

Climatography of the United States

No. 20

1971-2000

Station: CENTRALIA, KS

COOP ID: 141408

Climate Division: KS 3

NWS Call Sign:

Elevation: 1,320 Feet Lat: 39°43N

Lon: 96°07W

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	35.6	15.0	25.3	70+	1989	31	36.4	1990	-22	1959	4	11.0	1979	1230	0	.0	.0	5.2	11.9	28.6	4.3
Feb	42.3	20.4	31.4	82	1972	29	41.5	1976	-21	1971	8	17.2	1979	942	0	.0	.0	9.9	7.7	23.0	2.3
Mar	53.8	30.4	42.1	88	1968	30	48.1	1986	-17	1978	4	35.1	1975	710	0	.0	.0	19.3	1.6	17.0	.4
Apr	65.2	40.7	53.0	94+	1989	26	61.0	1981	7	1975	3	46.1	1983	370	8	.0	.3	27.3	.1	5.8	.0
May	74.6	51.0	62.8	97+	1998	30	68.7	1998	25	1961	2	58.7	1995	142	76	.0	.8	31.0	.0	.3	.0
Jun	83.9	60.5	72.2	109	1980	27	76.3	1988	40+	1993	5	67.6	1982	12	228	.2	7.0	30.0	.0	.0	.0
Jul	88.8	65.2	77.0	110	1980	14	83.8	1980	40	1972	5	72.8	1971	0	373	2.1	15.9	31.0	.0	.0	.0
Aug	87.3	63.3	75.3	109	1956	16	83.0	1983	39	1950	20	69.9	1992	12	332	1.6	13.8	31.0	.0	.0	.0
Sep	79.3	54.6	67.0	107	2000	2	73.3	1998	26	1984	29	60.8	1974	70	128	.1	5.0	29.9	.0	.2	.0
Oct	68.0	42.9	55.5	96	1963	5	59.9	2000	13	1993	31	48.7	1976	304	8	.0	.2	29.3	.1	4.0	.0
Nov	50.9	29.9	40.4	82+	1999	13	50.6	1999	-5+	1976	28	33.0	1985	738	0	.0	.0	17.0	2.2	16.7	.1
Dec	39.0	19.2	29.1	75	1964	23	35.4	1991	-25	1989	22	10.8	1983	1112	0	.0	.0	6.6	8.1	27.7	2.3
Ann	64.1	41.1	52.6	110	Jul 1980	14	83.8	Jul 1980	-25	Dec 1989	22	10.8	Dec 1983	5642	1153	4.0	43.0	267.5	31.7	123.3	9.4

+ 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: CENTRALIA, KS

COOP ID: 141408

Climate Division: KS 3

NWS Call Sign:

Elevation: 1,320 Feet Lat: 39°43N

Lon: 96°07W

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	.87	.75	1.13	1975	11	2.50	1975	.00	1986	5.0	2.4	.4	@	.04	.11	.24	.37	.51	.66	.84	1.06	1.37	1.88	2.38
Feb	1.02	.83	1.44	1997	21	2.83	1973	.02+	1991	5.4	2.7	.4	.1	.08	.15	.28	.42	.58	.76	.97	1.24	1.61	2.24	2.85
Mar	2.58	1.81	3.35	1993	31	7.08+	1987	.24	1997	7.5	4.9	1.9	.5	.34	.55	.92	1.28	1.65	2.07	2.55	3.15	3.95	5.27	6.54
Apr	3.20	2.86	2.82	1999	15	9.38	1999	.72	1990	9.3	5.9	2.2	.8	.91	1.21	1.67	2.07	2.46	2.87	3.32	3.85	4.54	5.62	6.62
May	4.64	4.13	5.20	1959	30	10.19	1995	.77	1992	11.4	7.4	3.5	1.2	1.09	1.53	2.21	2.81	3.41	4.05	4.77	5.62	6.74	8.51	10.18
Jun	4.62	4.15	4.90	1984	8	15.58	1984	1.12	1973	10.2	6.9	3.1	1.4	1.33	1.77	2.43	3.00	3.57	4.15	4.80	5.56	6.55	8.10	9.54
Jul	4.71	3.97	5.65	1958	31	19.79	1993	.07	1983	9.6	6.5	2.9	1.5	.36	.66	1.27	1.92	2.64	3.47	4.47	5.72	7.47	10.40	13.30
Aug	3.76	3.52	4.75	1962	24	9.81	1977	.39	1971	9.9	5.6	2.5	1.2	.82	1.16	1.71	2.21	2.71	3.24	3.84	4.56	5.51	7.01	8.44
Sep	3.99	3.49	4.46	1978	18	11.23	1973	.54	1979	8.2	5.2	2.4	1.4	.70	1.05	1.64	2.18	2.74	3.34	4.03	4.87	5.98	7.77	9.48
Oct	2.64	2.38	4.44	1973	11	6.41	1979	.06	1999	7.2	4.7	1.7	.6	.30	.50	.87	1.24	1.63	2.07	2.58	3.22	4.09	5.52	6.92
Nov	2.15	1.92	2.79	1998	2	5.05	1998	.00	1989	7.0	4.2	1.4	.5	.11	.31	.64	.95	1.29	1.66	2.10	2.65	3.38	4.60	5.79
Dec	1.06	.76	3.15	1980	8	3.63	1980	.00	1976	5.4	2.6	.6	.1	.03	.11	.26	.41	.58	.77	1.00	1.30	1.70	2.39	3.06
Ann	35.24	35.17	5.65	Jul 1958	31	19.79	Jul 1993	.00+	Nov 1989	96.1	59.0	23.0	9.3	21.51	24.01	27.30	29.85	32.15	34.41	36.78	39.42	42.67	47.47	51.68

