

Climatography of the United States

No. 20

1971-2000

Station: BENTONVILLE 4 S, AR

COOP ID: 030586

Climate Division: AR 1

NWS Call Sign:

Elevation: 1,220 Feet Lat: 36°19N Lon: 94°13W

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	43.8	22.0	32.9	76	1950	24	40.1	1990	-15+	1977	10	20.7	1977	996	0	.0	.0	11.2	6.0	25.9	1.8
Feb	49.9	26.2	38.1	86	1996	23	46.4	1976	-16+	1996	4	27.1	1978	754	0	.0	.0	15.0	3.4	20.4	.7
Mar	58.6	34.8	46.7	88	1963	28	51.0	1985	-12	1948	12	40.6	1996	567	0	.0	.0	23.5	.6	12.8	.0
Apr	68.2	43.3	55.8	90+	1987	19	61.7	1981	16	1957	13	49.0	1983	289	11	.0	.1	28.6	.0	3.8	.0
May	75.6	52.9	64.3	93+	1953	31	69.4	1987	27	1954	4	58.4	1976	112	89	.0	.3	31.0	.0	.1	.0
Jun	83.3	61.6	72.5	103+	1953	14	76.6	1994	40	1983	1	67.9	1982	11	234	.0	3.8	30.0	.0	.0	.0
Jul	88.8	66.1	77.5	114	1954	14	82.5	1980	45	1971	31	74.2	1972	0	386	.9	14.6	31.0	.0	.0	.0
Aug	88.5	64.3	76.4	107	1964	4	82.1	1980	44	1956	21	70.5	1992	6	359	.7	13.9	31.0	.0	.0	.0
Sep	80.8	56.8	68.8	106	2000	3	76.9	1998	30+	1989	24	61.4	1974	54	168	.2	5.1	30.0	.0	.2	.0
Oct	70.9	45.0	58.0	95	1953	1	62.4	1971	18+	1989	21	51.6	1976	241	22	.0	.2	30.2	@	3.2	.0
Nov	57.2	34.7	46.0	82+	1955	13	53.8	1999	5+	1959	17	38.5	1976	572	0	.0	.0	21.9	.5	13.1	.0
Dec	47.3	25.9	36.6	78	1951	31	44.1	1984	-15	1989	24	23.3	1983	881	0	.0	.0	14.2	3.8	23.3	.5
Ann	67.7	44.5	56.1	114	Jul 1954	14	82.5	Jul 1980	-16+	Feb 1996	4	20.7	Jan 1977	4483	1269	1.8	38.0	297.6	14.3	102.8	3.0

+ 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

009-A

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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: BENTONVILLE 4 S, AR

COOP ID: 030586

Climate Division: AR 1

NWS Call Sign:

Elevation: 1,220 Feet Lat: 36°19N

Lon: 94°13W

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	2.23	2.12	3.00	1969	30	5.85	1990	.08	1986	6.0	4.3	1.5	.5	.27	.45	.76	1.07	1.40	1.77	2.19	2.72	3.44	4.62	5.76
Feb	2.52	2.30	2.62	1951	18	5.67	1990	.27	1991	6.3	4.8	1.8	.5	.49	.72	1.09	1.43	1.77	2.14	2.56	3.07	3.74	4.82	5.85
Mar	4.42	4.30	3.15	1988	29	10.36	1973	.78	1971	8.8	7.1	3.2	1.4	1.20	1.62	2.26	2.82	3.37	3.94	4.58	5.33	6.31	7.85	9.28
Apr	4.17	4.12	3.58	1965	3	8.32	1986	.27	1989	9.1	6.8	3.0	1.1	1.05	1.45	2.05	2.59	3.12	3.68	4.30	5.04	6.00	7.53	8.96
May	5.23	5.46	4.42	1961	20	12.25	1990	1.03	1994	10.9	8.2	3.6	1.7	1.84	2.34	3.05	3.65	4.23	4.82	5.46	6.21	7.17	8.65	10.02
Jun	5.19	5.19	4.72	1974	9	12.74	1999	.97	1984	9.0	7.4	3.4	1.7	1.20	1.68	2.44	3.12	3.80	4.52	5.33	6.29	7.56	9.57	11.47
Jul	3.17	2.66	5.93	1975	27	8.24	1979	.40	1983	6.5	4.8	2.0	.9	.54	.81	1.27	1.71	2.15	2.64	3.19	3.86	4.76	6.21	7.60
Aug	3.35	3.16	4.35	1950	5	8.20	1985	.00	2000	6.8	5.2	2.2	1.1	.57	1.03	1.60	2.05	2.50	2.97	3.49	4.10	4.90	6.16	7.33
Sep	4.74	4.00	5.65	1990	21	14.70	1986	.50	1979	7.8	6.6	2.9	1.6	.87	1.30	1.99	2.63	3.29	4.00	4.80	5.77	7.06	9.14	11.13
Oct	3.59	3.02	3.08	1972	22	9.18	1984	.70	1977	7.0	5.4	2.3	1.2	1.03	1.37	1.88	2.33	2.77	3.22	3.72	4.32	5.09	6.29	7.41
Nov	4.81	4.63	3.94	1994	5	11.17	1996	.51	1989	7.2	6.0	3.3	1.8	1.25	1.71	2.40	3.02	3.62	4.26	4.97	5.81	6.90	8.63	10.24
Dec	3.50	2.77	3.85	1984	21	9.06	1984	.43	1989	6.6	4.9	2.3	1.3	.61	.92	1.43	1.91	2.40	2.93	3.53	4.27	5.24	6.82	8.32
Ann	46.92	44.29	5.93	Jul 1975	27	14.70	Sep 1986	.00	Aug 2000	92.0	71.5	31.5	14.8	31.58	34.48	38.24	41.11	43.68	46.17	48.76	51.63	55.14	60.25	64.70

