

Climatography of the United States No. 20

Station: JORDAN 1 S, MN

1971-2000

COOP ID: 214176

Climate Division: MN 5

NWS Call Sign:

Elevation: 930 Feet

Lat: 44° 39N

Lon: 93° 37W

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	19.4	-1.1	9.2	59	1981	24	25.7	1990	-41	1970	19	-3.8	1982	1733	0	.0	.0	.2	23.9	31.0	15.0
Feb	26.1	5.4	15.8	61	1990	13	30.4	1998	-36	1989	3	2.9	1989	1378	0	.0	.0	.9	16.4	27.6	9.3
Mar	38.5	18.7	28.6	82	1968	30	38.8	2000	-32	1962	1	19.1	1975	1127	0	.0	.0	6.8	7.2	26.9	2.7
Apr	54.8	31.0	42.9	93	1980	21	50.4	1977	3	1975	4	35.5	1975	663	0	.0	.1	22.2	.4	14.4	.0
May	67.8	44.8	56.3	95	1987	17	64.2	1977	18	1989	6	50.9	1997	299	30	.0	.7	30.5	.0	2.7	.0
Jun	76.9	54.7	65.8	102	1988	24	70.8	1991	34+	1989	10	59.1	1982	71	95	.2	2.6	30.0	.0	.0	.0
Jul	80.5	58.3	69.4	105	1988	31	73.9	1999	39	1988	1	63.2	1992	23	159	.2	4.9	31.0	.0	.0	.0
Aug	77.8	55.6	66.7	101	1988	1	73.2	1995	33	1988	29	63.0	1992	60	114	.1	1.7	31.0	.0	.0	.0
Sep	69.8	45.3	57.6	95+	1978	7	63.9	1978	20	1984	26	53.2	1993	241	18	.0	.7	29.9	.0	2.1	.0
Oct	58.2	34.3	46.3	90	1997	4	51.6	1973	3	1988	30	38.3	1988	582	0	.0	@	25.7	.2	12.0	.0
Nov	38.7	19.9	29.3	77	1999	8	39.6	1999	-20	1977	26	20.9	1985	1071	0	.0	.0	6.9	8.3	25.6	1.4
Dec	24.1	5.5	14.8	67	1998	2	26.5	1997	-41	1983	19	-1.5	1983	1557	0	.0	.0	.4	20.3	30.7	10.1
Ann	52.7	31.0	41.9	105	Jul 1988	31	73.9	Jul 1999	-41+	Dec 1983	19	-3.8	Jan 1982	8805	416	.5	10.7	215.5	76.7	173.0	38.5

+ 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: 1948-2001

(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: JORDAN 1 S, MN

COOP ID: 214176

Climate Division: MN 5

NWS Call Sign:

Elevation: 930 Feet Lat: 44°39N

Lon: 93°37W

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	.76	.60	2.28	1996	18	4.00	1996	.03	1981	4.2	2.4	.2	@	.05	.10	.19	.30	.41	.55	.71	.92	1.21	1.70	2.19
Feb	.52	.42	1.05	1981	27	1.78	1981	.00+	1997	3.1	1.8	.1	@	.00	.00	.13	.24	.33	.43	.54	.68	.85	1.12	1.38
Mar	1.62	1.36	1.43	1998	31	4.26	1998	.16	1997	6.2	4.2	.9	.2	.35	.49	.73	.95	1.16	1.40	1.66	1.97	2.38	3.04	3.66
Apr	2.34	2.27	1.75+	1967	2	5.44	1986	.12	1987	7.3	5.2	1.7	.4	.44	.65	.99	1.31	1.63	1.98	2.37	2.85	3.48	4.50	5.47
May	3.40	3.43	5.71	1960	21	7.69	1999	.53	1988	9.6	7.5	2.4	.5	1.21	1.53	2.00	2.39	2.76	3.14	3.56	4.04	4.66	5.62	6.50
Jun	4.42	3.65	4.17	1998	26	9.17	1990	.29	1988	9.4	7.4	2.8	1.2	1.10	1.51	2.16	2.73	3.29	3.89	4.56	5.35	6.39	8.03	9.57
Jul	3.86	3.86	4.14	1992	2	8.48	1997	.97	1980	8.8	6.7	2.5	1.1	1.21	1.58	2.12	2.59	3.04	3.51	4.02	4.62	5.40	6.61	7.73
Aug	4.68	4.61	3.51	1978	27	7.50	1981	1.64	1990	8.9	7.2	3.3	1.3	2.08	2.50	3.08	3.55	3.99	4.44	4.91	5.46	6.14	7.18	8.12
Sep	2.97	2.53	6.04	1992	16	6.80	1992	.21	2000	7.7	5.7	1.9	.7	.61	.88	1.32	1.71	2.12	2.55	3.03	3.61	4.39	5.62	6.79
Oct	2.14	1.80	2.70	1996	17	4.83	1984	.19	1987	6.2	4.1	1.6	.4	.23	.39	.69	.99	1.31	1.67	2.09	2.61	3.33	4.51	5.66
Nov	1.71	1.36	2.67	1973	20	4.99	1996	.09	1980	5.5	3.8	1.2	.2	.20	.34	.58	.82	1.07	1.35	1.68	2.09	2.64	3.55	4.43
Dec	.77	.75	1.25	1996	15	2.45	1996	.00	1997	4.2	2.3	.3	.1	.04	.12	.24	.35	.47	.61	.76	.95	1.22	1.64	2.06
Ann	29.19	30.94	6.04	Sep 1992	16	9.17	Jun 1990	.00+	Dec 1997	81.1	58.3	18.9	6.1	18.97	20.88	23.37	25.29	27.00	28.68	30.42	32.36	34.73	38.21	41.25

