

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: EVERGREEN, CO

1971-2000

COOP ID: 052790

Climate Division: CO 4

NWS Call Sign:

Elevation: 7,000 Feet Lat: 39° 38N

Lon: 105° 19W

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	43.8	9.6	26.7	74	1974	16	34.6	1986	-38	1963	12	17.9	1979	1187	0	.0	.0	10.5	5.1	30.7	6.0
Feb	45.6	12.3	29.0	71	1979	14	34.3	2000	-28	1982	5	21.0	1989	1010	0	.0	.0	12.2	4.0	28.0	3.7
Mar	50.1	19.1	34.6	78+	1997	21	39.8	1986	-18	1965	19	29.6	1973	944	0	.0	.0	17.2	2.3	30.3	1.0
Apr	55.8	25.4	40.6	82	2000	30	46.2	1992	-9	1975	1	32.9	1973	732	0	.0	.0	21.8	.6	26.2	.3
May	64.7	34.0	49.4	92	2000	30	53.9	1994	12	1970	1	43.7	1983	486	0	.0	.1	28.3	@	12.0	.0
Jun	75.9	41.3	58.6	96	1994	27	62.5	1994	27+	1999	11	54.9	1982	204	12	.0	.6	29.5	.0	1.3	.0
Jul	81.4	46.5	64.0	96	1995	12	67.3	2000	26	1968	1	61.0	1973	71	38	.0	1.8	31.0	.0	.0	.0
Aug	79.8	45.4	62.6	96	2001	27	66.6	2000	29	1968	24	59.1	1974	103	28	.0	.9	31.0	.0	.1	.0
Sep	72.4	37.3	54.9	92	1995	2	59.4	1998	8	1985	30	50.8	1974	309	4	.0	.2	28.8	.1	6.4	.0
Oct	62.4	26.8	44.6	85+	1997	6	48.5	1988	-8	1969	13	38.7	1984	633	0	.0	.0	26.9	.6	26.2	.1
Nov	50.3	17.7	34.0	77	1989	20	41.5	1999	-15+	1976	27	26.6	2000	930	0	.0	.0	16.2	2.7	29.3	1.3
Dec	44.7	10.2	27.5	69+	1995	1	36.2	1980	-29+	1990	22	19.4	1983	1165	0	.0	.0	11.1	5.1	30.8	5.2
Ann	60.6	27.1	43.9	96+	Aug 2001	27	67.3	Jul 2000	-38	Jan 1963	12	17.9	Jan 1979	7774	82	.0	3.6	264.5	20.5	221.3	17.6

+ 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/normals/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1961-2001

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

034-A

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Lon: 105°19W

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	.54	.45	.92	1989	27	1.59	1996	.02	1977	3.8	1.7	.1	.0	.06	.11	.18	.26	.34	.42	.53	.65	.83	1.11	1.38
Feb	.68	.64	.70	1985	22	1.60	1997	.04	1992	4.2	2.3	.2	.0	.10	.16	.26	.35	.45	.56	.68	.83	1.03	1.36	1.67
Mar	1.69	1.41	2.20	1990	7	5.73	1983	.11	1982	6.4	4.0	1.0	.2	.33	.49	.73	.96	1.19	1.44	1.71	2.05	2.50	3.21	3.88
Apr	2.53	2.17	2.11	1967	13	6.32	1980	.46	1992	7.1	4.7	1.5	.4	.66	.90	1.27	1.59	1.91	2.25	2.62	3.06	3.63	4.54	5.38
May	2.60	2.39	3.69	1969	6	5.40	1995	.25	1974	10.1	6.1	1.4	.5	.59	.83	1.21	1.55	1.90	2.26	2.67	3.15	3.79	4.81	5.77
Jun	2.05	1.88	2.73	1997	7	4.94	1997	.23	1971	9.8	4.8	.9	.4	.43	.62	.92	1.19	1.47	1.76	2.09	2.49	3.02	3.85	4.65
Jul	2.29	2.27	2.10	1983	22	4.40	1990	.31	1978	11.2	6.2	1.1	.2	.78	1.00	1.32	1.58	1.84	2.10	2.39	2.73	3.16	3.82	4.44
Aug	2.38	2.40	1.97	1984	20	5.44	1984	.38	1978	12.2	6.2	1.3	.2	.57	.79	1.14	1.45	1.76	2.08	2.45	2.88	3.45	4.36	5.20
Sep	1.45	1.42	1.47	1970	22	3.34	1996	.00	1992	7.2	3.9	.8	@	.09	.23	.46	.67	.90	1.14	1.43	1.78	2.26	3.05	3.80
Oct	1.26	1.01	1.81	1997	25	4.91	1984	.21	1983	4.8	2.9	.8	.2	.19	.29	.48	.65	.83	1.03	1.26	1.54	1.91	2.52	3.11
Nov	1.05	.91	1.63	1979	20	3.36	1983	.04	1984	4.8	2.7	.5	.2	.10	.18	.33	.47	.63	.81	1.02	1.29	1.65	2.25	2.83
Dec	.78	.75	1.66	1982	25	2.91	1973	.00	1980	4.5	2.3	.3	.1	.06	.15	.27	.39	.51	.63	.78	.96	1.20	1.59	1.96
Ann	19.30	19.04	3.69	May 1969	6	6.32	Apr 1980	.00+	Sep 1992	86.1	47.8	9.9	2.4	13.77	14.84	16.21	17.25	18.17	19.06	19.98	21.00	22.23	24.02	25.56

