

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: CORVALLIS STATE UNIV, OR

1971-2000

COOP ID: 351862

Climate Division: OR 2

NWS Call Sign:

Elevation: 225 Feet

Lat: 44° 38N

Lon: 123° 11W

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	47.0	33.6	40.3	64	1971	31	44.0	1995	-1	1950	31	32.2	1979	766	0	.0	.0	10.9	1.0	13.5	.0
Feb	51.0	35.4	43.2	68+	1992	26	48.4	1991	1	1950	3	35.5	1989	610	0	.0	.0	16.5	.3	9.8	.0
Mar	56.1	37.6	46.9	76	1978	18	51.4	1986	12	1971	1	42.8	1971	562	0	.0	.0	26.3	.0	5.7	.0
Apr	60.7	39.9	50.3	85	1957	30	55.1	1989	24	1968	13	45.0	1975	442	0	.0	.0	28.9	.0	2.7	.0
May	67.1	44.0	55.6	96	1983	29	60.6	1992	28	1985	11	51.8	1977	296	3	.0	.1	31.0	.0	.3	.0
Jun	73.4	48.5	61.0	102	1992	23	65.6	1992	33+	1976	13	57.4	1971	143	22	@	.9	30.0	.0	.0	.0
Jul	81.2	51.8	66.5	104	1956	20	70.2	1985	38	1988	6	62.8	1993	44	91	.3	5.2	31.0	.0	.0	.0
Aug	82.4	51.5	67.0	108	1981	10	70.2	1986	37	1973	22	63.7	1975	33	93	.6	5.3	31.0	.0	.0	.0
Sep	77.1	48.2	62.7	103	1988	3	66.4	1974	27	2000	24	59.2	1985	109	38	.1	2.5	30.0	.0	.1	.0
Oct	65.4	41.8	53.6	92	1980	3	57.6	1987	25+	1971	29	50.7	1971	353	0	.0	.1	30.4	.0	1.4	.0
Nov	52.9	38.0	45.5	72+	1999	14	50.4	1995	14	1955	15	38.7	1985	586	0	.0	.0	20.8	.2	6.0	.0
Dec	46.4	33.8	40.1	66+	1980	31	44.4	1977	-7	1972	8	33.4	1985	771	0	.0	.0	9.5	1.3	12.8	.1
Ann	63.4	42.0	52.7	108	Aug 1981	10	70.2+	Aug 1986	-7	Dec 1972	8	32.2	Jan 1979	4715	247	1.0	14.1	296.3	2.8	52.3	.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

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

025-A

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Climate Division: OR 2

NWS Call Sign:

Elevation: 225 Feet Lat: 44°38N

Lon: 123°11W

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	6.46	6.80	4.28	1965	28	11.59	1974	.25	1985	19.7	12.6	4.4	1.4	1.42	2.01	2.96	3.82	4.67	5.58	6.61	7.84	9.46	12.03	14.47
Feb	5.71	5.24	3.26	1996	6	13.63	1996	1.65	1973	18.0	12.0	4.2	1.0	1.77	2.31	3.12	3.81	4.48	5.17	5.94	6.83	7.99	9.79	11.46
Mar	4.59	4.24	2.07	1998	22	8.87	1974	1.04	1992	18.8	12.0	2.6	.4	1.91	2.33	2.92	3.40	3.85	4.31	4.81	5.38	6.10	7.20	8.20
Apr	2.98	2.67	1.83	1971	9	6.82	1993	1.02	1977	16.3	8.8	1.4	.2	1.00	1.28	1.69	2.04	2.38	2.73	3.11	3.55	4.12	5.00	5.82
May	2.30	2.09	1.58	1963	6	5.80	1998	.00	1992	12.7	6.5	1.2	.1	.46	.78	1.17	1.48	1.78	2.08	2.42	2.81	3.32	4.12	4.86
Jun	1.46	1.30	2.14	1952	29	4.34	1984	.29	1987	7.8	4.4	.6	.1	.36	.50	.71	.90	1.09	1.28	1.50	1.77	2.11	2.65	3.16
Jul	.57	.38	1.26	1987	19	2.55	1983	.01	1994	3.6	1.5	.3	@	.01	.03	.09	.16	.24	.35	.49	.67	.93	1.40	1.87
Aug	.73	.40	1.48	1983	29	2.67	1979	.00+	1998	3.9	2.1	.4	.1	.00	.00	.00	.07	.18	.33	.54	.83	1.26	2.02	2.80
Sep	1.47	.89	2.18	1969	18	3.58	1977	.00	1975	7.1	3.6	.9	.2	.02	.10	.27	.47	.71	.99	1.33	1.78	2.40	3.48	4.57
Oct	3.02	2.86	2.00	1995	11	7.21	1979	.14	1988	12.4	7.2	2.0	.3	.51	.77	1.21	1.63	2.05	2.52	3.04	3.69	4.54	5.93	7.25
Nov	6.94	5.90	4.45	1996	19	18.28	1973	1.03	1993	20.1	13.7	5.0	1.3	1.89	2.55	3.55	4.43	5.29	6.19	7.19	8.37	9.90	12.32	14.57
Dec	7.43	6.91	3.43	1998	28	17.11	1996	1.47	1976	20.8	12.9	5.5	1.8	2.23	2.93	3.99	4.90	5.79	6.71	7.72	8.91	10.46	12.87	15.10
Ann	43.66	42.10	4.45	Nov 1996	19	18.28	Nov 1973	.00+	Aug 1998	161.2	97.3	28.5	6.9	28.35	31.21	34.93	37.79	40.36	42.86	45.46	48.37	51.91	57.11	61.65

