

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: DORENA DAM, OR

1971-2000

COOP ID: 352374

Climate Division: OR 2

NWS Call Sign:

Elevation: 820 Feet

Lat: 43° 47N

Lon: 122° 58W

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	48.8	32.3	40.6	69	1961	8	45.8	1998	1+	1962	22	32.0	1979	758	0	.0	.0	12.2	.8	15.9	.0
Feb	53.4	33.7	43.6	75	1995	20	48.4	1991	0	1989	5	34.0	1989	600	0	.0	.0	17.7	.4	12.0	@
Mar	57.4	35.5	46.5	79	1994	28	50.5	1986	15	1960	1	42.5	1985	575	0	.0	.0	24.8	.0	9.6	.0
Apr	61.9	38.1	50.0	89	1998	29	54.4	1989	26+	1982	19	44.9	1975	450	0	.0	.0	27.6	.0	4.2	.0
May	67.5	42.6	55.1	96	1987	9	60.5	1997	30+	1985	12	51.1	1977	312	3	.0	.2	30.5	.0	.6	.0
Jun	73.4	47.1	60.3	100	1992	23	64.6	1992	33	1984	1	56.2	1976	159	16	@	.8	30.0	.0	.0	.0
Jul	80.9	50.3	65.6	106	1979	17	70.8	1998	38	1988	6	62.3	1983	66	85	.3	4.0	31.0	.0	.0	.0
Aug	82.2	49.5	65.9	105	1981	10	69.8	1977	38+	1995	26	62.4+	1980	57	83	.4	5.0	31.0	.0	.0	.0
Sep	77.2	45.6	61.4	101+	1988	3	64.8	1974	28	2000	23	57.8	1985	137	29	.1	2.2	30.0	.0	.2	.0
Oct	66.4	40.7	53.6	94	1987	2	57.0	1979	22	1971	29	50.3	1971	355	0	.0	.3	30.1	.0	2.1	.0
Nov	54.1	36.7	45.4	76	1999	12	50.2	1999	13+	1978	14	38.1	1985	589	0	.0	.0	20.5	.1	8.4	.0
Dec	48.0	32.9	40.5	73	1979	18	44.6	1973	-4	1972	9	33.2	1990	762	0	.0	.0	11.0	1.0	14.4	.1
Ann	64.3	40.4	52.4	106	Jul 1979	17	70.8	Jul 1998	-4	Dec 1972	9	32.0	Jan 1979	4820	216	.8	12.5	296.4	2.3	67.4	.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/normals/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

034-A

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: DORENA DAM, OR

COOP ID: 352374

Climate Division: OR 2

NWS Call Sign:

Elevation: 820 Feet Lat: 43°47N

Lon: 122°58W

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	6.21	6.73	2.71	1964	20	11.25	1996	.64	1985	18.3	12.6	4.2	1.5	1.67	2.26	3.16	3.95	4.72	5.53	6.43	7.49	8.88	11.05	13.08
Feb	5.41	5.21	4.10	1961	10	10.89	1986	1.53	1988	17.1	11.5	3.6	.7	2.11	2.61	3.33	3.92	4.48	5.05	5.67	6.38	7.29	8.68	9.95
Mar	5.29	5.16	2.10	1952	24	9.07	1989	1.83	1978	19.1	13.1	3.1	.6	2.47	2.93	3.57	4.08	4.56	5.04	5.55	6.13	6.87	7.98	8.98
Apr	4.34	4.28	2.38	1992	10	7.49	1992	2.14+	1987	16.9	11.9	2.5	.3	2.10	2.47	2.98	3.39	3.76	4.14	4.55	5.01	5.58	6.45	7.23
May	3.25	2.93	2.24	1991	17	8.01	1998	.65	1982	12.9	8.5	1.8	.4	.99	1.30	1.76	2.16	2.54	2.94	3.38	3.89	4.56	5.60	6.56
Jun	1.81	1.59	1.45	1967	22	4.34	1984	.50	1977	8.6	5.1	1.0	.1	.56	.73	.99	1.21	1.42	1.64	1.88	2.17	2.54	3.11	3.64
Jul	.75	.46	2.48	1987	19	5.44	1987	.00	1994	3.5	2.0	.3	.1	.00	.02	.08	.16	.27	.42	.60	.86	1.24	1.91	2.61
Aug	1.03	.62	1.57	1968	26	3.18	1976	.00+	2000	4.3	2.5	.6	.1	.00	.00	.03	.17	.34	.57	.85	1.23	1.77	2.71	3.69
Sep	1.80	1.50	2.18	1981	27	5.54	1986	.00+	1999	6.5	4.3	1.3	.2	.00	.09	.34	.61	.90	1.25	1.67	2.20	2.95	4.21	5.46
Oct	3.39	2.81	3.97	1950	29	7.30	1996	.07	1987	11.4	7.6	2.3	.5	.54	.84	1.33	1.80	2.28	2.80	3.41	4.14	5.12	6.72	8.24
Nov	7.42	6.52	5.82	1996	19	17.12	1973	2.18	1993	19.1	14.2	5.4	1.6	2.48	3.18	4.21	5.09	5.93	6.79	7.74	8.84	10.26	12.47	14.49
Dec	6.73	6.07	4.40	1981	6	14.91	1981	1.49	1976	18.8	13.0	4.6	1.3	1.94	2.58	3.54	4.38	5.19	6.04	6.98	8.09	9.52	11.77	13.86
Ann	47.43	47.23	5.82	Nov 1996	19	17.12	Nov 1973	.00+	Aug 2000	156.5	106.3	30.7	7.4	33.76	36.40	39.79	42.37	44.65	46.86	49.14	51.66	54.72	59.15	62.99

