

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: TILLAMOOK 1 W, OR

1971-2000

COOP ID: 358494

Climate Division: OR 1

NWS Call Sign:

Elevation: 10 Feet

Lat: 45° 27N

Lon: 123° 52W

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	49.9	36.3	43.1	69	1976	30	47.5	1995	1	1950	31	36.9	1979	679	0	.0	.0	17.8	.1	9.8	.0
Feb	52.5	37.2	44.9	73+	1988	28	49.6	1991	5	1950	2	37.5	1989	564	0	.0	.0	20.7	.3	7.8	.0
Mar	54.2	37.5	45.9	73+	1994	27	49.5	1983	18	1960	1	41.6	1971	577	0	.0	.0	27.0	.0	7.8	.0
Apr	56.8	39.3	48.1	84	1987	26	51.8	1989	23+	1980	6	43.3	1975	509	0	.0	.0	29.3	.0	4.3	.0
May	60.4	43.3	51.9	87	1953	4	57.1	1993	25	1996	4	49.7	1974	408	0	.0	.0	31.0	.0	.7	.0
Jun	63.7	47.0	55.4	92	1985	17	57.8	1978	31	1976	3	52.4	1976	291	0	.0	@	30.0	.0	@	.0
Jul	66.7	49.9	58.3	102	1961	11	62.1	1992	34	1956	30	55.9	1984	209	2	.0	.1	31.0	.0	.0	.0
Aug	68.1	49.8	59.0	102	1981	9	62.0	1997	33	1959	9	55.7	1973	189	3	.0	.2	31.0	.0	.0	.0
Sep	68.6	46.6	57.6	97	1979	14	61.8	1995	27	1972	27	54.4	1999	225	3	.0	.4	30.0	.0	.5	.0
Oct	62.5	41.9	52.2	92	1987	6	55.5	1979	22	1971	28	49.4	1971	397	0	.0	@	30.7	.0	3.2	.0
Nov	54.4	39.2	46.8	80	1962	1	51.9	1995	14	1985	24	39.6	1985	546	0	.0	.0	25.7	.0	6.5	.0
Dec	49.9	36.4	43.2	69	1960	22	47.2	1999	4	1972	8	36.8	1990	677	0	.0	.0	18.5	.7	9.1	.0
Ann	59.0	42.0	50.5	102+	Aug 1981	9	62.1	Jul 1992	1	Jan 1950	31	36.8	Dec 1990	5271	8	.0	.7	322.7	1.1	49.7	.0

+ 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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Lat: 45°27N

Lon: 123°52W

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	13.09	13.10	5.22	1982	23	25.10	1971	.79	1985	21.7	17.5	9.2	4.2	3.64	4.88	6.76	8.41	10.01	11.70	13.56	15.76	18.62	23.11	27.30
Feb	10.79	10.62	4.84	1996	8	22.74	1999	2.34	1993	19.5	16.0	8.0	3.1	4.04	5.05	6.49	7.70	8.84	10.01	11.28	12.76	14.63	17.52	20.16
Mar	9.90	9.78	3.75	1987	3	16.35	1989	1.16	1992	21.5	17.0	8.0	2.3	3.77	4.69	6.01	7.11	8.15	9.21	10.36	11.69	13.38	15.99	18.37
Apr	6.81	6.18	4.35	1996	23	14.50	1996	2.34	1977	18.4	13.2	4.6	1.4	2.28	2.93	3.87	4.67	5.44	6.24	7.11	8.12	9.42	11.44	13.30
May	4.84	5.08	2.50	1949	1	8.87	1977	.59	1992	16.0	11.1	3.1	.7	1.53	1.99	2.67	3.25	3.82	4.40	5.04	5.79	6.76	8.27	9.67
Jun	3.41	3.24	2.50	1968	2	7.56	1983	.99	1992	11.4	7.8	2.1	.5	1.11	1.44	1.91	2.32	2.71	3.11	3.56	4.08	4.74	5.78	6.73
Jul	1.64	1.12	2.00	1974	17	5.37	1983	.14	1973	7.8	3.8	.9	.3	.18	.30	.53	.76	1.00	1.28	1.60	2.00	2.55	3.46	4.34
Aug	1.42	1.14	2.20	2001	22	4.16	1978	.01	1998	6.8	3.7	.8	.1	.14	.25	.44	.64	.85	1.09	1.37	1.73	2.21	3.01	3.80
Sep	3.68	3.63	2.78	1997	17	10.96	1997	.07	1975	10.7	6.7	2.7	1.0	.18	.38	.80	1.29	1.86	2.54	3.36	4.43	5.94	8.52	11.10
Oct	7.16	7.03	4.67	1994	27	14.18	1997	.62	1987	15.1	10.7	5.2	2.2	1.41	2.06	3.11	4.08	5.05	6.10	7.29	8.72	10.62	13.66	16.55
Nov	13.72	13.14	4.26	1975	30	25.39	1999	2.57	1976	22.3	18.0	10.3	4.1	5.00	6.29	8.15	9.70	11.18	12.70	14.35	16.26	18.71	22.48	25.93
Dec	13.94	14.21	4.92	1977	2	23.03	1994	3.88	1985	22.3	18.0	9.6	4.3	5.07	6.38	8.27	9.85	11.35	12.90	14.57	16.52	19.01	22.84	26.36
Ann	90.40	92.72	5.22	Jan 1982	23	25.39	Nov 1999	.01	Aug 1998	193.5	143.5	64.5	24.2	62.79	68.09	74.90	80.09	84.71	89.19	93.82	98.95	105.19	114.26	122.13

