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

COOP ID: 147271

Lon: 100°55W

Station: SCOTT CITY, KS

Climate Division: KS 4

NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 41.9 13.5 27.7 81 1953 12 38.2 1986 -22 1984 19 15.9 1979 1156 0 .0 .0 11.5 7.7 30.5 2.6 Jan 48.0 17.9 33.0 87 1972 29 40.8 1999 -17 1951 20.7 1978 897 0 .0 .0 14.8 4.8 26.2 1.6 Feb 1 Mar 56.5 25.1 40.8 91 1963 28 47.4 1986 -16 1960 3 35.1 1980 750 0 .0 .1 22.0 1.7 21.8 .3 34.5 13 44.4 3 .7 Apr 66.4 50.5 98+ 1989 24 58.1 1981 6+ 1997 1984 440 .0 27.0 .2 9.6 0. May 75.1 45.8 60.5 104 1953 26 65.2 1998 23 +1967 53.3 1995 185 43 .1 2.5 30.5 .0 .8 .0 1 57.0 1985 34 87.0 72.0 111 8 76.4 +1981 1998 6 65.6 1989 25 234 2.5 13.7 30.0 .0 .0 .0 Jun Jul 91.7 62.1 76.9 1954 11 81.4 1980 45 1952 8 73.6 1992 0 368 4.5 21.3 31.0 .0 110 .0 .0 1992 89.6 60.7 75.2 107 +1980 1 81.4 1983 43 +1993 31 69.4 6 319 2.2 18.5 31.0 .0 .0 .0 Aug 7 23 82 .7 Sep 81.7 51.0 66.4 103 +2000 73.2 1998 1984 30 60.6 1974 122 8.9 29.7 .0 .5 .0 70.5 57.4 9 48.7 343 Oct 37.6 54.1 96 1994 1 1979 1993 30 1976 4 .0 1.0 29.5 .2 6.4 .0 24.6 39.1 88 1980 6 47.0 1999 -5+ 1952 28 32.5 1985 777 0 .0 19.2 1.7 22.8 .2 Nov 53.6 .0 Dec 44.4 16.5 30.5 82+ 1980 17 37.2 1980 -18+1989 23 16.2 1983 1072 0 .0 .0 12.1 5.6 29.8 1.6 Jun Aug Jan Jan 37.2 52.2 111 1985 8 81.4+ 1983 -22 1984 19 15.9 1979 5733 1093 10.0 66.7 288.3 148.4 6.3 67.2 21.9 Ann

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 096-A

(1) From the 1971-2000 Monthly Normals

Elevation: 2,970 Feet Lat: 38°29N

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

[@] Denotes mean number of days greater than 0 but less than .05

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COOP ID: 147271

Station: SCOTT CITY, KS

Climate Division: KS 4 NWS Call Sign: Elevation: 2,970 Feet Lat: 38°29N Lon: 100°55W

