

Climatography of the United States

No. 20

1971-2000

Station: SILVERTON, OR

COOP ID: 357823

Climate Division: OR 2

NWS Call Sign:

Elevation: 408 Feet

Lat: 45°00N

Lon: 122°46W

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	46.1	33.5	39.8	65	1986	19	43.8	1986	4	1979	1	30.5	1979	780	0	.0	.0	10.6	1.0	14.0	.0
Feb	50.4	35.5	43.0	71	1968	28	48.6	1991	6	1989	4	36.0	1989	618	0	.0	.0	16.0	.4	9.0	.0
Mar	55.2	38.4	46.8	74	1978	18	51.5	1986	19+	1971	2	42.4	1971	565	0	.0	.0	25.5	.0	3.8	.0
Apr	59.6	41.0	50.3	86	1987	27	55.0	1989	28	1982	16	45.9	1975	440	0	.0	.0	28.3	.0	1.5	.0
May	66.0	45.9	56.0	102	1983	29	62.5	1992	32	1985	12	51.8	1977	286	6	@	.2	30.8	.0	@	.0
Jun	71.6	50.5	61.1	100	1992	23	66.3	1992	37	1966	1	57.0	1971	144	25	@	.8	30.0	.0	.0	.0
Jul	78.6	54.2	66.4	101	1979	17	70.2	1985	42	1981	8	62.5	1993	46	89	.1	3.4	31.0	.0	.0	.0
Aug	79.2	54.4	66.8	104+	1981	11	70.9	1977	40	1980	23	63.0	1975	43	98	.4	3.1	31.0	.0	.0	.0
Sep	74.3	50.6	62.5	103	1988	3	67.2	1974	34+	1965	18	58.6	1971	119	43	@	1.5	30.0	.0	.0	.0
Oct	63.4	43.9	53.7	91+	1988	2	57.9	1987	23	1971	29	49.9	1971	354	1	.0	.1	30.2	.0	.6	.0
Nov	51.9	38.5	45.2	72+	1970	3	50.8	1995	13+	1985	24	37.6	1985	595	0	.0	.0	20.0	.2	6.6	.0
Dec	45.5	33.7	39.6	66+	1993	10	44.0	1979	0	1972	9	33.4	1985	787	0	.0	.0	9.3	1.3	13.9	@
Ann	61.8	43.3	52.6	104+	Aug 1981	11	70.9	Aug 1977	0	Dec 1972	9	30.5	Jan 1979	4777	262	.5	9.1	292.7	2.9	49.4	@

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1962-2001

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

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: SILVERTON, OR

COOP ID: 357823

Climate Division: OR 2

NWS Call Sign:

Elevation: 408 Feet Lat: 45°00N

Lon: 122°46W

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	6.49	7.22	2.44	1997	2	11.74	1997	.66	1985	19.3	13.6	4.6	1.3	1.81	2.43	3.36	4.18	4.97	5.81	6.73	7.82	9.23	11.46	13.53
Feb	5.57	5.03	2.85	1996	6	13.52	1996	1.51	1988	17.9	12.3	3.9	.9	1.75	2.28	3.06	3.74	4.39	5.06	5.80	6.67	7.79	9.53	11.15
Mar	5.03	4.60	2.05	1998	22	9.29	1997	1.69	1992	18.9	13.1	2.8	.4	2.35	2.79	3.39	3.88	4.34	4.79	5.28	5.83	6.53	7.58	8.53
Apr	3.79	3.70	1.90	1971	9	7.77	1993	1.16	1977	16.6	11.2	2.0	.2	1.59	1.93	2.42	2.82	3.19	3.57	3.98	4.44	5.04	5.94	6.76
May	2.98	2.78	2.35	1972	17	6.07	1991	.17	1992	13.2	8.0	1.7	.2	.83	1.11	1.54	1.91	2.28	2.66	3.09	3.59	4.25	5.27	6.23
Jun	2.08	1.81	1.73	1985	7	5.75	1984	.32	1986	8.6	5.8	1.1	.1	.47	.66	.97	1.24	1.51	1.80	2.13	2.52	3.03	3.85	4.62
Jul	.86	.57	1.97	1987	18	4.03	1983	.03	1994	4.7	2.4	.3	@	.05	.10	.21	.33	.46	.62	.80	1.05	1.38	1.95	2.52
Aug	.99	.70	1.46	1989	23	3.87	1978	.00+	1998	4.5	2.6	.6	.1	.00	.01	.09	.21	.36	.56	.81	1.15	1.65	2.53	3.44
Sep	1.88	1.71	1.63	1969	18	4.53	1971	.00	1975	7.5	4.8	1.1	.2	.08	.24	.52	.79	1.09	1.42	1.82	2.31	2.98	4.10	5.20
Oct	3.60	3.21	3.10	1994	27	7.88	1990	.20	1987	12.3	8.5	2.4	.3	.61	.92	1.44	1.94	2.44	3.00	3.63	4.39	5.41	7.06	8.64
Nov	7.16	6.32	3.72	1996	19	15.93	1973	1.68	1993	20.7	14.6	4.7	1.4	2.39	3.07	4.06	4.91	5.72	6.56	7.47	8.54	9.92	12.05	14.01
Dec	7.07	6.84	3.06	1987	3	16.33	1996	1.74	1976	20.4	13.9	5.0	1.7	2.40	3.07	4.04	4.87	5.67	6.49	7.38	8.43	9.77	11.84	13.75
Ann	47.50	45.33	3.72	Nov 1996	19	16.33	Dec 1996	.00+	Aug 1998	164.6	110.8	30.2	6.8	33.83	36.48	39.88	42.45	44.74	46.95	49.24	51.76	54.82	59.26	63.10

