

Climatography of the United States

No. 20

1971-2000

Station: MULESHOE 1, TX

COOP ID: 416135

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,825 Feet Lat: 34° 14N Lon: 102° 44W

Temperature (°F)

Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number of 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	51.7	20.2	36.0	81	1950	22	40.9	2000	-14	1947	4	28.8	1979	901	0	.0	.0	19.2	3.4	29.7	.3
Feb	57.2	23.9	40.6	85	1962	13	47.8	2000	-21	1933	8	32.9	1978	685	0	.0	.0	20.6	1.7	24.4	.2
Mar	65.1	29.9	47.5	96	1946	31	53.1	1974	1	1948	12	43.0	1987	542	0	.0	.1	27.6	.5	18.9	.0
Apr	73.2	38.6	55.9	99	1965	23	60.8	1978	11	1945	4	49.2	1973	289	16	.0	.7	28.9	.0	5.7	.0
May	81.8	48.7	65.3	103+	2000	25	72.3	1996	26	1929	2	61.1	1976	94	100	.4	6.3	30.8	.0	.2	.0
Jun	89.8	58.4	74.1	109+	1981	22	81.1	1990	40	1946	1	70.3	1982	8	280	3.0	16.2	30.0	.0	.0	.0
Jul	91.9	62.4	77.2	110	1944	31	81.2	1980	50+	1988	21	72.1	1975	0	376	2.3	21.5	31.0	.0	.0	.0
Aug	89.6	60.9	75.3	110	1944	3	80.0	1983	41	1984	11	70.3	1971	3	321	1.2	17.8	31.0	.0	.0	.0
Sep	83.2	53.5	68.4	106+	1983	5	74.7	1998	28+	1983	22	61.5	1974	51	152	.5	8.6	29.7	.0	.1	.0
Oct	74.0	40.8	57.4	96+	1979	9	61.8	1998	14	1991	31	50.7	1976	245	10	.0	1.0	30.0	@	3.9	.0
Nov	61.3	28.6	45.0	89	1934	7	50.6	1999	-1+	1991	4	38.2	1972	602	0	.0	.0	24.0	.6	20.1	.1
Dec	52.8	21.4	37.1	81	1939	11	42.8	1980	-9+	1990	24	29.2	1983	866	0	.0	.0	19.8	2.8	28.5	.8
Ann	72.6	40.6	56.7	110+	Aug 1944	3	81.2	Jul 1980	-21	Feb 1933	8	28.8	Jan 1979	4286	1255	7.4	72.2	322.6	9.0	131.5	1.4

+ Also occurred on an earlier date(s)

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

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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1921-2001

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

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No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: MULESHOE 1, TX

COOP ID: 416135

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,825 Feet Lat: 34°14N

Lon: 102°44W

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							Daily Precipitation				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	.43	.34	1.45	1939	8	1.32+	1992	.00+	2000	3.2	1.6	.2	.0	.00	.00	.06	.13	.21	.30	.41	.54	.72	1.02	1.32
Feb	.50	.42	1.10	1978	17	1.77	1978	.00+	2000	3.3	1.8	.1	@	.00	.00	.10	.18	.27	.36	.48	.62	.81	1.14	1.45
Mar	.64	.48	1.90	1929	27	2.72	1973	.00	1996	3.2	1.8	.4	.1	.01	.05	.13	.22	.32	.44	.59	.77	1.04	1.49	1.94
Apr	1.01	.81	2.33+	1997	25	4.93	1997	.00+	1996	3.9	2.8	.5	@	.00	.00	.14	.29	.47	.67	.92	1.24	1.68	2.45	3.20
May	2.04	1.53	5.25	1951	16	6.07	1988	.00	2000	6.1	3.9	1.2	.5	.13	.34	.66	.96	1.28	1.62	2.02	2.52	3.19	4.28	5.34
Jun	2.49	2.46	4.02	1938	25	4.86	1992	.00+	1998	6.4	4.8	1.9	.4	.00	.51	1.03	1.42	1.79	2.18	2.62	3.11	3.77	4.83	5.82
Jul	2.09	2.12	3.38	1924	9	6.41	1975	.00	1983	6.4	4.5	1.5	.3	.27	.53	.89	1.18	1.48	1.80	2.15	2.57	3.13	4.01	4.85
Aug	3.07	2.75	3.90	1984	10	8.98	1984	.15	1973	7.8	5.2	1.8	.7	.44	.70	1.14	1.57	2.01	2.50	3.06	3.75	4.68	6.20	7.66
Sep	2.34	2.56	3.82	1981	6	4.93	1991	.00+	2000	5.7	4.0	1.7	.5	.00	.27	.69	1.07	1.45	1.87	2.35	2.92	3.71	4.99	6.23
Oct	1.50	.96	2.62	1946	7	5.68	1998	.00+	1992	4.3	2.9	1.1	.5	.00	.10	.33	.56	.81	1.09	1.43	1.85	2.43	3.40	4.35
Nov	.67	.46	2.13	2001	16	2.18	1986	.00+	1999	3.3	1.9	.3	.1	.00	.03	.13	.23	.34	.47	.62	.82	1.10	1.56	2.03
Dec	.59	.50	1.87	1943	10	2.29	1991	.00+	1996	3.4	1.9	.3	@	.00	.02	.10	.18	.28	.40	.54	.72	.98	1.42	1.87
Ann	17.37	17.35	5.25	May 1951	16	8.98	Aug 1984	.00+	Sep 2000	57.0	37.1	11.0	3.1	12.04	13.06	14.38	15.38	16.27	17.13	18.03	19.02	20.22	21.97	23.49

