

# Climatography of the United States

No. 20

1971-2000

Station: WOLF CANYON, NM

COOP ID: 299820

Climate Division: NM 2

NWS Call Sign:

Elevation: 8,220 Feet Lat: 35° 57N

Lon: 106° 45W

## 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	34.8	7.1	21.0	63	1953	11	28.5	1986	-36	1971	6	15.0	1979	1366	0	.0	.0	2.7	8.5	30.9	7.3
Feb	37.9	11.0	24.5	62	1988	28	30.9	1996	-24	1985	2	20.1	1974	1135	0	.0	.0	3.3	5.5	28.2	3.7
Mar	43.3	17.4	30.4	67	1971	26	35.3	1972	-18	1965	4	25.5	1977	1073	0	.0	.0	10.1	1.5	30.5	1.1
Apr	51.8	22.7	37.3	76	1992	28	43.2	1989	-6	1983	5	31.2	1983	833	0	.0	.0	21.7	.3	29.0	.2
May	60.9	28.8	44.9	84	1956	31	50.8	1996	7	1967	2	41.8	1971	625	0	.0	.0	29.0	@	24.2	.0
Jun	71.5	34.9	53.2	90	1954	21	56.8	1996	14	1999	8	49.9	1975	355	0	.0	.0	30.0	.0	9.6	.0
Jul	74.2	41.6	57.9	90+	1957	2	60.4	1996	20	1999	1	55.4	1999	220	0	.0	.0	31.0	.0	.5	.0
Aug	71.5	41.6	56.6	86+	1954	1	59.7	1994	23	1968	24	53.6	1991	263	0	.0	.0	31.0	.0	.7	.0
Sep	65.9	34.9	50.4	85	1982	4	54.8	1998	14	1970	26	47.7	1971	438	0	.0	.0	29.7	.0	10.5	.0
Oct	55.7	25.2	40.5	80	1963	1	43.6	1988	3	1996	22	35.2	1984	761	0	.0	.0	25.5	.2	27.1	.0
Nov	42.2	15.5	28.9	71	1980	10	35.0	1995	-24	1976	28	23.0	1972	1085	0	.0	.0	10.4	3.3	29.5	1.7
Dec	35.7	8.5	22.1	64	1980	27	29.5	1980	-26	1978	8	17.5	1974	1329	0	.0	.0	2.7	7.5	30.9	5.8
Ann	53.8	24.1	39.0	90+	Jul 1957	2	60.4	Jul 1996	-36	Jan 1971	6	15.0	Jan 1979	9483	0	.0	.0	227.1	26.8	251.6	19.8

+ 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](http://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: 1952-2001

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

098-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: WOLF CANYON, NM**

**COOP ID: 299820**

**Climate Division: NM 2**

**NWS Call Sign:**

**Elevation: 8,220 Feet Lat: 35°57N**

**Lon: 106°45W**

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	2.03	1.82	1.62	1961	27	4.85	1993	.02	1999	8.1	5.6	1.1	.2	.15	.29	.55	.83	1.14	1.50	1.92	2.46	3.21	4.47	5.71
Feb	1.57	1.41	1.09	2001	9	3.49	1975	.19	1972	7.8	4.7	.8	.0	.38	.52	.75	.96	1.16	1.37	1.61	1.90	2.27	2.87	3.43
Mar	2.13	1.70	1.63	1985	12	6.33	1973	.05	1997	8.6	5.7	1.3	.3	.27	.44	.74	1.03	1.35	1.70	2.10	2.60	3.28	4.39	5.47
Apr	1.37	1.17	1.90	1975	12	3.49	1986	.00	1989	6.0	3.5	.6	.3	.05	.16	.35	.55	.77	1.02	1.31	1.69	2.20	3.06	3.90
May	1.40	1.27	1.38	1978	2	3.89	1992	.00	1996	7.1	4.0	.6	@	.11	.26	.48	.69	.90	1.14	1.40	1.73	2.18	2.90	3.59
Jun	1.21	1.04	1.85	1966	28	4.45	1988	.07	1994	5.7	3.2	.7	.2	.05	.10	.23	.39	.57	.80	1.08	1.44	1.96	2.87	3.78
Jul	3.17	3.25	3.35	1962	25	7.08	1990	.58	1993	13.8	8.2	2.0	.2	1.16	1.46	1.88	2.24	2.58	2.93	3.31	3.75	4.31	5.18	5.97
Aug	3.85	3.97	2.50	1999	9	9.85	1999	1.64	1985	14.3	8.9	2.4	.6	1.58	1.94	2.43	2.84	3.23	3.62	4.04	4.52	5.13	6.07	6.92
Sep	2.12	1.67	2.57	1958	13	4.35	1991	.41	2000	8.1	4.8	1.3	.3	.57	.77	1.08	1.35	1.61	1.88	2.19	2.55	3.03	3.77	4.46
Oct	1.98	1.39	1.59	1994	15	5.69	1972	.00	1995	7.1	4.6	1.3	.2	.15	.37	.69	.98	1.28	1.61	1.99	2.45	3.07	4.08	5.05
Nov	1.82	1.74	1.49	1991	16	5.28	1978	.18	1999	6.8	4.6	1.2	.2	.35	.51	.78	1.03	1.28	1.55	1.85	2.22	2.71	3.50	4.25
Dec	1.52	1.05	1.60	1965	10	4.24	1983	.20	1981	6.9	4.2	.8	.1	.20	.32	.54	.75	.97	1.22	1.51	1.86	2.33	3.11	3.87
Ann	24.17	23.78	3.35	Jul 1962	25	9.85	Aug 1999	.00+	May 1996	100.3	62.0	14.1	2.6	16.75	18.17	20.00	21.40	22.64	23.85	25.09	26.47	28.15	30.60	32.71

