

Climatography of the United States

No. 20

1971-2000

Station: BUENA VISTA 2 S, CO

COOP ID: 051071

Climate Division: CO 1

NWS Call Sign:

Elevation: 7,946 Feet Lat: 38°49N

Lon: 106°08W

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	39.2	10.1	24.7	62	1971	30	32.9	1986	-32	1963	12	16.6	1979	1251	0	.0	.0	4.1	6.2	30.8	4.6
Feb	42.6	13.6	28.1	68	1950	16	33.1	2000	-30	1951	1	23.4	1989	1033	0	.0	.0	6.8	3.7	28.3	2.6
Mar	47.9	20.4	34.2	71+	1997	21	39.6	1989	-13+	1965	3	29.2	1998	957	0	.0	.0	14.3	1.9	29.9	.6
Apr	54.7	25.8	40.3	82	1949	25	47.1	1981	-9	1973	8	33.9	1998	742	0	.0	.0	22.0	.5	25.4	.1
May	64.8	34.2	49.5	87	2000	31	53.3	1989	6	1978	6	44.6	1995	481	0	.0	.0	29.2	.0	11.6	.0
Jun	76.1	42.0	59.1	95	1954	21	62.9+	1981	25	1999	7	54.6	1998	195	18	.0	.3	29.9	.0	1.6	.0
Jul	80.8	47.2	64.0	95+	1989	6	66.5	2000	34	1973	23	61.0	1973	65	33	.0	.9	31.0	.0	@	.0
Aug	78.3	45.8	62.1	92+	1958	9	65.5	2000	29	1992	27	58.5	1997	113	20	.0	.1	31.0	.0	.4	.0
Sep	71.4	37.7	54.6	90	1948	13	57.5	1977	17	1999	29	51.4	1996	314	1	.0	.0	29.6	.0	6.3	.0
Oct	61.1	27.2	44.2	86+	1950	19	47.7	1988	0	1993	30	38.6	1984	645	0	.0	.0	27.2	.2	24.6	.1
Nov	47.0	17.8	32.4	80+	1949	6	40.5	1999	-23	1950	10	22.0	1972	979	0	.0	.0	12.4	2.7	28.8	1.1
Dec	39.6	10.1	24.9	62	1965	5	36.2	1980	-25	1978	7	18.7	1978	1245	0	.0	.0	4.7	6.8	30.9	5.0
Ann	58.6	27.7	43.2	95+	Jul 1989	6	66.5	Jul 2000	-32	Jan 1963	12	16.6	Jan 1979	8020	72	.0	1.3	242.2	22.0	218.6	14.1

+ 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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Climatology 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: BUENA VISTA 2 S, CO

COOP ID: 051071

Climate Division: CO 1

NWS Call Sign:

Elevation: 7,946 Feet Lat: 38°49N

Lon: 106°08W

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	.28	.26	1.50	1952	7	.85	1974	.00+	1998	3.6	1.1	@	.0	.00	.00	.06	.11	.15	.21	.27	.35	.46	.64	.82
Feb	.40	.21	1.50	1949	25	1.64	1987	.01	1981	3.5	1.1	.1	.0	.01	.02	.06	.11	.17	.25	.34	.47	.65	.97	1.30
Mar	.69	.56	1.08	1953	30	1.67	1995	.05	1997	5.1	2.4	.1	.0	.09	.15	.25	.34	.44	.55	.68	.84	1.05	1.40	1.74
Apr	.94	.69	1.52	1957	2	2.90	1999	.02	1981	5.3	3.3	.3	@	.07	.13	.25	.38	.52	.69	.89	1.15	1.50	2.10	2.69
May	1.09	.91	1.26	1957	16	3.26	1995	.06	1998	5.9	2.9	.7	@	.14	.23	.39	.54	.70	.87	1.08	1.33	1.67	2.24	2.78
Jun	.86	.83	1.04	2000	26	2.42	1988	.00	1971	6.1	2.7	.2	@	.08	.17	.31	.44	.57	.71	.87	1.06	1.32	1.74	2.14
Jul	1.45	1.44	1.33	1965	31	3.44	1990	.19	1994	10.7	4.4	.6	@	.28	.41	.62	.82	1.02	1.23	1.48	1.77	2.16	2.78	3.37
Aug	1.67	1.43	1.84	1961	1	5.15	1984	.19	1985	11.4	5.1	.7	.1	.34	.49	.74	.96	1.19	1.43	1.70	2.03	2.47	3.16	3.83
Sep	.94	.96	1.80	1961	3	2.31	1976	.19	1987	6.2	2.7	.4	@	.15	.23	.36	.49	.63	.77	.94	1.15	1.42	1.86	2.29
Oct	.82	.74	1.64	1949	9	2.51	1986	.03	1982	4.2	2.3	.4	.1	.08	.14	.25	.36	.49	.63	.79	1.00	1.29	1.76	2.23
Nov	.53	.43	1.20	1964	15	1.82	1991	.05	2000	4.2	1.8	.2	@	.06	.10	.18	.25	.33	.41	.52	.64	.82	1.10	1.37
Dec	.36	.37	1.40	1948	23	.79	1971	.02	1982	3.5	1.3	.1	.0	.05	.08	.13	.18	.23	.29	.35	.43	.54	.73	.90
Ann	10.03	9.72	1.84	Aug 1961	1	5.15	Aug 1984	.00+	Jan 1998	69.7	31.1	3.8	.2	6.65	7.29	8.11	8.74	9.31	9.86	10.43	11.07	11.84	12.98	13.96

