

# Climatology of the United States

## No. 20

### 1971-2000

**Station: GRANTS MILAN AP, NM**

**COOP ID: 293682**

**Climate Division: NM 4**

**NWS Call Sign: GNT**

**Elevation: 6,520 Feet Lat: 35° 10N**

**Lon: 107° 54W**

### 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	48.1	13.6	30.9	71	2000	15	37.0	1986	-31	1971	7	25.0	1977	1058	0	.0	.0	11.1	2.4	30.3	2.3
Feb	53.6	17.8	35.7	75	1986	25	42.3	1995	-11	1956	4	31.2	1994	821	0	.0	.0	17.1	.8	26.9	.4
Mar	60.2	24.2	42.2	82+	1971	26	47.5	1989	-3	1971	3	37.2	1977	707	0	.0	.0	25.6	.1	26.0	@
Apr	68.2	29.3	48.8	90	2000	27	54.9+	1992	6	1955	4	43.0	1973	488	0	.0	@	28.3	.0	18.7	.0
May	77.0	38.7	57.9	97+	2000	28	63.9	1996	15+	1967	2	53.4	1975	237	15	.0	.9	30.8	.0	5.7	.0
Jun	87.4	46.8	67.1	103	1998	28	71.6	1990	28	1971	1	63.9	1983	43	106	.3	11.5	30.0	.0	.4	.0
Jul	89.2	54.4	71.8	102+	1995	28	74.3	1996	37	1976	25	69.3	1987	1	211	.5	14.0	31.0	.0	.0	.0
Aug	86.4	52.7	69.6	100	2000	3	73.4	1995	34	1968	24	67.3	1993	8	149	@	7.1	31.0	.0	.0	.0
Sep	81.4	44.3	62.9	94+	1979	6	67.2	1997	20	1970	27	58.2	1975	107	43	.0	1.5	30.0	.0	1.2	.0
Oct	71.4	32.2	51.8	89+	1996	3	55.0	1988	10+	1968	18	46.8	1984	411	1	.0	.0	29.9	.0	15.2	.0
Nov	58.0	21.1	39.6	78+	1999	1	44.6	1995	-22	1976	28	34.4	2000	764	0	.0	.0	21.4	.1	26.7	.0
Dec	49.4	14.0	31.7	71	1980	27	37.6	1977	-33	1990	25	24.8	1990	1033	0	.0	.0	13.4	2.1	29.8	1.9
Ann	69.2	32.4	50.8	103	Jun 1998	28	74.3	Jul 1996	-33	Dec 1990	25	24.8	Dec 1990	5678	525	.8	35.0	299.6	5.5	180.9	4.6

