

Climatology of the United States

No. 20

1971-2000

Station: JOHN DAY, OR

COOP ID: 354291

Climate Division: OR 8

NWS Call Sign:

Elevation: 3,063 Feet Lat: 44°25N

Lon: 118°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	41.0	21.3	31.2	66	1981	23	37.8	1986	-24	1957	27	18.6	1979	1051	0	.0	.0	5.6	4.9	27.2	1.4
Feb	47.1	24.5	35.8	73	1995	21	43.6	1991	-20+	1989	5	23.7	1989	818	0	.0	.0	11.4	1.8	23.3	.7
Mar	53.4	28.4	40.9	80+	1978	30	45.1	1986	4	1955	5	35.9	1971	749	0	.0	.0	20.9	.1	22.2	.0
Apr	59.9	32.3	46.1	91	1987	28	52.0	1987	13	1966	19	38.8	1975	568	0	.0	@	25.1	@	14.8	.0
May	68.0	38.7	53.4	98+	1986	31	59.8	1992	13	1954	2	48.2	1977	365	3	.0	1.1	30.0	.0	4.8	.0
Jun	77.0	44.4	60.7	103	1974	18	66.5	1986	25	1966	27	56.4	1976	167	37	.1	4.6	29.9	.0	.3	.0
Jul	86.7	48.4	67.6	107	1994	23	73.5	1998	35+	1986	5	59.8	1993	58	137	2.1	14.7	31.0	.0	.0	.0
Aug	86.9	47.5	67.2	112	1961	5	71.5	1986	30	1992	24	61.0	1976	63	132	2.5	15.0	31.0	.0	@	.0
Sep	77.4	40.1	58.8	105+	1998	4	65.1	1998	21+	1970	25	51.8	1985	225	39	.3	5.1	29.8	.0	3.4	.0
Oct	65.4	33.0	49.2	95	1980	8	57.6	1988	5	1971	29	44.4	1984	490	1	.0	.4	28.5	.0	14.3	.0
Nov	48.9	27.9	38.4	79+	1999	15	46.2	1999	-9+	1993	24	25.7	1985	798	0	.0	.0	14.5	1.2	21.5	.3
Dec	41.8	22.1	32.0	66	1980	31	37.6	1979	-23+	1990	22	23.4	1983	1025	0	.0	.0	6.7	3.7	27.2	1.1
Ann	62.8	34.1	48.4	112	Aug 1961	5	73.5	Jul 1998	-24	Jan 1957	27	18.6	Jan 1979	6377	349	5.0	40.9	264.4	11.7	159.0	3.5

+ 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: 1950-2001

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

064-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: JOHN DAY, OR

COOP ID: 354291

Climate Division: OR 8

NWS Call Sign:

Elevation: 3,063 Feet Lat: 44°25N

Lon: 118°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	1.14	.96	1.01	1971	18	2.77	1993	.20	1992	10.7	3.9	.3	@	.29	.40	.57	.71	.86	1.01	1.18	1.37	1.63	2.04	2.43
Feb	.79	.66	.57	1986	18	2.39	1986	.23	1977	9.0	3.0	.1	.0	.23	.30	.41	.51	.61	.71	.81	.94	1.11	1.37	1.61
Mar	1.28	1.07	1.00	1983	4	2.80	1984	.40	1999	10.8	4.4	.3	@	.40	.52	.70	.85	1.00	1.16	1.33	1.53	1.78	2.18	2.55
Apr	1.38	1.25	1.50	1999	3	3.19	1978	.25	1980	10.8	4.3	.2	.1	.43	.56	.75	.92	1.09	1.25	1.44	1.66	1.94	2.38	2.78
May	1.74	1.57	1.52	1989	10	4.30	1991	.15	1992	10.5	5.2	.7	.1	.36	.52	.78	1.01	1.24	1.49	1.77	2.11	2.56	3.27	3.95
Jun	1.27	1.06	1.02	1964	18	2.81	1991	.12	1985	7.9	3.9	.6	.0	.19	.29	.47	.65	.83	1.03	1.26	1.55	1.92	2.54	3.14
Jul	.64	.36	11.18	1956	3	2.06	1993	.00+	1988	4.0	2.1	.3	.1	.00	.03	.13	.22	.33	.45	.60	.79	1.05	1.50	1.94
Aug	.85	.59	2.23	1993	16	3.38	1984	.01	1998	4.2	2.1	.4	.1	.02	.04	.12	.22	.34	.50	.71	.98	1.39	2.11	2.86
Sep	.78	.72	1.06	1959	15	2.27	1982	.00+	1999	5.4	2.6	.2	.0	.00	.00	.23	.37	.50	.64	.80	.99	1.23	1.64	2.03
Oct	.87	.83	.71	1975	7	2.14	1975	.00+	1988	6.9	3.0	.3	.0	.00	.25	.43	.56	.68	.80	.93	1.09	1.28	1.59	1.87
Nov	1.41	1.50	.91	1995	28	3.12	1973	.35	1989	11.5	5.2	.3	.0	.42	.56	.76	.93	1.10	1.27	1.46	1.69	1.98	2.44	2.86
Dec	1.38	1.24	11.27	1955	21	4.26	1983	.14	1986	11.2	4.5	.4	@	.19	.31	.51	.70	.90	1.12	1.38	1.69	2.11	2.81	3.47
Ann	13.53	13.15	11.27	Dec 1955	21	4.30	May 1991	.00+	Sep 1999	102.9	44.2	4.1	.4	9.03	9.88	10.97	11.82	12.57	13.30	14.06	14.90	15.93	17.43	18.74

