

# Climatography of the United States No. 20

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

Station: SWAN VALLEY 2 E, ID

1971-2000

COOP ID: 108937

Climate Division: ID10

NWS Call Sign:

Elevation: 5,360 Feet Lat: 43° 27N

Lon: 111° 18W

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	29.6	11.7	20.7	55	1974	16	27.2	1998	-43	1963	19	6.5	1979	1374	0	.0	.0	.1	17.6	30.1	7.6
Feb	35.4	14.8	25.1	60	1963	5	32.1	1995	-36	1982	5	17.5	1985	1118	0	.0	.0	1.3	9.8	26.9	5.8
Mar	44.1	22.8	33.5	71	1986	28	40.9	1986	-25	1971	2	24.2	1976	977	0	.0	.0	8.2	2.0	27.7	1.3
Apr	54.9	28.9	41.9	83	1992	29	47.9	1987	-3	1975	1	34.3	1975	693	0	.0	.0	20.3	.1	22.3	@
May	64.4	36.0	50.2	88	1992	19	55.9	1992	12	1990	1	46.0	1991	459	0	.0	.0	28.5	.0	11.6	.0
Jun	74.7	42.0	58.4	101	1988	25	65.4	1988	20	1979	1	51.9	1998	223	24	@	1.3	29.9	.0	3.2	.0
Jul	83.7	46.6	65.2	101+	2000	30	70.4	1989	26	1981	8	55.1	1993	95	99	.1	6.2	31.0	.0	.5	.0
Aug	82.9	45.7	64.3	101	1990	7	69.2	1991	23+	1965	31	59.3	1993	92	71	.1	4.4	31.0	.0	1.3	.0
Sep	73.1	37.5	55.3	96	1990	15	63.1	1990	8	1985	29	48.9	1985	304	12	.0	.7	29.3	.0	9.9	.0
Oct	59.7	28.8	44.3	83	1992	1	52.2	1988	0	1971	29	38.7	1984	644	0	.0	.0	25.3	.3	22.6	@
Nov	41.2	21.1	31.2	69+	1999	6	39.8	1999	-21	1975	30	23.2	1994	1014	0	.0	.0	7.0	6.2	26.8	1.5
Dec	30.6	12.4	21.5	58+	1995	1	28.6	1975	-43	1990	22	13.0	1990	1348	0	.0	.0	.5	17.7	29.8	5.9
Ann	56.2	29.0	42.6	101+	Jul 2000	30	70.4	Jul 1989	-43+	Dec 1990	22	6.5	Jan 1979	8341	206	.2	12.6	212.4	53.7	212.7	22.1

+ 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: 1960-2001

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

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## No. 20

### 1971-2000

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COOP ID: 108937

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NWS Call Sign:

Elevation: 5,360 Feet Lat: 43°27N

Lon: 111°18W

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	1.54	1.64	1.40	1982	23	3.64	1997	.26	1992	9.7	5.5	.4	@	.46	.61	.83	1.02	1.20	1.39	1.60	1.85	2.17	2.67	3.13
Feb	.97	.92	.85	1968	20	1.92	1999	.22	1991	8.2	3.6	.1	.0	.31	.41	.54	.66	.77	.88	1.01	1.16	1.34	1.64	1.91
Mar	1.38	1.13	1.20	1995	21	4.21	1995	.26	1994	9.8	4.9	.5	@	.40	.53	.73	.90	1.07	1.24	1.43	1.65	1.94	2.40	2.82
Apr	1.62	1.58	.80+	1991	25	3.93	1986	.26	1987	10.7	5.5	.5	.0	.44	.60	.83	1.04	1.24	1.45	1.68	1.96	2.32	2.88	3.41
May	2.75	2.67	1.82	1988	7	5.81	1987	.00	1992	13.3	7.9	1.3	.2	.63	1.03	1.48	1.84	2.18	2.53	2.91	3.35	3.92	4.80	5.61
Jun	1.48	1.28	1.26+	1975	18	3.57	1998	.12	1978	8.6	4.6	.7	.1	.23	.36	.57	.78	.99	1.22	1.49	1.81	2.25	2.96	3.64
Jul	1.39	1.33	1.83	1985	23	3.66	1973	.05	1988	7.0	3.6	.7	.2	.10	.19	.37	.56	.78	1.02	1.32	1.69	2.21	3.08	3.94
Aug	1.34	1.21	1.34	1980	16	3.34	1993	.06	1985	7.5	3.9	.7	@	.24	.36	.56	.74	.92	1.13	1.36	1.63	2.00	2.60	3.17
Sep	1.39	1.38	1.68	1969	19	3.21	1982	.00+	1987	7.2	4.1	.7	@	.00	.20	.47	.70	.92	1.15	1.42	1.73	2.16	2.85	3.50
Oct	1.37	1.25	1.03	1971	18	3.32	1994	.00	1978	7.7	4.3	.7	.1	.10	.25	.47	.67	.88	1.11	1.37	1.69	2.12	2.83	3.50
Nov	1.53	1.38	1.05	1991	26	2.94	1983	.06	1976	9.4	5.2	.4	@	.36	.51	.73	.93	1.13	1.34	1.58	1.86	2.23	2.81	3.36
Dec	1.30	1.08	1.20	1964	23	4.32	1996	.15	1976	8.8	5.1	.3	@	.26	.38	.57	.75	.92	1.11	1.32	1.58	1.92	2.46	2.97
Ann	18.06	17.76	1.83	Jul 1985	23	5.81	May 1987	.00+	May 1992	107.9	58.2	7.0	.6	11.67	12.86	14.42	15.61	16.69	17.73	18.82	20.04	21.52	23.70	25.60