+ 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: BUENA VISTA 2 S, CO

COOP ID: 051071

Climate Division: CO 1

NWS Call Sign:

Elevation: 7,946 Feet

Lat: 38°49N

Lon: 106°08W

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	6.3	5.9	1	1	8.0	1980	18	15.1	1982	7	1985	21	5	1974	2.0	1.6	.6	.2	.0	2.4	.8	.2	.0
Feb	3.4	3.5	1	#	9.0	1995	12	10.0	1975	19	1987	28	5	1979	2.0	1.8	.4	.1	.0	3.8	2.1	1.1	.2
Mar	8.5	6.0	1	#	12.0	1979	20	23.5	1979	17	1987	1	4	1987	2.2	2.0	.9	.4	@	2.2	1.2	.2	.0
Apr	4.8	3.9	#	#	13.0	1995	19	17.0	1997	13	1995	19	3	1975	2.0	1.8	.9	.2	@	1.6	1.0	.5	.0
May	1.6	.0	#	0	6.0	1973	2	14.0	1983	9	1978	6	4	1978	.5	.4	.3	.1	.0	.1	@	.0	.0
Jun	.3	.0	#	0	7.5	1975	10	7.5	1975	#+	1990	1	#+	1990	@	@	@	@	.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	.2	.0	#	0	5.0	1971	21	5.0	1971	3	1985	28	#+	2000	.1	@	@	@	.0	.0	.0	.0	.0
Oct	1.9	.0	#	#	12.0	1971	29	16.0	1971	20	1986	31	1	1997	.5	.4	.2	.1	@	.5	.2	.2	.1
Nov	4.6	2.5	1	#	9.0	1972	1	20.0	1972	20	1986	1	6	1986	1.6	1.4	.5	.1	.0	1.9	.5	.1	.0
Dec	7.1	6.7	1	1	8.0	1971	7	16.0	1971	7+	1997	3	4	1986	2.0	1.4	.5	.2	.0	5.0	1.3	.3	.0
Ann	38.7	28.5	N/A	N/A	13.0	Apr 1995	19	23.5	Mar 1979	20+	Nov 1986	1	6	Nov 1986	12.9	10.8	4.3	1.4	@	17.5	7.1	2.6	.3

+ 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: CO 1

NWS Call Sign:

Elevation: 7,946 Feet

Lat: 38° 49N

Lon: 106° 08W

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	7/10	7/03	6/28	6/23	6/19	6/15	6/10	6/05	5/29
32	6/25	6/19	6/15	6/11	6/08	6/04	5/31	5/27	5/21
28	6/06	5/31	5/27	5/23	5/19	5/16	5/12	5/07	5/01
24	5/20	5/14	5/10	5/06	5/03	4/30	4/26	4/22	4/16
20	5/11	5/04	4/30	4/26	4/22	4/18	4/14	4/09	4/03
16	5/05	4/27	4/22	4/17	4/13	4/08	4/04	3/29	3/22
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	8/23	8/28	9/01	9/04	9/08	9/12	9/16	9/23
32	8/28	9/03	9/07	9/11	9/14	9/18	9/21	9/26	10/02
28	9/10	9/16	9/20	9/23	9/26	9/29	10/02	10/06	10/12
24	9/20	9/24	9/28	10/01	10/04	10/07	10/10	10/13	10/18
20	9/27	10/03	10/07	10/11	10/14	10/18	10/21	10/25	10/31
16	10/09	10/15	10/19	10/23	10/26	10/30	11/02	11/07	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	113	101	92	84	77	70	62	53	40
32	125	116	109	103	98	92	87	80	71
28	158	148	141	135	129	123	117	110	100
24	178	169	163	158	153	148	143	137	129
20	204	194	187	180	175	169	163	156	146
16	226	216	208	202	196	190	183	176	166

* 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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NWS Call Sign:

Elevation: 7,946 Feet Lat: 38°49N Lon: 106°08W

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	1251	1033	957	742	481	195	65	113	314	645	979	1245	8020
60	1096	893	802	592	329	94	9	31	174	490	829	1090	6429
57	1003	809	709	503	245	52	1	9	106	397	739	997	5570
55	941	753	647	446	193	32	0	4	69	337	679	935	5036
50	786	613	493	310	90	7	0	0	16	200	532	780	3827
32	253	146	67	26	0	0	0	0	0	5	122	261	880

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	26	37	134	274	542	812	992	930	677	383	132	39	4978
55	0	0	0	5	22	154	279	221	56	2	0	0	739
57	0	0	0	1	11	114	218	165	33	0	0	0	542
60	0	0	0	0	3	66	132	93	11	0	0	0	305
65	0	0	0	0	0	18	33	20	1	0	0	0	72
70	0	0	0	0	0	3	3	1	0	0	0	0	7

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	34	103	308	578	740	675	440	177	28	0	0	0	34	137	445	1023	1763	2438	2878	3055	3083	3083
45	0	0	4	36	177	430	585	520	293	76	2	0	0	0	4	40	217	647	1232	1752	2045	2121	2123	2123
50	0	0	0	4	74	283	430	365	163	20	0	0	0	0	0	4	78	361	791	1156	1319	1339	1339	1339
55	0	0	0	0	16	151	277	215	66	0	0	0	0	0	0	0	16	167	444	659	725	725	725	725
60	0	0	0	0	0	53	137	87	12	0	0	0	0	0	0	0	0	53	190	277	289	289	289	289
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	2	17	52	112	247	399	485	440	326	196	48	6	2	19	71	183	430	829	1314	1754	2080	2276	2324	2330

(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