

Climatology of the United States

No. 20

1971-2000

Station: HOLLY, CO

COOP ID: 054076

Climate Division: CO 1

NWS Call Sign:

Elevation: 3,390 Feet Lat: 38°03N

Lon: 102°07W

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	43.3	12.8	28.1	79+	1986	31	37.4	1986	-28+	1988	7	16.2	1988	1146	0	.0	.0	12.2	7.0	30.9	3.4
Feb	49.8	17.6	33.7	84+	1981	21	39.6+	1999	-22	1982	5	22.7	1978	877	0	.0	.0	15.6	4.1	27.1	1.8
Mar	58.8	25.6	42.2	92+	1989	10	48.5	1986	-22	1960	3	37.4	1998	707	0	.0	.1	23.3	1.1	24.6	@
Apr	68.6	35.8	52.2	99	1992	30	59.0	1981	7	1936	2	45.3	1997	394	10	.0	1.1	26.9	.2	11.0	.0
May	77.3	46.3	61.8	103+	2000	30	67.7	1977	11	1945	3	56.7	1995	145	45	.3	3.7	30.6	.0	1.2	.0
Jun	88.9	57.2	73.1	110	1952	12	77.4	1994	31	1919	2	68.0	1989	12	254	4.1	15.6	30.0	.0	.0	.0
Jul	93.7	61.9	77.8	110+	1957	7	83.5	1980	40	1987	13	74.1	1992	0	396	7.3	23.2	31.0	.0	.0	.0
Aug	91.2	59.8	75.5	109	1962	11	84.0	1983	38	1940	28	70.7	1992	6	330	4.1	19.9	31.0	.0	.0	.0
Sep	82.5	50.0	66.3	105+	1956	12	71.6	1983	19	1985	30	62.2	1974	71	109	1.0	9.5	29.6	.0	.7	.0
Oct	71.3	35.8	53.6	97	1950	13	57.2	1983	10+	1928	12	47.7	1976	358	3	.0	1.2	29.4	.2	8.9	.0
Nov	54.9	23.0	39.0	90	1927	10	46.6	1999	-9+	1991	3	31.9	1972	781	0	.0	.0	19.7	1.8	26.1	.3
Dec	45.2	15.1	30.2	81	1923	6	36.4	1980	-23	1932	12	18.5	1983	1080	0	.0	.0	12.9	5.4	30.5	2.0
Ann	68.8	36.7	52.8	110+	Jul 1957	7	84.0	Aug 1983	-28+	Jan 1988	7	16.2	Jan 1988	5577	1147	16.8	74.3	292.2	19.8	161.0	7.5

+ 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/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1918-2001

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

054-A

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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: HOLLY, CO

COOP ID: 054076

Climate Division: CO 1

NWS Call Sign:

Elevation: 3,390 Feet Lat: 38°03N

Lon: 102°07W

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	.34	.28	1.42	1921	24	1.43	1999	.00	1986	2.9	1.1	.1	@	.01	.03	.08	.13	.18	.24	.32	.42	.55	.78	1.01
Feb	.38	.22	1.10	1939	27	1.74	1993	.00+	1991	2.8	1.1	.2	.0	.00	.00	.04	.10	.16	.24	.33	.46	.64	.94	1.25
Mar	1.11	.89	1.50	1924	12	3.84	2000	.00	1997	5.3	2.8	.6	@	.03	.10	.24	.40	.58	.78	1.03	1.35	1.79	2.54	3.29
Apr	1.27	1.17	2.62	1944	10	4.09	1980	.03	1992	5.4	3.0	.8	.1	.12	.21	.39	.56	.75	.97	1.23	1.55	1.99	2.73	3.45
May	2.57	2.48	5.12	1964	30	5.98	1977	.00	1974	8.3	5.1	1.4	.8	.43	.78	1.22	1.57	1.92	2.28	2.68	3.15	3.77	4.75	5.66
Jun	2.45	2.36	11.08	1965	17	4.71	1986	.25	1984	7.7	4.9	1.8	.6	.67	.90	1.25	1.56	1.87	2.18	2.54	2.95	3.49	4.34	5.13
Jul	2.62	2.32	3.18	1927	29	6.38	1994	.55	1983	7.5	5.0	2.0	.5	.54	.78	1.17	1.52	1.87	2.25	2.67	3.18	3.86	4.94	5.96
Aug	2.93	2.31	3.55	1989	12	8.87	1997	.05	1984	6.8	4.2	1.8	.8	.32	.54	.95	1.36	1.80	2.29	2.86	3.58	4.55	6.16	7.73
Sep	1.31	.97	2.53	1941	22	4.05	1988	.04	1974	5.7	3.4	.8	.2	.06	.13	.29	.46	.66	.90	1.20	1.58	2.11	3.03	3.95
Oct	1.11	.55	3.32	2000	29	5.16	1984	.00+	1987	4.0	2.2	.6	.2	.00	.00	.10	.25	.43	.66	.95	1.33	1.87	2.82	3.79
Nov	.68	.51	1.37	1990	3	2.66	1992	.00	1989	3.5	1.9	.2	.1	.01	.04	.12	.21	.32	.45	.61	.82	1.12	1.64	2.17
Dec	.32	.23	1.10	1939	23	1.16	1997	.00	1976	3.2	1.0	.1	.0	.00	.02	.06	.10	.15	.21	.29	.38	.52	.75	.98
Ann	17.09	17.01	11.08	Jun 1965	17	8.87	Aug 1997	.00+	Mar 1997	63.1	35.7	10.4	3.3	11.23	12.33	13.76	14.86	15.84	16.80	17.80	18.91	20.26	22.24	23.97

