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: 010402

Station: ATMORE STATE NURSERY, AL

Climate Division: AL 7 NWS Call Sign: Elevation: 300 Feet Lat: 31°10N Lon: 87°26W

									r	Tempe	eratur	re (°F)									
	Mea	n (1)						Extr	emes			Degree Base To	•	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	58.7	36.5	47.6	84	1949	12	58.7	1974	1	1985	21	37.8	1977	552	0	.0	.0	25.2	.2	9.4	.0
Feb	62.9	38.8	50.9	85	1959	10	56.5	1990	10	1951	3	41.3	1978	397	1	.0	.0	25.2	.1	5.9	.0
Mar	70.4	45.7	58.1	87+	1995	24	64.4	1997	21+	1996	10	53.4	1971	238	22	.0	.0	30.3	.0	2.0	.0
Apr	76.8	51.9	64.4	93+	1987	23	69.4	1999	29	1987	4	60.3	1983	81	62	.0	.1	29.9	.0	.2	.0
May	83.9	60.4	72.2	101	1953	28	77.3	2000	41	1960	13	68.2	1976	7	228	.0	3.8	31.0	.0	.0	.0
Jun	89.0	67.2	78.1	104	1954	29	82.4	1998	49	1984	1	75.2	1983	0	394	.2	15.8	30.0	.0	.0	.0
Jul	90.7	70.3	80.5	105	1952	24	83.6	2000	62	1958	1	77.9	1994	0	481	.4	22.3	31.0	.0	.0	.0
Aug	90.6	70.1	80.4	104+	1954	30	83.4	1999	57	1952	28	77.6	1992	0	476	.3	21.7	31.0	.0	.0	.0
Sep	86.6	66.1	76.4	101+	1954	8	80.8	1980	42	1949	30	73.6	1975	1	341	.0	11.8	30.0	.0	.0	.0
Oct	78.9	54.5	66.7	98+	1954	6	73.5	1985	30+	1954	31	61.0	1987	75	127	.0	1.2	31.0	.0	.0	.0
Nov	69.5	45.8	57.7	90	1958	18	68.2	1985	17	1950	25	48.8	1976	258	37	.0	.0	29.4	.0	3.0	.0
Dec	61.5	39.0	50.3	85	1958	5	59.0	1984	6	1962	13	41.5	1989	467	10	.0	.0	27.2	.2	8.9	.0
	7	50. 5		105	Jul	2.1	02.5	Jul		Jan	21	27.0	Jan	207.6	2150			251.5	_	20.4	
Ann	76.6	53.9	65.3	105	1952	24	83.6	2000	1	1985	21	37.8	1977	2076	2179	.9	76.7	351.2	.5	29.4	.0

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 006-A

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

⁽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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										Pı	recipi	tation	(incl	nes)													
			P	recip	itatio	on Total	S			M	ean N	Numbo Pays (3		Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount													
		ans/				Extremes	5			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	6.81	6.47	5.40	1986	1	12.99	1991	1.40	1981	10.7	7.8	4.4	2.4	2.58	3.21	4.12	4.88	5.60	6.33	7.12	8.04	9.22	11.02	12.67			
Feb	5.54	5.07	5.50	1955	6	9.83	1983	1.15	1999	8.8	6.4	3.4	1.8	1.68	2.21	3.00	3.67	4.33	5.01	5.76	6.64	7.78	9.56	11.20			
Mar	6.75	6.40	7.63	1990	16	15.66	1980	3.06	2000	10.4	7.5	4.0	2.2	2.88	3.49	4.34	5.04	5.70	6.36	7.07	7.89	8.92	10.50	11.92			
Apr	4.59	3.98	12.10	1955	13	11.84	1979	.60	1987	7.6	5.1	2.7	1.4	.98	1.40	2.07	2.68	3.30	3.96	4.70	5.58	6.75	8.62	10.39			
May	6.10	6.18	6.40	1990	13	16.26	1991	.02	1988	10.0	6.8	3.6	1.7	.67	1.13	1.98	2.83	3.74	4.77	5.96	7.45	9.48	12.84	16.11			
Jun	4.62	4.29	4.75	1961	20	12.47	1994	.60	1988	12.8	8.8	3.0	1.2	1.13	1.56	2.23	2.83	3.43	4.05	4.76	5.59	6.68	8.42	10.04			
Jul	7.61	7.51	4.60	1985	26	16.93	1975	1.71	1983	14.4	10.9	4.6	1.7	2.57	3.29	4.34	5.23	6.09	6.97	7.94	9.07	10.51	12.76	14.82			
Aug	5.59	5.25	4.69	1995	4	10.72	1995	2.10	1980	14.4	9.8	3.1	1.1	2.30	2.81	3.53	4.13	4.69	5.25	5.86	6.56	7.45	8.81	10.04			
Sep	4.13	3.44	7.68	1998	28	17.44	1998	.21	1984	10.4	6.4	2.4	1.0	.75	1.12	1.72	2.29	2.86	3.48	4.19	5.04	6.17	8.00	9.74			
Oct	2.68	2.34	6.05	1995	5	10.01	1995	.05	1978	5.7	3.6	1.5	.7	.28	.48	.85	1.23	1.63	2.08	2.61	3.28	4.18	5.68	7.14			
Nov	5.17	5.25	7.53	1993	16	11.04	1992	1.20	1990	8.9	6.1	3.2	1.6	1.48	1.97	2.71	3.35	3.98	4.64	5.36	6.22	7.33	9.06	10.68			
Dec	4.93	4.34	4.77	1989	31	9.94	1989	.99	1980	10.1	6.5	3.1	1.8	1.79	2.25	2.92	3.48	4.01	4.56	5.15	5.84	6.72	8.08	9.33			
Ann	64.52	65.30	12.10	Apr 1955	13	17.44	Sep 1998	.02	May 1988	124.2	85.7	39.0	18.6	47.94	51.20	55.36	58.49	61.26	63.93	66.67	69.69	73.34	78.60	83.13			

