

# Climatography of the United States

No. 20

1971-2000

Station: DIXON SPRINGS AGR CENTER, IL

COOP ID: 112353

Climate Division: IL 9

NWS Call Sign:

Elevation: 540 Feet

Lat: 37° 26N

Lon: 88° 40W

## 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	43.1	24.9	34.0	70	1986	21	44.0	1990	-20	1977	17	19.1	1977	961	0	.0	.0	8.7	6.7	22.7	1.1
Feb	49.8	29.1	39.5	78	1996	27	47.0	1992	-10	1996	4	24.9	1978	715	0	.0	.0	13.9	3.5	16.7	.5
Mar	60.5	37.9	49.2	83	1986	31	55.7	1973	-3	1978	5	42.2	1996	497	6	.0	.0	24.9	.4	11.1	@
Apr	70.7	46.4	58.6	89	1987	21	65.2	1981	21+	1990	7	52.2	1983	219	25	.0	.0	29.2	.0	2.8	.0
May	78.9	55.0	67.0	92+	1996	25	72.4	1991	29	1976	4	62.0	1976	80	141	.0	.8	31.0	.0	.1	.0
Jun	86.7	63.2	75.0	100+	1988	26	77.8	1971	39	1972	1	70.4	1974	2	301	.1	7.9	30.0	.0	.0	.0
Jul	90.3	67.2	78.8	101+	1999	30	83.1	1980	46	1971	31	75.0	1971	0	426	.3	15.5	31.0	.0	.0	.0
Aug	89.6	65.1	77.4	102+	1988	18	83.5	1980	46	1986	29	72.7	1976	2	384	.4	12.5	31.0	.0	.0	.0
Sep	83.5	58.1	70.8	100+	1999	5	75.9	1998	32	1983	22	64.8	1974	27	199	.1	4.6	30.0	.0	@	.0
Oct	73.1	46.8	60.0	91	1971	1	67.4	1971	17	1981	24	53.8	1988	202	46	.0	@	30.7	.0	3.2	.0
Nov	58.9	38.7	48.8	83+	2000	1	55.6	1999	6	1976	30	40.0	1976	489	3	.0	.0	22.2	.1	9.6	.0
Dec	47.3	29.3	38.3	77	1982	2	46.0	1984	-14	1989	22	27.4	1983	828	0	.0	.0	12.3	3.6	18.5	.4
Ann	69.4	46.8	58.1	102+	Aug 1988	18	83.5	Aug 1980	-20	Jan 1977	17	19.1	Jan 1977	4022	1531	.9	41.3	294.9	14.3	84.7	2.0

+ 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: 1967-2001

(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: DIXON SPRINGS AGR CENTER, IL**

**COOP ID: 112353**

**Climate Division: IL 9**

**NWS Call Sign:**

**Elevation: 540 Feet**

**Lat: 37°26N**

**Lon: 88°40W**

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	3.37	3.16	5.09	2000	3	8.79	1982	.81	1987	8.7	5.9	2.0	.9	.89	1.20	1.69	2.12	2.54	2.99	3.48	4.06	4.82	6.02	7.14
Feb	3.39	3.59	2.72	1975	23	9.20	1989	.78	1996	8.7	5.7	2.5	.9	.93	1.26	1.74	2.17	2.59	3.03	3.51	4.08	4.83	6.00	7.09
Mar	4.60	4.36	4.11	1977	28	8.84	1977	1.51	1971	10.9	7.7	3.5	1.1	1.82	2.24	2.85	3.34	3.82	4.29	4.81	5.41	6.17	7.34	8.40
Apr	4.74	4.22	5.47	1972	15	12.40	1983	2.01	1971	10.6	7.6	3.4	1.3	1.63	2.07	2.73	3.28	3.81	4.36	4.95	5.65	6.54	7.92	9.19
May	5.16	4.73	5.52	1973	27	11.11	1990	.61	1994	10.2	7.6	3.7	1.5	1.39	1.88	2.63	3.28	3.92	4.59	5.33	6.22	7.37	9.16	10.85
Jun	4.10	3.78	4.60	1969	23	7.66	1998	.71	1991	9.2	7.1	2.8	1.1	1.13	1.52	2.11	2.63	3.13	3.66	4.25	4.94	5.84	7.25	8.57
Jul	3.75	3.94	3.46	2001	26	7.12	1981	1.12	1974	7.6	5.7	2.7	1.1	1.42	1.77	2.27	2.69	3.08	3.48	3.92	4.43	5.07	6.06	6.97
Aug	3.60	2.95	4.07	1985	24	11.57	1985	.42	1976	6.9	5.0	2.2	1.1	.42	.69	1.20	1.70	2.23	2.83	3.53	4.39	5.57	7.50	9.38
Sep	3.26	3.30	2.69	1993	23	7.63	1993	.43	1999	6.9	4.9	2.2	1.3	.59	.88	1.36	1.80	2.26	2.75	3.30	3.97	4.87	6.31	7.68
Oct	3.16	2.94	3.05	1999	9	7.21	1984	.58	2000	7.2	5.1	2.3	.8	.88	1.18	1.63	2.03	2.42	2.83	3.28	3.81	4.50	5.58	6.59
Nov	4.71	4.52	2.98	1973	24	8.62	1973	.56	1999	9.3	7.1	3.3	1.5	1.38	1.83	2.50	3.08	3.65	4.24	4.89	5.65	6.64	8.19	9.63
Dec	4.40	4.20	4.97	1982	3	14.71	1982	.67	1976	9.4	6.5	3.1	1.2	.98	1.39	2.03	2.61	3.20	3.81	4.51	5.34	6.43	8.17	9.82
Ann	48.24	46.77	5.52	May 1973	27	14.71	Dec 1982	.42	Aug 1976	105.6	75.9	33.7	13.8	35.49	37.99	41.17	43.57	45.70	47.75	49.86	52.18	54.99	59.05	62.55

