U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: ROSICLARE 5 NW, IL **COOP ID: 117487**

Climate Division: IL 9 **NWS Call Sign:** **Elevation: 400 Feet** **Lat: 37˚28N** **Lon: 88˚24W**

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	40.9	20.8	30.9	72	1972	24	41.9	1990	-22	1994	19	17.2	1977	1058	0	.0	.0	8.3	7.3	24.7	1.6
Feb	47.1	23.9	35.5	77+	1996	28	43.1	1976	-12	1996	4	22.0	1978	826	0	.0	.0	13.1	3.4	19.6	.6
Mar	57.4	33.1	45.3	84+	1998	30	50.7	1973	3	1978	5	38.1	1996	611	0	.0	.0	23.8	.6	13.5	.0
Apr	67.7	42.1	54.9	90+	1989	27	60.2	1981	16	1987	3	49.3	1983	313	10	.0	.1	29.0	.0	4.9	.0
May	75.8	51.7	63.8	92+	1996	25	70.9	1987	31	1997	16	59.2	1976	132	95	.0	.3	30.9	.0	.2	.0
Jun	83.5	60.3	71.9	100+	1988	24	75.8	1991	39+	1993	1	67.5	1974	9	217	.1	5.2	30.0	.0	.0	.0
Jul	87.4	65.0	76.2	102+	1999	31	80.3	1993	47+	1987	16	73.1	1971	0	348	.2	12.7	31.0	.0	.0	.0
Aug	86.6	63.1	74.9	101+	1988	16	79.2	1987	36	1986	29	70.8	1992	5	310	.2	10.1	31.0	.0	.0	.0
Sep	80.0	54.9	67.5	100+	1999	6	73.9	1998	32+	2001	26	61.6	1974	59	133	.1	3.7	30.0	.0	.1	.0
Oct	70.0	42.6	56.3	90	1998	1	61.7	1971	18	1987	8	49.9	1987	287	18	.0	@	30.6	.0	4.2	.0
Nov	56.9	34.1	45.5	84	2000	2	53.4	1999	3	1986	13	36.3	1976	587	1	.0	.0	21.8	.1	12.6	.0
Dec	45.6	25.2	35.4	76	1982	2	43.8	1984	-17	1989	22	24.3	2000	918	0	.0	.0	11.9	3.7	21.7	.5
Ann	66.6	43.1	54.8	102+	Jul 1999	31	80.3	Jul 1993	-22	Jan 1994	19	17.2	Jan 1977	4805	1132	.6	32.1	291.4	15.1	101.5	2.7

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1968-2001

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

Issue Date: February 2004

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	3.48	3.60	2.79	1969	30	7.60	1982	.77	1984
Feb	3.68	3.44	3.31	1990	15	10.42	1989	.87	1983
Mar	4.71	4.27	4.10	1997	2	11.00	1997	1.80	1971
Apr	4.75	3.90	4.69	1972	15	13.22	1983	1.38	1988
May	5.02	4.33	3.10	1973	27	12.36	1990	1.26	1994
Jun	4.19	3.67	5.02	1969	23	11.81	1985	.56	1972
Jul	4.22	4.05	4.42	1989	2	8.76	1989	1.70	1994
Aug	3.49	3.19	6.14	1985	24	13.63	1985	.44	1976
Sep	3.24	3.15	2.52	1977	24	6.67	1977	.14	1998
Oct	3.22	3.37	3.90	1998	7	7.70	1985	.33	2000
Nov	4.41	4.20	3.16	1973	24	9.05	1988	.63	1989
Dec	4.29	3.95	4.96	1982	3	10.74	1982	.69	1976
Ann	48.70	48.61	6.14	Aug 1985	24	13.63	Aug 1985	.14	Sep 1998

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	8.0	6.1	2.4	.9
Feb	7.7	6.0	2.6	1.1
Mar	10.8	8.4	3.4	1.3
Apr	10.1	7.7	3.1	1.2
May	10.3	8.1	3.8	1.4
Jun	8.5	6.4	3.0	1.3
Jul	7.6	5.7	2.7	1.4
Aug	6.5	5.0	2.3	1.0
Sep	6.9	5.1	2.4	.9
Oct	6.7	5.0	2.3	1.0
Nov	8.8	6.6	3.1	1.4
Dec	8.9	6.9	3.2	1.1
Ann	100.8	77.0	34.3	14.0

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	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	1.12	1.45	1.94	2.36	2.76	3.17	3.62	4.15	4.84	5.90	6.88
Feb	.93	1.27	1.81	2.28	2.75	3.24	3.79	4.45	5.30	6.65	7.91
Mar	1.83	2.27	2.89	3.41	3.90	4.40	4.94	5.56	6.36	7.58	8.69
Apr	1.41	1.86	2.53	3.12	3.69	4.28	4.93	5.70	6.70	8.26	9.70
May	1.65	2.13	2.83	3.42	3.99	4.58	5.23	5.99	6.96	8.46	9.86
Jun	1.23	1.63	2.23	2.74	3.25	3.77	4.35	5.03	5.92	7.30	8.58
Jul	1.74	2.12	2.67	3.12	3.54	3.96	4.42	4.95	5.63	6.65	7.58
Aug	.44	.72	1.21	1.70	2.21	2.78	3.44	4.26	5.37	7.19	8.95
Sep	.56	.85	1.32	1.76	2.22	2.71	3.27	3.95	4.86	6.33	7.73
Oct	.88	1.18	1.65	2.05	2.45	2.87	3.33	3.87	4.58	5.70	6.74
Nov	1.11	1.52	2.16	2.73	3.29	3.89	4.54	5.33	6.35	7.97	9.49
Dec	1.01	1.41	2.04	2.60	3.16	3.75	4.41	5.19	6.23	7.86	9.40
Ann	35.41	38.00	41.31	43.82	46.03	48.17	50.38	52.81	55.76	60.02	63.69

