

# Climatography of the United States No. 20

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

Station: HOT SPRINGS 1 NNE, AR

1971-2000

COOP ID: 033466

Climate Division: AR 5

NWS Call Sign:

Elevation: 680 Feet

Lat: 34° 31N

Lon: 93° 03W

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	50.7	29.6	40.2	81	1950	25	45.8	1998	-1	1962	10	29.1	1979	771	0	.0	.0	16.9	2.1	19.7	.1
Feb	57.0	33.2	45.1	87	1986	21	51.8	2000	1	1951	2	33.9	1978	559	1	.0	.0	20.4	1.0	13.4	.0
Mar	65.5	41.1	53.3	90	1966	31	58.5	1974	12	1980	2	48.0	1980	371	8	.0	.0	28.1	.1	6.1	.0
Apr	74.2	48.9	61.6	97	1987	21	67.5	1981	26+	1989	11	55.5	1983	146	42	.0	.6	29.7	.0	.7	.0
May	81.2	57.9	69.6	98	1951	31	76.0	1987	36	1954	4	63.8	1976	45	186	.0	3.7	31.0	.0	.0	.0
Jun	88.8	65.8	77.3	108	1953	21	81.4	1998	49+	1984	1	72.8	1974	1	369	.7	15.2	30.0	.0	.0	.0
Jul	94.3	70.1	82.2	114	1986	31	89.1	1980	52+	1990	15	76.2	1989	0	533	6.4	24.6	31.0	.0	.0	.0
Aug	93.9	68.3	81.1	115	1986	1	88.1	2000	50	1990	8	76.3+	1994	1	501	7.3	23.8	31.0	.0	.0	.0
Sep	86.5	61.5	74.0	112	2000	1	78.6	1998	37+	1989	24	66.7	1974	14	284	1.7	12.4	30.0	.0	.0	.0
Oct	76.0	50.4	63.2	99	1953	2	68.7	1971	25	1993	31	57.9	1976	124	67	.0	1.7	30.8	.0	.4	.0
Nov	62.5	40.2	51.4	86	1984	1	56.1	1973	14	1976	29	45.0	1976	411	2	.0	.0	26.3	@	6.8	.0
Dec	53.1	32.4	42.8	80	1956	5	52.6	1984	-5+	1989	22	31.2	1983	690	0	.0	.0	19.8	1.2	16.2	.1
Ann	73.6	50.0	61.8	115	Aug 1986	1	89.1	Jul 1980	-5+	Dec 1989	22	29.1	Jan 1979	3133	1993	16.1	82.0	325.0	4.4	63.3	.2

+ 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](http://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

040-A

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**Climate Division: AR 5**

**NWS Call Sign:**

**Elevation: 680 Feet Lat: 34°31N**

**Lon: 93°03W**

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	3.70	3.32	5.50	1969	30	9.49	1999	.21	1986	10.6	6.4	2.4	.9	.87	1.22	1.76	2.24	2.72	3.23	3.80	4.48	5.37	6.79	8.12
Feb	3.92	3.50	5.54	1956	15	9.99	1989	1.37	1978	9.0	5.7	2.8	1.3	1.41	1.77	2.31	2.76	3.18	3.62	4.10	4.65	5.36	6.46	7.46
Mar	5.32	4.78	3.75	1949	9	10.35	1973	1.62	1982	10.1	7.3	3.6	1.7	2.12	2.61	3.31	3.88	4.42	4.98	5.57	6.26	7.13	8.47	9.69
Apr	5.31	5.30	6.22	1974	22	13.76	1973	1.57	1987	9.4	6.6	3.2	1.8	1.53	2.03	2.79	3.45	4.10	4.77	5.51	6.38	7.52	9.29	10.94
May	6.41	5.15	12.97	1990	20	20.22	1990	2.64	1988	11.5	8.3	4.0	1.9	1.88	2.49	3.41	4.20	4.97	5.77	6.66	7.70	9.05	11.16	13.12
Jun	5.02	4.58	5.40	1997	17	12.05	1974	1.07	1980	9.5	6.8	3.3	1.6	1.44	1.92	2.63	3.26	3.87	4.50	5.20	6.03	7.10	8.78	10.34
Jul	4.18	4.23	8.35	1963	16	12.23	1989	.09	1993	8.5	6.3	2.6	1.2	.59	.93	1.53	2.11	2.72	3.39	4.16	5.11	6.38	8.47	10.48
Aug	3.08	2.57	4.12	1967	10	7.04	1993	.61	1980	7.4	5.1	2.0	1.0	.79	1.09	1.53	1.93	2.32	2.73	3.18	3.72	4.43	5.55	6.59
Sep	4.05	3.82	5.36	1960	25	8.52	1972	.24	1982	8.7	5.7	2.7	1.3	.84	1.21	1.80	2.34	2.89	3.47	4.13	4.92	5.97	7.64	9.22
Oct	5.21	4.54	5.65	1984	19	20.70	1984	1.33	1989	7.8	5.6	3.0	1.9	1.19	1.67	2.44	3.12	3.81	4.53	5.35	6.32	7.61	9.64	11.56
Nov	6.29	5.89	7.24	1988	19	13.60	1982	1.25	1981	10.0	6.7	4.0	2.3	1.44	2.03	2.95	3.77	4.60	5.47	6.46	7.63	9.17	11.62	13.92
Dec	5.20	4.19	5.20	1987	25	14.38	1987	1.16	1981	10.0	6.8	3.3	1.6	1.48	1.97	2.72	3.37	4.00	4.66	5.39	6.25	7.37	9.12	10.75
Ann	57.69	56.42	12.97	May 1990	20	20.70	Oct 1984	.09	Jul 1993	112.5	77.3	36.9	18.5	42.61	45.57	49.34	52.19	54.71	57.13	59.63	62.38	65.70	70.51	74.64

