

Mahogany: *Swietenia mahagoni*

Family: Meliaceae



Fort Myers, Florida, Early May



Capsule, Late October

Common names: Mahogany, Cuban Mahogany, West Indian Mahogany

Synonyms (Discarded name): *Cedrela mahagoni*

Origin: South Florida, Bahamas, and Caribbean

U.S.D.A. Zone: 10a-11 (30°F Minimum)

Plant Type: Medium to large tree

Leaf Type: Even pinnate

Growth Rate: Moderate to fast

Typical Dimensions: 40'-60' x 40'-60'

Leaf Persistence: Briefly deciduous

Flowering Months: Spring

Light Requirements: Full sun

Salt Tolerance: Low

Drought Tolerance: High

Wind Tolerance: Medium

Soil Requirements: Tolerant of wide range but prefers moist but well-drained soil

Nutritional Requirements: Low

Environmental Concerns: Listed as threatened species by state of Florida

Major Potential Pests: Cuban May beetles
Mahogany webworms, borers

Propagation: Seed

Human Hazards: None

Uses: Shade, streetscape, specimen

Natural Geographic Distribution

The tree is native in parts of Dade and Monroe counties as well as the Bahamas and in the Western Caribbean from Hispaniola and including Cuba and Jamaica. It was introduced into Puerto Rico and the Virgin Islands more than 250 years ago.

In South Florida, it occurs in high coastal hardwood hammocks, often in dry, rocky sites, in full sun or nearly full sun. Naturally occurring stands have become increasingly rare due to development and harvesting for its

valuable timber. In fact, Mahogany is under legal protection in Florida. It is on the state's [Endangered and Threatened list](#). Mahogany is not suitable for wet areas.

Name

Though many different trees from all over the world are called Mahogany, the name properly belongs to the species of the genus *Swietenia*. West Indian mahogany, *Swietenia mahagoni*, by nature of its scientific name is most appropriately called Mahogany.

Growth Habit

This is an upright tree with a rounded, symmetrical crown of medium density. 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. Trunk can be 3 to 4.5 feet in diameter.

After a period of winter rest, leaflets of the existing foliage turn brown and the leaves begin to abscise sometime in March to May. This is a brief process as the tree is semi-deciduous. Old leaves are shed suddenly and are quickly replaced by fresh new foliage just before or during the onset of new growth. The trees growth at this time is synchronized on terminal and lateral buds of the previous year's growth. Flowers are produced on the spring growth. Subsequently, during summer, isolated shoots can repeat the flush, but non-synchronously and without flowers. The very new leaves of the new growth are at first reddish-purple but soon become light green.

As the tree gets older, the trunk usually divides into multiple branches around 4 to 8 feet above ground. These upright multiple leaders significantly reduce the wind and storm tolerance of any tree, including Mahogany. The bark of a young tree is smooth and grayish. Older trees have a stout trunk with a rough, dark brown or gray bark that is coarsely fissured. The bark of these trees closely resembles those of mature [live oaks](#), *Quercus virginiana*.



The crown of a mature Mahogany tree

White House, Jamaica Early September



Appearance of new foliage. Fort Myers, Florida, Early May



Completed new leaf growth. Fort Myers, Florida, Late June



Typical multiple leaders



Bark of young tree



Bark of old, mature tree

Leaf

The leaf is compound, even-pinnate and alternately arranged. Some leaves appear to be odd-pinnate (Brown's personal observations). Leaves are typically 6 to 9 inches in length. They usually contain 4 or 5 pairs of opposite (or nearly so) shiny asymmetric ovate to lance-shaped leaflets. The leaflets are entire with a reddish-brown midrib and are approximately 2.5 inches long and up to 0.5 inches wide. The blade of many leaflets curve backwards towards the base of the petiole. New leaves are reddish or light green and turn dark green over several weeks. The entire leaf can be mistaken for the [gumbo limbo](#), *Bursera simaruba*, leaf, another commonly grown tree in South Florida.



Alternating leaves



Single Leaf with 8 leaflets against background of Mahogany tree bark

Flower and Flowering

The flowers are produced on panicles that are found in the axils of the leaves.. They emerge in the spring simultaneously with new leaf growth and continue into the summer. Some flowering may occur at other time of the year without leaf loss. The distal inflorescence branches have spirally arranged panicles. The small flowers are inconspicuous but fragrant and yellow-green. The whole flower is less than 0.3 inches wide.

Mahogany is monoecious. Monoecious plants have separate male and female flowers on the same plant. Monoecism is very common in the family Meliaceae, but not obvious. Both types of flowers can occur on the same panicle but their distribution on the panicle is without obvious order.



