Climatography of the United States No. 20 1971-2000

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

COOP ID: 055706

Lon: 106°11W

Station: MONTE VISTA 2 W, CO

Climate Division: CO 5 NWS Call Sign:

									r	Гетр	eratui	re (°F)									
	Mea	n (1)						Extr	emes			Degree Base T	Days (1) emp 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	32.7	.2	16.5	60	2000	20	27.0	1999	-38	1963	13	3.5	1992	1505	0	.0	.0	1.5	14.4	31.0	15.6
Feb	39.3	7.0	23.2	65	1986	26	34.8	1995	-31	1951	1	12.7	1984	1171	0	.0	.0	5.1	7.0	28.2	7.9
Mar	48.9	18.9	33.9	71	1998	25	39.1	1974	-16	1965	5	28.0	1977	965	0	.0	.0	15.7	.9	30.6	.9
Apr	57.9	27.1	42.5	78	1992	30	48.9	1981	-1+	1985	1	37.7	1983	676	0	.0	.0	25.0	.1	26.8	.1
May	66.8	36.3	51.6	85+	2000	24	57.5	1996	12+	1984	7	47.2	1978	418	1	.0	.0	30.1	.0	13.2	.0
Jun	76.4	43.6	60.0	91+	1994	27	64.1	1981	23	1954	7	56.2	1983	168	17	.0	.2	30.0	.0	1.5	.0
Jul	79.6	48.9	64.3	93	1973	6	67.2	1976	31	1955	8	61.2	1995	63	39	.0	.5	31.0	.0	.0	.0
Aug	77.4	47.2	62.3	89	1969	8	64.7	1971	27	1964	28	60.1	1992	99	14	.0	.0	31.0	.0	.2	.0
Sep	72.0	38.3	55.2	86+	1948	5	57.6	1998	15	1978	21	52.1	1985	296	0	.0	.0	29.8	.0	5.9	.0
Oct	61.9	27.5	44.7	80+	1989	2	48.1	1974	1	1997	26	40.7	1984	630	0	.0	.0	28.0	.1	26.1	.0
Nov	45.8	13.9	29.9	69	1980	12	35.6	1999	-22	1957	22	20.5	1972	1055	0	.0	.0	12.4	3.6	29.6	2.6
Dec	35.2	3.3	19.3	61+	1958	9	29.0	1980	-29	1964	7	6.3	1991	1419	0	.0	.0	1.9	11.6	31.0	12.4
Ann	57.8	26.0	42.0	93	Jul 1973	6	67.2	Jul 1976	-38	Jan 1963	13	3.5	Jan 1992	8465	71	.0	.7	241.5	37.7	224.1	39.5

⁺ Also occurred on an earlier date(s)

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 073-A

(1) From the 1971-2000 Monthly Normals

Elevation: 7,650 Feet Lat: 37°35N

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

[@] Denotes mean number of days greater than 0 but less than .05

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COOP ID: 055706

Station: MONTE VISTA 2 W, CO

Climate Division: CO 5 NWS Call Sign: Elevation: 7,650 Feet Lat: 37°35N Lon: 106°11W

