

Climatology of the United States

No. 20

1971-2000

Station: CHEROKEE, IA

COOP ID: 131442

Climate Division: IA 1

NWS Call Sign:

Elevation: 1,180 Feet Lat: 42°45N

Lon: 95°32W

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	26.4	5.0	15.7	67	1981	25	27.6	1990	-35+	1970	19	2.5	1979	1530	0	.0	.0	.7	20.4	30.9	11.8
Feb	33.0	11.2	22.1	68+	1981	18	34.0	1987	-33	1972	9	7.1	1979	1201	0	.0	.0	3.0	14.3	27.2	7.2
Mar	45.0	23.2	34.1	86	1986	30	41.1	2000	-23	1960	5	23.4	1975	957	0	.0	.0	10.4	6.0	24.9	1.6
Apr	59.8	34.9	47.4	94	1980	23	54.5	1977	-8	1975	3	41.2	1983	534	4	.0	.2	22.6	.5	11.9	.1
May	72.1	46.8	59.5	102	1967	26	67.7	1977	21	1961	2	52.3	1997	228	56	.0	.9	30.4	.0	1.7	.0
Jun	81.3	56.9	69.1	103	1988	22	74.2	1988	34+	1969	3	63.8	1982	33	158	.2	4.8	30.0	.0	.0	.0
Jul	85.0	61.6	73.3	104	1980	8	77.1	1983	40	1972	5	66.6	1992	8	265	.4	8.2	31.0	.0	.0	.0
Aug	82.9	59.1	71.0	103	1955	27	77.6	1983	34	1950	20	65.5	1992	24	210	.3	5.5	31.0	.0	.0	.0
Sep	75.3	48.3	61.8	101	1976	7	67.9	1998	24+	1956	30	56.6	1993	144	48	.1	2.0	29.6	.0	1.6	.0
Oct	62.7	35.6	49.2	94	1963	5	54.3	1971	9	1993	31	44.0	1976	492	1	.0	.1	26.6	.1	12.4	.0
Nov	43.8	23.2	33.5	80+	1953	3	42.4	1999	-17+	1959	14	24.9	1991	944	0	.0	.0	10.0	6.0	25.0	.9
Dec	30.0	10.3	20.2	68	1998	2	28.0	1979	-26+	1983	19	4.9	1983	1390	0	.0	.0	1.7	16.2	30.6	7.3
Ann	58.1	34.7	46.4	104	Jul 1980	8	77.6	Aug 1983	-35+	Jan 1970	19	2.5	Jan 1979	7485	742	1.0	21.7	227.0	63.5	166.2	28.9

+ 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

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No. 20 1971-2000

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

Station: CHEROKEE, IA

COOP ID: 131442

Climate Division: IA 1

NWS Call Sign:

Elevation: 1,180 Feet Lat: 42°45N

Lon: 95°32W

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	.60	.51	.90	1952	19	1.72	1975	.00	1981	5.3	1.9	.2	.0	.04	.10	.20	.28	.38	.48	.60	.74	.94	1.26	1.58
Feb	.58	.47	2.15	1951	28	2.46	1971	.04	1985	4.5	2.0	.1	@	.07	.11	.19	.28	.36	.46	.57	.71	.90	1.22	1.52
Mar	1.97	1.63	1.73	1977	3	4.90	1983	.04	1994	7.7	4.5	1.2	.3	.24	.39	.67	.94	1.23	1.56	1.94	2.40	3.04	4.08	5.09
Apr	2.82	2.55	2.10	1986	28	7.12	1984	.72	1996	9.2	5.6	1.9	.6	.59	.84	1.26	1.64	2.01	2.42	2.88	3.43	4.15	5.31	6.41
May	3.69	3.59	3.73	1960	21	7.21	1982	1.63	1989	11.1	7.3	2.6	.8	1.87	2.18	2.60	2.93	3.24	3.55	3.87	4.24	4.71	5.40	6.02
Jun	4.53	4.24	6.25	1953	7	12.88	1983	1.16	1982	10.3	7.1	3.3	1.2	1.30	1.74	2.38	2.95	3.50	4.07	4.70	5.45	6.41	7.93	9.33
Jul	3.80	3.71	3.24	1981	4	10.45	1987	.41	1975	9.3	6.1	2.6	1.1	.85	1.21	1.76	2.27	2.77	3.30	3.90	4.62	5.56	7.06	8.47
Aug	3.55	3.27	4.61	1988	22	8.65	1979	.41	1976	8.6	5.7	2.4	1.1	.63	.94	1.46	1.95	2.44	2.98	3.59	4.33	5.31	6.90	8.42
Sep	3.08	3.13	3.62	1964	8	5.45	1989	.48	1984	7.8	5.3	2.3	.8	.72	1.01	1.46	1.86	2.27	2.69	3.17	3.74	4.48	5.67	6.78
Oct	1.95	1.61	2.45	1979	31	4.46	1992	.27	1975	6.7	3.7	1.3	.5	.29	.45	.74	1.01	1.29	1.59	1.95	2.38	2.96	3.91	4.82
Nov	1.68	1.36	2.24	1977	9	4.54	1983	.00	1976	6.2	3.6	1.0	.4	.09	.24	.49	.74	1.00	1.30	1.64	2.07	2.65	3.60	4.54
Dec	.78	.63	1.42	1984	16	2.53	1982	.13	1997	5.3	2.3	.3	.1	.13	.19	.31	.42	.53	.65	.79	.95	1.18	1.55	1.90
Ann	29.03	28.94	6.25	Jun 1953	7	12.88	Jun 1983	.00+	Jan 1981	92.0	55.1	19.2	6.9	19.29	21.13	23.51	25.34	26.97	28.56	30.21	32.04	34.28	37.56	40.41