+ 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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Station: CORVALLIS STATE UNIV, OR

COOP ID: 351862

Climate Division: OR 2

NWS Call Sign:

Elevation: 225 Feet

Lat: 44° 38N

Lon: 123° 11W

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	1.2	.0	#	0	6.5	1971	13	15.3	1971	9	1971	14	1+	1993	.9	.3	.2	.1	.0	.9	.3	.1	.0
Feb	2.2	.2	#	0	6.0	1993	19	15.0	1993	10	1989	5	2	1989	1.1	.7	.3	.2	.0	1.2	.5	.3	.1
Mar	.1	.0	#	0	1.0	1985	26	1.2	1985	2	1971	2	#+	1985	.2	@	.0	.0	.0	.1	.0	.0	.0
Apr	#	.0	0	0	#	1976	15	#+	1976	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	#	1984	18	#	1984	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.2	.0	#	0	3.3	1977	22	3.3	1977	3	1977	22	#+	1985	.1	.1	@	.0	.0	.1	@	.0	.0
Dec	1.4	.0	#	0	6.5	1985	2	9.3	1972	8	1985	2	2	1972	.8	.5	.1	.1	.0	1.1	.5	.4	.0
Ann	5.1	.2	N/A	N/A	6.5+	Dec 1985	2	15.3	Jan 1971	10	Feb 1989	5	2+	Feb 1989	3.1	1.6	.6	.4	.0	3.4	1.3	.8	.1

+ 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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No. 20 1971-2000

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Climate Division: OR 2

NWS Call Sign:

Elevation: 225 Feet

Lat: 44° 38N

Lon: 123° 11W

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	6/03	5/28	5/24	5/21	5/18	5/14	5/11	5/07	5/01
32	5/11	5/04	4/29	4/25	4/20	4/16	4/12	4/07	3/31
28	4/05	3/23	3/14	3/07	2/27	2/20	2/12	2/03	1/22
24	2/19	2/10	2/04	1/30	1/25	1/19	1/12	12/29	0/00
20	2/16	2/04	1/26	1/17	1/08	12/25	0/00	0/00	0/00
16	1/28	1/15	1/03	12/21	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	9/23	9/28	10/02	10/05	10/09	10/12	10/15	10/19	10/24
32	10/04	10/12	10/18	10/23	10/27	11/01	11/06	11/12	11/20
28	10/22	11/02	11/10	11/16	11/22	11/28	12/05	12/13	12/23
24	11/19	12/02	12/12	12/20	12/29	1/07	1/18	2/08	0/00
20	12/02	12/16	12/28	1/08	1/20	2/07	0/00	0/00	0/00
16	12/16	12/30	1/10	1/23	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	163	156	151	147	143	139	135	130	124
32	222	211	203	196	189	183	176	168	157
28	319	301	289	278	267	257	246	233	215
24	>365	>365	>365	>365	362	335	319	304	286
20	>365	>365	>365	>365	>365	>365	364	338	318
16	>365	>365	>365	>365	>365	>365	>365	>365	357

* 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: CORVALLIS STATE UNIV, OR

COOP ID: 351862

Climate Division: OR 2 NWS Call Sign: Elevation: 225 Feet Lat: 44° 38N Lon: 123° 11W

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	766	610	562	442	296	143	44	33	109	353	586	771	4715
60	611	470	407	294	160	54	8	4	35	206	436	616	3301
57	518	386	316	211	98	23	1	0	13	131	351	523	2571
55	456	331	259	160	66	11	0	0	5	90	296	462	2136
50	310	203	133	66	16	1	0	0	0	27	174	317	1247
32	14	2	0	0	0	0	0	0	0	0	3	16	35

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	271	316	461	548	730	869	1069	1083	918	670	407	268	7610
55	0	1	7	18	82	190	356	370	234	47	10	1	1316
57	0	0	2	9	53	142	296	308	181	26	5	0	1022
60	0	0	0	2	22	83	209	219	113	8	0	0	656
65	0	0	0	0	3	22	91	93	38	0	0	0	247
70	0	0	0	0	0	3	23	21	6	0	0	0	53

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	82	126	218	309	485	628	820	834	678	422	182	83	82	208	426	735	1220	1848	2668	3502	4180	4602	4784	4867
45	28	47	96	171	330	478	665	679	528	270	79	29	28	75	171	342	672	1150	1815	2494	3022	3292	3371	3400
50	1	5	29	71	187	329	510	524	379	139	21	0	1	6	35	106	293	622	1132	1656	2035	2174	2195	2195
55	0	0	0	24	85	188	356	369	234	49	0	0	0	0	0	24	109	297	653	1022	1256	1305	1305	1305
60	0	0	0	2	32	82	209	216	109	12	0	0	0	0	0	2	34	116	325	541	650	662	662	662
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	24	45	101	163	273	367	504	519	413	244	64	23	24	69	170	333	606	973	1477	1996	2409	2653	2717	2740

(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