

# Climatography of the United States

No. 20

1971-2000

Station: FERRON, UT

COOP ID: 422798

Climate Division: UT 7

NWS Call Sign:

Elevation: 5,930 Feet Lat: 39°05N

Lon: 111°08W

## 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	36.5	11.5	24.0	63	2000	12	34.2	1981	-17+	1963	12	14.6	1979	1272	0	.0	.0	2.3	9.4	31.0	3.4
Feb	42.5	18.2	30.4	68	1986	26	40.1	1995	-15+	1949	6	20.6	1979	970	0	.0	.0	5.7	3.2	27.4	1.0
Mar	52.5	26.9	39.7	77	1998	25	45.8	1986	1	1962	1	34.0	1977	786	0	.0	.0	18.9	.3	25.3	.0
Apr	61.2	34.0	47.6	85+	1992	30	55.1	1992	13+	1973	8	40.3	1975	523	1	.0	.0	25.5	.0	13.6	.0
May	70.8	42.5	56.7	93+	2000	29	61.8	2000	22	1990	9	51.5	1975	276	16	.0	.2	30.5	.0	2.9	.0
Jun	82.1	51.8	67.0	100	1994	26	75.1	1974	28	1976	15	61.7	1975	74	132	@	5.1	30.0	.0	.2	.0
Jul	87.7	58.0	72.9	102	1998	19	76.1	1996	39+	1982	6	69.1	1983	5	247	.1	12.7	31.0	.0	.0	.0
Aug	85.6	55.9	70.8	99+	1996	13	73.8	2000	33	1959	20	67.5	1975	7	185	.0	7.8	31.0	.0	.0	.0
Sep	77.4	47.0	62.2	94+	1954	2	66.7	1979	22	1985	29	57.0	1971	125	40	.0	1.0	29.9	.0	1.4	.0
Oct	65.3	35.6	50.5	85+	2000	2	56.3	1988	8	1971	30	44.5	1984	454	3	.0	.0	28.4	.1	10.2	.0
Nov	49.1	23.0	36.1	71+	1952	1	42.1	1999	-4	1976	28	31.0	2000	869	0	.0	.0	14.1	.8	27.2	.1
Dec	38.9	13.9	26.4	64+	1958	6	34.8	1980	-21	1990	23	18.2	1990	1196	0	.0	.0	2.6	6.1	30.9	1.5
Ann	62.5	34.9	48.7	102	Jul 1998	19	76.1	Jul 1996	-21	Dec 1990	23	14.6	Jan 1979	6557	624	.1	26.8	249.9	19.9	170.1	6.0

+ 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](http://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: 1948-2001

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

038-A

# 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

**Station: FERRON, UT**

**COOP ID: 422798**

**Climate Division: UT 7**

**NWS Call Sign:**

**Elevation: 5,930 Feet Lat: 39°05N**

**Lon: 111°08W**

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	.66	.47	1.20	1969	26	2.44	1980	.00	1972	4.9	2.6	.1	.0	.02	.06	.15	.24	.35	.47	.62	.81	1.07	1.52	1.96
Feb	.64	.39	1.10	1965	7	2.41	1998	.00+	1991	4.4	2.3	.2	.0	.00	.00	.07	.17	.29	.42	.58	.79	1.08	1.57	2.06
Mar	.74	.73	.93	1980	7	1.88	1979	.00+	1999	5.5	2.3	.2	.0	.00	.00	.09	.20	.33	.47	.66	.90	1.23	1.81	2.39
Apr	.51	.30	1.02	1988	17	2.30	1999	.00+	2000	4.4	1.7	.2	@	.00	.03	.10	.18	.27	.36	.48	.63	.83	1.18	1.52
May	.74	.58	.99	1969	7	2.24	1992	.03	1974	5.7	2.1	.3	.0	.05	.10	.20	.30	.41	.54	.70	.90	1.17	1.64	2.09
Jun	.41	.33	.95	1949	4	1.18+	1997	.00+	1979	4.0	1.3	.2	.0	.00	.03	.09	.16	.23	.30	.40	.51	.67	.94	1.20
Jul	1.04	.77	1.95	1973	20	3.47	1973	.01	1993	6.4	2.7	.3	.1	.10	.17	.32	.46	.62	.80	1.01	1.27	1.63	2.23	2.82
Aug	.97	.84	1.74	1995	12	3.14	1995	.01	1985	6.8	3.1	.2	.1	.12	.19	.33	.46	.61	.77	.95	1.18	1.50	2.02	2.52
Sep	1.02	.78	1.55	1961	9	4.36	1997	.01	1979	5.7	2.7	.5	.1	.05	.11	.23	.37	.52	.71	.94	1.23	1.64	2.34	3.04
Oct	.98	.83	1.22	1960	10	2.64	1984	.00+	1999	4.8	2.7	.6	.1	.00	.00	.19	.35	.52	.71	.94	1.22	1.60	2.25	2.88
Nov	.57	.31	.91	1978	3	2.73	1978	.00+	1999	3.9	1.8	.2	.0	.00	.03	.12	.20	.30	.41	.54	.70	.93	1.32	1.70
Dec	.39	.26	.70	1966	6	1.34	1982	.00+	1976	3.8	1.6	@	.0	.00	.02	.08	.14	.21	.28	.37	.49	.64	.90	1.16
Ann	8.67	8.80	1.95	Jul 1973	20	4.36	Sep 1997	.00+	Apr 2000	60.3	26.9	3.0	.4	5.45	6.04	6.82	7.42	7.97	8.50	9.05	9.67	10.42	11.54	12.51

