

Climatology of the United States

No. 20

1971-2000

Station: NESS CITY, KS

COOP ID: 145692

Climate Division: KS 4

NWS Call Sign:

Elevation: 2,250 Feet Lat: 38° 27N

Lon: 99° 55W

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	42.0	14.3	28.2	81	1986	20	38.0	1986	-18	1959	4	14.3	1979	1143	0	.0	.0	10.6	8.3	30.5	2.9
Feb	48.2	19.0	33.6	86	1970	17	41.3	1976	-18+	1982	6	19.8	1978	879	0	.0	.0	13.9	5.0	25.4	1.9
Mar	56.9	27.5	42.2	91+	1989	11	49.6	1986	-12	1960	3	35.5	1998	707	0	.0	.2	22.1	1.7	19.4	.3
Apr	67.1	37.6	52.4	103	1989	23	60.4	1981	11	1997	13	46.7	1983	386	7	.1	1.1	27.4	.1	7.4	.0
May	76.4	49.2	62.8	103	1953	26	67.5	1974	26+	1966	13	56.5	1995	140	71	.1	2.8	30.8	.0	.5	.0
Jun	87.6	59.5	73.6	114	1985	8	78.1	1988	37+	1998	6	67.4	1989	19	276	3.3	14.7	30.0	.0	.0	.0
Jul	93.1	64.7	78.9	112	1954	11	84.5	1980	41	1990	14	75.6	1992	0	432	7.9	23.0	31.0	.0	.0	.0
Aug	91.5	62.4	77.0	111	1956	6	82.9	1983	43	1976	28	71.4	1992	4	373	5.5	20.6	31.0	.0	.0	.0
Sep	83.0	52.5	67.8	106	1956	12	73.3	1998	20	1984	29	62.0	1974	53	136	1.4	10.3	29.8	.0	.6	.0
Oct	71.9	39.2	55.6	100	2000	2	58.4	1974	13+	1993	31	48.1	1976	304	10	@	1.4	29.5	.1	6.1	.0
Nov	55.1	25.9	40.5	87+	2001	1	48.2	1999	-4	1952	28	34.8	1991	734	0	.0	.0	19.6	1.5	22.3	.1
Dec	45.1	17.7	31.4	83	1955	24	36.7	1994	-25	1989	23	16.0	1983	1041	0	.0	.0	12.0	5.3	29.6	1.6
Ann	68.2	39.1	53.7	114	Jun 1985	8	84.5	Jul 1980	-25	Dec 1989	23	14.3	Jan 1979	5410	1305	18.3	74.1	287.7	22.0	141.8	6.8

+ 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

075-A

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: NESS CITY, KS

COOP ID: 145692

Climate Division: KS 4

NWS Call Sign:

Elevation: 2,250 Feet Lat: 38°27N

Lon: 99°55W

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	.56	.36	.90	1990	19	1.77	1992	.00+	1998	2.9	1.6	.2	.0	.00	.00	.08	.21	.32	.44	.57	.72	.93	1.25	1.59
Feb	.70	.44	1.46	1987	15	2.89	1993	.00	1996	3.3	1.8	.4	.1	.00	.02	.08	.17	.27	.40	.58	.81	1.15	1.76	2.38
Mar	1.94	1.48	2.50	1987	24	7.64	1973	.00	1997	5.6	3.9	1.2	.4	.06	.21	.48	.76	1.07	1.42	1.84	2.38	3.11	4.35	5.58
Apr	1.98	1.81	2.57	1955	13	4.69	1984	.03	1992	5.9	4.1	1.2	.4	.31	.47	.76	1.04	1.32	1.63	1.98	2.42	3.00	3.95	4.86
May	3.09	2.89	3.00	1996	26	6.66	1981	.48	1994	8.5	6.2	2.4	.6	.82	1.11	1.56	1.95	2.34	2.74	3.19	3.73	4.42	5.52	6.55
Jun	2.96	2.10	3.16	1978	20	8.64	1986	.71	1981	7.4	5.5	2.0	.6	.58	.85	1.28	1.68	2.09	2.52	3.01	3.60	4.38	5.64	6.83
Jul	3.56	3.54	2.83	1958	27	9.70	1993	.15	1989	6.7	5.4	2.6	1.3	.42	.70	1.20	1.70	2.22	2.81	3.50	4.35	5.51	7.41	9.26
Aug	2.65	2.95	2.60	1997	7	5.93	1997	.15	2000	5.9	4.8	1.9	.9	.45	.68	1.07	1.43	1.80	2.21	2.67	3.23	3.98	5.19	6.34
Sep	1.67	.91	4.78	1959	21	4.74	1986	.00+	1998	4.7	3.2	1.3	.6	.00	.08	.30	.55	.83	1.15	1.54	2.04	2.74	3.94	5.12
Oct	1.29	1.08	2.49	2000	24	3.77	1984	.00	1975	3.7	2.4	.9	.3	.05	.16	.34	.53	.73	.96	1.24	1.58	2.05	2.84	3.61
Nov	1.19	.74	2.06	1971	16	3.60	1971	.00+	1989	3.8	2.5	.8	.2	.00	.06	.22	.39	.59	.82	1.10	1.45	1.95	2.80	3.64
Dec	.57	.35	1.33	1973	4	1.99	1973	.00+	1996	3.0	1.7	.3	@	.00	.03	.12	.21	.30	.41	.54	.70	.93	1.31	1.68
Ann	22.16	21.62	4.78	Sep 1959	21	9.70	Jul 1993	.00+	Sep 1998	61.4	43.1	15.2	5.4	14.31	15.77	17.68	19.14	20.46	21.74	23.07	24.56	26.38	29.04	31.37

