

Climatology of the United States

No. 20

1971-2000

Station: ROCKVILLE, IN

COOP ID: 127522

Climate Division: IN 4

NWS Call Sign:

Elevation: 690 Feet Lat: 39°46N Lon: 87°14W

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	35.7	19.4	27.6	70	1950	25	38.2	1990	-25	1994	19	13.8	1977	1161	0	.0	.0	4.0	12.4	26.8	3.9
Feb	41.9	24.1	33.0	74	2000	25	42.7	1976	-22	1905	13	19.7	1979	897	0	.0	.0	7.8	7.0	22.2	2.4
Mar	53.5	33.4	43.5	89	1967	27	51.8	1973	-9	1943	8	34.2	1984	668	0	.0	.0	18.9	1.3	16.6	.1
Apr	65.6	43.0	54.3	92	1930	11	61.5	1977	15	1979	14	49.0	1982	331	9	.0	.0	27.6	.0	5.8	.0
May	75.8	52.4	64.1	96	1934	31	72.2	1977	27	1966	10	59.0	1997	134	106	.0	.9	31.0	.0	.3	.0
Jun	84.3	61.2	72.8	103+	1953	20	76.6	1984	37	1917	16	67.9	1982	9	243	.1	6.6	30.0	.0	.0	.0
Jul	87.2	65.2	76.2	109	1936	14	79.8	1980	44	1964	5	73.0	1979	0	348	.3	10.5	31.0	.0	.0	.0
Aug	85.0	63.3	74.2	106	1918	5	79.4	1995	39	1915	31	70.0	1992	5	289	.1	6.6	31.0	.0	.0	.0
Sep	79.0	55.7	67.4	103	1954	5	71.7	1998	25	1942	28	62.9	1974	47	118	.0	2.5	30.0	.0	.1	.0
Oct	67.7	44.7	56.2	92	1922	4	63.2	1971	18	1925	29	49.5	1988	294	21	.0	.0	29.9	.0	3.7	.0
Nov	53.1	35.7	44.4	82	1950	1	51.2	1999	-5+	1950	24	37.0	1976	617	0	.0	.0	17.9	.7	13.6	.0
Dec	40.3	25.0	32.7	74	1982	2	41.3	1982	-22	1924	28	19.7	1989	1003	0	.0	.0	6.1	6.8	23.9	1.5
Ann	64.1	43.6	53.9	109	Jul 1936	14	79.8	Jul 1980	-25	Jan 1994	19	13.8	Jan 1977	5166	1134	.5	27.1	265.2	28.2	113.0	7.9

+ 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: 1901-2001

(3) Derived from 1971-2000 serially complete daily data

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No. 20

1971-2000

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

Station: ROCKVILLE, IN

COOP ID: 127522

Climate Division: IN 4

NWS Call Sign:

Elevation: 690 Feet Lat: 39°46N

Lon: 87°14W

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	2.54	2.25	2.91	1950	3	6.94	1999	.03	1986	8.3	6.2	1.8	.5	.40	.61	.98	1.33	1.69	2.09	2.55	3.10	3.85	5.06	6.23
Feb	2.25	1.72	2.34	1946	13	6.27	1985	.60	1978	6.8	5.4	1.4	.6	.46	.67	1.00	1.30	1.60	1.93	2.30	2.74	3.32	4.26	5.14
Mar	3.71	3.67	3.70	1922	14	7.41	1973	1.06	1994	8.3	6.8	3.0	.8	1.13	1.48	2.01	2.46	2.90	3.36	3.86	4.45	5.21	6.40	7.50
Apr	4.10	3.94	2.34	1918	2	8.23	1996	1.14	1971	9.9	8.3	3.2	1.1	1.59	1.97	2.51	2.96	3.39	3.82	4.29	4.83	5.52	6.58	7.54
May	4.78	4.46	8.05	1989	26	13.41	1989	.63	1980	9.5	8.0	3.3	1.3	1.20	1.65	2.34	2.96	3.57	4.21	4.93	5.78	6.89	8.66	10.31
Jun	4.25	4.18	8.74	1957	28	10.23	1973	.38	1988	8.9	7.3	3.2	1.3	.67	1.04	1.65	2.24	2.85	3.51	4.26	5.19	6.43	8.44	10.36
Jul	4.89	3.57	4.30	1979	28	10.84	1981	.26	1974	7.4	6.2	3.3	1.7	.98	1.43	2.14	2.80	3.46	4.18	4.98	5.95	7.23	9.28	11.23
Aug	4.47	4.02	4.73	1993	12	10.46	1993	1.26	1988	7.7	6.3	2.9	1.4	1.35	1.78	2.41	2.96	3.49	4.04	4.64	5.36	6.27	7.71	9.04
Sep	3.08	2.49	4.75	1989	9	8.95	1989	.63	1979	6.1	4.9	2.3	1.0	.65	.93	1.39	1.79	2.21	2.65	3.14	3.74	4.52	5.77	6.96
Oct	3.05	2.62	3.78	1917	18	8.21	1986	1.32	1994	7.1	5.4	2.2	.9	.98	1.27	1.69	2.06	2.41	2.77	3.17	3.64	4.25	5.18	6.05
Nov	4.26	3.67	4.15	1992	12	14.00	1985	.40	1976	8.3	7.0	2.8	1.2	.68	1.04	1.66	2.25	2.86	3.52	4.27	5.20	6.43	8.44	10.36
Dec	3.52	2.95	5.52	1967	21	8.83	1982	.46	1976	8.2	6.5	2.5	.9	.74	1.06	1.58	2.04	2.52	3.02	3.59	4.28	5.18	6.62	7.99
Ann	44.90	44.45	8.74	Jun 1957	28	14.00	Nov 1985	.03	Jan 1986	96.5	78.3	31.9	12.7	31.84	34.36	37.59	40.05	42.23	44.34	46.52	48.93	51.85	56.09	59.75

