

Climatography of the United States

No. 20

1971-2000

Station: HARRISON, NE

COOP ID: 253615

Climate Division: NE 1

NWS Call Sign:

Elevation: 4,850 Feet Lat: 42° 41N

Lon: 103° 53W

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	32.1	9.7	20.9	65	1981	24	29.8	1981	-33	1963	19	7.1	1979	1368	0	.0	.0	2.4	13.9	30.7	7.5
Feb	37.7	14.9	26.3	69	1962	12	35.3	1991	-35	1936	8	14.3	1989	1084	0	.0	.0	5.4	9.2	27.4	4.3
Mar	45.7	21.7	33.7	79	1921	18	41.4	1986	-20+	1960	3	27.0	1996	970	0	.0	.0	12.4	6.0	28.5	1.3
Apr	55.3	29.6	42.5	86	1980	22	48.9	1981	-10	1936	2	35.0	1997	677	0	.0	.0	19.4	1.4	19.9	@
May	65.6	39.7	52.7	98	1941	10	58.0	1985	5	1954	3	46.0	1995	388	5	.0	.0	27.7	.1	6.2	.0
Jun	77.1	49.0	63.1	103	1988	25	69.7	1988	23	1951	3	57.4	1998	128	69	.1	2.4	29.7	.0	.4	.0
Jul	85.1	55.2	70.2	107	1931	27	74.0	1974	34	1925	31	63.8	1992	25	185	.6	9.6	31.0	.0	@	.0
Aug	83.7	53.7	68.7	102	1937	14	75.0	1983	34+	1966	22	63.9	1992	42	157	.1	6.9	30.9	.0	.0	.0
Sep	72.5	43.4	58.0	100	1929	1	64.8	1998	3	1926	25	52.9	1993	241	29	.0	2.0	28.1	.2	3.6	.0
Oct	59.0	31.7	45.4	89	1980	1	49.2	1973	-12	1925	28	41.0	1984	610	0	.0	.0	23.7	1.1	16.2	.1
Nov	42.1	19.6	30.9	75+	1999	8	41.1	1999	-20	1916	13	18.3	1985	1024	0	.0	.0	10.0	7.4	27.1	1.6
Dec	34.2	11.7	23.0	73	1941	3	30.6	1999	-39	1990	22	7.4	1983	1305	0	.0	.0	4.1	12.1	30.4	5.6
Ann	57.5	31.7	44.6	107	Jul 1931	27	75.0	Aug 1983	-39	Dec 1990	22	7.1	Jan 1979	7862	445	.8	20.9	224.8	51.4	190.4	20.4

+ 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: 1893-2001

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

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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: HARRISON, NE

COOP ID: 253615

Climate Division: NE 1

NWS Call Sign:

Elevation: 4,850 Feet Lat: 42° 41N

Lon: 103° 53W

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	.43	.44	1.15	1921	24	.86	1976	.00	1989	4.7	1.7	@	.0	.08	.13	.21	.27	.32	.38	.45	.53	.63	.79	.94
Feb	.41	.31	1.16	1953	9	1.11+	1987	.00	1996	3.8	1.5	@	.0	.03	.07	.14	.20	.26	.33	.41	.51	.64	.86	1.07
Mar	1.11	1.01	2.00	1935	4	3.28	1973	.07+	1997	5.7	3.0	.6	.1	.10	.18	.33	.48	.65	.84	1.06	1.35	1.74	2.39	3.03
Apr	2.20	2.23	2.52	1967	14	5.47	1999	.30	1992	8.5	5.4	1.4	.5	.50	.71	1.03	1.32	1.60	1.91	2.25	2.66	3.20	4.06	4.87
May	3.54	3.19	3.86	1965	15	11.36	1991	.35	1974	10.5	6.9	2.2	.8	.82	1.15	1.67	2.13	2.59	3.09	3.64	4.30	5.16	6.54	7.83
Jun	2.41	2.16	4.25	1916	21	6.22	1999	.59	2000	9.1	5.3	1.5	.3	.62	.85	1.20	1.51	1.81	2.13	2.49	2.91	3.47	4.34	5.16
Jul	1.94	1.71	2.74	1921	14	3.77	1986	.32	1987	8.9	5.1	1.0	.2	.58	.77	1.04	1.28	1.51	1.75	2.02	2.33	2.73	3.36	3.95
Aug	1.35	1.25	1.86	1988	3	2.98	1979	.00	1990	6.6	3.6	.6	.1	.31	.51	.73	.91	1.07	1.24	1.43	1.64	1.92	2.35	2.75
Sep	1.52	1.13	2.77	1955	20	4.62	1973	.06	1979	6.5	3.4	.9	.2	.10	.19	.37	.58	.81	1.09	1.42	1.84	2.43	3.43	4.42
Oct	1.28	.95	2.05	1948	29	4.76	1986	.00	1988	5.4	3.0	.7	.2	.09	.22	.43	.62	.81	1.03	1.28	1.58	2.00	2.67	3.32
Nov	.65	.61	1.83	1922	5	1.65	1983	.11	1989	4.2	2.2	.2	.1	.12	.17	.27	.36	.45	.55	.66	.80	.98	1.27	1.55
Dec	.45	.33	1.10	1951	6	1.94	1987	.03	1991	4.4	1.7	.1	.0	.05	.08	.14	.21	.27	.35	.44	.55	.71	.96	1.21
Ann	17.29	16.46	4.25	Jun 1916	21	11.36	May 1991	.00+	Feb 1996	78.3	42.8	9.2	2.5	11.68	12.74	14.12	15.18	16.12	17.04	17.99	19.05	20.33	22.21	23.84

+ 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: 1893-2001

(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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1971-2000