+ Also occurred on an earlier date(s)

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: 1921-2001

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

Complete documentation available from:

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

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Station: MULESHOE 1, TX

COOP ID: 416135

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,825 Feet

Lat: 34° 14N

Lon: 102° 44W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (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	2.8	2.0	#	0	7.5	1983	21	10.5	1983	6	1987	18	#+	1993	1.1	.9	.3	.1	.0	-9.9	-9.9	-9.9	-9.9
Feb	2.7	.0	#	0	11.0	1978	17	14.7	1978	2	1983	4	#+	1996	1.1	.8	.3	.1	@	-9.9	-9.9	-9.9	-9.9
Mar	.6	.0	0	0	4.0	1975	29	4.0	1975	0	0	0	0	0	.3	.3	.1	.0	.0	.0	.0	.0	.0
Apr	.3	.0	0	0	4.0	1973	3	6.0	1973	0	0	0	0	0	.1	.1	@	.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	.2	.0	#	0	3.0	1976	29	4.0	1976	3	1976	29	#	1976	.1	.1	@	.0	.0	.2	.1	.0	.0
Nov	1.1	.0	#	0	6.0	1976	13	7.0	1976	#	1991	3	#	1991	.3	.3	.2	.1	.0	.0	.0	.0	.0
Dec	3.1	1.3	#	0	9.0	1982	27	10.5	1971	5	1978	8	#+	1998	1.1	.8	.3	.2	.0	-9.9	-9.9	-9.9	-9.9
Ann	10.8	3.3	N/A	N/A	11.0	Feb 1978	17	14.7	Feb 1978	6	Jan 1987	18	#+	Dec 1998	4.1	3.3	1.2	.5	@	-9.9	-9.9	-9.9	-9.9

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

@ 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

Complete documentation available from:

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Climate Division: TX 1

NWS Call Sign:

Elevation: 3,825 Feet

Lat: 34° 14N

Lon: 102° 44W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/14	5/10	5/06	5/04	5/01	4/29	4/26	4/23	4/18
32	5/02	4/27	4/23	4/20	4/17	4/14	4/10	4/07	4/01
28	4/20	4/15	4/12	4/09	4/06	4/03	3/31	3/28	3/23
24	4/11	4/05	4/01	3/29	3/26	3/22	3/19	3/15	3/09
20	4/04	3/28	3/23	3/19	3/15	3/12	3/07	3/03	2/24
16	3/22	3/14	3/08	3/03	2/26	2/22	2/17	2/11	2/03
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/25	9/29	10/02	10/05	10/07	10/09	10/12	10/14	10/18
32	10/05	10/10	10/14	10/17	10/21	10/24	10/27	10/31	11/06
28	10/12	10/17	10/22	10/25	10/29	11/01	11/04	11/09	11/15
24	10/24	10/29	11/02	11/06	11/09	11/12	11/16	11/20	11/25
20	11/06	11/10	11/13	11/16	11/19	11/22	11/24	11/28	12/02
16	11/09	11/15	11/20	11/24	11/28	12/01	12/05	12/10	12/17
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	177	170	166	162	158	154	150	145	139
32	208	200	195	190	186	182	177	172	164
28	228	220	214	209	205	200	195	189	181
24	250	243	237	232	228	223	219	213	205
20	271	263	257	252	248	243	238	233	225
16	306	295	287	280	274	267	260	252	241

* 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.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:

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Climate Division: TX 1 NWS Call Sign: Elevation: 3,825 Feet Lat: 34°14N Lon: 102°44W

Degree Days to Selected Base Temperatures (°F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	901	685	542	289	94	8	0	3	51	245	602	866	4286
60	746	545	388	172	37	1	0	0	15	124	454	711	3193
57	653	461	299	117	17	0	0	0	6	71	370	618	2612
55	591	407	245	87	10	0	0	0	3	46	316	556	2261
50	438	278	127	32	2	0	0	0	0	12	197	406	1492
32	49	17	0	0	0	0	0	0	0	0	8	41	115

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	171	256	482	717	1030	1262	1399	1341	1091	787	396	198	9130
55	0	2	13	114	326	572	686	628	403	120	14	0	2878
57	0	0	6	84	272	512	624	566	346	83	7	0	2500
60	0	0	2	49	198	423	531	473	266	43	2	0	1987
65	0	0	0	16	100	280	376	321	152	10	0	0	1255
70	0	0	0	3	38	156	228	181	72	1	0	0	679

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	66	132	283	498	798	1036	1165	1108	861	556	217	80	66	198	481	979	1777	2813	3978	5086	5947	6503	6720	6800
45	22	62	171	358	643	886	1010	953	711	408	119	33	22	84	255	613	1256	2142	3152	4105	4816	5224	5343	5376
50	1	21	81	230	490	736	855	798	566	269	50	2	1	22	103	333	823	1559	2414	3212	3778	4047	4097	4099
55	0	2	28	129	341	586	700	643	421	151	12	0	0	2	30	159	500	1086	1786	2429	2850	3001	3013	3013
60	0	0	0	54	209	436	545	488	285	64	2	0	0	0	0	54	263	699	1244	1732	2017	2081	2083	2083
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	107	158	257	359	505	655	751	722	549	387	201	113	107	265	522	881	1386	2041	2792	3514	4063	4450	4651	4764

(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/normal/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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normal/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 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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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