

Climatology of the United States

No. 20

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

Station: WAMSUTTER, WY

1971-2000

COOP ID: 489459

Climate Division: WY 3

NWS Call Sign:

Elevation: 6,740 Feet Lat: 41° 40N

Lon: 107° 58W

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	26.7	7.0	16.9	52+	1969	7	25.4	1999	-40	1979	1	2.4	1979	1494	0	.0	.0	.1	19.5	31.0	7.9
Feb	31.9	10.3	21.1	58	1963	4	30.0	1995	-39	1985	1	11.3	1989	1229	0	.0	.0	1.1	13.0	28.3	5.8
Mar	42.3	20.0	31.2	71	1971	29	36.8	1986	-18	1964	8	24.9	1984	1050	0	.0	.0	8.0	3.6	30.0	1.2
Apr	52.0	25.6	38.8	77+	1992	30	45.6	1992	-8	1975	2	31.9	1975	786	0	.0	.0	19.5	1.1	24.3	.1
May	63.1	34.0	48.6	85	1954	20	53.6+	1994	10+	1982	5	44.0	1995	509	0	.0	.0	28.4	.0	13.4	.0
Jun	75.2	42.4	58.8	97	1954	23	64.9	1988	19+	1982	9	52.8	1998	212	25	.0	.8	29.9	.0	2.2	.0
Jul	83.0	48.7	65.9	99	1998	19	69.1	2000	30+	1997	2	60.2	1993	54	80	.0	4.1	31.0	.0	.1	.0
Aug	81.2	47.0	64.1	96	1996	13	67.8	2000	23	1976	27	60.6	1987	84	56	.0	1.8	31.0	.0	.2	.0
Sep	70.4	37.9	54.2	90+	1998	5	60.7	1998	5	1965	18	49.2	1986	333	8	.0	.1	28.8	.1	7.2	.0
Oct	57.9	28.6	43.3	82	2001	1	48.8	1988	-9	1991	31	38.2	1984	674	0	.0	.0	24.8	.6	21.4	@
Nov	38.8	16.2	27.5	66+	1999	17	37.3	1999	-27	1993	26	16.9	2000	1126	0	.0	.0	6.8	8.5	28.9	2.7
Dec	28.5	8.1	18.3	59	1973	8	26.9	1980	-33	1964	17	9.5	1978	1447	0	.0	.0	.7	18.7	30.9	7.2
Ann	54.3	27.2	40.7	99	Jul 1998	19	69.1	Jul 2000	-40	Jan 1979	1	2.4	Jan 1979	8998	169	.0	6.8	210.1	65.1	217.9	24.9

+ 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

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

095-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: WAMSUTTER, WY

COOP ID: 489459

Climate Division: WY 3

NWS Call Sign:

Elevation: 6,740 Feet Lat: 41°40N

Lon: 107°58W

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	.34	.25	.70	1998	13	1.42	1980	.00+	1990	4.6	1.3	.1	.0	.00	.01	.06	.11	.16	.23	.31	.41	.56	.81	1.06
Feb	.24	.12	.80	1989	3	1.30	1989	.01+	1988	3.5	.8	.1	.0	.01	.01	.04	.07	.10	.14	.20	.28	.38	.58	.77
Mar	.38	.28	1.30	1984	24	1.88	1998	.00	1988	3.0	1.2	.1	@	.02	.05	.11	.17	.22	.29	.37	.46	.59	.81	1.02
Apr	.75	.61	2.00	1999	22	3.16	1986	.00	1982	6.1	3.1	.2	@	.03	.09	.20	.31	.43	.56	.72	.92	1.20	1.67	2.12
May	1.10	.95	1.72	1949	5	3.29	1995	.04	1974	7.5	3.6	.4	.1	.13	.21	.37	.52	.68	.87	1.08	1.35	1.71	2.30	2.88
Jun	.72	.52	.85	1965	10	2.11	1983	.00+	1988	4.3	2.0	.3	.0	.00	.05	.16	.27	.39	.52	.69	.88	1.16	1.63	2.09
Jul	1.00	1.02	1.50	1983	26	2.42	1982	.00	1988	5.1	2.7	.5	.1	.06	.15	.30	.45	.60	.78	.98	1.23	1.57	2.13	2.67
Aug	.84	.76	1.55	1983	18	2.15	1983	.06	1991	5.1	2.6	.3	@	.10	.17	.28	.40	.52	.66	.82	1.02	1.29	1.74	2.17
Sep	.88	.72	1.50	1983	3	2.47	1983	.04	1977	5.0	2.5	.4	.1	.14	.21	.34	.46	.58	.72	.88	1.07	1.32	1.74	2.14
Oct	.59	.45	1.03	1966	13	1.74	1981	.00+	2000	5.3	2.4	.2	.0	.00	.00	.08	.19	.30	.42	.56	.74	.99	1.39	1.79
Nov	.40	.34	.55+	1995	27	1.16	1992	.02	1997	5.1	1.4	.1	.0	.05	.08	.14	.19	.25	.32	.40	.49	.62	.83	1.04
Dec	.23	.16	1.35	1974	7	1.40	1974	.00+	1989	3.8	1.0	@	@	.00	.02	.06	.09	.13	.18	.22	.29	.37	.51	.64
Ann	7.47	7.16	2.00	Apr 1999	22	3.29	May 1995	.00+	Oct 2000	58.4	24.6	2.7	.3	4.09	4.68	5.47	6.09	6.65	7.22	7.81	8.47	9.30	10.54	11.63

+ 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

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: WAMSUTTER, WY

COOP ID: 489459

Climate Division: WY 3

NWS Call Sign:

