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: TIERRA AMARILLA 4 N, NM **COOP ID: 298845**

Climate Division: NM 2 **NWS Call Sign:** **Elevation: 7,464 Feet** **Lat: 36˚46N** **Lon: 106˚33W**

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	37.8	3.5	20.7	60	1990	12	27.9	1999	-39	1971	6	14.5	1979	1375	0	.0	.0	2.8	6.3	31.0	11.2
Feb	42.0	8.5	25.3	65	1981	18	33.1	1995	-28	1982	6	18.9	1974	1113	0	.0	.0	6.2	2.3	28.1	5.6
Mar	48.2	17.7	33.0	74	1976	18	38.6	1972	-15	1965	4	28.5	1975	993	0	.0	.0	15.6	.5	30.6	.8
Apr	56.1	23.9	40.0	79+	1965	22	45.4	2000	-9	1980	1	34.8	1973	750	0	.0	.0	25.3	.1	27.3	.1
May	65.5	31.4	48.5	88	1956	31	53.2	1996	12	1970	2	44.0	1971	513	0	.0	.0	30.4	.0	18.5	.0
Jun	76.6	37.8	57.2	95	1998	28	60.8	1990	21	1976	15	54.9	1975	239	5	.0	.7	30.0	.0	5.1	.0
Jul	80.9	45.2	63.1	102+	1951	21	65.6	1996	31+	1980	6	60.5	1992	83	22	.0	1.5	31.0	.0	.3	.0
Aug	78.9	45.0	62.0	97	1951	16	65.9	2000	29	1968	23	58.9	1974	118	22	.0	.6	31.0	.0	.3	.0
Sep	72.4	36.7	54.6	90	1960	5	58.5	1998	19+	1974	28	50.5	1971	316	2	.0	.0	29.9	.0	7.4	.0
Oct	62.2	26.9	44.6	85	1980	1	48.4	1988	5	1975	25	40.2	1984	635	0	.0	.0	28.2	.1	25.3	.0
Nov	47.5	15.7	31.6	72	1999	12	37.9	1999	-19	1976	29	26.5	2000	1002	0	.0	.0	14.4	1.9	29.1	1.9
Dec	39.3	6.8	23.1	66	1981	15	31.5	1980	-31	1990	23	17.2	1990	1300	0	.0	.0	4.1	5.4	30.9	7.4
Ann	59.0	24.9	42.0	102+	Jul 1951	21	65.9	Aug 2000	-39	Jan 1971	6	14.5	Jan 1979	8437	51	.0	2.8	248.9	16.6	233.9	27.0

\+ 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

(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

Issue Date: February 2004

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: TIERRA AMARILLA 4 N, NM

COOP ID: 298845

Climate Division: NM 2 **NWS Call Sign:** **Elevation: 7,464 Feet** **Lat: 36°46N** **Lon: 106°33W**

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	1.21	.95	1.07	1982	5	3.66	1997	.05	1992
Feb	1.10	.83	1.15	1988	3	5.35	1982	.05	1972
Mar	1.34	1.15	1.66	1995	6	4.60	1995	.04	1997
Apr	1.00	.85	1.45	1985	29	4.06	1999	.07	1989
May	1.31	1.18	1.12	1992	9	4.13	1992	.00	1996
Jun	.84	.69	1.00	1988	24	3.09	1988	.00	1998
Jul	1.90	1.71	1.52	1971	20	4.21	1998	.06	1993
Aug	2.60	2.59	1.75	1986	25	5.04	1993	.85	1978
Sep	1.86	1.79	1.70	1963	6	4.48	1986	.27	1974
Oct	1.44	1.30	1.55	1986	13	4.31	1972	.00+	1995
Nov	1.26	1.12	2.00	1952	3	3.43	1994	.00+	1989
Dec	.89	.65	1.52	1983	27	3.16	1990	.04+	1999
Ann	16.75	16.08	2.00	Nov 1952	3	5.35	Feb 1982	.00+	Jun 1998

