

# Climatology of the United States

## No. 20

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

Station: GEORGETOWN, CO

1971-2000

COOP ID: 053261

Climate Division: CO 4

NWS Call Sign:

Elevation: 8,520 Feet Lat: 39° 43N

Lon: 105° 42W

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	.0	.0	.0	60	1959	12	.0	0	-28	1972	4	.0	0	0	0	.0	.0	1.5	10.3	30.6	5.5
Feb	.0	.0	.0	62+	1963	6	.0	0	-20	1951	1	.0	0	0	0	.0	.0	2.3	10.4	28.1	3.3
Mar	.0	.0	.0	65+	1997	21	.0	0	-12+	1965	19	.0	0	0	0	.0	.0	7.6	4.4	30.2	3.5
Apr	.0	.0	.0	76	1960	9	.0	0	-8	1997	12	.0	0	0	0	.0	.0	17.1	1.7	27.2	.3
May	.0	.0	.0	82	2000	31	.0	0	12	1953	13	.0	0	0	0	.0	.0	26.5	@	14.3	.0
Jun	.0	.0	.0	92	1954	23	.0	0	24	1951	3	.0	0	0	0	.0	@	29.4	.0	3.0	.0
Jul	.0	.0	.0	92+	1971	17	.0	0	31	1971	30	.0	0	0	0	.0	.8	30.9	.0	.1	.0
Aug	.0	.0	.0	88+	1958	9	.0	0	30	1972	24	.0	0	0	0	.0	.2	31.0	.0	.3	.0
Sep	.0	.0	.0	86+	1995	2	.0	0	8	1971	23	.0	0	0	0	.0	.0	28.8	.0	5.7	.0
Oct	.0	.0	.0	80	1997	6	.0	0	-4	1972	31	.0	0	0	0	.0	.0	23.6	1.1	23.0	.1
Nov	.0	.0	.0	70	1999	13	.0	0	-12+	1976	28	.0	0	0	0	.0	.0	7.3	6.2	29.4	4.1
Dec	.0	.0	.0	60+	1999	1	.0	0	-15	1971	8	.0	0	0	0	.0	.0	2.3	9.6	30.9	4.9
Ann	.0	.0	.0	92+	Jul 1971	17	-99.9	0	-28	Jan 1972	4	99.9	0	0	0	.0	1.0	208.3	43.7	222.8	21.7

+ 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](http://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: 1948-2001

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

041-A

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**Station: GEORGETOWN, CO**

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**NWS Call Sign:**

**Elevation: 8,520 Feet Lat: 39°43N**

**Lon: 105°42W**

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	.65	.52	1.02	1972	13	2.58	1996	.06	1978	11.3	3.8	.2	@	.10	.15	.25	.33	.43	.53	.65	.79	.98	1.30	1.60
Feb	.76	.59	.58	1995	12	1.86	1995	.00	1973	10.1	3.8	.3	.0	.13	.23	.36	.46	.56	.67	.79	.93	1.11	1.40	1.67
Mar	1.37	1.37	.90	1953	30	2.98	1990	.43	1972	10.7	5.3	.9	.1	.53	.66	.84	.99	1.13	1.28	1.44	1.62	1.85	2.20	2.52
Apr	1.96	1.88	1.50	1957	2	4.31	1999	.21	1972	11.1	4.9	.8	.1	.52	.71	.99	1.24	1.48	1.74	2.02	2.36	2.80	3.49	4.14
May	1.72	1.63	3.95	1969	7	6.11	1995	.05	1974	12.9	6.4	.9	.1	.23	.38	.62	.86	1.11	1.39	1.71	2.11	2.64	3.51	4.35
Jun	1.44	1.31	1.40	1963	16	2.66	1997	.14	1971	9.9	4.5	.5	.1	.43	.57	.77	.95	1.12	1.30	1.50	1.73	2.03	2.49	2.93
Jul	2.01	2.07	1.64	2000	17	4.19	1999	.22	1978	14.0	6.7	.8	.1	.51	.70	.99	1.25	1.51	1.77	2.07	2.43	2.89	3.62	4.30
Aug	2.51	2.40	1.64	1979	15	4.29+	1982	.86	1973	14.5	6.6	.5	.1	1.03	1.26	1.59	1.85	2.10	2.36	2.63	2.95	3.35	3.97	4.52
Sep	1.49	1.48	1.84	1970	22	2.98+	1996	.03	1978	9.5	3.9	.3	@	.28	.41	.63	.83	1.04	1.26	1.51	1.82	2.23	2.88	3.51
Oct	.87	.91	1.10	1969	3	1.96	1978	.17+	2000	7.0	3.6	.3	.1	.24	.33	.45	.56	.67	.78	.90	1.05	1.24	1.53	1.81
Nov	.87	.81	.76	1979	20	1.80	1979	.20	1980	7.9	4.1	.5	@	.25	.33	.46	.56	.67	.78	.90	1.04	1.23	1.52	1.78
Dec	.72	.55	.90	1967	20	1.61	1983	.08	1975	10.3	3.8	.2	.0	.18	.25	.35	.44	.54	.63	.74	.87	1.03	1.29	1.54
Ann	16.37	15.95	3.95	May 1969	7	6.11	May 1995	.00	Feb 1973	129.2	57.4	6.2	.7	11.34	12.30	13.54	14.49	15.33	16.14	16.99	17.92	19.06	20.71	22.14

