

Climatography of the United States

No. 20

1971-2000

Station: BELL RANCH, NM

COOP ID: 290858

Climate Division: NM 3

NWS Call Sign:

Elevation: 4,500 Feet Lat: 35° 32N

Lon: 104° 06W

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	53.5	18.7	36.1	80	1948	8	42.5	1999	-30	1963	13	27.9	1979	896	0	.0	.0	20.8	2.3	30.1	.9
Feb	58.6	22.7	40.7	80+	1951	11	46.7	1999	-25	1951	1	34.5	1989	682	0	.0	.0	22.5	1.2	25.3	.3
Mar	65.7	28.9	47.3	89	1989	12	52.3	1989	-1	1948	5	43.9	1980	549	0	.0	.0	29.2	.2	21.6	.0
Apr	73.2	37.7	55.5	94+	1965	22	60.0	1981	18	1951	11	48.7	1973	297	11	.0	.3	29.3	.0	8.0	.0
May	81.1	47.9	64.5	102	2000	30	71.8	1996	26	1962	1	59.7	1983	106	91	.1	4.4	31.0	.0	.6	.0
Jun	90.1	57.4	73.8	107	1998	27	80.3	1990	35	1971	4	70.1	1983	6	269	2.3	17.2	30.0	.0	.0	.0
Jul	92.4	63.0	77.7	105+	1958	13	82.5	1980	51+	1992	1	74.6	1991	0	394	2.0	22.1	31.0	.0	.0	.0
Aug	90.2	61.7	76.0	102	1970	30	79.5	2000	47	1988	29	73.0	1971	0	340	.3	18.0	31.0	.0	.0	.0
Sep	84.1	53.4	68.8	100+	1995	5	73.2	1998	31	1999	29	64.5	1988	30	142	.1	7.0	30.0	.0	.1	.0
Oct	74.7	40.4	57.6	94+	2000	1	60.9	1977	11	1993	30	53.1	1976	237	6	.0	.3	30.5	@	4.1	.0
Nov	62.3	27.7	45.0	87	1980	8	50.1	1981	-3	1991	3	38.2	1972	601	0	.0	.0	26.1	.2	22.5	@
Dec	53.8	19.2	36.5	80	1955	23	43.8	1980	-20	1990	23	30.1	1983	885	0	.0	.0	20.5	1.5	29.0	.9
Ann	73.3	39.9	56.6	107	Jun 1998	27	82.5	Jul 1980	-30	Jan 1963	13	27.9	Jan 1979	4289	1253	4.8	69.3	331.9	5.4	141.3	2.1

+ 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

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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: BELL RANCH, NM

COOP ID: 290858

Climate Division: NM 3

NWS Call Sign:

Elevation: 4,500 Feet Lat: 35°32N

Lon: 104°06W

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	.30	.24	.70	1991	10	.94	1979	.00+	1998	1.8	1.3	.1	.0	.00	.00	.00	.16	.22	.28	.34	.41	.49	.62	.73
Feb	.30	.25	.84	1990	20	1.10	1987	.00+	2000	1.3	.9	.1	.0	.00	.00	.00	.04	.10	.17	.26	.37	.53	.80	1.07
Mar	.64	.42	1.60	1985	21	3.00	1985	.00+	1997	2.2	1.8	.3	.1	.00	.00	.04	.15	.28	.42	.58	.79	1.09	1.58	2.08
Apr	.79	.33	2.60	1999	30	4.66	1997	.00+	1996	2.1	1.7	.4	.1	.00	.00	.00	.10	.24	.42	.64	.94	1.37	2.13	2.89
May	1.54	1.28	1.65	1967	28	5.38	1994	.00+	1996	3.6	3.3	1.1	.2	.00	.24	.54	.78	1.03	1.29	1.58	1.92	2.38	3.13	3.85
Jun	2.22	1.94	3.82	1988	13	8.05	1988	.00	1998	4.4	4.1	1.4	.5	.11	.31	.64	.97	1.32	1.71	2.17	2.73	3.51	4.79	6.04
Jul	2.52	2.77	2.64	1967	26	4.74	1972	.00+	1987	5.4	4.9	1.6	.5	.00	.92	1.44	1.78	2.09	2.40	2.73	3.10	3.58	4.30	4.96
Aug	2.67	2.92	3.25	1969	31	5.42	1981	.59	1994	5.2	4.6	1.9	.6	.75	1.01	1.39	1.72	2.05	2.39	2.76	3.21	3.78	4.69	5.53
Sep	1.63	1.55	2.25	1975	12	3.75	1976	.00+	2000	3.5	3.2	1.2	.3	.00	.00	.63	.91	1.17	1.44	1.73	2.07	2.50	3.20	3.85
Oct	1.14	.44	2.56	1954	6	5.20	2000	.00+	1995	2.5	2.1	1.1	.3	.00	.00	.00	.14	.37	.64	.97	1.40	1.99	3.03	4.05
Nov	.76	.46	2.00	1986	4	3.81	1986	.00+	1998	1.6	1.5	.4	.1	.00	.00	.06	.21	.36	.52	.71	.96	1.29	1.83	2.39
Dec	.41	.30	.90	1997	23	2.07	1997	.00+	1998	1.7	1.1	.3	.0	.00	.00	.00	.05	.14	.23	.35	.51	.72	1.09	1.45
Ann	14.92	13.55	3.82	Jun 1988	13	8.05	Jun 1988	.00+	Sep 2000	35.3	30.5	9.9	2.7	9.05	10.12	11.52	12.61	13.59	14.55	15.56	16.69	18.08	20.13	21.93

