

# Climatography of the United States

No. 20

1971-2000

Station: CLOVERDALE, OR

COOP ID: 351682

Climate Division: OR 1

NWS Call Sign:

Elevation: 12 Feet

Lat: 45° 12N

Lon: 123° 54W

## 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	51.8	38.3	45.1	68	1968	23	49.4	1981	8	1950	31	37.6	1979	620	0	.0	.0	19.8	.1	7.3	.0
Feb	54.1	38.9	46.5	76+	1992	27	52.4	1992	11+	1989	4	40.1	1989	530	0	.0	.0	20.8	.2	5.5	.0
Mar	56.0	39.0	47.5	76	1994	28	51.2	1984	25+	1976	3	43.9	1976	528	0	.0	.0	25.8	.0	5.0	.0
Apr	59.1	40.3	49.7	85	1987	27	53.2	1992	29+	1975	14	45.6	1975	459	0	.0	.0	28.9	.0	1.8	.0
May	62.8	43.7	53.3	91	1999	24	57.8	1997	30+	1985	12	50.3	1977	363	0	.0	@	30.9	.0	1.0	.0
Jun	66.5	47.1	56.8	97	1985	17	59.4	1978	33	1976	3	54.0	1971	246	0	.0	.3	30.0	.0	.0	.0
Jul	70.9	49.6	60.3	102	1961	11	62.8	1992	36	1987	16	57.9	1971	149	1	.0	.4	31.0	.0	.0	.0
Aug	71.8	50.0	60.9	106	1981	9	63.0	1997	36	1959	9	58.0	1973	131	4	.0	.3	31.0	.0	.0	.0
Sep	71.3	48.3	59.8	98	1955	4	63.3	1991	33	1999	30	57.1	1972	165	8	.0	.6	30.0	.0	.0	.0
Oct	65.0	44.2	54.6	94	1991	11	58.0	1988	28+	1985	29	52.0	1984	323	0	.0	.1	31.0	.0	.5	.0
Nov	55.9	40.9	48.4	80	1949	1	53.0	1995	17	1985	24	39.6	1985	498	0	.0	.0	26.4	@	3.4	.0
Dec	51.3	37.7	44.5	71	1980	15	47.9+	1980	9+	1990	21	38.3	1990	636	0	.0	.0	19.6	.7	6.6	.0
Ann	61.4	43.2	52.3	106	Aug 1981	9	63.3	Sep 1991	8	Jan 1950	31	37.6	Jan 1979	4648	13	.0	1.7	325.2	1.0	31.1	.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](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: 1948-2001

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

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**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: CLOVERDALE, OR**

**COOP ID: 351682**

**Climate Division: OR 1**

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**Lat: 45° 12N**

**Lon: 123° 54W**

**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	11.85	11.56	6.50	1965	28	23.97	1971	.92	1985	18.9	16.5	9.2	3.5	3.34	4.46	6.16	7.64	9.09	10.61	12.28	14.26	16.82	20.85	24.60	
Feb	9.65	9.53	3.99	1949	10	18.48	1999	.75	1993	16.8	14.9	7.2	2.8	2.85	3.76	5.14	6.33	7.49	8.69	10.02	11.58	13.61	16.77	19.71	
Mar	9.16	9.32	3.10	1974	5	15.79	1989	1.75	1992	19.1	16.8	7.6	2.0	3.78	4.61	5.79	6.76	7.68	8.60	9.60	10.75	12.20	14.43	16.44	
Apr	6.04	5.65	2.91	1958	20	11.86	1993	2.12	1973	15.5	12.8	4.5	1.0	2.15	2.72	3.55	4.24	4.90	5.57	6.31	7.17	8.27	9.96	11.51	
May	4.66	4.87	2.05+	1978	13	8.23	1984	.60	1992	13.7	10.4	3.5	.8	1.52	1.96	2.61	3.17	3.70	4.25	4.86	5.57	6.48	7.89	9.20	
Jun	3.16	2.73	3.19	1985	7	7.70	1984	.60	1992	9.1	7.1	2.3	.5	.86	1.15	1.61	2.01	2.40	2.81	3.27	3.81	4.51	5.61	6.64	
Jul	1.44	.94	2.50	1974	17	6.50	1983	.13	1973	5.6	3.4	.9	.2	.11	.20	.39	.58	.81	1.06	1.36	1.75	2.28	3.18	4.06	
Aug	1.45	1.24	3.17	1968	23	4.50	1977	.00	1998	5.9	3.4	.9	.1	.10	.24	.47	.69	.91	1.15	1.44	1.79	2.26	3.03	3.78	
Sep	3.58	3.24	3.46	1971	2	10.28	1971	.04	1975	8.2	6.2	2.6	.9	.24	.45	.90	1.39	1.94	2.58	3.36	4.34	5.72	8.04	10.34	
Oct	6.16	5.34	4.80	1994	27	13.50	1975	.30	1987	12.2	10.2	4.6	1.8	1.20	1.75	2.66	3.49	4.33	5.24	6.26	7.50	9.14	11.77	14.27	
Nov	12.57	12.46	5.20	1996	18	20.68	1999	2.49	1976	19.9	17.6	9.9	3.7	4.64	5.82	7.51	8.92	10.27	11.65	13.14	14.88	17.09	20.51	23.63	
Dec	12.81	12.15	4.56	1977	2	23.47	1996	3.62	1976	19.0	16.8	9.1	4.3	4.48	5.69	7.45	8.93	10.34	11.80	13.38	15.23	17.59	21.25	24.61	
Ann	82.53	81.65	6.50	Jan 1965	28	23.97	Jan 1971	.00	Aug 1998	163.9	136.1	62.3	21.6	58.38	63.04	69.02	73.57	77.61	81.52	85.55	90.02	95.43	103.29	110.10	

