

Climatography of the United States

No. 20

1971-2000

Station: WALSENBURG, CO

COOP ID: 058781

Climate Division: CO 1

NWS Call Sign:

Elevation: 6,150 Feet Lat: 37° 39N

Lon: 104° 46W

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	47.7	21.0	34.4	73	1997	1	42.6	1986	-36	1963	12	24.0	1979	950	0	.0	.0	14.9	3.3	26.0	1.6
Feb	51.1	23.2	37.2	75+	1986	25	44.3	1999	-25	1951	1	27.6	1989	780	0	.0	.0	17.2	2.2	22.5	1.3
Mar	56.9	28.1	42.5	80+	1997	21	48.6	1989	-14	1965	20	38.3	1984	698	0	.0	.0	24.3	.9	21.4	.2
Apr	63.9	33.6	48.8	87	1989	21	54.2	1992	0	1959	10	42.0	1973	489	1	.0	.0	27.2	.2	13.2	.0
May	72.2	42.3	57.3	95	2000	29	63.1	1996	14	1954	1	52.4	1995	258	17	.0	.4	30.4	.0	2.4	.0
Jun	82.0	50.9	66.5	101	1981	21	71.1	1994	32	1975	10	62.0	1982	56	99	.2	6.5	29.9	.0	@	.0
Jul	85.9	56.6	71.3	100+	1979	14	74.1	1980	43+	1968	1	68.8	1990	2	196	.1	12.3	31.0	.0	.0	.0
Aug	83.5	55.5	69.5	98	1979	7	74.3	1995	37	1964	28	65.9	1974	14	152	.0	5.5	31.0	.0	.0	.0
Sep	78.1	48.0	63.1	95	1995	5	67.3	1998	21	1985	29	58.8	1974	108	49	.0	1.3	29.8	.0	1.1	.0
Oct	69.2	37.3	53.3	88	1952	1	55.9	1988	-1	1993	30	47.6	1984	365	1	.0	.0	29.8	.2	8.3	@
Nov	55.4	27.8	41.6	83	1999	12	51.0	1999	-19	1976	28	33.2	1972	701	0	.0	.0	20.6	1.2	20.0	.4
Dec	47.9	21.7	34.8	76	1980	27	44.4	1980	-27	1972	6	24.3	1983	936	0	.0	.0	14.6	3.3	25.5	1.9
Ann	66.2	37.2	51.7	101	Jun 1981	21	74.3	Aug 1995	-36	Jan 1963	12	24.0	Jan 1979	5357	515	.3	26.0	300.7	11.3	140.4	5.4

+ 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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No. 20 1971-2000

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

Station: WALSENBURG, CO

COOP ID: 058781

Climate Division: CO 1

NWS Call Sign:

Elevation: 6,150 Feet Lat: 37°39N

Lon: 104°46W

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	.70	.67	.89	1960	14	1.51	1974	.04	1981	4.5	2.2	.1	.0	.15	.21	.32	.41	.50	.60	.71	.85	1.03	1.31	1.58
Feb	.80	.58	.97	1977	25	2.17	1984	.10+	1976	4.2	2.3	.4	.0	.10	.16	.27	.38	.50	.63	.78	.97	1.23	1.66	2.07
Mar	1.80	1.59	1.57	1993	1	4.00+	2000	.31	1977	7.2	4.4	1.1	.2	.44	.61	.87	1.10	1.33	1.58	1.85	2.17	2.60	3.27	3.91
Apr	1.85	1.29	3.00	1967	13	6.90	1999	.02	1978	6.6	3.9	1.0	.3	.18	.32	.57	.83	1.10	1.42	1.79	2.25	2.89	3.95	4.98
May	1.95	1.96	2.00	1995	17	5.03	1993	.09	1974	7.9	4.2	1.1	.3	.26	.42	.70	.97	1.26	1.57	1.94	2.39	2.99	3.98	4.94
Jun	1.36	1.18	1.92	1986	2	4.20	1986	.03	1977	6.7	3.4	.7	.2	.13	.22	.41	.60	.80	1.04	1.32	1.66	2.14	2.94	3.72
Jul	2.13	2.30	3.25	1982	29	5.04	1982	.38	1993	9.4	5.2	1.1	.3	.47	.67	.98	1.26	1.54	1.84	2.18	2.58	3.12	3.96	4.76
Aug	2.34	2.31	2.24	1991	3	4.70	1992	.50	1972	10.5	5.3	1.3	.5	.63	.86	1.19	1.49	1.78	2.09	2.42	2.82	3.35	4.16	4.93
Sep	1.04	.95	2.45	1963	21	2.64	1976	.00	1992	6.1	3.0	.4	@	.15	.28	.46	.61	.75	.90	1.07	1.28	1.55	1.97	2.37
Oct	1.06	.93	1.90	1997	25	3.84	1997	.00	1995	3.9	2.6	.8	.1	.05	.14	.30	.45	.62	.81	1.03	1.31	1.68	2.31	2.92
Nov	1.45	1.33	3.20	1997	28	4.87	1997	.20	1989	5.8	3.2	.9	.2	.26	.39	.60	.80	1.00	1.22	1.46	1.76	2.16	2.80	3.41
Dec	.96	.77	1.33	1982	24	2.97	1973	.00	1977	5.1	3.1	.3	.1	.11	.23	.39	.52	.66	.81	.98	1.18	1.45	1.87	2.28
Ann	17.44	17.55	3.25	Jul 1982	29	6.90	Apr 1999	.00+	Oct 1995	77.9	42.8	9.2	2.2	11.83	12.89	14.27	15.32	16.26	17.17	18.12	19.17	20.44	22.31	23.93

