

Carya glabra: Pignut Hickory¹

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Introduction

A North American native, pignut hickory is usually seen at 50 to 65 feet in height with a 30- to 40-foot spread but is capable of slowly reaching 120 feet in the forest. The deciduous, 8- to 12-inch long leaves create a coarse, oval canopy, and the strong but irregularly spaced branches resist breakage in storms, making it useful as a shade tree. The green fruits are quite bitter and are popular with various forms of wildlife, but not man. Since fruits may damage cars as they fall and people could roll on the fruit and lose their balance, it may be best to locate the tree away from streets, parking lots, and other areas where cars regularly park. It makes a nice shade tree or median strip tree planted on 25- to 30-foot centers and turns a striking bright yellow in the fall.

General Information

Scientific name: *Carya glabra*

Pronunciation: KAIR-ee-uh GLAY-bruh

Common name(s): Pignut Hickory

Family: *Juglandaceae*

USDA hardiness zones: 5A through 9B (Figure 2)

Origin: native to the eastern half of the United States and extreme southern Ontario

UF/IFAS Invasive Assessment Status: native

Uses: shade; specimen



Figure 1. Full Form—*Carya glabra*: Pignut hickory

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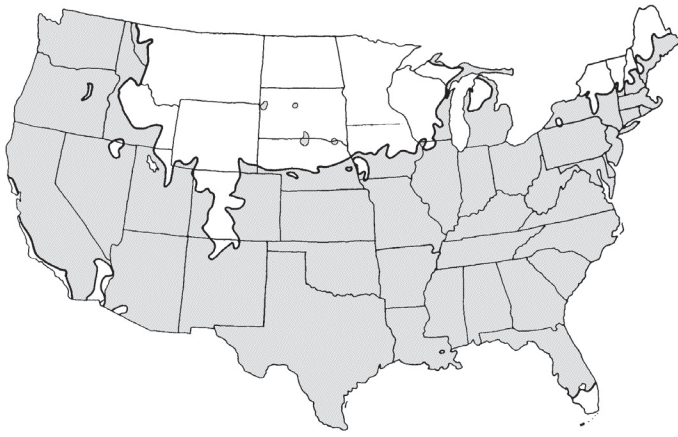


Figure 2. Range

Description

Height: 50 to 65 feet

Spread: 30 to 40 feet

Crown uniformity: symmetrical

Crown shape: oval

Crown density: dense

Growth rate: moderate

Texture: medium

Foliage

Leaf arrangement: alternate

Leaf type: odd-pinnately compound; made up of 5 to 7 leaflets

Leaf margin: serrate

Leaf shape: obovate, lanceolate

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 8 to 12 inches; leaflets are 3 to 6 inches

Leaf color: dark green on top, paler green and pubescent in the vein axils underneath

Fall color: yellow

Fall characteristic: showy



Figure 3. Leaf—*Carya glabra*: Pignut hickory

Flower

Flower color: male—yellow-green; female—green

Flower characteristics: not showy; male—2" to 3" long catkin; female—spike that emerges on clusters at branch tips

Flowering: spring



Figure 4. Flower—*Carya glabra*: Pignut hickory



Figure 5. Bract—*Carya glabra*: Pignut hickory

Fruit

Fruit shape: ellipsoid, obovoid

Fruit length: 1 to 2 ½ inches

Fruit covering: dry or hard nut that is enclosed in a 4-valved husk; splits half-way down the base with maturity

Fruit color: green to brown

Fruit characteristics: attracts squirrels/mammals; not showy; fruit/leaves a litter problem

Fruiting: matures in early fall



Figure 6. Fruit—*Carya glabra*: Pignut hickory

Trunk and Branches

Trunk/branches: branches don't droop; not showy; typically one trunk; no thorns

Bark: gray brown and smooth when young, developing scaly ridges that are interwoven in a diamond-like pattern with age

Pruning requirement: little required

Breakage: resistant

Current year twig color: brown

Current year twig thickness: thick

Wood specific gravity: 0.75

Culture

Light requirement: full sun to partial shade

Soil tolerances: clay; sand; loam; slightly alkaline; acidic; well-drained to occasionally wet

Drought tolerance: high

Aerosol salt tolerance: moderate

Other

Roots: not a problem

Winter interest: no

Outstanding tree: no

Ozone sensitivity: tolerant

Verticillium wilt susceptibility: unknown

Pest resistance: resistant to pests/diseases



Figure 7. Bark—*Carya glabra*: Pignut hickory

Credits: Gitta Hasing

Use and Management

Hickory generally grows with one central leader, and branches are well spaced, forming a strong, wide angle with the trunk. The tree lends a coarse texture to the landscape, that contrasts nicely with the smaller-leaved trees, such as the evergreen oaks. This is an under-utilized native tree with potential for much wider use.

Pignut hickory grows best in sun or partial shade on well-drained, acid soils and is very drought-tolerant. Trees will show minor-element deficiencies on alkaline soils. It grows well in sand or clay, sending deep roots down below the trunk in well-drained soil. Hickory wood is versatile and is used for chair legs, tool handles (including axes and hammers), and for smoking meat and fish.

Propagation is by stratified seed or root-sprouts.

Pests

Borers, bagworms, and fall webworms, but none are normally serious. Fall webworms can devour large quantities of foliage during the summer and fall, but they cause no lasting damage and control is not needed. Galls are common on the leaves but cause no real damage.

Hickory bark beetle is a problem, particularly during droughts.

Diseases

Scab.

Reference

Koeser, A. K., Hasing, G., Friedman, M. H., and Irving, R. B. 2015. *Trees: North & Central Florida*. Gainesville: University of Florida Institute of Food and Agricultural Sciences.