

# 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: FOSTER DAM, OR

1971-2000

COOP ID: 353047

Climate Division: OR 2

NWS Call Sign:

Elevation: 550 Feet

Lat: 44° 25N

Lon: 122° 40W

## 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	47.2	33.0	40.1	67	1986	19	45.0	1998	0	1979	1	30.4	1979	772	0	.0	.0	12.3	.6	13.0	@
Feb	51.5	35.1	43.3	71	1992	25	48.3	1992	2	1989	5	35.7	1989	608	0	.0	.0	17.2	.4	9.2	.0
Mar	56.0	37.1	46.6	77	1994	28	50.7	1992	22+	1976	4	42.3	1971	573	0	.0	.0	25.4	.0	5.4	.0
Apr	60.4	39.9	50.2	85+	1998	30	54.5	1989	27	1975	5	44.4	1975	445	0	.0	.0	27.9	.0	1.5	.0
May	66.4	43.8	55.1	96	1987	8	60.5	1997	31	1982	5	51.2	1977	309	2	.0	.3	30.7	.0	.1	.0
Jun	72.2	48.2	60.2	102	1992	23	65.2	1992	35+	1991	4	56.1	1976	161	17	@	.8	29.9	.0	.0	.0
Jul	79.6	50.8	65.2	102+	1998	28	68.8	1985	40+	1986	13	61.8	1993	62	69	.2	3.8	31.0	.0	.0	.0
Aug	80.4	50.3	65.4	105	1981	11	69.0	1986	36	1973	18	61.7	1973	60	71	.3	4.2	31.0	.0	.0	.0
Sep	75.3	46.6	61.0	102	1987	1	64.1	1995	32+	1999	28	56.9	1985	144	23	.1	1.7	30.0	.0	.2	.0
Oct	64.7	41.6	53.2	93+	1987	2	57.0	1988	24	1971	29	50.1	1971	367	0	.0	.2	30.1	.0	2.0	.0
Nov	52.8	37.9	45.4	75	1975	4	49.9+	1999	16+	1993	27	37.9	1985	590	0	.0	.0	21.5	.1	6.1	.0
Dec	46.7	34.0	40.4	69+	1980	31	43.8	1979	0+	1972	11	33.9	1990	764	0	.0	.0	10.9	.7	11.4	.1
Ann	62.8	41.5	52.2	105	Aug 1981	11	69.0	Aug 1986	0+	Jan 1979	1	30.4	Jan 1979	4855	182	.6	11.0	297.9	1.8	48.9	.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: 1969-2001

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

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**NWS Call Sign:**

**Elevation: 550 Feet Lat: 44°25N**

**Lon: 122°40W**

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	7.09	7.30	2.85	1976	8	11.94	1996	.73	1985	18.8	14.3	4.4	1.5	2.11	2.79	3.80	4.67	5.52	6.40	7.37	8.51	9.99	12.30	14.45
Feb	6.29	6.15	3.37	1984	13	12.51	1986	1.94	1973	17.2	12.9	4.2	1.0	2.49	3.07	3.90	4.58	5.22	5.88	6.59	7.41	8.45	10.05	11.50
Mar	5.78	5.42	2.31	1972	2	9.71	1997	1.52	1992	19.3	14.2	3.5	.6	2.50	3.02	3.74	4.34	4.89	5.45	6.06	6.75	7.62	8.95	10.15
Apr	4.63	4.48	1.74	1993	3	10.49	1993	1.58	1989	17.4	12.2	2.7	.4	1.96	2.38	2.97	3.45	3.91	4.36	4.86	5.43	6.14	7.24	8.23
May	4.02	3.53	1.80	1995	2	9.19	1998	.84	1992	13.8	9.4	2.7	.4	.98	1.35	1.94	2.46	2.98	3.52	4.13	4.86	5.81	7.32	8.74
Jun	2.59	2.45	2.00	1984	7	8.22	1984	.72	1987	9.6	6.4	1.6	.3	.81	1.05	1.42	1.73	2.03	2.35	2.69	3.10	3.62	4.44	5.19
Jul	.86	.61	1.32	1987	19	4.02	1983	.03	1973	4.4	2.4	.4	.1	.05	.10	.21	.32	.45	.61	.80	1.04	1.38	1.95	2.52
Aug	1.16	.88	1.58	1977	24	4.02	1978	.00+	1994	4.7	2.6	.7	.2	.00	.02	.11	.25	.42	.65	.95	1.34	1.93	2.97	4.03
Sep	1.93	1.77	1.57	1996	15	5.41	1986	.00+	1993	7.5	4.7	1.1	.3	.00	.17	.50	.81	1.13	1.48	1.90	2.40	3.09	4.24	5.36
Oct	3.95	3.81	2.48	1979	19	8.77	1990	.11	1987	12.5	8.6	2.8	.5	.61	.94	1.51	2.06	2.63	3.24	3.95	4.82	5.99	7.88	9.69
Nov	8.49	8.08	4.60	1999	26	17.90	1973	2.07	1976	19.7	15.4	6.3	1.7	2.94	3.74	4.91	5.89	6.84	7.81	8.86	10.10	11.67	14.12	16.36
Dec	7.86	7.40	3.12	1981	6	17.84	1996	1.83	1976	19.9	14.7	5.4	1.9	2.45	3.20	4.31	5.26	6.18	7.13	8.18	9.41	11.00	13.47	15.76
Ann	54.65	54.83	4.60	Nov 1999	26	17.90	Nov 1973	.00+	Aug 1994	164.8	117.8	35.8	8.9	39.72	42.63	46.35	49.17	51.66	54.07	56.55	59.29	62.60	67.39	71.53