+ 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: WALSENBURG, CO

COOP ID: 058781

Climate Division: CO 1

NWS Call Sign:

Elevation: 6,150 Feet

Lat: 37°39N

Lon: 104°46W

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	12.0	11.0	1	1	13.0	1990	19	23.6	1987	12	1990	19	6	1983	4.1	3.2	1.9	.8	.1	5.9	3.5	1.4	.1
Feb	11.4	11.5	2	1	14.0	1977	25	24.5	1997	20	1973	7	20	1973	3.8	3.1	1.6	.8	.1	5.0	2.8	1.5	.4
Mar	20.1	21.0	1	1	17.0	1993	1	40.5	1984	15	1984	18	4	1974	5.3	4.6	2.6	1.4	.2	4.1	2.6	1.5	.2
Apr	12.9	9.9	#	#	19.0	1986	3	37.8	1995	16	1986	3	4	1973	3.3	2.8	1.8	1.0	.2	1.6	.8	.7	.1
May	3.5	.0	#	0	15.5	1990	3	23.0	1990	10	1990	3	1	1990	.7	.7	.5	.2	.1	.4	.2	.1	@
Jun	.1	.0	0	0	2.0	1975	10	2.0	1975	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	.9	.0	#	0	5.0	1971	18	11.0	1971	5	1971	18	#+	1985	.3	.3	.2	@	.0	.2	.1	@	.0
Oct	5.5	.9	#	0	24.0	1997	25	34.0	1997	20	1997	26	2	1997	1.2	1.0	.8	.5	.1	.8	.6	.4	.1
Nov	16.1	14.5	1	1	34.0	1997	28	56.0	1997	30	1997	28	4	1997	4.3	3.7	2.0	1.2	.3	4.9	2.9	1.8	.3
Dec	16.8	15.9	2	1	16.0	1973	24	46.0	1973	24	1973	25	11	1997	4.6	3.9	2.5	1.1	.2	9.4	5.6	3.6	1.2
Ann	99.3	84.7	N/A	N/A	34.0	Nov 1997	28	56.0	Nov 1997	30	Nov 1997	28	20	Feb 1973	27.6	23.3	13.9	7.0	1.3	32.3	19.1	11.0	2.4

+ 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

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Climate Division: CO 1

NWS Call Sign:

Elevation: 6,150 Feet

Lat: 37° 39N

Lon: 104° 46W

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	6/03	5/29	5/26	5/23	5/20	5/18	5/15	5/11	5/07
32	5/23	5/18	5/15	5/12	5/09	5/06	5/04	4/30	4/25
28	5/11	5/06	5/03	4/30	4/27	4/24	4/21	4/18	4/13
24	4/28	4/23	4/20	4/17	4/14	4/11	4/08	4/05	3/31
20	4/21	4/16	4/12	4/09	4/06	4/03	3/31	3/28	3/23
16	4/18	4/11	4/06	4/02	3/29	3/25	3/21	3/16	3/09
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	9/12	9/17	9/20	9/22	9/25	9/27	9/30	10/03	10/07
32	9/18	9/22	9/25	9/28	10/01	10/03	10/06	10/09	10/14
28	9/24	9/30	10/04	10/07	10/10	10/13	10/16	10/20	10/26
24	10/05	10/12	10/16	10/20	10/23	10/27	10/31	11/04	11/10
20	10/21	10/26	10/29	10/31	11/03	11/05	11/08	11/11	11/16
16	10/24	10/30	11/03	11/06	11/09	11/12	11/15	11/19	11/25
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	148	141	135	131	127	122	118	113	105
32	165	158	153	148	144	140	135	130	123
28	185	178	173	169	165	161	157	152	146
24	213	206	200	196	192	187	183	177	170
20	231	224	219	214	210	206	201	196	189
16	250	241	235	230	224	219	214	207	199

* 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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NWS Call Sign:

Elevation: 6,150 Feet Lat: 37°39N Lon: 104°46W

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	950	780	698	489	258	56	2	14	108	365	701	936	5357
60	795	640	543	346	143	15	0	1	37	219	555	781	4075
57	702	556	451	266	91	6	0	0	14	145	470	688	3389
55	640	500	391	217	65	2	0	0	7	104	415	627	2968
50	492	368	250	119	21	0	0	0	0	39	288	481	2058
32	91	45	7	0	0	0	0	0	0	0	34	91	268

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	164	188	332	502	782	1032	1217	1162	931	658	322	178	7468
55	0	0	2	29	134	345	504	449	247	50	14	1	1775
57	0	0	1	18	99	288	442	387	195	28	9	0	1467
60	0	0	0	8	57	208	349	295	127	10	3	0	1057
65	0	0	0	1	17	99	196	152	49	1	0	0	515
70	0	0	0	0	3	31	68	51	11	0	0	0	164

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	57	85	167	310	567	826	1005	942	709	432	154	66	57	142	309	619	1186	2012	3017	3959	4668	5100	5254	5320
45	20	35	79	187	416	677	850	787	559	289	85	27	20	55	134	321	737	1414	2264	3051	3610	3899	3984	4011
50	2	8	32	93	274	527	695	632	415	161	34	4	2	10	42	135	409	936	1631	2263	2678	2839	2873	2877
55	0	0	4	34	147	378	540	477	274	75	9	0	0	0	4	38	185	563	1103	1580	1854	1929	1938	1938
60	0	0	0	6	61	236	385	323	151	20	0	0	0	0	0	6	67	303	688	1011	1162	1182	1182	1182
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	51	81	148	241	382	526	648	614	465	316	126	54	51	132	280	521	903	1429	2077	2691	3156	3472	3598	3652

(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