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

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: DORENA DAM, OR

COOP ID: 352374

Climate Division: OR 2

NWS Call Sign:

Elevation: 820 Feet

Lat: 43° 47N

Lon: 122° 58W

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	12.0	1971	14	19.0	1971	11	1971	14	1	1971	.6	.4	.1	@	@	.5	.1	@	@
Feb	2.5	.0	#	0	15.0	1971	28	22.5	1971	15	1971	28	1	1971	.8	.6	.2	.2	@	.2	.1	@	@
Mar	.3	.0	#	0	2.0	1972	26	2.5	1972	12	1971	1	1	1971	.4	.2	.0	.0	.0	.2	.1	@	@
Apr	.2	.0	#	0	1.0	1976	1	1.4	1999	1	1975	15	#+	1999	.3	@	.0	.0	.0	.1	.0	.0	.0
May	#	.0	0	0	#	1971	17	#	1971	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	.1	.0	#	0	2.0	1977	21	2.0	1977	2	1977	21	#+	1985	.2	@	.0	.0	.0	.1	.0	.0	.0
Dec	.9	.0	#	0	3.0	1972	12	7.0	1972	5	1972	12	1	1972	.9	.3	.1	.0	.0	.7	.1	@	.0
Ann	5.2	.0	N/A	N/A	15.0	Feb 1971	28	22.5	Feb 1971	15	Feb 1971	28	1+	Dec 1972	3.2	1.5	.4	.2	@	1.8	.4	@	@

+ 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

**Climatography
of the United States
No. 20
1971-2000**

Station: DORENA DAM, OR

COOP ID: 352374

Climate Division: OR 2

NWS Call Sign:

Elevation: 820 Feet

Lat: 43° 47N

Lon: 122° 58W

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	6/14	6/05	5/30	5/24	5/19	5/14	5/09	5/02	4/24
32	5/14	5/07	5/01	4/26	4/22	4/18	4/13	4/08	3/31
28	4/22	4/12	4/05	3/30	3/24	3/18	3/12	3/04	2/22
24	3/06	2/24	2/16	2/09	2/03	1/27	1/19	1/09	0/00
20	2/19	2/08	1/30	1/22	1/13	1/03	12/16	0/00	0/00
16	2/10	1/27	1/16	1/03	12/13	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	9/15	9/22	9/26	9/30	10/04	10/07	10/11	10/16	10/22
32	9/27	10/06	10/12	10/17	10/22	10/27	11/02	11/08	11/16
28	10/14	10/24	10/31	11/07	11/13	11/19	11/25	12/03	12/13
24	11/12	11/25	12/05	12/13	12/21	12/30	1/10	1/26	0/00
20	11/28	12/13	12/25	1/04	1/16	1/31	0/00	0/00	0/00
16	12/14	12/30	1/13	1/28	2/23	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	168	157	149	143	137	130	124	116	105
32	215	204	196	189	182	176	169	161	149
28	268	256	247	240	233	227	219	211	199
24	>365	>365	355	333	319	307	294	281	263
20	>365	>365	>365	>365	>365	>365	343	321	301
16	>365	>365	>365	>365	>365	>365	>365	>365	327

* 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/normal/usnormals.html

**Climatography
of the United States
No. 20
1971-2000**

Station: DORENA DAM, OR

COOP ID: 352374

Climate Division: OR 2

NWS Call Sign:

Elevation: 820 Feet

Lat: 43° 47N

Lon: 122° 58W

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	758	600	575	450	312	159	66	57	137	355	589	762	4820
60	603	460	420	304	175	62	15	11	52	206	439	607	3354
57	510	376	329	223	112	27	5	2	22	129	353	514	2602
55	448	324	272	173	79	13	1	0	11	87	298	452	2158
50	303	199	145	79	23	1	0	0	0	24	175	307	1256
32	12	4	0	0	0	0	0	0	0	0	3	13	32

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	277	328	448	540	715	847	1041	1049	882	668	405	275	7475
55	0	4	7	23	81	170	330	336	203	43	9	0	1206
57	0	0	2	12	52	124	272	276	154	23	5	0	920
60	0	0	0	4	22	69	189	192	94	6	0	0	576
65	0	0	0	0	3	16	85	83	29	0	0	0	216
70	0	0	0	0	0	2	23	20	5	0	0	0	50

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	83	127	193	290	454	599	788	793	632	408	174	81	83	210	403	693	1147	1746	2534	3327	3959	4367	4541	4622
45	25	48	80	157	299	449	633	638	482	256	76	27	25	73	153	310	609	1058	1691	2329	2811	3067	3143	3170
50	1	5	26	68	168	301	478	483	335	129	21	3	1	6	32	100	268	569	1047	1530	1865	1994	2015	2018
55	0	0	0	22	77	165	325	328	193	47	1	0	0	0	0	22	99	264	589	917	1110	1157	1158	1158
60	0	0	0	2	29	69	181	181	85	10	0	0	0	0	0	2	31	100	281	462	547	557	557	557
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	32	64	109	170	263	348	483	492	399	245	72	30	32	96	205	375	638	986	1469	1961	2360	2605	2677	2707

(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