+ 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:**

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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	.0	#	0	2.1	1971	12	4.3	1971	4	1971	13	#+	1972	.4	.3	.0	.0	.0	.2	@	.0	.0
Feb	.0	.0	#	0	.6	1976	29	.6	1976	#	1971	25	#	1971	.1	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.2	.0	#	0	3.0	1982	31	3.0	1982	1	1974	8	#+	1976	.2	.1	@	.0	.0	@	.0	.0	.0
Apr	.1	.0	#	0	1.5	1975	3	1.5	1975	#	1972	28	#	1972	.2	@	.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	1.3	1977	22	1.8	1985	#	1977	22	#	1977	.2	@	.0	.0	.0	.0	.0	.0	.0
Dec	.3	.0	#	0	2.0	1972	5	4.5	1972	4	1972	7	1	1972	.3	.1	.0	.0	.0	.3	.2	.0	.0
Ann	1.1	.0	N/A	N/A	3.0	Mar 1982	31	4.5	Dec 1972	4+	Dec 1972	7	1	Dec 1972	1.4	.5	@	.0	.0	.5	.2	.0	.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	6/08	5/30	5/23	5/17	5/12	5/07	5/01	4/25	4/15
32	5/03	4/24	4/18	4/13	4/08	4/03	3/29	3/23	3/15
28	3/25	3/09	2/26	2/16	2/07	1/28	1/18	1/06	12/18
24	3/03	2/11	1/26	1/09	12/17	0/00	0/00	0/00	0/00
20	1/23	1/09	12/27	12/06	0/00	0/00	0/00	0/00	0/00
16	1/08	12/13	0/00	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	10/01	10/07	10/11	10/15	10/18	10/22	10/26	10/30	11/05
32	10/22	10/31	11/06	11/12	11/17	11/22	11/28	12/04	12/13
28	11/06	11/19	11/28	12/05	12/13	12/20	12/28	1/07	1/22
24	12/03	12/19	1/02	1/16	2/04	0/00	0/00	0/00	0/00
20	12/18	1/02	1/15	2/05	0/00	0/00	0/00	0/00	0/00
16	12/28	1/24	0/00	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	191	180	172	165	159	152	145	137	126
32	262	248	238	230	222	214	206	196	183
28	>365	357	334	318	305	293	281	266	247
24	>365	>365	>365	>365	>365	>365	>365	346	318
20	>365	>365	>365	>365	>365	>365	>365	>365	>365
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	620	530	528	459	363	246	149	131	165	323	498	636	4648
60	465	378	387	309	211	106	34	27	61	173	353	481	2985
57	376	298	297	221	129	47	6	5	23	98	271	389	2160
55	318	246	239	166	85	22	1	1	10	61	220	331	1700
50	187	133	116	61	17	1	0	0	0	12	119	194	840
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	403	406	481	532	660	744	875	896	833	700	492	388	7410
55	8	8	7	8	32	76	163	184	152	48	22	5	713
57	4	4	3	3	14	41	107	126	106	23	13	1	445
60	0	0	0	0	3	10	41	55	53	6	5	0	173
65	0	0	0	0	0	0	1	4	8	0	0	0	13
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	164	194	220	283	408	510	638	655	591	442	257	161	164	358	578	861	1269	1779	2417	3072	3663	4105	4362	4523
45	61	86	91	139	255	360	483	500	441	287	127	59	61	147	238	377	632	992	1475	1975	2416	2703	2830	2889
50	10	26	30	49	113	211	328	345	291	148	38	8	10	36	66	115	228	439	767	1112	1403	1551	1589	1597
55	0	2	0	9	36	77	174	190	149	53	3	0	0	2	2	11	47	124	298	488	637	690	693	693
60	0	0	0	0	7	13	48	62	50	11	0	0	0	0	0	0	7	20	68	130	180	191	191	191
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	50	70	90	134	201	261	358	374	335	232	97	48	50	120	210	344	545	806	1164	1538	1873	2105	2202	2250

(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)