7	.2
Mar	2.4	.8	#	#	11.0	1987	18	13.5	1987	8	1988	3	1	1988	1.2	.8	.2	.1	@	.8	.3	.1	.0
Apr	.9	.0	#	0	5.0	1988	1	7.5+	1988	5	1988	1	#+	1988	.5	.4	.1	@	.0	.4	.1	@	.0
May	.1	.0	#	0	4.0	1978	3	4.0	1978	4	1978	3	#	1978	@	@	@	.0	.0	.1	@	.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	#	1985	29	#+	1985	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.1	.0	#	0	2.0	1991	31	2.0	1991	2	1991	31	#+	1991	.1	.1	.0	.0	.0	@	.0	.0	.0
Nov	1.6	.3	#	#	8.0	1980	25	12.5	1972	8	1980	25	1	1980	1.0	.6	.1	@	.0	1.2	.3	.1	.0
Dec	2.0	1.5	#	#	5.5	1987	14	10.0	1987	8	1987	15	2	1987	1.4	.9	.1	.1	.0	2.3	.6	.2	.0
Ann	14.8	8.0	N/A	N/A	11.0	Mar 1987	18	19.0	Feb 1978	12	Feb 1983	6	3	Feb 1983	8.2	5.7	1.3	.5	@	12.5	4.8	1.6	.2

⁺ 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: 412617

Station: DUMAS, TX Climate Division: TX 1

NWS Call Sign:

Elevation: 3,655 Feet La

Lat: 35°52N Lon: 101°58W

				Freez	e Data				
			Spri	ng Freeze D	ates (Month	/Day)			
Temp (F)		P	robability of	later date i	n spring (thi	ru Jul 31) tha	n indicated((*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/12	5/07	5/04	5/01	4/28	4/25	4/22	4/19	4/14
32	5/03	4/28	4/24	4/21	4/18	4/15	4/12	4/08	4/02
28	4/18	4/13	4/10	4/08	4/05	4/03	3/31	3/28	3/23
24	4/10	4/05	4/01	3/28	3/25	3/22	3/18	3/14	3/09
20	4/06	3/30	3/25	3/20	3/16	3/11	3/07	3/01	2/22
16	3/28	3/18	3/12	3/06	3/01	2/23	2/18	2/11	2/02
			Fal	l Freeze Da	tes (Month/I	Day)			
Torrer (E)		Pro	bability of ea	arlier date ii	n fall (begini	ning Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/29	10/04	10/08	10/11	10/14	10/18	10/21	10/25	10/30
32	10/05	10/11	10/15	10/18	10/22	10/25	10/28	11/02	11/07
28	10/20	10/25	10/28	10/31	11/03	11/06	11/09	11/12	11/17
24	10/26	11/01	11/05	11/08	11/12	11/15	11/18	11/22	11/28
20	11/05	11/10	11/14	11/18	11/21	11/24	11/28	12/02	12/07
16	11/13	11/20	11/26	11/30	12/04	12/09	12/13	12/18	12/26
				Freeze F	ree Period	-1		1	1
Torrer (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	188	182	177	173	169	165	161	156	149
32	205	198	194	190	186	182	178	173	167
28	229	223	218	215	211	208	204	199	193
24	254	246	240	235	231	226	221	216	208
20	274	266	260	255	250	245	240	234	225
16	312	300	292	284	278	271	264	256	244

^{*} 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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Climate Division: TX 1 NWS Call Sign: Elevation: 3,655 Feet Lat: 35°52N Lon: 101°58W

				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	961	743	600	332	114	14	0	1	44	243	624	908	4584
60	806	603	446	212	48	3	0	0	11	125	477	753	3484
57	713	522	357	153	25	0	0	0	4	74	394	660	2902
55	651	470	301	120	14	0	0	0	1	49	340	599	2545
50	503	343	176	55	3	0	0	0	0	14	220	453	1767
32	101	52	3	0	0	0	0	0	0	0	14	75	245

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	164	233	426	673	991	1250	1438	1380	1101	791	380	189	9016
55	0	8	11	103	292	560	725	667	412	128	15	1	2922
57	0	4	5	76	240	500	663	605	355	90	9	0	2547
60	0	0	1	45	170	412	570	512	272	48	3	0	2033
65	0	0	0	15	81	274	415	359	155	11	0	0	1310
70	0	0	0	4	29	158	264	214	72	1	0	0	742

										Gro	wing]	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	(Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	60	114	244	450	745	1018	1199	1147	868	562	202	73	60	174	418	868	1613	2631	3830	4977	5845	6407	6609	6682
45													22	78	221	539	1132	2000	3044	4036	4754	5169	5283	5315
50	1	19	71	200	443	718	889	837	573	279	52	6	1	20	91	291	734	1452	2341	3178	3751	4030	4082	4088
55	0	4	28	113	299	568	734	682	431	163	17	0	0	4	32	145	444	1012	1746	2428	2859	3022	3039	3039
60	0	0	5	52	175	422	579	527	297	79	1	0	0	0	5	57	232	654	1233	1760	2057	2136	2137	2137
Base	Base Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)			
50/86	50/86 75 121 201 310 466 653 786 757 554 360 161 8.											82	75	196	397	707	1173	1826	2612	3369	3923	4283	4444	4526

(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