Elevation: 6,740 Feet

Lat: 41° 40N

Lon: 107° 58W

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	5.9	6.0	2	1	7.0	1992	7	17.0	1994	14	1993	19	11	1993	2.7	1.8	.7	.1	.0	-9.9	-9.9	-9.9	-9.9
Feb	4.6	2.3	1	#	10.0	1989	3	17.0	1989	8	1994	14	5	1994	2.0	1.2	.5	.2	.1	-9.9	-9.9	-9.9	-9.9
Mar	2.7	2.4	#	#	13.5	1998	19	13.5	1998	5	1977	10	#+	2000	2.0	1.7	.3	.2	.1	1.2	.1	.1	.0
Apr	2.6	2.0	#	#	8.0	1975	26	12.5	1975	8	1974	13	#+	2000	1.2	1.1	.2	.1	.0	.9	.4	.0	.0
May	1.0	.0	#	0	12.0	2000	18	12.0	2000	6	1995	3	1	1995	.2	.2	.1	.1	.1	.0	.0	.0	.0
Jun	.1	.0	#	0	2.0	1974	8	2.0	1974	2	1974	8	#+	1990	.1	.1	.0	.0	.0	.1	.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	.6	.0	#	0	6.0	2000	23	11.0	2000	1	1995	21	#	1995	.2	.1	.1	.1	.0	@	.0	.0	.0
Oct	1.3	.0	#	0	8.0	1995	23	14.0	1995	12	1995	23	1	1995	.4	.4	.1	.1	.0	.5	.1	.1	.1
Nov	4.0	2.4	#	#	7.5	1992	28	16.8	1992	6	1991	29	1	1995	2.2	1.4	.5	.2	.0	1.8	.5	.2	.0
Dec	2.3	2.0	1	#	4.5	1992	16	6.5	1992	5	1991	3	3	1992	1.5	1.0	.3	.0	.0	-9.9	-9.9	-9.9	-9.9
Ann	25.1	17.1	N/A	N/A	13.5	Mar 1998	19	17.0+	Jan 1994	14	Jan 1993	19	11	Jan 1993	12.5	9.0	2.8	1.1	.3	-9.9	-9.9	-9.9	-9.9

+ 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:

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

Climatography of the United States

No. 20 1971-2000

Station: WAMSUTTER, WY

COOP ID: 489459

Climate Division: WY 3

NWS Call Sign:

Elevation: 6,740 Feet

Lat: 41° 40N

Lon: 107° 58W

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	7/09	7/03	6/29	6/25	6/22	6/18	6/14	6/10	6/04
32	6/26	6/21	6/17	6/13	6/10	6/07	6/04	5/31	5/25
28	6/14	6/07	6/03	5/30	5/26	5/22	5/18	5/14	5/07
24	5/30	5/24	5/20	5/16	5/13	5/09	5/05	5/01	4/25
20	5/20	5/13	5/09	5/05	5/01	4/27	4/23	4/19	4/12
16	5/02	4/26	4/22	4/18	4/14	4/11	4/07	4/02	3/27
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	8/16	8/21	8/26	8/30	9/03	9/07	9/12	9/19
32	8/26	8/31	9/04	9/07	9/10	9/13	9/17	9/20	9/26
28	9/07	9/11	9/14	9/16	9/18	9/20	9/22	9/25	9/29
24	9/11	9/16	9/20	9/23	9/26	9/29	10/02	10/06	10/11
20	9/16	9/22	9/27	10/01	10/05	10/09	10/13	10/18	10/24
16	9/29	10/06	10/10	10/14	10/18	10/22	10/26	10/30	11/06
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	95	86	79	74	69	63	58	51	42
32	115	107	101	96	92	87	82	76	68
28	138	130	124	119	114	110	105	99	90
24	161	152	146	141	136	131	125	119	110
20	183	174	167	162	156	151	145	138	129
16	216	206	198	192	186	180	174	167	157

* 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:

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

**Climatography
of the United States
No. 20
1971-2000**

Station: WAMSUTTER, WY

COOP ID: 489459

Climate Division: WY 3

NWS Call Sign:

Elevation: 6,740 Feet Lat: 41° 40N Lon: 107° 58W

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	1494	1229	1050	786	509	212	54	84	333	674	1126	1447	8998
60	1339	1089	895	636	357	111	11	25	207	519	976	1292	7457
57	1246	1005	802	546	271	67	3	10	144	427	886	1199	6606
55	1184	949	740	489	219	45	1	5	109	366	826	1137	6070
50	1029	809	585	349	110	12	0	1	44	225	676	982	4822
32	496	332	122	36	1	0	0	0	0	8	225	450	1670

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	25	27	94	240	514	803	1049	995	665	357	89	26	4884
55	0	0	0	3	19	159	337	287	84	2	0	0	891
57	0	0	0	0	10	121	277	230	59	1	0	0	698
60	0	0	0	0	3	75	192	152	32	0	0	0	454
65	0	0	0	0	0	25	80	56	8	0	0	0	169
70	0	0	0	0	0	6	17	10	1	0	0	0	34

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	21	101	303	578	817	761	460	176	15	0	0	0	21	122	425	1003	1820	2581	3041	3217	3232	3232
45	0	0	0	44	175	431	662	606	323	82	0	0	0	0	0	44	219	650	1312	1918	2241	2323	2323	2323
50	0	0	0	13	82	293	507	451	202	29	0	0	0	0	0	13	95	388	895	1346	1548	1577	1577	1577
55	0	0	0	0	23	169	354	299	98	2	0	0	0	0	0	0	23	192	546	845	943	945	945	945
60	0	0	0	0	0	72	205	156	33	0	0	0	0	0	0	0	0	72	277	433	466	466	466	466
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	24	107	237	394	538	509	336	163	19	0	0	0	24	131	368	762	1300	1809	2145	2308	2327	2327

(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

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