

# Climatology of the United States

No. 20

1971-2000

Station: VEVAY, IN

COOP ID: 129080

Climate Division: IN 9

NWS Call Sign:

Elevation: 470 Feet Lat: 38°45N Lon: 85°04W

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	39.6	23.4	31.5	75	1972	25	40.9	1990	-24	1977	18	16.1	1977	1039	0	.0	.0	7.1	8.1	24.2	1.6
Feb	45.4	26.2	35.8	77	2000	26	43.3	1976	-11	1978	7	22.2	1978	818	0	.0	.0	11.1	4.1	19.9	.9
Mar	56.3	34.6	45.5	84+	1981	31	52.9	1973	-4	1980	3	38.9	1984	607	0	.0	.0	22.2	.5	14.8	.1
Apr	67.1	43.1	55.1	89	1986	26	60.6	1981	16	1982	7	50.4	1982	303	5	.0	.0	28.5	.0	5.1	.0
May	76.7	53.1	64.9	94	1982	31	70.6	1991	27	1966	10	59.9	1997	109	105	.0	1.0	31.0	.0	.3	.0
Jun	84.6	62.1	73.4	104	1988	25	76.6	1991	36	1966	1	69.1	1974	6	256	.1	7.3	30.0	.0	.0	.0
Jul	88.1	66.7	77.4	106	1999	30	81.8	1999	45	1972	6	74.5	1984	0	384	.5	13.2	31.0	.0	.0	.0
Aug	86.4	65.2	75.8	103+	1983	20	81.0	1995	41	1986	29	71.6	1992	2	336	.3	10.0	31.0	.0	.0	.0
Sep	79.8	58.1	69.0	99+	1964	10	73.8	1998	34	1974	23	64.4	1974	34	152	.0	3.1	30.0	.0	.0	.0
Oct	68.2	45.9	57.1	89	1963	11	64.3	1971	20	1976	28	50.7	1988	273	26	.0	.0	30.4	.0	2.3	.0
Nov	55.3	36.9	46.1	83+	1961	2	52.1	1985	1	1976	30	37.7	1976	568	0	.0	.0	20.3	.1	11.6	.0
Dec	44.2	28.2	36.2	75+	1982	2	45.1	1971	-18	1989	22	22.8	1989	893	0	.0	.0	10.3	4.4	20.9	.5
Ann	66.0	45.3	55.7	106	Jul 1999	30	81.8	Jul 1999	-24	Jan 1977	18	16.1	Jan 1977	4652	1264	.9	34.6	282.9	17.2	99.1	3.1

+ 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](http://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: 1960-2001

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

062-A

# 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: VEVAY, IN**

**COOP ID: 129080**

**Climate Division: IN 9**

**NWS Call Sign:**

**Elevation: 470 Feet Lat: 38°45N**

**Lon: 85°04W**

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	3.17	3.27	2.84	2000	3	7.32	1982	.52	1981	12.1	6.6	2.0	.6	.93	1.23	1.68	2.07	2.45	2.85	3.29	3.80	4.47	5.51	6.48
Feb	3.00	2.59	2.77	1971	22	6.88	1971	.35	1978	10.1	6.1	1.6	.6	.76	1.04	1.48	1.87	2.25	2.65	3.10	3.63	4.33	5.42	6.45
Mar	4.05	3.80	4.16	1997	1	8.92	1997	1.55	1981	11.7	7.9	3.0	.8	1.56	1.94	2.48	2.92	3.34	3.78	4.24	4.78	5.47	6.53	7.49
Apr	4.20	3.95	3.02	1975	24	8.47	1996	.84	1976	12.5	8.4	2.5	.9	1.30	1.70	2.29	2.80	3.30	3.81	4.37	5.04	5.89	7.22	8.45
May	4.72	4.31	2.95	1995	25	11.89	1996	1.35	1987	12.5	8.5	3.5	1.2	1.45	1.90	2.57	3.14	3.70	4.28	4.91	5.66	6.62	8.12	9.51
Jun	4.56	4.42	3.58	1992	18	10.13	1997	.46	1988	11.3	7.6	3.2	1.2	1.31	1.74	2.40	2.96	3.52	4.09	4.73	5.48	6.46	7.99	9.41
Jul	3.87	4.13	4.13	1961	30	8.00	1979	1.03	1999	9.8	6.5	2.9	1.0	1.50	1.86	2.37	2.79	3.20	3.61	4.05	4.57	5.22	6.23	7.15
Aug	4.00	3.62	2.58	1993	12	7.81	1971	1.01	1996	9.2	6.0	2.6	1.3	1.56	1.93	2.46	2.90	3.31	3.73	4.19	4.72	5.39	6.42	7.35
Sep	3.10	2.71	4.45	1979	14	10.36	1979	.68	1985	8.4	5.5	2.1	.7	.63	.92	1.37	1.79	2.21	2.66	3.16	3.78	4.58	5.88	7.10
Oct	3.06	2.78	3.68	1983	20	13.12	1983	.62	1987	8.8	5.2	2.0	.7	.85	1.14	1.58	1.96	2.34	2.73	3.17	3.68	4.35	5.40	6.38
Nov	3.66	3.31	2.52	1993	14	7.31	1985	.83	1976	11.3	7.2	2.8	.7	1.15	1.50	2.02	2.46	2.89	3.33	3.81	4.38	5.11	6.25	7.31
Dec	3.70	3.49	2.45	1978	8	8.04	1990	.46	1976	12.2	6.9	2.5	1.0	1.27	1.62	2.13	2.56	2.97	3.40	3.86	4.40	5.09	6.16	7.15
Ann	45.09	45.79	4.45	Sep 1979	14	13.12	Oct 1983	.35	Feb 1978	129.9	82.4	30.7	10.7	33.58	35.85	38.74	40.91	42.84	44.69	46.59	48.69	51.22	54.88	58.02