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Station: HARRISON, NE

COOP ID: 253615

Climate Division: NE 1

NWS Call Sign:

Elevation: 4,850 Feet

Lat: 42° 41N

Lon: 103° 53W

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	9.6	8.8	2	1	15.0	1976	1	21.0	1974	24	1979	31	18	1979	3.6	2.8	.6	.3	.1	15.6	9.6	7.4	5.2
Feb	6.2	5.5	2	1	9.0	1987	27	18.0	1986	20	1979	8	15	1979	2.7	2.2	.8	.3	.0	6.8	2.3	.2	.0
Mar	13.2	8.5	1	1	15.0	1973	14	32.5	1973	18	1973	15	5	1980	2.7	2.3	1.3	.6	.2	6.8	3.9	2.1	1.0
Apr	9.6	5.0	1	#	18.0	1984	3	37.0	1984	16	1986	4	14	1984	2.2	1.8	.9	.3	.1	2.8	1.5	.8	.2
May	1.0	.0	#	0	6.0	1979	9	7.5	1979	6	1990	9	#+	1994	.3	.3	.1	.1	.0	.3	.2	.2	.0
Jun	.0	.0	#	0	1.0	1976	14	1.0	1976	1	1976	14	#	1976	@	@	.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	10.0	1995	20	10.0	1995	10	1995	20	#+	1995	.2	.2	.1	@	@	.2	.1	@	@
Oct	4.2	2.0	#	#	15.0	1995	23	16.0	1995	14	1995	23	1+	1998	1.0	.9	.5	.2	.1	1.3	.8	.4	.1
Nov	6.1	6.0	1	#	18.0	1979	21	20.0	1979	24	1983	27	9	1976	2.2	1.8	.8	.3	.1	4.1	1.7	1.1	.0
Dec	9.1	6.5	3	1	10.0	1987	24	29.0	1987	28	1987	31	19	1985	3.5	2.7	.9	.4	@	9.9	6.7	5.3	3.3
Ann	59.7	42.3	N/A	N/A	18.0+	Apr 1984	3	37.0	Apr 1984	28	Dec 1987	31	19	Dec 1985	18.4	15.0	6.0	2.5	.6	47.8	26.8	17.5	9.8

+ 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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1971-2000**

Station: HARRISON, NE

COOP ID: 253615

Climate Division: NE 1

NWS Call Sign:

Elevation: 4,850 Feet

Lat: 42° 41N

Lon: 103° 53W

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	6/24	6/18	6/13	6/10	6/06	6/02	5/30	5/25	5/19
32	6/16	6/08	6/03	5/30	5/25	5/21	5/17	5/11	5/04
28	5/28	5/22	5/18	5/15	5/12	5/09	5/05	5/01	4/26
24	5/09	5/05	5/02	4/29	4/27	4/24	4/22	4/19	4/14
20	5/04	4/28	4/24	4/21	4/18	4/15	4/11	4/07	4/02
16	4/24	4/18	4/13	4/10	4/06	4/02	3/29	3/25	3/19
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	9/04	9/08	9/10	9/12	9/14	9/16	9/18	9/20	9/24
32	9/09	9/12	9/15	9/17	9/19	9/22	9/24	9/27	9/30
28	9/13	9/18	9/22	9/25	9/28	10/01	10/04	10/08	10/13
24	9/21	9/26	9/30	10/04	10/07	10/10	10/14	10/18	10/23
20	9/29	10/05	10/09	10/13	10/16	10/20	10/23	10/27	11/02
16	10/04	10/11	10/15	10/19	10/23	10/27	10/31	11/05	11/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	121	114	108	104	99	95	90	85	77
32	142	133	127	121	116	111	106	99	90
28	162	154	148	143	138	133	128	123	114
24	184	176	171	167	163	159	154	149	142
20	204	196	190	185	181	176	171	165	157
16	233	221	213	206	200	193	186	178	166

* 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 documentation available from:

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Climate Division: NE 1 NWS Call Sign: Elevation: 4,850 Feet Lat: 42°41N Lon: 103°53W

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	1368	1084	970	677	388	128	25	42	241	610	1024	1305	7862
60	1213	944	815	527	252	57	5	11	136	456	874	1150	6440
57	1120	860	722	439	182	30	1	4	87	364	784	1057	5650
55	1058	804	660	382	141	18	0	2	61	305	724	995	5150
50	903	671	506	250	65	4	0	0	20	172	580	840	4011
32	391	253	91	11	0	0	0	0	0	3	166	343	1258

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	46	93	144	324	640	931	1183	1138	779	416	133	62	5889
55	0	0	0	6	68	259	470	427	150	4	0	0	1384
57	0	0	0	3	46	211	409	367	115	2	0	0	1153
60	0	0	0	0	23	148	319	281	74	0	0	0	845
65	0	0	0	0	5	69	185	157	29	0	0	0	445
70	0	0	0	0	0	23	87	69	8	0	0	0	187

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	0	13	54	157	392	686	929	888	552	240	47	6	0	13	67	224	616	1302	2231	3119	3671	3911	3958	3964
45	0	2	18	84	260	537	774	733	415	138	16	0	0	2	20	104	364	901	1675	2408	2823	2961	2977	2977
50	0	0	1	37	151	394	619	579	287	66	0	0	0	0	1	38	189	583	1202	1781	2068	2134	2134	2134
55	0	0	0	12	71	260	465	427	178	20	0	0	0	0	0	12	83	343	808	1235	1413	1433	1433	1433
60	0	0	0	1	24	143	318	281	94	4	0	0	0	0	0	1	25	168	486	767	861	865	865	865
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	17	58	128	251	422	588	564	361	190	48	9	0	17	75	203	454	876	1464	2028	2389	2579	2627	2636

(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/normal/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