										Pı	recipi	tation	(incl	hes)										
	Mea	ans/	P	recip	itatio	on Total						ays (3	3)	Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount Monthly/Annual Precipitation vs Probability Levels										
	Medi	ans(1)				Extremes	•			Daily Precipitation				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	.70	.54	1.07	1979	13	2.41	1979	.00	1986	3.9	2.1	.4	@	.03	.09	.19	.29	.40	.53	.68	.86	1.12	1.54	1.96
Feb	.64	.32	1.22	1971	19	2.19	1971	.00	1977	3.7	1.7	.3	.1	.01	.04	.10	.19	.29	.41	.57	.77	1.06	1.56	2.06
Mar	1.52	1.05	1.44	1958	29	5.74	1973	.01	1997	5.9	3.6	.9	.3	.07	.15	.33	.53	.76	1.04	1.38	1.82	2.45	3.52	4.60
Apr	1.70	1.66	2.58	1955	13	5.29	1984	.14	1992	6.3	3.8	1.2	.3	.37	.52	.77	1.00	1.22	1.46	1.74	2.06	2.49	3.17	3.81
May	3.01	2.49	2.95	1988	28	6.13	1978	.67	1974	9.3	6.1	1.8	.7	.85	1.14	1.57	1.94	2.31	2.70	3.12	3.62	4.27	5.29	6.24
Jun	2.83	2.22	3.99	1949	5	7.86	1992	.31	1981	7.4	5.0	1.9	.8	.45	.69	1.10	1.49	1.89	2.33	2.84	3.46	4.28	5.63	6.91
Jul	3.19	3.41	6.46	1950	3	6.17	1998	.11	1983	7.7	5.3	2.3	1.0	.77	1.06	1.53	1.94	2.36	2.79	3.28	3.86	4.62	5.83	6.96
Aug	2.62	2.00	3.00	1997	6	7.04	1993	.22	1982	6.5	4.8	1.5	.9	.39	.61	.98	1.35	1.72	2.14	2.62	3.20	3.99	5.27	6.50
Sep	1.66	1.27	3.14	1963	21	4.94	1996	.09	1979	5.6	3.0	1.2	.4	.13	.24	.45	.68	.93	1.23	1.58	2.02	2.63	3.66	4.67
Oct	1.09	.81	3.81	1965	18	3.41	1984	.00+	1987	3.6	2.3	.8	.1	.00	.07	.23	.39	.58	.78	1.03	1.34	1.77	2.50	3.21
Nov	1.14	.88	1.92	1975	19	3.69	1972	.00	1989	4.3	2.2	.7	.3	.03	.11	.26	.43	.61	.82	1.07	1.40	1.84	2.60	3.35
Dec	.60	.49	1.34	1986	1	1.88	1986	.00+	1995	3.7	1.9	.2	.1	.00	.00	.13	.23	.33	.45	.58	.75	.97	1.35	1.72
Ann	20.70	20.49	6.46	Jul 1950	3	7.86	Jun 1992	.00+	Dec 1995	67.9	41.8	13.2	5.0	15.49	16.52	17.82	18.81	19.68	20.51	21.37	22.32	23.46	25.11	26.52

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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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COOP ID: 147271

Station: SCOTT CITY, KS

Climate Division: KS 4 NWS Call Sign: Elevation: 2,970 Feet Lat: 38°29N Lon: 100°55W

										Snov	w (incl	hes)													
						Sn	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ans (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	6.9	5.3	2	1	10.0	1979	13	21.0	1979	12+	1993	21	9	1993	3.1	2.2	.9	.4	@	10.6	6.3	4.0	.8		
Feb	5.0	2.5	1	#	12.0	1980	8	19.5	1990	14	1982	12	6	1993	2.4	1.9	.6	.4	.1	6.1	4.1	2.7	.5		
Mar	6.8	6.0	1	#	15.0	1980	24	27.0	1980	15	1980	24	3	1993	1.9	1.6	.7	.3	.1	2.8	1.4	.5	.1		
Apr	2.3	.0	#	#	10.0	1973	8	11.0	1973	8	1973	8	1+	1997	.7	.5	.3	.2	@	.6	.3	.2	.0		
May	#	.0	#	0	#	1978	3	#	1978	#	1997	23	#	1997	.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	2.5	1995	21	2.5	1995	3	1995	21	#+	1995	@	@	.0	.0	.0	@	@	.0	.0		
Oct	1.1	.0	#	0	12.0	1997	26	12.0	1997	12	1997	26	1	1997	.2	.2	.1	.1	@	.4	.3	.2	.1		
Nov	2.5	1.0	#	#	7.0	1975	20	12.0	1975	12	1991	1	2	1997	1.4	1.1	.3	.1	.0	2.6	1.0	.4	.1		
Dec	4.7	3.0	1	#	7.0	1984	14	17.0	1973	13	1986	1	5	1992	2.2	1.9	.6	.2	.0	5.1	2.7	1.3	.1		
Ann	29.4	17.8	N/A	N/A	15.0	Mar 1980	24	27.0	Mar 1980	15	Mar 1980	24	9	Jan 1993	11.9	9.4	3.5	1.7	.2	28.2	16.1	9.3	1.7		

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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[@] 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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VS Call Sign: Elevation: 2,970 Feet