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	6.8	3.7	.6	.1
Feb	6.1	3.1	.4	@
Mar	7.7	4.2	.5	.1
Apr	6.4	2.9	.3	@
May	7.5	4.1	.5	@
Jun	5.4	2.7	.3	@
Jul	9.4	4.9	.9	.2
Aug	11.4	6.5	1.3	.2
Sep	7.2	4.4	.9	.2
Oct	5.8	3.9	.8	.1
Nov	5.9	3.4	.6	.1
Dec	5.6	2.4	.3	.1
Ann	85.2	46.2	7.4	1.1

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	.13	.22	.39	.56	.74	.94	1.18	1.48	1.88	2.54	3.19
Feb	.07	.14	.28	.43	.60	.79	1.03	1.33	1.75	2.46	3.17
Mar	.16	.26	.45	.64	.84	1.06	1.32	1.64	2.08	2.80	3.50
Apr	.10	.17	.30	.44	.59	.76	.97	1.22	1.56	2.14	2.70
May	.08	.21	.42	.61	.82	1.04	1.30	1.62	2.05	2.76	3.44
Jun	.06	.14	.28	.40	.53	.68	.84	1.04	1.32	1.76	2.19
Jul	.37	.55	.82	1.08	1.34	1.62	1.93	2.31	2.81	3.61	4.38
Aug	1.04	1.28	1.62	1.90	2.16	2.43	2.72	3.05	3.48	4.12	4.71
Sep	.43	.60	.88	1.12	1.36	1.62	1.91	2.25	2.70	3.42	4.09
Oct	.00	.21	.48	.72	.94	1.19	1.47	1.80	2.25	2.97	3.66
Nov	.00	.24	.50	.70	.89	1.09	1.32	1.57	1.92	2.46	2.98
Dec	.06	.12	.23	.35	.49	.65	.84	1.08	1.41	1.97	2.53
Ann	11.22	12.27	13.62	14.65	15.58	16.47	17.41	18.44	19.71	21.55	23.16

\+ 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

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

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: TIERRA AMARILLA 4 N, NM **COOP ID: 298845**

Climate Division: NM 2 **NWS Call Sign:** **Elevation: 7,464 Feet** **Lat: 36°46N** **Lon: 106°33W**

Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	13.5	10.5	8	8	10.0	1980	29	55.3	1997	28	1979	31	23	1979	4.9	3.8	2.0	.8	@	14.8	11.9	7.9	2.6
Feb	10.8	9.3	9	5	11.0	1975	15	43.5	1975	33	1979	2	26	1979	4.6	3.7	1.5	.6	.1	-9.9	-9.9	-9.9	-9.9
Mar	11.1	5.8	4	1	13.0	1975	11	37.6	1973	24	1979	1	17	1980	4.0	3.7	1.7	.4	@	5.4	3.3	2.2	.5
Apr	3.6	.4	1	#	7.0	1995	21	26.0	1995	16	1980	2	11	1980	2.3	2.0	.6	.1	.0	1.3	.8	.4	.0
May	.3	.0	#	0	3.0	1990	2	4.0	1990	4	1978	6	#+	2000	.2	.2	@	.0	.0	.1	@	.0	.0
Jun	.0	.0	#	0	.0	0	0	.0	0	#+	2000	25	#+	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	#	0	.0	0	0	.0	0	#	1995	31	#	1995	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	#	0	.0	0	0	.0	0	#+	1996	11	#+	1996	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	#	.0	#	0	#	1995	18	#+	1995	#+	1999	17	#+	1999	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	1.7	.0	#	0	8.0	1984	17	12.0	1991	12	1991	31	1	1991	.8	.8	.2	.1	.0	.7	.3	.2	@
Nov	9.1	6.9	1	1	14.0	1996	30	35.5	1975	44	1983	30	6	1983	2.8	2.4	1.0	.5	.2	3.8	2.5	1.4	.6
Dec	10.3	9.2	3	2	13.3	1983	27	41.0	1990	31	1990	22	12	1983	4.0	3.4	1.4	.6	.1	11.8	8.8	3.2	1.6
Ann	60.4	42.1	N/A	N/A	14.0	Nov 1996	30	55.3	Jan 1997	44	Nov 1983	30	26	Feb 1979	23.6	20.0	8.4	3.1	.4	-9.9	-9.9	-9.9	-9.9

