

Climatography of the United States No. 20

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

Station: CAMPO 7 S, CO

1971-2000

COOP ID: 051268

Climate Division: CO 1

NWS Call Sign:

Elevation: 4,118 Feet Lat: 37°01N

Lon: 102°33W

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	47.6	16.2	31.9	80+	1997	3	42.7	1986	-20	1984	18	19.7	1979	1026	0	.0	.0	14.2	4.6	29.6	1.2
Feb	53.0	20.2	36.6	80+	2000	22	43.8	2000	-26	1996	3	27.5	1978	796	0	.0	.0	17.5	3.1	25.3	.8
Mar	60.2	26.9	43.6	94	1989	11	53.9	1986	2	1996	7	37.0	1984	666	0	.0	.1	24.2	1.1	22.3	.0
Apr	68.3	35.9	52.1	98+	1989	22	57.8	1986	10	1997	12	44.5	1983	396	8	.0	.5	27.2	.2	8.3	.0
May	77.2	46.3	61.8	102	1996	19	67.5	1985	27+	1997	3	55.2	1983	169	68	.1	2.8	30.6	.0	.7	.0
Jun	87.8	55.8	71.8	109	1985	8	77.2	1986	38	1981	15	65.4	1982	31	234	2.0	11.3	30.0	.0	.0	.0
Jul	92.3	60.9	76.6	110	1987	31	82.5	1980	47+	1990	14	73.8	1989	1	360	3.1	18.5	31.0	.0	.0	.0
Aug	89.7	59.3	74.5	106	1986	1	79.1	2000	44	1981	31	70.9	1974	6	300	1.7	14.1	31.0	.0	.0	.0
Sep	82.2	50.2	66.2	106	1995	3	72.1	1998	27	1983	21	58.7	1974	78	114	.4	6.5	29.7	.0	.7	.0
Oct	71.6	37.6	54.6	98	2000	4	57.9	1998	9	1993	30	48.8	1980	326	4	.0	.8	29.7	.1	6.0	.0
Nov	57.0	25.3	41.2	87	1980	8	48.0	1999	-5	1991	3	32.8	1972	717	0	.0	.0	21.3	1.2	22.0	.1
Dec	48.5	17.7	33.1	79+	2001	4	39.1	1980	-26	1983	21	19.6	1983	988	0	.0	.0	14.7	4.0	29.2	1.4
Ann	69.6	37.7	53.7	110	Jul 1987	31	82.5	Jul 1980	-26+	Feb 1996	3	19.6	Dec 1983	5200	1088	7.3	54.6	301.1	14.3	144.1	3.5

+ 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/normals/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1954-2001

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

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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	.31	.30	.82	2001	28	1.09	1990	.00+	1986	2.9	1.1	.1	.0	.00	.02	.07	.11	.16	.22	.29	.38	.50	.71	.91
Feb	.34	.18	.84	1971	18	1.41	1990	.00+	1994	2.5	1.1	.1	.0	.00	.00	.01	.05	.10	.17	.26	.39	.58	.91	1.26
Mar	.99	.66	1.57	1973	30	4.78	1973	.00	1978	5.0	2.5	.5	.1	.03	.10	.23	.37	.53	.71	.93	1.21	1.59	2.24	2.88
Apr	1.51	1.05	3.21	1967	11	5.32	1976	.04	1978	5.2	3.3	.9	.3	.11	.21	.40	.61	.84	1.11	1.43	1.84	2.40	3.35	4.29
May	2.59	2.57	3.05	1988	30	6.43	1978	.34	1997	7.7	4.9	1.5	.7	.59	.83	1.21	1.55	1.89	2.25	2.66	3.15	3.79	4.81	5.77
Jun	2.49	2.20	3.22	1986	8	6.80	1989	.16	1981	6.8	4.6	1.6	.6	.32	.52	.87	1.22	1.58	1.99	2.46	3.04	3.83	5.12	6.36
Jul	2.91	2.32	2.75	1982	28	8.45	1998	.15	1987	7.4	5.0	1.8	.8	.36	.60	1.01	1.41	1.84	2.32	2.87	3.56	4.48	6.00	7.48
Aug	2.53	2.24	3.44	1999	1	7.35	1999	.01	1988	6.7	4.6	1.8	.6	.29	.48	.83	1.18	1.56	1.98	2.48	3.09	3.93	5.30	6.64
Sep	1.47	1.00	2.37	1988	2	7.04	1988	.04	2000	4.5	2.8	1.1	.3	.10	.19	.37	.58	.80	1.06	1.38	1.78	2.34	3.29	4.23
Oct	1.19	.65	4.05	1965	17	5.29	1998	.00+	1988	3.1	1.7	.7	.3	.00	.00	.13	.29	.49	.74	1.04	1.44	2.00	2.98	3.97
Nov	.54	.35	1.19	1975	19	1.73	1972	.00+	1989	2.9	1.5	.3	@	.00	.02	.09	.17	.26	.36	.49	.65	.88	1.27	1.66
Dec	.34	.21	.67	1973	24	1.40	1997	.00+	1988	2.4	1.0	.1	.0	.00	.00	.02	.07	.13	.20	.29	.41	.58	.87	1.16
Ann	17.21	16.62	4.05	Oct 1965	17	8.45	Jul 1998	.00+	Feb 1994	57.1	34.1	10.5	3.7	11.64	12.70	14.07	15.11	16.05	16.95	17.89	18.93	20.21	22.06	23.67

