U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: BAKERSFIELD, TX **COOP ID: 410482**

Climate Division: TX 5 **NWS Call Sign:** **Elevation: 2,540 Feet** **Lat: 30˚53N** **Lon: 102˚18W**

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	59.7	31.5	45.6	88	1969	9	50.6	1998	7	1972	5	38.9	1979	601	0	.0	.0	24.6	.8	15.2	.0
Feb	65.0	35.9	50.5	91+	1996	23	57.4	2000	3	1985	2	43.9	1978	409	1	.0	.2	25.2	.4	8.2	.0
Mar	73.3	42.0	57.7	97	1995	22	63.5	1974	12+	1993	13	51.5	1987	245	17	.0	1.0	30.3	.0	3.6	.0
Apr	81.5	50.6	66.1	101	1972	13	71.6	1986	24	1973	9	59.3	1997	81	112	.1	6.4	29.9	.0	.4	.0
May	88.5	59.8	74.2	111	2000	25	81.9	1996	35	1970	3	68.1	1976	23	306	2.4	14.6	31.0	.0	.0	.0
Jun	93.6	67.3	80.5	114	1994	28	86.3	1998	46	1970	3	76.6	1987	0	464	4.7	22.9	30.0	.0	.0	.0
Jul	95.5	70.2	82.9	110	1998	13	88.1	1998	59	1975	2	76.8	1976	0	554	6.5	27.5	31.0	.0	.0	.0
Aug	94.5	69.3	81.9	109	1969	18	85.7	1999	57+	1989	8	75.5	1971	0	525	3.5	26.1	31.0	.0	.0	.0
Sep	88.3	63.0	75.7	108	2000	7	82.1	1977	39	1989	24	67.8	1974	9	329	1.1	15.8	30.0	.0	.0	.0
Oct	79.2	53.0	66.1	104	1977	1	70.3	1979	24	1993	31	57.4	1976	75	110	.1	3.5	30.7	.0	.3	.0
Nov	68.2	41.0	54.6	93	1965	26	60.2	1999	11	1979	29	45.9	1976	328	17	.0	.1	28.1	.1	4.5	.0
Dec	60.7	33.3	47.0	86	1981	22	51.7	1977	5	1989	23	39.7	1983	559	0	.0	.0	25.9	.6	13.2	.0
Ann	79.0	51.4	65.2	114	Jun 1994	28	88.1	Jul 1998	3	Feb 1985	2	38.9	Jan 1979	2330	2435	18.4	118.1	347.7	1.9	45.4	.0

\+ 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/normals/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

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

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	.49	.32	3.00	1955	9	2.26	1994	.00+	1996
Feb	.59	.18	2.51	1992	4	4.37	1992	.00+	1999
Mar	.41	.23	1.15	1977	27	1.49	1973	.00+	1980
Apr	.92	.57	2.00	1963	26	3.62	1981	.00+	1998
May	1.85	1.38	2.24	1992	23	4.57	1987	.00	1989
Jun	1.68	1.62	2.55	1970	8	6.02	1987	.00	1975
Jul	1.08	.84	3.59	1959	18	3.85	1990	.00+	1998
Aug	1.73	1.55	3.57	1976	31	4.75	1992	.00+	1995
Sep	3.21	2.26	3.63	1988	18	23.44	1974	.00	2000
Oct	2.03	1.41	4.46	1986	4	13.32	1986	.00	1979
Nov	.70	.58	2.76	2001	15	1.94	1996	.00+	1999
Dec	.62	.30	1.35	1986	22	2.97	1986	.00+	1996
Ann	15.31	13.27	4.46	Oct 1986	4	23.44	Sep 1974	.00+	Sep 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	3.0	1.5	.1	@
Feb	2.6	1.4	.3	.1
Mar	2.4	1.1	.2	@
Apr	2.8	1.7	.6	.2
May	4.7	3.2	1.1	.6
Jun	4.2	2.8	1.1	.4
Jul	3.2	2.3	.6	.3
Aug	4.4	2.8	1.0	.5
Sep	5.3	3.9	1.9	.8
Oct	4.4	3.0	1.3	.5
Nov	2.6	1.6	.6	.1
Dec	3.0	1.8	.4	@
Ann	42.6	27.1	9.2	3.5

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.00	.00	.02	.09	.18	.29	.42	.59	.83	1.25	1.68
Feb	.00	.00	.02	.07	.15	.27	.43	.66	.99	1.61	2.25
Mar	.00	.00	.03	.08	.15	.23	.34	.48	.69	1.06	1.43
Apr	.00	.00	.07	.20	.36	.56	.80	1.11	1.57	2.34	3.13
May	.05	.17	.41	.67	.97	1.31	1.73	2.26	2.99	4.24	5.48
Jun	.10	.26	.52	.77	1.03	1.32	1.66	2.08	2.65	3.58	4.49
Jul	.00	.00	.16	.32	.51	.73	.99	1.33	1.80	2.59	3.39
Aug	.00	.06	.28	.52	.81	1.14	1.56	2.09	2.85	4.14	5.44
Sep	.05	.23	.62	1.06	1.57	2.18	2.92	3.88	5.24	7.57	9.90
Oct	.01	.05	.19	.41	.70	1.09	1.61	2.32	3.37	5.27	7.25
Nov	.00	.00	.00	.16	.31	.47	.66	.89	1.21	1.76	2.28
Dec	.00	.00	.01	.09	.19	.32	.49	.72	1.06	1.64	2.25
Ann	6.48	7.87	9.82	11.42	12.91	14.43	16.06	17.93	20.30	23.91	27.18