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

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: TIERRA AMARILLA 4 N, NM **COOP ID: 298845**

Climate Division: NM 2 **NWS Call Sign:** **Elevation: 7,464 Feet** **Lat: 36˚46N** **Lon: 106˚33W**

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	7/19	7/14	7/09	7/06	7/03	6/30	6/26	6/22	6/16
32	7/08	7/02	6/27	6/23	6/19	6/16	6/12	6/07	5/31
28	6/21	6/15	6/11	6/08	6/05	6/02	5/29	5/25	5/20
24	6/05	5/29	5/24	5/20	5/16	5/12	5/08	5/03	4/27
20	5/20	5/13	5/08	5/04	4/30	4/25	4/21	4/16	4/09
16	5/10	5/03	4/27	4/22	4/17	4/13	4/08	4/02	3/26

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	8/17	8/22	8/26	8/30	9/02	9/05	9/09	9/13	9/18
32	8/29	9/03	9/07	9/10	9/13	9/16	9/19	9/23	9/28
28	9/10	9/14	9/17	9/20	9/22	9/24	9/27	9/30	10/04
24	9/21	9/26	9/30	10/03	10/05	10/08	10/11	10/15	10/20
20	9/27	10/03	10/07	10/10	10/14	10/17	10/21	10/25	10/30
16	10/12	10/18	10/22	10/25	10/28	10/31	11/04	11/08	11/13

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	85	76	70	65	61	56	51	45	36
32	112	102	96	90	85	80	74	67	58
28	128	121	116	112	109	105	101	96	90
24	167	158	152	146	141	136	131	125	116
20	196	186	179	172	167	161	155	147	137
16	222	212	205	199	193	187	181	174	164

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

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: TIERRA AMARILLA 4 N, NM **COOP ID: 298845**

Climate Division: NM 2 **NWS Call Sign:** **Elevation: 7,464 Feet** **Lat: 36˚46N** **Lon: 106˚33W**

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	1375	1113	993	750	513	239	83	118	316	635	1002	1300	8437
60	1220	973	838	600	359	119	14	36	182	480	852	1145	6818
57	1127	889	745	510	270	67	3	13	117	388	762	1052	5943
55	1065	833	683	450	215	42	1	5	81	328	702	990	5395
50	910	693	528	309	102	8	0	0	24	190	552	835	4151
32	371	221	87	17	0	0	0	0	0	2	106	296	1100

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	19	32	117	257	510	756	962	927	676	390	94	19	4759
55	0	0	0	0	12	108	249	220	67	3	0	0	659
57	0	0	0	0	5	73	189	165	43	1	0	0	476
60	0	0	0	0	1	35	108	95	18	0	0	0	257
65	0	0	0	0	0	5	22	22	2	0	0	0	51
70	0	0	0	0	0	0	0	2	0	0	0	0	2

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	20	111	302	545	747	708	470	193	17	0	0	0	20	131	433	978	1725	2433	2903	3096	3113	3113
45	0	0	1	38	162	396	592	553	324	84	0	0	0	0	1	39	201	597	1189	1742	2066	2150	2150	2150
50	0	0	0	6	58	251	437	398	183	20	0	0	0	0	0	6	64	315	752	1150	1333	1353	1353	1353
55	0	0	0	0	9	122	283	243	75	0	0	0	0	0	0	0	9	131	414	657	732	732	732	732
60	0	0	0	0	0	34	132	100	13	0	0	0	0	0	0	0	0	34	166	266	279	279	279	279
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	15	59	156	279	427	501	475	366	224	60	3	0	15	74	230	509	936	1437	1912	2278	2502	2562	2565

(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

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