

# 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: FERN RIDGE DAM, OR**

**1971-2000**

**COOP ID: 352867**

**Climate Division: OR 2**

**NWS Call Sign:**

**Elevation: 485 Feet**

**Lat: 44°07N**

**Lon: 123°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	47.1	33.2	40.2	65	1984	5	44.0	1995	-1	1950	31	31.8	1979	770	0	.0	.0	12.4	.8	14.2	.0
Feb	51.6	35.1	43.4	73+	1995	27	48.2	1991	-1	1950	3	35.5	1989	607	0	.0	.0	17.3	.3	9.6	.0
Mar	57.3	37.4	47.4	77	1978	18	53.0	1992	23	1955	5	43.0	1971	548	0	.0	.0	26.8	.0	5.9	.0
Apr	61.7	39.8	50.8	85+	1957	30	55.2	1992	25	1968	13	45.9	1975	428	0	.0	.0	28.8	.0	1.8	.0
May	67.8	44.2	56.0	96	1950	22	60.7	1992	30	1952	4	52.1	1977	282	3	.0	.2	30.9	.0	.2	.0
Jun	74.6	49.0	61.8	104	1992	23	66.5	1992	35+	1976	13	58.2	1971	124	28	@	1.1	30.0	.0	.0	.0
Jul	82.2	52.6	67.4	104+	1998	28	71.6	1985	39+	1996	8	63.3	1993	38	113	.3	5.8	31.0	.0	.0	.0
Aug	83.3	53.1	68.2	107	1981	10	71.4	1986	38	1998	24	64.4	1975	23	123	.5	6.2	31.0	.0	.0	.0
Sep	78.0	49.6	63.8	102	1987	1	67.6	1998	32	1972	28	60.1	1972	93	57	.1	2.8	30.0	.0	@	.0
Oct	65.7	43.7	54.7	92	1980	3	59.0	1987	25+	1971	29	50.8	1971	320	1	.0	.1	30.6	.0	1.2	.0
Nov	52.8	38.2	45.5	75	1949	1	50.1	1995	16+	1985	25	38.3	1985	585	0	.0	.0	21.8	.2	6.5	.0
Dec	46.5	33.6	40.1	66	1980	31	43.7	1973	-3	1972	8	33.2	1985	773	0	.0	.0	11.3	1.0	12.7	.1
Ann	64.1	42.5	53.3	107	Aug 1981	10	71.6	Jul 1985	-3	Dec 1972	8	31.8	Jan 1979	4591	325	.9	16.2	301.9	2.3	52.1	.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: 1943-2001

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

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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	6.42	6.96	3.13	1999	19	11.21	1996	.36	1985	17.6	11.4	4.3	1.6	1.51	2.11	3.05	3.89	4.72	5.60	6.60	7.78	9.33	11.78	14.10
Feb	5.49	4.83	3.66	1984	13	11.94	1986	1.45	1988	16.6	11.1	3.7	.9	1.69	2.21	2.99	3.66	4.30	4.97	5.71	6.58	7.69	9.44	11.05
Mar	4.72	4.50	2.22	1999	1	9.10	1983	1.36	1978	17.5	10.6	2.4	.5	1.74	2.18	2.82	3.35	3.86	4.37	4.94	5.59	6.43	7.71	8.89
Apr	3.10	2.60	1.40	1971	9	7.09	1993	.54	1985	14.4	8.1	1.4	.1	.81	1.10	1.55	1.94	2.33	2.74	3.20	3.74	4.44	5.55	6.59
May	2.17	2.28	1.82	1972	17	4.40+	1998	.03	1992	11.6	6.2	.9	.1	.38	.57	.88	1.18	1.49	1.82	2.19	2.65	3.26	4.24	5.18
Jun	1.39	1.12	1.62	1952	29	3.09	1985	.09	1976	7.4	3.4	.6	.1	.20	.32	.51	.71	.91	1.13	1.38	1.69	2.11	2.80	3.46
Jul	.53	.46	1.17	1987	19	2.30	1987	.00+	1998	3.3	1.3	.3	@	.00	.00	.06	.14	.23	.33	.47	.64	.89	1.32	1.75
Aug	.70	.50	1.42	1983	29	2.32	1983	.00+	2000	3.7	1.8	.4	.1	.00	.00	.03	.10	.21	.35	.54	.80	1.18	1.87	2.57
Sep	1.33	1.11	1.26	1981	27	3.61	1986	.00+	1993	6.4	3.6	.5	.1	.00	.07	.26	.46	.68	.94	1.25	1.63	2.17	3.08	3.99
Oct	2.81	2.73	2.85	1947	16	6.83	1979	.13	1987	11.8	6.3	1.7	.4	.34	.55	.95	1.34	1.76	2.22	2.77	3.44	4.35	5.85	7.30
Nov	7.18	6.31	5.67	1996	19	17.09	1973	1.63	1976	18.1	12.3	4.7	1.4	1.97	2.65	3.68	4.59	5.47	6.40	7.43	8.65	10.23	12.72	15.04
Dec	7.64	7.72	3.40	1981	6	17.10	1996	1.18	1976	18.3	12.0	5.0	1.7	2.06	2.79	3.89	4.86	5.81	6.80	7.91	9.21	10.92	13.58	16.08
Ann	43.48	44.14	5.67	Nov 1996	19	17.10	Dec 1996	.00+	Aug 2000	146.7	88.1	25.9	7.0	29.03	31.76	35.29	38.00	40.42	42.77	45.21	47.93	51.24	56.08	60.29