Spiraling inflorescence, Late May



Single inflorescence and leaf, Late May

Fruit

From spring flowers, the fruits develop slowly through the summer, fall and winter. Usually only one flower on any leafy shoot becomes a fruit. They are conspicuous in fall and winter as large, oval, woody silvery capsules from 2 to 5 inches long. The mature capsule stands more or less erect, supported by a thick pedicel. At about the time of leaf fall the following year, the capsule splits from the base into 5 thick valves which fall to reveal the numerous winged seeds clustered around a central persistent column. The seeds are flat, long-winged, about 2 to 2.5 inches long and 0.5 inches wide. The seeds are dispersed by the wind and seedlings can develop in some abundance in the vicinity of a parent tree.



Group of capsules, Early October



Top Left: Capsule opens from the base upwards.

Top Right: Capsule stripped of seeds reveals the central persistent column

Bottom: Winged seeds removed from the capsule.

All pictures taken in early March

Use and Management

Mahogany is readily available in most native plant nurseries in South Florida. It is frequently planted as a street or shade tree in gardens and landscapes and is one of the most often seen hardwood tree in urbanized South Florida.

The wood is valued in the lumber industry for fine cabinets and furniture due to its color and durability. Grain can be straight, interlocked, irregular or wavy. The sapwood is whitish or yellowish. The heartwood is reddish, pinkish or yellowish when cut, aging to a rich reddish brown.

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.

Prune and train the tree while it is young to develop several major limbs spreading several feet apart along a central trunk. Do not allow branches to grow larger than about two-third the diameter of the trunk. This will increase the life span of the Mahogany.

The tree can become massive and care should be taken not to plant it too close to houses or other building. Mahoganies produce many large lateral roots at or near the surface. Recommended planting distance is 20 to 25 feet from buildings. Its roots can raise sidewalks and curbs when planted 5 or 6 feet away. Root deflectors and barriers which direct roots to a deeper soil layer are recommended for this and

large-growing trees with surface root problems. Seemingly healthy limbs will occasionally break away from mature trees. The reason for [limb failure](#) is not known.

In aspects of leaf fall, this tropical tree sheds leaves like a temperate tree. Leaves fall in the spring towards the end of the dry season. They cover the ground like a typical fall leaf drop in colder climates. Individual trees growing side by side drop and replace leaves rapidly but rarely simultaneously.

Seedlings grow under a wide variety of conditions. Summer rains produces a flush of new seedlings. Some people consider the Mahogany tree very messy and would not include it for use in any landscape.

In 2004, Hurricane Charley swept through Lee County with sustained wind speed of 140 m.p.h. The Mahogany trees remained standing but many sustained extensive loss of smaller limbs and trees were stripped bare of their leaves.



Surface roots are capable of damaging sidewalks



A litter of fallen leaves, Fort Myers, Early May

Thomas Becker

Pests

The Cuban leaf beetle, *Phyllophaga bruneri*, is found throughout South Florida and feed on foliage of ornamental plants including the West Indian Mahogany. It is most active in the rainy season. The beetle do not typically cause great harm to the plant and insecticides are not warranted for its control.

The Mahogany webworm is another pest of Mahogany. The webworm, *Macalla thyrsoalis*, is a moth species and also a defoliator. It is found in Florida during spring. It doesn't affect the tree and with the second flush of leaves, the tree remains unaffected. The webworm is under natural control in Florida by two different species of parasitic wasps.

First found in 2000 in Broward County, the Sri Lanka weevil, *Myloccerus undatus*, has become a significant pest of at least 68 different host plants including Mahogany. The adult weevil is very evident with its powdery white appearance. This appearance, coupled with the classic weevil leaf notching damage, is easily spotted in the landscape. The damage to Mahogany is usually infrequent and minor in its effect. Borers also infect stressed trees.



Leaf damage caused by Cuban leaf beetle. Late July



Cuban leaf beetle, *Phyllophaga bruneri*. Late July



Mahogany webworm moth



Mahogany webworm larvae



Naples, Florida, Early March



Late June

References

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Useful Links

[South Florida Native Plants Fact Sheet List](#)

[Cabbage Palm Fact Sheet](#)

[Gumbo Limbo Fact Sheet](#)

[Sea Grape Fact Sheet](#)

[Southern Red Cedar Fact Sheet](#)

[Big Native Trees: Part 1](#)

[Big Native Trees: Part 2](#)

[Big Native Trees: Part 3](#)

[Big Native Trees: Part 4](#)

This fact sheet was reviewed by Tom Becker, Peggy Cruz and Karen Headlee, Lee County Extension; Pat Rooney, Lee County Master Gardener; Jenny Evans, [Sanibel-Captiva Conservation Foundation](#), Sanibel; John Sibley, Lee County Master Gardeners and owner of [All Native Garden Center](#), Fort Myers

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