### 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: 472001** 

**Station: DARLINGTON, WI** 

Climate Division: WI 7 NWS Call Sign: Elevation: 930 Feet Lat: 42°41N Lon: 90°06W

									r	Гетр	eratur	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes					Degree Base To	•		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	26.7	6.0	16.4	59	1989	31	28.0	1990	-41	1951	30	2.9	1977	1508	0	.0	.0	.6	21.1	30.6	10.4
Feb	32.9	12.1	22.5	67	2000	25	34.8	1998	-36+	1959	2	11.3	1979	1191	0	.0	.0	1.6	13.7	26.9	6.3
Mar	44.8	23.3	34.1	84	1986	29	42.3	1973	-33	1962	1	25.4	1975	958	0	.0	.0	9.3	4.7	25.0	1.1
Apr	58.3	34.4	46.4	93	1980	22	53.7	1977	-1	1982	7	40.6	1975	560	1	.0	@	22.4	.2	12.4	@
May	70.5	45.9	58.2	104	1934	31	66.1	1977	20+	1966	10	52.1	1997	252	41	.0	.2	30.5	.0	1.9	.0
Jun	79.6	55.3	67.5	104	1934	1	72.5	1971	30	1913	10	62.1	1982	43	117	.1	1.8	30.0	.0	.0	.0
Jul	83.2	60.0	71.6	107+	1936	14	76.0	1983	39	1911	26	66.4	1992	11	216	.1	4.7	31.0	.0	.0	.0
Aug	80.8	57.6	69.2	102+	1988	17	75.3	1983	29	1915	30	63.7	1992	41	171	.2	2.5	31.0	.0	.0	.0
Sep	72.6	48.3	60.5	100	1922	6	65.4	1978	21	1949	29	55.0	1993	170	33	.0	.9	30.0	.0	1.1	.0
Oct	61.0	36.9	49.0	91	1976	1	57.5	1971	-2	1925	30	42.7	1988	501	2	.0	@	26.9	.0	9.6	.0
Nov	44.3	24.6	34.5	79	1933	1	40.2	1975	-20	1947	30	26.7	1976	916	0	.0	.0	9.8	4.5	23.0	.3
Dec	31.1	12.2	21.7	65+	2001	5	30.1	1982	-33	1950	27	9.7	1985	1345	0	.0	.0	1.4	15.8	29.6	5.9
Ann	57.2	34.7	46.0	107+	Jul 1936	14	76.0	Jul 1983	-41	Jan 1951	30	2.9	Jan 1977	7496	581	.4	10.1	224.5	60.0	160.1	24.0

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 026-A

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1901-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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**COOP ID: 472001** 

