

The Bitternut Hickory: *Carya cordiformis*

By: Miranda Wood



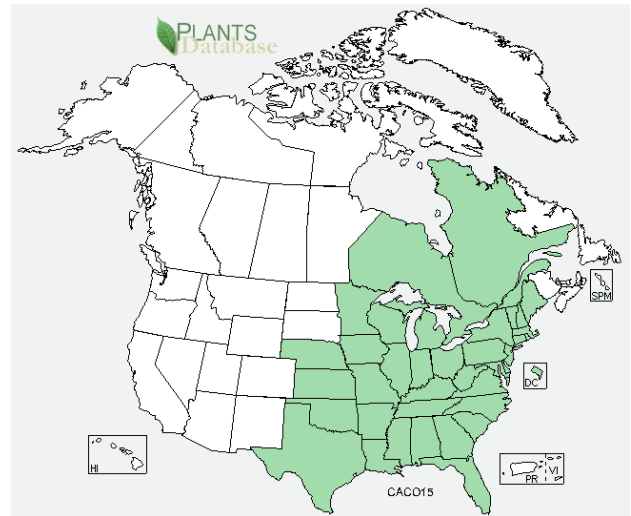
Geographic Range & Distribution

The bitternut hickory is one of the most widely distributed of hickories and can be found all the way from Texas to Maine (see distribution table to the right). It can be found mainly in wet, moist, rich, or gravelly soil like in bottomlands or swamps but also can be found in drier areas like the tops of hills. It is common to find them along the banks of streams but are generally only a minor species in stands of other hardwoods.



Life History

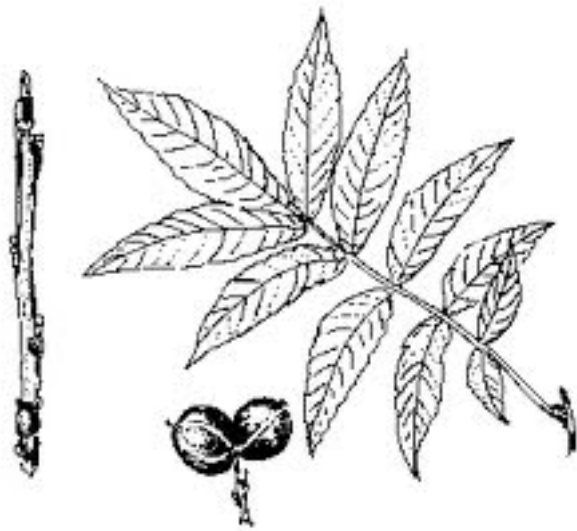
The bitternut hickory is a perennial tree with active growth periods in the spring and summer. It has a slow growth rate, reaching a maximum of 30 feet at age 20. An average mature height for a bitternut hickory is 50 to 75 feet with a trunk diameter of 1 to 2.5 feet. The lifespan of a bitternut hickory is moderate living to about 200 years.



Economic Importance and Human Uses

Unlike other hickories, the bitternut hickory's fruit are not consumed because of their appropriately named bitterness due to their high tannin content. Native Americans used the oil of the bitternut hickory to mix with food for flavoring and also used the mashed nuts in bread and other foods. Today, people use the wood to smoke meat.

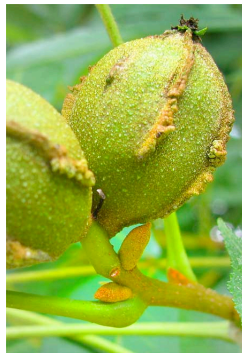
The wood is slightly lighter, less stiff, and not as strong as other hickories but it is used for an assortment of human needs. Crates, boxes, flooring, furniture, and veneer are all produced from the wood of the bitternut. Of economic importance is the bitternuts high use of fuel-wood, lumber and pulpwood.



Leaf Characteristics

The bitternut hickory's leaves are 6-10 inches long, alternate and pinnately compound.

There are normally 9-11 leaflets, $\frac{3}{4}$ to $1\frac{1}{4}$ inch wide, lanceolate- to lanceolate ovate. They are distinguishable from other hickories because of their bright green color. The lower surfaces of the leaves are slightly hairy and paler. They are finely to coarsely toothed.



Stem & Flower Characteristics:

The twig of the bitternut hickory is thin, buff brown, and slightly hairy. The bark is light gray, smooth, and sinewy. The distinctive sulfur-yellow buds of the bitternut hickory are valvate.

Flowering occurs in mid-spring. Male and female flowers occur on the same



Fruit Characteristics

The fruit of the bitternut hickory is a nut encased in a thin green husk. It is $\frac{3}{4}$ to $1\frac{1}{2}$ inches long, nearly globular or obovoid, and four-winged. The nut is round and pale brown. The nut is not consumed because it is extremely bitter!

Insect/Fungal Pests

The bitternut hickory has virtually no pests or fungal problems, producing consistently clean and healthy leaves.

Interesting Facts:

- The fruit is so bitter that even squirrels tend to stay away from them
- In areas where the bitternut overlaps with the pignut hickory, a hybrid is produced known as the *Carya x deareei*.
- Native Americans use the wood to make bows because of its durability and flexibility
- Early settlers extracted oil from the nuts for lamps and the oil was also believed to help rheumatism.

Multiple Choice Question:

Which is *not* a use of the bitternut hickory:

- A: Wood for smoking meat B: Wood for furniture
C: Nuts as food D: Wood as Fuel

Multiple Choice Question Answer: C

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