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: 053146

Lon: 108°45W

Station: FRUITA 1 W, CO

Climate Division: CO 2

NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 37.4 11.6 24.5 62 1965 31 33.3 1981 -34 1963 12 9.1 1973 1257 0 .0 .0 3.1 9.5 30.5 5.2 Jan 46.0 18.3 32.2 70 +1986 27 38.8 2000 -36 1989 6 17.6 1974 919 0 .0 .0 10.9 2.2 26.8 1.5 Feb Mar 56.8 26.9 41.9 79+ 1998 25 46.5 1986 -2 1948 12 37.3 1971 718 0 .0 .0 24.8 .0 24.0 0. 33.2 29 44.4 1975 2 Apr 65.0 49.1 89 +2000 54.8 1992 12 1951 11 479 .0 .0 28.1 .0 14.2 .0 May 75.5 42.7 59.1 100 2000 30 63.2 2000 23 +1972 1 53.4 1983 201 18 (a) 1.1 30.9 .0 2.0 .0 73.7 27 7 62.2 14.1 Jun 87.3 49.8 68.6 105 1988 25 1988 1954 1995 42 149 .9 30.0 .0 .1 .0 Jul 92.8 56.7 74.8 20 78.3 38 70.3 1995 2 304 2.5 23.5 31.0 106 1998 2000 1968 .0 .0 .0 77.9 3 90.6 55.2 72.9 104 2000 2 2000 37 +1992 28 70.2 1995 249 .5 19.1 31.0 .0 .0 .0 Aug Sep 82.1 45.0 63.6 100 1954 1 68.2 1998 24 +1999 3 58.1 1971 105 60 .0 4.8 30.0 .0 1.6 0. 55.2 31 1984 Oct 69.2 33.3 51.3 93 2001 1 1988 14 1989 46.8 428 1 .0 .0 29.6 .0 15.6 .0 22.9 37.8 75 1978 3 43.4 1999 -5 1979 30 30.7 1979 818 0 .0 .0 18.1 27.0 .2 Nov 52.6 .4 Dec 40.9 14.6 27.8 68 1955 24 36.7 1980 -21 1962 26 17.2 1978 1155 0 .0 .0 4.0 5.1 30.7 1.8 Jul Feb Jul Jan 34.2 50.3 106 1998 20 78.3 2000 -36 1989 6 9.1 1973 6127 783 3.9 62.6 271.5 17.2 172.5 8.7 66.4 Ann

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

Issue Date: February 2004 039-A

Elevation: 4,480 Feet Lat: 39°10N

⁺ Also occurred on an earlier date(s)

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

⁽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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COOP ID: 053146

Station: FRUITA 1 W, CO

Climate Division: CO 2 NWS Call Sign: Elevation: 4,480 Feet Lat: 39°10N Lon: 108°45W

										Pı	recipi	tation	(incl	nes)										
		,	P	recip	itatio	on Total	S			M	lean N of D	lumbo Pays (3		Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
		ans/ ans(1)				Extremes	5			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	.51	.60	1956	16	1.66	1993	.02	1972	5.7	2.5	.1	.0	.07	.11	.20	.29	.39	.50	.63	.79	1.01	1.38	1.74
Feb	.57	.56	.85	1996	21	1.65	1996	.00+	1991	4.5	2.1	.1	.0	.00	.00	.10	.19	.29	.40	.54	.71	.93	1.32	1.71
Mar	.96	.98	1.17	2001	13	2.39	1975	.00	1972	6.4	3.4	.3	.0	.08	.19	.34	.48	.63	.79	.97	1.19	1.49	1.97	2.43
Apr	.77	.66	.91	1965	27	1.98	1997	.04	1972	5.9	2.5	.2	.0	.09	.15	.26	.37	.48	.61	.75	.93	1.18	1.58	1.98
May	1.04	.85	1.45	1993	17	3.33	1993	.00	1974	6.1	2.9	.5	.1	.06	.16	.32	.47	.63	.81	1.02	1.29	1.64	2.23	2.80
Jun	.51	.35	1.57	1984	7	2.65	1984	.00+	1980	3.5	1.4	.2	.1	.00	.03	.11	.19	.28	.37	.48	.62	.82	1.14	1.46
Jul	.77	.79	1.18	1984	30	2.12	1987	.06	1994	4.7	2.3	.4	@	.08	.14	.25	.35	.47	.60	.75	.94	1.21	1.64	2.06
Aug	.73	.69	1.42	1963	31	2.21	1987	.00	1996	5.4	2.4	.2	.0	.04	.11	.22	.33	.44	.57	.71	.89	1.14	1.54	1.93
Sep	.78	.64	1.00	1991	9	2.76	1997	.06	1987	5.1	2.3	.2	@	.08	.13	.24	.35	.47	.60	.76	.95	1.22	1.66	2.10
Oct	1.01	.97	1.08	1957	13	2.64	1972	.01	1978	5.7	3.0	.6	.0	.10	.17	.31	.45	.60	.78	.98	1.23	1.57	2.15	2.71
Nov	.74	.63	1.03	1992	2	1.64	1987	.06	1976	5.3	2.2	.2	@	.16	.23	.34	.43	.53	.64	.75	.89	1.08	1.37	1.65
Dec	.65	.59	1.27	1966	6	1.81	1978	.00	1976	4.8	2.1	.2	.0	.08	.16	.26	.36	.45	.55	.66	.80	.97	1.26	1.53
Ann	9.18	8.56	1.57	Jun 1984	7	3.33	May 1993	.00+	Aug 1996	63.1	29.1	3.2	.2	5.61	6.26	7.11	7.77	8.37	8.95	9.56	10.25	11.09	12.32	13.41

