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: FENCE LAKE, NM **COOP ID: 293180**

Climate Division: NM 1 **NWS Call Sign:** **Elevation: 7,055 Feet** **Lat: 34˚39N** **Lon: 108˚40W**

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	45.3	15.4	30.4	69+	1986	29	38.0	1986	-40	1971	6	24.7	1973	1075	0	.0	.0	9.6	2.0	30.5	2.7
Feb	50.2	19.1	34.7	71	2000	27	40.1	1995	-20	1966	2	28.8	1985	850	0	.0	.0	14.9	1.1	27.4	1.0
Mar	56.5	23.1	39.8	79	1989	10	44.6	1999	-11	1971	3	34.8	1973	782	0	.0	.0	23.7	.2	28.7	.1
Apr	65.0	27.5	46.3	86	1989	19	52.1	1989	-3	1965	14	40.6	1983	562	0	.0	.0	27.6	.0	23.4	.0
May	74.3	34.8	54.6	94	2000	29	59.5	1996	12+	1970	2	50.2	1971	327	4	.0	.3	30.9	.0	11.1	.0
Jun	84.3	43.3	63.8	98+	1974	22	68.0	1974	22	1971	4	60.7	1991	88	52	.0	6.5	30.0	.0	1.6	.0
Jul	85.9	51.3	68.6	101	1995	28	71.4	1996	36+	1987	2	66.0	1987	8	119	@	9.5	31.0	.0	.0	.0
Aug	82.7	50.3	66.5	97	2000	3	70.7	1995	30	1968	23	63.9	1974	34	81	.0	2.7	31.0	.0	.0	.0
Sep	77.7	43.2	60.5	94	1969	10	65.3	1998	20+	1970	25	56.8	1985	158	21	.0	.5	30.0	.0	1.7	.0
Oct	67.2	31.8	49.5	85+	1972	1	54.0	1988	9+	1989	30	44.2	1984	481	0	.0	.0	29.6	.1	16.6	.0
Nov	54.2	21.4	37.8	76+	1973	9	43.8	1999	-14	1976	28	32.2	1992	816	0	.0	.0	20.8	.6	27.7	.3
Dec	46.6	15.6	31.1	68	1981	10	37.2	1980	-27	1990	24	25.3	1990	1051	0	.0	.0	12.5	1.8	30.0	2.0
Ann	65.8	31.4	48.6	101	Jul 1995	28	71.4	Jul 1996	-40	Jan 1971	6	24.7	Jan 1973	6232	277	@	19.5	291.6	5.8	198.7	6.1

\+ 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

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1964-2001

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

Issue Date: February 2004

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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	.96	.78	.85+	1982	12	2.65	1993	.00	1972
Feb	.87	.78	1.10	1980	15	2.96	1980	.00+	1984
Mar	1.19	1.17	1.10+	1981	29	3.46	1981	.00+	1997
Apr	.67	.50	1.22	1988	16	2.31	1988	.00+	1993
May	.53	.35	.65	1981	16	3.50	1992	.00+	2000
Jun	.57	.26	1.57	1997	7	2.56	1972	.00+	1993
Jul	2.18	2.01	1.70	1967	23	5.48	1985	.30	1993
Aug	2.48	2.26	1.69	1988	5	5.68	1982	.42	1973
Sep	1.52	1.28	1.60	1994	3	4.36	1975	.05	2000
Oct	1.45	1.16	1.45	1972	19	5.77	1972	.00+	1999
Nov	.98	.90	1.09	1979	8	2.56	1991	.00+	1999
Dec	.83	.64	.99	1979	22	2.12	1991	.00+	1996
Ann	14.23	14.65	1.70	Jul 1967	23	5.77	Oct 1972	.00+	May 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	5.5	3.4	.3	.0
Feb	4.6	2.9	.4	@
Mar	5.8	4.0	.4	.1
Apr	3.6	2.2	.3	@
May	3.2	1.8	.1	.0
Jun	2.8	1.7	.2	@
Jul	8.7	6.3	1.1	.2
Aug	10.2	7.0	1.5	.3
Sep	5.6	4.1	.8	.2
Oct	4.6	3.6	1.1	.2
Nov	3.7	2.9	.6	@
Dec	4.3	3.0	.2	.0
Ann	62.6	42.9	7.0	1.0

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	.04	.12	.27	.41	.56	.73	.93	1.18	1.53	2.10	2.66
Feb	.00	.00	.23	.38	.53	.69	.88	1.11	1.40	1.90	2.37
Mar	.00	.00	.32	.56	.78	1.00	1.24	1.54	1.93	2.52	3.10
Apr	.00	.00	.00	.17	.32	.47	.64	.86	1.15	1.63	2.09
May	.00	.00	.00	.08	.20	.33	.48	.67	.93	1.38	1.81
Jun	.00	.00	.00	.07	.19	.33	.49	.70	.99	1.50	2.00
Jul	.59	.80	1.11	1.39	1.66	1.94	2.25	2.62	3.10	3.86	4.57
Aug	.73	.97	1.32	1.63	1.92	2.23	2.57	2.98	3.50	4.31	5.06
Sep	.18	.30	.51	.72	.95	1.20	1.49	1.85	2.34	3.15	3.93
Oct	.00	.00	.21	.54	.83	1.13	1.47	1.88	2.43	3.29	4.18
Nov	.00	.24	.44	.60	.74	.89	1.05	1.23	1.47	1.85	2.20
Dec	.00	.05	.17	.29	.43	.59	.78	1.02	1.36	1.92	2.49
Ann	9.05	10.01	11.27	12.23	13.10	13.95	14.84	15.83	17.04	18.82	20.37