+ 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:

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Station: GEORGETOWN, CO

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Climate Division: CO 4

NWS Call Sign:

Elevation: 8,520 Feet

Lat: 39°43N

Lon: 105°42W

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	12.8	10.0	3	3	7.9	1996	5	45.7	1996	15	1996	31	9	1996	8.1	3.8	1.5	.6	.0	15.8	7.2	2.1	.0
Feb	12.6	12.1	3	2	6.3	1996	18	23.8	1996	17	1996	1	8	1996	5.5	3.1	1.5	.5	.0	13.9	5.6	1.7	.3
Mar	14.4	12.8	2	2	9.7	1998	19	25.1	1998	13	1998	19	3	1976	8.0	4.2	2.0	.6	.0	10.4	4.6	2.0	.1
Apr	27.5	31.0	2	1	14.4	1999	15	45.8	1997	14+	1999	15	4+	1999	9.1	6.3	3.4	1.8	.5	9.2	5.8	3.1	.6
May	4.7	.7	#	#	15.0	1978	6	25.0	1995	15	1978	6	1	1995	2.2	1.3	.8	.4	.1	1.7	1.1	.4	.1
Jun	.2	.0	#	0	3.1	1998	5	3.1	1998	8	1975	10	#+	1999	.2	.1	.1	.0	.0	.1	.1	.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	2.7	.0	#	0	13.0	1971	17	16.0	1971	13	1971	17	1	1996	.6	.5	.5	.1	.1	.8	.4	.2	.1
Oct	6.9	7.0	#	#	9.5	1997	25	17.0	1979	11	1997	25	2	1997	2.5	1.9	.9	.4	.0	3.2	1.5	.6	.1
Nov	14.4	12.6	2	1	15.0	1979	20	41.0	1979	15	1979	21	7	1979	6.0	3.7	1.8	.6	.2	10.6	4.6	1.8	.6
Dec	15.8	13.7	2	2	12.3	1977	5	35.1	1973	15	1973	30	5	1996	7.1	4.1	1.4	.6	.1	18.7	8.5	3.5	.1
Ann	112.0	99.9	N/A	N/A	15.0+	Nov 1979	20	45.8	Apr 1997	17	Feb 1996	1	9	Jan 1996	49.3	29.0	13.9	5.6	1.0	84.4	39.4	15.4	2.0

+ 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: 8,520 Feet**

**Lat: 39° 43N**

**Lon: 105° 42W**

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	7/08	7/02	6/28	6/24	6/21	6/17	6/13	6/09	6/03
32	7/03	6/25	6/19	6/14	6/10	6/05	5/31	5/26	5/18
28	6/20	6/11	6/04	5/30	5/24	5/19	5/13	5/07	4/27
24	6/04	5/27	5/22	5/17	5/13	5/08	5/03	4/28	4/20
20	5/21	5/14	5/09	5/04	4/30	4/25	4/21	4/15	4/08
16	5/16	5/08	5/02	4/27	4/23	4/18	4/13	4/07	3/30
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	8/14	8/21	8/26	8/30	9/03	9/06	9/11	9/15	9/22
32	9/01	9/06	9/10	9/13	9/16	9/19	9/22	9/26	10/01
28	9/13	9/17	9/20	9/23	9/25	9/28	9/30	10/03	10/07
24	9/19	9/24	9/28	10/01	10/04	10/06	10/09	10/13	10/18
20	9/25	10/01	10/06	10/10	10/13	10/17	10/21	10/25	11/01
16	10/05	10/11	10/16	10/20	10/23	10/27	10/31	11/04	11/10
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	101	91	85	79	73	68	62	55	46
32	128	118	110	104	98	92	85	78	67
28	154	143	136	129	123	117	111	103	93
24	170	161	154	148	143	138	133	126	117
20	187	180	175	170	166	162	157	152	145
16	210	201	194	188	183	178	172	165	156

\* 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:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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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	0	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0
65	0	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0	0

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	15	63	229	456	687	641	381	131	11	0	0	0	15	78	307	763	1450	2091	2472	2603	2614	2614
45	0	0	3	21	115	311	532	486	242	52	0	0	0	0	3	24	139	450	982	1468	1710	1762	1762	1762
50	0	0	0	0	40	180	380	332	121	11	0	0	0	0	0	0	40	220	600	932	1053	1064	1064	1064
55	0	0	0	0	7	78	229	189	40	0	0	0	0	0	0	0	7	85	314	503	543	543	543	543
60	0	0	0	0	0	14	100	63	7	0	0	0	0	0	0	0	0	14	114	177	184	184	184	184
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	1	24	73	176	306	427	411	267	118	19	1	0	1	25	98	274	580	1007	1418	1685	1803	1822	1823

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)