\+ 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: 1948-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	.8	.0	#	0
Feb	.2	.0	#	0
Mar	.0	.0	0	0
Apr	.0	.0	0	0
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.0	.0	#	0
Nov	.4	.0	#	0
Dec	.4	.0	#	0
Ann	1.8	.0	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	4.5	1985	13	11.0	1985	5	1985	13	3	1985
Feb	3.0	1973	9	4.0	1973	1	1985	1	#+	1994
Mar	.5	1989	5	.5	1989	0	0	0	0	0
Apr	.0	0	0	.0	0	0	0	0	0	0
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	.5	1993	30	.5	1993	1	1993	30	#	1993
Nov	3.2	1980	17	5.2	1980	3	2000	8	#	2000
Dec	5.0	1998	11	5.0	1998	5	1998	11	#+	1998
Ann	5.0	Dec 1998	11	11.0	Jan 1985	5+	Dec 1998	11	3	Jan 1985

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	.4	.3	.1	.0	.0
Feb	.1	.1	@	.0	.0
Mar	@	.0	.0	.0	.0
Apr	.0	.0	.0	.0	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	@	.0	.0	.0	.0
Nov	.2	.2	@	.0	.0
Dec	.2	.1	@	@	.0
Ann	.9	.7	.1	@	.0

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	@	.0	.0	.0
Feb	.0	.0	.0	.0
Mar	.0	.0	.0	.0
Apr	.0	.0	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	@	.0	.0	.0
Nov	.0	.0	.0	.0
Dec	.2	.1	@	.0
Ann	.2	.1	@	.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

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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	4/14	4/10	4/06	4/02	3/29	3/25	3/20	3/14
32	4/11	4/04	3/30	3/26	3/22	3/18	3/14	3/09	3/02
28	4/04	3/26	3/19	3/14	3/09	3/03	2/26	2/19	2/11
24	3/22	3/11	3/04	2/25	2/19	2/12	2/06	1/29	1/18
20	3/02	2/20	2/12	2/06	1/31	1/24	1/18	1/09	12/28
16	2/25	2/12	2/03	1/25	1/17	1/08	12/28	12/07	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	10/15	10/21	10/26	10/29	11/02	11/05	11/09	11/13	11/19
32	10/29	11/04	11/08	11/11	11/14	11/17	11/21	11/25	11/30
28	11/06	11/12	11/17	11/21	11/24	11/28	12/02	12/06	12/12
24	11/13	11/22	11/28	12/03	12/09	12/14	12/19	12/26	1/04
20	11/26	12/06	12/14	12/21	12/27	1/02	1/09	1/17	1/30
16	11/30	12/15	12/26	1/05	1/15	1/26	2/10	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	240	231	224	219	213	208	202	195	186
32	262	253	247	241	236	231	226	220	211
28	290	280	272	266	260	254	248	240	230
24	333	319	309	300	292	284	276	266	252
20	>365	>365	346	334	325	317	309	299	287
16	>365	>365	>365	>365	>365	340	324	311	295

***** 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

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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	601	409	245	81	23	0	0	0	9	75	328	559	2330
60	450	279	132	28	7	0	0	0	1	27	210	406	1540
57	364	208	82	13	2	0	0	0	0	11	153	319	1152
55	308	167	56	7	0	0	0	0	0	6	120	263	927
50	188	87	16	0	0	0	0	0	0	1	57	145	494
32	6	0	0	0	0	0	0	0	0	0	0	0	6

Base — Cooling Degree Days (1)

Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	428	516	794	1021	1307	1454	1577	1548	1309	1057	678	465	12154
55	17	40	137	338	594	764	864	835	619	351	108	15	4682
57	11	25	101	284	534	704	802	773	559	294	81	8	4176
60	4	12	58	209	445	614	709	680	470	216	49	2	3468
65	0	1	17	112	306	464	554	525	329	110	17	0	2435
70	0	0	2	48	190	317	399	371	204	43	4	0	1578

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	254	365	607	819	1098	1249	1355	1324	1098	845	483	285	254	619	1226	2045	3143	4392	5747	7071	8169	9014	9497	9782
45	152	244	457	670	943	1099	1200	1169	948	690	348	172	152	396	853	1523	2466	3565	4765	5934	6882	7572	7920	8092
50	70	141	318	522	788	949	1045	1014	798	539	227	87	70	211	529	1051	1839	2788	3833	4847	5645	6184	6411	6498
55	26	70	192	382	633	799	890	859	651	395	129	35	26	96	288	670	1303	2102	2992	3851	4502	4897	5026	5061
60	0	25	100	253	482	649	735	704	505	257	57	2	0	25	125	378	860	1509	2244	2948	3453	3710	3767	3769
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	196	252	394	531	723	829	899	883	732	544	309	207	196	448	842	1373	2096	2925	3824	4707	5439	5983	6292	6499

(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

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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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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