

# Climatography of the United States

No. 20

1971-2000

Station: URBANA, IL

COOP ID: 118740

Climate Division: IL 5

NWS Call Sign:

Elevation: 743 Feet

Lat: 40°05N

Lon: 88°14W

## 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	32.0	16.2	24.1	70	1909	23	36.1	1990	-25+	1999	5	10.0	1977	1268	0	.0	.0	2.3	15.5	28.6	3.9
Feb	37.6	21.1	29.4	72	2000	25	39.4	1998	-25	1905	13	16.3	1979	998	0	.0	.0	5.1	9.9	23.5	1.9
Mar	49.5	30.4	40.0	85+	1910	24	47.3	1973	-5	1906	17	30.6	1984	775	0	.0	.0	14.5	2.5	17.9	@
Apr	62.2	39.9	51.1	91+	1986	26	56.8	1977	16+	1994	7	45.6	1982	422	4	.0	.1	25.7	.1	5.2	.0
May	73.6	51.1	62.4	97	1934	31	69.9	1977	26	1903	1	57.2	1997	174	92	.0	1.2	30.8	.0	.1	.0
Jun	82.6	60.4	71.5	103+	1988	25	76.2	1971	37	1945	4	66.6	1982	17	212	.1	5.6	30.0	.0	.0	.0
Jul	85.2	64.4	74.8	109	1954	14	78.8	1983	41	1904	2	71.1	1971	1	304	.1	7.1	31.0	.0	.0	.0
Aug	83.2	62.4	72.8	102	1988	17	78.9	1995	39	1915	31	68.8	1992	11	254	.1	4.6	31.0	.0	.0	.0
Sep	77.6	54.3	66.0	101+	1954	5	71.8	1998	29	1942	28	60.5	1974	73	101	.0	2.2	30.0	.0	.1	.0
Oct	65.1	42.9	54.0	93	1954	3	61.3	1971	13	1925	30	48.0	1987	353	12	.0	@	28.8	.0	3.8	.0
Nov	49.5	32.6	41.1	80	1950	1	47.2	1999	-5	1950	25	33.4	1976	718	0	.0	.0	14.4	1.6	15.4	.0
Dec	36.8	21.9	29.4	71	1998	4	37.3	1982	-20+	1983	24	15.8	1983	1106	0	.0	.0	4.2	9.7	25.9	1.8
Ann	61.2	41.5	51.4	109	Jul 1954	14	78.9	Aug 1995	-25+	Jan 1999	5	10.0	Jan 1977	5916	979	.3	20.8	247.8	39.3	120.5	7.6

+ 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](http://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: 1903-2001

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

081-A

# 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: URBANA, IL**

**COOP ID: 118740**

**Climate Division: IL 5**

**NWS Call Sign:**

**Elevation: 743 Feet**

**Lat: 40°05N**

**Lon: 88°14W**

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	1.90	1.44	2.43	1967	26	5.79	1982	.06	1986	9.9	4.8	1.0	.2	.30	.47	.74	1.00	1.27	1.57	1.90	2.31	2.86	3.76	4.61
Feb	2.01	1.56	2.30	1990	22	6.05	1990	.33	1991	9.0	4.6	1.1	.4	.44	.62	.92	1.19	1.45	1.74	2.06	2.44	2.95	3.75	4.51
Mar	3.21	3.11	2.93	1917	13	6.55	1973	.76	1981	11.2	7.1	2.2	.6	1.00	1.30	1.75	2.14	2.52	2.91	3.34	3.84	4.49	5.50	6.44
Apr	3.65	3.34	3.09	1964	20	9.27	1994	.59	1976	12.1	7.7	2.2	.7	.87	1.21	1.74	2.22	2.69	3.19	3.75	4.42	5.29	6.67	7.97
May	4.80	4.20	4.50	1921	26	10.11	1995	1.40	1972	11.0	7.8	3.2	1.5	1.57	2.03	2.70	3.27	3.82	4.38	5.01	5.73	6.67	8.12	9.46
Jun	4.21	4.57	3.89	1983	19	9.15	1983	.32	1988	9.9	6.3	2.8	1.3	.77	1.15	1.76	2.33	2.92	3.55	4.26	5.13	6.28	8.13	9.90
Jul	4.67	4.00	4.43	1987	30	13.82	1992	1.28	1994	9.2	6.7	3.0	1.3	1.06	1.50	2.18	2.80	3.41	4.06	4.79	5.67	6.81	8.64	10.36
Aug	4.37	4.20	5.32	1993	12	10.02	1993	1.28	1988	9.4	6.7	3.0	1.3	1.20	1.62	2.25	2.80	3.34	3.90	4.52	5.26	6.22	7.72	9.13
Sep	3.22	3.08	3.91	1931	15	8.69	1972	.50	1995	7.8	5.3	2.2	.8	.64	.93	1.40	1.83	2.27	2.74	3.27	3.92	4.76	6.12	7.41
Oct	2.81	2.77	3.72	1983	21	7.24	1983	.72	1971	9.0	5.3	2.0	.6	.90	1.17	1.57	1.90	2.23	2.56	2.93	3.36	3.91	4.78	5.57
Nov	3.45	2.97	4.07	1936	2	10.08	1985	.57	1976	10.2	6.2	2.4	.9	.91	1.23	1.73	2.17	2.60	3.06	3.56	4.16	4.94	6.18	7.33
Dec	2.76	2.33	2.74	1966	7	6.18	1990	.27	1976	10.8	5.7	1.7	.5	.64	.89	1.30	1.66	2.02	2.40	2.83	3.34	4.01	5.08	6.09
Ann	41.06	39.68	5.32	Aug 1993	12	13.82	Jul 1992	.06	Jan 1986	119.5	74.2	26.8	10.1	30.72	32.76	35.35	37.30	39.02	40.68	42.38	44.26	46.52	49.78	52.59