+ 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: 1967-2001

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

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Station: DIXON SPRINGS AGR CENTER, IL

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Climate Division: IL 9

NWS Call Sign:

Elevation: 540 Feet

Lat: 37°26N

Lon: 88°40W

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	4.2	2.3	1	#	8.5	1978	16	18.5	1978	15	1978	17	7	1978	2.7	1.5	.3	.2	.0	5.0	2.6	1.6	.3
Feb	3.7	2.3	1	#	10.5	1993	25	17.0	1993	11	1993	25	4	1978	2.0	1.1	.3	.2	@	4.2	1.7	.8	.0
Mar	1.4	.0	#	0	8.0	1994	9	8.3	1975	8	1994	9	1	1994	.6	.4	.2	.1	.0	.5	.2	@	.0
Apr	.2	.0	#	0	3.5	1971	6	3.5	1971	4	1971	6	#	1971	@	@	@	.0	.0	@	@	.0	.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	.2	.0	#	0	4.0	1993	30	5.5	1993	3	1993	30	#	1993	.1	.1	@	.0	.0	.1	@	.0	.0
Nov	.1	.0	#	0	2.0	1977	27	2.0	1977	2	1977	27	#+	1980	@	@	.0	.0	.0	@	.0	.0	.0
Dec	1.1	.2	#	0	7.6	1984	5	8.7	1984	9	1984	6	1+	2000	.7	.5	.2	.1	.0	1.3	.4	.2	.0
Ann	10.9	4.8	N/A	N/A	10.5	Feb 1993	25	18.5	Jan 1978	15	Jan 1978	17	7	Jan 1978	6.1	3.6	1.0	.6	@	11.1	4.9	2.6	.3

+ 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	5/14	5/07	5/03	4/29	4/25	4/21	4/17	4/13	4/06
32	4/27	4/22	4/18	4/15	4/12	4/09	4/06	4/02	3/28
28	4/18	4/13	4/10	4/07	4/04	4/01	3/29	3/26	3/21
24	4/10	4/04	3/31	3/27	3/24	3/20	3/16	3/12	3/06
20	3/21	3/16	3/12	3/08	3/05	3/02	2/26	2/22	2/16
16	3/18	3/10	3/04	2/28	2/23	2/19	2/14	2/08	1/31
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	9/30	10/03	10/06	10/09	10/11	10/15	10/20
32	10/02	10/07	10/10	10/13	10/16	10/19	10/22	10/25	10/30
28	10/11	10/17	10/21	10/25	10/29	11/01	11/05	11/09	11/15
24	10/27	11/02	11/06	11/10	11/13	11/17	11/20	11/24	11/30
20	11/02	11/10	11/15	11/19	11/24	11/28	12/02	12/08	12/15
16	11/17	11/24	11/29	12/04	12/08	12/12	12/16	12/21	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	185	178	172	167	163	159	154	148	141
32	205	198	194	190	186	183	179	174	168
28	225	219	214	210	207	203	200	195	189
24	260	251	244	239	234	229	223	217	208
20	287	279	273	268	263	258	253	247	239
16	321	309	301	294	287	280	273	264	253

\* 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	961	715	497	219	80	2	0	2	27	202	489	828	4022
60	807	582	356	117	30	0	0	0	6	109	351	675	3033
57	723	504	280	73	15	0	0	0	2	69	275	590	2531
55	664	453	235	49	9	0	0	0	1	48	229	532	2220
50	523	335	143	15	1	0	0	0	0	16	135	396	1564
32	156	64	7	0	0	0	0	0	0	0	4	80	311

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	218	273	539	796	1084	1289	1449	1406	1163	867	508	275	9867
55	13	18	54	156	380	599	736	693	474	202	43	15	3383
57	10	13	37	119	324	539	674	631	415	161	28	11	2962
60	1	7	20	74	246	449	581	538	329	108	15	3	2371
65	0	0	6	25	141	301	426	384	199	46	3	0	1531
70	0	0	0	6	65	165	275	241	100	14	0	0	866

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	65	136	310	547	824	1039	1186	1143	908	606	291	108	65	201	511	1058	1882	2921	4107	5250	6158	6764	7055	7163
45	34	75	204	406	669	889	1031	988	758	454	188	56	34	109	313	719	1388	2277	3308	4296	5054	5508	5696	5752
50	11	37	118	279	514	739	876	833	608	315	110	26	11	48	166	445	959	1698	2574	3407	4015	4330	4440	4466
55	1	11	60	168	365	589	721	678	458	200	51	7	1	12	72	240	605	1194	1915	2593	3051	3251	3302	3309
60	0	2	29	89	229	439	566	523	319	105	20	0	0	2	31	120	349	788	1354	1877	2196	2301	2321	2321
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	38	78	190	343	542	711	818	784	602	393	169	56	38	116	306	649	1191	1902	2720	3504	4106	4499	4668	4724

(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> |
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## 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)