+ 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:  
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**NWS Call Sign:**

**Elevation: 680 Feet**

**Lat: 34°31N**

**Lon: 93°03W**

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	1.6	.5	#	0	9.0	2000	28	9.0	2000	9	1988	8	1	1988	.6	.3	.1	.1	.0	.3	@	.0	.0
Feb	.5	.0	#	0	4.0	1978	18	4.0	1978	11	1979	7	5	1985	.4	.2	.1	.0	.0	.0	.0	.0	.0
Mar	.3	.0	#	0	4.0	1975	14	4.0	1975	1	1971	2	#	1971	.1	.1	.1	.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	#	1989	20	#	1989	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.2	.0	#	0	3.5	1971	23	3.5	1971	2	1971	23	#	1971	.1	.1	.1	.0	.0	@	.0	.0	.0
Dec	.1	.0	#	0	1.5	1983	16	1.5	1983	#+	1998	6	#+	1998	.2	.1	.0	.0	.0	.0	.0	.0	.0
Ann	2.7	.5	N/A	N/A	9.0	Jan 2000	28	9.0	Jan 2000	11	Feb 1979	7	5	Feb 1985	1.4	.8	.4	.1	.0	.3	@	.0	.0

+ 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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**Elevation: 680 Feet**

**Lat: 34°31N**

**Lon: 93°03W**

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	4/18	4/14	4/11	4/09	4/06	4/04	4/02	3/30	3/26
32	4/12	4/06	4/01	3/29	3/26	3/22	3/19	3/14	3/08
28	4/01	3/24	3/18	3/13	3/08	3/04	2/27	2/21	2/13
24	3/15	3/08	3/03	2/27	2/23	2/18	2/14	2/09	2/02
20	3/12	2/28	2/20	2/13	2/06	1/30	1/23	1/15	1/03
16	3/02	2/20	2/13	2/07	2/01	1/26	1/18	1/06	0/00
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	10/14	10/20	10/23	10/27	10/30	11/02	11/05	11/09	11/14
32	10/25	10/30	11/02	11/05	11/08	11/11	11/13	11/17	11/22
28	11/01	11/08	11/13	11/18	11/22	11/26	11/30	12/05	12/12
24	11/13	11/21	11/27	12/02	12/07	12/12	12/17	12/23	12/31
20	11/18	11/29	12/07	12/13	12/20	12/26	1/02	1/10	1/21
16	12/04	12/15	12/22	12/29	1/05	1/12	1/21	2/03	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	226	219	214	209	205	201	197	192	185
32	249	241	236	231	227	222	217	212	204
28	288	278	270	264	257	251	245	237	227
24	315	304	296	290	284	279	273	266	256
20	>365	336	323	315	308	302	295	287	277
16	>365	>365	>365	360	340	328	318	308	295

\* 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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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	771	559	371	146	45	1	0	1	14	124	411	690	3133
60	617	428	236	63	13	0	0	0	2	51	275	544	2229
57	532	353	171	32	5	0	0	0	0	26	204	458	1781
55	474	306	134	18	3	0	0	0	0	14	162	403	1514
50	339	204	64	3	0	0	0	0	0	2	83	280	975
32	45	17	0	0	0	0	0	0	0	0	1	32	95

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	297	383	660	886	1164	1359	1556	1523	1259	967	582	365	11001
55	13	28	81	214	453	669	843	810	569	268	54	23	4025
57	9	20	56	168	394	609	781	748	509	217	35	16	3562
60	1	11	28	109	309	519	688	655	422	150	16	9	2917
65	0	1	8	42	186	369	533	501	284	67	2	0	1993
70	0	0	0	11	94	227	381	356	168	22	0	0	1259

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	136	232	437	655	927	1126	1321	1288	1029	730	365	176	136	368	805	1460	2387	3513	4834	6122	7151	7881	8246	8422
45	71	139	300	507	772	976	1166	1133	879	575	240	92	71	210	510	1017	1789	2765	3931	5064	5943	6518	6758	6850
50	28	75	184	365	617	826	1011	978	729	424	143	43	28	103	287	652	1269	2095	3106	4084	4813	5237	5380	5423
55	6	30	102	237	463	676	856	823	580	285	72	16	6	36	138	375	838	1514	2370	3193	3773	4058	4130	4146
60	0	5	47	131	314	526	701	668	433	169	28	1	0	5	52	183	497	1023	1724	2392	2825	2994	3022	3023
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	90	155	272	416	610	762	872	845	678	468	219	112	90	245	517	933	1543	2305	3177	4022	4700	5168	5387	5499

(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:  
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## 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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
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## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)