

Climatology of the United States

No. 20

1971-2000

Station: CROSBYTON, TX

COOP ID: 412121

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,010 Feet Lat: 33° 39N

Lon: 101° 15W

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	52.9	25.3	39.1	87	1911	31	44.5	1989	-10+	1930	10	29.9	1979	804	0	.0	.0	19.0	3.2	25.7	.1
Feb	58.3	29.0	43.7	92	1904	25	51.2	1976	-7	1905	13	31.9	1978	598	0	.0	.0	20.6	2.3	19.1	.2
Mar	66.5	36.0	51.3	96+	1989	13	56.2	1974	-2	1922	2	46.6	1996	427	1	.0	.3	27.7	.4	10.9	.0
Apr	74.8	44.9	59.9	101	1959	26	65.1	1978	18	1920	4	53.0	1997	190	37	.0	1.9	29.1	.0	2.1	.0
May	82.0	54.9	68.5	111	2000	25	75.6	1996	28	1909	1	63.8	1976	52	158	.9	7.2	30.9	.0	.0	.0
Jun	88.9	63.3	76.1	113	1994	28	81.3	1998	39	1919	3	71.5	1982	3	336	2.5	15.2	30.0	.0	.0	.0
Jul	92.5	66.5	79.5	109+	1944	29	84.6	1998	48+	1906	4	75.0	1976	0	449	3.9	23.0	31.0	.0	.0	.0
Aug	90.7	65.2	78.0	110	1936	12	83.4	1999	42	1915	31	72.2	1971	1	402	1.2	20.5	31.0	.0	.0	.0
Sep	83.9	58.6	71.3	108	1948	7	77.6	1998	32+	1983	22	63.5	1974	26	213	.6	9.5	29.8	.0	.1	.0
Oct	75.4	48.1	61.8	101	2000	4	65.7	1998	19+	1993	31	54.2	1976	143	41	.1	1.4	30.2	@	1.2	.0
Nov	62.9	35.8	49.4	89+	1996	21	56.6	1999	4	1957	23	42.7	1972	474	4	.0	.0	24.7	.5	11.5	.0
Dec	54.5	27.6	41.1	84	1937	12	45.1	1980	-6+	1989	23	31.2	1983	741	0	.0	.0	20.2	2.4	24.0	.2
Ann	73.6	46.3	60.0	113	Jun 1994	28	84.6	Jul 1998	-10+	Jan 1930	10	29.9	Jan 1979	3459	1641	9.2	79.0	324.2	8.8	94.6	.5

+ 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: 1897-2001

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

081-A

**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

Station: CROSBYTON, TX

COOP ID: 412121

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,010 Feet Lat: 33°39N

Lon: 101°15W

Precipitation (inches)

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	.68	.49	2.00	1939	8	2.62	1983	.00+	1998	3.7	1.9	.3	.1	.00	.00	.09	.21	.33	.47	.64	.85	1.15	1.63	2.12
Feb	.96	.64	1.68	1961	21	2.87	1975	.00	1974	4.3	2.4	.6	.2	.02	.08	.20	.33	.48	.67	.89	1.17	1.57	2.24	2.92
Mar	1.03	.66	2.35	2000	23	3.36	1979	.03	1997	4.4	2.3	.6	.2	.06	.13	.25	.39	.55	.74	.96	1.25	1.65	2.33	3.00
Apr	1.87	1.21	4.50	1900	6	10.33	1997	.08	1978	5.4	3.5	.9	.5	.07	.16	.36	.61	.89	1.24	1.67	2.24	3.04	4.43	5.84
May	3.05	2.70	5.70	1913	9	7.05	1977	.25	1998	7.3	4.8	2.0	1.0	.48	.74	1.18	1.60	2.04	2.51	3.06	3.73	4.62	6.06	7.45
Jun	3.10	2.53	5.78	1913	30	7.68	1982	.17	1973	6.9	5.2	2.1	.8	.32	.55	.98	1.41	1.88	2.40	3.02	3.78	4.83	6.56	8.26
Jul	2.05	2.19	3.80	1905	25	5.27	1987	.19	1980	6.0	3.7	1.4	.6	.32	.50	.79	1.08	1.37	1.69	2.06	2.50	3.10	4.08	5.01
Aug	3.05	2.33	5.02	1993	31	8.00	1974	.00	2000	7.5	4.9	1.9	.9	.31	.67	1.18	1.62	2.07	2.56	3.10	3.76	4.64	6.06	7.40
Sep	3.46	3.18	4.85	1942	19	9.24	1995	.00	1998	6.7	4.6	2.1	1.2	.07	.27	.70	1.19	1.74	2.39	3.18	4.19	5.62	8.06	10.49
Oct	1.91	1.14	4.98	1983	20	10.32	1983	.00+	1992	5.3	3.2	1.0	.5	.00	.03	.19	.42	.72	1.10	1.58	2.24	3.19	4.88	6.62
Nov	.95	.98	2.00	1913	29	2.54	1984	.00+	1999	4.2	2.4	.6	.1	.00	.00	.16	.34	.51	.71	.93	1.20	1.58	2.17	2.77
Dec	.84	.63	2.64	1932	23	4.03	1991	.00+	1996	4.2	2.3	.5	.1	.00	.00	.12	.27	.43	.60	.81	1.06	1.42	1.99	2.56
Ann	22.95	22.49	5.78	Jun 1913	30	10.33	Apr 1997	.00+	Aug 2000	65.9	41.2	14.0	6.2	14.30	15.89	17.98	19.59	21.05	22.47	23.96	25.63	27.67	30.67	33.30

