

Climatography of the United States

No. 20

1971-2000

Station: GREEN RIVER, WY

COOP ID: 484065

Climate Division: WY 3

NWS Call Sign:

Elevation: 6,077 Feet Lat: 41° 32N

Lon: 109° 29W

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	32.6	5.2	18.9	60	1983	9	28.5	1999	-40	1979	1	5.8	1979	1429	0	.0	.0	.7	15.8	30.8	13.1
Feb	37.6	9.0	23.3	68	1951	10	31.8	2000	-41+	1985	2	11.1	1989	1168	0	.0	.0	3.1	9.4	28.2	8.8
Mar	48.3	21.6	35.0	74	1943	29	40.9	1992	-26	1960	1	28.4	1976	932	0	.0	.0	11.9	2.1	30.2	1.1
Apr	58.4	28.3	43.4	86	1939	29	48.7	1992	-2	1922	15	37.8	1975	649	0	.0	.0	22.3	.2	24.4	.0
May	68.6	36.0	52.3	92	1936	31	59.2	2000	13	1972	1	47.0	1995	395	2	.0	.0	29.3	@	11.1	.0
Jun	79.3	43.1	61.2	103	1940	19	67.9	1977	24+	1982	9	56.5	1998	152	38	.0	2.1	29.9	.0	1.6	.0
Jul	86.0	48.8	67.4	104	1954	8	70.7	1998	31+	1968	1	60.8	1993	39	114	.1	7.2	31.0	.0	.0	.0
Aug	84.5	46.5	65.5	100+	1979	6	69.5	2000	26	1992	26	61.7	1975	68	84	@	4.8	31.0	.0	.5	.0
Sep	74.5	36.9	55.7	98	1998	6	63.2	1998	4	1965	18	50.2	1986	290	11	.0	.5	29.2	@	10.2	.0
Oct	62.5	26.6	44.6	89	1947	6	47.2	1988	-5	1975	27	38.8	1984	634	0	.0	.0	26.7	.4	25.8	.1
Nov	44.7	16.2	30.5	73	1931	8	38.4	1999	-19+	1979	30	22.5	2000	1038	0	.0	.0	9.6	5.4	29.7	2.7
Dec	34.6	5.8	20.2	66	1939	11	31.1	1980	-42	1978	31	12.0	1992	1389	0	.0	.0	1.8	14.0	30.8	10.7
Ann	59.3	27.0	43.2	104	Jul 1954	8	70.7	Jul 1998	-42	Dec 1978	31	5.8	Jan 1979	8183	249	.1	14.6	226.5	47.3	223.3	36.5

+ 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/normals/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1915-2001

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

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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: GREEN RIVER, WY

COOP ID: 484065

Climate Division: WY 3

NWS Call Sign:

Elevation: 6,077 Feet Lat: 41°32N

Lon: 109°29W

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	.42	.37	.55	1956	27	.89	1980	.09	1986	6.0	1.5	.0	.0	.09	.13	.19	.25	.30	.36	.43	.50	.61	.77	.93
Feb	.36	.28	.85	1950	7	1.18	1999	.00	1977	4.2	1.5	@	.0	.03	.06	.12	.17	.23	.29	.36	.44	.55	.74	.91
Mar	.62	.60	1.16	1957	31	1.50	1983	.05	1976	5.5	2.0	.1	.0	.10	.15	.24	.33	.42	.51	.62	.75	.93	1.22	1.50
Apr	.89	.75	1.10	1957	23	2.92	1986	.01	1989	6.4	2.7	.2	.0	.06	.11	.22	.34	.48	.64	.84	1.08	1.43	2.01	2.59
May	1.20	1.15	2.11	1921	8	3.39	1971	.08	1994	8.5	3.7	.5	.0	.13	.23	.39	.56	.74	.94	1.18	1.47	1.87	2.52	3.16
Jun	.79	.59	1.42	1965	10	2.51	1998	.00	1977	5.4	2.3	.3	@	.02	.08	.19	.30	.43	.57	.74	.96	1.27	1.78	2.28
Jul	.75	.51	2.00	1977	24	4.87	1977	.07	1974	5.7	1.9	.3	.1	.07	.12	.22	.32	.44	.57	.72	.92	1.18	1.63	2.07
Aug	.63	.51	1.35	1931	16	1.80	1978	.00+	1985	5.4	2.1	.2	.1	.00	.07	.18	.28	.39	.50	.63	.79	1.01	1.36	1.71
Sep	.84	.66	1.50	1973	11	2.51	1973	.02	1979	5.1	2.1	.3	@	.06	.12	.23	.34	.47	.62	.79	1.01	1.32	1.84	2.35
Oct	.68	.62	1.38	1956	24	1.93	1994	.01+	1988	5.1	2.4	.2	@	.05	.09	.18	.27	.38	.50	.64	.83	1.08	1.51	1.93
Nov	.49	.47	.62	1947	6	1.49	1994	.03	1976	4.8	2.0	.0	.0	.08	.12	.19	.26	.33	.40	.49	.59	.73	.96	1.18
Dec	.35	.25	.80	1981	20	1.18+	1983	.05	1976	5.3	1.3	.1	.0	.05	.07	.12	.17	.22	.28	.34	.42	.53	.71	.88
Ann	8.02	7.50	2.11	May 1921	8	4.87	Jul 1977	.00+	Aug 1985	67.4	25.5	2.2	.2	4.67	5.27	6.06	6.68	7.24	7.80	8.38	9.03	9.84	11.04	12.09

