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: 103448

Lon: 115°58W

Station: GARDEN VALLEY, ID

Climate Division: ID 4 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 34.3 17.4 25.9 54 1976 28 32.3 1981 -25 1949 25 15.8 1979 1214 0 .0 .0 .2 10.3 29.5 3.8 Jan 41.4 20.3 30.9 67 1992 28 37.9 1991 -22+1950 3 20.9 1989 957 0 .0 .0 3.8 2.5 26.7 1.5 Feb Mar 51.2 26.3 38.8 79 1966 30 45.3 1992 -7 1955 5 32.0 1976 814 0 .0 .0 18.6 .1 25.4 .1 2 1982 17.9 Apr 61.0 31.4 46.2 90 1987 27 51.8 1987 1964 17 39.6 564 0 .0. @ 27.0 .0 0. May 70.3 37.4 53.9 99+ 1987 7 58.9 1992 17 1982 5 50.4 1982 348 2 .0 .6 30.7 .0 7.7 .0 43.4 21 5 5.1 1.5 .0 79.2 61.3 106 1961 20 66.3 1988 1966 56.3 1991 150 38 .4 30.0 .0 Jun Jul 88.4 47.0 67.7 109+ 20 72.3 1975 28 4 59.8 1993 55 139 2.0 17.3 31.0 1960 1966 .0 .1 .0 88.3 45.2 66.8 110 +1961 4 73.5 1971 26 1992 25 62.1 1980 65 119 1.9 17.4 31.0 .0 .5 .0 Aug 3 Sep 78.1 37.8 58.0 108 1950 65.4 1998 18 1965 18 51.5 1985 238 27 .1 4.9 29.9 .0 6.9 0. 2 53.1 42.6 1985 544 Oct 64.7 30.3 47.5 92 +1992 1988 12 +1991 30 0 .0 .1 29.0 .0 19.6 .0 43.8 25.0 34.4 77 1980 5 39.6 1999 -13 1985 23 27.8 1985 919 0 .0 .0 8.0 1.8 .4 Nov 24.8 Dec 33.6 18.1 25.9 57 1995 12 31.7 1977 -22 1964 17 16.6 1985 1215 0 .0 .0 .2 10.7 29.8 2.8 Aug Aug Jan Jan 31.6 46.4 110 +1961 4 73.5 1971 -25 1949 25 15.8 1979 7083 325 4.4 45.4 239.4 25.4 190.4 8.6 61.2 Ann

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

Issue Date: February 2004 037-A

(1) From the 1971-2000 Monthly Normals

Elevation: 3,100 Feet Lat: 44°06N

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

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

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COOP ID: 103448

Station: GARDEN VALLEY, ID

Climate Division: ID 4 NWS Call Sign: Elevation: 3,100 Feet Lat: 44°06N Lon: 115°58W

