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: BARRINGTON 3 SW, IL **COOP ID: 110442**

Climate Division: IL 2 **NWS Call Sign:** **Elevation: 875 Feet** **Lat: 42˚07N** **Lon: 88˚10W**

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	27.2	9.6	18.4	62	1967	24	29.8	1990	-26+	1985	20	4.8	1977	1444	0	.0	.0	.8	19.2	29.8	7.5
Feb	32.7	14.7	23.7	69	2000	26	35.4	1998	-21	1977	6	12.6	1979	1157	0	.0	.0	2.2	13.8	26.0	4.8
Mar	43.9	25.1	34.5	83	1986	30	43.3	2000	-8	1982	8	27.1	1984	945	0	.0	.0	9.3	4.6	23.3	.4
Apr	57.0	36.1	46.6	89+	1980	23	52.0	1985	5	1982	7	41.2	1975	555	1	.0	.0	21.8	.2	9.2	.0
May	69.3	46.5	57.9	93	1975	19	65.0	1977	22	1966	10	52.0	1997	261	41	.0	.4	30.3	.0	1.1	.0
Jun	78.8	56.7	67.8	102	1971	28	73.0	1991	35	1993	1	61.9	1982	50	133	.2	3.4	30.0	.0	@	.0
Jul	82.3	61.8	72.1	103	1974	10	76.3	1999	38+	1965	6	68.2	1992	6	224	.1	5.3	31.0	.0	.0	.0
Aug	80.0	59.6	69.8	100+	1991	3	75.9	1995	38+	1986	28	65.0	1992	30	179	.1	3.2	31.0	.0	.0	.0
Sep	72.6	50.5	61.6	96+	1985	8	67.5	1998	25	1964	29	56.9	1975	146	42	.0	1.1	30.0	.0	.4	.0
Oct	60.7	39.2	50.0	88	1971	1	57.1	1971	14	1988	30	43.7	1987	470	4	.0	.0	27.4	.0	6.7	.0
Nov	45.6	28.6	37.1	75	1968	1	44.6	1999	-10	1976	30	28.4	1976	837	0	.0	.0	11.6	2.6	18.9	.1
Dec	32.4	17.0	24.7	66	1982	3	33.8	1982	-20	1983	24	13.0	1983	1248	0	.0	.0	2.3	13.2	28.3	3.6
Ann	56.9	37.1	47.0	103	Jul 1974	10	76.3	Jul 1999	-26+	Jan 1985	20	4.8	Jan 1977	7149	624	.4	13.4	227.7	53.6	143.7	16.4

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1962-2001

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

Issue Date: February 2004

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: BARRINGTON 3 SW, IL **COOP ID: 110442**

Climate Division: IL 2 **NWS Call Sign:** **Elevation: 875 Feet** **Lat: 42˚07N** **Lon: 88˚10W**

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	1.56	1.35	1.67	1985	1	3.46	1975	.03	1981
Feb	1.38	1.37	3.10	1997	21	5.47	1997	.00	1990
Mar	2.33	1.92	1.90	1985	4	5.38	1976	.39	1989
Apr	3.66	3.71	2.26	1995	27	7.02	1983	.87	1989
May	4.02	4.35	2.52	1996	20	9.25	1996	.28	1992
Jun	4.27	3.90	2.90	1979	9	9.78	1999	.88	1991
Jul	3.80	3.91	3.87	1964	18	6.12	1992	.77	1990
Aug	4.58	4.64	4.15	1968	17	9.21	1987	1.76	1976
Sep	3.32	3.02	4.17	1986	23	9.63	1986	.02	1979
Oct	2.62	2.27	2.89+	1998	18	7.94	1991	.20	1989
Nov	2.93	2.28	2.12	1995	11	7.59	1985	.51	1976
Dec	2.09	1.77	2.10	1982	3	6.19	1982	.20	1989
Ann	36.56	37.45	4.17	Sep 1986	23	9.78	Jun 1999	.00	Feb 1990

