

# Climatology of the United States

No. 20

1971-2000

Station: TRES PIEDRAS, NM

COOP ID: 299085

Climate Division: NM 2

NWS Call Sign:

Elevation: 8,139 Feet Lat: 36°40N

Lon: 105°59W

## 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	37.5	5.2	21.4	61	2000	16	30.6	1981	-35	1971	6	14.0	1979	1353	0	.0	.0	2.3	8.1	31.0	9.2
Feb	41.3	9.6	25.5	64+	1954	26	31.3	1995	-29	1982	6	20.1	1979	1108	0	.0	.0	4.3	4.5	28.2	4.5
Mar	48.4	18.1	33.3	69	1996	22	38.2	1972	-23	1965	4	27.9	1980	984	0	.0	.0	14.0	.9	30.2	.7
Apr	57.2	23.7	40.5	79	1981	30	46.0	1992	-4	1958	13	34.7	1980	737	0	.0	.0	24.4	.4	26.9	.1
May	66.2	32.1	49.2	87+	1956	31	54.5	1996	13+	1975	7	44.9	1975	493	0	.0	.0	30.1	@	16.1	.0
Jun	76.7	40.6	58.7	95	1998	28	63.6	1990	18	1954	7	55.0+	1995	204	14	.0	.5	30.0	.0	3.1	.0
Jul	80.3	46.6	63.5	93	1971	13	68.1	1980	31	1987	18	60.6	1986	75	26	.0	.6	31.0	.0	@	.0
Aug	77.2	45.7	61.5	91+	1951	19	64.4	1995	30+	1953	28	57.8	1974	123	13	.0	.1	31.0	.0	@	.0
Sep	71.8	38.1	55.0	89+	1954	7	58.8	1998	15	1982	29	51.8	1986	302	1	.0	.0	30.0	.0	4.7	.0
Oct	61.8	27.9	44.9	89	1954	7	49.0	1979	-5	1993	30	37.2	1984	624	0	.0	.0	27.8	.1	25.0	.1
Nov	47.2	17.0	32.1	74	1953	1	37.7	1981	-22	1976	28	25.8	1972	988	0	.0	.0	12.3	2.4	27.8	1.5
Dec	38.7	8.3	23.5	64	1955	26	34.0	1980	-37	1990	23	16.7	1990	1286	0	.0	.0	3.1	7.3	30.9	5.3
Ann	58.7	26.1	42.4	95	Jun 1998	28	68.1	Jul 1980	-37	Dec 1990	23	14.0	Jan 1979	8277	54	.0	1.2	240.3	23.7	223.9	21.4

+ 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: 1948-2001

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

090-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: TRES PIEDRAS, NM

COOP ID: 299085

Climate Division: NM 2

NWS Call Sign:

Elevation: 8,139 Feet Lat: 36°40N

Lon: 105°59W

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	.66	.53	1.20	1997	14	2.90	1979	.00+	1986	4.2	1.8	.2	@	.00	.08	.20	.30	.41	.53	.67	.83	1.05	1.42	1.77
Feb	.56	.40	.65+	1949	4	2.33	1975	.00+	1991	3.2	1.9	.3	.0	.00	.00	.07	.16	.25	.37	.51	.69	.94	1.37	1.81
Mar	.96	.70	.90	1985	29	2.37	1985	.04	1986	4.6	2.3	.5	.0	.09	.15	.28	.42	.56	.73	.93	1.17	1.51	2.08	2.64
Apr	.73	.46	1.75	1982	27	2.65	1999	.00+	1996	2.8	2.1	.3	.2	.00	.00	.08	.18	.30	.45	.63	.88	1.22	1.82	2.43
May	1.15	.95	1.25	1997	20	3.42	1994	.00+	1998	4.9	3.0	.7	.1	.00	.00	.22	.41	.61	.83	1.10	1.44	1.89	2.65	3.40
Jun	1.25	1.27	1.55	1974	8	3.26	1986	.00+	1998	4.8	3.0	.7	.1	.00	.00	.47	.69	.89	1.09	1.32	1.59	1.93	2.48	2.99
Jul	2.06	2.16	1.68	1996	9	4.00	1990	.12	1980	6.7	4.8	1.4	.2	.40	.59	.89	1.17	1.45	1.75	2.09	2.51	3.05	3.93	4.76
Aug	2.93	2.68	2.90	1991	6	6.99	1971	.23	1985	7.2	5.7	2.0	.6	.59	.85	1.28	1.68	2.07	2.50	2.99	3.57	4.34	5.58	6.75
Sep	1.44	1.39	1.50	1990	28	3.96	1997	.05	2000	5.1	3.4	.9	.2	.17	.28	.48	.69	.90	1.14	1.42	1.76	2.23	3.00	3.75
Oct	1.22	.88	1.93	1957	21	3.61	1998	.00	1995	4.1	2.7	.9	.2	.02	.09	.24	.41	.60	.83	1.11	1.48	1.99	2.87	3.75
Nov	1.01	.89	1.55	1998	10	4.14	1978	.00+	1999	3.6	2.0	.6	.1	.00	.00	.26	.44	.61	.80	1.02	1.28	1.63	2.20	2.76
Dec	.64	.35	1.35	1948	22	2.30	1990	.00+	1999	3.9	2.2	.3	.0	.00	.00	.07	.16	.26	.39	.56	.77	1.08	1.61	2.15
Ann	14.61	14.54	2.90	Aug 1991	6	6.99	Aug 1971	.00+	Dec 1999	55.1	34.9	8.8	1.7	9.51	10.47	11.71	12.67	13.53	14.37	15.24	16.21	17.39	19.13	20.64

