

Climatology of the United States No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: PILOT ROCK 1 SE, OR

1971-2000

COOP ID: 356634

Climate Division: OR 6

NWS Call Sign: MEH

Elevation: 1,720 Feet Lat: 45° 29N

Lon: 118° 50W

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	43.0	25.8	34.4	73	1968	21	42.5	1994	-21	1957	27	16.9	1979	949	0	.0	.0	10.6	6.6	22.6	1.5
Feb	48.0	28.8	38.4	77	1986	25	46.1	1991	-19+	1950	3	25.9	1989	746	0	.0	.0	14.2	3.5	18.4	.9
Mar	55.4	32.9	44.2	79	1964	31	48.4	1986	3	1993	1	39.8	1975	646	0	.0	.0	24.7	.3	14.5	.0
Apr	62.5	36.5	49.5	89+	1977	25	53.9	1990	8	1975	5	43.1	1975	465	0	.0	.0	29.0	.0	8.2	.0
May	70.0	42.3	56.2	98	1986	31	60.6	1993	25	1964	14	51.4	1977	279	5	.0	.9	31.0	.0	1.7	.0
Jun	78.5	47.9	63.2	103+	1992	25	68.5	1986	28	1966	1	59.0	1971	114	61	.3	4.5	30.0	.0	@	.0
Jul	88.0	52.2	70.1	109	1968	7	75.6	1998	34	1971	7	64.6	1993	26	184	3.1	14.9	31.0	.0	.0	.0
Aug	87.7	52.2	70.0	111+	1998	5	74.7	1971	33	1980	29	65.5	1980	28	182	2.9	13.4	31.0	.0	.0	.0
Sep	78.3	44.8	61.6	103+	1967	1	66.7	1998	25+	1985	29	55.0	1985	161	57	.2	3.8	30.0	.0	1.0	.0
Oct	65.7	37.0	51.4	92+	1991	1	57.3	1988	12	1991	30	48.1	1984	423	0	.0	.1	29.9	.0	8.1	.0
Nov	50.9	31.4	41.2	81	1999	13	47.1	1999	-15	1955	15	27.7	1985	715	0	.0	.0	17.9	1.7	15.9	.2
Dec	42.5	25.8	34.2	69+	1993	11	41.2	1973	-21+	1983	23	19.9	1985	956	0	.0	.0	10.4	7.1	23.7	1.2
Ann	64.2	38.1	51.2	111+	Aug 1998	5	75.6	Jul 1998	-21+	Dec 1983	23	16.9	Jan 1979	5508	489	6.5	37.6	289.7	19.2	114.1	3.8

+ 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: 1948-2001

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

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Elevation: 1,720 Feet Lat: 45°29N

Lon: 118°50W

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	1.34	1.43	1.13	1965	30	3.03	1975	.41	1973	10.1	4.8	.3	.0	.44	.57	.76	.92	1.07	1.23	1.40	1.60	1.86	2.26	2.63
Feb	1.18	1.09	1.03	1994	24	2.53	2000	.39	1971	10.1	4.1	.2	@	.43	.54	.70	.84	.96	1.09	1.24	1.40	1.61	1.94	2.24
Mar	1.55	1.44	1.46	1983	4	3.12	1983	.55	1994	10.9	5.4	.5	.1	.71	.84	1.03	1.18	1.33	1.47	1.62	1.80	2.02	2.35	2.65
Apr	1.46	1.39	1.20	1978	1	3.27	1978	.18	1973	10.1	4.7	.4	@	.33	.47	.68	.87	1.06	1.27	1.49	1.77	2.12	2.69	3.23
May	1.67	1.63	1.22	1994	20	4.29	1991	.23	1992	9.4	4.9	.8	.2	.43	.59	.83	1.04	1.26	1.48	1.73	2.02	2.41	3.01	3.58
Jun	1.24	1.12	.98	1990	7	2.38	1991	.17	1986	7.4	3.7	.5	.0	.32	.44	.62	.78	.93	1.10	1.28	1.50	1.78	2.22	2.64
Jul	.40	.41	.73	1948	5	1.23	1983	.00+	1999	3.3	1.4	.1	.0	.00	.00	.06	.13	.20	.28	.37	.50	.67	.95	1.24
Aug	.67	.36	1.30	1993	16	2.68	1993	.00+	2000	3.6	1.8	.2	.1	.00	.00	.05	.13	.23	.37	.54	.78	1.13	1.74	2.37
Sep	.72	.57	.93	1971	2	1.85	1982	.00+	1999	4.4	2.3	.2	.0	.00	.00	.06	.17	.30	.45	.64	.88	1.22	1.80	2.38
Oct	.98	.94	1.28	1982	29	2.45	1982	.02	1987	6.4	3.0	.3	@	.10	.17	.30	.44	.59	.75	.95	1.19	1.53	2.08	2.63
Nov	1.72	1.68	1.66	1996	19	3.91	1973	.23	1982	11.0	5.6	.6	.1	.46	.63	.88	1.10	1.31	1.53	1.78	2.08	2.46	3.06	3.63
Dec	1.38	1.06	1.20	1978	5	3.27	1973	.28	1976	9.9	5.1	.2	@	.33	.46	.66	.84	1.02	1.21	1.42	1.67	2.00	2.53	3.02
Ann	14.31	14.18	1.66	Nov 1996	19	4.29	May 1991	.00+	Aug 2000	96.6	46.8	4.3	.5	9.97	10.80	11.88	12.69	13.42	14.12	14.85	15.66	16.64	18.06	19.29