+ 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

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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Station: CENTRALIA, KS

COOP ID: 141408

Climate Division: KS 3

NWS Call Sign:

Elevation: 1,320 Feet

Lat: 39°43N

Lon: 96°07W

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	8.7	7.0	2	1	11.0	1979	13	30.2	1979	20	1979	31	12	1979	4.1	3.0	1.1	.4	@	10.8	6.8	3.8	1.1
Feb	6.9	6.0	2	1	10.0	1978	13	19.8	1978	21	1983	5	11	1979	2.9	2.0	1.0	.5	@	8.3	5.0	2.8	1.1
Mar	5.4	4.0	1	#	10.0	1998	8	16.0	1998	16	1998	12	4	1998	2.1	1.8	1.0	.3	@	3.0	1.9	.9	.4
Apr	1.6	.0	#	0	7.0	1992	21	10.5	1993	8	1997	12	1	1997	.6	.6	.3	.1	.0	.7	.3	.2	.0
May	.0	.0	#	0	1.0	1994	1	1.0	1994	#	1996	11	#	1996	@	@	.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	#	1985	30	#	1985	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.6	.0	#	0	7.0	1996	23	10.0	1996	7	1996	23	#+	1996	.2	.2	.1	@	.0	.2	.1	@	.0
Nov	3.0	.4	#	#	7.0	1975	26	14.0	1991	7	1991	23	2	1991	1.2	.9	.3	.2	.0	1.6	.8	.4	.0
Dec	6.1	5.5	1	1	8.0	1983	21	21.0	1997	12	1983	21	6	1983	3.2	2.3	1.0	.3	.0	6.4	3.6	1.6	.0
Ann	32.3	22.9	N/A	N/A	11.0	Jan 1979	13	30.2	Jan 1979	21	Feb 1983	5	12	Jan 1979	14.3	10.8	4.8	1.8	@	31.0	18.5	9.7	2.6

+ 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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Climate Division: KS 3

NWS Call Sign:

Elevation: 1,320 Feet

Lat: 39° 43N

Lon: 96° 07W

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	5/17	5/12	5/08	5/05	5/02	4/29	4/26	4/22	4/17
32	5/05	5/01	4/27	4/25	4/22	4/19	4/16	4/13	4/09
28	4/21	4/17	4/13	4/10	4/08	4/05	4/02	3/29	3/25
24	4/12	4/07	4/04	4/01	3/29	3/26	3/23	3/19	3/14
20	4/07	4/01	3/27	3/23	3/20	3/16	3/12	3/07	3/01
16	3/27	3/21	3/17	3/13	3/10	3/06	3/02	2/26	2/20
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	9/24	9/26	9/28	9/30	10/03	10/05	10/09
32	9/25	10/01	10/05	10/08	10/11	10/14	10/18	10/22	10/27
28	10/06	10/12	10/16	10/19	10/22	10/25	10/29	11/02	11/07
24	10/18	10/24	10/28	11/01	11/05	11/08	11/12	11/16	11/22
20	10/23	10/31	11/05	11/10	11/14	11/18	11/23	11/28	12/05
16	10/31	11/08	11/13	11/17	11/21	11/26	11/30	12/05	12/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	168	161	157	153	149	145	141	136	129
32	191	184	179	175	172	168	164	159	153
28	220	212	206	201	197	192	187	182	174
24	245	236	230	225	220	215	210	204	195
20	268	258	250	244	239	233	227	219	209
16	284	275	268	262	256	250	245	237	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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Climate Division: KS 3 NWS Call Sign: Elevation: 1,320 Feet Lat: 39° 43N Lon: 96° 07W

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	1230	942	710	370	142	12	0	12	70	304	738	1112	5642
60	1075	809	557	242	69	2	0	2	23	177	590	957	4503
57	983	731	471	177	39	0	0	0	10	117	506	864	3898
55	923	678	413	139	25	0	0	0	5	85	451	804	3523
50	778	552	283	66	7	0	0	0	0	33	322	660	2701
32	320	208	34	0	0	0	0	0	0	0	50	230	842

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	113	191	347	628	956	1206	1396	1342	1049	727	301	141	8397
55	3	17	14	77	268	516	683	629	363	99	12	2	2683
57	1	13	9	55	220	456	621	567	308	69	7	0	2326
60	0	7	2	30	157	368	528	476	232	36	2	0	1838
65	0	0	0	8	76	228	373	332	128	8	0	0	1153
70	0	0	0	1	27	114	230	204	59	1	0	0	636

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	18	64	196	426	743	1001	1188	1136	848	519	153	29	18	82	278	704	1447	2448	3636	4772	5620	6139	6292	6321
45	1	27	114	296	588	851	1033	981	698	378	82	8	1	28	142	438	1026	1877	2910	3891	4589	4967	5049	5057
50	0	8	61	185	436	701	878	826	549	250	35	3	0	8	69	254	690	1391	2269	3095	3644	3894	3929	3932
55	0	2	24	102	293	551	723	671	406	146	12	0	0	2	26	128	421	972	1695	2366	2772	2918	2930	2930
60	0	0	5	51	170	403	568	516	278	70	3	0	0	0	5	56	226	629	1197	1713	1991	2061	2064	2064
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	18	54	136	265	465	672	801	760	555	321	98	26	18	72	208	473	938	1610	2411	3171	3726	4047	4145	4171

(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