

Climatology of the United States

No. 20

1971-2000

Station: CASCADIA, OR

COOP ID: 351433

Climate Division: OR 2

NWS Call Sign:

Elevation: 860 Feet Lat: 44° 24N Lon: 122° 29W

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	45.8	31.6	38.7	73	1961	21	43.4	1995	1	1950	31	31.9	1979	817	0	.0	.0	9.2	.5	17.7	.0
Feb	50.6	33.1	41.9	79	1968	29	46.7	1992	2	1989	5	34.4	1989	650	0	.0	.0	15.0	.5	13.8	.0
Mar	54.9	34.8	44.9	82	1947	16	48.9	1986	18	1971	1	40.9	1971	624	0	.0	.0	22.7	.0	12.0	.0
Apr	59.4	37.5	48.5	94	1947	16	52.2	1992	24+	1999	10	43.7	1975	497	0	.0	.0	26.3	.0	5.2	.0
May	65.0	41.8	53.4	97	1963	21	58.3	1992	25	1954	1	49.7	1974	360	0	.0	.3	30.1	.0	1.4	.0
Jun	70.7	46.4	58.6	101	1951	30	62.8	1992	30+	1966	1	55.3	1976	199	5	.0	.7	30.0	.0	.1	.0
Jul	78.1	48.9	63.5	106	1946	20	67.4	1985	33	1953	26	59.9	1993	91	44	@	2.5	31.0	.0	.0	.0
Aug	79.3	47.9	63.6	104+	1981	11	67.3	1977	31	1980	21	59.8	1975	84	40	.3	3.5	31.0	.0	@	.0
Sep	74.5	43.8	59.2	102	1944	5	63.4	1974	26+	1965	18	54.6	1985	188	12	@	1.5	29.9	.0	.8	.0
Oct	64.1	38.6	51.4	93	1980	3	55.6	1988	23+	1985	10	48.8	1984	424	0	.0	.2	29.5	.0	6.2	.0
Nov	51.0	35.7	43.4	78	1949	8	47.3	1995	10	1955	15	35.6	1985	650	0	.0	.0	16.9	.2	10.4	.0
Dec	44.4	32.3	38.4	69	1962	15	42.5	1977	-2	1972	8	32.1	1990	826	0	.0	.0	6.6	.9	16.1	.1
Ann	61.5	39.4	50.5	106	Jul 1946	20	67.4	Jul 1985	-2	Dec 1972	8	31.9	Jan 1979	5410	101	.3	8.7	278.2	2.1	83.7	.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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1931-2001

(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: CASCADIA, OR

COOP ID: 351433

Climate Division: OR 2

NWS Call Sign:

Elevation: 860 Feet Lat: 44°24N

Lon: 122°29W

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	8.24	9.03	3.06	1972	21	14.20	1971	.67	1985	18.1	15.0	5.8	1.9	2.39	3.17	4.35	5.37	6.37	7.41	8.55	9.90	11.65	14.39	16.94
Feb	6.97	6.91	4.00	1984	13	14.36	1986	2.27	1973	17.0	13.9	5.2	1.3	2.88	3.51	4.41	5.15	5.84	6.54	7.30	8.17	9.28	10.97	12.50
Mar	6.93	6.26	3.10	1952	24	12.30	1989	2.25	1992	19.4	15.3	4.9	1.0	2.95	3.58	4.45	5.17	5.85	6.53	7.26	8.10	9.17	10.79	12.26
Apr	5.83	5.74	2.96	1990	28	10.57	1993	1.66	1977	17.5	13.1	4.1	.7	2.64	3.15	3.87	4.45	4.99	5.53	6.11	6.78	7.62	8.89	10.03
May	4.70	4.35	2.47	1991	17	9.94	1977	.78	1992	14.3	10.2	3.4	.5	1.30	1.74	2.42	3.01	3.59	4.20	4.87	5.66	6.69	8.31	9.83
Jun	3.08	2.89	2.00	1984	7	8.39	1984	.99	1987	9.5	6.9	2.0	.4	.97	1.27	1.70	2.07	2.43	2.80	3.21	3.69	4.30	5.26	6.15
Jul	.98	.61	1.70	1987	18	4.33	1983	.00+	1984	5.0	2.7	.6	@	.00	.06	.21	.36	.53	.71	.93	1.21	1.59	2.23	2.86
Aug	1.37	1.08	2.22	1991	10	4.84	1978	.00+	1998	4.7	3.0	.9	.2	.00	.00	.13	.31	.53	.81	1.17	1.64	2.30	3.48	4.67
Sep	2.44	2.40	2.39	1954	15	6.34	1986	.00+	1993	7.3	5.4	1.6	.4	.00	.15	.51	.88	1.29	1.75	2.31	3.00	3.97	5.60	7.21
Oct	4.82	4.52	3.11	1947	16	9.59	1990	.10	1987	11.8	9.4	3.8	.8	.77	1.18	1.88	2.55	3.23	3.98	4.84	5.88	7.28	9.55	11.73
Nov	9.97	10.13	4.49	1999	26	19.43	1973	2.64	1976	18.8	15.9	8.0	2.8	3.59	4.53	5.88	7.02	8.10	9.21	10.42	11.82	13.62	16.39	18.93
Dec	9.29	9.66	3.83	1981	6	20.68	1996	2.61	1989	18.6	15.6	7.0	2.5	2.95	3.83	5.14	6.25	7.33	8.45	9.67	11.11	12.96	15.84	18.51
Ann	64.62	65.21	4.49	Nov 1999	26	20.68	Dec 1996	.00+	Aug 1998	162.0	126.4	47.3	12.5	47.86	51.15	55.35	58.51	61.31	64.00	66.78	69.83	73.52	78.85	83.44