+ 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: 1903-2001

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

Complete documentation available from:  
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**NWS Call Sign:**

**Elevation: 743 Feet**

**Lat: 40°05N**

**Lon: 88°14W**

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	7.9	5.6	3	1	11.4	1982	31	28.3	1979	18	1979	31	10	1999	5.7	2.8	1.0	.2	.1	7.4	3.9	1.0	.0
Feb	5.6	4.0	2	1	10.9	1978	13	17.9	1993	19	1982	10	14	1979	3.9	1.7	.5	.2	.1	5.3	2.1	.7	.0
Mar	3.2	2.1	1	#	7.6	1983	20	13.4	1978	13	1978	9	5	1978	2.5	.9	.3	.1	.0	1.5	.6	.2	.0
Apr	.5	.0	#	0	3.2	1982	5	6.6	1982	3	1982	9	#+	2000	.5	.2	.1	.0	.0	.2	@	.0	.0
May	#	.0	0	0	#	1989	6	#	1989	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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.1	.0	#	0	2.8	1989	19	3.3	1989	#	1972	15	#	1972	.1	@	.0	.0	.0	.0	.0	.0	.0
Nov	2.1	.3	#	#	9.1	1980	27	10.9	1980	8	1980	28	1	1980	1.6	.7	.2	.1	.0	1.0	.6	.2	.0
Dec	6.0	4.1	1	#	9.5	1973	19	19.1	1983	13	1983	31	6+	2000	4.7	1.7	.7	.2	.0	4.1	1.5	.9	.1
Ann	25.4	16.1	N/A	N/A	11.4	Jan 1982	31	28.3	Jan 1979	19	Feb 1982	10	14	Feb 1979	19.0	8.0	2.8	.8	.2	19.5	8.7	3.0	.1

+ 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	5/12	5/07	5/04	5/01	4/28	4/26	4/23	4/20	4/15
32	4/30	4/25	4/22	4/19	4/16	4/13	4/10	4/07	4/02
28	4/17	4/13	4/10	4/08	4/06	4/04	4/01	3/29	3/26
24	4/11	4/06	4/02	3/29	3/26	3/23	3/19	3/15	3/09
20	4/04	3/30	3/26	3/22	3/19	3/16	3/12	3/08	3/02
16	3/27	3/21	3/16	3/12	3/08	3/04	2/28	2/23	2/17
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	9/22	9/27	10/01	10/04	10/07	10/10	10/13	10/17	10/22
32	10/02	10/07	10/10	10/13	10/16	10/19	10/22	10/25	10/30
28	10/14	10/20	10/24	10/28	10/31	11/03	11/07	11/11	11/16
24	10/28	11/02	11/06	11/09	11/11	11/14	11/17	11/21	11/26
20	11/05	11/11	11/15	11/19	11/23	11/26	11/30	12/04	12/10
16	11/16	11/21	11/25	11/28	12/01	12/04	12/07	12/11	12/17
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	180	174	169	165	161	157	153	148	142
32	203	196	191	187	182	178	174	169	162
28	227	220	215	211	208	204	200	195	188
24	252	244	239	234	230	225	221	215	208
20	274	265	259	253	248	243	237	231	222
16	292	284	277	272	267	262	257	251	242

\* 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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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	1268	998	775	422	174	17	1	11	73	353	718	1106	5916
60	1113	858	620	284	96	4	0	1	24	227	568	951	4746
57	1020	774	534	212	61	1	0	0	10	164	481	858	4115
55	958	721	476	168	44	0	0	0	5	128	426	801	3727
50	813	591	339	83	16	0	0	0	1	61	293	657	2854
32	339	207	50	0	0	0	0	0	0	0	31	236	863

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	94	133	297	572	941	1185	1326	1265	1018	682	303	153	7969
55	0	3	10	50	272	496	613	552	333	97	8	5	2439
57	0	0	7	33	228	436	551	490	278	71	3	0	2097
60	0	0	0	16	169	349	458	398	203	41	1	0	1635
65	0	0	0	4	92	212	304	254	101	12	0	0	979
70	0	0	0	1	41	103	164	134	37	2	0	0	482

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	13	38	140	367	713	963	1095	1033	794	453	149	32	13	51	191	558	1271	2234	3329	4362	5156	5609	5758	5790
45	3	12	78	241	558	813	940	878	644	312	82	13	3	15	93	334	892	1705	2645	3523	4167	4479	4561	4574
50	0	3	39	140	408	663	785	723	495	194	40	4	0	3	42	182	590	1253	2038	2761	3256	3450	3490	3494
55	0	0	20	72	268	513	630	568	350	106	16	0	0	0	20	92	360	873	1503	2071	2421	2527	2543	2543
60	0	0	5	30	156	366	475	413	223	49	4	0	0	0	5	35	191	557	1032	1445	1668	1717	1721	1721
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	3	20	87	212	436	646	754	706	506	268	80	17	3	23	110	322	758	1404	2158	2864	3370	3638	3718	3735

(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](http://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.  
Complete documentation for the 1971-2000 Normals is available on the internet from:  
[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)