+ 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

Climatography of the United States

No. 20 1971-2000

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Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: NESS CITY, KS

COOP ID: 145692

Climate Division: KS 4

NWS Call Sign:

Elevation: 2,250 Feet

Lat: 38°27N

Lon: 99°55W

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	4.4	2.5	1	#	9.0	1990	19	15.5	1990	13	1993	15	6	1993	1.8	1.5	.6	.3	.0	3.6	1.4	.8	.3
Feb	3.2	1.5	#	0	10.0	1971	22	13.0	1971	10	1993	17	6	1993	1.6	1.3	.6	.2	.1	2.9	1.5	1.1	.1
Mar	4.9	2.5	#	0	20.0	1999	13	24.0	1987	20	1999	13	3	1987	1.0	.9	.5	.4	.1	1.8	1.2	.8	.4
Apr	.2	.0	#	0	5.0	1997	12	5.0	1997	4+	1994	5	#+	1994	.2	.2	.2	@	.0	.1	.1	.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	.1	.0	0	0	2.0	1995	21	2.0	1995	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Oct	.2	.0	#	0	4.0	1991	31	4.0	1991	4	1991	31	#	1991	@	@	@	.0	.0	@	@	.0	.0
Nov	1.9	.0	#	0	8.0	1992	25	10.0	1992	11	1991	1	2	1991	.4	.4	.3	.1	.0	.9	.7	.5	.1
Dec	3.1	1.5	#	0	9.0	1997	23	12.0	1997	8	1992	15	3	1992	1.3	1.1	.4	.1	.0	2.6	1.5	.4	.0
Ann	18.0	8.0	N/A	N/A	20.0	Mar 1999	13	24.0	Mar 1987	20	Mar 1999	13	6+	Feb 1993	6.3	5.4	2.6	1.1	.2	11.9	6.4	3.6	.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

Complete documentation available from:

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Station: NESS CITY, KS

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Climate Division: KS 4

NWS Call Sign:

Elevation: 2,250 Feet

Lat: 38°27N

Lon: 99°55W

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	5/20	5/16	5/12	5/10	5/07	5/05	5/02	4/29	4/24
32	5/09	5/04	5/01	4/28	4/25	4/22	4/19	4/15	4/10
28	4/28	4/24	4/20	4/17	4/15	4/12	4/09	4/06	4/01
24	4/15	4/11	4/08	4/05	4/03	3/31	3/29	3/25	3/21
20	4/09	4/04	3/31	3/28	3/25	3/22	3/19	3/15	3/10
16	4/04	3/27	3/22	3/17	3/13	3/09	3/04	2/27	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	9/15	9/19	9/22	9/25	9/27	9/30	10/03	10/06	10/10
32	9/25	9/30	10/03	10/07	10/10	10/13	10/16	10/20	10/25
28	10/05	10/10	10/14	10/17	10/20	10/23	10/27	10/31	11/05
24	10/15	10/21	10/25	10/28	10/31	11/03	11/07	11/11	11/16
20	10/18	10/25	10/29	11/02	11/06	11/10	11/14	11/18	11/24
16	10/29	11/05	11/10	11/14	11/18	11/21	11/25	11/30	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	158	153	149	146	143	140	136	132	127
32	187	180	175	171	167	163	159	154	147
28	205	199	195	191	188	185	181	177	171
24	232	225	220	215	211	206	202	196	189
20	249	241	235	230	225	220	215	209	201
16	278	268	261	254	249	243	237	229	219

* 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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Climate Division: KS 4 NWS Call Sign: Elevation: 2,250 Feet Lat: 38°27N Lon: 99°55W

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	1143	879	707	386	140	19	0	4	53	304	734	1041	5410
60	988	739	552	255	64	5	0	0	15	179	584	886	4267
57	895	663	464	189	35	1	0	0	5	119	496	793	3660
55	834	610	407	150	22	0	0	0	2	87	438	731	3281
50	684	483	272	74	5	0	0	0	0	34	304	583	2439
32	235	147	23	0	0	0	0	0	0	0	29	159	593

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	115	193	339	611	954	1247	1455	1392	1073	729	285	142	8535
55	1	12	10	71	263	557	742	679	385	103	4	0	2827
57	0	8	5	50	215	498	680	617	328	73	2	0	2476
60	0	1	0	26	151	412	587	524	247	40	0	0	1988
65	0	0	0	7	71	276	432	373	136	10	0	0	1305
70	0	0	0	1	26	163	279	234	60	1	0	0	764

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	83	206	428	740	1033	1225	1171	858	516	144	37	18	101	307	735	1475	2508	3733	4904	5762	6278	6422	6459
45	1	35	120	295	586	883	1070	1016	708	374	72	7	1	36	156	451	1037	1920	2990	4006	4714	5088	5160	5167
50	0	9	60	180	436	733	915	861	561	245	24	0	0	9	69	249	685	1418	2333	3194	3755	4000	4024	4024
55	0	1	26	101	296	583	760	706	421	141	6	0	0	1	27	128	424	1007	1767	2473	2894	3035	3041	3041
60	0	0	6	46	169	436	605	551	289	65	0	0	0	0	6	52	221	657	1262	1813	2102	2167	2167	2167
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	46	95	178	298	464	659	783	749	545	360	135	56	46	141	319	617	1081	1740	2523	3272	3817	4177	4312	4368

(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