+ 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

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Station: GREEN RIVER, WY

COOP ID: 484065

Climate Division: WY 3

NWS Call Sign:

Elevation: 6,077 Feet

Lat: 41°32N

Lon: 109°29W

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	5.2	3.9	2	1	8.0	1979	13	12.1	1979	14	1993	12	8	1992	3.6	2.0	.5	.1	.0	8.8	3.9	2.2	.9
Feb	5.6	5.0	1	1	8.0	1989	2	18.7	1989	8	1989	2	4	1993	3.3	1.9	.4	.2	.0	8.5	5.7	1.2	.0
Mar	4.1	3.1	#	#	8.0	1998	18	12.4	1988	10	1988	11	2	1998	3.1	1.5	.4	.2	.0	3.4	1.2	.4	.1
Apr	3.7	1.5	#	#	10.0	1986	18	17.3	1999	7	1975	26	1	1991	1.1	1.0	.5	.2	@	.7	.4	.1	.0
May	1.1	.0	#	0	10.0	1975	20	10.0	1975	10	1975	20	#+	1999	.3	.2	.1	@	@	.2	.2	.1	.1
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	#	1993	13	#	1993	2	1984	24	#+	1984	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.8	.0	#	0	5.0	1971	28	7.0	1971	7	1971	31	1	1971	.4	.4	.1	@	.0	.6	.3	.2	.0
Nov	4.0	2.8	#	#	5.0	1983	21	14.5	1983	7	1991	2	2	1991	3.0	1.8	.4	.1	.0	3.4	1.0	.3	.0
Dec	6.1	4.6	1	#	8.0	1985	9	19.2	1983	8	1992	15	4	1992	3.7	1.8	.4	.2	.0	8.0	3.6	.8	.0
Ann	30.6	20.9	N/A	N/A	10.0+	Apr 1986	18	19.2	Dec 1983	14	Jan 1993	12	8	Jan 1992	18.5	10.6	2.8	1.0	@	33.6	16.3	5.3	1.1

+ 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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NWS Call Sign:

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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	7/13	7/07	7/03	6/29	6/26	6/23	6/19	6/15	6/10
32	6/23	6/17	6/12	6/08	6/04	5/31	5/27	5/22	5/16
28	6/11	6/04	5/31	5/27	5/24	5/20	5/16	5/12	5/05
24	5/27	5/22	5/18	5/15	5/12	5/09	5/05	5/02	4/26
20	5/13	5/07	5/02	4/29	4/25	4/21	4/18	4/13	4/07
16	4/27	4/19	4/13	4/08	4/03	3/29	3/24	3/18	3/10
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	8/09	8/15	8/19	8/22	8/26	8/29	9/02	9/06	9/12
32	8/15	8/22	8/27	8/31	9/04	9/08	9/13	9/18	9/25
28	9/06	9/10	9/13	9/15	9/18	9/20	9/22	9/25	9/29
24	9/17	9/20	9/22	9/25	9/27	9/28	10/01	10/03	10/06
20	9/23	9/29	10/02	10/06	10/09	10/12	10/16	10/20	10/25
16	10/08	10/12	10/16	10/19	10/21	10/24	10/27	10/30	11/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	86	77	71	65	60	55	49	43	34
32	121	111	104	97	91	86	79	72	62
28	137	130	125	120	116	112	108	103	96
24	154	148	144	140	137	134	130	126	120
20	191	182	176	171	166	162	156	150	142
16	227	218	211	206	200	195	189	183	174

* 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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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	1429	1168	932	649	395	152	39	68	290	634	1038	1389	8183
60	1274	1028	777	500	253	67	7	19	170	479	888	1234	6696
57	1181	944	684	414	178	35	1	7	112	387	798	1141	5882
55	1119	888	622	358	136	20	0	3	80	327	738	1079	5370
50	964	748	470	230	58	4	0	0	27	189	588	924	4202
32	455	309	79	10	0	0	0	0	0	3	156	407	1419

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	48	65	170	351	629	875	1098	1038	710	392	109	41	5526
55	0	0	0	9	52	205	386	329	100	3	0	0	1084
57	0	0	0	5	33	160	325	270	72	1	0	0	866
60	0	0	0	1	14	103	238	190	40	0	0	0	586
65	0	0	0	0	2	38	114	84	11	0	0	0	249
70	0	0	0	0	0	8	36	23	2	0	0	0	69

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	26	129	356	612	845	788	454	182	12	0	0	0	26	155	511	1123	1968	2756	3210	3392	3404	3404
45	0	0	2	58	220	463	690	633	313	80	0	0	0	0	2	60	280	743	1433	2066	2379	2459	2459	2459
50	0	0	0	17	117	319	535	479	187	22	0	0	0	0	0	17	134	453	988	1467	1654	1676	1676	1676
55	0	0	0	1	47	192	381	330	88	2	0	0	0	0	0	1	48	240	621	951	1039	1041	1041	1041
60	0	0	0	0	7	91	233	182	27	0	0	0	0	0	0	0	7	98	331	513	540	540	540	540
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	5	44	137	277	427	552	532	363	211	35	0	0	5	49	186	463	890	1442	1974	2337	2548	2583	2583

(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.

- | | |
|---|---|
| <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 |
|---|---|

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