+ 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: 1948-2001

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Complete documentation available from:
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Station: JORDAN 1 S, MN

COOP ID: 214176

Climate Division: MN 5

NWS Call Sign:

Elevation: 930 Feet

Lat: 44°39N

Lon: 93°37W

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	6.0	6.0	6	5	15.0	1982	20	15.0	1982	30	1982	22	30	1982	2.9	2.7	1.2	.4	.2	-9.9	-9.9	-9.9	-9.9
Feb	5.3	6.0	5	2	6.0	1991	23	12.0	1974	28	1979	20	25	1979	1.3	1.2	.5	.1	.0	17.1	16.1	12.6	5.4
Mar	3.9	1.0	2	#	8.0	1977	4	12.0	1983	23	1979	16	13	1979	1.3	1.2	.8	.2	.0	8.0	6.3	4.3	2.3
Apr	1.3	.0	#	0	9.0	1984	30	9.0	1984	8	1975	2	1	1975	.4	.4	.3	.2	.0	.6	.5	.2	.0
May	#	.0	0	0	#	1979	4	#	1979	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	#	1995	21	#	1995	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.1	.0	#	0	2.0	1977	10	2.0	1977	1	1982	20	#	1982	.1	.1	.0	.0	.0	.1	.0	.0	.0
Nov	2.5	.9	1	#	7.0	1995	27	7.0	1995	10+	1996	25	3	1985	.9	.8	.5	.2	.0	3.0	1.7	1.1	.0
Dec	6.6	3.5	2	1	16.5	1982	28	17.0	1982	14	1978	31	10	1978	2.0	1.6	.7	.2	.1	-9.9	-9.9	-9.9	-9.9
Ann	25.7	17.4	N/A	N/A	16.5	Dec 1982	28	17.0	Dec 1982	30	Jan 1982	22	30	Jan 1982	8.9	8.0	4.0	1.3	.3	-9.9	-9.9	-9.9	-9.9

+ 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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Climate Division: MN 5

NWS Call Sign:

Elevation: 930 Feet

Lat: 44°39N

Lon: 93°37W

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	6/06	6/01	5/28	5/25	5/22	5/19	5/16	5/12	5/07
32	5/23	5/18	5/15	5/12	5/09	5/06	5/03	4/30	4/25
28	5/13	5/08	5/04	4/30	4/27	4/24	4/21	4/17	4/12
24	4/29	4/24	4/20	4/17	4/14	4/11	4/08	4/04	3/30
20	4/18	4/14	4/11	4/08	4/06	4/03	4/01	3/29	3/24
16	4/13	4/08	4/04	4/01	3/29	3/26	3/22	3/19	3/14
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	9/01	9/06	9/10	9/13	9/16	9/19	9/22	9/26	10/01
32	9/11	9/16	9/19	9/22	9/24	9/27	9/30	10/03	10/07
28	9/22	9/27	9/30	10/03	10/06	10/09	10/12	10/15	10/20
24	9/24	10/01	10/06	10/10	10/14	10/18	10/22	10/27	11/03
20	10/04	10/11	10/16	10/20	10/24	10/28	11/02	11/07	11/14
16	10/11	10/18	10/24	10/29	11/02	11/06	11/11	11/17	11/24
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	139	131	126	121	116	112	107	102	94
32	160	152	147	142	138	133	129	123	115
28	183	176	170	165	161	156	151	146	138
24	210	200	194	188	182	177	171	164	155
20	226	217	211	206	201	196	190	184	175
16	246	236	229	223	218	212	206	199	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.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:

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Elevation: 930 Feet Lat: 44°39N Lon: 93°37W

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	1733	1378	1127	663	299	71	23	60	241	582	1071	1557	8805
60	1578	1238	972	517	188	23	4	17	132	432	921	1402	7424
57	1485	1154	879	432	135	9	0	6	84	347	831	1309	6671
55	1423	1098	817	378	105	5	0	3	59	294	771	1247	6200
50	1268	958	671	256	50	1	0	0	18	180	623	1092	5117
32	732	503	230	21	0	0	0	0	0	7	190	572	2255

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	23	49	125	348	754	1014	1159	1077	767	449	109	38	5912
55	0	0	0	15	146	329	446	366	136	23	0	0	1461
57	0	0	0	9	114	273	384	308	101	13	0	0	1202
60	0	0	0	4	74	196	295	225	60	5	0	0	859
65	0	0	0	0	30	95	159	114	18	0	0	0	416
70	0	0	0	0	9	31	66	42	3	0	0	0	151

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	2	39	221	570	811	958	867	586	273	38	1	0	2	41	262	832	1643	2601	3468	4054	4327	4365	4366
45	0	1	17	127	421	661	803	712	436	163	15	1	0	1	18	145	566	1227	2030	2742	3178	3341	3356	3357
50	0	0	5	65	286	511	648	557	301	84	4	0	0	0	5	70	356	867	1515	2072	2373	2457	2461	2461
55	0	0	1	30	167	363	493	403	182	39	0	0	0	0	1	31	198	561	1054	1457	1639	1678	1678	1678
60	0	0	0	10	89	229	339	258	97	12	0	0	0	0	0	10	99	328	667	925	1022	1034	1034	1034
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	1	29	153	360	524	630	568	369	176	24	1	0	1	30	183	543	1067	1697	2265	2634	2810	2834	2835

(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