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

COOP ID: 354175

Lon: 117°59W

Station: IRONSIDE 2 W, OR

Climate Division: OR 9 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 33.2 11.6 22.4 60 1962 4 29.7 1999 -22 1962 23 10.1 1979 1322 0 .0 .0 .2 13.2 30.6 3.1 Jan 38.9 17.3 28.1 63+ 1995 26 34.4 1991 -19+1989 7 17.4 1989 1033 0 .0 .0 2.5 5.2 27.2 1.5 Feb Mar 48.9 24.9 36.9 76+ 1966 31 44.3 1992 -8 1993 29.6 1985 872 0 .0 .0 13.8 .7 26.6 .1 1975 Apr 58.2 30.6 44.4 84 +1987 28 51.0 1990 10 1961 14 36.6 619 0 .0 .0 24.2 .0 17.4 .0 May 66.3 37.1 51.7 94 1986 31 59.3 1992 15 1962 13 47.0 1977 415 3 .0 .2 29.9 .0 6.3 .0 75.2 43.5 1992 23 1992 25 19 54.8 @ 2.4 59.4 100 66.3 1996 1980 211 42 29.9 .0 .9 .0 Jun Jul 85.5 50.8 68.2 105 1967 13 73.2 1985 31 8 58.6 1993 62 158 .3 11.5 31.0 1959 .0 .0 .0 1985 85.7 50.3 68.0 107 1961 5 74.7 1971 29 1992 24 62.9 60 153 .5 11.2 31.0 .0 .1 .0 Aug 2 Sep 75.6 41.0 58.3 99+ 1987 66.8 1990 18 +1985 30 51.0 1985 246 44 .0 2.1 29.9 .0 3.2 0. 4 56.1 1984 Oct 63.2 30.6 46.9 90 1956 1988 9 1971 29 41.1 563 1 .0 .0 27.7 .1 15.1 .0 44.2 21.0 32.6 71 1962 2 38.8 1999 -13 1985 23 21.4 1985 971 0 .0 .0 7.7 27.0 .4 Nov 2.2 Dec 34.2 12.3 23.3 57+ 1995 10 29.2 1973 -23 1983 23 11.2 1985 1295 0 .0 .0 .9 11.4 30.5 2.8 Aug Aug Dec Jan 59.1 30.9 45.0 107 1961 5 74.7 1971 -23 1983 23 10.1 1979 7669 401 .8 27.4 228.7 32.8 184.9 7.9 Ann

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

Issue Date: February 2004 063-A

(1) From the 1971-2000 Monthly Normals

Elevation: 3,915 Feet Lat: 44°19N

- (2) Derived from station's available digital record: 1955-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

[@] Denotes mean number of days greater than 0 but less than .05

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										Pı	recipi	tation	(incl	nes)										
	Mea	Precipitation Totals Means/ Medians(1) Extremes										ays (3)	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										
	Medi	ans(1)				Extremes	•			Daily Precipitation				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	1.39	1.28	1.06	1980	12	3.67	1993	.02	1984	7.2	3.7	.4	.1	.16	.27	.46	.66	.86	1.09	1.36	1.70	2.15	2.90	3.63
Feb	1.14	1.06	1.50	1999	16	3.17	1999	.00	1997	6.1	3.0	.3	.1	.07	.18	.36	.53	.70	.90	1.13	1.41	1.79	2.41	3.01
Mar	.98	.87	.80+	1983	4	2.48	1983	.04	1994	6.4	3.0	.2	.0	.16	.24	.38	.52	.66	.81	.98	1.20	1.48	1.95	2.39
Apr	.86	.86	.87	1963	20	2.08	1978	.00	1974	6.6	2.5	.1	.0	.06	.15	.28	.41	.54	.69	.85	1.06	1.34	1.79	2.23
May	1.20	1.09	.78	1985	28	3.73	1998	.15	1992	7.8	4.0	.2	.0	.20	.30	.48	.64	.81	.99	1.20	1.46	1.80	2.35	2.88
Jun	1.00	.97	.81	1972	8	2.04+	1980	.20	1973	6.9	3.1	.2	.0	.23	.32	.47	.60	.73	.87	1.02	1.21	1.45	1.84	2.20
Jul	.64	.36	1.61	1982	1	2.33	1982	.00+	1999	4.0	2.2	.3	@	.00	.00	.12	.22	.33	.46	.61	.80	1.06	1.49	1.92
Aug	.72	.44	1.61	1995	17	2.64	1989	.00+	1991	4.0	1.9	.2	@	.00	.00	.11	.22	.35	.49	.67	.89	1.20	1.72	2.25
Sep	.58	.42	1.69	1998	9	2.09	1998	.00+	1999	3.9	1.7	.2	@	.00	.03	.12	.21	.30	.41	.55	.71	.94	1.34	1.72
Oct	.61	.56	.85	1967	3	2.06	2000	.00+	1988	4.6	2.2	@	.0	.00	.00	.19	.30	.40	.51	.63	.78	.96	1.27	1.56
Nov	1.45	1.21	1.73	1996	19	4.16	1973	.23	1976	8.5	4.2	.4	@	.20	.32	.53	.73	.94	1.17	1.44	1.77	2.21	2.94	3.64
Dec	1.66	1.36	3.20	1964	23	4.65	1996	.05	1989	8.7	5.4	.7	@	.20	.33	.56	.79	1.04	1.31	1.63	2.02	2.56	3.44	4.29
Ann	12.23	11.82	3.20	Dec 1964	23	4.65	Dec 1996	.00+	Sep 1999	74.7	36.9	3.2	.2	7.50	8.36	9.49	10.37	11.17	11.94	12.76	13.66	14.78	16.43	17.87