+ 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: CHEROKEE, IA

COOP ID: 131442

Climate Division: IA 1

NWS Call Sign:

Elevation: 1,180 Feet

Lat: 42°45N

Lon: 95°32W

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	6.8	5.2	4	4	8.0	1975	13	20.1	1994	13	1994	31	10	1982	3.3	2.6	.9	.4	@	13.9	8.9	5.0	1.3
Feb	5.6	4.3	3	2	8.5	1993	21	19.7	1993	18	1993	25	10	1994	2.5	1.7	.8	.3	.0	9.4	6.0	3.2	.9
Mar	5.2	5.6	1	#	10.0	1979	4	12.0	1979	11	1993	22	7	1993	1.6	1.2	.5	.1	@	3.4	1.6	.6	.3
Apr	1.6	.5	#	0	4.0	1983	14	8.0	1997	6	1997	12	1	1997	.4	.3	.1	@	.0	.4	.2	.2	.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	.3	.0	#	0	2.0	1990	18	2.1	1991	1	1995	31	#+	1999	.1	.1	.0	.0	.0	.1	.0	.0	.0
Nov	4.3	3.5	1	#	10.0	1983	28	20.0	1991	12	1991	2	5	1991	1.2	.8	.3	.1	@	2.1	.9	.3	@
Dec	7.0	6.1	2	2	10.0	1982	28	20.5	1985	10+	1994	15	6+	2000	3.0	2.0	.6	.2	.0	10.0	5.1	2.3	.4
Ann	30.8	25.2	N/A	N/A	10.0+	Nov 1983	28	20.5	Dec 1985	18	Feb 1993	25	10+	Feb 1994	12.1	8.7	3.2	1.1	@	39.3	22.7	11.6	2.9

+ 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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NWS Call Sign:

Elevation: 1,180 Feet

Lat: 42° 45N

Lon: 95° 32W

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	6/01	5/26	5/22	5/18	5/15	5/11	5/08	5/03	4/27
32	5/17	5/13	5/09	5/06	5/04	5/01	4/28	4/24	4/20
28	5/11	5/06	5/02	4/29	4/26	4/23	4/20	4/16	4/11
24	4/24	4/20	4/17	4/14	4/12	4/10	4/07	4/04	4/01
20	4/15	4/10	4/07	4/04	4/01	3/30	3/27	3/23	3/19
16	4/12	4/06	4/02	3/29	3/26	3/23	3/19	3/15	3/09
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	9/09	9/13	9/15	9/17	9/19	9/21	9/23	9/26	9/29
32	9/16	9/20	9/24	9/26	9/29	10/02	10/04	10/08	10/12
28	9/24	9/29	10/03	10/06	10/08	10/11	10/14	10/18	10/23
24	10/05	10/10	10/15	10/18	10/21	10/25	10/28	11/02	11/07
20	10/12	10/18	10/23	10/26	10/30	11/02	11/06	11/10	11/16
16	10/22	10/28	11/02	11/05	11/09	11/13	11/17	11/21	11/27
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	147	140	135	131	127	123	118	113	106
32	166	160	155	151	148	144	140	136	130
28	185	178	173	169	165	161	156	151	144
24	213	206	200	196	192	187	183	178	170
20	234	226	220	215	211	206	201	195	187
16	255	245	239	233	227	222	216	209	200

* 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	1530	1201	957	534	228	33	8	24	144	492	944	1390	7485
60	1375	1061	802	394	135	8	0	5	63	343	794	1235	6215
57	1282	977	709	317	93	3	0	1	32	262	704	1142	5522
55	1220	921	648	269	70	1	0	0	19	213	645	1080	5086
50	1065	792	505	167	29	0	0	0	3	113	505	926	4105
32	553	366	124	6	0	0	0	0	0	2	128	431	1610

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	47	89	190	466	851	1114	1281	1209	894	534	174	64	6913
55	0	0	1	39	208	425	568	496	223	32	1	0	1993
57	0	0	0	27	169	367	506	435	177	19	0	0	1700
60	0	0	0	14	119	282	413	346	117	7	0	0	1298
65	0	0	0	4	56	158	265	210	48	1	0	0	742
70	0	0	0	0	21	68	139	107	13	0	0	0	348

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	0	5	68	263	610	881	1041	967	660	314	55	2	0	5	73	336	946	1827	2868	3835	4495	4809	4864	4866
45	0	1	29	165	457	731	886	812	512	199	23	0	0	1	30	195	652	1383	2269	3081	3593	3792	3815	3815
50	0	0	11	90	318	582	731	657	372	111	7	0	0	0	11	101	419	1001	1732	2389	2761	2872	2879	2879
55	0	0	2	48	200	434	576	502	247	49	0	0	0	0	2	50	250	684	1260	1762	2009	2058	2058	2058
60	0	0	0	20	109	293	422	350	144	21	0	0	0	0	0	20	129	422	844	1194	1338	1359	1359	1359
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	11	54	181	383	573	701	638	430	220	48	2	0	11	65	246	629	1202	1903	2541	2971	3191	3239	3241

(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