+ 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: 1943-2001

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

Complete documentation available from:  
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**NWS Call Sign:**

**Elevation: 485 Feet**

**Lat: 44°07N**

**Lon: 123°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	.2	.0	#	0	2.8	1975	26	2.8	1975	16	1971	14	1	1971	.2	.1	.0	.0	.0	@	.0	.0	.0
Feb	.8	.0	#	0	4.0	1989	2	9.0	1989	7+	1990	16	1	1989	.3	.3	.2	.0	.0	.3	.1	.1	.0
Mar	.0	.0	#	0	.5	1976	1	.5	1976	1	1976	1	#+	1976	.1	.0	.0	.0	.0	@	.0	.0	.0
Apr	#	.0	0	0	#	1972	13	#	1972	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	.2	.0	#	0	.8	1985	22	1.9	1985	1+	1977	21	#+	1977	.3	.0	.0	.0	.0	.1	.0	.0	.0
Dec	1.3	.0	#	0	6.0	1972	6	8.3	1972	6+	1987	16	1	1972	.7	.6	.2	.2	.0	.5	.3	.2	.0
Ann	2.5	.0	N/A	N/A	6.0	Dec 1972	6	9.0	Feb 1989	16	Jan 1971	14	1+	Feb 1989	1.6	1.0	.4	.2	.0	.9	.4	.3	.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

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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	5/29	5/21	5/16	5/11	5/06	5/02	4/27	4/22	4/14
32	5/09	4/26	4/17	4/10	4/03	3/27	3/19	3/10	2/26
28	3/12	3/03	2/24	2/19	2/14	2/09	2/03	1/28	1/19
24	2/27	2/16	2/07	1/30	1/23	1/15	1/07	12/26	0/00
20	2/04	1/25	1/16	1/08	12/31	12/18	0/00	0/00	0/00
16	1/20	1/04	12/17	0/00	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	9/28	10/05	10/11	10/15	10/19	10/24	10/28	11/02	11/10
32	10/12	10/19	10/24	10/29	11/02	11/06	11/10	11/15	11/23
28	11/02	11/12	11/20	11/26	12/02	12/08	12/14	12/21	12/31
24	11/16	11/29	12/08	12/17	12/24	1/02	1/11	1/24	0/00
20	12/06	12/20	12/31	1/11	1/23	2/14	0/00	0/00	0/00
16	12/18	1/02	1/18	0/00	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	186	178	172	165	159	152	144	133
32	257	241	230	221	212	203	194	183	168
28	327	315	305	298	290	283	275	266	253
24	>365	>365	>365	364	340	325	313	300	284
20	>365	>365	>365	>365	>365	>365	>365	355	321
16	>365	>365	>365	>365	>365	>365	>365	>365	>365

\* 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	770	607	548	428	282	124	38	23	93	320	585	773	4591
60	615	467	393	282	149	42	7	2	29	179	435	618	3218
57	522	383	304	201	89	16	1	0	10	110	350	525	2511
55	460	328	247	152	58	7	0	0	5	73	294	463	2087
50	316	200	127	64	13	0	0	0	0	20	172	316	1228
32	17	2	0	0	0	0	0	0	0	0	3	14	36

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	270	320	476	562	744	894	1098	1122	954	704	408	264	7816
55	0	1	10	24	89	211	385	409	269	65	9	0	1472
57	0	0	5	12	58	160	324	347	215	39	5	0	1165
60	0	0	0	4	25	96	237	256	143	15	0	0	776
65	0	0	0	0	3	28	113	123	57	1	0	0	325
70	0	0	0	0	0	4	36	38	14	0	0	0	92

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	93	130	224	324	493	646	836	858	701	453	191	87	93	223	447	771	1264	1910	2746	3604	4305	4758	4949	5036
45	29	47	97	180	338	496	681	703	551	301	83	28	29	76	173	353	691	1187	1868	2571	3122	3423	3506	3534
50	0	8	31	79	190	346	526	548	401	163	20	0	0	8	39	118	308	654	1180	1728	2129	2292	2312	2312
55	0	0	0	28	90	204	371	393	257	64	0	0	0	0	0	28	118	322	693	1086	1343	1407	1407	1407
60	0	0	0	3	33	92	227	240	129	14	0	0	0	0	0	3	36	128	355	595	724	738	738	738
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	30	53	118	182	281	378	513	531	427	257	75	29	30	83	201	383	664	1042	1555	2086	2513	2770	2845	2874

(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)