U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

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

Station: THE POPLARS, OR **COOP ID: 358420**

Climate Division: OR 5 **NWS Call Sign:** **Elevation: 4,310 Feet** **Lat: 43˚16N** **Lon: 120˚57W**

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	39.7	19.4	29.6	63	1991	17	36.5	1998	-38	1962	22	19.6	1979	1099	0	.0	.0	3.5	5.6	26.7	1.7
Feb	45.2	21.9	33.6	72	1995	24	39.3+	1995	-26	1950	2	22.2	1993	881	0	.0	.0	5.5	2.0	25.2	.8
Mar	51.0	24.1	37.6	78	1960	21	41.5	1997	-4	1993	1	33.0	1971	852	0	.0	.0	16.3	.2	27.5	.1
Apr	58.3	26.5	42.4	84+	1987	27	48.2	1990	6+	1988	8	35.3	1975	679	0	.0	.0	25.2	@	21.7	.0
May	66.1	32.8	49.5	95	1986	30	58.1	1992	9	1964	3	44.3	1977	482	0	.0	.1	29.6	.0	13.9	.0
Jun	73.9	38.8	56.4	99	1968	25	61.4	1992	17	1962	4	52.3	1976	267	8	.0	.7	29.9	.0	4.3	.0
Jul	83.4	42.9	63.2	101	1960	18	68.1	1985	22	1955	3	55.7	1993	123	65	.0	8.0	31.0	.0	.9	.0
Aug	83.1	41.7	62.4	103	1961	4	66.1	1986	21	1951	30	57.9	1975	122	40	.3	6.8	31.0	.0	1.4	.0
Sep	75.3	34.1	54.7	102	1955	5	59.6	1990	12	1965	17	48.6	1985	317	8	.0	1.3	30.0	.0	11.0	.0
Oct	64.3	27.0	45.7	90	1996	8	52.9	1988	1	1948	28	41.6	1984	600	0	.0	@	27.9	@	22.1	.0
Nov	47.3	23.6	35.5	78	1999	22	41.3+	1999	-23	1955	15	27.1	1985	886	0	.0	.0	11.7	1.4	23.4	.6
Dec	40.1	17.7	28.9	64	1956	2	33.5	1973	-33	1990	21	22.5	1985	1119	0	.0	.0	2.7	4.2	27.8	1.8
Ann	60.6	29.2	45.0	103	Aug 1961	4	68.1	Jul 1985	-38	Jan 1962	22	19.6	Jan 1979	7427	121	.3	16.9	244.3	13.4	205.9	5.0

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1947-2001

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

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

Station: THE POPLARS, OR **COOP ID: 358420**

Climate Division: OR 5 **NWS Call Sign:** **Elevation: 4,310 Feet** **Lat: 43˚16N** **Lon: 120˚57W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	1.30	1.14	1.23	1997	1	3.23	1997	.14	1985
Feb	1.32	1.15	1.26	1986	18	3.55	1986	.20	1990
Mar	1.04	.79	1.08	1983	30	2.90	1983	.19	1988
Apr	.89	.79	.85	1988	20	2.18	1988	.12	1986
May	1.25	1.06	1.41	1998	29	4.91	1998	.31	1982
Jun	.86	.72	1.28	1950	12	1.69	1981	.17	1989
Jul	.60	.41	1.26	1956	13	3.74	1987	.00	1988
Aug	.74	.53	1.35	1959	20	2.62	1976	.00+	2000
Sep	.49	.39	1.17	1989	17	1.64	1985	.00+	1999
Oct	.70	.62	1.12	1950	28	1.97	1979	.00+	1988
Nov	1.12	.83	2.49	1953	22	4.32	1998	.08	1993
Dec	1.22	.91	2.15	1964	22	4.33	1983	.15	1976
Ann	11.53	11.06	2.49	Nov 1953	22	4.91	May 1998	.00+	Aug 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	10.5	3.8	.4	.1
Feb	5.5	2.2	.2	@
Mar	10.8	3.3	.2	@
Apr	8.8	2.1	.1	.0
May	6.8	2.8	.4	.1
Jun	4.7	1.6	.1	.0
Jul	4.1	1.6	.3	.1
Aug	4.1	1.6	.2	@
Sep	4.6	1.6	.1	@
Oct	6.2	2.7	.1	.0
Nov	9.1	3.3	.3	.1
Dec	11.2	4.3	.7	@
Ann	86.4	30.9	3.1	.4