\+ 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: 1964-2001
(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	7.2	4.0	1	#
Feb	5.2	2.8	1	#
Mar	6.2	5.0	1	#
Apr	2.3	.0	#	0
May	.2	.0	#	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	1.0	.0	#	0
Nov	4.4	4.0	#	0
Dec	5.0	4.0	#	#
Ann	31.5	19.8	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	7.0	1987	16	25.0	1979	9	1995	6	5	1979
Feb	9.0	1987	25	22.0+	1987	16	1987	26	7	1985
Mar	16.0	1981	29	22.5	1973	8+	1981	29	8	1981
Apr	7.0	1999	2	14.5	1988	7+	1999	2	1	1973
May	4.0	1979	9	4.0	1979	#	1995	17	#	1995
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	9.0	1994	16	9.0	1994	6	1972	31	#+	1997
Nov	9.0	1972	12	14.5	1972	8	1976	27	1	1983
Dec	7.0	1971	13	21.0	1987	12+	1990	22	2	1990
Ann	16.0	Mar 1981	29	25.0	Jan 1979	16	Feb 1987	26	8	Mar 1981

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	2.2	2.0	.9	.3	.0
Feb	1.5	1.4	.7	.4	.0
Mar	1.8	1.6	.6	.3	@
Apr	1.0	.8	.2	.2	.0
May	.1	@	@	.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	.4	.3	.2	.1	.0
Nov	1.3	1.3	.6	.2	.0
Dec	2.2	2.1	1.0	.3	.0
Ann	10.5	9.5	4.2	1.8	@

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	2.6	2.1	.4	.0
Feb	2.1	1.2	.5	.1
Mar	1.5	.6	.2	.0
Apr	.2	.1	.1	.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	.2	.1	.1	.0
Nov	1.2	.6	.2	.0
Dec	2.0	1.1	.5	.0
Ann	9.8	5.8	2.0	.1

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

(1) Derived from Snow Climatology and 1971-2000 daily data

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

(2) Derived from 1971-2000 daily data

-9/-9.9 represents missing values

Annual statistics for Mean/Median snow depths are not appropriate

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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	6/29	6/24	6/21	6/18	6/16	6/13	6/10	6/07	6/02
32	6/20	6/15	6/12	6/09	6/06	6/03	5/31	5/28	5/23
28	6/09	6/03	5/29	5/25	5/21	5/17	5/13	5/09	5/02
24	5/22	5/16	5/12	5/08	5/04	5/01	4/27	4/22	4/16
20	5/13	5/06	5/01	4/27	4/23	4/19	4/14	4/09	4/02
16	5/07	4/28	4/21	4/16	4/10	4/05	3/30	3/24	3/15

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	9/05	9/09	9/12	9/15	9/18	9/20	9/23	9/26	10/01
32	9/16	9/20	9/23	9/25	9/27	9/29	10/01	10/04	10/08
28	9/26	9/30	10/03	10/06	10/08	10/11	10/14	10/17	10/21
24	9/30	10/05	10/09	10/12	10/15	10/18	10/21	10/24	10/30
20	10/09	10/14	10/18	10/21	10/24	10/27	10/31	11/03	11/09
16	10/17	10/22	10/26	10/29	11/01	11/04	11/07	11/11	11/17

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	111	105	101	97	93	90	86	82	75
32	128	123	119	115	112	109	106	102	96
28	163	155	149	144	139	135	130	124	116
24	185	178	172	167	163	158	153	148	140
20	208	200	194	189	184	179	174	168	160
16	238	226	218	211	204	197	190	182	170

***** 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)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1075	850	782	562	327	88	8	34	158	481	816	1051	6232
60	920	710	627	413	192	27	0	4	65	330	666	896	4850
57	827	626	534	328	126	10	0	1	31	246	576	803	4108
55	765	570	472	273	90	5	0	0	17	196	516	741	3645
50	610	430	323	155	31	0	0	0	2	93	369	586	2599
32	132	57	14	1	0	0	0	0	0	0	27	112	343

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	81	131	255	429	699	955	1134	1069	853	542	200	84	6432
55	0	0	0	11	77	269	421	356	180	24	0	0	1338
57	0	0	0	6	50	215	359	295	134	13	0	0	1072
60	0	0	0	1	23	141	266	205	78	4	0	0	718
65	0	0	0	0	4	52	119	81	21	0	0	0	277
70	0	0	0	0	0	10	24	14	2	0	0	0	50

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	5	23	86	215	461	726	898	837	625	320	68	5	5	28	114	329	790	1516	2414	3251	3876	4196	4264	4269
45	0	1	24	109	309	576	743	682	475	185	15	0	0	1	25	134	443	1019	1762	2444	2919	3104	3119	3119
50	0	0	1	37	171	426	588	527	328	86	0	0	0	0	1	38	209	635	1223	1750	2078	2164	2164	2164
55	0	0	0	7	66	278	433	372	185	21	0	0	0	0	0	7	73	351	784	1156	1341	1362	1362	1362
60	0	0	0	0	15	148	278	218	77	0	0	0	0	0	0	0	15	163	441	659	736	736	736	736
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	28	59	128	239	382	506	572	540	432	285	109	41	28	87	215	454	836	1342	1914	2454	2886	3171	3280	3321

(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:
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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