

Climatography of the United States

No. 20

1971-2000

Station: LA HARPE, IL

COOP ID: 114823

Climate Division: IL 3

NWS Call Sign:

Elevation: 700 Feet

Lat: 40°35N

Lon: 90°58W

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	31.7	13.3	22.5	70+	1950	24	34.0	1989	-23+	1982	10	10.0	1977	1318	0	.0	.0	2.4	15.0	29.7	6.6
Feb	37.6	18.2	27.9	76	1930	24	38.0	1998	-30	1905	13	15.5	1979	1039	0	.0	.0	5.5	9.3	25.0	3.3
Mar	50.0	28.7	39.4	88	1910	23	46.1	1973	-13	1960	5	31.4	1984	796	0	.0	.0	15.4	2.4	20.3	.2
Apr	62.4	39.4	50.9	94	1930	10	57.6	1977	9+	1975	4	46.0	1997	429	6	.0	.1	26.0	@	6.9	.0
May	73.3	50.5	61.9	105	1934	31	68.9	1977	26	1906	7	55.6	1990	173	77	.0	.8	30.8	.0	.5	.0
Jun	82.7	60.0	71.4	108	1934	29	76.3	1971	37	1903	12	66.8	1982	17	207	.1	5.5	30.0	.0	.0	.0
Jul	87.0	64.3	75.7	110	1936	15	80.3	1980	42	1975	14	71.5	1971	1	331	.9	11.3	31.0	.0	.0	.0
Aug	84.7	62.3	73.5	113	1934	9	79.7	1983	36	1915	31	67.9	1992	14	277	.7	7.4	31.0	.0	.0	.0
Sep	77.3	53.6	65.5	103	1913	1	69.5	1986	25	1942	28	59.5	1993	86	100	.0	2.6	30.0	.0	.4	.0
Oct	65.9	42.3	54.1	94+	1963	6	61.9	1971	1	1925	30	47.7	1988	350	11	.0	.1	29.0	.0	6.7	.0
Nov	49.6	30.5	40.1	83	1950	1	46.6	1999	-3+	1964	30	32.8	1996	749	0	.0	.0	14.6	1.9	19.3	.2
Dec	36.5	19.2	27.9	72	1998	5	35.8	1982	-26	1924	28	13.9	2000	1152	0	.0	.0	4.1	9.9	28.0	3.3
Ann	61.6	40.2	50.9	113	Aug 1934	9	80.3	Jul 1980	-30	Feb 1905	13	10.0	Jan 1977	6124	1009	1.7	27.8	249.8	38.5	136.8	13.6

+ 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/normals/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1901-2001

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

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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: LA HARPE, IL

COOP ID: 114823

Climate Division: IL 3

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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	1.47	1.38	4.00	1907	19	3.30	1995	.08	1986	6.0	3.9	.7	.3	.25	.38	.59	.79	1.00	1.22	1.48	1.79	2.20	2.87	3.52
Feb	1.68	1.39	3.41	1997	21	4.99	1997	.40	1987	5.4	4.1	.8	.3	.45	.61	.85	1.06	1.27	1.49	1.73	2.02	2.40	2.99	3.54
Mar	2.86	2.54	5.08	1985	4	7.66	1985	.55	1989	7.9	6.2	1.8	.5	.57	.83	1.25	1.64	2.03	2.44	2.91	3.48	4.23	5.43	6.57
Apr	3.82	4.09	4.52	1976	24	7.84	1981	.76	1971	9.2	7.1	2.7	.9	1.17	1.54	2.08	2.54	2.99	3.46	3.97	4.57	5.35	6.57	7.69
May	4.58	4.34	3.90	1962	26	11.08	1996	.84	1992	10.9	8.3	3.0	1.3	1.12	1.55	2.22	2.81	3.40	4.02	4.72	5.54	6.63	8.34	9.95
Jun	4.38	3.51	10.25	1905	10	10.25	1990	1.20	1988	8.7	6.7	3.0	1.2	1.30	1.72	2.34	2.88	3.40	3.95	4.55	5.25	6.17	7.60	8.93
Jul	4.54	4.02	5.02	1948	25	11.30	1993	.41	1988	8.3	6.4	2.7	1.5	.92	1.33	2.00	2.61	3.22	3.88	4.63	5.52	6.71	8.60	10.40
Aug	3.54	3.30	4.41	1959	6	8.98	1977	.45	1992	8.4	6.4	2.5	1.1	1.10	1.43	1.93	2.36	2.78	3.21	3.68	4.23	4.95	6.07	7.10
Sep	3.99	3.34	4.50	1928	12	9.51	1986	.13	1979	7.5	5.9	2.8	1.0	.81	1.18	1.76	2.30	2.84	3.42	4.07	4.86	5.90	7.56	9.14
Oct	2.85	2.09	4.74	1986	3	7.89	1986	.36	1987	7.7	5.4	1.6	.7	.60	.86	1.28	1.66	2.04	2.45	2.91	3.46	4.19	5.36	6.47
Nov	3.15	3.09	2.91	1977	1	8.45	1985	.28	1976	8.2	6.3	2.4	.5	.52	.79	1.25	1.68	2.13	2.62	3.17	3.85	4.75	6.22	7.63
Dec	2.28	2.05	2.34	1971	15	6.00	1982	.23	1976	6.7	5.1	1.2	.5	.44	.65	.98	1.29	1.60	1.94	2.32	2.77	3.38	4.35	5.27
Ann	39.14	37.41	10.25	Jun 1905	10	11.30	Jul 1993	.08	Jan 1986	94.9	71.8	25.2	9.8	26.22	28.66	31.82	34.24	36.40	38.50	40.69	43.11	46.06	50.38	54.13