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

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**Station: FERRON, UT**

**COOP ID: 422798**

**Climate Division: UT 7**

**NWS Call Sign:**

**Elevation: 5,930 Feet**

**Lat: 39°05N**

**Lon: 111°08W**

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	9.7	6.5	3	3	10.0	1982	5	31.0	1980	15+	1993	14	9	1984	4.4	3.7	1.5	.4	@	18.4	13.6	10.3	1.7
Feb	7.5	4.5	3	1	10.0	1993	1	28.5	1993	19	1978	11	12	1993	3.1	2.5	1.0	.3	@	12.0	9.5	6.8	2.3
Mar	3.9	3.3	#	#	9.0	1980	7	10.5	1980	9	1993	1	2	1993	2.0	1.6	.3	.1	.0	2.4	1.2	.5	.0
Apr	1.5	.5	#	#	9.0	1985	26	11.5	1985	5	1999	4	#+	1999	1.0	.6	.1	.1	.0	.6	.1	@	.0
May	.1	.0	#	0	1.0	1979	8	1.0+	1987	#+	1999	4	#+	1999	.1	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.8	.0	#	0	5.0	1971	30	7.5	1971	7	1971	30	#+	2000	.3	.3	.1	@	.0	.3	.1	@	.0
Nov	2.7	1.0	#	#	5.0	1996	18	11.5	1985	7	1983	26	2	1983	1.6	1.2	.3	@	.0	2.5	.7	.1	.0
Dec	4.8	3.0	1	#	7.0	1984	20	14.5+	1984	11	1983	27	6	1983	3.1	2.0	.6	.1	.0	9.4	4.2	1.9	.3
Ann	31.0	18.8	N/A	N/A	10.0+	Feb 1993	1	31.0	Jan 1980	19	Feb 1978	11	12	Feb 1993	15.6	12.0	3.9	1.0	@	45.6	29.4	19.6	4.3

+ 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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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	6/19	6/12	6/08	6/04	5/31	5/28	5/24	5/19	5/13
32	6/07	5/31	5/27	5/23	5/19	5/15	5/11	5/07	4/30
28	5/22	5/15	5/10	5/06	5/02	4/28	4/24	4/19	4/12
24	5/06	4/29	4/23	4/19	4/14	4/10	4/05	3/31	3/23
20	4/20	4/13	4/07	4/02	3/29	3/25	3/20	3/15	3/07
16	4/07	3/30	3/24	3/19	3/14	3/10	3/05	2/27	2/19
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	9/10	9/15	9/19	9/22	9/25	9/28	10/01	10/04	10/09
32	9/14	9/19	9/23	9/26	9/29	10/02	10/05	10/08	10/13
28	9/23	9/29	10/03	10/07	10/10	10/13	10/17	10/21	10/27
24	10/11	10/16	10/20	10/23	10/26	10/29	11/01	11/05	11/10
20	10/21	10/26	10/29	11/01	11/03	11/06	11/09	11/12	11/16
16	10/31	11/05	11/08	11/11	11/14	11/17	11/20	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	139	131	125	120	116	111	106	100	92
32	157	149	142	137	132	127	122	115	107
28	185	177	170	165	160	155	150	144	135
24	223	213	206	200	194	188	182	175	165
20	243	234	228	223	218	213	208	202	194
16	272	263	256	250	244	239	233	226	216

\* 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:

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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	1272	970	786	523	276	74	5	7	125	454	869	1196	6557
60	1117	830	631	382	158	27	0	0	50	310	719	1041	5265
57	1024	746	539	303	103	13	0	0	24	234	629	948	4563
55	962	690	479	254	74	7	0	0	14	189	569	886	4124
50	808	555	338	153	26	1	0	0	2	98	422	731	3134
32	319	162	34	4	0	0	0	0	0	1	51	225	796

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	70	116	271	472	764	1048	1265	1201	905	573	172	52	6909
55	0	0	4	32	125	365	552	488	229	48	0	0	1843
57	0	0	1	21	92	310	490	426	179	31	0	0	1550
60	0	0	0	10	53	235	397	334	115	14	0	0	1158
65	0	0	0	1	16	132	247	185	40	3	0	0	624
70	0	0	0	0	3	60	118	69	7	0	0	0	257

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	13	90	256	529	807	1022	955	667	345	47	0	0	13	103	359	888	1695	2717	3672	4339	4684	4731	4731
45	0	0	35	149	377	657	867	800	518	213	15	0	0	0	35	184	561	1218	2085	2885	3403	3616	3631	3631
50	0	0	7	70	245	508	712	645	376	116	0	0	0	0	7	77	322	830	1542	2187	2563	2679	2679	2679
55	0	0	0	26	131	362	557	490	240	46	0	0	0	0	0	26	157	519	1076	1566	1806	1852	1852	1852
60	0	0	0	7	58	233	404	336	125	12	0	0	0	0	0	7	65	298	702	1038	1163	1175	1175	1175
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	17	83	185	341	524	664	622	434	250	57	0	0	17	100	285	626	1150	1814	2436	2870	3120	3177	3177

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