

# Climatography of the United States

No. 20

1971-2000

Station: LINCOLN, IL

COOP ID: 115079

Climate Division: IL 4

NWS Call Sign:

Elevation: 583 Feet

Lat: 40°09N

Lon: 89°20W

## 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	32.5	14.7	23.6	70+	1950	25	36.2	1990	-25	1999	5	9.7	1977	1283	0	.0	.0	2.5	14.0	28.8	4.3
Feb	38.3	19.3	28.8	75	1996	27	39.2	1998	-23	1934	27	15.9	1979	1014	0	.0	.0	5.7	8.6	23.8	2.7
Mar	50.4	28.7	39.6	86+	1986	30	46.1	1973	-14	1934	10	31.5	1984	789	0	.0	.0	16.1	2.0	18.9	.1
Apr	63.1	38.6	50.9	93	1930	11	57.4	1977	14	1920	5	45.8+	1983	429	4	.0	.1	26.6	.1	5.4	.0
May	74.0	49.8	61.9	102	1934	31	68.5	1987	24	1966	10	57.4	1981	173	77	.0	1.1	30.9	.0	.1	.0
Jun	83.0	60.7	71.9	105	1934	1	76.8	1991	35+	1917	16	66.5	1982	15	220	.1	5.9	30.0	.0	.0	.0
Jul	86.0	63.9	75.0	113	1936	15	79.9	1983	41	1930	15	70.9	1971	1	309	.2	9.0	31.0	.0	.0	.0
Aug	84.0	61.5	72.8	106	1934	9	79.4	1983	36	1915	31	68.6	1992	15	254	.3	6.0	31.0	.0	.0	.0
Sep	78.0	52.6	65.3	104	1954	6	69.8	1998	22	1928	26	60.2	1974	77	86	.0	2.4	30.0	.0	.2	.0
Oct	66.5	40.9	53.7	95+	1954	3	60.8	1971	7	1925	30	46.1	1988	361	12	.0	.0	29.6	.0	5.3	.0
Nov	50.7	31.2	41.0	92	1946	2	47.3	1999	-3+	1964	30	33.8	1976	722	0	.0	.0	15.8	1.3	16.5	.0
Dec	37.9	20.6	29.3	72+	1998	5	37.9	1982	-29	1914	26	15.6	1983	1108	0	.0	.0	4.9	8.2	26.3	2.2
Ann	62.0	40.2	51.2	113	Jul 1936	15	79.9	Jul 1983	-29	Dec 1914	26	9.7	Jan 1977	5987	962	.6	24.5	254.1	34.2	125.3	9.3

+ 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](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1906-2001

(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: LINCOLN, IL**

**COOP ID: 115079**

**Climate Division: IL 4**

**NWS Call Sign:**

**Elevation: 583 Feet**

**Lat: 40°09N**

**Lon: 89°20W**

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	1.70	1.23	2.28	1975	10	4.77	1975	.04	1986	8.3	4.3	.7	.2	.23	.37	.61	.85	1.10	1.37	1.69	2.08	2.61	3.47	4.30
Feb	1.55	1.24	2.09	1942	4	3.54	1990	.12	1987	7.8	4.0	.9	.3	.28	.41	.64	.85	1.07	1.30	1.57	1.89	2.32	3.01	3.67
Mar	3.11	3.06	3.50	1939	11	7.14	1973	1.08	1971	10.4	6.6	2.2	.5	1.02	1.32	1.75	2.12	2.47	2.84	3.24	3.71	4.31	5.24	6.11
Apr	3.63	3.37	3.96	1998	30	8.55	1998	.56	1971	11.8	7.3	2.2	.6	.91	1.25	1.78	2.25	2.71	3.20	3.74	4.39	5.24	6.58	7.83
May	4.42	3.87	5.22	1914	12	12.70	1995	1.06	1992	11.0	7.3	3.0	1.2	1.26	1.68	2.31	2.87	3.40	3.97	4.59	5.32	6.27	7.76	9.15
Jun	3.97	3.91	4.71	1951	28	8.39	1998	.66	1988	9.2	6.2	3.0	1.2	.95	1.32	1.90	2.42	2.93	3.48	4.09	4.81	5.76	7.26	8.68
Jul	4.35	3.56	4.64	1990	22	15.93	1992	.64	1988	9.3	6.2	2.9	1.3	.84	1.23	1.87	2.45	3.05	3.69	4.42	5.29	6.45	8.32	10.09
Aug	4.00	3.79	3.51	1959	30	7.15+	1991	.56	1984	8.9	6.0	2.8	1.1	1.06	1.44	2.02	2.53	3.03	3.56	4.14	4.83	5.73	7.15	8.47
Sep	3.13	2.69	3.55	1986	20	8.34	1986	.71	1985	8.3	5.3	2.2	.7	.88	1.18	1.63	2.02	2.40	2.80	3.25	3.77	4.45	5.51	6.50
Oct	2.81	2.01	3.73	1991	4	9.15	1991	1.06	1989	8.2	5.3	2.0	.6	.82	1.09	1.49	1.84	2.18	2.53	2.92	3.38	3.97	4.90	5.76
Nov	3.00	3.09	2.50	1936	2	7.55	1992	.30	1999	9.7	6.3	2.1	.6	.67	.94	1.38	1.78	2.18	2.60	3.07	3.64	4.39	5.58	6.70
Dec	2.63	2.26	5.18	1982	3	9.52	1982	.37	1976	9.6	5.6	1.4	.4	.59	.84	1.22	1.57	1.92	2.28	2.70	3.19	3.84	4.87	5.84
Ann	38.30	37.58	5.22	May 1914	12	15.93	Jul 1992	.04	Jan 1986	112.5	70.4	25.4	8.7	27.45	29.55	32.25	34.30	36.11	37.87	39.67	41.67	44.10	47.61	50.64

