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: 251145

Lon: 103°06W

Station: BRIDGEPORT, NE

Climate Division: NE 3

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 38.4 15.4 26.9 75 1982 26 35.1 1990 -35+ 1963 19 10.3 1979 1182 0 .0 .0 8.3 8.4 30.3 5.6 Jan 45.3 20.1 32.7 80 1962 11 40.5 1992 -47 1899 12 21.1 1978 904 0 .0 .0 12.8 4.5 26.8 3.0 Feb Mar 53.8 26.8 40.3 88 1943 29 46.9 1986 -27 1948 11 35.3 1971 765 0 .0 .0 20.7 1.8 25.7 .6 34.3 2 42.8 1983 Apr 63.8 49.1 95+ 1992 30 56.1 1981 -11 1975 480 .0 .2 26.2 .3 13.7 .1 May 73.7 45.2 59.5 98 2000 28 66.0 1994 15 1911 1 53.5 1995 205 33 .0 1.3 30.5 .0 1.8 .0 54.3 74.7 2 64.6 9.8 Jun 84.6 69.5 106 +1989 19 1994 28 +1969 1982 34 168 .6 30.0 .0 .0 .0 Jul 90.8 75.5 15 79.8 34 +1952 8 71.1 1992 325 2.8 18.9 31.0 .0 .0 60.1 111 1902 2000 .0 1992 88.9 58.4 73.7 109 1898 21 79.1 2000 30 1910 25 68.7 8 276 .9 17.0 31.0 .0 .0 .0 Aug Sep 80.0 48.4 64.2 103 1899 1 70.1 1998 14 1908 27 59.6 1974 105 81 .1 5.6 29.7 .0 2.0 .0 97 55.1 26 48.3 Oct 67.3 35.9 51.6 1898 1 1974 -1+1997 1976 416 0 .0 .1 28.9 .2 13.3 .1 24.8 37.2 81 1958 10 45.8 1999 -19 1916 13 27.3 2000 834 0 .0 .0 15.5 3.2 .9 Nov 49.6 26.6 Dec 40.7 17.0 28.9 74 1939 6 36.9 1980 -42 1989 22 15.3 1983 1121 0 .0 .0 8.9 6.6 30.2 3.9 Jul Jul Feb Jan 36.7 50.8 111 1902 15 79.8 2000 -47 1899 12 10.3 1979 6055 884 4.4 52.9 273.5 25.0 170.4 14.2 64.7 Ann

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

Issue Date: February 2004 017-A

(1) From the 1971-2000 Monthly Normals

Elevation: 3,666 Feet Lat: 41°40N

- (2) Derived from station's available digital record: 1897-2001
- (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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Station: BRIDGEPORT, NE COOP ID: 251145

Climate Division: NE 3 NWS Call Sign: Elevation: 3,666 Feet Lat: 41°40N Lon: 103°06W