										Pı	recipi	tation	(incl	hes)													
	Me	ans/	P	recip	itatio	on Total	s			М	ean N	Numb Oays (3		Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount Monthly/Annual Precipitation vs Probability Levels													
		ans(1)				Extreme	remes				aily Pre	cipitatio	n	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	.23	.21	.54	1987	16	.89	1987	.00+	1991	2.7	.8	@	.0	.00	.01	.04	.08	.11	.16	.21	.28	.38	.54	.70			
Feb	.27	.23	.43+	1991	25	1.02	1997	.00+	2000	2.6	1.0	.0	.0	.00	.02	.07	.11	.16	.21	.27	.34	.44	.60	.77			
Mar	.59	.51	1.16	1958	23	2.04	2000	.00	1978	3.6	1.7	.3	.0	.02	.07	.15	.24	.33	.44	.57	.72	.94	1.31	1.67			
Apr	.43	.37	1.23	1955	6	1.37	1995	.00+	1992	3.6	1.6	.1	.0	.00	.04	.11	.18	.25	.33	.42	.54	.70	.96	1.22			
May	.71	.67	.90+	2001	3	1.93	1993	.00+	1998	5.9	2.3	.2	.0	.00	.00	.18	.30	.43	.56	.71	.90	1.14	1.55	1.94			
Jun	.55	.40	1.12	1978	30	2.01	1983	.00	1980	5.0	1.7	.1	@	.01	.05	.12	.19	.28	.38	.51	.66	.89	1.26	1.64			
Jul	1.27	1.31	1.10	1996	17	2.48	1998	.10	1987	9.3	4.1	.4	@	.35	.47	.66	.82	.97	1.14	1.32	1.53	1.81	2.25	2.65			
Aug	1.49	1.25	1.16	1968	10	4.17	1993	.08	1978	10.7	4.4	.5	.1	.32	.46	.68	.88	1.07	1.29	1.52	1.81	2.18	2.78	3.35			
Sep	.93	.82	1.26	1990	28	1.99	1975	.12	1987	7.3	3.2	.3	@	.24	.33	.46	.58	.70	.82	.96	1.12	1.34	1.68	1.99			
Oct	.59	.45	1.04	1959	1	1.92	1998	.01	1995	4.2	2.0	.2	.0	.04	.07	.14	.22	.31	.42	.55	.71	.94	1.33	1.71			
Nov	.57	.54	1.15	1991	16	2.05	1991	.00+	1989	3.4	1.8	.3	@	.00	.03	.12	.20	.30	.41	.54	.70	.92	1.30	1.67			
Dec	.29	.19	.69	1951	30	.84	1983	.00+	1996	2.6	1.0	.1	.0	.00	.00	.04	.08	.13	.19	.26	.35	.49	.71	.94			
Ann	7.92	8.04	1.26	Sep 1990	28	4.17	Aug 1993	.00+	Feb 2000	60.9	25.6	2.5	.1	5.30	5.80	6.44	6.93	7.37	7.79	8.23	8.73	9.33	10.20	10.96			

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[#] 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

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Station: MONTE VISTA 2 W, CO

Climate Division: CO 5 NWS Call Sign: Elevation: 7,650 Feet Lat: 37°35N Lon: 106°11W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ians (1))					Extre	mes (2)				ow Fa		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	3.2	1.4	2	2	8.0	1987	16	15.5	1987	14	1987	20	7	1993	2.6	.9	.3	.1	.0	13.7	9.5	6.6	.3
Feb	3.8	3.0	2	1	6.0	1975	24	12.3	1997	9	1993	1	6	1993	2.3	1.2	.5	.1	.0	9.1	6.8	4.6	.0
Mar	5.1	4.2	1	#	11.0	1985	30	16.0	1992	11	1985	30	2	1997	2.9	1.6	.6	.3	.1	3.6	1.6	.7	.2
Apr	3.0	2.1	#	#	5.5	1995	10	11.9	1995	11	2000	1	1+	2000	1.8	.9	.2	.1	.0	1.3	.3	.1	@
May	.5	.0	#	0	3.3	1999	2	4.1	1999	3+	1999	2	#+	1999	.3	.2	.1	.0	.0	.2	.1	.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	.0	.0	0	0	1.0	1971	17	1.0	1971	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Oct	1.4	.0	#	0	8.3	1972	31	13.0	1991	6	1996	28	1	1996	.6	.3	.2	.1	.0	.6	.2	.1	.0
Nov	4.3	3.0	1	#	12.0	1991	16	12.6	1972	9	1993	14	3	1993	2.1	1.4	.5	.2	@	4.6	2.4	.9	.0
Dec	3.7	1.8	2	1	8.0	1983	28	11.8	1983	9	1985	13	5	1975	2.5	1.4	.4	.2	.0	12.2	6.6	2.7	.0
Ann	25.0	15.5	N/A	N/A	12.0	Nov 1991	16	16.0	Mar 1992	14	Jan 1987	20	7	Jan 1993	15.1	7.9	2.8	1.1	.1	45.3	27.5	15.7	.5

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[@] 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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COOP ID: 055706