Station: DARLINGTON, WI

**Climate Division: WI 7** 

NWS Call Sign: Elevation: 930 Feet Lat: 42°41N Lon: 90°06W

										Pı	recipi	tation	(incl	hes)											
	Mo	ans/	P	recip	itatio	on Total	S			М	ean N	Numbo Pays (3		Proba	ability th		nonthly/	annual j indic	precipita ated an		ll be equ		less tha	ın the	
		ans(1)				Extremes	5			D	aily Pre	cipitatio	n	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	1.25	1.29	1.42	1971	4	2.58	1974	.00	2000	7.5	3.8	.6	.1	.21	.38	.60	.77	.93	1.11	1.30	1.53	1.83	2.30	2.74	
Feb	1.29	1.10	2.00+	1911	16	3.20	1971	.00	1999	5.9	3.4	.7	.2	.08	.21	.41	.60	.80	1.02	1.27	1.59	2.01	2.71	3.39	
Mar	2.28	1.85	2.31	1998	30	5.08	1998	.00	1999	7.8	5.4	1.5	.3	.33	.62	1.01	1.33	1.65	1.98	2.36	2.80	3.39	4.31	5.19	
Apr	3.47	3.05	3.80	1991	29	9.40	1999	.67	1985	9.9	7.0	2.4	.8	1.16	1.49	1.97	2.38	2.77	3.17	3.62	4.13	4.80	5.83	6.78	
May	3.65	3.68	4.13	1999	16	6.79	1973	.32	1992	10.2	7.1	2.6	.6	.82	1.16	1.69	2.17	2.66	3.17	3.75	4.43	5.34	6.79	8.15	
Jun	4.67	4.41	7.25	1990	29	12.68	1993	.52	1992	9.8	7.0	2.9	1.2	.98	1.40	2.09	2.71	3.34	4.01	4.77	5.68	6.88	8.80	10.62	
Jul	4.19	3.85	5.30	1977	18	8.11	1977	1.30	1991	8.9	6.3	2.9	1.3	1.48	1.87	2.44	2.93	3.39	3.86	4.38	4.98	5.74	6.93	8.02	
Aug	4.34	3.99	4.92	1942	2	10.16	1979	1.45	1984	9.1	6.8	2.9	1.1	1.46	1.87	2.47	2.98	3.47	3.98	4.53	5.18	6.01	7.29	8.48	
Sep	3.49	3.17	6.37	1927	9	9.66	1986	.22	1979	8.2	5.6	2.3	.9	.51	.80	1.30	1.78	2.29	2.84	3.48	4.27	5.32	7.04	8.69	
Oct	2.26	2.24	2.70	2001	23	7.07	1984	.39	1975	7.8	4.9	1.6	.4	.55	.76	1.09	1.38	1.68	1.98	2.33	2.74	3.27	4.12	4.92	
Nov	2.42	2.26	2.53	1971	2	6.36	1985	.17	1976	7.9	5.2	1.8	.4	.49	.71	1.06	1.39	1.72	2.07	2.47	2.95	3.58	4.60	5.56	
Dec	1.56	1.42	1.87	1982	2	4.15	1982	.02	1998	7.5	3.9	.8	.2	.17	.29	.51	.73	.96	1.22	1.53	1.91	2.42	3.28	4.11	
Ann	34.87	36.05	7.25	Jun 1990	29	12.68	Jun 1993	.00+	Jan 2000	100.5	66.4	23.0	7.5	25.07	26.97	29.41	31.26	32.90	34.49	36.12	37.92	40.11	43.28	46.02	

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

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

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1901-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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**COOP ID: 472001** 

**Station: DARLINGTON, WI** 

Climate Division: WI 7 NWS Call Sign: Elevation: 930 Feet Lat: 42°41N Lon: 90°06W

		Snow (inches)  Snow Totals  Extremes (2)  Snow Fall Median Median Median Median Snow Fall Snow Depth Snow Dep																						
		Snow Totals															Mea	n Nu	mber	of Day	<b>ys</b> (1)			
	Mean	s/Medi	ans (1)	)					Extre	mes (2)							ow Fa					now Depth Thresholds		
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10	
Jan	8.6	7.2	5	3	10.0	1985	1	17.1	1994	21	1979	28	15	1979	5.3	3.1	1.1	.3	@	21.9	15.3	11.9	6.2	
Feb	8.1	7.7	6	4	9.0	1975	24	21.2	1975	25	1979	21	21	1979	4.4	2.9	.9	.2	.0	19.5	15.9	10.4	5.4	
Mar	5.8	6.6	2	1	10.0	1991	13	14.5	1975	18	1979	3	10	1979	2.7	2.0	.8	.4	@	7.7	4.8	3.0	1.2	
Apr	2.7	1.0	#	#	9.0	1973	9	17.6	1973	15	1973	10	2	1973	1.0	.8	.4	.1	.0	1.1	.6	.3	.1	
May	.2	.0	#	0	6.5	1994	1	6.5	1994	3	1994	1	#	1994	@	@	@	@	.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	.4	.0	#	0	3.5	1997	26	3.5	1997	1	1972	18	#+	1992	.2	.1	.1	.0	.0	@	.0	.0	.0	
Nov	3.1	2.0	#	#	7.0	1971	29	10.8	1971	8	1971	29	1	1992	2.2	1.2	.3	.1	.0	3.2	1.0	.5	.0	
Dec	7.4	6.5	2	1	9.0	1990	3	22.5	1987	16	1990	4	9	1990	4.7	3.0	1.1	.3	.0	15.8	10.6	5.2	.9	
Ann	36.3	31.0	N/A	N/A	10.0+	Mar 1991	13	22.5	Dec 1987	25	Feb 1979	21	21	Feb 1979	20.5	13.1	4.7	1.4	@	69.2	48.2	31.3	13.8	

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**Station: DARLINGTON, WI** 

Climate Division: WI 7 NWS Call Sign:

NWS Call Sign: Elevation: 930 Feet Lat: 42°41N Lon: 90°06W

				Freez	ze Data								
			Spri	ng Freeze D	ates (Month/	Day)							
Probability of later date in spring (thru Jul 31) than indicated (**)   10   20   30   40   50   516   512   508   503   32   514   518   514   415   413   410   408   405   331   312   316   408   403   330   327   324   322   319   315   316   326   316   326   326   327   324   322   319   315   310   310   326   326   326   327   324   322   319   315   310   310   326   326   326   326   327   324   322   319   315   310   310   326   326   326   326   326   327   324   322   319   315   310   310   326													
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	6/05	5/30	5/26	5/22	5/19	5/16	5/12	5/08	5/03				
32	5/24	5/18	5/14	5/11	5/08	5/04	5/01	4/27	4/21				
28	5/08	5/04	4/30	4/27	4/25	4/22	4/19	4/16	4/11				
24	4/25	4/21	4/18	4/15	4/13	4/10	4/08	4/05	3/31				
20	4/16	4/12	4/10	4/08	4/06	4/04	4/01	3/30	3/26				
16	4/08	4/03	3/30	3/27	3/24	3/22	3/19	3/15	3/10				
1			Fal	l Freeze Da	tes (Month/D	ay)	•	1	1				
Tomas (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	ed(*)					
1emp (F)	.10								.90				
36	9/11	9/15	9/17	9/19	9/21	9/23	9/25	9/28	10/01				
32	9/20	9/23	9/26	9/29	10/01	10/03	10/06	10/09	10/13				
28	9/26	10/01	10/05	10/09	10/12	10/15	10/18	10/22	10/28				
24	10/07	10/12	10/16	10/19	10/22	10/25	10/28	11/01	11/06				
20	10/16	10/21	10/25	10/28	11/01	11/04	11/07	11/11	11/17				
16	10/28	11/02	11/06	11/09	11/12	11/15	11/18	11/22	11/27				
				Freeze F	ree Period		•	1	1				
To (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)						
remp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	144	137	132	128	124	120	116	112	105				
32	164	158	153	149	146	142	138	134	127				
28	191	184	178	174	169	165	160	155	147				
24	212	205	200	196	192	188	183	178	171				
20	226	220	215	212	208	205	201	197	191				
16	255	247	242	237	232	228	223	217	209				

<sup>\*</sup> 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 do

Complete documentation available from:

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Climate Division: WI 7 NWS Call Sign: Elevation: 930 Feet Lat: 42°41N Lon: 90°06W

				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	1508	1191	958	560	252	43	11	41	170	501	916	1345	7496
60	1353	1051	803	415	152	10	0	11	79	356	766	1190	6186
57	1260	967	710	333	105	4	0	4	44	277	676	1097	5477
55	1198	911	649	282	79	2	0	1	27	230	617	1035	5031
50	1043	771	503	171	34	0	0	0	6	131	472	880	4011
32	528	331	114	5	0	0	0	0	0	3	95	387	1463

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	43	65	178	436	812	1063	1229	1153	853	528	169	66	6595
55	0	0	0	23	178	375	516	441	191	42	1	0	1767
57	0	0	0	14	142	317	454	382	147	27	0	0	1483
60	0	0	0	6	96	234	361	296	92	13	0	0	1098
65	0	0	0	1	41	117	216	171	33	2	0	0	581
70	0	0	0	0	14	40	103	83	7	0	0	0	247

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	Ionthly)								Growi	ng Degre	ee Units (	Accumu	lated Mo	onthly)			
	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	6	69	307	883	1713	2704	3632	4274	4591	4653	4659
45												1	0	0	30	171	594	1274	2110	2883	3375	3573	3602	3603
50												0	0	0	12	84	367	897	1578	2196	2547	2657	2668	2668
55	0	0	4	33	165	382	526	464	224	51	2	0	0	0	4	37	202	584	1110	1574	1798	1849	1851	1851
60	0	0	1	14	86	245	372	311	127	17	0	0	0	0	1	15	101	346	718	1029	1156	1173	1173	1173
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Ur	its for C	orn (Acc	cumulate	d Month	ly)			
50/86	<b>50/86</b> 0 3 46 159 356 538 667 608 398 198 40											2	0	3	49	208	564	1102	1769	2377	2775	2973	3013	3015

(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