+ 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: 1906-2001

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

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Station: LINCOLN, IL

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Climate Division: IL 4

NWS Call Sign:

Elevation: 583 Feet

Lat: 40°09N

Lon: 89°20W

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	5.6	4.9	2	1	8.5	1987	10	14.5	1977	14+	1999	3	8	1977	4.1	2.6	.9	.2	.0	12.2	8.1	4.0	1.0
Feb	5.0	4.5	1	#	11.0	1993	26	16.8	1993	13	1979	14	9	1979	3.0	1.6	.5	.2	@	9.0	5.7	3.5	.8
Mar	2.1	1.5	#	#	6.0	1972	29	6.0+	1979	6	1978	9	4	1994	1.5	.9	.1	@	.0	2.1	.6	.1	.0
Apr	.6	.0	#	0	5.0	1980	14	6.5	1982	5	1980	14	#+	2000	.3	.2	.1	@	.0	.2	.1	@	.0
May	.0	.0	0	0	.0	0	0	.0	0	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	#	.0	#	0	#	1997	27	#+	1997	#	1997	27	#	1997	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.5	.2	#	0	4.0	1974	14	7.0	1980	6	1980	28	1	1980	.7	.4	.2	.0	.0	.7	.4	.2	.0
Dec	5.5	3.0	1	#	8.0	1981	23	19.5+	2000	13	1973	23	4	1973	3.3	2.0	.5	.2	.0	6.3	3.1	2.0	.3
Ann	20.3	14.1	N/A	N/A	11.0	Feb 1993	26	19.5+	Dec 2000	14+	Jan 1999	3	9	Feb 1979	12.9	7.7	2.3	.6	@	30.5	18.0	9.8	2.1

+ 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	5/16	5/11	5/07	5/04	5/01	4/28	4/25	4/21	4/16
32	5/01	4/27	4/23	4/21	4/18	4/15	4/13	4/09	4/05
28	4/20	4/15	4/12	4/09	4/06	4/03	4/01	3/28	3/24
24	4/13	4/08	4/04	4/01	3/30	3/27	3/24	3/21	3/16
20	4/02	3/28	3/25	3/22	3/19	3/16	3/13	3/09	3/04
16	3/24	3/17	3/12	3/08	3/05	3/01	2/25	2/20	2/14
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	9/20	9/24	9/27	9/30	10/02	10/05	10/07	10/10	10/15
32	9/28	10/03	10/06	10/09	10/12	10/15	10/18	10/22	10/27
28	10/05	10/11	10/16	10/19	10/23	10/26	10/30	11/04	11/10
24	10/22	10/27	10/31	11/03	11/06	11/09	11/13	11/16	11/21
20	11/02	11/07	11/11	11/14	11/17	11/20	11/23	11/27	12/02
16	11/11	11/17	11/22	11/25	11/29	12/02	12/06	12/10	12/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	172	165	161	157	154	150	146	142	136
32	196	189	185	181	177	173	169	164	157
28	223	215	209	204	199	194	189	183	175
24	242	235	229	225	221	217	212	207	200
20	266	258	252	247	243	238	233	227	219
16	295	286	279	274	268	263	257	251	241

\* 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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**No. 20**  
**1971-2000**

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**Climate Division: IL 4      NWS Call Sign:      Elevation: 583 Feet      Lat: 40°09N      Lon: 89°20W**

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	1283	1014	789	429	173	15	1	15	77	361	722	1108	5987
60	1128	874	634	292	92	3	0	2	26	234	573	953	4811
57	1035	790	545	220	58	1	0	0	10	170	485	860	4174
55	973	738	489	177	40	0	0	0	5	134	428	804	3788
50	823	607	350	92	14	0	0	0	1	65	296	660	2908
32	347	221	53	0	0	0	0	0	0	0	30	239	890

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	87	131	287	566	927	1195	1331	1263	1000	673	298	154	7912
55	0	4	9	53	255	505	618	550	315	94	6	6	2415
57	0	0	4	36	210	446	556	488	260	69	2	0	2071
60	0	0	0	18	152	358	463	397	185	39	0	0	1612
65	0	0	0	4	77	220	309	254	86	12	0	0	962
70	0	0	0	0	31	108	169	138	29	2	0	0	477

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	7	41	151	384	725	980	1116	1044	794	462	155	32	7	48	199	583	1308	2288	3404	4448	5242	5704	5859	5891
45	3	14	86	258	571	830	961	889	644	324	88	12	3	17	103	361	932	1762	2723	3612	4256	4580	4668	4680
50	0	3	42	155	418	680	806	734	496	201	42	5	0	3	45	200	618	1298	2104	2838	3334	3535	3577	3582
55	0	0	19	80	277	530	651	579	355	108	17	0	0	0	19	99	376	906	1557	2136	2491	2599	2616	2616
60	0	0	4	35	162	382	496	424	225	49	4	0	0	0	4	39	201	583	1079	1503	1728	1777	1781	1781
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	4	26	94	236	451	656	767	710	519	290	92	18	4	30	124	360	811	1467	2234	2944	3463	3753	3845	3863

(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.  
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)