U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: HOGSETT R C BYRD DAM, WV **COOP ID: 464200**

Climate Division: WV 3 **NWS Call Sign:** **Elevation: 570 Feet** **Lat: 38˚41N** **Lon: 82˚11W**

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	41.2	21.1	31.2	79	1950	25	40.8	1998	-24+	1994	19	18.5	1977	1050	0	.0	.0	7.9	8.2	26.4	1.8
Feb	45.5	23.2	34.4	77	1996	28	41.7	1976	-12+	1996	5	22.1	1978	858	0	.0	.0	10.2	5.2	22.7	.6
Mar	56.1	30.7	43.4	88	1990	15	51.5	1973	-6	1980	3	36.9	1984	669	0	.0	.0	20.4	1.1	19.2	.2
Apr	66.9	38.9	52.9	91	1990	28	57.6	1985	14	1969	1	48.7	1997	366	2	.0	.1	27.4	@	7.2	.0
May	75.7	48.9	62.3	94	1962	19	69.7	1991	27+	1963	3	57.2	1997	160	77	.0	.7	31.0	.0	.6	.0
Jun	83.2	58.1	70.7	100	1988	26	73.6	1994	31	1972	12	63.8	1972	18	186	@	4.4	30.0	.0	.1	.0
Jul	87.2	62.7	75.0	104	1954	15	79.3	1999	45	1988	3	70.6	1984	3	312	.2	9.2	31.0	.0	.0	.0
Aug	85.7	61.6	73.7	102	1988	18	78.4	1995	41	1986	31	69.4	1982	7	275	@	6.7	31.0	.0	.0	.0
Sep	79.4	54.6	67.0	101	1953	4	71.8	1998	33	1956	21	62.1	1974	53	114	.0	1.5	30.0	.0	.0	.0
Oct	68.7	42.4	55.6	94	1953	1	62.8	1971	16	1962	28	49.9+	1988	314	21	.0	.0	30.2	.0	3.7	.0
Nov	56.9	33.3	45.1	84	1961	4	53.4	1985	6	1950	25	37.5	1976	597	0	.0	.0	20.6	.2	15.1	.0
Dec	46.0	25.7	35.9	84	1951	31	43.6	1971	-15	1989	22	22.9	1989	904	0	.0	.0	11.4	4.2	23.2	.4
Ann	66.0	41.8	53.9	104	Jul 1954	15	79.3	Jul 1999	-24+	Jan 1994	19	18.5	Jan 1977	4999	987	.2	22.6	281.1	18.9	118.2	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/normals/usnormals.html

(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

Issue Date: February 2004

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	3.14	3.02	2.12	1974	11	8.78	1994	.17	1981
Feb	2.98	2.89	2.57	1994	9	7.68	1989	.44	1978
Mar	3.63	3.15	3.90	1997	2	9.59	1997	1.38	1979
Apr	3.15	3.18	2.17	1970	24	5.93	1972	.93+	1976
May	3.99	3.72	2.64	1968	28	7.71	1996	1.16	1991
Jun	3.69	3.42	2.40	1998	29	8.41	1998	.52	1988
Jul	4.53	3.95	4.70	1996	31	10.12	1971	1.32	1975
Aug	3.90	3.58	3.52	1964	23	9.61	1979	.68	1998
Sep	2.92	2.86	3.38	1969	7	5.91	1976	.41	1985
Oct	2.70	2.44	4.36	1985	21	7.14	1983	.61	2000
Nov	3.10	2.90	2.18	1962	10	6.43	1986	.38	1976
Dec	3.23	2.91	2.98	1978	9	8.57	1990	1.18	1989
Ann	40.96	40.79	4.70	Jul 1996	31	10.12	Jul 1971	.17	Jan 1981

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	13.7	7.6	2.0	.4
Feb	11.5	6.6	1.7	.5
Mar	13.4	8.2	2.4	.6
Apr	12.7	7.7	2.2	.3
May	12.6	8.5	2.9	.6
Jun	10.4	7.5	2.5	.8
Jul	10.7	7.8	3.1	1.1
Aug	9.4	6.7	2.6	1.1
Sep	8.8	6.0	2.1	.6
Oct	9.2	5.5	1.7	.5
Nov	11.3	6.8	1.9	.7
Dec	13.1	7.3	1.7	.6
Ann	136.8	86.2	26.8	7.8

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
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.60	.88	1.34	1.77	2.20	2.66	3.19	3.82	4.66	6.01	7.30
Feb	.77	1.05	1.48	1.86	2.24	2.64	3.08	3.60	4.28	5.36	6.37
Mar	1.31	1.65	2.14	2.56	2.95	3.36	3.80	4.31	4.96	5.97	6.89
Apr	1.04	1.34	1.78	2.15	2.51	2.88	3.29	3.76	4.37	5.32	6.19
May	1.48	1.85	2.39	2.84	3.26	3.70	4.18	4.73	5.43	6.51	7.50
Jun	1.22	1.57	2.08	2.52	2.94	3.37	3.85	4.40	5.11	6.22	7.24
Jul	1.51	1.94	2.57	3.11	3.62	4.15	4.73	5.41	6.27	7.62	8.87
Aug	1.22	1.59	2.14	2.61	3.07	3.54	4.06	4.66	5.45	6.67	7.80
Sep	.69	.97	1.39	1.77	2.15	2.55	3.00	3.54	4.24	5.35	6.40
Oct	.60	.84	1.24	1.60	1.95	2.33	2.76	3.27	3.95	5.02	6.03
Nov	.95	1.24	1.68	2.06	2.42	2.80	3.22	3.71	4.35	5.33	6.25
Dec	1.18	1.48	1.92	2.29	2.63	2.99	3.38	3.83	4.41	5.29	6.11
Ann	30.90	32.89	35.42	37.33	39.01	40.62	42.28	44.10	46.30	49.47	52.19