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

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National Climatic Data Center  
Federal Building  
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Asheville, North Carolina 28801  
[www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)

**Station: TRES PIEDRAS, NM**

**COOP ID: 299085**

**Climate Division: NM 2**

**NWS Call Sign:**

**Elevation: 8,139 Feet**

**Lat: 36° 40N**

**Lon: 105° 59W**

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	5.6	4.0	2	#	18.0	1997	14	18.0	1997	23	1974	9	11	1975	1.9	1.5	1.0	.4	.2	4.9	3.4	2.1	1.2
Feb	6.6	3.5	1	#	14.0	1989	6	23.5	1989	15	1975	22	14	1979	1.7	1.5	1.0	.4	.1	4.9	2.1	.1	.0
Mar	4.4	3.0	1	0	8.0	1973	29	25.6	1973	14	1979	2	8	1979	1.6	1.4	.7	.2	.0	.6	.3	.1	.0
Apr	2.7	.0	#	0	12.0	1975	12	20.5	1975	5	1979	10	#+	1998	1.0	.9	.2	.1	.1	.4	.2	@	.0
May	#	.0	#	0	#	1982	5	#+	1982	#	1979	10	#	1979	.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	#	1982	28	#+	1982	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	1.0	.0	#	0	4.5	1972	31	6.5+	1991	6	1972	31	#+	1991	.4	.3	.1	.0	.0	.2	.1	.1	.0
Nov	4.8	2.0	#	0	7.0	1976	27	15.3	1990	6	1990	3	2	1983	1.5	1.2	.6	.3	.0	.7	.6	.5	.0
Dec	9.4	4.0	1	0	14.0	1990	21	36.9	1990	20	1990	21	7	1971	2.5	2.0	1.4	.6	.1	.2	.1	.0	.0
Ann	34.5	16.5	N/A	N/A	18.0	Jan 1997	14	36.9	Dec 1990	23	Jan 1974	9	14	Feb 1979	10.6	8.8	5.0	2.0	.5	11.9	6.8	2.9	1.2

+ 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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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	7/14	7/07	7/03	6/29	6/25	6/22	6/18	6/13	6/07
32	6/29	6/22	6/18	6/14	6/11	6/07	6/04	5/30	5/24
28	6/13	6/07	6/03	5/31	5/27	5/24	5/21	5/17	5/11
24	5/30	5/24	5/20	5/16	5/13	5/09	5/05	5/01	4/25
20	5/24	5/17	5/12	5/07	5/03	4/29	4/25	4/19	4/12
16	5/15	5/07	5/01	4/25	4/21	4/16	4/10	4/04	3/27
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	8/20	8/25	8/29	9/02	9/05	9/08	9/11	9/15	9/21
32	9/04	9/08	9/11	9/14	9/16	9/18	9/21	9/24	9/28
28	9/14	9/19	9/22	9/25	9/27	9/29	10/02	10/05	10/10
24	9/21	9/26	9/29	10/02	10/05	10/08	10/12	10/15	10/20
20	10/02	10/07	10/10	10/13	10/16	10/19	10/22	10/25	10/30
16	10/10	10/15	10/19	10/23	10/26	10/29	11/01	11/05	11/10
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	97	88	82	76	71	66	60	54	45
32	118	110	105	101	96	92	88	83	75
28	144	136	131	126	122	118	113	108	100
24	169	161	155	150	145	140	135	129	121
20	192	183	176	170	165	160	154	147	138
16	214	205	198	193	187	182	176	170	161

\* 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	1353	1108	984	737	493	204	75	123	302	624	988	1286	8277
60	1198	968	829	587	340	99	11	33	163	469	838	1131	6666
57	1105	884	736	497	254	55	2	10	96	377	748	1038	5802
55	1043	828	674	438	202	35	0	3	62	317	688	976	5266
50	888	688	519	298	95	7	0	0	13	184	538	821	4051
32	353	210	76	16	0	0	0	0	0	3	110	293	1061

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	23	25	115	269	531	800	974	914	689	402	112	30	4884
55	0	0	0	1	19	145	261	204	61	3	0	0	694
57	0	0	0	0	9	105	201	148	35	1	0	0	499
60	0	0	0	0	3	59	117	79	12	0	0	0	270
65	0	0	0	0	0	14	26	13	1	0	0	0	54
70	0	0	0	0	0	2	1	0	0	0	0	0	3

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	16	98	303	566	730	669	456	185	27	0	0	0	16	114	417	983	1713	2382	2838	3023	3050	3050
45	0	0	0	32	164	416	575	514	307	84	2	0	0	0	0	32	196	612	1187	1701	2008	2092	2094	2094
50	0	0	0	3	66	268	420	359	169	20	0	0	0	0	0	3	69	337	757	1116	1285	1305	1305	1305
55	0	0	0	1	14	136	265	206	61	0	0	0	0	0	0	1	15	151	416	622	683	683	683	683
60	0	0	0	0	0	48	116	69	10	0	0	0	0	0	0	0	0	48	164	233	243	243	243	243
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	9	45	136	262	408	479	433	333	195	50	2	0	9	54	190	452	860	1339	1772	2105	2300	2350	2352

(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> |
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## 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)