+ 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: 1960-2001

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

Complete documentation available from:

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**COOP ID: 108937**

**Climate Division: ID10**

**NWS Call Sign:**

**Elevation: 5,360 Feet**

**Lat: 43° 27N**

**Lon: 111° 18W**

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	20.9	18.0	10	11	19.0	1982	23	48.0	1982	34	1982	23	23+	1989	7.0	6.2	2.5	.9	.1	28.3	27.2	24.5	15.7
Feb	12.2	12.2	11	9	7.0	1975	7	18.3	1975	33	1979	6	26	1979	4.4	4.0	.9	.4	.0	22.7	21.9	19.7	12.3
Mar	9.5	8.1	5	2	9.0	1988	30	18.0	1982	26	1979	4	18	1985	3.9	3.4	1.0	.4	.0	16.2	14.6	12.9	9.1
Apr	5.3	3.0	1	0	7.0	1975	8	24.0	1975	19	1975	9	7	1975	2.1	1.8	.6	.2	.0	3.0	2.0	1.6	.8
May	1.3	.0	#	0	10.0	1988	7	10.0	1988	2	1979	8	#+	1979	.8	.6	.1	@	@	.1	.0	.0	.0
Jun	.1	.0	0	0	2.0	1979	7	2.0	1979	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	#	0	.0	0	0	.0	0	#	1980	3	#	1980	.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	.3	.0	#	0	2.0	1972	25	4.0	1978	#	1978	18	#	1978	.1	.1	.0	.0	.0	.0	.0	.0	.0
Oct	1.6	.0	#	0	8.0	1971	18	13.0	1971	4	1971	18	#+	1981	.8	.7	.2	@	.0	.6	.1	.0	.0
Nov	10.3	7.8	1	#	8.0	1975	11	37.0	1975	16	1975	27	5	1985	4.3	3.7	1.3	.4	.0	8.3	5.4	2.0	.3
Dec	12.5	14.5	4	2	14.0	1988	23	27.0	1974	20	1971	31	14	1971	6.3	5.3	1.7	.6	.1	18.2	12.1	9.8	3.2
Ann	74.0	63.6	N/A	N/A	19.0	Jan 1982	23	48.0	Jan 1982	34	Jan 1982	23	26	Feb 1979	29.7	25.8	8.3	2.9	.2	97.4	83.3	70.5	41.4

+ 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

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**Elevation: 5,360 Feet**

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**Lon: 111° 18W**

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	7/27	7/21	7/16	7/13	7/09	7/06	7/02	6/28	6/22
32	7/12	7/06	7/02	6/28	6/25	6/22	6/18	6/14	6/09
28	6/28	6/19	6/12	6/06	6/01	5/27	5/21	5/15	5/05
24	5/25	5/19	5/15	5/11	5/08	5/05	5/01	4/27	4/21
20	5/18	5/11	5/06	5/02	4/28	4/24	4/19	4/14	4/07
16	5/01	4/23	4/18	4/14	4/09	4/05	4/01	3/26	3/19
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	7/31	8/06	8/10	8/14	8/17	8/20	8/24	8/28	9/02
32	8/13	8/19	8/24	8/27	8/31	9/03	9/07	9/11	9/17
28	8/25	8/31	9/04	9/07	9/11	9/14	9/18	9/22	9/28
24	9/08	9/12	9/15	9/18	9/21	9/24	9/26	9/30	10/04
20	9/14	9/21	9/26	9/30	10/04	10/07	10/11	10/16	10/23
16	9/30	10/07	10/12	10/16	10/20	10/23	10/27	11/01	11/08
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	67	57	50	44	38	32	26	19	9
32	91	82	76	71	66	61	56	50	41
28	137	125	116	108	101	94	86	77	65
24	160	151	145	140	135	130	125	119	110
20	189	179	171	164	158	152	145	138	127
16	223	213	205	198	192	186	180	172	162

\* 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](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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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	1374	1118	977	693	459	223	95	92	304	644	1014	1348	8341
60	1219	978	822	543	309	119	34	30	183	489	864	1193	6783
57	1126	894	729	455	227	73	16	12	126	398	774	1100	5930
55	1064	838	667	398	177	49	9	6	93	338	714	1038	5391
50	909	698	516	264	81	14	1	1	37	204	567	883	4175
32	379	232	99	16	0	0	0	0	0	5	142	351	1224

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	29	37	145	313	564	791	1027	1002	699	384	118	25	5134
55	0	0	0	5	28	150	324	294	102	5	0	0	908
57	0	0	0	2	15	114	268	239	74	2	0	0	714
60	0	0	0	0	5	70	193	164	42	0	0	0	474
65	0	0	0	0	0	24	99	71	12	0	0	0	206
70	0	0	0	0	0	6	35	19	2	0	0	0	62

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	1	18	122	316	541	762	741	456	178	19	0	0	1	19	141	457	998	1760	2501	2957	3135	3154	3154
45	0	0	0	55	188	392	607	586	312	84	3	0	0	0	0	55	243	635	1242	1828	2140	2224	2227	2227
50	0	0	0	17	88	253	452	431	186	27	0	0	0	0	0	17	105	358	810	1241	1427	1454	1454	1454
55	0	0	0	2	29	136	301	280	89	4	0	0	0	0	0	2	31	167	468	748	837	841	841	841
60	0	0	0	0	2	51	166	143	27	0	0	0	0	0	0	0	2	53	219	362	389	389	389	389
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	1	23	115	242	377	517	511	357	183	21	0	0	1	24	139	381	758	1275	1786	2143	2326	2347	2347

(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)