

Climatography of the United States

No. 20

1971-2000

Station: ALEMAN RANCH, NM

COOP ID: 290268

Climate Division: NM 5

NWS Call Sign:

Elevation: 4,521 Feet Lat: 32° 55N

Lon: 106° 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	54.9	23.7	39.3	77	1970	24	43.2	2000	-16	1962	11	35.5	1973	796	0	.0	.0	23.6	.4	26.3	.1
Feb	60.8	26.9	43.9	82	1957	11	49.2	1996	1	1960	25	39.3	1974	592	0	.0	.0	25.6	.3	21.0	.0
Mar	67.6	31.8	49.7	87	1989	12	54.8	1972	7	1965	4	45.2	1977	474	0	.0	.0	30.6	.0	16.3	.0
Apr	75.2	38.2	56.7	93+	1965	22	61.6	1989	12	1999	5	51.9	1983	260	12	.0	.4	29.8	.0	6.6	.0
May	83.6	47.2	65.4	100+	1984	27	71.8	2000	26+	1967	2	61.0	1975	83	95	.1	5.2	31.0	.0	.3	.0
Jun	92.7	56.5	74.6	109	1994	27	80.0	1990	37	1980	2	71.1+	1992	4	292	4.2	21.4	30.0	.0	.0	.0
Jul	92.6	62.5	77.6	111	1957	4	80.6	1980	47	1987	7	75.0	1975	0	389	2.8	23.1	31.0	.0	.0	.0
Aug	89.6	61.1	75.4	104+	1956	9	79.3	1995	30	1966	16	71.7	1974	1	323	.3	18.0	31.0	.0	.0	.0
Sep	84.3	54.0	69.2	101+	1956	16	74.5	1998	37+	1973	28	65.8	1974	29	153	@	6.6	30.0	.0	.0	.0
Oct	74.5	42.1	58.3	91	1956	6	61.5	1988	18	1993	31	52.6	1976	221	13	.0	.3	30.8	.0	2.6	.0
Nov	62.6	30.4	46.5	82	1988	3	51.0	1995	0	1976	29	41.3	1972	555	0	.0	.0	28.1	.1	18.0	@
Dec	54.2	24.0	39.1	75	1977	4	43.2	1981	-6	1987	27	35.4	1974	803	0	.0	.0	22.8	.3	25.9	@
Ann	74.4	41.5	58.0	111	Jul 1957	4	80.6	Jul 1980	-16	Jan 1962	11	35.4	Dec 1974	3818	1277	7.4	75.0	344.3	1.1	117.0	.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: 1948-2000

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

004-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: ALEMAN RANCH, NM

COOP ID: 290268

Climate Division: NM 5

NWS Call Sign:

Elevation: 4,521 Feet Lat: 32°55N

Lon: 106°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	.48	.44	.75	1997	6	1.56	1993	.00+	2000	2.7	1.6	.2	.0	.00	.00	.09	.18	.27	.36	.48	.61	.80	1.10	1.40
Feb	.38	.28	1.06	1953	10	1.57	1988	.00+	2000	2.4	1.3	.1	.0	.00	.00	.00	.04	.14	.23	.35	.48	.67	.99	1.29
Mar	.34	.28	.68	1958	12	1.06	2000	.00+	1996	1.7	1.0	.2	.0	.00	.00	.00	.09	.16	.24	.33	.44	.59	.84	1.08
Apr	.20	.13	.64	1969	11	.75	1983	.00+	1995	1.5	.9	.0	.0	.00	.00	.00	.00	.05	.11	.17	.25	.36	.54	.71
May	.54	.32	1.33	1992	23	4.19	1992	.00+	1998	2.7	1.5	.3	@	.00	.00	.02	.10	.20	.32	.47	.66	.93	1.38	1.86
Jun	.68	.36	1.37	1967	18	2.29	2000	.00+	1998	2.8	1.8	.5	@	.00	.00	.07	.18	.31	.45	.62	.84	1.15	1.67	2.19
Jul	2.30	2.00	2.07	1979	19	4.88	1996	.25	1980	8.4	5.6	1.4	.3	.54	.76	1.10	1.40	1.69	2.01	2.37	2.79	3.34	4.22	5.04
Aug	2.29	2.24	2.25	1972	27	4.60	1993	.34	1983	8.6	5.4	1.4	.4	.60	.82	1.15	1.44	1.73	2.03	2.37	2.77	3.28	4.10	4.86
Sep	1.49	1.44	2.10	1992	15	4.41	1975	.00	1973	5.2	3.9	.8	.2	.11	.27	.51	.73	.96	1.21	1.50	1.85	2.32	3.08	3.82
Oct	1.11	.70	1.30+	1958	14	3.97	1974	.00+	1995	3.9	2.6	.7	.2	.00	.00	.17	.35	.54	.76	1.03	1.37	1.84	2.64	3.44
Nov	.66	.45	1.58	1986	2	3.74	1978	.00+	1999	2.8	1.9	.4	.1	.00	.00	.05	.17	.30	.44	.61	.83	1.13	1.63	2.14
Dec	.86	.69	1.26	1962	1	4.34	1991	.00+	1996	3.6	2.6	.3	@	.00	.05	.18	.31	.45	.61	.81	1.06	1.40	1.98	2.56
Ann	11.33	11.33	2.25	Aug 1972	27	4.88	Jul 1996	.00+	Feb 2000	46.3	30.1	6.3	1.2	7.17	7.95	8.95	9.73	10.43	11.11	11.83	12.62	13.60	15.03	16.28

