

Terminalia catappa

Family: Combretaceae



Young tree, late January, Black River, Jamaica



Leaves and inflorescence, Fort Myers, Florida



Fruits, late January, Antigua, Eastern Caribbean

Common Names: Tropical almond, almendra, Indian almond

Synonyms (discarded names): *Phytolacca javanica*, *Terminalia procera*

Origin: Near coastal areas of the Indian Ocean, through tropical Asia, and into the Pacific Ocean.

U.S.D.A. Zone: 10a -11 (30°F minimum)

Plant Type: Tree

Growth Rate: Fast in early years, medium thereafter

Leaf Persistence: Briefly deciduous

Flowering months: Winter; sporadically throughout the year

Flower Color: Green

Light Requirements: Medium-High

Soil and Salt Spray Tolerances: High (1st line)

Drought Tolerance: High

Wind Tolerance: High

Soil Requirements: Wide

Nutritional Requirements: Low

Major Potential Pests: Thrips

Typical Dimensions: 55' x 40'

Propagation: Seeds, stem cuttings

Human Hazards: None

Uses: Shade, specimen, avenue, seaside, edible fruit

Geographic Distribution

The tropical almond, *Terminalia catappa*, is a widely cultivated and naturalized tree in tropical and subtropical Americas. Along with Casuarina and coconuts, it is one of the most common trees of many tropical coasts. In South and Central Florida, it is listed as a Category II invasive plant by the [Florida Exotic Pest Plant Council](#). The native range of the tree is from the Seychelle Islands to Papua New Guinea, and includes parts of India and northern Australia.

Ecology and Growth Habit

The tropical almond is a fast growing tree in its youth, moderating the speed of growth as it ages. It is primarily a tree of maritime climates. It grows naturally in tropical beach forests and as a pioneer on denuded or disturbed lands up to 1000 feet altitude and with between 40 to 140 inches of rainfall. It does well on

sandy or limestone soils as well as other soil types. The tropical almond is generally not grown in California and is probably too tender for most locations in that state.

The tree is often characterized by horizontal branches that are divided repeatedly into tiered whorls. Each tier is 3 to 6 feet apart, usually on a single erect trunk. The leader shoot may extend more than once a year. Usually a medium sized tree to about 50 feet tall. It can reach a height of 80 feet with a trunk diameter of 1 to 2 feet; these often have slight buttresses. The gray to dark gray-brown bark is fairly smooth and thin, becoming slightly fissured with age. Young fast growing trees have open crowns and discernable whorls of branches. Mature older trees have a flattened crown of medium density and less discernable branch tiers.



Underneath the first tier. Early September, Black River, Jamaica



A healthy tree with roots exposed by the sea's waves.
Grenada, Eastern Caribbean



Buttress roots, Yucatan, Mexico



Buttress roots, Southfield, Jamaica

In the northern hemisphere, the tree is briefly deciduous in the cool or dry season most noticeably in January and February. In preparation for leaf fall, trees usually begin to change leaf color in November. The period of leaf fall may begin in December. Once sufficient leaves have fallen, trees are quick to produce new foliage often within a few days of being leafless. Sometime in February, most trees will have produced a new canopy. The bark, roots, green fruits, and leaves contain tannins and have been used for that purpose. An oil has been extracted from the seeds.

Locaton: Fort Myers, Florida



Winter colors, early January



New leaf emerging, early February



Complete emergent, late February

Leaves

The leaves are alternate and crowded together near the ends of the twigs in terminal rosettes. Petioles are short, under 1 inch, and stout. Leaf blades are thick and big, as much as 15 inches long and 6 inches wide. They are obovate, with smooth margins, and are abruptly short-pointed or rounded at the apex. New leaves have a covering of soft, appressed, brown hairs. Mature leaves are glabrous (shiny) above and very finely pubescent below. They are leathery, and dark green. They turn shades of bright yellow, red and purple before falling in the winter. The trees are briefly bare during that time. In some environments they may lose their leaves twice a year.



New leaves, early October, Fort Myers, Florida



Expanded leaves and inflorescences, early October, Fort Myers, Florida



Old leaves before the fall. Late December, Fort Myers, Florida



Mid January, Fort Myers, Florida

Flowering and Fruiting

Flowers are arranged on long slender racemes up to 6 inches long. They are 0.16 to 0.24 inches across, white or cream-colored, five-lobed. They are termed inconspicuous but are easily seen when the tree is in full bloom. One or more racemes appear at the ends of twigs. Flowers are of two kinds, male and perfect. Both types occur on a single tree, usually with the perfect flowers at the base of the raceme and male flowers directly above. Flowers of both types are greenish-white or light brown. Normally they appear in early summer and fruits follow quite late in the year. Plants usually commence flowering and fruiting within 2 to 3 years after transplanting, but this can vary with site and genotype.

Fruits are drupes about the size and shape of an almond fruit but with a slight wing. They are 2 inches or more long and 1 inch across. Full-sized fruits are at first green and turn red, brown, or yellow at maturity. When young, the fleshy fibrous pulp surrounding the large seed is edible and sweet and slightly sour thereafter. Inside the husk there is a light brown, thick, hard stone that contains an almond-like kernel that is also edible. In some areas, flowering and fruiting may occur throughout the year. The authors have not seen fruits on trees in Southwest Florida. The fruits float but the flesh rots readily and the seeds soon germinate.