+ 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: 1969-2001

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

Complete documentation available from:  
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**Climate Division: OR 2**

**NWS Call Sign:**

**Elevation: 550 Feet**

**Lat: 44° 25N**

**Lon: 122° 40W**

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	.9	.0	#	0	6.0	1971	13	12.0	1971	7	1971	14	1	1971	.4	.2	.2	.1	.0	.2	.1	.1	.0
Feb	1.4	.0	#	0	5.3	1989	2	6.7	1990	2	1971	28	#+	1975	1.1	.7	.1	.1	.0	.2	.0	.0	.0
Mar	.0	.0	#	0	.3	1971	1	.3	1971	#	1971	17	#	1971	.1	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	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	.1	.0	#	0	1.5	1975	29	1.5	1975	2	1975	29	#	1975	.1	.1	.0	.0	.0	@	.0	.0	.0
Dec	.6	.0	#	0	3.0	1978	31	3.0	1978	5	1972	12	1	1972	.5	.4	.1	.0	.0	.2	@	.0	.0
Ann	3.0	.0	N/A	N/A	6.0	Jan 1971	13	12.0	Jan 1971	7	Jan 1971	14	1+	Dec 1972	2.2	1.4	.4	.2	.0	.6	.1	.1	.0

+ 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:

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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	6/03	5/26	5/21	5/16	5/12	5/08	5/03	4/28	4/20
32	4/25	4/18	4/12	4/08	4/03	3/30	3/25	3/20	3/12
28	3/12	3/05	2/28	2/23	2/19	2/15	2/10	2/05	1/29
24	2/26	2/17	2/10	2/05	1/30	1/24	1/16	1/02	0/00
20	2/09	1/31	1/25	1/18	1/12	1/03	0/00	0/00	0/00
16	1/30	1/17	1/05	12/21	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	9/14	9/22	9/28	10/02	10/07	10/11	10/16	10/21	10/29
32	10/01	10/10	10/16	10/21	10/26	10/31	11/05	11/12	11/20
28	10/30	11/07	11/14	11/19	11/24	11/29	12/04	12/11	12/19
24	11/17	11/30	12/09	12/18	12/26	1/04	1/16	2/06	0/00
20	12/03	12/16	12/26	1/04	1/14	1/29	0/00	0/00	0/00
16	12/16	12/29	1/09	1/24	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	179	168	160	153	147	140	134	126	114
32	237	226	218	212	205	199	192	184	173
28	314	302	292	285	277	270	262	253	240
24	>365	>365	>365	>365	348	326	311	296	277
20	>365	>365	>365	>365	>365	>365	355	337	320
16	>365	>365	>365	>365	>365	>365	>365	>365	351

\* 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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**Lat: 44°25N**

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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	772	608	573	445	309	161	62	60	144	367	590	764	4855
60	617	468	418	298	171	65	12	11	53	215	440	609	3377
57	524	384	326	216	106	29	3	3	21	135	356	516	2619
55	464	330	269	166	72	15	0	0	10	90	301	454	2171
50	320	203	140	72	18	1	0	0	0	24	179	306	1263
32	20	3	0	0	0	0	0	0	0	0	4	11	38

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	271	320	450	545	716	846	1030	1033	868	656	405	270	7410
55	2	2	6	21	75	171	317	321	188	33	11	0	1147
57	0	0	2	11	47	125	258	261	140	16	6	0	866
60	0	0	0	3	19	71	174	177	82	3	0	0	529
65	0	0	0	0	2	17	69	71	23	0	0	0	182
70	0	0	0	0	0	2	14	14	3	0	0	0	33

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	145	217	315	477	615	793	798	641	422	194	99	94	239	456	771	1248	1863	2656	3454	4095	4517	4711	4810
45	35	54	96	174	322	465	638	643	491	271	86	33	35	89	185	359	681	1146	1784	2427	2918	3189	3275	3308
50	0	9	28	75	184	316	483	488	342	137	26	2	0	9	37	112	296	612	1095	1583	1925	2062	2088	2090
55	0	0	0	28	84	177	328	333	198	50	1	0	0	0	0	28	112	289	617	950	1148	1198	1199	1199
60	0	0	0	4	33	76	180	184	84	11	0	0	0	0	0	4	37	113	293	477	561	572	572	572
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	31	63	113	171	267	352	486	491	394	242	75	29	31	94	207	378	645	997	1483	1974	2368	2610	2685	2714

(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> |
|---|---|

## 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)