+ 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: 1948-2001

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

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NWS Call Sign: MEH

Elevation: 1,720 Feet

Lat: 45° 29N

Lon: 118° 50W

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	4.9	3.8	1	0	5.5	1980	8	15.5	1980	13	1980	10	6	1979	2.5	2.2	.7	.1	.0	5.9	3.4	1.9	.4
Feb	3.4	1.5	#	0	11.0	1993	24	18.0	1993	12	1979	4	2+	1993	1.7	1.5	.4	.1	@	3.5	2.0	.8	.1
Mar	1.0	.0	#	0	5.0	1978	5	7.0	1978	4+	1993	1	#	2000	.7	.4	.1	@	.0	.8	.3	.0	.0
Apr	.3	.0	#	0	5.0	1975	5	6.4	1975	3	1975	5	#	1984	.2	.1	@	@	.0	.1	@	.0	.0
May	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1998	.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	.2	.0	#	0	3.0	1991	29	3.0	1991	3	1991	29	#	1991	.1	.1	@	.0	.0	.1	@	.0	.0
Nov	2.8	.8	#	0	8.0	1985	11	18.0	1973	10	1977	23	2+	1985	1.1	1.0	.4	.2	.0	2.2	1.1	.5	@
Dec	4.7	2.8	1	0	6.0	1977	30	23.0	1983	11+	1985	2	4	1985	2.2	2.0	.6	.1	.0	5.1	3.0	1.0	.1
Ann	17.3	8.9	N/A	N/A	11.0	Feb 1993	24	23.0	Dec 1983	13	Jan 1980	10	6	Jan 1979	8.5	7.3	2.2	.5	@	17.7	9.8	4.2	.6

+ 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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Elevation: 1,720 Feet

Lat: 45° 29N

Lon: 118° 50W

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	6/27	6/18	6/12	6/07	6/02	5/28	5/23	5/17	5/08
32	5/30	5/23	5/18	5/14	5/10	5/06	5/02	4/27	4/21
28	5/06	4/29	4/24	4/20	4/17	4/13	4/09	4/04	3/28
24	4/20	4/11	4/04	3/29	3/24	3/19	3/13	3/06	2/25
20	3/26	3/13	3/05	2/25	2/18	2/11	2/03	1/25	1/13
16	3/10	2/25	2/16	2/08	1/31	1/23	1/15	1/05	12/20
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	9/03	9/08	9/12	9/15	9/18	9/21	9/24	9/28	10/03
32	9/17	9/22	9/26	9/29	10/02	10/05	10/08	10/12	10/17
28	9/28	10/03	10/07	10/10	10/13	10/16	10/19	10/23	10/28
24	10/12	10/18	10/23	10/26	10/30	11/02	11/06	11/10	11/16
20	10/25	11/03	11/09	11/15	11/20	11/25	11/30	12/07	12/15
16	11/02	11/13	11/21	11/29	12/05	12/12	12/20	12/29	1/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	136	126	119	113	107	102	96	89	79
32	170	161	155	149	145	140	134	128	119
28	206	197	190	184	179	173	167	161	151
24	253	241	233	226	219	213	205	197	185
20	318	303	292	283	274	265	256	245	230
16	>365	343	327	316	306	297	287	276	260

* 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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Climate Division: OR 6

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Elevation: 1,720 Feet Lat: 45° 29N Lon: 118° 50W

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	949	746	646	465	279	114	26	28	161	423	715	956	5508
60	798	606	491	321	149	44	5	6	78	271	569	801	4139
57	712	525	398	241	91	19	1	2	43	187	485	709	3413
55	654	472	337	192	61	11	0	1	27	137	430	650	2972
50	514	345	193	95	16	1	0	0	6	50	303	507	2030
32	152	53	1	0	0	0	0	0	0	0	41	126	373

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	226	231	378	525	749	937	1181	1177	886	601	316	193	7400
55	15	7	1	26	96	257	468	465	223	25	15	4	1602
57	11	4	0	15	65	206	407	404	180	12	10	1	1315
60	5	0	0	6	30	140	318	315	124	3	4	0	945
65	0	0	0	0	5	61	184	182	57	0	0	0	489
70	0	0	0	0	0	18	86	85	20	0	0	0	209

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	65	87	163	292	509	708	944	940	655	364	124	58	65	152	315	607	1116	1824	2768	3708	4363	4727	4851	4909
45	25	32	67	165	356	558	789	785	506	224	56	20	25	57	124	289	645	1203	1992	2777	3283	3507	3563	3583
50	4	4	24	71	219	409	634	630	361	114	18	2	4	8	32	103	322	731	1365	1995	2356	2470	2488	2490
55	0	0	0	23	114	265	480	475	227	45	1	0	0	0	0	23	137	402	882	1357	1584	1629	1630	1630
60	0	0	0	4	49	151	329	324	119	14	0	0	0	0	0	4	53	204	533	857	976	990	990	990
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	35	53	107	197	320	441	583	581	427	255	70	33	35	88	195	392	712	1153	1736	2317	2744	2999	3069	3102

(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