### 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: BENTON, AR 1971-2000 COOP ID: 030582

Climate Division: AR 5 NWS Call Sign: Elevation: 310 Feet Lat: 34°34N Lon: 92°36W

									r	Гетр	eratur	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes					Degree Base To	Days (1) emp 65		Mean	Numb	er of I	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	51.5	27.0	39.3	83	1950	25	45.7	1990	-12	1962	11	27.3	1979	799	0	.0	.0	18.5	1.7	19.4	.1
Feb	57.6	31.0	44.3	87	1986	27	50.7	1976	-17	1951	2	33.4	1978	581	0	.0	.0	21.9	.8	13.4	.0
Mar	65.8	39.8	52.8	91	1974	31	59.0	1974	13+	1948	12	46.9	1996	386	8	.0	@	29.3	.0	6.2	.0
Apr	73.6	47.4	60.5	95	1987	27	66.0	1991	23	1987	4	54.4	1983	166	31	.0	.3	30.0	.0	1.4	.0
May	80.6	57.1	68.9	97+	1977	31	74.1	1987	35+	1960	1	64.0	1976	41	160	.0	1.9	31.0	.0	.0	.0
Jun	87.6	65.0	76.3	104	1954	28	81.6	1998	44	1966	1	71.9	1974	1	341	.3	13.5	30.0	.0	.0	.0
Jul	92.2	68.8	80.5	112	1986	31	85.1	1980	50+	1972	6	77.3	1972	0	480	2.9	23.7	31.0	.0	.0	.0
Aug	91.7	66.3	79.0	108+	1954	8	85.0	2000	46	1986	30	73.4	1992	1	435	2.9	21.9	31.0	.0	.0	.0
Sep	85.1	59.9	72.5	106	2000	1	78.3	1998	32	1967	29	66.4	1974	16	240	.7	9.4	30.0	.0	.0	.0
Oct	76.0	48.1	62.1	98	1963	8	66.8	1971	20	1993	31	56.3	1976	143	50	.0	.6	31.0	.0	1.3	.0
Nov	63.0	38.0	50.5	86	1955	13	55.5	1973	7	1976	29	43.4	1976	437	3	.0	.0	27.5	.0	8.1	.0
Dec	54.0	30.3	42.2	80+	1951	31	52.3	1984	-2	1989	23	30.9	1983	707	0	.0	.0	21.6	.9	16.9	.1
Ann	73.2	48.2	60.7	112	Jul 1986	31	85.1	Jul 1980	-17	Feb 1951	2	27.3	Jan 1979	3278	1748	6.8	71.3	332.8	3.4	66.7	.2

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 008-A

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1948-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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**COOP ID: 030582** 

Station: BENTON, AR

Climate Division: AR 5 NWS Call Sign: Elevation: 310 Feet Lat: 34°34N Lon: 92°36W