+ 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: 1901-2001

(3) Derived from 1971-2000 serially complete daily data

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Station: ROCKVILLE, IN

COOP ID: 127522

Climate Division: IN 4

NWS Call Sign:

Elevation: 690 Feet

Lat: 39°46N

Lon: 87°14W

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	3.3	2	2	12.0	1987	10	13.0	1997	23	1978	31	10	1977	2.5	1.9	.6	.3	@	5.7	3.9	1.8	.0
Feb	3.4	2.8	2	#	6.0	1974	24	7.0	1974	25	1978	9	20	1978	1.4	1.0	.3	@	.0	2.8	1.5	.4	.0
Mar	1.5	.0	#	#	19.0	1996	20	19.0	1996	16	1978	7	4	1984	.7	.6	.3	.1	@	.5	.2	.1	.1
Apr	.1	.0	#	0	2.0	1973	10	2.0	1973	1	1994	6	#+	1994	.1	.1	.0	.0	.0	.0	.0	.0	.0
May	#	.0	0	0	#	1989	6	#	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	#	.0	#	0	#	2000	8	#	2000	1	1989	19	#	1989	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.3	#	#	0	4.5	1975	27	5.5	1975	4	1980	28	#+	1997	.2	.1	.1	.0	.0	.2	.1	.0	.0
Dec	5.4	1.3	1	#	12.0	1973	19	28.0	1973	18	1977	11	7	2000	1.7	1.4	.6	.3	.1	3.1	1.9	1.1	.6
Ann	14.6	7.4	N/A	N/A	19.0	Mar 1996	20	28.0	Dec 1973	25	Feb 1978	9	20	Feb 1978	6.6	5.1	1.9	.7	.1	12.3	7.6	3.4	.7

+ 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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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	5/20	5/15	5/11	5/08	5/05	5/02	4/29	4/25	4/20
32	5/08	5/03	4/29	4/26	4/23	4/20	4/17	4/13	4/08
28	4/17	4/14	4/12	4/10	4/08	4/06	4/04	4/02	3/30
24	4/13	4/07	4/04	3/31	3/28	3/25	3/22	3/18	3/12
20	4/05	3/30	3/27	3/23	3/20	3/17	3/14	3/10	3/05
16	3/24	3/18	3/13	3/09	3/05	3/01	2/25	2/20	2/13
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	9/29	10/02	10/04	10/06	10/08	10/10	10/12	10/16
32	10/01	10/06	10/09	10/12	10/14	10/17	10/20	10/23	10/27
28	10/14	10/19	10/23	10/26	10/28	10/31	11/03	11/07	11/12
24	10/22	10/28	11/01	11/05	11/09	11/12	11/16	11/21	11/27
20	10/31	11/06	11/11	11/15	11/19	11/22	11/26	12/01	12/08
16	11/11	11/18	11/23	11/28	12/02	12/06	12/10	12/15	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	169	164	160	156	153	150	146	142	137
32	193	186	181	177	173	169	165	160	154
28	218	213	209	206	203	200	196	193	187
24	248	240	234	230	225	220	216	210	202
20	267	259	253	247	243	238	232	226	218
16	297	288	281	276	271	266	260	254	245

* 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	1161	897	668	331	134	9	0	5	47	294	617	1003	5166
60	1006	757	522	206	66	2	0	0	12	179	473	848	4071
57	913	678	436	144	38	0	0	0	4	125	391	761	3490
55	852	626	382	110	25	0	0	0	2	95	338	704	3134
50	709	497	262	47	8	0	0	0	0	42	223	561	2349
32	266	152	31	0	0	0	0	0	0	0	18	177	644

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	128	180	386	669	995	1223	1371	1307	1061	750	391	197	8658
55	1	9	24	89	307	533	658	594	373	132	21	11	2752
57	0	5	16	63	258	474	596	532	316	100	14	6	2380
60	0	0	9	35	193	385	503	439	233	61	6	0	1864
65	0	0	0	9	106	243	348	289	118	21	0	0	1134
70	0	0	0	2	47	122	199	157	43	5	0	0	575

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	27	63	194	428	742	985	1124	1067	820	502	202	48	27	90	284	712	1454	2439	3563	4630	5450	5952	6154	6202
45	7	27	117	297	588	835	969	912	670	359	120	25	7	34	151	448	1036	1871	2840	3752	4422	4781	4901	4926
50	1	10	63	183	436	685	814	757	521	229	62	6	1	11	74	257	693	1378	2192	2949	3470	3699	3761	3767
55	0	2	32	100	294	535	659	602	379	131	26	3	0	2	34	134	428	963	1622	2224	2603	2734	2760	2763
60	0	0	10	51	175	385	504	447	244	61	7	0	0	0	10	61	236	621	1125	1572	1816	1877	1884	1884
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	9	39	122	268	474	665	769	731	536	312	115	30	9	48	170	438	912	1577	2346	3077	3613	3925	4040	4070

(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