The inflorescence is a long, thin, raceme. Mid October, Fort Myers, Florida



Flower buds on the raceme.
Mid October, Fort Myers, Florida



Red and bitten fruit
Late November, Yucatan, Mexico



Brown and bitten fruit
Early September, Jamaica



Matured yellow fruits
Late January, Jamaica

Uses and Maintenance

The tropical almond is widely planted in tropical areas as an ornamental and valued for its shade, edible fruits and ability to stabilize soils. Its rapid initial growth rate enhances its value. *T. catappa* may be used with caution in southern Florida, but should be managed to prevent its escape. The tree has a high tolerance for drought and salt and has medium to high resistance to hurricanes and strong winds. It is adaptable to a wide variety of soil. At about 30°F cold damage is likely to occur.

Old leaves and fruits can be a nuisance. People may object to the large leaves and the fruit that falls from the tree if it is used as a street or lawn tree. The tannic acid may be a problem near parked cars.

Propagation is readily achieved by seeds. Collect seeds from freshly fallen fruits and sow within 4 to 6 weeks. No pretreatment is necessary. Seedling grow rapidly in the early stages and flourish with minimal maintenance in suitable environments. Stem cuttings can be rooted.

Comparison of *T. catappa* and *T. muelleri*

There is another species of *Terminalia* often seen throughout South Florida. *T. muelleri*, also known as Australian almond, is more prevalent in Southwest Florida than *T. catappa*. It is a weedy tree found in gardens and unkempt lots. The leaf, inflorescence and fruit are much smaller than *T. catappa*. The leaves are a darker green and the flowers are whiter in appearance than *T. catappa*.



Left: Tropical almond
Right: Australian almond



Left: Tropical almond
Right: Australian almond



Australian almond fruits



Mid November, Yucatan, Mexico



Early June, DelRay Beach, Florida



Mid May, Fort Myers Beach, Florida



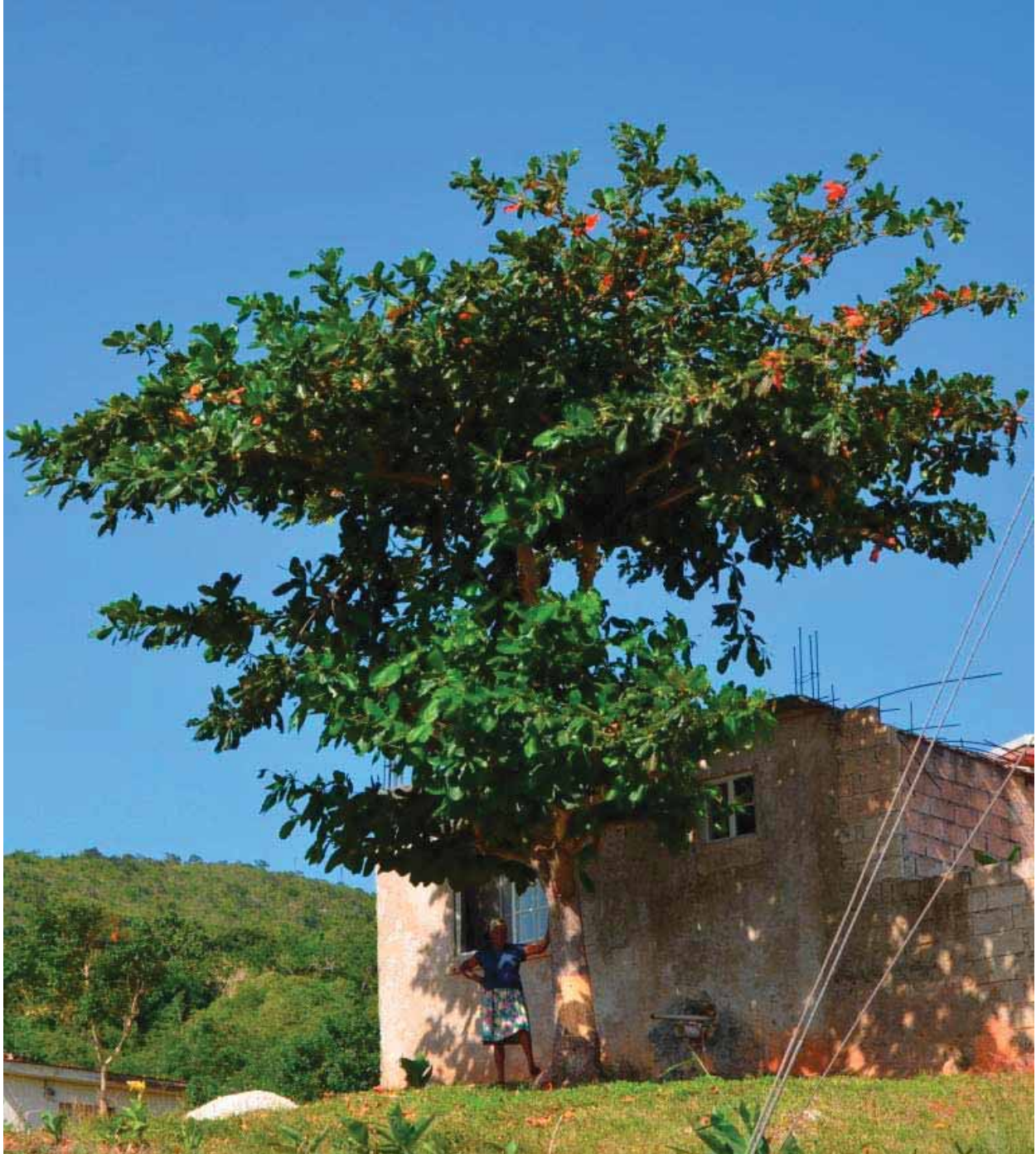
Early July, Fort Lauderdale, Florida



Early July, Fort Lauderdale, Florida



Mid November, Yucatan, Mexico



Early September, Queensbury, Jamaica

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This fact sheet was reviewed by Karen Headlee and Roy Beckford, Lee County Extension; Pat Rooney, Lee County Master Gardener

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