

Climatography of the United States No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: FULTON L&D #13, IL

1971-2000

COOP ID: 113290

Climate Division: IL 1

NWS Call Sign:

Elevation: 592 Feet

Lat: 41° 54N

Lon: 90° 09W

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	25.5	10.9	18.2	62+	1981	26	29.7	1990	-23+	1999	6	5.7	1977	1451	0	.0	.0	.8	19.0	30.2	8.2
Feb	30.9	16.1	23.5	68	1976	26	36.2	1998	-26	1996	4	10.8	1979	1163	0	.0	.0	2.3	12.7	26.1	4.6
Mar	42.9	26.6	34.8	82	1986	30	41.7	1973	-14	1962	1	25.9	1975	938	0	.0	.0	10.1	4.3	22.2	.3
Apr	56.2	37.7	47.0	91	1980	23	52.5	1977	13	1982	7	41.0	1975	542	1	.0	@	23.0	.3	6.0	.0
May	68.2	49.3	58.8	92+	1991	29	66.0	1977	30+	1989	6	54.2	1973	236	42	.0	.3	30.6	.0	.1	.0
Jun	77.8	59.5	68.7	98+	1988	22	72.8	1971	40	1993	5	64.1	1982	33	143	.0	2.6	30.0	.0	.0	.0
Jul	81.6	63.9	72.8	99+	1995	14	76.7	1983	46	2000	16	68.2	1992	2	243	.0	5.4	31.0	.0	.0	.0
Aug	79.2	61.6	70.4	102	1988	18	76.5	1995	42	1999	15	65.0	1992	28	195	.2	3.7	31.0	.0	.0	.0
Sep	71.5	53.5	62.5	96+	1985	8	67.5	1978	30	1991	21	57.5	1999	131	55	.0	.9	30.0	.0	.1	.0
Oct	59.4	41.8	50.6	90	1971	1	59.3	1971	13	1952	29	44.8	1987	450	4	.0	@	27.5	.0	4.3	.0
Nov	43.2	30.5	36.9	82	2000	2	43.1	1975	-5+	1977	27	29.9	1995	845	0	.0	.0	11.5	2.9	18.5	.1
Dec	29.9	18.0	24.0	66+	2001	6	32.6	1982	-22	2000	26	6.9	2000	1274	0	.0	.0	2.0	13.2	28.4	3.9
Ann	55.5	39.1	47.4	102	Aug 1988	18	76.7	Jul 1983	-26	Feb 1996	4	5.7	Jan 1977	7093	683	.2	12.9	229.8	52.4	135.9	17.1

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

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

029-A

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Climate Division: IL 1

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Lon: 90°09W

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	1.33	1.28	1.43	1995	20	3.34	1993	.02	1981	7.5	3.6	.7	.2	.21	.32	.51	.69	.88	1.09	1.33	1.62	2.01	2.64	3.25
Feb	1.26	.91	1.72	2001	9	3.28	1997	.02	1983	6.1	3.5	.8	.2	.12	.21	.38	.55	.74	.96	1.21	1.53	1.97	2.70	3.42
Mar	2.36	1.87	2.77	1976	5	6.84	1991	.44	1978	8.5	5.2	1.7	.5	.45	.66	1.01	1.33	1.65	2.00	2.39	2.87	3.50	4.52	5.48
Apr	3.36	3.02	2.39	1959	28	6.80	1973	1.23	1985	9.8	6.4	2.4	.8	1.17	1.48	1.94	2.33	2.70	3.09	3.50	3.99	4.61	5.58	6.46
May	3.87	3.36	3.80	1974	17	10.98	1996	.50	1992	10.0	7.2	2.9	.8	1.03	1.40	1.96	2.45	2.93	3.44	4.00	4.67	5.54	6.90	8.17
Jun	4.33	3.82	4.23	1973	17	10.73	1993	.55	1988	9.4	6.9	3.0	1.2	.84	1.23	1.87	2.46	3.05	3.68	4.41	5.28	6.43	8.28	10.03
Jul	3.32	2.93	4.66	1963	19	7.77	1992	.12	1991	8.2	5.9	2.5	1.0	.86	1.18	1.66	2.08	2.50	2.94	3.43	4.01	4.77	5.96	7.08
Aug	4.51	3.04	5.22	1967	7	10.73	1981	.68	1984	9.3	7.0	3.1	1.4	.87	1.28	1.94	2.55	3.17	3.83	4.58	5.49	6.69	8.62	10.45
Sep	3.10	2.68	4.13	1961	14	7.08	1992	.11	1979	7.6	5.4	2.2	.7	.54	.82	1.27	1.70	2.13	2.60	3.14	3.79	4.65	6.05	7.38
Oct	2.66	2.23	3.50	1960	31	5.91	1998	.55	1993	7.8	4.9	1.8	.5	.47	.70	1.09	1.46	1.83	2.23	2.69	3.25	3.99	5.19	6.33
Nov	2.59	2.33	2.66	1952	17	7.55	1992	.28	1976	8.2	5.3	1.8	.6	.45	.67	1.05	1.41	1.77	2.17	2.62	3.16	3.89	5.07	6.19
Dec	1.77	1.54	2.27	1971	15	4.64	1971	.26	1989	7.4	4.3	1.0	.4	.33	.49	.75	.99	1.23	1.49	1.79	2.16	2.64	3.41	4.15
Ann	34.46	33.50	5.22	Aug 1967	7	10.98	May 1996	.02+	Feb 1983	99.8	65.6	23.9	8.3	23.35	25.46	28.19	30.27	32.13	33.94	35.81	37.89	40.42	44.12	47.33