+ 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: 1901-2001

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

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NWS Call Sign:

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Lon: 90°58W

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	7.0	3	2	10.0	1999	2	25.0	1979	22	1979	15	15	1979	3.8	3.4	.8	.3	@	16.3	11.0	5.9	1.6
Feb	4.6	4.0	2	1	8.0	1975	24	12.0	1978	20	1979	10	15	1979	2.4	2.1	.7	.1	.0	10.9	8.7	5.4	1.2
Mar	3.3	2.0	1	#	8.0	1998	9	13.0	1978	14	1978	5	6	1978	1.7	1.5	.4	.1	.0	3.6	2.0	1.2	.2
Apr	.9	.0	#	0	5.0	1997	11	10.0	1982	5+	1997	11	#+	2000	.3	.3	.2	@	.0	.4	.3	.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	#	0	.1	1972	18	.1	1972	#	1993	31	#	1993	@	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.9	1.0	#	#	8.0	1974	30	12.0	1974	9	1974	30	1	1993	1.0	.9	.3	.1	.0	1.1	.4	.1	.0
Dec	6.1	4.5	2	1	8.0	1992	10	19.0	2000	15	2000	31	9	2000	2.9	2.7	.8	.1	.0	9.3	5.2	2.9	.8
Ann	24.7	18.5	N/A	N/A	10.0	Jan 1999	2	25.0	Jan 1979	22	Jan 1979	15	15+	Feb 1979	12.1	10.9	3.2	.7	@	41.6	27.6	15.6	3.8

+ 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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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	5/10	5/06	5/04	5/01	4/28	4/26	4/22	4/18
32	5/05	4/30	4/27	4/24	4/22	4/19	4/16	4/13	4/09
28	4/22	4/18	4/15	4/12	4/10	4/07	4/05	4/02	3/28
24	4/15	4/11	4/07	4/05	4/02	3/30	3/27	3/24	3/20
20	4/09	4/04	3/31	3/28	3/25	3/22	3/19	3/15	3/10
16	3/30	3/23	3/18	3/13	3/09	3/05	2/28	2/23	2/16
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	9/18	9/22	9/25	9/28	10/01	10/03	10/06	10/09	10/13
32	9/26	10/01	10/04	10/07	10/10	10/13	10/16	10/19	10/24
28	10/06	10/11	10/15	10/18	10/21	10/24	10/27	10/31	11/05
24	10/19	10/23	10/27	10/30	11/02	11/05	11/08	11/11	11/16
20	10/28	11/02	11/05	11/08	11/11	11/14	11/16	11/20	11/24
16	11/06	11/11	11/15	11/18	11/22	11/25	11/28	12/02	12/07
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	170	164	159	155	152	148	144	140	133
32	189	183	178	174	171	167	163	158	152
28	213	206	201	197	194	190	186	181	174
24	232	226	221	217	213	209	205	201	194
20	252	244	239	234	230	226	221	216	209
16	285	276	269	262	257	251	245	238	228

* 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

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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	1318	1039	796	429	173	17	1	14	86	350	749	1152	6124
60	1163	899	641	295	93	3	0	2	32	222	600	997	4947
57	1070	815	551	224	58	1	0	0	14	159	512	904	4308
55	1008	761	495	182	41	0	0	0	8	123	456	843	3917
50	855	631	357	97	14	0	0	0	1	57	323	700	3035
32	372	237	56	1	0	0	0	0	0	0	43	262	971

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	77	122	283	568	927	1181	1353	1287	1004	684	284	133	7903
55	0	3	9	59	255	491	640	574	322	94	7	1	2455
57	0	0	3	41	211	431	578	512	268	68	3	0	2115
60	0	0	0	22	152	344	485	421	195	38	1	0	1658
65	0	0	0	6	77	207	331	277	100	11	0	0	1009
70	0	0	0	1	30	99	191	157	39	2	0	0	519

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	32	131	357	692	945	1103	1028	757	435	126	21	7	39	170	527	1219	2164	3267	4295	5052	5487	5613	5634
45	1	11	74	234	538	795	948	873	608	295	70	5	1	12	86	320	858	1653	2601	3474	4082	4377	4447	4452
50	0	2	40	138	386	645	793	718	460	183	32	2	0	2	42	180	566	1211	2004	2722	3182	3365	3397	3399
55	0	0	15	69	251	495	638	563	321	97	10	0	0	0	15	84	335	830	1468	2031	2352	2449	2459	2459
60	0	0	4	33	139	347	483	408	200	42	3	0	0	0	4	37	176	523	1006	1414	1614	1656	1659	1659
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	5	25	92	227	429	629	742	690	489	274	79	12	5	30	122	349	778	1407	2149	2839	3328	3602	3681	3693

(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.

- | | |
|---|---|
| <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 |
|---|---|

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