

# Climatology of the United States

No. 20

1971-2000

Station: CODY, WY

COOP ID: 481840

Climate Division: WY 4

NWS Call Sign:

Elevation: 5,050 Feet Lat: 44° 31N

Lon: 109° 04W

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	34.9	14.5	24.7	68	1953	11	33.9	1981	-40	1930	17	5.5	1979	1250	0	.0	.0	3.8	11.1	28.1	6.4
Feb	40.5	18.9	29.7	75+	1954	8	39.1	1991	-46	1936	8	11.8	1989	989	0	.0	.0	7.0	5.9	25.0	3.4
Mar	48.5	25.7	37.1	79	1953	28	45.2	1986	-23	1920	6	29.2	1996	864	0	.0	.0	15.8	2.6	24.0	.9
Apr	56.7	32.5	44.6	87	1939	29	51.6	1987	-18	1936	2	36.0	1975	613	0	.0	.0	22.4	.7	15.7	.0
May	65.5	40.9	53.2	94	1936	26	58.5	1987	15	1954	1	46.6	1983	373	7	.0	.0	29.0	@	4.3	.0
Jun	75.6	49.0	62.3	103	1919	27	71.5	1988	25	1945	14	55.3	1998	151	70	.0	1.9	29.8	.0	.1	.0
Jul	82.9	54.8	68.9	105+	1951	15	72.8	1988	33	1945	1	60.5	1993	43	162	@	6.8	31.0	.0	.0	.0
Aug	81.4	53.8	67.6	103	1961	5	72.9	1971	29	1945	21	62.3	1980	64	144	@	4.1	30.9	.0	.0	.0
Sep	71.0	44.9	58.0	97	1950	4	65.7	1998	9	1926	25	51.0	1986	247	34	.0	.6	28.7	.1	2.6	.0
Oct	59.5	35.9	47.7	87+	1950	12	52.8	1988	-11	1917	29	43.4	1971	535	0	.0	.0	26.0	.6	11.7	@
Nov	43.9	24.7	34.3	74+	1999	12	46.7	1999	-24	1959	13	18.7	1985	922	0	.0	.0	10.9	4.4	23.3	1.4
Dec	36.5	16.7	26.6	67	1939	10	35.8	1980	-35	1923	31	8.6	1983	1192	0	.0	.0	5.5	9.7	28.0	4.3
Ann	58.1	34.4	46.2	105+	Jul 1951	15	72.9	Aug 1971	-46	Feb 1936	8	5.5	Jan 1979	7243	417	.0	13.4	240.8	35.1	162.8	16.4

+ 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: 1915-2001

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

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**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: CODY, WY**

**COOP ID: 481840**

**Climate Division: WY 4**

**NWS Call Sign:**

**Elevation: 5,050 Feet Lat: 44°31N**

**Lon: 109°04W**

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	.46	.27	1.15	2000	11	1.92	1972	.00+	1988	3.8	1.3	.2	.1	.00	.01	.06	.13	.20	.29	.40	.55	.76	1.12	1.49
Feb	.27	.16	.83	2000	25	1.18	1978	.00+	1999	3.0	.8	.1	.0	.00	.00	.02	.05	.10	.15	.22	.31	.45	.69	.93
Mar	.51	.44	.81	1946	21	1.21	1992	.00+	1984	5.8	1.9	.1	.0	.00	.15	.26	.33	.40	.47	.54	.63	.74	.92	1.08
Apr	1.13	1.05	1.95	1999	29	3.50	1999	.09	1985	7.7	3.3	.4	.1	.18	.28	.44	.60	.76	.94	1.14	1.38	1.71	2.24	2.75
May	1.96	1.86	1.50+	1978	18	4.73	1978	.08	1976	10.4	5.8	.9	.1	.35	.52	.81	1.08	1.35	1.65	1.98	2.39	2.94	3.81	4.65
Jun	1.58	1.28	2.40	1992	15	5.76	1992	.10	1978	9.0	4.7	.6	.1	.29	.43	.66	.88	1.10	1.33	1.60	1.92	2.35	3.04	3.70
Jul	1.21	1.01	2.51	1973	22	3.27	1973	.18	1976	7.7	3.6	.5	@	.17	.27	.44	.61	.78	.98	1.20	1.47	1.84	2.45	3.03
Aug	.90	.72	1.55	1933	26	2.54	1999	.16	1973	6.9	3.1	.2	.0	.19	.27	.40	.52	.64	.77	.92	1.10	1.33	1.70	2.05
Sep	1.13	.83	1.10+	1996	17	3.51	1991	.12	1979	6.8	3.4	.5	.1	.16	.26	.42	.58	.74	.92	1.13	1.38	1.73	2.28	2.82
Oct	.88	.67	1.70	1924	18	3.37	1994	.15	1987	4.7	2.9	.3	.0	.13	.21	.34	.46	.58	.72	.88	1.08	1.34	1.76	2.17
Nov	.48	.42	1.52	1918	5	1.10	1991	.03	1976	4.0	1.6	.1	.0	.06	.10	.17	.24	.31	.38	.47	.58	.73	.97	1.21
Dec	.32	.27	.76	1996	25	1.10	1996	.00+	1985	3.2	1.2	@	.0	.00	.03	.08	.13	.19	.24	.31	.40	.51	.70	.88
Ann	10.83	11.06	2.51	Jul 1973	22	5.76	Jun 1992	.00+	Feb 1999	73.0	33.6	3.9	.5	6.68	7.44	8.44	9.21	9.90	10.58	11.29	12.09	13.06	14.50	15.77