+ 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: 1948-2001

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

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Station: FULTON L&D #13, IL

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Climate Division: IL 1

NWS Call Sign:

Elevation: 592 Feet

Lat: 41°54N

Lon: 90°09W

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	8.9	6.5	3	1	14.5	1995	20	28.5	1979	30	1979	17	21	1979	3.9	2.2	.7	.3	.1	12.1	9.4	7.2	3.1
Feb	5.2	6.0	3	2	6.0	1994	23	11.5	1980	21	1979	2	18	1979	3.0	1.8	.4	.2	.0	14.3	10.6	7.4	2.0
Mar	2.9	.0	1	#	5.5	1972	29	10.0	1971	10	1979	2	4	1979	1.4	.9	.3	.1	.0	3.8	2.3	1.1	.1
Apr	1.0	.0	#	0	7.0	1997	12	7.0	1997	7	1997	12	#+	1997	.3	.2	.1	.1	.0	.4	.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	#	1972	19	#	1972	#	1972	18	#	1972	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.3	.0	#	0	5.0	1974	30	5.0	1974	4+	1995	29	1	1977	.6	.4	.1	@	.0	1.0	.4	.0	.0
Dec	5.5	3.8	1	#	10.0	1984	31	19.5	1977	10	1978	2	6	1990	2.2	1.5	.4	.3	.1	10.5	5.9	2.7	.1
Ann	24.8	16.3	N/A	N/A	14.5	Jan 1995	20	28.5	Jan 1979	30	Jan 1979	17	21	Jan 1979	11.4	7.0	2.0	1.0	.2	42.1	28.8	18.5	5.3

+ 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

Complete documentation available from:

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Climate Division: IL 1

NWS Call Sign:

Elevation: 592 Feet

Lat: 41° 54N

Lon: 90° 09W

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	5/08	5/04	5/01	4/28	4/26	4/23	4/21	4/18	4/13
32	4/26	4/22	4/19	4/17	4/14	4/12	4/10	4/07	4/02
28	4/17	4/13	4/11	4/09	4/07	4/05	4/02	3/31	3/27
24	4/09	4/04	4/01	3/29	3/26	3/24	3/21	3/17	3/13
20	4/06	3/31	3/27	3/24	3/20	3/17	3/14	3/10	3/04
16	3/27	3/21	3/16	3/12	3/08	3/05	3/01	2/24	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	9/23	9/28	10/02	10/05	10/08	10/11	10/14	10/18	10/23
32	10/02	10/08	10/12	10/15	10/19	10/22	10/25	10/29	11/04
28	10/13	10/19	10/23	10/26	10/29	11/01	11/05	11/08	11/14
24	10/27	10/31	11/03	11/05	11/08	11/10	11/12	11/15	11/19
20	11/05	11/10	11/14	11/17	11/20	11/23	11/27	12/01	12/06
16	11/10	11/16	11/20	11/23	11/27	11/30	12/03	12/07	12/13
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	183	177	172	168	165	161	157	152	146
32	208	200	195	191	186	182	178	172	165
28	226	218	213	209	205	201	196	191	184
24	243	237	233	229	226	222	218	214	208
20	270	261	255	249	244	239	234	227	218
16	290	280	274	268	263	257	251	245	235

* 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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NWS Call Sign:

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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	1451	1163	938	542	236	33	2	28	131	450	845	1274	7093
60	1296	1023	783	397	137	8	0	6	56	310	695	1119	5830
57	1203	939	690	316	92	3	0	2	29	236	605	1026	5141
55	1141	883	629	265	68	1	0	0	17	192	546	964	4706
50	986	748	484	157	26	0	0	0	3	103	406	818	3731
32	477	318	106	3	0	0	0	0	0	1	67	349	1321

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	49	80	190	452	829	1100	1263	1191	914	578	212	98	6956
55	0	0	0	24	184	411	550	478	241	56	1	0	1945
57	0	0	0	15	146	353	488	417	192	38	0	0	1649
60	0	0	0	6	98	268	395	329	130	19	0	0	1245
65	0	0	0	1	42	143	243	195	55	4	0	0	683
70	0	0	0	0	13	55	110	97	16	0	0	0	291

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	12	77	294	645	900	1062	994	725	391	95	7	1	13	90	384	1029	1929	2991	3985	4710	5101	5196	5203
45	0	1	41	181	490	750	907	839	575	258	44	1	0	1	42	223	713	1463	2370	3209	3784	4042	4086	4087
50	0	0	16	98	342	600	752	684	427	150	16	0	0	0	16	114	456	1056	1808	2492	2919	3069	3085	3085
55	0	0	4	47	213	451	597	529	290	74	4	0	0	0	4	51	264	715	1312	1841	2131	2205	2209	2209
60	0	0	1	21	115	306	442	375	174	32	0	0	0	0	1	22	137	443	885	1260	1434	1466	1466	1466
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	7	52	164	378	590	732	670	451	218	50	1	0	7	59	223	601	1191	1923	2593	3044	3262	3312	3313

(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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
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.

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| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
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References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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