

Climatology of the United States

No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: FRUITLAND 3 E, NM

1971-2000

COOP ID: 293340

Climate Division: NM 1

NWS Call Sign:

Elevation: 5,220 Feet Lat: 36°44N

Lon: 108°21W

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	42.7	18.1	30.4	69	2000	16	37.2	1999	-17	1974	4	24.3	1973	1072	0	.0	.0	7.0	3.9	29.1	.6
Feb	51.0	22.7	36.9	73	1976	28	42.3	1996	-15	1948	13	30.6	1974	789	0	.0	.0	15.3	.8	25.0	.4
Mar	60.2	27.9	44.1	82+	1971	26	49.2	1999	3	1975	29	39.7	1987	651	0	.0	.0	27.7	@	22.5	.0
Apr	68.9	33.5	51.2	88	1989	21	55.6	1992	8	1975	3	45.9	1973	415	2	.0	.0	29.0	.0	14.0	.0
May	78.0	41.2	59.6	98+	1951	27	65.6	2000	11	1975	7	51.6	1975	202	36	.0	1.1	31.0	.0	3.6	.0
Jun	88.0	49.5	68.8	104	1954	23	72.9+	2000	30	1954	7	64.6	1973	35	148	.3	13.4	30.0	.0	.1	.0
Jul	91.7	57.9	74.8	106	1976	11	78.7	1996	40+	1968	1	71.0	1993	1	304	.9	22.3	31.0	.0	.0	.0
Aug	89.1	57.1	73.1	103+	1952	3	76.3	1995	32	1975	26	66.1	1975	6	252	.1	15.4	31.0	.0	@	.0
Sep	82.1	48.1	65.1	99	1995	1	70.1	1998	23+	1975	26	61.7+	1993	76	79	.0	3.2	30.0	.0	1.1	.0
Oct	69.9	35.9	52.9	90	1991	3	56.5	1979	14+	1989	31	48.4	1984	377	2	.0	@	30.3	.0	10.7	.0
Nov	54.4	25.7	40.1	77+	1950	1	44.8	1973	1	1952	27	34.4	1979	748	0	.0	.0	20.3	.1	24.3	.0
Dec	44.0	18.7	31.4	73	1999	17	37.1	1999	-15	1990	24	22.5	1990	1042	0	.0	.0	8.1	2.7	29.2	.6
Ann	68.3	36.4	52.4	106	Jul 1976	11	78.7	Jul 1996	-17	Jan 1974	4	22.5	Dec 1990	5414	823	1.3	55.4	290.7	7.5	159.6	1.6

+ 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

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

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NWS Call Sign:

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Lon: 108°21W

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	.71	.61	.81	1955	17	2.60	1993	.02	1972	6.2	2.5	@	.0	.05	.10	.19	.28	.39	.52	.67	.86	1.13	1.58	2.02
Feb	.62	.50	.78	1987	26	2.22	1987	.00	1972	5.1	2.4	.1	.0	.04	.11	.20	.30	.39	.50	.62	.77	.97	1.30	1.62
Mar	.77	.61	.77	2001	7	1.93	1973	.00	1971	5.5	2.8	.1	.0	.01	.04	.12	.22	.34	.49	.67	.91	1.26	1.86	2.46
Apr	.59	.37	1.31	1997	4	2.32	1997	.00+	1989	4.2	1.9	.2	@	.00	.02	.10	.18	.28	.40	.54	.71	.97	1.40	1.83
May	.49	.43	.81	1987	23	1.36	1992	.00+	2000	3.6	1.7	.2	.0	.00	.00	.05	.13	.22	.32	.44	.60	.82	1.18	1.54
Jun	.24	.13	.59	1948	2	.91	1996	.00+	1989	2.4	.7	@	.0	.00	.00	.00	.03	.07	.13	.20	.29	.42	.64	.87
Jul	.72	.52	1.57	1986	20	4.17	1986	.00+	1995	4.9	2.2	.3	.1	.00	.00	.09	.22	.35	.50	.68	.90	1.21	1.72	2.23
Aug	1.06	.94	1.22	1948	5	2.78	1993	.05	1978	6.0	3.0	.6	@	.13	.22	.37	.52	.67	.85	1.05	1.29	1.63	2.18	2.72
Sep	.86	.79	1.90	1969	20	2.01	1986	.00	1979	5.0	2.6	.4	@	.13	.24	.39	.51	.63	.75	.89	1.06	1.27	1.61	1.93
Oct	.95	.81	1.26	1979	21	4.89	1972	.00	1995	5.1	2.9	.4	@	.02	.08	.21	.34	.49	.67	.88	1.16	1.54	2.19	2.83
Nov	.77	.68	.81	1968	1	2.64	1986	.00	1989	4.7	2.5	.3	.0	.04	.11	.22	.34	.46	.60	.75	.95	1.22	1.67	2.11
Dec	.56	.47	.96	1953	5	1.38	1982	.00	1989	5.1	2.1	.1	.0	.01	.05	.12	.20	.29	.39	.52	.68	.91	1.29	1.68
Ann	8.34	8.33	1.90	Sep 1969	20	4.89	Oct 1972	.00+	May 2000	57.8	27.3	2.7	.1	4.65	5.30	6.16	6.85	7.47	8.08	8.73	9.46	10.36	11.71	12.90