+ 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: 1931-2001

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

Complete documentation available from:
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Station: CASCADIA, OR

COOP ID: 351433

Climate Division: OR 2

NWS Call Sign:

Elevation: 860 Feet

Lat: 44° 24N

Lon: 122° 29W

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	2.3	.0	#	0	5.0	1971	12	13.0	1971	7	1982	7	3	1982	1.4	1.0	.3	.1	.0	.8	.4	.2	.0
Feb	1.0	.0	#	0	5.0	1990	16	7.5	1986	7	1989	2	2	1989	1.1	1.0	.5	@	.0	.5	.1	.0	.0
Mar	.6	.0	#	0	3.0	1971	4	5.5	1971	6	1971	5	1	1971	.6	.2	@	.0	.0	.3	.1	.1	.0
Apr	#	.0	#	0	#	1986	29	#+	1986	2	1982	15	#+	1999	.0	.0	.0	.0	.0	.0	.0	.0	.0
May	#	.0	0	0	#	1971	20	#	1971	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	.0	.0	#	0	.3	1975	10	.4	1975	4	1985	30	1	1985	.1	.0	.0	.0	.0	.0	.0	.0	.0
Dec	1.2	.0	#	0	5.0	1972	12	7.0	1972	6	1985	2	1	1985	.6	.5	.2	@	.0	.2	.1	.0	.0
Ann	5.1	.0	N/A	N/A	5.0+	Feb 1990	16	13.0	Jan 1971	7+	Feb 1989	2	3	Jan 1982	3.8	2.7	1.0	.1	.0	1.8	.7	.3	.0

+ Also occurred on an earlier date(s) #Denotes trace amounts

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-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: 860 Feet

Lat: 44° 24N

Lon: 122° 29W

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	6/17	6/10	6/05	5/31	5/27	5/23	5/18	5/13	5/06
32	6/05	5/27	5/20	5/14	5/08	5/03	4/27	4/20	4/10
28	4/23	4/13	4/05	3/30	3/24	3/17	3/11	3/03	2/21
24	3/19	3/07	2/26	2/19	2/12	2/04	1/27	1/17	12/29
20	2/19	2/08	1/31	1/23	1/15	1/06	12/24	0/00	0/00
16	2/06	1/26	1/16	1/05	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	8/31	9/07	9/13	9/17	9/21	9/25	9/30	10/05	10/12
32	9/14	9/21	9/26	9/30	10/04	10/08	10/12	10/17	10/23
28	10/12	10/21	10/28	11/02	11/08	11/13	11/19	11/25	12/05
24	10/29	11/10	11/18	11/26	12/03	12/10	12/18	12/29	1/17
20	11/24	12/08	12/18	12/28	1/07	1/18	2/03	0/00	0/00
16	12/17	1/02	1/17	2/05	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	145	136	128	122	117	111	105	98	88
32	180	169	161	154	148	141	135	127	116
28	267	254	244	236	228	221	213	203	190
24	>365	348	320	304	292	281	269	256	239
20	>365	>365	>365	>365	>365	353	332	315	297
16	>365	>365	>365	>365	>365	>365	>365	>365	347

* 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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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	817	650	624	497	360	199	91	84	188	424	650	826	5410
60	662	510	469	347	215	83	23	18	82	271	500	671	3851
57	569	426	376	260	140	39	7	5	40	185	411	578	3036
55	507	370	316	206	100	20	2	1	22	135	355	516	2550
50	356	239	177	93	31	2	0	0	3	46	222	364	1533
32	20	6	0	0	0	0	0	0	0	0	7	19	52

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	226	280	399	493	663	796	976	979	815	599	348	216	6790
55	0	0	2	9	50	125	265	267	146	21	5	0	890
57	0	0	0	4	28	85	208	210	105	9	2	0	651
60	0	0	0	0	10	39	131	130	57	2	0	0	369
65	0	0	0	0	0	5	44	40	12	0	0	0	101
70	0	0	0	0	0	0	7	5	1	0	0	0	13

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	58	105	173	263	425	566	743	746	582	360	137	55	58	163	336	599	1024	1590	2333	3079	3661	4021	4158	4213
45	11	35	68	139	273	416	588	591	432	215	52	9	11	46	114	253	526	942	1530	2121	2553	2768	2820	2829
50	0	3	17	59	142	268	433	436	288	96	9	0	0	3	20	79	221	489	922	1358	1646	1742	1751	1751
55	0	0	0	15	66	136	283	281	152	30	0	0	0	0	0	15	81	217	500	781	933	963	963	963
60	0	0	0	2	23	52	145	145	60	6	0	0	0	0	0	2	25	77	222	367	427	433	433	433
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	18	58	100	156	245	322	459	468	373	230	53	9	18	76	176	332	577	899	1358	1826	2199	2429	2482	2491

(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