

Climatography of the United States

No. 20

1971-2000

Station: BROOKVILLE, IN

COOP ID: 121030

Climate Division: IN 9

NWS Call Sign:

Elevation: 630 Feet Lat: 39°25N Lon: 85°01W

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	36.4	17.4	26.9	75	1950	26	36.7	1998	-31+	1994	19	11.6	1977	1181	0	.0	.0	4.7	11.7	27.7	3.9
Feb	41.7	20.3	31.0	76	2000	26	39.6	1998	-22	1951	3	16.7	1978	952	0	.0	.0	7.6	7.3	23.9	2.8
Mar	52.6	28.5	40.6	84	1986	31	48.0	1976	-9+	1980	3	32.9	1984	758	0	.0	.0	17.2	1.6	20.8	.2
Apr	64.0	37.7	50.9	89+	1948	26	55.3+	1985	16	1982	7	46.5	1997	426	2	.0	.0	26.1	@	9.5	.0
May	74.4	48.3	61.4	94	1987	31	68.5	1991	25	1966	10	56.1	1997	184	72	.0	.7	30.9	.0	.7	.0
Jun	83.0	57.8	70.4	102	1988	26	74.2	1991	36+	1966	2	65.4	1972	22	183	@	5.1	30.0	.0	.0	.0
Jul	86.9	62.3	74.6	103	1954	15	78.0	1999	44	1972	6	70.9	1984	0	297	.3	9.8	31.0	.0	.0	.0
Aug	85.2	60.4	72.8	103	1983	21	77.7	1983	40	1965	29	68.6	1992	10	251	.1	7.1	31.0	.0	.0	.0
Sep	78.8	52.1	65.5	104	1951	1	70.5	1998	30+	1951	29	60.9	1974	76	89	.0	2.6	30.0	.0	.3	.0
Oct	66.7	39.9	53.3	93	1953	1	60.4	1971	15	1952	22	46.6	1988	376	13	.0	@	29.5	.0	7.5	.0
Nov	53.2	31.7	42.5	86	1950	1	48.0	1999	-7	1958	30	34.4	1976	677	0	.0	.0	17.7	.8	17.1	.0
Dec	41.2	23.0	32.1	76	1982	3	41.0	1982	-20	1989	23	17.9	1989	1020	0	.0	.0	7.5	6.5	25.1	1.3
Ann	63.7	40.0	51.8	104	Sep 1951	1	78.0	Jul 1999	-31+	Jan 1994	19	11.6	Jan 1977	5682	907	.4	25.3	263.2	27.9	132.6	8.2

+ 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

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

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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: BROOKVILLE, IN

COOP ID: 121030

Climate Division: IN 9

NWS Call Sign:

Elevation: 630 Feet Lat: 39°25N

Lon: 85°01W

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	3.01	2.93	3.08	1949	5	6.93	1982	.35	1981	12.7	6.7	1.8	.5	.77	1.06	1.50	1.88	2.26	2.66	3.11	3.64	4.33	5.42	6.45	
Feb	2.69	2.32	2.02	1988	2	5.65	1991	.26	1978	10.9	5.7	1.7	.5	.59	.84	1.23	1.59	1.95	2.33	2.75	3.27	3.94	5.02	6.03	
Mar	3.80	3.41	2.68	1963	5	7.97	1997	1.46	1984	12.9	7.6	2.7	.6	1.44	1.80	2.30	2.72	3.13	3.53	3.98	4.49	5.14	6.15	7.07	
Apr	3.99	3.68	3.35	1998	16	8.14	1998	1.28	1976	12.9	8.5	2.5	.7	1.50	1.87	2.40	2.85	3.27	3.71	4.18	4.72	5.42	6.49	7.46	
May	4.90	4.17	4.03+	1961	8	10.69	1996	1.79	1975	12.4	8.2	3.2	1.3	1.87	2.32	2.97	3.52	4.03	4.56	5.13	5.79	6.63	7.92	9.10	
Jun	4.08	4.18	2.73	1965	30	8.97	1998	.53	1991	11.6	7.7	3.0	.8	1.14	1.53	2.11	2.63	3.13	3.65	4.23	4.92	5.81	7.20	8.50	
Jul	4.27	4.11	4.30	1973	21	11.67	1992	.36	1997	9.9	6.8	2.7	1.2	1.16	1.56	2.18	2.72	3.25	3.80	4.42	5.15	6.10	7.59	8.98	
Aug	3.89	3.21	3.34	1960	20	9.33	1980	1.44	1983	8.6	6.1	2.6	1.2	1.20	1.57	2.12	2.59	3.05	3.52	4.05	4.66	5.45	6.69	7.83	
Sep	2.68	2.52	4.10	1955	22	6.26	1974	.27	1985	8.1	5.0	1.7	.6	.43	.66	1.05	1.42	1.80	2.21	2.69	3.27	4.04	5.29	6.49	
Oct	3.03	2.68	4.14	1977	1	6.51	1977	.65	1982	9.5	5.7	1.8	.7	.83	1.11	1.55	1.93	2.31	2.70	3.13	3.65	4.31	5.36	6.34	
Nov	3.66	2.93	2.36	1948	6	9.92	1985	1.01	1976	11.8	7.1	2.6	.9	1.16	1.51	2.02	2.46	2.89	3.32	3.81	4.37	5.10	6.23	7.28	
Dec	3.30	3.06	2.12	1998	22	8.96	1990	.43	1976	13.0	6.7	2.6	.6	1.14	1.46	1.91	2.29	2.66	3.04	3.45	3.92	4.54	5.49	6.36	
Ann	43.30	43.48	4.30	Jul 1973	21	11.67	Jul 1992	.26	Feb 1978	134.3	81.8	28.9	9.6	32.55	34.68	37.37	39.41	41.20	42.92	44.70	46.65	49.00	52.39	55.30	