+ 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: 1915-2001

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

Complete documentation available from:  
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Station: CODY, WY

COOP ID: 481840

Climate Division: WY 4

NWS Call Sign:

Elevation: 5,050 Feet

Lat: 44°31N

Lon: 109°04W

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	9.9	7.5	2	1	13.0	2000	11	26.3	1972	18	2000	12	9	1978	3.1	2.7	1.3	.6	.1	11.9	5.9	3.8	2.2
Feb	5.2	2.6	1	#	14.0	2000	25	18.0	2000	14	2000	25	3	1979	2.3	1.9	.6	.4	.1	4.4	2.2	1.3	.4
Mar	6.2	6.0	#	#	7.0	1983	18	17.1	1980	10	1980	5	1	1998	3.0	2.6	1.0	.2	.0	3.4	1.3	.3	.1
Apr	5.5	4.8	#	0	6.0	1976	2	28.0	1991	12	1991	13	2	1991	1.6	1.3	.9	.3	.0	1.4	.7	.4	.1
May	.4	.0	#	0	6.0	1995	13	6.0	1995	6	1995	13	#+	1995	.1	.1	.1	@	.0	.1	.1	.1	.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	3.0	1995	20	3.0	1995	3	1995	20	#	1995	.1	@	@	.0	.0	.1	.1	.0	.0
Oct	3.8	3.0	#	0	10.0	1992	14	10.5	1990	8	1993	8	1	1993	1.3	1.3	.6	.2	@	1.2	.9	.4	.0
Nov	5.6	5.0	#	#	12.0	1973	1	16.5	1985	8+	1991	18	2	1991	2.1	1.9	.8	.4	@	3.7	1.4	.5	.0
Dec	7.5	5.4	1	#	14.0	1996	25	22.0	1977	14	1996	26	2+	2000	2.8	2.3	1.2	.4	.1	5.3	2.7	1.2	.2
Ann	44.2	34.3	N/A	N/A	14.0+	Feb 2000	25	28.0	Apr 1991	18	Jan 2000	12	9	Jan 1978	16.4	14.1	6.5	2.5	.3	31.5	15.3	8.0	3.0

+ 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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**Lon: 109° 04W**

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	6/18	6/13	6/09	6/06	6/02	5/30	5/27	5/23	5/18
32	6/01	5/27	5/23	5/20	5/17	5/13	5/10	5/06	5/01
28	5/17	5/12	5/09	5/05	5/02	4/29	4/26	4/22	4/17
24	5/07	5/01	4/27	4/23	4/20	4/16	4/13	4/09	4/03
20	4/23	4/18	4/14	4/11	4/08	4/05	4/02	3/29	3/24
16	4/19	4/12	4/06	4/02	3/28	3/24	3/19	3/14	3/06
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	9/04	9/07	9/10	9/12	9/15	9/17	9/19	9/22	9/25
32	9/10	9/14	9/17	9/19	9/21	9/24	9/26	9/29	10/03
28	9/17	9/22	9/26	9/29	10/02	10/05	10/08	10/12	10/17
24	9/25	10/01	10/05	10/08	10/12	10/15	10/19	10/23	10/29
20	10/07	10/13	10/17	10/21	10/24	10/27	10/31	11/04	11/09
16	10/17	10/23	10/27	10/30	11/03	11/06	11/09	11/14	11/19
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	120	114	110	107	103	100	96	92	87
32	149	141	136	131	127	123	118	113	106
28	173	166	161	156	152	147	143	138	130
24	201	192	185	180	174	169	163	157	148
20	220	212	207	202	198	194	189	183	176
16	242	234	228	223	219	214	209	204	196

\* 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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**NWS Call Sign:**

**Elevation: 5,050 Feet    Lat: 44°31N**

**Lon: 109°04W**

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	1250	989	864	613	373	151	43	64	247	535	922	1192	7243
60	1095	849	709	467	239	75	12	22	145	382	772	1037	5804
57	1002	765	616	383	172	43	4	10	97	293	689	945	5019
55	940	711	554	330	134	28	1	5	71	239	633	886	4532
50	794	581	409	211	61	8	0	1	25	123	495	742	3450
32	323	200	57	10	0	0	0	0	0	2	142	299	1033

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	96	135	216	388	657	909	1142	1103	777	490	210	130	6253
55	0	2	1	17	77	247	430	396	158	13	11	5	1357
57	0	0	0	11	53	202	371	338	124	5	8	1	1113
60	0	0	0	4	28	144	286	257	82	2	0	0	803
65	0	0	0	0	7	70	162	144	34	0	0	0	417
70	0	0	0	0	1	26	75	65	11	0	0	0	178

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	13	29	79	199	430	682	907	869	554	287	68	22	13	42	121	320	750	1432	2339	3208	3762	4049	4117	4139
45	1	5	33	107	291	532	752	714	411	173	29	3	1	6	39	146	437	969	1721	2435	2846	3019	3048	3051
50	0	0	10	46	170	384	597	560	282	87	12	0	0	0	10	56	226	610	1207	1767	2049	2136	2148	2148
55	0	0	1	15	81	249	443	408	174	35	0	0	0	0	1	16	97	346	789	1197	1371	1406	1406	1406
60	0	0	0	1	28	135	297	260	85	7	0	0	0	0	0	1	29	164	461	721	806	813	813	813
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	2	19	64	144	264	426	582	559	355	191	47	12	2	21	85	229	493	919	1501	2060	2415	2606	2653	2665

(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](http://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](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)