										Pı	recipi	tation	(incl	nes)										
	Mea	Precipitation Totals Means/ Medians(1) Extremes										ays (3)	Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount Monthly/Annual Precipitation vs Probability Levels										
	Medi	ans(1)				Extremes	•			Daily Precipitation				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	3.82	3.68	2.83	1984	4	7.81	1997	.29	1985	11.5	8.4	2.4	.7	.94	1.30	1.85	2.35	2.84	3.35	3.93	4.62	5.51	6.94	8.27
Feb	2.77	2.73	3.36	1982	16	6.68	1999	.67	1977	10.2	7.3	1.7	.1	.69	.95	1.36	1.71	2.07	2.44	2.85	3.35	3.99	5.01	5.97
Mar	2.45	2.22	1.80	1950	17	5.24	1974	.20	1994	10.1	6.5	1.4	.3	.53	.76	1.12	1.45	1.77	2.12	2.51	2.98	3.59	4.58	5.51
Apr	1.77	1.51	1.40	1981	20	4.45	1993	.31	1977	8.8	5.6	1.0	.3	.35	.51	.77	1.01	1.25	1.51	1.80	2.15	2.62	3.37	4.08
May	1.74	1.28	1.57	1998	26	6.86	1998	.03	1992	9.5	4.8	.9	.2	.22	.36	.60	.85	1.10	1.39	1.72	2.12	2.67	3.58	4.46
Jun	1.40	1.17	1.47	1969	24	3.24	1993	.20	1994	7.7	3.8	.7	.1	.28	.41	.61	.80	.99	1.20	1.43	1.70	2.07	2.65	3.21
Jul	.64	.49	.95	1982	8	2.30	1982	.00+	2000	3.8	1.7	.3	.0	.00	.00	.13	.23	.35	.47	.62	.80	1.05	1.47	1.87
Aug	.49	.31	1.08	1984	31	2.34	1976	.00+	2000	3.3	1.5	.2	@	.00	.01	.06	.12	.20	.30	.42	.58	.81	1.22	1.64
Sep	1.18	.73	1.63	1982	18	4.53	1986	.00+	1999	5.3	3.1	.8	.1	.00	.00	.09	.31	.54	.80	1.11	1.49	2.02	2.88	3.78
Oct	1.46	1.54	1.63	1991	26	3.46	1979	.00+	1988	6.0	3.4	.9	.1	.00	.00	.49	.75	.99	1.24	1.53	1.87	2.30	3.00	3.67
Nov	3.44	3.35	2.16	1999	25	7.07	1973	.00	1976	11.1	7.6	1.5	.3	.65	1.12	1.70	2.17	2.63	3.09	3.61	4.22	5.00	6.23	7.38
Dec	3.87	3.62	2.40	1964	22	15.73	1996	.39	1976	10.8	8.1	2.4	.6	.65	.98	1.55	2.08	2.63	3.22	3.90	4.72	5.83	7.61	9.32
Ann	25.03	24.11	3.36	Feb 1982	16	15.73	Dec 1996	.00+	Aug 2000	98.1	61.8	14.2	2.8	14.92	16.75	19.16	21.03	22.73	24.40	26.15	28.12	30.53	34.11	37.25

⁺ 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

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

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COOP ID: 103448

Station: GARDEN VALLEY, ID

Climate Division: ID 4 NWS Call Sign: Elevation: 3,100 Feet Lat: 44°06N Lon: 115°58W

										Snov	w (incl	hes)													
						Sno	ow To	tals							Mean Number of Days (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	15.6	16.0	12	11	10.5	2000	4	31.0	1975	35	1996	29	26	1993	6.2	5.6	2.2	.8	.1	-9.9	-9.9	-9.9	-9.9		
Feb	8.7	6.0	10	10	14.0	1986	13	27.0	1993	30	1996	2	19+	1993	3.8	3.6	1.0	.3	.1	21.6	19.4	16.4	8.7		
Mar	3.4	1.5	3	2	6.0	1985	27	12.0	1975	19	1993	2	15	1976	1.1	1.1	.4	.1	.0	8.5	5.7	4.1	1.0		
Apr	.1	.0	#	0	1.0	1975	7	1.0+	1993	#+	1998	14	#+	1998	.1	.1	.0	.0	.0	.0	.0	.0	.0		
May	#	.0	#	0	#	1978	16	#	1978	#	1999	10	#	1999	.0	.0	.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	#	1986	27	#	1986	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Oct	.2	.0	#	0	4.0	1991	26	5.0	1991	#	1996	24	#	1996	.1	.1	@	.0	.0	.0	.0	.0	.0		
Nov	6.2	3.0	1	#	7.5	1974	23	34.0	1994	15	1994	29	7	1979	2.6	2.6	.9	.2	.0	4.2	2.2	1.4	.5		
Dec	17.5	15.0	6	5	12.5	1987	9	54.2	1992	36	1971	15	20	1971	5.9	5.5	2.6	1.3	.1	16.1	11.9	10.3	6.9		
Ann	51.7	41.5	N/A	N/A	14.0	Feb 1986	13	54.2	Dec 1992	36	Dec 1971	15	26	Jan 1993	19.8	18.6	7.1	2.7	.3	-9.9	-9.9	-9.9	-9.9		

