

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: SPRAGUE RIVER 2 SE, OR

1971-2000

COOP ID: 358007

Climate Division: OR 7

NWS Call Sign:

Elevation: 4,483 Feet Lat: 42° 26N

Lon: 121° 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	38.7	16.2	27.5	59+	1976	31	34.4	1986	-27	1962	22	19.2	1977	1164	0	.0	.0	2.3	5.2	29.1	2.9
Feb	44.2	20.3	32.3	67+	1995	24	38.7	1992	-24+	1989	6	21.4	1989	917	0	.0	.0	7.3	1.7	25.6	1.3
Mar	49.9	24.0	37.0	80	1960	25	42.0	1986	-13	1974	8	31.7	1971	871	0	.0	.0	15.7	.2	27.7	.2
Apr	57.5	26.0	41.8	83+	1987	27	48.1	1990	7+	1999	9	34.2	1975	698	0	.0	.0	23.1	.0	24.5	.0
May	66.1	31.5	48.8	94+	1986	29	56.3	1992	12+	1999	9	42.9	1977	503	0	.0	.3	29.6	.0	17.9	.0
Jun	75.8	37.1	56.5	99	1992	22	62.6	1977	12+	1975	26	52.8	1999	273	17	.0	2.2	30.0	.0	7.9	.0
Jul	84.7	41.2	63.0	102	1987	13	67.2	1985	20	1975	1	55.9	1993	127	62	.4	9.8	31.0	.0	3.4	.0
Aug	84.4	39.7	62.1	104	1972	7	67.2	2000	18	1974	20	58.1	1976	134	42	.4	9.2	31.0	.0	4.2	.0
Sep	76.3	32.2	54.3	101	1988	3	59.3	1991	10	1970	14	48.6	1986	328	5	@	2.1	29.7	.0	15.9	.0
Oct	64.5	25.8	45.2	90	1991	10	51.7	1988	4+	1995	22	40.6	1994	616	0	.0	@	27.7	.0	26.0	.0
Nov	46.4	22.2	34.3	72	1967	1	41.1	1999	-23	1955	15	24.2	1994	922	0	.0	.0	10.9	1.1	26.1	.7
Dec	38.6	16.8	27.7	65	1976	3	34.0	1981	-32+	1972	10	21.4	1972	1156	0	.0	.0	2.6	5.3	29.1	2.5
Ann	60.6	27.8	44.2	104	Aug 1972	7	67.2+	Aug 2000	-32+	Dec 1972	10	19.2	Jan 1977	7709	126	.8	23.6	240.9	13.5	237.4	7.6

+ 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: 1953-2001

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

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Climate Division: OR 7

NWS Call Sign:

Elevation: 4,483 Feet Lat: 42°26N

Lon: 121°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	2.36	2.12	1.88	1980	12	5.64	2000	.19	1985	10.6	6.2	1.4	.3	.39	.59	.93	1.26	1.59	1.95	2.37	2.88	3.55	4.65	5.70
Feb	1.79	1.68	1.50	1960	7	4.45	1996	.05	1988	10.1	5.5	.7	.1	.27	.42	.68	.93	1.18	1.47	1.79	2.19	2.72	3.58	4.41
Mar	1.93	1.70	1.01	1983	30	4.35	1995	.42	1977	9.9	5.3	.9	@	.47	.65	.93	1.18	1.43	1.69	1.98	2.33	2.79	3.51	4.19
Apr	1.05	1.13	.90	2000	18	2.21	1978	.06	1977	7.6	3.7	.4	.0	.18	.28	.43	.57	.72	.88	1.06	1.28	1.58	2.06	2.51
May	1.15	.75	1.22	1993	30	3.30	1993	.18	1983	6.7	3.1	.5	@	.18	.28	.45	.61	.77	.95	1.15	1.40	1.74	2.28	2.80
Jun	.71	.73	1.05	1964	6	1.66	1982	.00+	1974	4.3	2.1	.2	.0	.00	.04	.15	.26	.37	.51	.67	.87	1.15	1.62	2.08
Jul	.47	.25	1.10	1994	23	1.46	1997	.00+	1989	2.3	1.3	.3	@	.00	.00	.05	.13	.21	.31	.43	.58	.80	1.15	1.51
Aug	.55	.22	1.36	1979	29	2.77	1976	.00+	1995	2.9	1.5	.3	@	.00	.00	.00	.07	.17	.29	.45	.65	.95	1.47	1.99
Sep	.68	.45	2.00	1957	27	2.25	1977	.00+	1999	3.6	2.0	.3	@	.00	.00	.06	.17	.29	.43	.60	.83	1.15	1.69	2.24
Oct	1.07	.82	1.72	1962	9	3.75	1979	.00	1978	5.4	3.3	.5	.1	.02	.08	.21	.36	.53	.73	.98	1.30	1.75	2.52	3.28
Nov	2.06	1.41	1.78	1981	15	6.58	1973	.43+	1993	10.3	5.9	.9	.3	.27	.43	.73	1.01	1.32	1.65	2.04	2.51	3.16	4.22	5.24
Dec	2.26	1.86	1.95	1982	16	6.93	1981	.01	1990	10.4	6.6	1.0	.3	.09	.20	.46	.75	1.10	1.52	2.03	2.70	3.66	5.30	6.96
Ann	16.08	15.89	2.00	Sep 1957	27	6.93	Dec 1981	.00+	Sep 1999	84.1	46.5	7.4	1.1	9.92	11.04	12.52	13.67	14.70	15.71	16.77	17.95	19.41	21.55	23.43

