

Climatology of the United States

No. 20

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

Station: SHEFFIELD, TX

1971-2000

COOP ID: 418252

Climate Division: TX 5

NWS Call Sign:

Elevation: 2,170 Feet Lat: 30° 41N

Lon: 101° 50W

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	61.7	30.3	46.0	90	1969	8	50.3+	1999	5	1972	5	39.5	1979	590	0	.0	.0	26.1	.4	19.2	.0
Feb	67.1	34.7	50.9	96+	1996	23	57.8	2000	6+	1985	3	42.6	1978	396	1	.0	.2	25.9	.2	11.4	.0
Mar	75.7	43.1	59.4	97	1974	31	65.0	2000	9	1980	2	53.1	1987	200	27	.0	1.4	30.8	.0	4.0	.0
Apr	83.1	50.1	66.6	101+	1996	25	72.5	1986	22	1973	9	60.6	1973	78	127	.1	6.4	30.0	.0	.8	.0
May	89.7	60.6	75.2	109	2000	24	81.3	1998	36	1967	2	69.3	1976	14	328	2.2	15.6	31.0	.0	.0	.0
Jun	94.0	68.7	81.4	110	1980	28	86.6	1998	44	1970	3	77.5	1985	0	490	4.7	23.6	30.0	.0	.0	.0
Jul	95.9	71.2	83.6	111	1980	4	89.1	1980	57	1975	12	76.6	1976	0	574	6.9	28.0	31.0	.0	.0	.0
Aug	95.1	69.9	82.5	109	1969	17	88.1	1977	50	1972	16	75.3	1971	0	543	5.6	27.1	31.0	.0	.0	.0
Sep	89.3	63.0	76.2	107+	2000	6	82.8	1977	35	1989	24	68.8	1974	7	342	1.0	16.2	30.0	.0	.0	.0
Oct	80.4	51.7	66.1	100+	1989	1	70.1	1979	20	1993	31	56.8	1976	76	108	.1	3.8	30.9	.0	.7	.0
Nov	69.6	39.7	54.7	92+	1988	5	60.0	1973	13+	1993	27	48.5	1976	320	11	.0	.2	28.9	.0	6.6	.0
Dec	62.2	31.4	46.8	89	1981	21	51.6	1984	-2	1989	23	39.5	1983	563	0	.0	.0	27.1	.3	16.6	@
Ann	80.3	51.2	65.8	111	Jul 1980	4	89.1	Jul 1980	-2	Dec 1989	23	39.5+	Dec 1983	2244	2551	20.6	122.5	352.7	.9	59.3	@

+ 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: 1938-2001

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

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COOP ID: 418252

Climate Division: TX 5

NWS Call Sign:

Elevation: 2,170 Feet Lat: 30°41N

Lon: 101°50W

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	.54	.32	1.23	1994	22	2.09+	1994	.00+	1996	2.1	1.5	.4	.1	.00	.00	.00	.07	.21	.35	.51	.70	.95	1.37	1.77
Feb	.65	.29	2.32	1997	20	2.71	1992	.00+	1999	1.6	1.3	.5	.1	.00	.00	.00	.00	.13	.29	.50	.77	1.16	1.82	2.49
Mar	.53	.41	1.36	1977	26	1.89	1999	.00+	1996	1.8	1.2	.4	.1	.00	.00	.00	.04	.16	.29	.45	.65	.93	1.41	1.88
Apr	.93	.60	2.65	1969	12	7.03	1981	.00+	2000	1.9	1.4	.6	.3	.00	.00	.06	.18	.33	.53	.77	1.10	1.58	2.40	3.24
May	2.19	2.06	2.10	1990	18	8.82	1992	.00+	2000	4.1	3.3	1.8	.6	.00	.00	.76	1.20	1.58	1.96	2.36	2.83	3.46	4.37	5.25
Jun	1.49	1.66	3.10	1993	9	3.30	1993	.00+	1994	3.2	2.5	1.1	.4	.00	.21	.50	.74	.98	1.23	1.52	1.86	2.32	3.06	3.78
Jul	1.20	.61	2.69	1968	19	4.91	1991	.00+	1999	2.2	1.7	.7	.4	.00	.00	.00	.18	.44	.73	1.07	1.50	2.10	3.11	4.10
Aug	1.75	1.38	5.06	1998	25	7.70	1998	.00+	2000	3.0	2.3	1.2	.4	.00	.03	.19	.41	.68	1.03	1.47	2.06	2.91	4.42	5.95
Sep	2.44	1.48	3.78	1996	12	10.16	1974	.00+	2000	3.2	2.8	1.7	.9	.00	.00	.14	.55	1.01	1.54	2.19	3.02	4.18	6.13	8.14
Oct	1.76	1.12	3.60	1981	13	7.33	1981	.00+	1992	3.1	2.6	1.1	.6	.00	.03	.17	.38	.66	1.00	1.45	2.05	2.93	4.49	6.08
Nov	.82	.68	2.40	1998	1	3.41	1998	.00+	1999	1.8	1.5	.6	.2	.00	.00	.00	.14	.37	.59	.82	1.09	1.44	2.03	2.58
Dec	.63	.29	1.50	1980	8	2.43	1991	.00+	2000	1.8	1.4	.4	.1	.00	.00	.00	.04	.17	.33	.52	.77	1.11	1.71	2.30
Ann	14.93	14.87	5.06	Aug 1998	25	10.16	Sep 1974	.00+	Dec 2000	29.8	23.5	10.5	4.2	8.44	9.58	11.10	12.30	13.39	14.47	15.60	16.87	18.45	20.79	22.86

