

## *Chrysobalanus icaco*

(kriss-oh-bah-LAY-nuss eye-KAY-koe)

Cocoplum



S.H. Brown

Leaves and fruits of *Chrysobalanus icaco*

**Family: Chrysobalaceae**

### **Cocoplum**

**Synonym (Discarded Name):** *C. pellocarpus*

**Origin:** South Florida; South and Central America; Bahamas; western Africa

**USDA Zone:** 10b-12b (32°F leaf damage)

**Growth Rate:** Moderate to fast

**Leaf:** Simple, alternate, shiny, dark green thick and leathery, elliptic or nearly round

**Flower:** Insignificant, greenish white, slightly sweet fragrance, arranged in cymes along the twigs

**Leaf Persistence:** Evergreen

**Salt Tolerance:** High for 'Horizontal' cultivar, lower for 'Red Tip' cultivar

**Drought Tolerance:** Medium

**Wind Resistance:** High

**Soil:** Wide

**Nutritional Requirements:** Low

**Potential Pests:** Sri Lanka weevil, Lobate lac scale; whitefly

**Typical Dimensions:** For the inland variety: 5 feet tall as a hedge and 15 feet tall and 14 feet wide as a specimen. For the coastal variety; 4 feet tall.

**Propagation:** Cuttings; seeds; air layering

**Human hazards:** None

**Uses:** Hedge; dune stabilizer; honey plant; specimen



The cocoplum is often pruned into a formal hedge. This is *C. icaco* var. *pellocarpus* 'Red Tip'.

**Introduction:**

The cocoplum (*Chrysobalanus icaco*) is native to south Florida, the Caribbean, Central America, northwestern South America and tropical western Africa. It is cultivated and naturalized in Vietnam, Melanesia and Polynesia and naturalized in India and the Seychelles. In Florida, it is native to pine flatwoods, Everglades tree islands, cypress domes and strands, hammocks, coastal beaches and dunes, and along the edges of freshwater swamps. It is often seen by the shorelines of canals and ditches. *C. icaco* is an evergreen shrub or a small tree which can grow to 20 feet tall. It is usually as broad as it is tall, but a coastal ecotype takes on a creeping (horizontal) habit and is usually not more than 6 feet tall. The species is polymorphic with considerable variation and little correlation among the variable characters.



Cocoplum in pine flatwoods at Pine Lake Preserve, Bonita Springs



Cocoplum growing in Florida's Everglades in early October at the end of the rainy season. This shrub is inundated by slow-flowing fresh water.

**Leaf, Flower, and Fruit:**

The leaf is simple, 1 1/2 - 4 inch long, elliptic or nearly round, on a short (1/8 in.) petiole. Leaf blades are rounded, pointed, or slightly notched at the apex. They are arranged alternately and upwardly along the twig, making it appear that they all grow from one side of the stem. The visible lower surface of the leaf is yellow green. The twigs are green when young, turning reddish brown, with raised dots (lenticels). The flowers are small greenish white. Individual flowers are less than 3/8 inch long with 5 narrow white petals and 5 spreading sepals. They are borne in clusters at the leaf axils. The fruit is an elliptic (plum-like) or nearly round, pink, whitish, or dark-purple drupe. It is 3/4 - 1 1/2 inches long, juicy, and edible. It contains one large 5 - 6 ridged brown stone and an edible white seed. *C. icaco* flowers and fruits intermittently throughout the year. Fruits are particularly abundant in summer. Early inhabitants of peninsula Florida discovered that the fruit's



Leaves are elliptic (center leaf) or nearly round. Leaf blades are rounded, pointed or slightly notched at the apex.



Leaves and flowers of cocoplum. Some leaves are slightly notched.

unique flavor, fleshy consistency, and thin skin made it an excellent candidate for jams and jellies and it is still used for this purpose today. The seeds can be roasted and eaten for their almond-like flavor or crushed and added to the jelly. Gopher tortoises, and other wildlife, love to eat the juicy fruit.



Flowers, immature green fruit, mature purple and white fruits and the stones of the 'Red Tip' and 'Horizontal' cultivars.



