

LATITUDE 40° 11' N.
 LONGITUDE 84° 55' W.
 ELEV. (GROUND) 1109 Ft.

CLIMATOLOGICAL SUMMARY

STATION WINCHESTER, INDIANA

MEANS AND EXTREMES FOR PERIOD 1942-1964

Month	Temperature (°F)								** Mean degree days	Precipitation Totals (Inches)							Mean number of days					Month
	Means			Extremes						Mean	Greatest daily	Year	Snow, Sleet				Precip. .10 inch or more	Temperatures				
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year	Mean					Maximum monthly	Year	Greatest daily	Year		90° and above	32° and below	32° and below	0° and below	
(a)	23	23	23	23		23		30	23	23		23	23		23		11	23	23	23	23	
Jan.	35.6	18.7	27.2	71	1950	-18	1963	1113	2.99	2.80	1950	4.9	11.8	1956	5.0	1948	5	0	12	27	3	Jan.
Feb.	38.6	20.5	29.6	70	1954	-16	1951	969	2.24	2.15	1956	4.3	11.7	1944	6.0	1964+	5	0	8	25	2	Feb.
Mar.	47.4	27.9	37.7	82	1945	-10	1948	831	3.60	2.07	1964	5.1	16.0	1951	5.5	1963	7	0	4	22	*	Mar.
Apr.	60.1	38.8	49.5	85	1960+	16	1957	447	4.03	3.17	1964	0.7	6.2	1961	5.0	1961	9	0	*	8	0	Apr.
May	71.1	49.3	60.2	92	1962+	24	1963	183	4.26	2.07	1943	T	T	1960+	T	1960+	8	*	0	1	0	May
June	81.1	59.0	70.1	100	1952	37	1945	39	4.77	2.95	1950	0	0		0		7	4	0	0	0	June
July	84.6	62.0	73.3	101	1954	43	1963	6	4.33	4.07	1962	0	0		0		8	6	0	0	0	July
Aug.	83.5	60.2	71.9	99	1955	36	1964	9	2.92	3.10	1952	0	0		0		6	5	0	0	0	Aug.
Sept.	72.2	52.5	64.9	102	1953	27	1942	96	2.97	4.38	1950	0	0		0		4	2	0	*	0	Sept.
Oct.	66.9	43.0	55.0	89	1953+	19	1960+	326	2.66	2.24	1947	T	1.0	1962	T	1962+	5	0	0	5	0	Oct.
Nov.	49.9	31.5	40.7	83	1950	-5	1958	714	3.11	3.40	1955	2.4	19.5	1950	3.0	1961+	7	0	2	17	*	Nov.
Dec.	37.1	20.4	28.8	68	1956	-15	1951	1054	2.24	2.00	1956	7.0	16.9	1951	6.0	1951	5	0	11	27	2	Dec.
Year	61.1	40.3	50.7	102	Sept. 1953	-18	Jan. 1963	5787	40.12	4.38	Sept. 1950	24.4	19.5	Nov. 1950	6.0	Feb. 1964+	76	17	37	132	7	Year

(a) Average length of record, years. + Also on earlier dates, months, or years.
 † Trace, an amount too small to measure. * Less than one half.
 ** Base 65°F (30-year average of locality.)

CLIMATE OF WINCHESTER, INDIANA

Winchester, located in Randolph County in East Central Indiana, has an invigorating climate because of the frequent changes of weather. Pleasant, cloudless days are interspersed with some rainy days throughout the year. Monsoon rains are unknown but rainfall is usually adequate in all seasons favoring a diversified agriculture. In the summer when moisture utilization is high, a dry month of below normal rainfall affects lawns, pastures, and crops.

Weather changes every few days come from the passing of weather fronts and associated centers of low and high air pressure. In general, a high brings lower temperatures, lower humidity and sunny days. An approaching low brings increasing temperatures, increasing southerly wind, higher humidity, and commencement of rain or showers. This activity is greatest in the spring and least in late summer and early fall.

Precipitation is rather evenly distributed throughout the year, a happy contrast to some areas of the United States that have a "dry season" and require irrigation to maintain green vegetation. The table of monthly rainfall for past years in this report shows the variation of rainfall that may be expected. There is a tendency for spring and early summer rains to exceed winter precipitation. The spring rains are very reliable insuring near maximum soil moisture going into summer when evaporation losses exceed rainfall and dry soils become more probable. A severe drought has never been experienced in this locality. About one-third of the annual rainfall flows into streams and out of the area. Future needs may require conservation of this water.

The probability of unusually heavy rains in just a few hours is indicated by a weather study of the area:

Frequency in 100 years	Rain in 1 hour	6 hours	12 hours
4	2.4	4.0	4.6
10	2.1	3.3	3.8
20	1.7	2.8	3.2

Snowfall has varied reception. None occurs in the summer. Some winters have much snow and others have very little. An occasional snow storm may hamper travel and clog roads but at the same time the snow blanket protects winter grains from the very cold air that invariably follows. Heaviest snow storms are those out of the southwest. As they swirl northeastward, abundant moisture flows in from the Gulf of Mexico. A storm out of the northwest, with an inward flow of colder, drier air, leaves less snow. Some mid-winters are thus cold but snowfall is normal or less.

Relative humidity is not measured at this station but estimates are possible from the climatology of the area. Relative humidity varies on sunny summer days from a percent in the 40's in the early afternoon to the 90's about sunrise. Relative humidity rises and falls much as temperature does during a typical day but the highest percent usually occurs with the minimum temperature and the lowest percent with the maximum temperature. A cold front is next in importance in changing relative humidity downward.

Winds blow most frequently from the southwest, however, in one or two of the winter months, prevailing winds are northwest. Damaging winds have three sources. In the order of diminishing area coverage but increasing intensity, they are: lows passing through the region, thunderstorms, and tornadoes. Only 11 tornadoes have been reported in the County since 1916. Very few were of sufficient size to injure people and property. Thunderstorms, including incidences of lightning and thunder, occur about 47 days of the year. Most of these occur in the spring and early summer. They are seldom so severe as to cause loss of life, property, or crops.

The growing season (defined here as the number of days between the last spring and first fall temperature of 32°) averages 160 days in length. Freezing temperatures have occurred as late as May 27, in the spring, and in the fall, as early as September 18, during the 1943-1964 period covered by this summary.

Heating degree days in the above table provide a comparative number for calculating heating requirements between different places and different times. Fuel consumption for heating is proportional to degree day totals, so a month with twice the heating degree days of another month requires twice as much fuel for heating. Degree days for a single day are obtained by subtracting the mean temperature from 65 degrees.

Many days of the year are nearly ideal in temperature. A few days, in the summer when temperatures exceed 90, or decline below zero in the winter, tend to obscure this fact. The fall season is considered by many as the best time of the year for outdoor activities. Spring is also a favorite season but actually this season has more days of rain and thunderstorms. In the fall the atmosphere in total seems more quiet. Air and soil temperatures are nearer in agreement than at any other time of the year, thus, convective activity is diminished. Many days are sunny and showers are less frequent.

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