+ 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: 1953-2001

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

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

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Climate Division: OR 7

NWS Call Sign:

Elevation: 4,483 Feet

Lat: 42° 26N

Lon: 121° 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	7.2	6.5	4	1	12.0	1996	19	16.0	1982	31	1993	11	25	1993	4.3	3.1	1.1	.5	@	13.3	9.0	3.2	1.7
Feb	5.3	5.5	3	1	8.0	2000	26	12.0	1990	28	1993	24	24	1993	3.3	2.3	.6	.2	.0	4.4	1.9	.8	.0
Mar	6.2	4.3	1	#	12.2	1971	12	24.0	1982	26	1993	1	14	1993	3.0	2.1	.7	.1	@	1.8	.9	.6	.1
Apr	1.3	.3	#	#	5.5	1978	6	8.3	1978	10	1982	3	2	1982	1.0	.7	.1	@	.0	.3	.2	.2	.0
May	.5	.0	#	0	3.0	1989	23	3.0	1989	1	1974	17	#+	1983	.4	.2	@	.0	.0	@	.0	.0	.0
Jun	#	.0	0	0	#	1981	13	#	1981	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	.4	1982	28	.4	1982	#	1971	29	#	1971	@	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.1	.0	#	0	1.0	1972	28	1.0+	1979	2	1984	16	#+	1996	.1	.1	.0	.0	.0	@	.0	.0	.0
Nov	5.0	3.0	#	#	14.6	1977	21	21.4	1994	25	1973	20	4	1985	2.3	1.5	.6	.3	@	1.8	1.1	.4	.2
Dec	10.2	9.2	2	1	8.0	1977	17	22.5	1982	22	1992	31	10	1988	4.2	3.2	1.5	.6	.0	9.1	6.3	3.6	.9
Ann	35.8	28.8	N/A	N/A	14.6	Nov 1977	21	24.0	Mar 1982	31	Jan 1993	11	25	Jan 1993	18.6	13.2	4.6	1.7	@	30.7	19.4	8.8	2.9

+ 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

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Climate Division: OR 7

NWS Call Sign:

Elevation: 4,483 Feet

Lat: 42° 26N

Lon: 121° 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	7/31	7/27	7/25	7/22	7/20	7/18	7/16	7/13	7/09
32	7/27	7/21	7/17	7/13	7/10	7/07	7/03	6/29	6/23
28	7/20	7/13	7/08	7/04	6/30	6/26	6/22	6/17	6/10
24	7/09	6/29	6/23	6/17	6/12	6/07	6/01	5/25	5/16
20	6/12	6/02	5/26	5/20	5/14	5/09	5/03	4/25	4/16
16	5/23	5/09	4/29	4/20	4/12	4/04	3/27	3/17	3/03
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	8/02	8/04	8/05	8/06	8/07	8/08	8/10	8/12
32	8/01	8/07	8/10	8/13	8/16	8/19	8/22	8/26	8/31
28	8/05	8/13	8/19	8/24	8/29	9/03	9/08	9/14	9/22
24	8/22	8/30	9/05	9/10	9/14	9/19	9/24	9/29	10/07
20	9/04	9/12	9/19	9/24	9/29	10/04	10/09	10/16	10/24
16	9/26	10/03	10/09	10/13	10/18	10/22	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	30	25	22	19	16	13	10	7	2
32	59	52	46	41	36	32	27	21	13
28	96	83	74	66	59	52	44	35	23
24	135	121	111	102	94	85	76	66	52
20	182	166	155	146	137	128	119	108	92
16	235	219	207	197	188	178	169	157	141

* 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

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Elevation: 4,483 Feet Lat: 42°26N

Lon: 121°29W

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	1164	917	871	698	503	273	127	134	328	616	922	1156	7709
60	1009	777	716	548	354	159	52	53	197	461	772	1001	6099
57	916	693	623	459	271	107	25	24	133	372	682	908	5213
55	854	637	561	402	219	78	15	13	98	315	622	846	4660
50	699	497	407	266	116	27	2	1	36	189	476	691	3407
32	217	110	35	13	0	0	0	0	0	5	87	190	657

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	77	117	187	305	521	734	958	931	667	412	155	58	5122
55	0	0	0	4	27	121	260	231	75	10	0	0	728
57	0	0	0	1	16	90	209	180	51	4	0	0	551
60	0	0	0	0	6	53	143	116	24	1	0	0	343
65	0	0	0	0	0	17	62	42	5	0	0	0	126
70	0	0	0	0	0	3	17	9	0	0	0	0	29

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	16	46	128	303	508	730	702	449	201	33	1	0	16	62	190	493	1001	1731	2433	2882	3083	3116	3117
45	0	0	8	50	175	362	575	547	306	99	7	0	0	0	8	58	233	595	1170	1717	2023	2122	2129	2129
50	0	0	0	16	88	227	423	392	178	34	0	0	0	0	0	16	104	331	754	1146	1324	1358	1358	1358
55	0	0	0	0	34	120	276	244	80	10	0	0	0	0	0	0	34	154	430	674	754	764	764	764
60	0	0	0	0	5	49	149	122	24	0	0	0	0	0	0	0	5	54	203	325	349	349	349	349
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	24	64	146	273	394	515	511	404	244	44	1	0	24	88	234	507	901	1416	1927	2331	2575	2619	2620

(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