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.25	.36	.55	.73	.91	1.10	1.32	1.58	1.93	2.50	3.03
Feb	.25	.37	.56	.74	.92	1.12	1.34	1.60	1.95	2.52	3.06
Mar	.22	.32	.47	.61	.75	.90	1.06	1.26	1.53	1.95	2.35
Apr	.25	.33	.46	.57	.68	.79	.92	1.07	1.26	1.56	1.84
May	.30	.42	.60	.76	.93	1.10	1.29	1.51	1.81	2.28	2.73
Jun	.25	.33	.45	.56	.66	.77	.89	1.04	1.22	1.51	1.78
Jul	.01	.04	.12	.20	.30	.41	.55	.73	.98	1.41	1.84
Aug	.00	.00	.09	.20	.32	.47	.66	.90	1.24	1.83	2.42
Sep	.00	.00	.05	.12	.20	.30	.43	.59	.82	1.22	1.63
Oct	.00	.16	.30	.41	.52	.62	.74	.87	1.05	1.33	1.60
Nov	.17	.27	.43	.58	.74	.92	1.12	1.36	1.69	2.23	2.75
Dec	.14	.23	.40	.57	.75	.96	1.19	1.49	1.89	2.55	3.20
Ann	7.40	8.17	9.17	9.94	10.63	11.31	12.01	12.79	13.75	15.16	16.39

\+ 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: 1947-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

Climatography of the United States No. 20 1971-2000

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

Station: THE POPLARS, OR **COOP ID: 358420**

Climate Division: OR 5 **NWS Call Sign:** **Elevation: 4,310 Feet** **Lat: 43°16N** **Lon: 120°57W**

Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	3.6	3.0	1	#
Feb	4.4	2.0	1	0
Mar	1.8	1.0	#	0
Apr	1.0	.0	#	0
May	.4	.0	#	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.1	.0	#	0
Nov	2.3	1.5	#	0
Dec	2.8	1.0	1	#
Ann	16.4	8.5	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	6.0	1996	18	11.5	1988	6	1988	7	3	1985
Feb	9.0	1994	10	15.0	1986	9+	1994	10	6	1986
Mar	6.2	1995	3	12.0	1985	6	1985	1	2	1985
Apr	4.0	1989	25	6.0	1999	#+	1999	27	#+	1999
May	2.0	1987	1	2.0	1987	#	1983	9	#	1983
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	1.2	1984	18	1.7	1984	1	1984	18	#	1984
Nov	10.0	1985	28	10.0	1985	11	1985	29	1	1985
Dec	16.0	1983	3	16.0	1983	13	1985	1	6	1983
Ann	16.0	Dec 1983	3	16.0	Dec 1983	13	Dec 1985	1	6+	Feb 1986

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	2.5	1.8	.8	.3	.0
Feb	2.2	1.8	.5	.3	.0
Mar	1.4	.8	.2	.1	.0
Apr	.5	.5	.1	.0	.0
May	.3	.2	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.2	.1	.0	.0	.0
Nov	1.5	1.2	.3	.1	.1
Dec	2.7	1.8	.7	.2	.1
Ann	11.3	8.2	2.6	1.0	.2

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	8.1	2.9	.6	.0
Feb	2.9	.6	.2	.0
Mar	.9	.6	.4	.0
Apr	.0	.0	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.1	.0	.0	.0
Nov	1.6	.4	.2	.1
Dec	5.1	2.7	.7	.1
Ann	18.7	7.2	2.1	.2