⁺ 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

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COOP ID: 053146

Station: FRUITA 1 W, CO

Climate Division: CO 2 NWS Call Sign: Elevation: 4,480 Feet Lat: 39°10N Lon: 108°45W

										Snov	w (incl	nes)												
						Sn	ow To	tals									Mea	n Nu	mber	of Day	ys (1)			
	Mean	s/Medi	ans (1)	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	5.1	2.7	2	#	9.0	1988	6	16.5	1973	14	1973	20	11	1973	2.9	1.8	.5	.1	.0	11.0	7.4	4.7	1.6	
Feb	1.4	.5	1	#	5.0	1990	8	10.0	1979	11	1979	2	7	1979	1.4	.8	.2	@	.0	2.4	1.6	1.1	.2	
Mar	1.1	.0	#	0	5.0	1975	27	6.5	1975	6	1985	28	1	1998	.5	.4	.2	@	.0	.7	.3	.1	.0	
Apr	.4	.0	#	0	4.0	1997	2	4.0+	1997	2	1975	18	#+	1980	.3	.2	@	.0	.0	.3	.0	.0	.0	
May	.0	.0	#	0	1.0	1979	8	1.0	1979	1	1979	8	#	1979	@	@	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Oct	.3	.0	#	0	4.0	1975	24	4.0	1975	4	1975	24	#	1975	.1	.1	.1	.0	.0	.1	.1	.0	.0	
Nov	1.2	.1	#	#	5.0	1979	20	8.5	1979	5	1979	20	1	1979	.8	.4	.1	.1	.0	1.2	.5	.1	.0	
Dec	3.7	2.3	1	#	10.0	1972	5	17.8	1972	10	1972	5	4	1978	2.0	1.2	.3	.1	@	6.8	4.6	.8	.1	
Ann	13.2	5.6	N/A	N/A	10.0	Dec 1972	5	17.8	Dec 1972	14	Jan 1973	20	11	Jan 1973	8.0	4.9	1.4	.3	@	22.5	14.5	6.8	1.9	

⁺ 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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				Freez	e Data										
			Spri	ng Freeze D	ates (Month/	Day)									
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated((*)							
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	6/13	6/07	6/02	5/30	5/26	5/22	5/19	5/14	5/08						
32	5/29	5/24	5/20	5/16	5/13	5/10	5/06	5/02	4/26						
28	5/18	5/11	5/06	5/02	4/28	4/24	4/20	4/15	4/08						
24	4/28	4/23	4/19	4/15	4/12	4/09	4/05	4/01	3/27						
20	4/21	4/14	4/09	4/04	3/31	3/27	3/22	3/17	3/10						
16	4/05	3/26	3/19	3/13	3/07	3/01	2/23	2/16	2/06						
			Fal	l Freeze Da	tes (Month/D	ay)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	9/11	9/15	9/17	9/20	9/22	9/24	9/27	9/29	10/03						
32	9/16	9/21	9/25	9/28	10/01	10/04	10/07	10/10	10/15						
28	9/23	9/29	10/04	10/08	10/11	10/15	10/19	10/24	10/30						
24	10/03	10/09	10/14	10/18	10/22	10/25	10/29	11/03	11/10						
20	10/23	10/28	10/31	11/03	11/05	11/08	11/11	11/14	11/18						
16	11/05	11/09	11/12	11/15	11/18	11/20	11/23	11/26	12/01						
-			•	Freeze F	ree Period	•	•		•						
Tomp (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)								
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	138	131	126	122	118	114	110	106	99						
32	164	156	150	145	140	135	130	125	117						
28	193	183	177	171	166	160	155	148	138						
24	216	208	202	197	192	187	182	176	168						
20	246	237	230	224	218	213	207	200	191						
16	287	276	268	261	255	249	242	234	223						

^{*} 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.

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Climate Division: CO 2 NWS Call Sign: Elevation: 4,480 Feet Lat: 39°10N Lon: 108°45W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree 1	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1257	919	718	479	201	42	2	3	105	428	818	1155	6127
60	1102	779	563	339	95	10	0	0	39	281	668	1000	4876
57	1009	695	470	262	53	4	0	0	17	202	578	907	4197
55	952	641	409	215	34	1	0	0	9	155	518	845	3779
50	807	511	267	121	8	0	0	0	1	67	371	690	2843
32	350	148	10	0	0	0	0	0	0	0	32	204	744

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	117	153	315	513	840	1097	1325	1269	945	596	204	72	7446
55	5	2	2	38	161	408	612	556	264	39	0	0	2087
57	0	0	1	24	118	350	550	494	213	23	0	0	1773
60	0	0	0	12	67	267	457	401	144	9	0	0	1357
65	0	0	0	2	18	149	304	249	60	1	0	0	783
70	0	0	0	0	2	67	162	116	16	0	0	0	363

										Gro	wing	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	21	129	311	609	869	1086	1026	707	362	58	0	0	21	150	461	1070	1939	3025	4051	4758	5120	5178	5178		
45	0	0	50	189	454	719	931	871	557	225	13	0	0	0	50	239	693	1412	2343	3214	3771	3996	4009	4009		
50	0	0	10	93	307	569	776	716	412	111	0	0	0	0	10	103	410	979	1755	2471	2883	2994	2994	2994		
55	0	0	1	35	176	420	621	561	270	39	0	0	0	0	1	36	212	632	1253	1814	2084	2123	2123	2123		
60	60 0 0 0 7 79 279 466 406 148 7 0 0									0	0	0	7	86	365	831	1237	1385	1392	1392	1392					
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	thly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)				
50/86	1	39	136	253	415	548	670	642	479	300	83	5	1	40	176	429	844	1392	2062	2704	3183	3483	3566	3571		

(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