+ 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

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Climate Division: AR 1

NWS Call Sign:

Elevation: 1,220 Feet

Lat: 36° 19N

Lon: 94° 13W

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	3.9	2.0	1	#	11.0	1995	19	18.0	1977	11	1995	19	4	1977	1.4	1.3	.5	.2	@	3.0	2.1	1.0	.1
Feb	2.5	.0	#	#	6.0	1975	24	13.0	1978	8	1993	18	2	1993	1.1	1.0	.4	.1	.0	2.0	1.0	.4	.0
Mar	2.0	.0	#	0	14.0	1999	14	14.0+	1999	14+	1999	14	1	1999	.4	.4	.2	.1	.1	.6	.2	.2	.1
Apr	.0	.0	#	0	.5	1973	10	.5	1973	##	1994	6	##	1994	@	.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	#	1993	30	#	1993	#	1993	30	#	1993	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.7	.0	#	0	6.0	1971	23	6.0+	1972	6	1971	23	##	2000	.3	.3	.1	@	.0	.3	.1	@	.0
Dec	1.3	.0	#	#	5.0	1985	13	7.0	1990	8	2000	14	2	2000	.8	.6	.2	.1	.0	1.1	.3	.2	.0
Ann	10.4	2.0	N/A	N/A	14.0	Mar 1999	14	18.0	Jan 1977	14+	Mar 1999	14	4	Jan 1977	4.0	3.6	1.4	.5	.1	7.0	3.7	1.8	.2

+ 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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NWS Call Sign:

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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	5/09	5/05	5/02	4/29	4/27	4/24	4/22	4/19	4/14
32	4/28	4/24	4/21	4/18	4/16	4/13	4/11	4/08	4/03
28	4/14	4/09	4/06	4/03	3/31	3/28	3/25	3/22	3/17
24	4/06	3/31	3/27	3/24	3/21	3/18	3/14	3/10	3/05
20	3/28	3/21	3/16	3/11	3/07	3/03	2/26	2/21	2/13
16	3/17	3/08	3/02	2/25	2/20	2/15	2/10	2/04	1/27
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	9/24	9/28	10/02	10/05	10/07	10/10	10/13	10/16	10/21
32	10/01	10/07	10/12	10/15	10/19	10/22	10/26	10/30	11/05
28	10/18	10/23	10/27	10/30	11/02	11/05	11/09	11/13	11/18
24	10/26	11/01	11/06	11/10	11/13	11/17	11/21	11/25	12/01
20	11/03	11/10	11/16	11/20	11/25	11/29	12/03	12/09	12/16
16	11/14	11/22	11/27	12/02	12/06	12/11	12/16	12/21	12/29
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	181	175	170	166	163	159	155	151	145
32	210	201	195	190	185	180	175	169	160
28	237	230	225	220	216	211	207	201	194
24	261	253	247	242	237	232	226	220	212
20	292	281	274	268	262	256	250	242	232
16	320	309	301	295	288	282	275	268	257

* 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: AR 1 NWS Call Sign: Elevation: 1,220 Feet Lat: 36°19N Lon: 94°13W

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	996	754	567	289	112	11	0	6	54	241	572	881	4483
60	841	617	415	168	47	2	0	0	17	131	429	726	3393
57	749	539	330	111	24	0	0	0	7	81	347	639	2827
55	690	487	276	80	14	0	0	0	4	57	295	582	2485
50	547	363	162	27	3	0	0	0	0	18	186	440	1746
32	154	73	5	0	0	0	0	0	0	0	10	95	337

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	181	243	462	712	999	1214	1409	1376	1104	804	429	237	9170
55	4	13	19	102	300	524	696	663	418	148	24	10	2921
57	1	9	11	73	248	464	634	601	361	110	15	6	2533
60	0	3	3	40	178	375	541	509	281	66	7	0	2003
65	0	0	0	11	89	234	386	359	168	22	0	0	1269
70	0	0	0	2	32	118	237	223	86	5	0	0	703

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	58	123	274	494	763	988	1174	1141	880	571	248	92	58	181	455	949	1712	2700	3874	5015	5895	6466	6714	6806
45	26	64	171	355	608	838	1019	986	731	423	154	45	26	90	261	616	1224	2062	3081	4067	4798	5221	5375	5420
50	5	27	94	230	455	688	864	831	582	287	84	16	5	32	126	356	811	1499	2363	3194	3776	4063	4147	4163
55	0	6	41	132	309	538	709	676	434	172	37	3	0	6	47	179	488	1026	1735	2411	2845	3017	3054	3057
60	0	1	16	64	177	388	554	521	303	83	9	0	0	1	17	81	258	646	1200	1721	2024	2107	2116	2116
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	48	95	181	315	484	671	799	767	576	368	159	62	48	143	324	639	1123	1794	2593	3360	3936	4304	4463	4525

(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/normal/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.

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