+ 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: 1950-2001

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

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

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Station: JOHN DAY, OR

COOP ID: 354291

Climate Division: OR 8

NWS Call Sign:

Elevation: 3,063 Feet

Lat: 44° 25N

Lon: 118° 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	4.2	3.0	1	1	6.5	1993	1	12.7	1975	11	1982	4	6	1982	4.2	2.1	.3	.1	.0	9.8	3.1	.4	.0
Feb	3.2	2.0	#	#	8.0	1979	4	15.4	1979	10	1985	5	3	1985	3.0	1.0	.3	.1	.0	3.3	.8	.3	.1
Mar	2.2	1.0	#	#	5.2	1982	19	11.1	1982	5	1995	5	#+	1999	1.8	.8	.1	.1	.0	1.2	.2	.1	.0
Apr	.8	.1	#	#	3.6	1975	6	6.0	1975	4	1975	6	#+	1998	.8	.3	@	.0	.0	.5	.1	.0	.0
May	.0	.0	#	0	.5	1989	19	.5	1989	#+	1986	21	#+	1986	.1	.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	.3	.0	#	0	3.6	1971	31	6.3	1971	4	1971	31	#+	1996	.2	.1	@	.0	.0	.2	.1	.0	.0
Nov	2.0	.9	#	#	6.4	1973	5	14.0	1973	7	1973	5	2	1985	2.0	1.1	.1	@	.0	2.3	.2	@	.0
Dec	5.0	3.7	1	#	7.8	1971	13	13.6	1981	11	1983	26	5	1983	4.3	2.4	.3	.1	.0	7.1	2.3	.5	.0
Ann	17.7	10.7	N/A	N/A	8.0	Feb 1979	4	15.4	Feb 1979	11+	Dec 1983	26	6	Jan 1982	16.4	7.8	1.1	.4	.0	24.4	6.8	1.3	.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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Lat: 44° 25N

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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	7/04	6/27	6/22	6/17	6/13	6/09	6/05	5/31	5/24
32	6/13	6/06	6/01	5/28	5/24	5/21	5/16	5/12	5/05
28	5/22	5/15	5/10	5/06	5/02	4/27	4/23	4/18	4/11
24	5/05	4/28	4/23	4/18	4/14	4/10	4/06	3/31	3/24
20	4/13	4/04	3/28	3/23	3/18	3/12	3/07	2/28	2/19
16	3/18	3/08	3/01	2/23	2/17	2/11	2/05	1/29	1/19
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	8/22	8/27	8/31	9/03	9/06	9/09	9/12	9/16	9/21
32	9/06	9/11	9/15	9/18	9/21	9/24	9/28	10/02	10/07
28	9/18	9/24	9/28	10/02	10/05	10/09	10/12	10/17	10/23
24	10/05	10/10	10/14	10/17	10/20	10/23	10/26	10/30	11/04
20	10/17	10/23	10/28	11/01	11/05	11/08	11/12	11/17	11/24
16	10/31	11/08	11/14	11/20	11/24	11/29	12/04	12/10	12/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	111	102	95	89	84	79	73	66	57
32	147	137	130	125	119	114	108	101	92
28	182	173	167	161	156	151	145	138	129
24	213	205	198	193	188	183	178	171	163
20	264	253	245	238	231	225	218	210	198
16	315	303	294	286	279	272	265	256	244

* 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

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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	1051	818	749	568	365	167	58	63	225	490	798	1025	6377
60	896	678	594	422	227	78	17	20	129	340	648	870	4919
57	803	594	501	338	157	42	7	9	84	258	561	777	4131
55	741	538	439	285	119	25	3	4	60	207	504	715	3640
50	596	406	293	171	48	5	0	0	21	105	368	563	2576
32	174	67	11	4	0	0	0	0	0	1	56	137	450

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	146	174	285	426	661	860	1102	1092	804	534	248	135	6467
55	0	0	1	18	67	196	392	383	174	27	7	0	1265
57	0	0	0	11	43	152	334	326	138	16	3	0	1023
60	0	0	0	4	20	98	251	244	92	5	0	0	714
65	0	0	0	0	3	37	137	132	39	1	0	0	349
70	0	0	0	0	0	9	59	56	13	0	0	0	137

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	20	49	111	224	443	649	883	874	590	323	79	26	20	69	180	404	847	1496	2379	3253	3843	4166	4245	4271
45	0	11	42	119	296	499	728	719	442	190	31	4	0	11	53	172	468	967	1695	2414	2856	3046	3077	3081
50	0	0	9	57	180	354	574	564	303	98	9	0	0	0	9	66	246	600	1174	1738	2041	2139	2148	2148
55	0	0	0	21	92	224	419	411	185	40	0	0	0	0	0	21	113	337	756	1167	1352	1392	1392	1392
60	0	0	0	2	39	121	277	269	92	10	0	0	0	0	0	2	41	162	439	708	800	810	810	810
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	12	44	98	174	297	411	540	537	413	263	56	16	12	56	154	328	625	1036	1576	2113	2526	2789	2845	2861

(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