+ 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: IN 9

NWS Call Sign:

Elevation: 630 Feet

Lat: 39°25N

Lon: 85°01W

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	4.7	3.2	2	1	6.0	1999	2	16.5	1979	15	1978	22	9	1977	4.3	1.4	.4	.1	.0	6.0	2.1	.8	.0
Feb	4.0	2.9	1	#	8.0	1993	16	11.6	1979	12	1978	7	10	1978	3.5	1.4	.3	.1	.0	4.1	1.0	.3	.0
Mar	2.1	.9	#	#	6.8	1999	10	12.2	1975	9	1978	3	3	1978	1.6	.7	.2	.1	.0	1.0	.3	.2	.0
Apr	.3	.0	#	0	1.5	1973	11	3.3	1973	2	1973	11	#+	1983	.4	.1	.0	.0	.0	.2	.0	.0	.0
May	#	.0	0	0	#	1989	7	#	1989	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	.1	.0	#	0	2.0	1993	30	2.5	1993	1	1993	31	#	1993	.1	@	.0	.0	.0	.0	.0	.0	.0
Nov	1.2	.0	#	#	7.7	1980	18	10.7	1980	6	1980	18	1	1980	1.1	.4	.1	@	.0	.6	.1	@	.0
Dec	3.1	2.0	#	#	6.1	1990	28	12.3	1981	8	1981	22	2	1981	2.8	1.0	.4	@	.0	3.2	.9	.4	.0
Ann	15.5	9.0	N/A	N/A	8.0	Feb 1993	16	16.5	Jan 1979	15	Jan 1978	22	10	Feb 1978	13.8	5.0	1.4	.3	.0	15.1	4.4	1.7	.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

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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	5/23	5/18	5/14	5/11	5/08	5/05	5/01	4/27	4/22
32	5/12	5/07	5/03	4/30	4/27	4/24	4/21	4/18	4/13
28	4/27	4/23	4/20	4/17	4/15	4/12	4/10	4/07	4/02
24	4/19	4/15	4/11	4/08	4/06	4/03	3/31	3/28	3/23
20	4/06	4/01	3/28	3/24	3/21	3/18	3/15	3/11	3/05
16	3/27	3/20	3/15	3/11	3/07	3/03	2/27	2/22	2/16
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	9/22	9/25	9/27	9/30	10/02	10/04	10/06	10/08	10/12
32	9/28	10/02	10/05	10/07	10/09	10/12	10/14	10/17	10/20
28	10/12	10/17	10/20	10/23	10/25	10/28	10/31	11/03	11/08
24	10/21	10/26	10/30	11/02	11/05	11/08	11/11	11/15	11/20
20	10/28	11/04	11/08	11/13	11/16	11/20	11/24	11/29	12/06
16	11/10	11/17	11/22	11/27	12/01	12/05	12/09	12/14	12/22
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	165	158	154	150	146	143	139	134	128
32	183	176	172	168	164	161	157	152	146
28	212	205	200	196	193	189	185	180	174
24	235	227	221	217	212	208	203	198	190
20	266	257	250	245	239	234	228	222	213
16	292	283	277	272	268	263	258	252	244

* 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)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1181	952	758	426	184	22	0	10	76	376	677	1020	5682
60	1026	812	603	284	100	5	0	0	26	248	527	865	4496
57	933	728	517	208	63	2	0	0	11	183	440	773	3858
55	871	675	459	162	44	1	0	0	6	146	384	717	3465
50	725	545	323	74	15	0	0	0	1	74	253	573	2583
32	268	172	44	0	0	0	0	0	0	0	16	178	678

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	110	144	309	566	910	1151	1320	1264	1003	660	329	182	7948
55	0	3	11	38	241	462	607	551	319	93	8	8	2341
57	0	0	7	24	199	403	545	489	265	68	3	1	2004
60	0	0	0	10	143	316	452	397	190	40	1	0	1549
65	0	0	0	2	72	183	297	251	89	13	0	0	907
70	0	0	0	0	28	81	154	130	29	3	0	0	425

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	24	44	148	352	671	919	1082	1029	775	429	168	50	24	68	216	568	1239	2158	3240	4269	5044	5473	5641	5691
45	7	17	84	230	517	769	927	874	625	290	94	26	7	24	108	338	855	1624	2551	3425	4050	4340	4434	4460
50	0	4	43	135	370	619	772	719	475	177	49	7	0	4	47	182	552	1171	1943	2662	3137	3314	3363	3370
55	0	0	20	72	236	472	617	564	335	90	21	2	0	0	20	92	328	800	1417	1981	2316	2406	2427	2429
60	0	0	5	29	133	329	462	409	207	41	4	0	0	0	5	34	167	496	958	1367	1574	1615	1619	1619
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	17	37	109	232	427	608	731	690	505	288	108	33	17	54	163	395	822	1430	2161	2851	3356	3644	3752	3785

(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.
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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. 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