+ 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: 1962-2001

(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: SILVERTON, OR

COOP ID: 357823

Climate Division: OR 2

NWS Call Sign:

Elevation: 408 Feet

Lat: 45°00N

Lon: 122°46W

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	1.2	.0	#	0	7.0	1971	13	14.0	1971	14	1971	14	1	1993	.5	.4	.2	@	.0	1.1	.3	.1	.1
Feb	1.0	.0	#	0	10.0	1989	2	12.3	1993	12	1993	20	10	1989	.5	.5	.2	.1	@	.3	.2	.1	.0
Mar	#	.0	#	0	#	1977	9	#+	1977	3	1971	1	#+	1976	.0	.0	.0	.0	.0	.1	.1	.0	.0
Apr	.0	.0	0	0	.5	1983	10	.5	1983	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.3	.0	#	0	6.0	1977	22	6.0	1977	6	1977	22	#+	1978	.1	.1	@	@	.0	.1	@	@	.0
Dec	.9	.0	#	0	4.0	1972	6	10.0	1972	7	1972	12	2	1972	.5	.4	.2	.0	.0	.5	.5	.3	.0
Ann	3.4	.0	N/A	N/A	10.0	Feb 1989	2	14.0	Jan 1971	14	Jan 1971	14	10	Feb 1989	1.6	1.4	.6	.1	@	2.1	1.1	.5	.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:

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

Climatography of the United States

No. 20 1971-2000

Station: SILVERTON, OR

COOP ID: 357823

Climate Division: OR 2

NWS Call Sign:

Elevation: 408 Feet

Lat: 45° 00N

Lon: 122° 46W

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	5/13	5/08	5/04	4/30	4/27	4/24	4/20	4/16	4/10
32	4/29	4/21	4/15	4/10	4/05	4/01	3/27	3/21	3/13
28	3/25	3/16	3/09	3/03	2/26	2/20	2/14	2/08	1/29
24	2/28	2/17	2/08	2/01	1/25	1/18	1/11	1/01	12/13
20	2/20	2/07	1/28	1/19	1/09	12/27	0/00	0/00	0/00
16	1/30	1/14	12/31	12/15	0/00	0/00	0/00	0/00	0/00
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	9/30	10/05	10/10	10/13	10/16	10/20	10/23	10/27	11/02
32	10/22	10/28	11/01	11/05	11/08	11/12	11/15	11/19	11/25
28	10/27	11/04	11/10	11/15	11/19	11/24	11/29	12/04	12/12
24	11/17	11/29	12/08	12/16	12/23	12/30	1/08	1/18	2/07
20	11/27	12/13	12/24	1/04	1/16	1/31	0/00	0/00	0/00
16	12/06	12/21	1/03	1/18	0/00	0/00	0/00	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	198	189	182	177	172	166	161	154	145
32	249	237	229	223	216	210	203	195	184
28	303	290	281	273	266	259	251	242	229
24	>365	>365	>365	345	332	321	310	299	284
20	>365	>365	>365	>365	>365	>365	351	328	308
16	>365	>365	>365	>365	>365	>365	>365	>365	344

* 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: SILVERTON, OR

COOP ID: 357823

Climate Division: OR 2

NWS Call Sign:

Elevation: 408 Feet

Lat: 45°00N

Lon: 122°46W

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	780	618	565	440	286	144	46	43	119	354	595	787	4777
60	625	478	410	293	157	57	8	7	42	208	447	632	3364
57	532	394	320	212	98	26	1	1	17	134	362	539	2636
55	470	338	262	162	67	13	0	0	9	93	307	477	2198
50	327	210	137	69	18	1	0	0	0	29	187	329	1307
32	21	3	0	0	0	0	0	0	0	0	5	15	44

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	263	309	459	550	743	871	1066	1078	914	670	400	251	7574
55	0	0	8	22	97	195	353	365	232	50	12	0	1334
57	0	0	3	11	66	147	292	304	181	28	7	0	1039
60	0	0	0	3	32	89	206	218	116	10	2	0	676
65	0	0	0	0	6	25	89	98	43	1	0	0	262
70	0	0	0	0	0	4	22	26	9	0	0	0	61

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	94	135	223	320	504	642	827	838	680	431	188	86	94	229	452	772	1276	1918	2745	3583	4263	4694	4882	4968
45	32	49	99	177	349	492	672	683	530	281	82	28	32	81	180	357	706	1198	1870	2553	3083	3364	3446	3474
50	0	8	30	78	205	342	517	528	381	146	21	1	0	8	38	116	321	663	1180	1708	2089	2235	2256	2257
55	0	0	0	29	101	200	362	373	236	58	0	0	0	0	0	29	130	330	692	1065	1301	1359	1359	1359
60	0	0	0	3	39	92	216	224	120	14	0	0	0	0	0	3	42	134	350	574	694	708	708	708
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	29	46	96	155	268	364	507	522	403	223	65	26	29	75	171	326	594	958	1465	1987	2390	2613	2678	2704

(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