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	8.7	4.5	.8	.3
Feb	7.5	4.0	.7	.2
Mar	10.0	5.6	1.3	.4
Apr	10.8	6.8	2.6	1.0
May	10.6	6.8	2.7	1.0
Jun	10.6	7.4	2.9	1.1
Jul	9.9	7.0	2.5	1.1
Aug	9.6	6.7	2.9	1.4
Sep	9.3	5.8	2.0	.9
Oct	8.8	5.2	1.9	.6
Nov	10.7	6.3	1.8	.6
Dec	10.1	5.2	1.1	.4
Ann	116.6	71.3	23.2	9.0

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	.23	.36	.59	.80	1.03	1.28	1.56	1.91	2.38	3.14	3.88
Feb	.08	.21	.42	.63	.84	1.08	1.36	1.71	2.17	2.95	3.70
Mar	.52	.74	1.08	1.39	1.70	2.02	2.39	2.83	3.41	4.33	5.19
Apr	1.27	1.62	2.12	2.55	2.95	3.37	3.82	4.36	5.04	6.09	7.05
May	1.09	1.47	2.05	2.56	3.06	3.58	4.16	4.85	5.75	7.15	8.46
Jun	1.24	1.64	2.26	2.79	3.30	3.84	4.44	5.14	6.05	7.47	8.79
Jul	1.29	1.65	2.18	2.63	3.05	3.49	3.97	4.53	5.25	6.36	7.38
Aug	1.74	2.17	2.78	3.29	3.77	4.26	4.80	5.41	6.20	7.41	8.51
Sep	.42	.69	1.16	1.62	2.11	2.65	3.28	4.05	5.11	6.83	8.50
Oct	.50	.74	1.12	1.47	1.83	2.22	2.66	3.19	3.89	5.02	6.10
Nov	.66	.93	1.36	1.75	2.13	2.54	3.00	3.55	4.27	5.42	6.51
Dec	.40	.59	.90	1.18	1.47	1.78	2.13	2.55	3.11	4.01	4.87
Ann	27.71	29.47	31.70	33.38	34.86	36.28	37.74	39.35	41.28	44.07	46.46

\+ 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: 1962-2001
(3) Derived from 1971-2000 serially complete daily data

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

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

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: BARRINGTON 3 SW, IL **COOP ID: 110442**

Climate Division: IL 2 **NWS Call Sign:** **Elevation: 875 Feet** **Lat: 42°07N** **Lon: 88°10W**

Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	11.4	9.3	4	4	16.0	1979	14	32.5	1979	25	1979	14	14	1979	5.3	3.3	1.2	.3	.1	16.5	13.1	11.1	3.2
Feb	7.5	7.4	4	3	10.2	1988	11	16.7	1988	24	1979	12	20	1979	4.0	2.5	.6	.2	@	16.5	12.3	8.9	3.2
Mar	3.9	2.0	1	#	8.0	1972	13	18.7	1972	14	1979	1	3	1999	1.9	1.3	.4	.2	.0	4.4	2.2	1.2	.2
Apr	.9	.0	#	0	8.0	1975	2	8.0	1975	8	1975	2	1	1975	.3	.2	.1	@	.0	.7	.3	.2	.0
May	.0	.0	0	0	1.0	1989	5	1.0	1989	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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.1	.0	#	0	2.0	1989	20	2.0	1989	2	1989	20	#+	2000	@	@	.0	.0	.0	@	.0	.0	.0
Nov	2.1	2.0	#	#	5.5	1997	16	7.0	1975	6	1997	16	1	1997	1.4	.8	.2	@	.0	2.1	.6	.1	.0
Dec	8.1	6.8	2	1	10.0	1987	15	23.5	1978	17	2000	30	10	2000	5.1	3.2	1.0	.3	@	12.8	6.7	3.4	1.4
Ann	34.0	27.5	N/A	N/A	16.0	Jan 1979	14	32.5	Jan 1979	25	Jan 1979	14	20	Feb 1979	18.0	11.3	3.5	1.0	.1	53.0	35.2	24.9	8.0