										Pı	recipi	tation	(incl	nes)										
		Precipitation Totals Means/ Medians(1) Extremes									ean N of D	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 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	.37	.31	1.10	1939	9	1.51	1976	.00	1986	4.0	1.2	.1	@	.02	.05	.10	.15	.21	.28	.36	.45	.59	.81	1.03
Feb	.37	.21	1.02	1912	19	1.19	1987	.00+	1996	3.5	1.4	@	.0	.00	.00	.04	.09	.15	.22	.31	.44	.61	.92	1.23
Mar	.93	.85	1.20+	1983	5	2.26	1983	.09	1995	5.6	2.5	.5	.1	.12	.20	.33	.46	.60	.75	.92	1.14	1.43	1.90	2.36
Apr	1.69	1.60	1.80	2000	30	4.85	1999	.11	1992	7.5	4.0	1.1	.3	.29	.43	.68	.91	1.15	1.41	1.70	2.06	2.54	3.31	4.05
May	2.84	2.54	3.25	1978	28	6.17	1978	.99	1984	10.9	6.4	1.7	.6	.94	1.21	1.61	1.94	2.26	2.60	2.96	3.39	3.94	4.79	5.57
Jun	2.65	2.35	3.48	1911	16	6.37	1995	.44	2000	8.7	5.6	1.9	.5	.66	.91	1.30	1.64	1.98	2.33	2.73	3.20	3.81	4.79	5.70
Jul	2.44	2.16	3.15	1897	18	8.32	1982	.31	1989	7.7	4.9	1.6	.5	.57	.79	1.15	1.47	1.79	2.13	2.51	2.96	3.55	4.50	5.39
Aug	1.64	1.63	1.96	1955	5	4.29	1987	.24	1985	6.3	4.0	1.0	.2	.38	.53	.77	.98	1.20	1.43	1.68	1.99	2.39	3.03	3.63
Sep	1.52	1.30	3.34	1926	4	5.75	1973	.13	1983	5.8	3.5	1.0	.1	.16	.28	.49	.70	.93	1.18	1.48	1.85	2.36	3.19	4.01
Oct	.96	.72	2.91	1908	19	3.54	1998	.01	1999	4.8	2.6	.5	@	.06	.11	.23	.36	.50	.68	.89	1.16	1.53	2.18	2.82
Nov	.62	.52	1.67	1944	7	1.55	1998	.00	1997	3.9	1.8	.2	@	.04	.10	.20	.29	.38	.49	.61	.77	.98	1.32	1.65
Dec	.33	.29	1.70	1924	6	1.22	1978	.00	1991	3.7	1.0	.1	.0	.02	.05	.10	.15	.20	.26	.33	.41	.53	.71	.89
Ann	16.36	16.07	3.48	Jun 1911	16	8.32	Jul 1982	.00+	Nov 1997	72.4	38.9	9.7	2.3	10.08	11.23	12.74	13.90	14.96	15.99	17.07	18.27	19.75	21.94	23.85

⁺ 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: 1897-2001

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

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Station: BRIDGEPORT, NE

Climate Division: NE 3 NWS Call Sign: Elevation: 3,666 Feet Lat: 41°40N Lon: 103°06W

										Snov	w (incl	hes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ians (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	6.7	7.1	2	2	10.0	1976	1	18.0	1976	16	1988	9	8	1988	3.1	2.6	1.0	.4	@	11.8	7.6	4.2	1.0		
Feb	5.5	3.8	1	#	9.0	1987	27	20.5	1987	19	1987	28	8	1993	2.7	2.3	.9	.1	.0	5.4	3.4	2.1	.4		
Mar	7.3	5.0	1	#	12.0	1974	11	20.0+	1990	19	1987	1	2	1989	2.7	2.5	1.0	.4	.1	3.3	2.0	1.1	.3		
Apr	3.7	2.0	#	#	16.0	1975	1	16.0	1975	16	1975	1	1	1984	1.1	.9	.4	.2	.1	.8	.4	.2	.1		
May	.3	.0	#	0	5.0	1979	10	9.0	1979	#	1996	24	#	1996	.1	.1	.1	@	.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	.7	.0	#	0	9.0	1985	28	9.0	1985	9	1985	28	#+	2000	.2	.2	.1	.1	.0	.1	.1	@	.0		
Oct	1.8	.0	#	0	6.0	1973	11	7.0+	1990	6	1997	25	#+	1997	.6	.6	.3	.1	.0	.5	.2	@	.0		
Nov	6.3	4.5	1	#	10.0	1972	1	23.0	1985	15	1985	15	6	1985	2.3	2.0	.8	.5	@	4.4	2.7	1.9	.5		
Dec	6.4	5.5	2	1	14.0	1978	2	18.0	1978	19	1987	28	9	1985	2.7	2.5	.8	.4	.1	8.8	5.4	3.3	.8		
Ann	38.7	27.9	N/A	N/A	16.0	Apr 1975	1	23.0	Nov 1985	19+	Dec 1987	28	9	Dec 1985	15.5	13.7	5.4	2.2	.3	35.1	21.8	12.8	3.1		