+ 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

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Station: FRUITLAND 3 E, NM

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Climate Division: NM 1

NWS Call Sign:

Elevation: 5,220 Feet

Lat: 36°44N

Lon: 108°21W

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	4.3	3.0	#	#	8.0	1974	1	12.6	1974	5	1990	20	2	1979	2.9	1.6	.4	@	.0	1.4	.3	.1	.0
Feb	3.4	1.3	#	0	10.0	1987	26	21.0	1987	8	1987	26	3	1978	1.7	1.0	.3	.2	@	.8	.6	.4	.0
Mar	1.1	.3	#	0	3.0	1990	12	5.5	1973	3	1983	21	2	1983	1.0	.4	@	.0	.0	.5	.0	.0	.0
Apr	.4	.0	#	0	2.0	1973	2	4.0	1973	3	1983	4	#+	1995	.3	.2	.0	.0	.0	.1	.0	.0	.0
May	.1	.0	0	0	4.0	1978	5	4.0	1978	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	.4	.0	#	0	2.8	1991	31	4.4	1991	2+	1991	31	#+	1991	.3	.2	.0	.0	.0	.1	.0	.0	.0
Nov	1.2	.1	#	0	6.2	1996	30	6.2	1996	3+	1996	30	#+	1996	.9	.5	.1	@	.0	.3	@	.0	.0
Dec	2.8	1.5	#	0	7.0	1987	13	11.5	1987	8	1987	14	1	1992	2.4	1.3	.2	.1	.0	.6	.1	.1	.0
Ann	13.7	6.2	N/A	N/A	10.0	Feb 1987	26	21.0	Feb 1987	8+	Dec 1987	14	3	Feb 1978	9.5	5.2	1.0	.3	@	3.8	1.0	.6	.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

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Climate Division: NM 1

NWS Call Sign:

Elevation: 5,220 Feet

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Lon: 108° 21W

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	6/20	6/13	6/08	6/03	5/30	5/26	5/22	5/16	5/09
32	5/31	5/25	5/20	5/17	5/13	5/10	5/06	5/02	4/26
28	5/21	5/14	5/09	5/05	5/01	4/27	4/22	4/17	4/10
24	5/08	5/01	4/26	4/22	4/18	4/14	4/09	4/04	3/28
20	4/21	4/13	4/08	4/04	3/30	3/26	3/22	3/16	3/09
16	4/14	4/04	3/27	3/21	3/15	3/09	3/03	2/23	2/13
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	9/06	9/12	9/16	9/20	9/23	9/26	9/30	10/04	10/10
32	9/18	9/22	9/26	9/29	10/01	10/04	10/07	10/10	10/15
28	9/26	10/02	10/06	10/09	10/13	10/16	10/20	10/24	10/30
24	10/10	10/16	10/20	10/23	10/26	10/29	11/01	11/05	11/11
20	10/25	10/29	11/01	11/04	11/06	11/09	11/11	11/15	11/19
16	10/29	11/05	11/09	11/13	11/17	11/21	11/25	11/29	12/06
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	146	135	128	121	115	109	102	95	84
32	165	156	150	145	140	135	130	124	116
28	191	182	175	170	164	159	153	146	137
24	218	208	202	196	191	185	179	173	164
20	244	236	230	225	220	216	211	205	197
16	285	272	262	254	246	238	230	221	207

* 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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Climate Division: NM 1

NWS Call Sign:

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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	1072	789	651	415	202	35	1	6	76	377	748	1042	5414
60	917	649	496	274	106	8	0	0	23	233	598	887	4191
57	824	565	404	199	64	3	0	0	8	160	508	794	3529
55	762	509	345	155	43	1	0	0	4	118	449	732	3118
50	607	369	209	71	12	0	0	0	0	45	305	577	2195
32	153	31	3	0	0	0	0	0	0	0	17	121	325

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	104	166	375	577	856	1103	1326	1270	993	648	258	101	7777
55	0	0	5	42	186	414	613	557	306	53	0	0	2176
57	0	0	2	26	145	356	551	495	251	33	0	0	1859
60	0	0	0	11	94	271	458	402	176	13	0	0	1425
65	0	0	0	2	36	148	304	252	79	2	0	0	823
70	0	0	0	0	9	60	162	126	25	0	0	0	382

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	9	42	163	349	622	871	1083	1029	758	413	94	18	9	51	214	563	1185	2056	3139	4168	4926	5339	5433	5451
45	0	9	70	213	467	721	928	874	608	268	30	2	0	9	79	292	759	1480	2408	3282	3890	4158	4188	4190
50	0	0	23	109	317	571	773	719	458	143	4	0	0	0	23	132	449	1020	1793	2512	2970	3113	3117	3117
55	0	0	2	41	181	421	618	564	312	55	0	0	0	0	2	43	224	645	1263	1827	2139	2194	2194	2194
60	0	0	0	9	78	275	463	409	178	12	0	0	0	0	0	9	87	362	825	1234	1412	1424	1424	1424
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	18	70	171	293	443	558	682	667	509	321	102	26	18	88	259	552	995	1553	2235	2902	3411	3732	3834	3860

(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