+ 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: 1961-2001

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

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Station: EVERGREEN, CO

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NWS Call Sign:

Elevation: 7,000 Feet

Lat: 39°38N

Lon: 105°19W

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	7.6	6.6	1	#	13.0	1989	27	22.8	1989	10	1996	2	4	1996	3.4	2.4	1.0	.3	@	-9.9	-9.9	-9.9	-9.9
Feb	9.5	7.5	1	1	12.0	1997	21	28.3	1997	12	1997	21	3	1997	3.7	2.7	1.1	.4	.1	-9.9	-9.9	-9.9	-9.9
Mar	17.0	17.5	3	#	20.0	1990	7	34.9	1990	24	1983	17	23	1983	5.3	4.2	2.2	.9	.3	-9.9	-9.9	-9.9	-9.9
Apr	14.9	14.3	1	#	16.0	1986	2	44.5	1973	15	1973	2	4	1998	4.2	3.6	1.9	1.1	.2	-9.9	-9.9	-9.9	-9.9
May	2.6	1.0	#	0	10.0	1978	6	12.8	1979	6	1973	1	3	1973	1.1	1.0	.3	.2	.1	.1	.0	.0	.0
Jun	.2	.0	#	0	5.0	1975	10	5.0	1975	1	1974	8	#	1974	@	@	@	@	.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	2.1	.0	#	0	12.5	1971	17	12.5	1971	13	1971	17	1	1971	.5	.4	.3	.1	@	.3	.1	.1	.1
Oct	6.4	4.0	#	0	18.0	1984	15	24.5	1984	21	1997	26	2	1997	1.9	1.5	.7	.4	.1	.8	.6	.5	.2
Nov	14.5	12.0	1	0	24.0	1979	20	44.0	1983	22	1972	1	9	1972	4.5	3.3	1.8	1.0	.2	-9.9	-9.9	-9.9	-9.9
Dec	8.6	8.5	2	#	13.0	1973	2	24.9	1973	13	1973	2	11	1973	4.0	3.0	1.0	.4	.1	-9.9	-9.9	-9.9	-9.9
Ann	83.4	71.4	N/A	N/A	24.0	Nov 1979	20	44.5	Apr 1973	24	Mar 1983	17	23	Mar 1983	28.6	22.1	10.3	4.8	1.1	-9.9	-9.9	-9.9	-9.9

+ 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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Lat: 39° 38N

Lon: 105° 19W

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	6/29	6/25	6/21	6/17	6/13	6/08	6/02
32	6/18	6/13	6/09	6/06	6/03	5/31	5/28	5/24	5/18
28	6/02	5/28	5/24	5/21	5/18	5/15	5/11	5/07	5/02
24	5/18	5/13	5/09	5/06	5/03	4/30	4/27	4/24	4/19
20	5/13	5/07	5/02	4/28	4/25	4/21	4/17	4/12	4/06
16	5/01	4/25	4/20	4/16	4/12	4/08	4/04	3/30	3/23
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	8/20	8/25	8/29	9/02	9/05	9/08	9/11	9/15	9/20
32	9/04	9/08	9/11	9/14	9/16	9/19	9/21	9/24	9/28
28	9/12	9/17	9/21	9/24	9/27	9/30	10/03	10/06	10/11
24	9/20	9/25	9/28	10/01	10/04	10/06	10/09	10/12	10/17
20	9/28	10/04	10/08	10/11	10/15	10/18	10/21	10/25	10/31
16	10/01	10/07	10/12	10/16	10/20	10/24	10/28	11/02	11/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	98	90	85	80	75	70	65	60	52
32	123	117	112	108	105	101	97	92	86
28	154	146	141	136	131	127	122	116	108
24	173	166	161	157	152	148	144	139	131
20	194	186	181	177	172	168	164	158	151
16	218	208	202	196	190	185	179	173	163

* 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	1187	1010	944	732	486	204	71	103	309	633	930	1165	7774
60	1032	870	789	582	336	97	12	29	179	478	780	1010	6194
57	939	786	696	493	253	53	2	10	116	385	690	917	5340
55	877	730	634	436	202	33	0	4	82	325	630	855	4808
50	722	590	480	300	102	6	0	0	26	186	482	700	3594
32	209	138	65	23	1	0	0	0	0	2	85	201	724

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	45	52	145	282	537	798	990	948	685	392	144	59	5077
55	0	0	0	5	26	141	278	239	78	2	0	0	769
57	0	0	0	2	15	101	217	183	52	1	0	0	571
60	0	0	0	0	4	55	134	109	24	0	0	0	326
65	0	0	0	0	0	12	38	28	4	0	0	0	82
70	0	0	0	0	0	1	4	3	0	0	0	0	8

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	12	47	116	308	559	741	702	458	191	48	5	0	12	59	175	483	1042	1783	2485	2943	3134	3182	3187
45	0	0	9	44	174	409	586	547	313	89	9	0	0	0	9	53	227	636	1222	1769	2082	2171	2180	2180
50	0	0	0	9	76	266	431	392	189	26	0	0	0	0	0	9	85	351	782	1174	1363	1389	1389	1389
55	0	0	0	0	21	143	278	238	89	1	0	0	0	0	0	0	21	164	442	680	769	770	770	770
60	0	0	0	0	0	51	136	105	23	0	0	0	0	0	0	0	0	51	187	292	315	315	315	315
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	33	44	81	136	240	390	484	463	344	214	81	38	33	77	158	294	534	924	1408	1871	2215	2429	2510	2548

(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