+ 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: 1953-2001

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

# 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: GRANTS MILAN AP, NM

COOP ID: 293682

Climate Division: NM 4

NWS Call Sign: GNT

Elevation: 6,520 Feet Lat: 35° 10N

Lon: 107° 54W

### 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	Median	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	.57	.48	.82	1987	16	1.91	1993	.00+	1986	4.6	1.9	.1	.0	.00	.06	.16	.25	.35	.45	.56	.70	.90	1.21	1.52
Feb	.43	.33	.59	1993	25	1.66	1982	.00+	1999	4.1	1.6	@	.0	.00	.04	.11	.17	.24	.32	.42	.53	.69	.95	1.20
Mar	.59	.42	1.10	2000	21	1.94	1993	.00+	1997	4.6	1.8	.2	@	.00	.00	.11	.21	.31	.42	.56	.73	.96	1.35	1.74
Apr	.49	.32	1.50	1988	1	1.74	1988	.00+	2000	2.9	1.5	.2	@	.00	.00	.06	.14	.23	.33	.46	.61	.83	1.19	1.54
May	.63	.35	.92	1979	25	2.68	1992	.00+	1975	3.5	2.1	.3	.0	.00	.02	.09	.18	.28	.41	.56	.76	1.05	1.54	2.04
Jun	.51	.29	1.10	1999	17	2.13	1996	.00+	1998	3.2	1.6	.2	@	.00	.00	.04	.13	.23	.34	.47	.64	.87	1.24	1.63
Jul	1.69	1.60	1.51	1954	23	3.70	1981	.41	2000	7.2	4.5	.8	.1	.40	.56	.80	1.02	1.24	1.47	1.73	2.04	2.45	3.09	3.70
Aug	2.10	1.90	1.91	1972	25	4.23	1993	.78+	2000	9.2	5.8	1.1	.2	.76	.95	1.24	1.48	1.70	1.94	2.19	2.49	2.86	3.45	3.98
Sep	1.43	1.46	1.66	1980	9	4.23	1975	.21	2000	5.9	3.9	.7	.2	.32	.45	.66	.85	1.04	1.24	1.46	1.73	2.09	2.65	3.18
Oct	1.11	.87	1.68	1969	22	4.69	1972	.00	1995	4.6	3.0	.7	.1	.02	.07	.20	.35	.53	.74	1.00	1.34	1.81	2.63	3.45
Nov	.68	.55	.97	1979	8	2.25	1986	.00+	1999	4.4	2.1	.3	.0	.00	.08	.20	.31	.42	.54	.68	.84	1.07	1.44	1.80
Dec	.64	.43	.78	1990	21	2.20	1997	.00+	1996	4.1	2.2	.3	.0	.00	.06	.17	.27	.38	.50	.63	.80	1.03	1.41	1.77
Ann	10.87	11.10	1.91	Aug 1972	25	4.69	Oct 1972	.00+	Apr 2000	58.3	32.0	4.9	.6	6.58	7.36	8.38	9.17	9.89	10.59	11.33	12.15	13.17	14.66	15.98

+ 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: 1953-2001

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

Complete documentation available from:  
[www.ncdc.noaa.gov/oa/climate/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

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COOP ID: 293682

Climate Division: NM 4

NWS Call Sign: GNT

Elevation: 6,520 Feet

Lat: 35° 10N

Lon: 107° 54W

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	2.7	.5	#	0	5.0	1990	19	12.0	1977	5	1990	19	#	1995	1.5	1.1	.3	.1	.0	.9	.2	.1	.0
Feb	1.9	.0	#	0	6.0	1987	25	18.0	1987	9+	1987	20	#	1989	1.2	.8	.2	.1	.0	.5	.3	.2	.0
Mar	.4	.0	#	0	3.0	1971	2	3.0	1971	8	2000	21	#	2000	.3	.3	.1	.0	.0	.2	@	@	.0
Apr	.3	.0	#	0	3.2	1999	1	3.5	1999	3	1999	1	#	1999	.3	.1	@	.0	.0	.1	@	.0	.0
May	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1999	.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	.5	.0	#	0	8.0	1972	31	8.0	1972	2	1991	31	#	1991	.1	.1	@	@	.0	.1	.0	.0	.0
Nov	.7	.0	#	0	4.0	1976	27	4.0	1976	8	1972	1	#	2000	.5	.4	.1	.0	.0	.3	.1	@	.0
Dec	2.9	.0	#	0	5.0	1987	18	22.0	1987	4	1985	12	#	1999	1.2	1.2	.5	.1	.0	.6	.2	.0	.0
Ann	9.4	.5	N/A	N/A	8.0	Oct 1972	31	22.0	Dec 1987	9+	Feb 1987	20	#+	Nov 2000	5.1	4.0	1.2	.3	.0	2.7	.8	.3	.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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Lat: 35° 10N