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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: 1955-2001

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

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										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Means/Medians (1)					Extremes (2)											Snow Fall >= Thresholds						n ds
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	9.8	8.3	8	7	12.0	1979	10	28.0	1979	30	1984	10	28	1984	4.2	2.9	1.1	.5	.1	-9.9	-9.9	-9.9	-9.9
Feb	4.2	4.2	6	2	6.0	1984	16	11.0	1983	27	1979	6	22	1984	2.6	1.5	.4	@	.0	11.2	8.4	5.5	1.3
Mar	1.5	.5	1	#	4.0	1989	6	5.5	1975	16	1984	1	6	1975	1.3	.6	.1	.0	.0	2.2	1.1	.1	.0
Apr	.5	.0	#	#	3.0	1975	6	4.3	1975	3	1975	6	#+	1999	.6	.2	@	.0	.0	.5	@	.0	.0
May	.1	.0	#	0	1.0	1974	18	1.0	1974	1	1975	4	#+	1999	.1	@	.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	#	1984	23	#	1984	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.3	.0	#	0	2.0	1984	28	3.0	1984	1	1975	28	#+	1997	.3	.2	.0	.0	.0	@	.0	.0	.0
Nov	5.3	4.0	1	#	12.0	1973	5	27.1	1973	15	1973	6	6	1985	2.8	1.9	.7	.3	.1	3.8	1.6	.6	.1
Dec	8.6	8.8	4	3	10.0	1988	25	20.0	1979	30	1983	31	16	1984	4.5	3.6	1.3	.6	@	10.3	4.1	2.7	1.4
Ann	30.3	25.8	N/A	N/A	12.0+	Jan 1979	10	28.0	Jan 1979	30+	Jan 1984	10	28	Jan 1984	16.4	10.9	3.6	1.4	.2	-9.9	-9.9	-9.9	-9.9

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

[@] 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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				Freez	e Data											
			Spri	ng Freeze D	ates (Month	/Day)										
Temp (F)		P	robability of	later date i	n spring (thr	ru Jul 31) tha	n indicated((*)								
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	7/10	7/05	7/02	6/29	6/27	6/24	6/21	6/18	6/13							
32	6/19	6/13	6/10	6/06	6/03	5/31	5/28	5/24	5/19							
28	6/03	5/26	5/21	5/16	5/12	5/08	5/03	4/28	4/20							
24	5/15	5/07	5/02	4/27	4/22	4/17	4/12	4/07	3/30							
20	4/28	4/19	4/12	4/06	3/31	3/25	3/20	3/13	3/03							
16	4/03	3/25	3/18	3/13	3/08	3/02	2/25	2/18	2/09							
		•	Fal	l Freeze Da	tes (Month/I	Day)		•								
Town (F)		Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	8/21	8/27	8/31	9/04	9/07	9/11	9/15	9/19	9/25							
32	9/01	9/07	9/12	9/15	9/19	9/22	9/25	9/30	10/06							
28	9/17	9/23	9/27	10/01	10/04	10/07	10/11	10/15	10/20							
24	9/30	10/06	10/10	10/14	10/17	10/20	10/24	10/28	11/03							
20	10/11	10/17	10/21	10/25	10/28	10/31	11/04	11/08	11/14							
16	10/21	10/27	11/01	11/05	11/09	11/13	11/17	11/22	11/28							
		-		Freeze F	ree Period		•	1	•							
Tomas (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)									
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	94	87	81	77	72	68	63	58	50							
32	127	120	115	110	106	102	98	93	86							
28	172	163	156	150	144	138	132	125	116							
24	211	199	191	184	177	170	163	155	143							
20	245	233	225	217	210	203	196	187	175							
16	277	266	258	252	246	240	233	225	215							

^{*} 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.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree 1	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1322	1033	872	619	415	211	62	60	246	563	971	1295	7669		
60	1167	893	717	472	274	118	21	20	149	414	821	1140	6206		
57	1074	809	624	387	201	76	10	9	103	329	731	1047	5400		
55	1012	753	562	333	158	53	5	4	78	277	671	985	4891		
50	857	613	413	211	76	18	0	1	33	164	523	830	3739		
32	338	189	51	9	0	0	0	0	0	3	111	315	1016		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	39	80	203	380	611	821	1119	1116	789	465	130	42	5795
55	0	0	0	14	57	185	411	408	177	25	0	0	1277
57	0	0	0	8	37	147	354	350	142	16	0	0	1054
60	0	0	0	3	18	99	272	268	97	7	0	0	764
65	0	0	0	0	3	42	158	153	44	1	0	0	401
70	0	0	0	0	0	14	77	72	16	0	0	0	179

										Gro	wing l	Degre	e Uni	ts (2)										
Base	Growing Degree Units (Monthly)													Growing Degree Units (Accumulated Monthly)										
	JanFebMarAprMayJunJulAugSepOctNovDec											Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	0	5	50	179	392	617	904	899	582	274	22	0	0	5	55	234	626	1243	2147	3046	3628	3902	3924	3924
45	0	0	12	92	254	467	749	744	434	155	4	0	0	0	12	104	358	825	1574	2318	2752	2907	2911	2911
50	0	0	0	43	143	326	594	590	297	72	0	0	0	0	0	43	186	512	1106	1696	1993	2065	2065	2065
55	0	0	0	14	72	201	441	439	185	28	0	0	0	0	0	14	86	287	728	1167	1352	1380	1380	1380
60	0	0	0	0	30	108	300	293	95	10	0	0	0	0	0	0	30	138	438	731	826	836	836	836
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	0	5	49	139	263	391	572	568	392	218	21	0	0	5	54	193	456	847	1419	1987	2379	2597	2618	2618

(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

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

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

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