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

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: BARRINGTON 3 SW, IL **COOP ID: 110442**

Climate Division: IL 2 **NWS Call Sign:** **Elevation: 875 Feet** **Lat: 42˚07N** **Lon: 88˚10W**

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	6/04	5/29	5/24	5/20	5/16	5/12	5/08	5/03	4/26
32	5/21	5/14	5/09	5/05	5/01	4/28	4/24	4/19	4/12
28	5/06	5/01	4/27	4/23	4/20	4/17	4/13	4/09	4/04
24	4/18	4/14	4/12	4/09	4/07	4/05	4/03	3/31	3/28
20	4/12	4/07	4/03	3/31	3/28	3/26	3/23	3/19	3/14
16	4/04	3/29	3/25	3/22	3/18	3/15	3/11	3/07	3/01

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	9/17	9/22	9/25	9/28	10/01	10/04	10/07	10/10	10/15
32	9/25	9/30	10/03	10/06	10/09	10/11	10/14	10/18	10/22
28	10/02	10/08	10/13	10/17	10/21	10/25	10/29	11/03	11/10
24	10/16	10/22	10/26	10/30	11/02	11/05	11/09	11/13	11/18
20	10/27	11/02	11/07	11/10	11/14	11/18	11/21	11/26	12/02
16	11/05	11/11	11/15	11/19	11/22	11/26	11/29	12/04	12/10

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	161	153	147	142	138	133	128	122	114
32	185	176	170	165	159	154	149	143	134
28	212	202	195	189	183	177	171	164	154
24	226	220	215	211	208	204	200	196	189
20	254	245	240	234	230	225	220	214	206
16	275	266	259	254	248	243	238	231	222

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

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: BARRINGTON 3 SW, IL **COOP ID: 110442**

Climate Division: IL 2 **NWS Call Sign:** **Elevation: 875 Feet** **Lat: 42˚07N** **Lon: 88˚10W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1444	1157	945	555	261	50	6	30	146	470	837	1248	7149
60	1289	1017	790	410	159	15	0	7	64	328	687	1093	5859
57	1196	933	697	329	110	6	0	2	34	253	598	1000	5158
55	1134	877	635	278	84	3	0	0	20	207	539	938	4715
50	979	737	489	168	36	0	0	0	4	115	399	789	3716
32	470	303	103	4	0	0	0	0	0	2	62	319	1263

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	49	70	181	441	803	1073	1241	1172	886	558	215	93	6782
55	0	0	0	25	174	386	528	459	217	51	1	0	1841
57	0	0	0	15	138	329	466	398	170	34	0	0	1550
60	0	0	0	7	94	248	373	311	110	17	0	0	1160
65	0	0	0	1	41	133	224	179	42	4	0	0	624
70	0	0	0	0	14	54	101	85	10	0	0	0	264

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	1	11	74	257	575	845	1028	957	698	357	97	15	1	12	86	343	918	1763	2791	3748	4446	4803	4900	4915
45	0	1	37	151	425	695	873	802	548	232	48	5	0	1	38	189	614	1309	2182	2984	3532	3764	3812	3817
50	0	0	19	82	286	545	718	647	402	130	18	1	0	0	19	101	387	932	1650	2297	2699	2829	2847	2848
55	0	0	4	40	172	396	563	493	264	62	4	0	0	0	4	44	216	612	1175	1668	1932	1994	1998	1998
60	0	0	2	18	94	265	408	340	157	24	0	0	0	0	2	20	114	379	787	1127	1284	1308	1308	1308
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	0	6	44	147	342	548	698	636	431	208	54	4	0	6	50	197	539	1087	1785	2421	2852	3060	3114	3118

(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/normals/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.
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