+ 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: 1938-2001

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

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Station: SHEFFIELD, TX

COOP ID: 418252

Climate Division: TX 5

NWS Call Sign:

Elevation: 2,170 Feet

Lat: 30° 41N

Lon: 101° 50W

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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.0	.0	N/A	N/A	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.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:

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1971-2000**

Station: SHEFFIELD, TX

COOP ID: 418252

Climate Division: TX 5

NWS Call Sign:

Elevation: 2,170 Feet

Lat: 30° 41N

Lon: 101° 50W

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	4/21	4/16	4/12	4/08	4/05	4/02	3/30	3/26	3/21
32	4/12	4/07	4/02	3/30	3/26	3/23	3/19	3/15	3/09
28	4/04	3/28	3/23	3/19	3/15	3/11	3/07	3/02	2/23
24	3/26	3/17	3/10	3/04	2/27	2/21	2/15	2/09	1/30
20	3/16	3/06	2/26	2/19	2/13	2/07	1/31	1/22	1/09
16	2/24	2/09	1/30	1/21	1/12	1/02	12/21	11/28	0/00
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	10/11	10/17	10/21	10/25	10/28	11/01	11/04	11/08	11/14
32	10/22	10/28	11/01	11/04	11/07	11/10	11/14	11/18	11/23
28	10/28	11/04	11/08	11/12	11/15	11/19	11/23	11/27	12/03
24	11/07	11/15	11/20	11/24	11/28	12/03	12/07	12/12	12/19
20	11/16	11/26	12/03	12/09	12/14	12/20	12/26	1/02	1/14
16	11/25	12/07	12/16	12/24	12/31	1/09	1/21	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	228	220	215	210	205	200	196	190	182
32	246	239	234	229	225	221	217	212	205
28	274	264	257	250	245	239	233	226	216
24	303	293	286	280	274	268	262	255	244
20	>365	331	319	310	302	295	287	279	267
16	>365	>365	>365	>365	358	338	326	314	301

* 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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COOP ID: 418252

Climate Division: TX 5 NWS Call Sign: Elevation: 2,170 Feet Lat: 30°41N Lon: 101°50W

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	590	396	200	78	14	0	0	0	7	76	320	563	2244
60	437	266	99	28	3	0	0	0	0	26	198	410	1467
57	351	195	57	13	1	0	0	0	0	11	138	323	1089
55	295	155	36	7	0	0	0	0	0	6	105	266	870
50	175	76	8	0	0	0	0	0	0	1	44	147	451
32	3	0	0	0	0	0	0	0	0	0	0	0	3

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	436	529	849	1038	1338	1480	1597	1566	1325	1055	680	460	12353
55	15	39	172	356	625	790	884	853	635	348	95	13	4825
57	9	24	131	301	563	730	822	791	575	291	69	7	4313
60	3	11	81	226	472	640	729	698	485	214	38	2	3599
65	0	1	27	127	328	490	574	543	342	108	11	0	2551
70	0	0	6	57	203	342	419	389	213	42	2	0	1673

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	240	347	622	821	1104	1248	1364	1334	1105	825	461	260	240	587	1209	2030	3134	4382	5746	7080	8185	9010	9471	9731
45	126	225	468	671	949	1098	1209	1179	955	670	324	140	126	351	819	1490	2439	3537	4746	5925	6880	7550	7874	8014
50	53	127	327	522	794	948	1054	1024	805	516	198	58	53	180	507	1029	1823	2771	3825	4849	5654	6170	6368	6426
55	16	54	197	378	639	798	899	869	655	368	103	15	16	70	267	645	1284	2082	2981	3850	4505	4873	4976	4991
60	0	17	99	246	484	648	744	714	507	236	40	0	0	17	116	362	846	1494	2238	2952	3459	3695	3735	3735
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	212	266	427	543	724	827	899	879	737	546	320	210	212	478	905	1448	2172	2999	3898	4777	5514	6060	6380	6590

(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