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: UNITY, OR 1971-2000 COOP ID: 358780

Climate Division: OR 8 NWS Call Sign: Elevation: 4,031 Feet Lat: 44°26N Lon: 118°11W

									r	Гетре	eratur	re (°F)									
	Mea	n (1)						Extr	emes					Degree Base To	Days (1) emp 65		Mean	Numb	er of I	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	.0	.0	.0	56	1971	31	.0	0	-31	1962	22	.0	0	0	0	.0	.0	.4	11.1	30.1	4.6
Feb	.0	.0	.0	68	1965	3	.0	0	-28	1989	6	.0	0	0	0	.0	.0	3.7	4.1	26.3	2.2
Mar	.0	.0	.0	76	1966	27	.0	0	-15	1993	1	.0	0	0	0	.0	.0	15.6	.5	27.4	.2
Apr	.0	.0	.0	90	1987	24	.0	0	7	1963	21	.0	0	0	0	.0	@	25.5	.0	23.0	.0
May	.0	.0	.0	97	1986	30	.0	0	11	1950	18	.0	0	0	0	.0	.3	30.4	.0	13.4	.0
Jun	.0	.0	.0	99	1988	19	.0	0	20	1979	8	.0	0	0	0	.0	2.8	30.0	.0	4.3	.0
Jul	.0	.0	.0	102+	2000	31	.0	0	24	1981	8	.0	0	0	0	.4	12.7	31.0	.0	1.1	.0
Aug	.0	.0	.0	103	1961	2	.0	0	24+	1992	24	.0	0	0	0	.5	12.4	31.0	.0	1.3	.0
Sep	.0	.0	.0	101	1998	4	.0	0	11	1950	30	.0	0	0	0	.1	2.1	29.9	.0	10.6	.0
Oct	.0	.0	.0	88+	2001	2	.0	0	0	1971	29	.0	0	0	0	.0	.0	27.9	@	24.4	.1
Nov	.0	.0	.0	69+	1962	1	.0	0	-21	1985	23	.0	0	0	0	.0	.0	8.2	1.8	26.5	.7
Dec	.0	.0	.0	58	1975	1	.0	0	-33	1990	21	.0	0	0	0	.0	.0	1.0	10.2	30.2	3.3
Ann	.0	.0	.0	103	Aug 1961	2	-99.9	0	-33	Dec 1990	21	99.9	0	0	0	1.0	30.3	234.6	27.7	218.6	11.1

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 145-A

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

⁽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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										Pı	recipi	tation	(incl	nes)										
	Mea Medi		P	recipi	tatio	on Total Extremes					ean N of D	ays (3)	Proba		nat the n	onthly/	annual j indic	ated am	ation wi nount vs Proba	ll be equ	els		ın the
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	1.24	1.31	1.60	1983	3	2.61	1983	.13	1994	9.7	3.9	.3	.1	.34	.46	.64	.79	.94	1.10	1.28	1.49	1.76	2.19	2.59
Feb	.74	.66	.90	1949	15	1.80	1979	.01	1988	7.9	2.8	.2	.0	.08	.14	.24	.34	.46	.58	.72	.90	1.15	1.55	1.95
Mar	.81	.79	.91 1983 4 1.98 1983 .12 19							7.6	2.5	.1	.0	.22	.29	.41	.51	.61	.72	.84	.98	1.16	1.44	1.71
Apr	.78	.67	1.01 1983 21 2.03 1983 .03+ 197							6.2	2.4	.1	@	.06	.11	.21	.31	.43	.57	.74	.95	1.24	1.72	2.21
May	1.13	.93	1.09	1969	19	3.04	1998	.39	1992	7.6	2.9	.3	.0	.29	.40	.56	.71	.85	1.00	1.17	1.36	1.62	2.03	2.41
Jun	1.16	.93	1.37	1980	14	3.33	1980	.18+	1974	6.8	3.6	.3	.1	.22	.33	.50	.66	.81	.99	1.18	1.42	1.73	2.23	2.70
Jul	.58	.36	1.07	1982	1	2.21	1982	.00+	1999	3.8	1.8	.2	@	.00	.04	.13	.22	.31	.42	.56	.72	.95	1.33	1.70
Aug	.78	.49	2.43	1984	31	3.47	1984	.00	2000	4.1	1.9	.3	@	.02	.06	.16	.27	.40	.54	.72	.95	1.27	1.82	2.36
Sep	.53	.41	1.06	1998	9	1.64	1980	.00+	1999	3.9	1.7	.2	@	.00	.00	.13	.23	.33	.43	.54	.68	.86	1.14	1.42
Oct	.61	.55	.81	1957	1	1.84	2000	.00+	1988	4.8	1.8	@	.0	.00	.08	.20	.29	.39	.50	.62	.76	.95	1.26	1.55
Nov	1.20	1.08	.95	1995	28	2.61	1981	.17	1993	9.0	3.6	.2	.0	.33	.44	.61	.76	.91	1.07	1.24	1.44	1.71	2.13	2.52
Dec	1.20	1.08	.86	1977	15	3.63	1996	.08	1989	8.8	3.9	.1	.0	.21	.32	.50	.66	.83	1.01	1.21	1.46	1.79	2.32	2.83
Ann	1 10.76 10.33 2.43 31 3.63 00+								Aug 2000	80.2	32.8	2.3	.2	6.93	7.64	8.57	9.28	9.92	10.55	11.20	11.93	12.82	14.12	15.26

⁺ 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: 1948-2001

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Station: UNITY, OR

Climate Division: OR 8 NWS Call Sign:

Elevation: 4,031 Feet

Lat: 44°26N

Lon: 118°11W

COOP ID: 358780

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Da	ys (1)		
	Mean	s/Medi	ans (1)	1					Extre	mes (2)							ow Fa					Depth esholo	
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	6.5	6.0	6	4	18.0	1982	23	18.0	1982	22	1982	23	19	1993	3.6	2.1	.6	.2	.1	-9.9	-9.9	-9.9	-9.9
Feb	3.7	1.0	5	2	6.0	1975	3	17.0	1975	24	1993	24	20	1993	2.3	1.5	.3	.1	.0	-9.9	-9.9	-9.9	-9.9
Mar	1.2	.0	1	#	4.5	1982	18	8.0	1975	22	1993	3	11	1993	.7	.6	.1	.0	.0	1.1	.3	.1	.0
Apr	.2	.0	#	0	2.3	1978	6	2.3	1978	1+	1980	3	#+	1980	.2	.1	.0	.0	.0	.1	.0	.0	.0
May	#	.0	0	0	#	1978	24	#+	1978	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	.1	.0	#	0	2.0	1971	27	2.0	1971	1+	1984	17	#+	1984	.1	.1	.0	.0	.0	.1	.0	.0	.0
Nov	2.0	.0	#	#	6.0	1984	27	9.5	1984	8	1975	30	1+	2000	.9	.9	.2	.1	.0	1.7	.6	.1	.0
Dec	1.6	-99.9	3	2	8.0	1973	29	8.0	1973	19	1983	30	10	1983	3.3	2.4	.8	.2	.0	-9.9	-9.9	-9.9	-9.9
Ann	15.3	-9.9	N/A	N/A	18.0	Jan 1982	23	18.0	Jan 1982	24	Feb 1993	24	20	Feb 1993	11.1	7.7	2.0	.6	.1	-9.9	-9.9	-9.9	-9.9

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

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[@] 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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1971-2000

Station: UNITY, OR

Climate Division: OR 8 NWS Call Sign

NWS Call Sign: Elevation: 4,031 Feet Lat: 44°26N Lon: 118°11W

				Freez	ze Data										
			Spri	ng Freeze D	ates (Month/	(Day)									
Temp (F)	10 .20 .30 .40 .50 .60 .70 .80 .90 7/29 7/23 7/20 7/17 7/14 7/11 7/07 7/04 6/28 7/19 7/13 7/09 7/05 7/02 6/29 6/25 6/21 6/16 6/29 6/22 6/16 6/12 6/08 6/04 5/31 5/25 5/18 6/12 6/03 5/28 5/23 5/18 5/13 5/08 5/02 4/23 5/19 5/12 5/07 5/02 4/28 4/24 4/19 4/14 4/07 4/29 4/22 4/16 4/12 4/07 4/03 3/29 3/24 3/16 Fall Freeze Dates (Month/Day) Fy														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	7/29	7/23	7/20	7/17	7/14	7/11	7/07	7/04	6/28						
32	7/19	7/13	7/09	7/05	7/02	6/29	6/25	6/21	6/16						
28	6/29	6/22	6/16	6/12	6/08	6/04	5/31	5/25	5/18						
24	6/12	6/03	5/28	5/23	5/18	5/13	5/08	5/02	4/23						
20	5/19	5/12	5/07	5/02	4/28	4/24	4/19	4/14	4/07						
16	4/29	4/22	4/16	4/12	4/07	4/03	3/29	3/24	3/16						
			Fal	l Freeze Da	tes (Month/D	ay)		-	1						
Tomas (E)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	8/03	8/08	8/11	8/14	8/17	8/20	8/23	8/27	9/01						
32	8/12	8/18	8/22	8/26	8/29	9/02	9/05	9/10	9/15						
28	8/31	9/04	9/07	9/10	9/13	9/15	9/18	9/21	9/25						
24	9/10	9/14	9/18	9/21	9/23	9/26	9/29	10/02	10/07						
20	9/22	9/27	10/01	10/04	10/07	10/10	10/13	10/17	10/22						
16	10/06	10/11	10/16	10/19	10/22	10/26	10/29	11/02	11/08						
		•	•	Freeze F	ree Period	•		•	1						
Torrer (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days))							
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	53	47	42	38	34	30	26	22	15						
32	80	73	67	62	57	53	48	42	34						
28	115	108	104	100	96	92	88	83	76						
24	157	147	139	133	128	122	116	108	98						
20	183	175	170	166	161	157	153	148	140						
16	224	215	208	203	197	192	187	180	171						

^{*} 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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				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	0	0	0	0	0	0	0	0	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0	0	0
55	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0	0		
55	0	0	0	0	0	0	0	0	0	0	0	0	0		
57	0	0	0	0	0	0	0	0	0	0	0	0	0		
60	0	0	0	0	0	0	0	0	0	0	0	0	0		
65	0	0	0	0	0	0	0	0	0	0	0	0	0		
70	0	0	0	0	0	0	0	0	0	0	0	0	0		

Base					Growin	g Degree	Units (M	(Ionthly)					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	0	1	44	150	354	557	782	765	491	208	24	0	0	1	45	195	549	1106	1888	2653	3144	3352	3376	3376
45	0 0 9 67 216 410 627 610 346 106 3												0	0	9	76	292	702	1329	1939	2285	2391	2394	2394
50	0 0 0 22 107 266 473 455 218 38 0												0	0	0	22	129	395	868	1323	1541	1579	1579	1579
55	0	0	0	1	44	144	322	309	117	10	0	0	0	0	0	1	45	189	511	820	937	947	947	947
60	0 0 0 0 10 65 186 172 42 0 0											0	0	0	0	0	10	75	261	433	475	475	475	475
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	0/86 0 9 61 161 292 406 523 521 404 233 23 0												0	9	70	231	523	929	1452	1973	2377	2610	2633	2633

(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