+ 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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Station: BELL RANCH, NM

COOP ID: 290858

Climate Division: NM 3

NWS Call Sign:

Elevation: 4,500 Feet

Lat: 35°32N

Lon: 104°06W

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	3.1	3.0	1	0	11.0	1990	18	12.0	1987	12	1987	17	5	1974	.9	.8	.4	.2	@	.6	.3	.1	.1
Feb	2.3	.0	#	0	10.0	1990	20	11.5	1986	9+	1990	20	1	1986	.6	.6	.3	.2	@	.2	.1	.1	.0
Mar	1.1	.0	#	0	12.0	1994	8	12.0	1994	8	1999	18	#+	1999	.5	.4	.2	.1	@	.2	.1	@	.0
Apr	.4	.0	#	0	5.3	1988	1	5.3	1988	4	1988	1	#+	1988	.1	.1	.1	@	.0	@	@	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	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	.5	.0	#	0	4.0	1972	31	5.0	1991	4	1991	31	#+	1996	.2	.2	.1	.0	.0	.1	.1	.0	.0
Nov	1.4	.0	#	0	9.0	2000	7	9.0	2000	8	1996	30	1	1972	.5	.5	.2	.2	.0	.1	.1	.1	.0
Dec	2.1	.0	#	0	12.0	1997	23	12.0	1997	12	2000	26	1+	2000	.8	.7	.5	.2	.1	.5	.2	.1	.0
Ann	10.9	3.0	N/A	N/A	12.0+	Dec 1997	23	12.0+	Dec 1997	12+	Dec 2000	26	5	Jan 1974	3.6	3.3	1.8	.9	.1	1.7	.9	.4	.1

+ 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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Elevation: 4,500 Feet

Lat: 35° 32N

Lon: 104° 06W

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	5/16	5/12	5/10	5/07	5/05	5/02	4/30	4/27	4/23
32	5/09	5/04	4/30	4/27	4/25	4/22	4/19	4/16	4/11
28	4/27	4/22	4/18	4/14	4/11	4/08	4/05	4/01	3/27
24	4/17	4/11	4/07	4/04	3/31	3/28	3/25	3/21	3/15
20	4/05	3/30	3/25	3/22	3/18	3/15	3/11	3/07	3/01
16	3/25	3/18	3/12	3/08	3/04	2/27	2/23	2/17	2/10
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	9/28	10/02	10/04	10/07	10/09	10/11	10/13	10/16	10/19
32	10/04	10/09	10/12	10/15	10/17	10/20	10/23	10/26	10/31
28	10/16	10/20	10/24	10/26	10/29	11/01	11/03	11/06	11/11
24	10/25	10/29	11/01	11/03	11/05	11/07	11/09	11/12	11/16
20	11/03	11/07	11/11	11/13	11/16	11/19	11/21	11/25	11/29
16	11/08	11/14	11/18	11/22	11/25	11/29	12/03	12/07	12/13
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	174	168	164	160	156	153	149	144	138
32	191	186	182	178	175	172	168	164	159
28	220	213	208	204	200	196	192	187	180
24	239	232	226	222	218	214	209	204	197
20	263	256	250	246	242	238	234	229	221
16	295	285	278	272	266	260	254	247	237

* 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	896	682	549	297	106	6	0	0	30	237	601	885	4289
60	741	542	395	175	44	1	0	0	5	113	452	730	3198
57	648	458	306	117	22	0	0	0	1	62	367	637	2618
55	586	402	250	86	13	0	0	0	0	39	313	575	2264
50	437	271	131	30	2	0	0	0	0	9	193	424	1497
32	57	12	0	0	0	0	0	0	0	0	7	50	126

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	184	254	474	704	1008	1253	1417	1363	1102	793	396	188	9136
55	0	0	12	100	307	563	704	650	412	118	12	0	2878
57	0	0	5	72	254	503	642	588	353	80	6	0	2503
60	0	0	1	39	183	413	549	495	267	38	1	0	1986
65	0	0	0	11	91	269	394	340	142	6	0	0	1253
70	0	0	0	2	34	144	240	191	57	0	0	0	668

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	42	106	255	478	769	1018	1174	1114	865	548	192	64	42	148	403	881	1650	2668	3842	4956	5821	6369	6561	6625
45	9	42	136	337	615	868	1019	959	715	399	93	21	9	51	187	524	1139	2007	3026	3985	4700	5099	5192	5213
50	0	11	56	207	461	718	864	804	565	259	29	0	0	11	67	274	735	1453	2317	3121	3686	3945	3974	3974
55	0	0	14	104	312	568	709	649	417	138	3	0	0	0	14	118	430	998	1707	2356	2773	2911	2914	2914
60	0	0	0	35	176	418	554	494	281	50	0	0	0	0	0	35	211	629	1183	1677	1958	2008	2008	2008
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	101	156	255	362	499	644	760	734	556	389	198	100	101	257	512	874	1373	2017	2777	3511	4067	4456	4654	4754

(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