+ 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: 1968-2001
(3) Derived from 1971-2000 serially complete daily data

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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	3.8	1.5	1	#
Feb	3.3	.7	1	#
Mar	1.0	.0	#	0
Apr	.1	.0	#	0
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.2	.0	#	0
Nov	.1	.0	#	0
Dec	1.2	.5	#	#
Ann	9.7	2.7	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	9.8	1978	16	22.7	1978	17	1978	17	7	1978
Feb	6.5	1985	11	16.8	1993	10	1993	27	7	1978
Mar	6.5	1975	10	8.0	1975	7	1994	10	1	1994
Apr	4.0	1971	6	4.0	1971	4	1971	6	#+	1997
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	4.5	1993	30	4.5	1993	1	1993	30	#	1993
Nov	2.5	1977	27	2.5	1977	2	1977	28	#+	1997
Dec	8.4	1984	5	8.4	1984	8	1984	5	1+	2000
Ann	9.8	Jan 1978	16	22.7	Jan 1978	17	Jan 1978	17	7+	Feb 1978

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	2.1	1.3	.3	.1	.0
Feb	1.3	1.0	.4	.2	.0
Mar	.5	.5	.1	@	.0
Apr	@	@	@	.0	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	@	@	@	.0	.0
Nov	.1	@	.0	.0	.0
Dec	.8	.5	.1	@	.0
Ann	4.8	3.3	.9	.3	.0

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	4.8	2.8	1.8	.5
Feb	4.3	3.0	1.7	.2
Mar	.6	.3	.1	.0
Apr	@	@	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	@	.0	.0	.0
Nov	.1	.0	.0	.0
Dec	1.3	.2	.1	.0
Ann	11.1	6.3	3.7	.7

+ 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

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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	5/10	5/05	5/02	4/29	4/26	4/23	4/21	4/17	4/12
32	5/05	4/30	4/26	4/22	4/19	4/15	4/12	4/08	4/02
28	4/20	4/15	4/11	4/08	4/04	4/01	3/29	3/25	3/20
24	4/11	4/05	4/01	3/28	3/25	3/21	3/18	3/13	3/07
20	3/31	3/24	3/19	3/14	3/10	3/06	3/01	2/24	2/16
16	3/19	3/11	3/04	2/27	2/22	2/17	2/12	2/06	1/29

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	9/19	9/25	9/29	10/02	10/06	10/09	10/12	10/16	10/22
32	9/30	10/06	10/11	10/14	10/18	10/21	10/25	10/29	11/04
28	10/10	10/16	10/21	10/25	10/29	11/01	11/06	11/10	11/17
24	10/20	10/28	11/03	11/08	11/12	11/17	11/21	11/27	12/05
20	11/01	11/09	11/14	11/19	11/24	11/29	12/04	12/09	12/17
16	11/12	11/20	11/26	12/01	12/05	12/10	12/15	12/20	12/28

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	184	176	171	166	162	157	153	147	140
32	207	198	192	186	181	176	171	165	156
28	234	225	218	212	207	201	195	189	179
24	266	254	246	238	232	225	217	209	197
20	293	281	273	265	258	252	244	236	224
16	321	309	300	292	285	278	270	262	249

***** 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 — Heating Degree Days (1)

Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1058	826	611	313	132	9	0	5	59	287	587	918	4805
60	903	686	465	190	63	1	0	0	19	170	446	763	3706
57	810	607	380	131	36	0	0	0	8	115	365	673	3125
55	752	555	326	98	23	0	0	0	4	86	314	617	2775
50	609	427	212	38	7	0	0	0	0	35	205	474	2007
32	198	104	15	0	0	0	0	0	0	0	15	113	445

Base — Cooling Degree Days (1)

Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	162	202	427	687	985	1198	1371	1328	1064	754	418	218	8814
55	3	9	25	94	295	508	658	615	378	127	27	9	2748
57	0	5	16	67	246	448	596	553	322	94	18	4	2369
60	0	0	9	37	180	359	503	460	243	56	9	0	1856
65	0	0	0	10	95	217	348	310	133	18	1	0	1132
70	0	0	0	2	38	100	200	176	58	3	0	0	577

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	56	105	271	492	778	992	1152	1110	859	545	253	88	56	161	432	924	1702	2694	3846	4956	5815	6360	6613	6701
45	28	53	169	354	624	842	997	955	709	398	155	45	28	81	250	604	1228	2070	3067	4022	4731	5129	5284	5329
50	8	23	96	227	469	692	842	800	559	257	87	21	8	31	127	354	823	1515	2357	3157	3716	3973	4060	4081
55	0	6	45	132	326	542	687	645	412	151	38	5	0	6	51	183	509	1051	1738	2383	2795	2946	2984	2989
60	0	1	14	67	194	392	532	491	279	73	13	0	0	1	15	82	276	668	1200	1691	1970	2043	2056	2056
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	36	72	178	314	504	673	793	759	568	358	156	50	36	108	286	600	1104	1777	2570	3329	3897	4255	4411	4461

(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:
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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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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