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<b>Freeze Data</b>									
<b>Spring Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of later date in spring (thru Jul 31) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	6/21	6/15	6/11	6/07	6/03	5/30	5/27	5/22	5/16
<b>32</b>	6/09	6/02	5/28	5/24	5/20	5/17	5/13	5/08	5/01
<b>28</b>	5/25	5/18	5/13	5/09	5/05	5/01	4/27	4/22	4/15
<b>24</b>	5/19	5/11	5/06	5/02	4/28	4/23	4/19	4/14	4/06
<b>20</b>	5/04	4/26	4/20	4/15	4/11	4/06	4/01	3/26	3/18
<b>16</b>	4/19	4/12	4/06	4/02	3/29	3/25	3/20	3/15	3/08
<b>Fall Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of earlier date in fall (beginning Aug 1) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	9/09	9/14	9/17	9/20	9/22	9/25	9/27	9/30	10/05
<b>32</b>	9/22	9/26	9/28	9/30	10/02	10/04	10/06	10/09	10/12
<b>28</b>	9/27	10/01	10/04	10/07	10/09	10/12	10/15	10/18	10/22
<b>24</b>	10/06	10/11	10/14	10/18	10/21	10/24	10/27	10/30	11/05
<b>20</b>	10/16	10/21	10/25	10/28	10/31	11/03	11/06	11/10	11/15
<b>16</b>	10/21	10/27	11/01	11/04	11/08	11/12	11/15	11/20	11/26
<b>Freeze Free Period</b>									
<b>Temp (F)</b>	<b>Probability of longer than indicated freeze free period (Days)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	135	127	121	115	110	105	100	94	85
<b>32</b>	159	150	144	139	134	129	124	118	109
<b>28</b>	183	174	167	162	157	152	146	140	131
<b>24</b>	201	192	186	180	175	170	165	159	150
<b>20</b>	232	222	214	208	202	197	190	183	173
<b>16</b>	254	244	236	230	224	217	211	203	193

\* 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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**Elevation: 6,520 Feet Lat: 35° 10N**

**Lon: 107° 54W**

<b>Degree Days to Selected Base Temperatures (°F)</b>													
<b>Base</b>	<b>Heating Degree Days (1)</b>												
<b>Below</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Ann</b>
<b>65</b>	1058	821	707	488	237	43	1	8	107	411	764	1033	5678
<b>60</b>	903	681	552	344	124	9	0	0	37	265	614	878	4407
<b>57</b>	810	597	460	264	75	3	0	0	15	188	524	785	3721
<b>55</b>	748	541	399	215	51	1	0	0	8	143	464	723	3293
<b>50</b>	593	401	256	116	14	0	0	0	1	60	318	568	2327
<b>32</b>	136	32	6	0	0	0	0	0	0	0	15	116	305

<b>Base</b>	<b>Cooling Degree Days (1)</b>												
<b>Above</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Ann</b>
<b>32</b>	101	135	322	502	801	1053	1233	1164	926	613	242	106	7198
<b>55</b>	0	0	3	27	139	364	520	451	243	43	0	0	1790
<b>57</b>	0	0	1	16	101	306	458	389	191	26	0	0	1488
<b>60</b>	0	0	0	7	57	223	365	296	123	10	0	0	1081
<b>65</b>	0	0	0	0	15	106	211	149	43	1	0	0	525
<b>70</b>	0	0	0	0	2	33	73	43	8	0	0	0	159

<b>Growing Degree Units (2)</b>																								
<b>Base</b>	<b>Growing Degree Units (Monthly)</b>												<b>Growing Degree Units (Accumulated Monthly)</b>											
	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>40</b>	9	32	123	293	556	813	914	679	362	82	8	9	41	164	457	1013	1826	2809	3723	4402	4764	4846	4854	
<b>45</b>	0	4	45	166	403	663	828	759	529	226	21	0	4	49	215	618	1281	2109	2868	3397	3623	3644	3644	
<b>50</b>	0	0	9	76	254	513	673	604	379	106	1	0	0	9	85	339	852	1525	2129	2508	2614	2615	2615	
<b>55</b>	0	0	0	20	130	363	518	449	235	33	0	0	0	0	20	150	513	1031	1480	1715	1748	1748	1748	
<b>60</b>	0	0	0	1	46	222	363	294	114	5	0	0	0	0	1	47	269	632	926	1040	1045	1045	1045	
<b>Base</b>	<b>Growing Degree Units for Corn (Monthly)</b>												<b>Growing Degree Units for Corn (Accumulated Monthly)</b>											
<b>50/86</b>	40	82	167	281	417	534	621	588	458	315	123	44	40	122	289	570	987	1521	2142	2730	3188	3503	3626	3670

(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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/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 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/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)