

Climatology of the United States

No. 20

1971-2000

Station: VALMORA, NM

COOP ID: 299330

Climate Division: NM 2

NWS Call Sign:

Elevation: 6,312 Feet Lat: 35°49N

Lon: 104°56W

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	48.7	13.7	31.2	75+	1990	12	37.4	1986	-35	1963	13	24.6	1979	1048	0	.0	.0	15.9	2.9	30.8	2.7
Feb	52.6	17.2	34.9	79	1972	29	40.2	1995	-28	1951	1	30.7	1975	842	0	.0	.0	18.8	1.7	27.6	.8
Mar	58.0	23.4	40.7	82	1971	27	45.6	1989	-19	1948	5	37.0	1998	755	0	.0	.0	24.8	.6	28.1	.1
Apr	64.2	29.3	46.8	86+	1989	20	51.7	1989	6+	1961	9	39.4	1973	548	0	.0	.0	27.1	.2	19.6	.0
May	72.7	38.8	55.8	92+	1996	17	62.5	1996	12+	1998	17	52.4	1983	294	8	.0	.3	30.8	.0	5.8	.0
Jun	82.0	46.7	64.4	101+	1981	22	69.6	1990	31	1974	9	60.1	1983	82	64	.1	4.6	30.0	.0	.1	.0
Jul	85.2	52.3	68.8	101	1963	24	72.7	1980	39	1958	14	65.2	1972	9	125	.0	6.7	31.0	.0	.0	.0
Aug	82.9	51.0	67.0	96+	1986	21	70.2	1995	36	1997	17	63.0	1974	36	95	.0	3.0	31.0	.0	.0	.0
Sep	77.3	43.6	60.5	94+	1995	5	64.6	1983	19	1996	28	56.0	1974	156	19	.0	.9	29.8	.0	1.8	.0
Oct	68.8	32.0	50.4	89	1962	14	53.7	1979	3	1993	30	44.8	1984	454	0	.0	.0	29.6	.1	17.4	.0
Nov	57.4	21.8	39.6	79+	1967	17	44.7	1999	-13+	1952	26	32.1	1972	762	0	.0	.0	22.5	.8	27.5	.4
Dec	49.7	14.4	32.1	82	1964	24	39.7	1980	-28	1961	12	25.8	1974	1021	0	.0	.0	16.5	2.2	30.2	2.1
Ann	66.6	32.0	49.4	101+	Jun 1981	22	72.7	Jul 1980	-35	Jan 1963	13	24.6	Jan 1979	6007	311	.1	15.5	307.8	8.5	188.9	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/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

094-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: VALMORA, NM

COOP ID: 299330

Climate Division: NM 2

NWS Call Sign:

Elevation: 6,312 Feet Lat: 35°49N

Lon: 104°56W

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	.45	.33	.97	2001	28	1.73	1987	.03	1998	2.8	1.5	.1	.0	.04	.07	.14	.20	.27	.34	.43	.55	.70	.96	1.21
Feb	.42	.24	.76	1997	25	1.59	1997	.00+	2000	2.6	1.4	.1	.0	.00	.00	.03	.08	.15	.23	.35	.50	.71	1.10	1.49
Mar	.81	.51	1.47	1985	20	3.98	1985	.00+	1989	2.8	1.9	.5	.1	.00	.06	.18	.31	.44	.59	.77	1.00	1.31	1.83	2.34
Apr	1.01	.80	3.10	1999	30	3.99	1999	.00+	1996	3.6	2.4	.6	.1	.00	.00	.03	.16	.34	.55	.83	1.20	1.74	2.67	3.64
May	2.08	1.97	3.20	1955	19	5.09	1994	.00	1998	5.7	3.9	1.5	.4	.34	.62	.97	1.26	1.54	1.84	2.16	2.55	3.06	3.86	4.61
Jun	1.91	1.80	4.73	1965	15	4.66	1978	.00	1998	6.2	4.2	1.3	.4	.20	.43	.75	1.03	1.31	1.61	1.95	2.36	2.91	3.79	4.63
Jul	3.36	3.07	3.90	1991	22	8.40	1991	.00	1987	9.1	6.8	2.4	.7	.31	.70	1.25	1.74	2.25	2.79	3.40	4.15	5.15	6.76	8.30
Aug	3.23	3.38	2.25	1950	22	6.05	1993	1.12	1983	10.5	7.2	2.0	.6	1.17	1.47	1.91	2.28	2.63	2.99	3.38	3.83	4.42	5.31	6.13
Sep	2.10	2.05	2.53	1991	6	5.46	1975	.00	1992	6.8	4.3	1.5	.5	.22	.47	.82	1.12	1.43	1.76	2.14	2.59	3.19	4.15	5.07
Oct	1.17	.66	2.01	1969	22	4.49	2000	.00+	1995	3.9	2.7	.7	.2	.00	.00	.12	.31	.52	.76	1.06	1.44	1.98	2.87	3.77
Nov	.76	.54	1.84	1978	4	4.54	1978	.00+	1989	2.5	1.6	.4	.1	.00	.00	.07	.17	.29	.45	.64	.90	1.27	1.92	2.59
Dec	.58	.44	.91	1997	23	1.53	1987	.00+	1988	2.8	1.8	.3	.0	.00	.00	.10	.19	.29	.41	.54	.72	.96	1.36	1.76
Ann	17.88	18.41	4.73	Jun 1965	15	8.40	Jul 1991	.00+	Feb 2000	59.3	39.7	11.4	3.1	12.53	13.56	14.88	15.89	16.78	17.65	18.55	19.54	20.75	22.50	24.02