⁺ 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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				Freez	e Data												
			Spri	ng Freeze D	ates (Month/	(Day)											
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated	(*)									
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90								
36	6/09	6/03	5/29	5/25	5/21	5/18	5/14	5/09	5/03								
32	5/19	5/15	5/12	5/10	5/08	5/06	5/04	5/01	4/27								
28	5/10	5/05	5/02	4/30	4/27	4/25	4/22	4/19	4/14								
24	5/03	4/27	4/23	4/19	4/16	4/13	4/10	4/06	3/31								
20	4/29	4/22	4/17	4/12	4/08	4/04	3/31	3/26	3/19								
16	4/17	4/09	4/03	3/29	3/24	3/20	3/15	3/09	3/01								
-			Fal	l Freeze Da	tes (Month/D	Oay)	•	•	•								
Town (F)		Pro	bability of ea	y of earlier date in fall (beginning Aug 1) than indicated(*)													
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90								
36	9/09	9/13	9/15	9/18	9/20	9/22	9/24	9/26	9/30								
32	9/14	9/18	9/21	9/23	9/25	9/27	9/30	10/02	10/06								
28	9/20	9/24	9/28	10/01	10/03	10/06	10/09	10/12	10/17								
24	10/02	10/06	10/10	10/13	10/16	10/19	10/22	10/26	10/30								
20	10/06	10/12	10/17	10/21	10/24	10/28	11/01	11/05	11/11								
16	10/13	10/20	10/25	10/29	11/02	11/05	11/10	11/14	11/21								
-				Freeze F	ree Period	•	•	•	•								
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days))									
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90								
36	141	134	129	124	120	116	112	107	99								
32	155	150	146	143	140	136	133	129	124								
28	177	171	166	162	159	155	151	147	140								
24	204	197	191	186	182	178	173	168	160								
20	227	217	210	204	198	192	186	179	169								
16	253	242	235	228	222	216	209	201	190								

^{*} 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 l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1182	904	765	480	205	34	1	8	105	416	834	1121	6055		
60	1027	764	610	338	106	8	0	1	39	265	684	966	4808		
57	934	680	518	260	65	3	0	0	17	182	594	873	4126		
55	872	627	457	213	44	1	0	0	9	134	539	811	3707		
50	727	497	316	116	13	0	0	0	0	51	401	661	2782		
32	273	140	26	1	0	0	0	0	0	0	76	214	730		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	114	160	284	512	851	1124	1347	1291	966	607	232	116	7604
55	0	3	2	35	182	435	634	578	285	29	5	0	2188
57	0	0	0	22	141	376	572	516	234	14	0	0	1875
60	0	0	0	10	90	292	479	424	165	4	0	0	1464
65	0	0	0	1	33	168	325	276	81	0	0	0	884
70	0	0	0	0	8	77	181	149	31	0	0	0	446

	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													Oct	Nov	Dec								
40	11	37	123	294	600	885	1104	1045	711	362	75	16	11	48	171	465	1065	1950	3054	4099	4810	5172	5247	5263
45	1	7	52	179	447	735	949	890	563	230	29	1	1	8	60	239	686	1421	2370	3260	3823	4053	4082	4083
50	0	0	12	97	306	585	794	735	421	121	4	0	0	0	12	109	415	1000	1794	2529	2950	3071	3075	3075
55	0	0	1	43	182	436	639	580	291	48	0	0	0	0	1	44	226	662	1301	1881	2172	2220	2220	2220
60	0	0	0	15	89	293	485	425	174	11	0	0	0	0	0	15	104	397	882	1307	1481	1492	1492	1492
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	26	60	132	230	383	560	701	665	469	295	88	39	26	86	218	448	831	1391	2092	2757	3226	3521	3609	3648

(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