+ 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

Complete documentation available from:
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Station: TILLAMOOK 1 W, OR

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Climate Division: OR 1

NWS Call Sign:

Elevation: 10 Feet

Lat: 45° 27N

Lon: 123° 52W

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	4.0	1971	12	9.0	1971	6	1971	13	1	1971	.3	.3	.2	.0	.0	.2	.2	@	.0
Feb	.3	.0	0	0	3.0	1989	2	4.0	1989	0	0	0	0	0	.2	.2	.1	.0	.0	.0	.0	.0	.0
Mar	.2	.0	0	0	3.5	1971	5	3.5	1971	0	0	0	0	0	.1	.1	.1	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.5	1975	4	.8	1975	0	0	0	0	0	.1	.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	0	2.0	1977	22	2.5	1985	0	0	0	0	0	.2	.1	.0	.0	.0	.0	.0	.0	.0
Dec	.1	.0	#	0	1.3	1971	28	1.3	1971	2	1998	21	#+	1998	.1	.1	.0	.0	.0	@	.0	.0	.0
Ann	1.7	.0	N/A	N/A	4.0	Jan 1971	12	9.0	Jan 1971	6	Jan 1971	13	1	Jan 1971	1.0	.8	.4	.0	.0	.2	.2	@	.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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Climate Division: OR 1

NWS Call Sign:

Elevation: 10 Feet

Lat: 45° 27N

Lon: 123° 52W

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	6/30	6/20	6/13	6/07	6/02	5/27	5/21	5/14	5/05
32	5/22	5/14	5/09	5/04	4/29	4/25	4/20	4/15	4/07
28	4/29	4/18	4/11	4/04	3/29	3/23	3/17	3/09	2/26
24	3/14	3/01	2/20	2/12	2/04	1/27	1/18	1/07	12/17
20	2/05	1/23	1/12	1/01	12/12	0/00	0/00	0/00	0/00
16	1/26	1/11	12/28	12/07	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	9/12	9/17	9/21	9/25	9/29	10/04	10/11
32	9/20	9/27	10/02	10/07	10/11	10/16	10/20	10/25	11/02
28	10/11	10/20	10/27	11/02	11/08	11/13	11/19	11/26	12/06
24	11/06	11/19	11/27	12/05	12/12	12/20	12/28	1/08	1/28
20	12/06	12/21	1/04	1/19	0/00	0/00	0/00	0/00	0/00
16	12/18	1/02	1/15	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	152	137	127	118	110	102	93	83	69
32	194	184	176	170	164	158	152	144	134
28	267	252	241	232	223	214	205	194	179
24	>365	>365	345	323	308	295	282	269	250
20	>365	>365	>365	>365	>365	>365	>365	>365	326
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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No. 20
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Station: TILLAMOOK 1 W, OR

COOP ID: 358494

Climate Division: OR 1 NWS Call Sign: Elevation: 10 Feet Lat: 45° 27N Lon: 123° 52W

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	679	564	577	509	408	291	209	189	225	397	546	677	5271
60	524	424	438	359	254	148	80	65	100	243	396	522	3553
57	431	340	345	270	169	79	32	22	49	158	312	430	2637
55	370	289	287	214	119	46	13	8	25	108	258	370	2107
50	228	164	149	95	35	5	0	0	2	29	142	230	1079
32	4	0	0	0	0	0	0	0	0	0	1	5	10

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	348	360	430	481	615	699	816	836	768	626	445	351	6775
55	1	4	3	5	21	55	116	131	103	21	12	3	475
57	0	0	0	1	9	28	73	83	67	9	7	0	277
60	0	0	0	0	2	7	28	33	28	1	0	0	99
65	0	0	0	0	0	0	2	3	3	0	0	0	8
70	0	0	0	0	0	0	0	0	0	0	0	0	0

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	147	175	201	264	392	481	591	609	544	389	227	149	147	322	523	787	1179	1660	2251	2860	3404	3793	4020	4169
45	54	71	81	124	238	331	436	454	394	238	106	56	54	125	206	330	568	899	1335	1789	2183	2421	2527	2583
50	6	15	23	37	101	187	281	299	244	111	31	5	6	21	44	81	182	369	650	949	1193	1304	1335	1340
55	0	0	0	5	27	65	132	150	114	36	2	0	0	0	0	5	32	97	229	379	493	529	531	531
60	0	0	0	0	1	6	31	38	32	5	0	0	0	0	0	0	1	7	38	76	108	113	113	113
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	43	66	89	123	185	244	315	335	314	211	89	40	43	109	198	321	506	750	1065	1400	1714	1925	2014	2054

(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/normal/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