\+ 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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Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	2.8	.1	1	#	6.5	1978	20	8.0	1976	16	1978	21	6	1978	3.1	1.5	.6	.2	.0	2.4	1.5	1.0	.1
Feb	2.3	.0	1	#	6.0	1996	3	10.4	1978	10	1985	3	5	1978	1.5	.8	.1	.1	.0	2.1	1.8	1.3	.0
Mar	2.4	.0	#	#	20.0	1993	14	22.0	1993	20	1993	14	4	1975	.8	.4	.2	.1	.1	.9	.5	.4	.1
Apr	#	.0	#	0	#	1980	15	#+	1980	7	1987	5	#+	1987	.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	#	1972	19	#	1972	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.1	.0	#	0	1.0	1976	29	1.8	1976	1	1976	30	#+	1996	.1	@	.0	.0	.0	.1	.0	.0	.0
Dec	.4	.1	#	#	4.0	1993	29	4.0	1993	2+	1999	29	1	1989	1.2	.5	.1	.0	.0	.5	.0	.0	.0
Ann	8.0	.2	N/A	N/A	20.0	Mar 1993	14	22.0	Mar 1993	20	Mar 1993	14	6	Jan 1978	6.7	3.2	1.0	.4	.1	6.0	3.8	2.7	.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

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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	5/24	5/18	5/14	5/10	5/06	5/03	4/29	4/24	4/18
32	5/13	5/07	5/02	4/28	4/24	4/21	4/16	4/12	4/05
28	4/27	4/22	4/18	4/14	4/11	4/08	4/04	3/31	3/26
24	4/12	4/07	4/03	3/31	3/27	3/24	3/21	3/17	3/12
20	4/06	3/29	3/24	3/19	3/15	3/11	3/06	3/01	2/22
16	3/25	3/16	3/09	3/03	2/26	2/21	2/15	2/09	1/31

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	9/26	10/01	10/04	10/06	10/09	10/12	10/14	10/18	10/22
32	10/06	10/11	10/15	10/18	10/21	10/24	10/28	11/01	11/06
28	10/14	10/20	10/25	10/29	11/02	11/05	11/09	11/14	11/21
24	10/29	11/03	11/07	11/10	11/13	11/16	11/19	11/23	11/28
20	11/06	11/12	11/17	11/22	11/26	11/29	12/04	12/09	12/16
16	11/11	11/22	11/29	12/05	12/11	12/17	12/23	12/30	1/09

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	180	171	165	160	155	150	145	139	131
32	207	198	191	185	179	174	168	161	151
28	234	224	216	210	204	198	192	185	174
24	254	246	240	235	230	225	220	214	205
20	286	275	268	261	255	248	242	234	223
16	323	309	299	291	284	277	269	261	248

***** 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

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Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1050	858	669	366	160	18	3	7	53	314	597	904	4999
60	895	718	517	228	82	3	0	0	15	197	451	749	3855
57	802	634	431	157	48	1	0	0	6	140	368	660	3247
55	741	580	374	116	32	0	0	0	3	109	315	603	2873
50	598	450	249	44	10	0	0	0	0	50	198	461	2060
32	185	104	21	0	0	0	0	0	0	0	9	106	425

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	159	170	375	627	939	1158	1332	1291	1051	730	402	225	8459
55	1	2	16	53	258	469	619	578	364	126	18	9	2513
57	0	0	10	33	213	409	557	516	306	95	11	5	2155
60	0	0	4	15	153	322	464	423	226	59	4	0	1670
65	0	0	0	2	77	186	312	275	114	21	0	0	987
70	0	0	0	0	30	82	172	147	41	5	0	0	477

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	42	66	186	390	691	917	1080	1042	812	486	207	77	42	108	294	684	1375	2292	3372	4414	5226	5712	5919	5996
45	15	28	106	264	536	767	925	887	662	338	119	32	15	43	149	413	949	1716	2641	3528	4190	4528	4647	4679
50	4	9	56	156	382	617	770	732	512	207	62	14	4	13	69	225	607	1224	1994	2726	3238	3445	3507	3521
55	0	0	22	83	251	467	615	577	365	111	24	4	0	0	22	105	356	823	1438	2015	2380	2491	2515	2519
60	0	0	7	37	140	323	460	423	230	50	5	0	0	0	7	44	184	507	967	1390	1620	1670	1675	1675
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	34	53	144	260	442	607	732	707	525	304	138	50	34	87	231	491	933	1540	2272	2979	3504	3808	3946	3996

(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.
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

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/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