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

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

Station: THE POPLARS, OR **COOP ID: 358420**

Climate Division: OR 5 **NWS Call Sign:** **Elevation: 4,310 Feet** **Lat: 43˚16N** **Lon: 120˚57W**

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	7/25	7/19	7/14	7/10	7/06	7/02	6/28	6/24	6/17
32	7/17	7/10	7/05	7/01	6/28	6/24	6/20	6/15	6/08
28	7/09	7/01	6/25	6/20	6/15	6/10	6/05	5/31	5/23
24	6/12	6/03	5/28	5/23	5/18	5/14	5/09	5/03	4/24
20	5/26	5/18	5/12	5/07	5/02	4/28	4/23	4/17	4/08
16	5/14	5/01	4/22	4/15	4/08	3/31	3/24	3/15	3/02

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	8/01	8/06	8/10	8/13	8/16	8/19	8/22	8/26	8/31
32	8/10	8/17	8/22	8/26	8/30	9/03	9/07	9/12	9/19
28	8/31	9/05	9/08	9/11	9/14	9/16	9/19	9/23	9/27
24	9/13	9/19	9/23	9/27	10/01	10/04	10/08	10/12	10/18
20	9/19	9/26	10/01	10/05	10/09	10/13	10/18	10/23	10/30
16	9/25	10/03	10/10	10/15	10/20	10/25	10/30	11/06	11/14

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	68	58	51	45	40	34	29	22	12
32	95	84	76	69	63	57	50	42	31
28	118	109	101	95	90	84	78	71	61
24	169	157	148	141	134	128	120	112	100
20	195	183	174	166	159	152	145	136	123
16	244	227	215	205	195	185	175	162	145

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

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

Station: THE POPLARS, OR **COOP ID: 358420**

Climate Division: OR 5 **NWS Call Sign:** **Elevation: 4,310 Feet** **Lat: 43˚16N** **Lon: 120˚57W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1099	881	852	679	482	267	123	122	317	600	886	1119	7427
60	944	741	697	529	334	146	49	43	191	446	736	964	5820
57	851	657	604	442	251	90	23	18	130	355	646	871	4938
55	789	601	542	386	201	61	13	9	96	296	586	809	4389
50	638	462	388	254	104	16	2	1	36	166	441	654	3162
32	189	85	24	12	0	0	0	0	0	2	69	163	544

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	113	128	196	324	541	731	965	942	681	424	173	67	5285
55	0	0	0	7	29	103	265	238	87	5	0	0	734
57	0	0	0	4	17	72	213	185	61	2	0	0	554
60	0	0	0	0	7	37	146	117	32	0	0	0	339
65	0	0	0	0	0	8	65	40	8	0	0	0	121
70	0	0	0	0	0	1	18	8	0	0	0	0	27

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	4	17	44	146	320	514	730	700	447	223	46	3	4	21	65	211	531	1045	1775	2475	2922	3145	3191	3194
45	0	0	4	60	193	367	575	545	300	113	14	0	0	0	4	64	257	624	1199	1744	2044	2157	2171	2171
50	0	0	0	17	98	228	420	391	171	40	1	0	0	0	0	17	115	343	763	1154	1325	1365	1366	1366
55	0	0	0	3	37	111	270	244	74	11	0	0	0	0	0	3	40	151	421	665	739	750	750	750
60	0	0	0	0	8	42	141	117	22	0	0	0	0	0	0	0	8	50	191	308	330	330	330	330
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	2	17	65	150	261	370	504	499	381	236	43	1	2	19	84	234	495	865	1369	1868	2249	2485	2528	2529

(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.
Compete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

a. Temperature/ Precipitation Tables
   1. 1971-2000 Monthly Normals
   2. Cooperative Summary of the Day
   3. National Weather Service station records
   4. 1971-2000 serially complete daily data

b. Degree Day Table
   1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
   2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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