Swietenia mahagoni: Mahogany

Edward F. Gilman and Dennis G. Watson

Introduction
This large, semievergreen 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 50 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 (Fig. 2)
Origin: native to North America
Invasive potential: little invasive potential
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
Availability: not native to North America

Figure 1. Mature Swietenia mahagoni: mahogany
Credits: Ed Gilman, UF/IFAS

Figure 2. Range
Description
Height: 40 to 50 feet
Spread: 40 to 60 feet
Crown uniformity: symmetrical
Crown shape: round
Crown density: moderate
Growth rate: fast
Texture: medium

Foliage
Leaf arrangement: alternate (Fig. 3)
Leaf type: even-pinnately compound
Leaf margin: entire
Leaf shape: ovate, lanceolate
Leaf venation: pinnate, brachidodrome
Leaf type and persistence: semi-evergreen, evergreen
Leaf blade length: 2 to 4 inches
Leaf color: green
Fall color: no color change
Fall characteristic: not showy

Figure 3. Foliage

Flower
Flower color: green
Flower characteristics: not showy

Fruit
Fruit shape: oval
Fruit length: 3 to 6 inches
Fruit covering: dry or hard
Fruit color: brown, blue
Fruit characteristics: does not attract wildlife; showy; fruit/leaves a litter problem

Trunk and Branches
Trunk/bark/branches: branches droop; not showy; typically one trunk; thorns
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, partial sun, or partial shade
Soil tolerances: clay; sand; loam; acidic; alkaline; occasionally wet; well-drained
Drought tolerance: high
Aerosol salt tolerance: high

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 U.S.D.A. 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.