+ 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: 1960-2001

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

Complete documentation available from:  
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**Station: VEVAY, IN**

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**Climate Division: IN 9**

**NWS Call Sign:**

**Elevation: 470 Feet**

**Lat: 38°45N**

**Lon: 85°04W**

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	5.7	3.0	2	#	8.0	1978	17	28.0	1978	21	1978	20	11	1978	5.1	2.3	.7	.3	.0	7.6	3.9	2.6	1.4
Feb	4.4	2.9	1	#	7.0	1993	16	19.7	1993	15	1978	1	11	1978	3.3	1.6	.6	.1	.0	6.1	4.1	2.7	.9
Mar	3.1	1.5	#	#	8.5	1980	1	10.5	1978	11	1980	2	4	1978	1.8	.9	.4	.2	.0	1.3	.8	.6	.3
Apr	.1	.0	#	0	1.0	1977	6	1.0+	1992	#	1987	3	#	1987	.2	.1	.0	.0	.0	.0	.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	.2	.0	#	0	5.0	1993	30	5.0	1993	2	1993	30	#+	1993	.1	.1	@	@	.0	@	.0	.0	.0
Nov	.6	.0	#	0	4.0	1977	27	4.0	1977	3	1977	27	#+	1997	.8	.3	@	.0	.0	.2	@	.0	.0
Dec	3.2	1.6	#	#	7.8	1990	27	10.6	2000	8	1990	27	2	1989	2.8	1.1	.2	.1	.0	3.0	1.2	.2	.0
Ann	17.3	9.0	N/A	N/A	8.5	Mar 1980	1	28.0	Jan 1978	21	Jan 1978	20	11+	Feb 1978	14.1	6.4	1.9	.7	.0	18.2	10.0	6.1	2.6

+ 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	5/16	5/11	5/07	5/04	5/02	4/29	4/26	4/23	4/18
32	5/03	4/28	4/25	4/22	4/19	4/16	4/13	4/10	4/05
28	4/22	4/17	4/14	4/11	4/09	4/06	4/03	3/31	3/26
24	4/15	4/08	4/03	3/30	3/27	3/23	3/19	3/14	3/07
20	3/27	3/22	3/18	3/15	3/12	3/09	3/06	3/02	2/25
16	3/21	3/13	3/07	3/02	2/26	2/21	2/16	2/10	2/02
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	9/28	10/02	10/06	10/09	10/11	10/14	10/17	10/20	10/25
32	10/09	10/14	10/18	10/21	10/24	10/27	10/30	11/03	11/08
28	10/19	10/24	10/28	10/30	11/02	11/05	11/08	11/11	11/16
24	10/27	11/03	11/08	11/12	11/16	11/20	11/24	11/29	12/06
20	11/07	11/13	11/19	11/23	11/27	12/01	12/05	12/10	12/17
16	11/23	11/29	12/04	12/08	12/11	12/15	12/19	12/23	12/30
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	182	175	170	166	162	158	154	149	142
32	209	201	196	191	187	183	178	173	166
28	229	221	216	211	207	202	198	192	185
24	263	253	246	239	234	228	221	214	204
20	283	274	268	263	259	254	249	243	235
16	318	308	300	294	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:  
[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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**Elevation: 470 Feet Lat: 38°45N Lon: 85°04W**

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	1039	818	607	303	109	6	0	2	34	273	568	893	4652
60	884	678	459	174	46	1	0	0	8	162	421	738	3571
57	794	598	373	112	24	0	0	0	3	110	339	654	3007
55	739	547	319	78	14	0	0	0	1	83	286	595	2662
50	594	418	203	25	3	0	0	0	0	33	174	456	1906
32	196	98	13	0	0	0	0	0	0	0	6	111	424

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	180	204	429	691	1020	1240	1407	1358	1108	777	429	241	9084
55	10	9	21	80	321	550	694	645	420	146	19	13	2928
57	2	4	14	53	268	490	632	583	361	112	11	9	2539
60	0	0	7	26	198	401	539	490	276	71	3	0	2011
65	0	0	0	5	105	256	384	336	152	26	0	0	1264
70	0	0	0	1	44	129	233	195	63	7	0	0	672

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	44	82	236	468	775	1003	1156	1111	865	532	229	81	44	126	362	830	1605	2608	3764	4875	5740	6272	6501	6582
45	24	42	143	329	620	853	1001	956	715	386	137	41	24	66	209	538	1158	2011	3012	3968	4683	5069	5206	5247
50	3	16	77	204	465	703	846	801	565	251	70	19	3	19	96	300	765	1468	2314	3115	3680	3931	4001	4020
55	0	1	35	116	318	554	691	646	419	139	30	4	0	1	36	152	470	1024	1715	2361	2780	2919	2949	2953
60	0	0	10	56	193	405	536	491	278	65	6	0	0	0	10	66	259	664	1200	1691	1969	2034	2040	2040
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	31	57	157	300	502	675	795	758	568	330	133	44	31	88	245	545	1047	1722	2517	3275	3843	4173	4306	4350

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)