+ 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: 1897-2001

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

Complete documentation available from:

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

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

Station: CROSBYTON, TX

COOP ID: 412121

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,010 Feet

Lat: 33°39N

Lon: 101°15W

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	3.4	1.5	#	0	7.0	1983	21	18.0	1983	2	1972	4	#+	1998	1.5	1.2	.4	.2	.0	.1	.0	.0	.0
Feb	2.4	1.0	#	0	9.0	1978	17	13.0	1973	8	1972	11	1	1972	1.2	.8	.3	@	.0	.1	.0	.0	.0
Mar	.4	.0	#	0	4.0	1989	21	7.0	1989	1	1971	3	#+	1999	.3	.2	.1	.0	.0	.1	.0	.0	.0
Apr	.0	.0	0	0	.5	1973	8	.5	1973	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	.2	.0	#	0	2.5	1976	29	6.0	1976	#+	1993	30	#+	1993	.1	.1	.0	.0	.0	.0	.0	.0	.0
Nov	1.3	.0	#	0	6.0	1976	13	15.0	1980	#	2000	19	#	2000	.4	.4	.2	.1	.0	.0	.0	.0	.0
Dec	2.0	1.0	#	0	7.0	1992	14	9.0	1971	2	1971	3	#+	2000	1.0	.9	.2	.1	.0	.2	.0	.0	.0
Ann	9.7	3.5	N/A	N/A	9.0	Feb 1978	17	18.0	Jan 1983	8	Feb 1972	11	1	Feb 1972	4.5	3.6	1.2	.4	.0	.5	.0	.0	.0

+ 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:

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

Climatography of the United States

No. 20 1971-2000

Station: CROSBYTON, TX

COOP ID: 412121

Climate Division: TX 1

NWS Call Sign:

Elevation: 3,010 Feet

Lat: 33° 39N

Lon: 101° 15W

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	4/30	4/25	4/21	4/18	4/15	4/12	4/08	4/04	3/30
32	4/15	4/10	4/07	4/05	4/02	3/31	3/29	3/26	3/21
28	4/11	4/05	3/31	3/28	3/24	3/21	3/17	3/13	3/07
24	4/03	3/27	3/22	3/18	3/14	3/10	3/05	2/28	2/21
20	3/24	3/15	3/09	3/04	2/27	2/22	2/16	2/10	2/02
16	3/12	3/03	2/23	2/17	2/12	2/06	1/30	1/23	1/11
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	10/04	10/09	10/14	10/17	10/21	10/24	10/28	11/01	11/07
32	10/13	10/19	10/24	10/28	11/01	11/05	11/09	11/14	11/21
28	10/29	11/03	11/07	11/10	11/13	11/15	11/18	11/22	11/27
24	11/04	11/10	11/15	11/18	11/22	11/25	11/29	12/03	12/09
20	11/11	11/18	11/23	11/27	12/02	12/06	12/10	12/15	12/22
16	11/20	11/29	12/05	12/10	12/15	12/20	12/26	1/02	1/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	205	199	195	192	188	185	182	177	172
32	237	229	222	217	212	207	202	195	187
28	255	247	242	237	232	228	223	218	210
24	280	271	264	258	252	247	241	234	224
20	309	298	290	283	277	271	264	256	245
16	>365	337	324	314	305	297	289	279	266

* 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:

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

**Climatography
of the United States
No. 20
1971-2000**

Station: CROSBYTON, TX

COOP ID: 412121

Climate Division: TX 1 NWS Call Sign: Elevation: 3,010 Feet Lat: 33°39N Lon: 101°15W

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	804	598	427	190	52	3	0	1	26	143	474	741	3459
60	649	465	281	98	16	0	0	0	6	60	338	587	2500
57	558	387	203	57	6	0	0	0	1	31	264	495	2002
55	499	337	158	37	3	0	0	0	0	19	220	436	1709
50	357	225	72	10	0	0	0	0	0	4	129	296	1093
32	39	19	0	0	0	0	0	0	0	0	4	18	80

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	258	344	597	837	1129	1323	1472	1424	1177	921	525	300	10307
55	5	18	41	184	420	633	759	711	487	227	50	5	3540
57	2	12	24	144	361	573	697	649	428	177	34	2	3103
60	0	6	10	94	277	483	604	556	343	113	18	0	2504
65	0	0	1	37	158	336	449	402	213	41	4	0	1641
70	0	0	0	10	74	203	299	256	114	9	0	0	965

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	106	190	366	591	879	1090	1230	1180	930	664	300	133	106	296	662	1253	2132	3222	4452	5632	6562	7226	7526	7659
45	49	111	242	452	724	940	1075	1025	780	512	188	63	49	160	402	854	1578	2518	3593	4618	5398	5910	6098	6161
50	18	53	138	316	572	790	920	870	632	370	104	23	18	71	209	525	1097	1887	2807	3677	4309	4679	4783	4806
55	0	20	64	195	419	640	765	715	490	232	44	2	0	20	84	279	698	1338	2103	2818	3308	3540	3584	3586
60	0	3	23	103	278	491	610	560	351	128	12	0	0	3	26	129	407	898	1508	2068	2419	2547	2559	2559
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	114	168	273	390	556	716	809	782	604	421	212	123	114	282	555	945	1501	2217	3026	3808	4412	4833	5045	5168

(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.
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