

Indiana's Climate

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Indiana: “Don’t like the weather? Just wait a few minutes and it will change”

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“Don’t like the weather? Just wait a few minutes and it will change.” This is a long-time favorite quote among Hoosiers. Just because Indiana is the second smallest state in area west of the Appalachian Mountains doesn’t mean there cannot be sudden changes or big differences in temperature or precipitation north to south across our state on a given day.

The Gulf of Mexico is a major player in Indiana's climate. Southerly winds from the Gulf region readily transport warm, moist air into the state. This humid air collides with continental polar air brought southward by the jet stream from Canada. Weather changes occur typically every few days or dramatic changes within hours as surges of polar air move southward and tropical air northward.

Air temperatures in Indiana have a wide range. The state record daily maximum temperature is 116 degrees (F) at Collegeville on July 14, 1936. The record minimum temperature is -36 degrees (F) observed on January 19, 1994 at New Whiteland. January is typically the coldest month of the year, while July is the warmest.

The transition from cold to hot weather can produce an active spring with thunderstorms and tornadoes. Indiana has an annual average of 23 reported tornadoes, and they have occurred in every month of the year. On June 2, 1990, 37 tornadoes ripped through Indiana, the most on any one day in state history. Property damage is greatest from flash flooding and high winds during thunderstorms, while hail occasionally causes crop losses over small areas during summer.

Average annual precipitation ranges from 37 inches in northern Indiana to 47 inches in the south. May is the wettest month of the year with average rainfall between 4 and 5 inches across the state. Average rainfall decreases slightly over summer. Autumn months are drier with 3 inches of rainfall typical in each month. Indiana winters are the driest time of year with less than 3 inches of precipitation commonly received each month. February is the driest month of the year statewide; then precipitation increases in March and April as the spring soil-moisture-recharge season begins. On average precipitation occurs every third day in Indiana.

Floods occur in some part of the state nearly every year and have occurred in every month of the year. The sandy soils of the northernmost and southwest counties are most prone to drought and some crop irrigation is done in these areas in summer. Yet flooding causes the greatest disasters in Indiana and occurs much more frequently than drought.

Lake Michigan has an important impact on northwest Indiana climate, especially near the shore but diminishing rapidly inland with distance. Air passing over the lake picks up moisture which is released over land. Heavy winter snowfall can extend eastward from Gary inland to as far as Elkhart. Lake-related snowfall and cloudiness can extend to central Indiana in winter when driven by strong northwesterly winds. Average annual snowfall ranges from 14 inches in southwest Indiana to 76 inches in the north central snow belt near Lake Michigan. Measurable snow typically begins in late November and ends by early April, although the season can begin as early as mid-October and end as late as early May.

For more information on the climate of Indiana, visit the Indiana State Climate Office's Website at:
<http://iclimate.org/index.asp>