+ 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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151 Patton Avenue
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Station: VALMORA, NM

COOP ID: 299330

Climate Division: NM 2

NWS Call Sign:

Elevation: 6,312 Feet

Lat: 35° 49N

Lon: 104° 56W

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	5.2	4.4	1	#	11.2	1987	16	24.7	1987	24	1987	20	6	1987	2.3	1.8	.7	.3	@	3.6	.9	.3	.0
Feb	4.5	1.0	#	#	9.5	1990	20	21.0	1990	13	1990	21	2	1975	2.0	1.3	.5	.3	.0	1.6	.6	.4	@
Mar	4.7	2.0	#	#	13.0	1973	30	28.0	1985	12	1973	30	2	1973	1.4	1.2	.6	.3	.1	1.4	.6	.4	.1
Apr	4.0	.0	#	#	17.8	1997	25	20.1	1997	15	1997	26	1	1997	.9	.7	.5	.3	@	.8	.3	.3	@
May	#	.0	#	0	#	1995	29	#	1995	10	1978	3	5	1978	.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	1.8	.0	#	0	11.0	1984	16	32.0	1984	6	1972	31	#+	1999	.4	.4	.3	.1	@	.3	.2	@	.0
Nov	2.7	.0	#	#	9.0	1986	23	10.0	1982	10	1972	1	2	1972	.7	.6	.4	.3	.0	1.1	.7	.3	@
Dec	7.1	4.3	1	#	10.0	1984	15	25.1	1987	12	1987	26	3	1987	1.8	1.5	1.0	.5	@	2.8	1.5	.9	.1
Ann	30.0	11.7	N/A	N/A	17.8	Apr 1997	25	32.0	Oct 1984	24	Jan 1987	20	6	Jan 1987	9.5	7.5	4.0	2.1	.1	11.6	4.8	2.6	.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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Lat: 35° 49N

Lon: 104° 56W

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	6/18	6/12	6/07	6/03	5/31	5/27	5/23	5/19	5/13
32	6/01	5/27	5/23	5/20	5/17	5/15	5/11	5/08	5/03
28	5/19	5/14	5/11	5/08	5/05	5/02	4/29	4/26	4/21
24	5/12	5/06	5/02	4/28	4/24	4/21	4/17	4/12	4/06
20	5/05	4/28	4/22	4/17	4/13	4/09	4/04	3/30	3/22
16	4/21	4/14	4/10	4/06	4/02	3/29	3/25	3/21	3/14
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	9/08	9/13	9/16	9/18	9/21	9/23	9/26	9/29	10/04
32	9/18	9/22	9/25	9/27	9/30	10/02	10/04	10/07	10/11
28	9/25	9/30	10/03	10/06	10/08	10/11	10/13	10/17	10/21
24	10/01	10/06	10/11	10/14	10/18	10/21	10/24	10/29	11/04
20	10/13	10/19	10/23	10/26	10/29	11/02	11/05	11/09	11/15
16	10/20	10/26	10/30	11/03	11/06	11/10	11/13	11/18	11/24
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	134	127	121	117	112	108	103	98	90
32	154	147	142	138	134	130	126	121	114
28	176	169	164	159	155	151	147	142	135
24	205	195	188	181	176	170	164	156	146
20	229	219	211	205	199	193	186	178	168
16	243	234	228	222	217	212	207	201	192

* 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)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1048	842	755	548	294	82	9	36	156	454	762	1021	6007
60	893	702	600	403	167	25	0	5	61	302	612	866	4636
57	800	618	507	321	109	9	0	1	27	218	522	773	3905
55	738	562	445	269	78	4	0	0	14	168	464	711	3453
50	583	422	293	160	28	0	0	0	1	73	324	556	2440
32	118	50	4	3	0	0	0	0	0	0	26	105	306

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	93	133	273	445	737	972	1139	1082	854	569	254	107	6658
55	0	0	0	22	101	286	426	369	177	24	2	0	1407
57	0	0	0	13	70	231	364	308	131	12	0	0	1129
60	0	0	0	6	36	156	271	219	74	3	0	0	765
65	0	0	0	0	8	64	125	95	19	0	0	0	311
70	0	0	0	0	0	15	30	22	2	0	0	0	69

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	16	41	117	247	490	737	899	846	623	340	106	28	16	57	174	421	911	1648	2547	3393	4016	4356	4462	4490
45	3	7	46	135	343	588	744	691	475	207	40	4	3	10	56	191	534	1122	1866	2557	3032	3239	3279	3283
50	0	0	5	56	203	438	589	536	328	98	7	0	0	0	5	61	264	702	1291	1827	2155	2253	2260	2260
55	0	0	0	13	98	291	434	381	193	23	0	0	0	0	0	13	111	402	836	1217	1410	1433	1433	1433
60	0	0	0	0	29	158	279	227	81	3	0	0	0	0	0	0	29	187	466	693	774	777	777	777
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	64	92	157	236	363	479	570	539	420	309	147	73	64	156	313	549	912	1391	1961	2500	2920	3229	3376	3449

(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

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
- 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">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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