+ 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: 1918-2001

(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: HOLLY, CO

COOP ID: 054076

Climate Division: CO 1

NWS Call Sign:

Elevation: 3,390 Feet

Lat: 38°03N

Lon: 102°07W

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	5.0	2.9	1	#	10.0	1999	30	16.5	1990	11	1990	20	6	1990	2.3	1.7	.7	.2	@	5.8	2.7	.8	.1
Feb	3.6	1.9	1	#	14.0	1990	20	24.0	1990	16	1993	17	4	1993	1.7	1.3	.4	.3	@	4.1	2.0	.3	.1
Mar	5.5	3.0	#	#	14.0	1998	19	18.8	1984	6	1994	9	1	1995	1.9	1.5	.8	.4	.1	1.6	.7	@	.0
Apr	1.4	.0	#	0	10.0	1988	1	10.0	1988	8	1988	1	#+	1997	.7	.6	.2	.1	@	.3	.1	@	.0
May	.1	.0	#	0	2.0	1978	3	2.0	1978	#	1978	3	#	1978	.1	@	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	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	.1	.0	#	0	2.0	1995	21	2.0	1995	1	1995	21	#	1995	@	@	.0	.0	.0	@	.0	.0	.0
Oct	.9	.0	0	0	12.0	1997	26	15.0	1997	15	1997	26	1	1997	.1	.1	.1	.1	@	.0	.0	.0	.0
Nov	4.0	1.0	#	#	14.0	1991	1	32.0	1991	14	1991	1	2	1991	1.2	1.1	.4	.2	@	2.0	.7	.3	.1
Dec	3.3	1.0	#	#	10.0	1987	26	15.1	1987	9	1987	28	2	1997	2.0	1.1	.5	.2	@	3.5	.9	.6	.0
Ann	23.9	9.8	N/A	N/A	14.0+	Mar 1998	19	32.0	Nov 1991	16	Feb 1993	17	6	Jan 1990	10.0	7.4	3.1	1.5	.1	17.3	7.1	2.0	.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

Complete documentation available from:

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Climate Division: CO 1

NWS Call Sign:

Elevation: 3,390 Feet

Lat: 38° 03N

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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	5/22	5/17	5/14	5/11	5/09	5/06	5/03	4/30	4/25
32	5/15	5/11	5/08	5/05	5/03	4/30	4/27	4/24	4/20
28	5/07	5/01	4/27	4/24	4/21	4/17	4/14	4/10	4/04
24	4/20	4/16	4/14	4/11	4/09	4/07	4/05	4/02	3/29
20	4/16	4/10	4/06	4/03	3/31	3/28	3/24	3/21	3/15
16	4/05	3/30	3/26	3/22	3/19	3/15	3/12	3/07	3/01
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	9/14	9/18	9/20	9/23	9/25	9/27	9/30	10/03	10/07
32	9/20	9/25	9/28	10/02	10/05	10/08	10/11	10/14	10/20
28	9/30	10/06	10/10	10/13	10/16	10/19	10/22	10/26	10/31
24	10/10	10/16	10/20	10/23	10/26	10/29	11/02	11/06	11/11
20	10/16	10/22	10/26	10/30	11/02	11/05	11/09	11/13	11/19
16	10/31	11/05	11/09	11/12	11/15	11/17	11/21	11/24	11/29
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	158	151	147	143	139	135	131	126	120
32	174	168	163	158	154	150	146	141	134
28	199	192	186	182	178	173	169	163	156
24	217	211	207	203	199	196	192	187	181
20	239	231	225	220	215	211	206	200	192
16	266	257	251	245	240	235	229	223	214

* 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: 3,390 Feet Lat: 38°03N Lon: 102°07W

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	1146	877	707	394	145	12	0	6	71	358	781	1080	5577
60	991	737	552	265	63	2	0	0	22	220	631	925	4408
57	898	653	461	200	34	0	0	0	9	151	542	832	3780
55	836	597	401	162	20	0	0	0	4	113	485	770	3388
50	685	466	262	85	5	0	0	0	0	47	350	621	2521
32	231	109	11	0	0	0	0	0	0	0	48	184	583

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	109	156	327	605	923	1232	1419	1348	1028	668	258	127	8200
55	0	0	4	77	231	542	706	635	342	68	5	0	2610
57	0	0	2	55	182	482	644	573	287	45	1	0	2271
60	0	0	0	30	119	393	551	480	210	20	0	0	1803
65	0	0	0	10	45	254	396	330	109	3	0	0	1147
70	0	0	0	1	11	138	245	196	45	0	0	0	636

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	14	59	179	397	690	992	1185	1113	799	452	119	24	14	73	252	649	1339	2331	3516	4629	5428	5880	5999	6023
45	1	22	95	270	540	842	1030	958	651	317	55	2	1	23	118	388	928	1770	2800	3758	4409	4726	4781	4783
50	0	3	38	162	394	692	875	803	504	197	16	0	0	3	41	203	597	1289	2164	2967	3471	3668	3684	3684
55	0	0	9	85	256	543	720	648	366	99	2	0	0	0	9	94	350	893	1613	2261	2627	2726	2728	2728
60	0	0	0	35	139	397	565	493	239	37	0	0	0	0	0	35	174	571	1136	1629	1868	1905	1905	1905
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	55	100	187	303	442	616	744	701	503	346	135	57	55	155	342	645	1087	1703	2447	3148	3651	3997	4132	4189

(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.

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| <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 |
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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