				Freez	e Data											
			Spri	ng Freeze D	ates (Month/	(Day)										
Tomp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated	(*)								
Temp (F) 36 32 28 24 20 16 Temp (F) 36 32 28 24 20 16	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	5/25	5/19	5/15	5/12	5/08	5/05	5/02	4/27	4/22							
32	5/15	5/09	5/05	5/02	4/29	4/26	4/22	4/18	4/13							
28	5/04	4/28	4/24	4/20	4/17	4/13	4/10	4/05	3/31							
24	4/21	4/15	4/11	4/08	4/05	4/02	3/29	3/26	3/20							
20	4/12	4/06	4/02	3/30	3/27	3/23	3/20	3/16	3/10							
16	4/07	3/31	3/27	3/23	3/19	3/15	3/11	3/06	2/28							
•			Fal	l Freeze Da	tes (Month/D	ay)	•	1	•							
Toma (F)		Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	9/16	9/21	9/25	9/28	10/01	10/04	10/07	10/11	10/16							
32	9/26	9/30	10/04	10/07	10/09	10/12	10/15	10/18	10/23							
28	10/03	10/09	10/13	10/16	10/19	10/22	10/26	10/30	11/04							
24	10/13	10/19	10/22	10/25	10/28	10/31	11/04	11/07	11/13							
20	10/27	11/02	11/05	11/09	11/12	11/15	11/18	11/22	11/27							
16	10/31	11/07	11/11	11/15	11/18	11/22	11/26	11/30	12/06							
				Freeze F	ree Period											
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days))								
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90							
36	164	158	153	149	145	141	137	132	126							
32	184	177	172	167	163	159	154	149	142							
28	208	200	194	189	185	180	175	170	162							
24	227	220	215	210	206	202	197	192	184							
20	252	244	239	234	229	225	220	214	206							
16	272	262	255	249	244	238	232	225	215							

^{*} 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.

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Climate Division: KS 4 NWS Call Sign: Elevation: 2,970 Feet Lat: 38°29N Lon: 100°55W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree 1	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1156	897	750	440	185	25	0	6	82	343	777	1072	5733
60	1001	757	595	302	92	6	0	1	30	206	627	917	4534
57	908	674	502	227	54	2	0	0	14	137	537	824	3879
55	846	624	442	183	36	1	0	0	8	99	480	762	3481
50	694	493	300	95	9	0	0	0	0	36	343	612	2582
32	235	143	22	0	0	0	0	0	0	0	44	176	620

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	102	170	295	553	882	1199	1391	1337	1030	684	257	127	8027
55	0	7	2	46	205	510	678	624	347	69	3	0	2491
57	0	2	0	30	161	451	616	562	294	45	0	0	2161
60	0	0	0	14	106	365	523	469	220	21	0	0	1718
65	0	0	0	3	43	234	368	319	122	4	0	0	1093
70	0	0	0	0	12	128	218	184	56	0	0	0	598

	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	27	78	191	388	694	992	1178	1124	829	495	129	38	27	105	296	684	1378	2370	3548	4672	5501	5996	6125	6163
45	1	29	105	265	541	842	1023	969	681	350	63	10	1	30	135	400	941	1783	2806	3775	4456	4806	4869	4879
50	0	6	50	160	391	692	868	814	535	226	24	0	0	6	56	216	607	1299	2167	2981	3516	3742	3766	3766
55	0	1	15	78	256	544	713	659	395	122	5	0	0	1	16	94	350	894	1607	2266	2661	2783	2788	2788
60	0	0	2	33	140	396	558	504	267	53	0	0	0	0	2	35	175	571	1129	1633	1900	1953	1953	1953
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	thly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	51	94	176	286	435	632	753	724	527	345	126	60	51	145	321	607	1042	1674	2427	3151	3678	4023	4149	4209

(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.

Compete documentation for the 1971-2000 Normals is available on the internet from:

www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

- a. Temperature/ Precipitation Tables
 - 1. 1971-2000 Monthly Normals
 - 2. Cooperative Summary of the Day
 - 3. National Weather Service station records
 - 4. 1971-2000 serially complete daily data

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

1971-2000 serially complete daily data

- b. Degree Day Table
 - 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 - 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

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