Lon: 106°11W

Lat: 37°35N

Elevation: 7.650 Feet

Station: MONTE VISTA 2 W, CO

Climate Division: CO 5 NWS Call Sign:

Freeze Data **Spring Freeze Dates (Month/Day)** Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 7/05 6/30 6/26 6/22 6/19 6/16 6/12 6/08 6/03 32 6/21 6/15 6/11 6/07 6/04 6/01 5/28 5/24 5/18 28 6/07 6/01 5/28 5/24 5/21 5/17 5/14 5/09 5/03 5/23 5/07 4/27 4/21 24 5/18 5/14 5/10 5/04 5/01 20 5/07 5/02 4/28 4/25 4/22 4/19 4/16 4/12 4/07 4/21 4/12 4/09 16 4/26 4/18 4/15 4/06 4/03 3/29 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 8/21 8/27 8/30 9/03 9/06 9/09 9/12 9/16 9/21 32 8/30 9/05 9/08 9/12 9/15 9/18 9/21 9/25 9/30 28 9/16 9/20 9/23 9/26 9/28 10/01 10/03 10/06 10/10 24 9/21 9/25 9/29 10/01 10/04 10/06 10/09 10/12 10/17 20 9/29 10/03 10/07 10/10 10/12 10/15 10/18 10/21 10/26 10/21 10/24 10/27 16 10/09 10/14 10/18 10/30 11/03 11/08 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 102 94 88 83 78 73 62 54 36 68

107

134

153

177

199

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

112

138

158

182

203

Derived from 1971-2000 serially complete daily data

126

150

171

195

217

118

143

164

187

209

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16

Complete documentation available from:

92

122

140

164

185

86

116

134

158

179

78

109

127

151

172

102

130

149

173

194

97

126

145

168

190

^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1505	1171	965	676	418	168	63	99	296	630	1055	1419	8465		
60	1350	1031	810	526	270	71	8	18	153	475	905	1264	6881		
57	1257	947	717	436	192	35	1	3	84	383	815	1171	6041		
55	1195	891	655	377	146	19	0	1	51	322	755	1109	5521		
50	1040	751	500	239	61	3	0	0	8	187	606	954	4349		
32	525	304	84	5	0	0	0	0	0	4	159	426	1507		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	43	56	143	319	606	839	999	939	695	397	93	31	5160		
55	0	0	0	2	40	169	286	226	55	2	0	0	780		
57	0	0	0	0	23	124	225	167	29	1	0	0	569		
60	0	0	0	0	8	70	139	89	7	0	0	0	313		
65	0	0	0	0	1	17	39	14	0	0	0	0	71		
70	0	0	0	0	0	2	3	0	0	0	0	0	5		

	Growing Degree Unit																												
Base		Growing Degree Units (Monthly)														Growing Degree Units (Accumulated Monthly)													
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
40	0	1	25	125	332	571	724	671	442	177	10	0	0	1	26	151	483	1054	1778	2449	2891	3068	3078	3078					
45	0	0	2	45	195	421	569	516	293	76	0	0	0	0	2	47	242	663	1232	1748	2041	2117	2117	2117					
50	0	0	0	9	86	275	414	361	155	18	0	0	0	0	0	9	95	370	784	1145	1300	1318	1318	1318					
55	0	0	0	0	20	139	259	207	51	0	0	0	0	0	0	0	20	159	418	625	676	676	676	676					
60	0	0	0	0	0	45	115	74	8	0	0	0	0	0	0	0	0	45	160	234	242	242	242	242					
Base		Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)															
50/86	0	14	62	154	277	407	473	445	333	207	45	0	0	14	76	230	507	914	1387	1832	2165	2372	2417	2417					

(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

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.

Compete documentation for the 1971-2000 Normals is available on the internet from:

www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

- a. Temperature/ Precipitation Tables
 - 1. 1971-2000 Monthly Normals
 - 2. Cooperative Summary of the Day
 - 3. National Weather Service station records
 - 4. 1971-2000 serially complete daily data

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

1971-2000 serially complete daily data

- b. Degree Day Table
 - 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 - 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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