+ 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: 1954-2001

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

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Station: CAMPO 7 S, CO

COOP ID: 051268

Climate Division: CO 1

NWS Call Sign:

Elevation: 4,118 Feet

Lat: 37°01N

Lon: 102°33W

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	4.2	4.0	#	#	12.0	1990	19	16.0	1990	12	1990	19	2	1990	2.1	1.6	.6	.2	@	2.5	.7	.3	.1
Feb	3.1	.8	#	0	8.0	1990	20	15.8	1990	8	1990	21	2	1990	1.6	1.3	.4	.2	.0	1.8	.9	.3	.0
Mar	3.5	1.8	#	#	7.0	1984	22	13.0	1999	6	1999	14	1	1999	1.6	1.4	.6	.2	.0	.9	.6	.2	.0
Apr	.9	.0	#	0	6.0	1994	28	7.0	1994	6	1994	28	#+	1997	.4	.4	.1	@	.0	.4	.1	.1	.0
May	.3	.0	#	0	3.0	1978	4	5.0	1978	2	1975	28	#+	1990	.1	.1	@	.0	.0	.1	.0	.0	.0
Jun	.0	.0	#	0	.0	0	0	.0	0	#	1993	20	#	1993	.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	.1	.0	0	0	2.0	1984	29	2.0	1984	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Oct	1.7	.0	#	0	16.0	1997	26	19.0	1997	16	1997	27	1	1997	.4	.4	.2	.1	@	.4	.3	.3	.1
Nov	2.4	1.0	#	0	5.0	1992	25	9.5	1972	7	1991	1	1	1992	1.4	1.1	.3	.1	.0	1.3	.5	.3	.0
Dec	4.0	2.8	#	#	8.0	1997	23	18.1	1997	8	1997	23	2	1997	2.0	1.4	.5	.2	.0	2.1	.5	.4	.0
Ann	20.2	10.4	N/A	N/A	16.0	Oct 1997	26	19.0	Oct 1997	16	Oct 1997	27	2+	Dec 1997	9.6	7.7	2.7	1.0	@	9.5	3.6	1.9	.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

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Climate Division: CO 1

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Lat: 37° 01N

Lon: 102° 33W

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	5/16	5/12	5/09	5/06	5/03	4/30	4/26	4/21
32	5/09	5/04	4/30	4/27	4/24	4/21	4/18	4/14	4/09
28	5/02	4/26	4/22	4/18	4/15	4/12	4/08	4/04	3/29
24	4/19	4/13	4/09	4/06	4/03	3/31	3/27	3/24	3/18
20	4/09	4/03	3/29	3/26	3/22	3/19	3/15	3/11	3/05
16	4/04	3/29	3/24	3/20	3/16	3/13	3/09	3/04	2/26
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	9/15	9/20	9/24	9/27	9/30	10/03	10/06	10/10	10/15
32	9/22	9/28	10/02	10/06	10/09	10/13	10/16	10/21	10/27
28	9/29	10/06	10/11	10/15	10/19	10/23	10/27	11/01	11/07
24	10/16	10/22	10/26	10/29	11/02	11/05	11/08	11/12	11/18
20	10/25	10/31	11/03	11/06	11/09	11/12	11/15	11/19	11/24
16	10/28	11/05	11/10	11/15	11/19	11/23	11/28	12/04	12/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	170	162	156	151	146	141	136	130	122
32	194	185	178	173	167	162	156	150	141
28	211	203	196	191	186	181	176	169	161
24	237	229	222	217	212	207	202	195	187
20	256	247	241	236	231	226	221	215	207
16	279	268	260	253	247	241	234	226	215

* 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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Elevation: 4,118 Feet Lat: 37°01N Lon: 102°33W

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	1026	796	666	396	169	31	1	6	78	326	717	988	5200
60	871	656	513	265	87	9	0	1	27	192	567	833	4021
57	778	572	425	199	52	4	0	0	12	125	480	740	3387
55	716	516	369	160	35	2	0	0	6	90	424	678	2996
50	568	386	240	83	11	0	0	0	0	33	292	529	2142
32	145	61	13	0	0	0	0	0	0	0	28	117	364

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	142	189	370	602	922	1193	1382	1317	1026	701	302	152	8298
55	0	1	13	73	244	505	669	604	342	78	7	0	2536
57	0	0	7	51	199	447	607	542	288	51	3	0	2195
60	0	0	2	28	141	362	514	450	213	25	0	0	1735
65	0	0	0	8	68	234	360	300	114	4	0	0	1088
70	0	0	0	1	25	133	215	168	49	0	0	0	591

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	46	86	193	399	678	946	1121	1063	793	489	160	51	46	132	325	724	1402	2348	3469	4532	5325	5814	5974	6025
45	15	37	103	268	528	796	966	908	643	347	83	18	15	52	155	423	951	1747	2713	3621	4264	4611	4694	4712
50	0	11	51	161	380	646	811	753	498	216	34	2	0	11	62	223	603	1249	2060	2813	3311	3527	3561	3563
55	0	0	15	78	245	498	656	598	356	112	9	0	0	0	15	93	338	836	1492	2090	2446	2558	2567	2567
60	0	0	2	27	130	351	501	444	228	40	0	0	0	0	2	29	159	510	1011	1455	1683	1723	1723	1723
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	67	111	179	280	427	597	720	685	507	355	153	76	67	178	357	637	1064	1661	2381	3066	3573	3928	4081	4157

(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