⁺ 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

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										Snov	w (inc	hes)													
						Sn	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ans (1))					Extre	mes (2)							ow Fa		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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Mar	.1	.0	0	0	2.0	1993	13	2.0	1993	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0		
Apr	#	.0	0	0	#	1987	3	#	1987	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.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	.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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Nov	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Dec	.1	.0	0	0	2.0	1996	19	2.0	1996	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0		
Ann	.2	.0	N/A	N/A	2.0+	Dec 1996	19	2.0+	Dec 1996	0	0	0	0	0	.2	.2	.0	.0	.0	.0	.0	.0	.0		

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

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

[@] 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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COOP ID: 010402

Lon: 87°26W

Lat: 31°10N

Station: ATMORE STATE NURSERY, AL

Climate Division: AL 7 NWS Call Sign:

Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 4/12 4/06 4/01 3/29 3/25 3/21 3/17 3/13 3/06 32 3/23 3/18 3/31 3/13 3/09 3/05 2/28 2/23 2/16 28 3/16 3/06 2/28 2/22 2/17 2/12 2/06 1/30 1/21 2/21 12/28 24 3/04 2/14 2/07 2/01 1/25 1/18 1/10 20 2/20 2/09 1/31 1/23 1/14 1/01 0/00 0/00 0/00 1/05 0/00 16 1/17 0/00 0/00 0/00 0/00 0/00 0/00 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 11/05 36 10/27 11/01 11/08 11/11 11/13 11/16 11/20 11/25 32 11/03 11/09 11/13 11/17 11/20 11/24 11/27 12/01 12/07 28 11/13 11/23 11/30 12/06 12/11 12/17 12/23 12/30 1/08 24 11/27 12/09 12/18 12/25 1/01 1/09 1/16 1/26 2/09 20 12/15 12/28 1/07 1/16 1/26 2/10 0/00 0/00 0/00 12/31 1/14 0/00 0/00 0/00 16 0/00 0/00 0/00 0/00 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 257 247 241 235 230 225 219 212 36 203 32 282 273 266 261 255 250 244 238 229 28 326 315 307 301 295 289 283 276 266 24 >365 >365 >365 339 327 318 310 301 290 349 20 >365 >365 >365 >365 >365 >365 >365 316 16 >365 >365 >365 >365 >365 >365 >365 >365 >365

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 do

Complete documentation available from:

Elevation: 300 Feet

^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

Climate Division: AL 7

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree 1	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	552	397	238	81	7	0	0	0	1	75	258	467	2076		
60	413	269	130	24	0	0	0	0	0	28	159	329	1352		
57	338	199	82	9	0	0	0	0	0	14	112	256	1010		
55	292	159	57	4	0	0	0	0	0	8	85	214	819		
50	198	82	18	0	0	0	0	0	0	2	36	128	464		
32	17	0	0	0	0	0	0	0	0	0	0	4	21		

Base		Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann			
32	501	528	807	971	1244	1384	1504	1499	1330	1075	769	569	12181			
55	63	43	151	285	531	694	791	786	640	370	164	67	4585			
57	47	27	115	229	469	634	729	724	580	313	131	47	4045			
60	29	13	70	155	376	544	636	631	490	235	88	26	3293			
65	0	1	22	62	228	394	481	476	341	127	37	10	2179			
70	0	0	5	14	106	245	326	321	198	52	13	0	1280			

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	313	382	595	750	1021	1151	1274	1266	1096	839	545	364	313	695	1290	2040	3061	4212	5486	6752	7848	8687	9232	9596				
45	200	260	445	600	866	1001	1119	1111	946	684	401	237	200	460	905	1505	2371	3372	4491	5602	6548	7232	7633	7870				
50	112	155	308	450	711	851	964	956	796	529	273	139	112	267	575	1025	1736	2587	3551	4507	5303	5832	6105	6244				
55	52	81	185	308	556	701	809	801	646	375	169	77	52	133	318	626	1182	1883	2692	3493	4139	4514	4683	4760				
60	21	34	94	182	401	551	654	646	496	237	84	34	21	55	149	331	732	1283	1937	2583	3079	3316	3400	3434				
Base		•		Gro	wing De	gree Unit	s for Co	rn (Mont	thly)		•				Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)						
50/86	186	231	374	482	697	793	882	873	757	558	344	225	186	417	791	1273	1970	2763	3645	4518	5275	5833	6177	6402				

(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

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