+ 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: 1948-2000

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

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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: ALEMAN RANCH, NM

COOP ID: 290268

Climate Division: NM 5

NWS Call Sign:

Elevation: 4,521 Feet

Lat: 32° 55N

Lon: 106° 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	2.0	1.0	#	0	7.0	1997	6	8.0	1997	7+	1997	6	1+	1997	1.0	.8	.4	@	.0	1.0	.3	.1	.0
Feb	.6	.0	#	0	4.0	1973	22	6.0	1973	2	1980	8	#+	1989	.5	.4	.1	.0	.0	.1	.0	.0	.0
Mar	.5	.0	#	0	6.0	1975	29	6.0	1975	3	1987	29	#+	1987	.1	.1	.1	@	.0	.1	@	.0	.0
Apr	.1	.0	0	0	3.0	1983	6	3.0	1983	0	0	0	0	0	.1	.1	@	.0	.0	.0	.0	.0	.0
May	#	.0	0	0	#	1990	2	#	1990	0	0	0	0	0	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.5	.0	#	0	3.0	1976	13	7.0	1976	3	1976	28	#+	1982	.2	.2	.1	.0	.0	.2	@	.0	.0
Dec	2.2	.0	#	0	10.0	1984	15	19.0	1987	10	1987	14	2	1987	.9	.8	.5	.2	@	1.4	.7	.3	@
Ann	5.9	1.0	N/A	N/A	10.0	Dec 1984	15	19.0	Dec 1987	10	Dec 1987	14	2	Dec 1987	2.8	2.4	1.2	.2	@	2.8	1.0	.4	@

+ 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/normal/usnormals.html

Climatography of the United States

No. 20 1971-2000

Station: ALEMAN RANCH, NM

COOP ID: 290268

Climate Division: NM 5

NWS Call Sign:

Elevation: 4,521 Feet

Lat: 32° 55N

Lon: 106° 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	5/21	5/15	5/11	5/08	5/05	5/02	4/29	4/25	4/20
32	5/04	4/29	4/26	4/24	4/21	4/19	4/16	4/13	4/09
28	4/28	4/22	4/18	4/14	4/11	4/07	4/04	3/30	3/24
24	4/15	4/09	4/04	4/01	3/28	3/24	3/20	3/16	3/09
20	4/06	3/28	3/22	3/16	3/11	3/06	2/28	2/22	2/13
16	3/20	3/09	3/01	2/23	2/16	2/10	2/04	1/27	1/16
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	10/07	10/11	10/14	10/16	10/18	10/20	10/23	10/25	10/29
32	10/12	10/17	10/20	10/23	10/26	10/28	10/31	11/03	11/08
28	10/18	10/23	10/27	10/29	11/01	11/04	11/07	11/10	11/15
24	10/29	11/03	11/07	11/10	11/13	11/16	11/20	11/24	11/29
20	11/10	11/16	11/19	11/22	11/25	11/28	12/02	12/05	12/10
16	11/22	11/27	12/02	12/05	12/09	12/12	12/15	12/20	12/25
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	180	175	171	168	165	163	159	156	151
32	206	199	195	190	187	183	179	174	168
28	223	217	212	208	204	200	196	191	184
24	254	246	240	235	230	225	220	214	205
20	293	281	273	265	259	252	245	236	224
16	333	320	310	302	294	287	279	269	256

* 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/normal/usnormals.html

**Climatography
of the United States
No. 20
1971-2000**

Station: ALEMAN RANCH, NM

COOP ID: 290268

Climate Division: NM 5

NWS Call Sign:

Elevation: 4,521 Feet Lat: 32°55N Lon: 106°56W

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	796	592	474	260	83	4	0	1	29	221	555	803	3818
60	641	452	322	144	28	0	0	0	5	107	406	648	2753
57	548	368	237	91	12	0	0	0	1	60	321	555	2193
55	486	314	185	63	6	0	0	0	0	38	267	493	1852
50	332	186	84	18	0	0	0	0	0	9	151	340	1120
32	6	1	0	0	0	0	0	0	0	0	1	8	16

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	234	333	549	741	1035	1277	1412	1345	1114	815	437	228	9520
55	0	2	21	114	328	587	699	632	424	141	12	0	2960
57	0	0	11	82	272	527	637	570	365	100	6	0	2570
60	0	0	3	45	195	438	544	477	279	54	2	0	2037
65	0	0	0	12	95	292	389	323	153	13	0	0	1277
70	0	0	0	2	34	162	235	178	64	2	0	0	677

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	75	157	319	513	797	1048	1179	1114	888	590	239	77	75	232	551	1064	1861	2909	4088	5202	6090	6680	6919	6996
45	22	67	184	366	642	898	1024	959	738	436	124	19	22	89	273	639	1281	2179	3203	4162	4900	5336	5460	5479
50	0	19	83	230	487	748	869	804	588	292	46	0	0	19	102	332	819	1567	2436	3240	3828	4120	4166	4166
55	0	0	28	118	335	598	714	649	438	162	11	0	0	0	28	146	481	1079	1793	2442	2880	3042	3053	3053
60	0	0	1	41	193	448	559	494	291	61	0	0	0	0	1	42	235	683	1242	1736	2027	2088	2088	2088
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	107	173	281	388	528	650	760	733	573	405	209	101	107	280	561	949	1477	2127	2887	3620	4193	4598	4807	4908

(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.
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