										Pı	recipi	tation	(incl	nes)										
	Me	ans/	P	recip	itatio	on Total						ays (3	5)	Proba	ability th		nonthly/	indic	precipita ated an	ation wi			less tha	an the
	Medi	ans(1)				Extremes	8			L	aily Pre	cipitatio	n		Th	ese value	s were det	termined	from the	incomplet	te gamma	distributi	ion	
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	3.16	4.62	1969	30	8.35	1999	.13	1986	8.0	6.1	2.6	1.1	.63	.96	1.50	2.01	2.53	3.09	3.74	4.52	5.56	7.25	8.86
Feb	3.27	2.74	4.49	1950	12	9.93	1989	.91	1972	6.5	4.7	2.4	1.0	.91	1.22	1.69	2.10	2.50	2.92	3.38	3.93	4.64	5.75	6.79
Mar	4.94	4.66	3.35	1990	8	9.95	1973	1.87	1982	7.9	6.6	3.4	1.6	2.12	2.56	3.18	3.69	4.17	4.66	5.17	5.77	6.52	7.67	8.71
Apr	5.35	5.13	6.96	1974	22	12.98	1973	.76	1987	7.1	5.8	3.5	1.5	1.15	1.64	2.42	3.14	3.85	4.61	5.47	6.50	7.86	10.03	12.08
May	5.00	4.70	5.43	1968	14	9.95	1990	1.05	1977	8.6	7.3	3.9	1.5	1.59	2.06	2.77	3.37	3.95	4.55	5.21	5.98	6.98	8.53	9.96
Jun	4.25	4.08	4.65	1997	17	10.58	1974	.85	1990	7.6	6.2	2.8	1.5	1.13	1.53	2.15	2.69	3.22	3.78	4.40	5.13	6.09	7.60	9.01
Jul	4.19	3.64	5.60	1996	27	11.52	1996	.15	1993	6.6	5.4	2.5	1.3	.50	.83	1.42	2.00	2.62	3.31	4.12	5.11	6.47	8.69	10.86
Aug	2.73	2.37	6.07	1950	24	8.23	1971	.16	1980	4.7	3.7	1.9	.9	.39	.62	1.01	1.39	1.79	2.22	2.72	3.34	4.17	5.52	6.81
Sep	4.38	4.16	9.75	1978	14	14.79	1978	.65	1983	6.4	5.3	2.5	1.3	.72	1.10	1.73	2.34	2.96	3.63	4.40	5.35	6.60	8.64	10.60
Oct	4.41	4.12	5.53	1984	19	16.79	1984	.77	1992	6.1	5.3	2.8	1.7	.73	1.12	1.76	2.37	2.99	3.67	4.44	5.39	6.65	8.69	10.64
Nov	6.06	5.85	6.03	1988	19	13.13	1988	1.30	1981	8.0	6.7	3.8	2.1	1.73	2.30	3.17	3.93	4.66	5.43	6.28	7.28	8.58	10.62	12.52
Dec	4.97	4.37	5.38	1987	25	14.30	1987	.64	1981	7.4	5.8	3.2	1.6	1.46	1.93	2.64	3.25	3.85	4.47	5.16	5.97	7.02	8.66	10.19
Ann	53.25	51.97	9.75	Sep 1978	14	16.79	Oct 1984	.13	Jan 1986	84.9	68.9	35.3	17.1	38.51	41.38	45.05	47.83	50.30	52.67	55.13	57.83	61.11	65.85	69.95

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

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

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1948-2001

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**Station: BENTON, AR** 

Climate Division: AR 5 NWS Call Sign:

**Elevation: 310 Feet** 

Lat: 34°34N

Lon: 92°36W

**COOP ID: 030582** 

		ll Fall Depth Depth Median Median Median Median Fall Pall Year Snow Fall Day Snow Fall Day Day Snow Fall Depth Depth Day Snow Fall Depth Depth Snow Fall Depth Depth Depth Snow Snow Snow Snow Snow Snow Snow Snow																					
		Snow Snow Depth Median Mean Median Median Median Mean Median Mean Median Snow Snow Snow Depth Median															Mea	n Nu	mber	of Da	<b>ys</b> (1)		
	Mean	s/Medi	<b>ans</b> (1)	)					Extre	mes (2)							ow Fa					Depth esholo	
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	2.3	.0	#	0	12.0	1988	7	14.5	1988	6	1988	8	1	1988	.8	.6	.2	.1	.1	.7	.1	.0	.0
Feb	1.3	.0	#	0	6.5	1979	7	9.0	1979	7	1979	7	3	1978	.7	.5	.2	.1	.0	.1	.0	.0	.0
Mar	.2	.0	#	0	3.0	1971	3	3.0	1971	3	1971	3	#+	1989	.1	@	@	.0	.0	@	@	.0	.0
Apr	#	.0	0	0	#	1973	9	#+	1973	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	.4	.0	#	0	4.0	1976	14	4.0	1976	3+	1976	14	#+	1980	.1	.1	.1	.0	.0	.1	.1	.0	.0
Dec	.3	.0	#	0	2.5	1990	23	3.5	1990	2	1990	25	#+	1990	.1	.1	.0	.0	.0	.0	.0	.0	.0
Ann	4.5	.0	N/A	N/A	12.0	Jan 1988	7	14.5	Jan 1988	7	Feb 1979	7	3	Feb 1978	1.8	1.3	.5	.2	.1	.9	.2	.0	.0

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**COOP ID: 030582** 

Lon: 92°36W

**Station: BENTON, AR** 

Climate Division: AR 5 NWS Call Sign:

Elevation: 310 Feet Lat: 34°34N

				Freez	e Data									
			Spri	ng Freeze D	ates (Month/	Day)								
Probability of later date in spring (thru Jul 31) than indicated(*)   10   .20   .30   .40   .50   .60   .70   .80   .90     36   4/27   4/22   4/18   4/14   4/11   4/08   4/04   3/31   3/26     32   4/17   4/12   4/08   4/04   4/01   3/29   3/26   3/22   3/16     28   4/05   3/29   3/25   3/21   3/17   3/13   3/09   3/04   2/26     24   3/21   3/14   3/09   3/05   3/01   2/25   2/21   2/16   2/10     20   3/08   2/28   2/23   2/18   2/13   2/09   2/04   1/30   1/22     16   2/27   2/19   2/13   2/08   2/03   1/29   1/22   1/12   0/00     Temp (F)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	4/27	4/22	4/18	4/14	4/11	4/08	4/04	3/31	3/26					
32	4/17	4/12	4/08	4/04	4/01	3/29	3/26	3/22	3/16					
28	4/05	3/29	3/25	3/21	3/17	3/13	3/09	3/04	2/26					
24	3/21	3/14	3/09	3/05	3/01	2/25	2/21	2/16	2/10					
20	3/08	2/28	2/23	2/18	2/13	2/09	2/04	1/30	1/22					
16	2/27	2/19	2/13	2/08	2/03	1/29	1/22	1/12	0/00					
			Fal	l Freeze Da	tes (Month/D	ay)	•							
Tomn (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	ed(*)						
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	10/04	10/08	10/11	10/14	10/16	10/19	10/21	10/25	10/29					
32	10/13	10/19	10/23	10/26	10/30	11/02	11/05	11/09	11/15					
28	10/25	10/31	11/04	11/08	11/12	11/15	11/19	11/24	11/30					
24	11/05	11/12	11/16	11/20	11/24	11/28	12/02	12/06	12/12					
20	11/11	11/22	12/01	12/08	12/15	12/21	12/29	1/06	1/18					
16	11/23	12/02	12/09	12/16	12/22	12/28	1/04	1/16	0/00					
		•		Freeze F	ree Period		•							
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	)						
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	209	202	196	192	187	183	179	173	166					
32	236	227	221	216	211	206	200	194	185					
28	267	257	251	245	239	234	228	221	211					
24	295	286	278	272	267	261	255	248	238					
20	346	326	315	307	300	293	285	276	264					
16	>365	>365	>365	332	321	312	304	296	285					

<sup>\*</sup> 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 do

Complete documentation available from:

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				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	799	581	386	166	41	1	0	1	16	143	437	707	3278
60	644	446	251	76	10	0	0	0	2	62	300	559	2350
57	560	369	185	41	3	0	0	0	0	33	227	473	1891
55	501	319	147	24	1	0	0	0	0	19	185	417	1613
50	364	210	72	5	0	0	0	0	0	4	100	289	1044
32	54	15	0	0	0	0	0	0	0	0	2	32	103

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	278	358	645	855	1143	1330	1503	1457	1214	930	558	348	10619
55	12	19	79	189	431	640	790	744	524	237	51	19	3735
57	8	12	54	145	371	580	728	682	464	188	33	13	3278
60	0	6	28	91	285	490	635	589	377	124	16	7	2648
65	0	0	8	31	160	341	480	435	240	50	3	0	1748
70	0	0	0	6	72	200	325	290	130	13	0	0	1036

										Gro	wing ]	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	(Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov D													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	149	248	466	674	929	1120	1279	1238	1006	710	378	188	149	397	863	1537	2466	3586	4865	6103	7109	7819	8197	8385
45	75         145         319         525         774         970         1124         1083         856         557         252												75	220	539	1064	1838	2808	3932	5015	5871	6428	6680	6782
50	31 75 204 378 619 820 969 928 706 405 152											46	31	106	310	688	1307	2127	3096	4024	4730	5135	5287	5333
55	12	28	112	246	465	670	814	773	556	267	79	22	12	40	152	398	863	1533	2347	3120	3676	3943	4022	4044
60	1 7 50 133 315 520 659 618 409 151 32										4	1	8	58	191	506	1026	1685	2303	2712	2863	2895	2899	
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	/ <b>86</b> 105 173 302 436 616 766 862 831 675 469 241 1											126	105	278	580	1016	1632	2398	3260	4091	4766	5235	5476	5602

(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