The fruit is thin and fleshy, slightly sweet or almost tasteless

### Varieties and Cultivars:

There are two common varieties (ecotypes). *C. icaco* var. *icaco* is the coastal variety that is highly salt tolerant. It has yellow-greenish new growth and creamy white or purple fruits. *C. icaco* var. *pellocarpus* is the inland variety. It is marginally salt tolerant. It has light green new growth and dark purple fruit. There are several cocoplum cultivars. 'Horizontal' is a cultivar of *C. icaco* var. *icaco*. It is highly salt and drought tolerant and is a slow grower with branches creeping in all directions. It can be used as a groundcover on beaches away from breaking waves. It is better suited as a lower growing hedge than the other cultivars. Its new leaf is a coppery-pink color and its fruits mature white. 'Horizontal' is seldom available commercially. 'Red Tip' is a cultivar of *C. icaco* var. *pellocarpus*. It is a chance occurrence and is the most commonly sold cultivar. It has become the dominant cocoplum hedge of south Florida. It has an upright growth and is less salt tolerant than the 'Horizontal' cultivar. It has pinkish-yellow fruit that ripens to a deep purple and as its name implies, new leaf growth is red-tipped. A third cultivar, 'Green Tip' is chance occurrence of *C. icaco* var. *pellocarpus*. All three cultivars are commercially produced from cuttings to guarantee plants that are true to type.



New leaves of 'Red Tip' and 'Green Tip' cocoplums



Fruits of the 'Red-Tip' cocoplum



S.H. Brown

This *C. icaco* var. *pellocarpus* growing in pine flatwoods is 18 feet tall and 18 feet wide.



S.H. Brown

New stem growth on *C. icaco* var. *pellocarpus* is upright. The inland variety makes an excellent screen or hedge.



S.H. Brown

Bowditch Beach, Fort Myers Beach



*C. icaco* var. *icaco* 'Horizontal' new stem growth creeps in all directions and touches the ground as it moves outwards. Stems that touch the ground form roots at the nodes. The plant eventually becomes a dense groundcover. This clump consist of several plants, is naturally occurring from seeds, and is about three-years old.

### Growing Conditions:

Cocoplum can be grown in moderate to light shade or full sun. *C. icaco* has a high tolerance for wet and dry conditions. Nonetheless, a newly installed plant will not tolerate prolonged saturated soils. Once established, it requires little irrigation. The species is cold sensitive. Minor leaf damage occurs at 30°F, and at 32°F if frost should settle. Severe foliage damage occurs at 28°F. Fabric coverage tends to confine cold damage to the tips of the plants. Recently installed plants are more susceptible to cold damage than older established plants. In marginal areas, including all of southwest Florida, it is best to plant cocoplums from February to September to develop a hardier winter plant. Soil tests done by Lee County Extension have found cocoplums growing in natural areas in a soil pH of 6.6 to 8.4 and without the benefit of fertilizer applications.



This cocoplum is at the entrance to Lovers Key's State Park, Lee County, Florida.



Newly planted cocoplum hedge is severely damaged following a pre-dawn frost.



Cocoplum growing as an informal hedge. New growth is coppery colored.



*Aleurotrachelus* sp. is an undescribed species of whitefly often found on the underside of cocoplum leaves.



Sri Lanka weevil

**Uses and Maintenance:**

Cocoplum is a widely cultivated native shrub that can be grown as a formal or informal hedge. To create a hedge, space plants 40 to 60 inches on center. When planted too closely, there is a tendency for them to exhibit more drought sensitivity than properly spaced plants. It will take about 12 months for an acceptable hedge to develop. Hand prune once a year, or more if desired. Cocoplum can be used as an accent or specimen shrub or small tree in commercial or residential landscapes. As a specimen it quickly fills its allotted space and may require regular pruning to keep it confined. The ‘Horizontal’ cultivar can be used to stabilize sand dunes although it is often difficult to establish. Plants installed during the dry season should be irrigated two to three times a week for about a month then once or twice a week until the rainy season begins. Cocoplum’s nutritional requirement is low. However, young plants grow faster with regular fertilization preferably in March, June and October. Once the plant reaches four or more feet tall, fertilizing once a year or not at all should suffice.



‘Red Tip’ cocoplum: planted late August



Early January: 5 months after planting



Mid-May: 9 months after planting



Mid-October: 14 months after planting

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