

Swietenia mahagoni: Mahogany¹

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Introduction

This large, semi-evergreen tree forms a loose, rounded canopy and casts light, dappled shade, suitable for maintaining a lawn beneath. It is one of south Florida's popular landscape and street trees. Mahogany can reach 75 feet in height with a 50-foot-spread but is more often seen at 40 to 60 feet tall and wide. The dense, strong wood of mahogany is quite resistant to wind-damage on properly trained trees, making this tree all the more ideal for use as a shade tree or street tree. Trees planted along streets or in medians will form a beautiful canopy overhead. The five-inch-long, brown, woody fruit capsules hang from slender, fuzzy stalks in winter and split while still on the tree when ripe to release winged seeds.

General Information

Scientific name: *Swietenia mahagoni*

Pronunciation: swee-TEEN-ee-uh mah-HAH-go-nye

Common name(s): Mahogany, West Indies mahogany

Family: *Meliaceae*

USDA hardiness zones: 10B through 11 (Figure 2)

Origin: native to South Florida, Bahamas, and the western Caribbean

UF/IFAS Invasive Assessment Status: Native

Uses: reclamation; street without sidewalk; screen; shade; parking lot island 100–200 sq ft; parking lot island > 200 sq ft; tree lawn 4–6 feet wide; tree lawn > 6 ft wide; urban tolerant; highway median

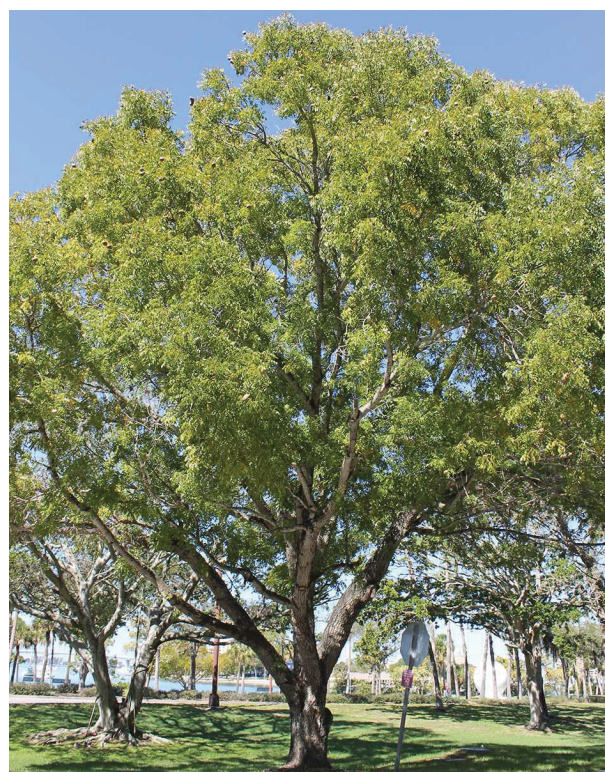


Figure 1. Full Form—*Swietenia mahagoni*: mahogany

1. This document is ENH-766, one of a series of the Environmental Horticulture Department, UF/IFAS Extension. Original publication date November 1993. Revised December 2006 and December 2018. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication.
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Figure 2. Range

Description

Height: 40 to 60 feet

Spread: 40 to 60 feet

Crown uniformity: symmetrical

Crown shape: round

Crown density: moderate

Growth rate: fast

Texture: medium

Foliage

Leaf arrangement: alternate

Leaf type: even-pinnately compound; made up of 4 to 6 opposite pairs of leaflets

Leaf margin: entire

Leaf shape: ovate, lanceolate

Leaf venation: pinnate, brachidodrome

Leaf type and persistence: semi-evergreen, evergreen

Leaf blade length: 5 to 7 inches; leaflets are 2 to 4 inches

Leaf color: dark green on top, paler green underneath

Fall color: no color change

Fall characteristic: not showy

Flower

Flower color: white or yellow

Flower characteristics: not showy; fragrant; emerges in clusters on axillary panicles

Flowering: spring

Fruit

Fruit shape: oval

Fruit length: 2 to 5 inches

Fruit covering: dry or hard; woody capsule that splits into 5 even parts when ripe

Fruit color: brown

Fruit characteristics: does not attract wildlife; showy; fruit/leaves a litter problem

Fruiting: summer to winter



Figure 3. Leaf—*Swietenia mahagoni*: mahogany



Figure 4. Flower—*Swietenia mahagoni*: mahogany

Trunk and Branches

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

Bark: gray and smooth, becoming dark gray, rough, scaly, and flaking off to reveal red patches with maturity

Pruning requirement: needed for strong structure

Breakage: resistant

Current year twig color: green, brown

Current year twig thickness: medium

Wood specific gravity: unknown

Culture

Light requirement: full sun to partial shade

Soil tolerances: clay; sand; loam; acidic; alkaline; moist but well-drained

Drought tolerance: high

Aerosol salt tolerance: high



Figure 5. Fruit—*Swietenia mahagoni*: mahogany



Figure 6. Bark—*Swietenia mahagoni*: mahogany
Credits: Gitta Hasing

Other

Roots: can form large surface roots

Winter interest: no

Outstanding tree: no

Ozone sensitivity: unknown

Verticillium wilt susceptibility: unknown

Pest resistance: resistant to pests/diseases

Use and Management

A native of south Florida, mahogany will grow in full sun or partial shade on a wide range of soil types, and is quite resistant to salt spray. Plants will respond with rapid growth

to rich, well-drained soil and regular fertilizing. Roots can raise sidewalks and curbs when planted only five or six feet away. Root deflectors and barriers which direct roots to a deeper soil layer are recommended for this and other large-growing trees with surface root problems. Be sure that trees are planted and maintained with a central leader to develop a strong trunk and branch structure. Trees often develop several upright multiple leaders which significantly reduces the wind and storm tolerance of any tree, including mahogany. Prune and train the tree while it is young to develop several major limbs spaced several feet apart along a central trunk. Do not allow branches to grow larger than about two-thirds the diameter of the trunk. This will increase the life span of mahogany.

This and several other species of mahogany are used in the lumber industry for fine cabinets and furniture due to the color, straight grain and durability of the wood. *Swietenia macrophylla* is a taller tree with a dominant, straight trunk which could be grown in Florida and used along the streets. There were several trees three feet in diameter at the USDA research station south of Miami prior to hurricane Andrew.

Propagation is by seed.

Pests

Some insects can cause significant problems such as the tent caterpillars, tip moth, webworm, scale, leaf notcher, and leaf miner. Borers infest stressed trees.

Diseases

No diseases are of major concern.

Nectria infections on branches are often predisposed by some other stress or any injury to the tree. These infections can be seen in the branch crotches.

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.

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