+ 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: 1952-2001

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

Complete documentation available from:  
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**Station: WOLF CANYON, NM**

**COOP ID: 299820**

**Climate Division: NM 2**

**NWS Call Sign:**

**Elevation: 8,220 Feet**

**Lat: 35° 57N**

**Lon: 106° 45W**

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	26.6	27.8	10	11	26.0	1987	16	60.0	1979	46	1979	29	31	1979	7.7	6.9	3.7	2.1	.3	22.7	20.8	19.0	14.5
Feb	22.0	20.5	10	5	15.0	1982	4	52.5	1975	46	1979	2	35	1979	7.0	6.2	3.4	1.4	.2	18.9	15.8	13.0	8.9
Mar	25.3	24.0	6	2	14.0	1973	13	73.5	1973	31	1979	3	21	1980	7.1	6.6	3.7	1.9	.4	14.3	11.7	10.1	6.6
Apr	13.5	12.3	2	#	20.0	1975	12	42.5+	1995	34	1975	13	17	1975	4.0	3.8	2.1	.8	.1	4.8	3.8	2.9	1.4
May	3.5	1.0	#	0	12.0	1978	2	19.0	1978	11	1978	2	1	1978	1.2	1.1	.5	.2	@	1.0	.6	.1	@
Jun	.0	.0	#	0	1.0	1974	8	1.0	1974	#	1995	26	#	1995	@	@	.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	.2	.0	#	0	4.0	1986	24	4.0	1986	3	1986	24	#	1986	.1	.1	@	.0	.0	@	@	.0	.0
Oct	4.0	1.0	#	#	10.0	1972	31	14.0	1980	12	1984	21	2	1984	1.7	1.4	.7	.3	.1	1.3	.6	.4	.1
Nov	15.3	14.5	1	1	15.0	1991	16	36.5	1991	21	1991	16	6	1991	5.2	4.5	2.0	.9	.1	8.6	5.4	3.1	.7
Dec	17.5	12.5	5	3	19.0	1978	6	46.5	1983	38	1983	28	16	1983	6.6	5.9	2.7	1.3	.2	18.7	14.0	10.8	5.6
Ann	127.9	113.6	N/A	N/A	26.0	Jan 1987	16	73.5	Mar 1973	46+	Feb 1979	2	35	Feb 1979	40.6	36.5	18.8	8.9	1.4	90.3	72.7	59.4	37.8

+ 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	7/27	7/22	7/18	7/15	7/11	7/08	7/05	7/01	6/25
32	7/11	7/06	7/02	6/29	6/26	6/24	6/21	6/17	6/12
28	6/28	6/23	6/19	6/16	6/12	6/09	6/06	6/02	5/28
24	6/15	6/07	6/02	5/29	5/25	5/21	5/17	5/12	5/05
20	5/31	5/24	5/18	5/14	5/09	5/05	4/30	4/25	4/17
16	5/15	5/07	5/01	4/26	4/21	4/16	4/11	4/06	3/28
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	8/01	8/08	8/13	8/17	8/21	8/25	8/30	9/04	9/11
32	8/16	8/22	8/27	8/31	9/04	9/07	9/11	9/16	9/23
28	9/06	9/10	9/13	9/16	9/19	9/22	9/24	9/28	10/02
24	9/14	9/19	9/23	9/26	9/30	10/03	10/06	10/10	10/15
20	9/24	9/30	10/04	10/08	10/11	10/14	10/18	10/22	10/28
16	10/06	10/12	10/16	10/20	10/23	10/26	10/30	11/03	11/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	69	59	52	46	40	34	28	21	11
32	94	85	79	74	69	63	58	52	43
28	120	112	107	102	98	93	89	83	76
24	156	146	139	133	127	121	115	107	97
20	187	175	167	160	154	147	140	132	121
16	215	205	197	190	184	178	172	164	153

\* 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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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	1366	1135	1073	833	625	355	220	263	438	761	1085	1329	9483
60	1211	995	918	683	470	212	84	122	290	606	935	1174	7700
57	1118	911	825	593	378	138	33	62	207	513	845	1081	6704
55	1056	855	763	533	319	98	13	34	157	451	785	1019	6083
50	901	715	608	385	186	31	0	4	62	300	635	864	4691
32	351	227	121	31	2	0	0	0	0	10	153	316	1211

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	9	16	71	188	400	635	803	760	552	272	58	9	3773
55	0	0	0	0	5	42	103	81	18	0	0	0	249
57	0	0	0	0	2	22	61	47	8	0	0	0	140
60	0	0	0	0	0	7	19	14	2	0	0	0	42
65	0	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0	0

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	0	0	4	50	205	434	590	543	346	110	4	0	0	0	4	54	259	693	1283	1826	2172	2282	2286	2286
45	0	0	0	8	85	286	435	388	202	31	0	0	0	0	0	8	93	379	814	1202	1404	1435	1435	1435
50	0	0	0	0	23	148	281	233	83	1	0	0	0	0	0	0	23	171	452	685	768	769	769	769
55	0	0	0	0	0	50	129	92	17	0	0	0	0	0	0	0	0	50	179	271	288	288	288	288
60	0	0	0	0	0	6	27	8	0	0	0	0	0	0	0	0	0	6	33	41	41	41	41	41
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	2	32	96	214	355	409	365	272	145	32	1	0	2	34	130	344	699	1108	1473	1745	1890	1922	1923

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)