⁺ 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	ze Data						
			Spri	ng Freeze D	ates (Month/	(Day)					
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	an indicated((*)			
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90		
36	7/20	7/13	7/08	7/03	6/29	6/25	6/21	6/16	6/09		
32	7/01	6/23	6/17	6/12	6/07	6/03	5/29	5/23	5/14		
28	6/10	6/01	5/26	5/20	5/15	5/10	5/05	4/28	4/20		
24	5/13	5/06	5/01	4/26	4/22	4/18	4/13	4/08	4/01		
20	4/18	4/11	4/06	4/01	3/28	3/24	3/19	3/14	3/07		
16	4/02	3/24	3/19	3/14	3/09	3/04	2/28	2/22	2/14		
		•	Fal	l Freeze Da	tes (Month/D	Oay)	•	•	•		
Probability of earlier date in fall (beginning Aug 1) than indicated(*)											
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90		
36	8/04	8/11	8/15	8/19	8/23	8/26	8/30	9/04	9/10		
32	8/20	8/26	8/31	9/04	9/07	9/11	9/14	9/19	9/25		
28	9/07	9/12	9/15	9/18	9/21	9/23	9/26	9/29	10/04		
24	9/14	9/21	9/26	9/30	10/04	10/08	10/12	10/17	10/24		
20	10/02	10/08	10/12	10/16	10/19	10/23	10/27	10/31	11/06		
16	10/19	10/27	11/01	11/06	11/11	11/15	11/20	11/25	12/03		
		•	•	Freeze F	ree Period	•	•	•	•		
Tomm (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)				
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90		
36	85	74	66	60	54	47	41	33	23		
32	121	111	103	97	91	85	78	71	60		
28	160	149	141	134	128	121	114	106	95		
24	196	185	178	171	164	158	151	143	132		
20	232	223	216	210	205	199	193	186	177		
16	278	267	259	252	246	240	233	225	214		

^{*} 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.

Complete documentation available from:

Derived from 1971-2000 serially complete daily data

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree 1	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1214	957	814	564	348	150	55	65	238	544	919	1215	7083		
60	1059	817	659	416	208	64	15	20	134	391	769	1060	5612		
57	966	733	566	331	138	32	7	9	87	303	679	967	4818		
55	904	677	504	277	100	18	2	3	61	248	619	905	4318		
50	749	537	356	160	35	2	0	0	20	130	470	750	3209		
32	241	132	27	2	0	0	0	0	0	0	72	243	717		

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	50	99	236	428	677	878	1107	1077	778	480	143	52	6005
55	0	0	0	13	64	206	396	368	150	14	0	0	1211
57	0	0	0	7	40	160	339	311	115	7	0	0	979
60	0	0	0	2	17	103	255	229	73	2	0	0	681
65	0	0	0	0	2	38	139	119	27	0	0	0	325
70	0	0	0	0	0	9	61	47	7	0	0	0	124

										Gro	wing 1	Degre	e Uni	ts (2)			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	4	62	218	453	664	883	860	562	264	30	1	0	4	66	284	737	1401	2284	3144	3706	3970	4000	4001							
45	0	0	10	109	304	514	728	705	416	142	6	0	0	0	10	119	423	937	1665	2370	2786	2928	2934	2934							
50	0	0	0	41	181	367	573	550	277	61	0	0	0	0	0	41	222	589	1162	1712	1989	2050	2050	2050							
55	0	0	0	12	82	230	418	395	155	18	0	0	0	0	0	12	94	324	742	1137	1292	1310	1310	1310							
60	0 0 0 1 27 119 276 248 67 2 0 0									0	0	0	0	1	28	147	423	671	738	740	740	740									
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)									
50/86	0	10	70	190	334	450	556	550	428	252	22	0	0	10	80	270	604	1054	1610	2160	2588	2840	2862	2862							

(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