

Native Tree Sheet: Coco Plum *Chrysobalanus icaco* Rose Family (ROSACEAE)

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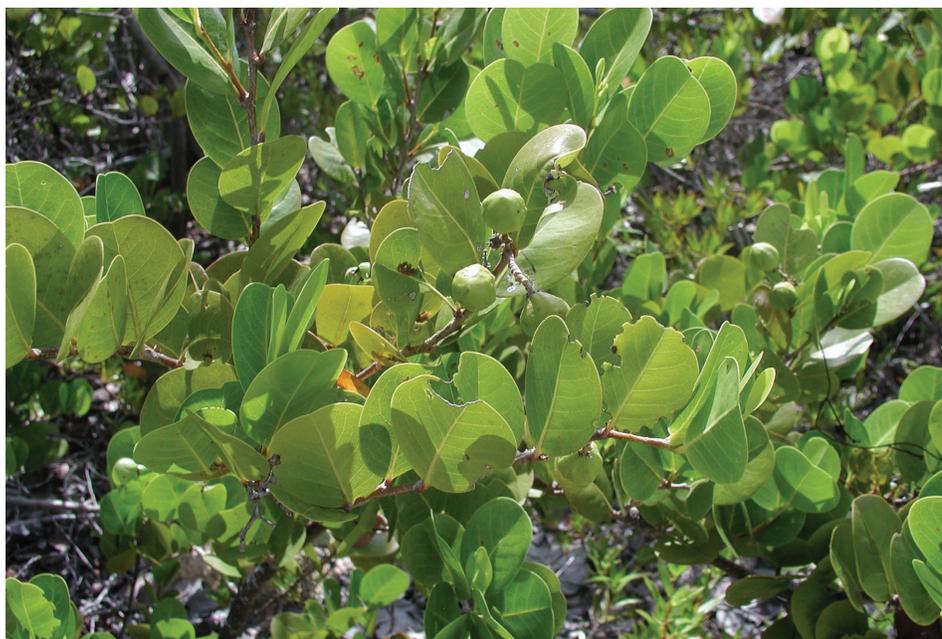


Figure 1. Immature, green fruits develop at the ends of coco plum branches.

Common Names

Coco plum (West Indies), fat pork (Lesser Antilles), icaco (Puerto Rico).

Description

A small- to medium-sized, multi-stemmed, shrubby tree usually reaching less than 10 feet tall. The bark is brown to grey, smooth or becoming scaly. The highly branched canopy is dense and dark green. The thick, leathery leaves are simple, opposite, upturned along the branches and yellowish-green on the underside. Clusters of small, greenish-white flowers grow at the leaf base. There are two distinct varieties to this species. The imported variety has a relatively small, oval, dark purple fruit. The other has a larger (1 ½ inches long), sweet, edible, round fruit,

colored pinkish white, and is found more commonly in the Virgin Islands.

Distribution and Ecology

Coco plum is native to coastal areas from south Florida to the Caribbean islands, Mexico and Central and South America. Plants often grow in thickets on sandy soils or singly on rocky coastal outcroppings. They are highly tolerant of drought, wind and even salt spray, but do poorly in wet or shady conditions.

Flowering and Fruiting

Flowering can occur throughout the year, but populations usually flower at the same time. Likewise, fruit production is variable but has distinct peaks. The flesh is astrin-

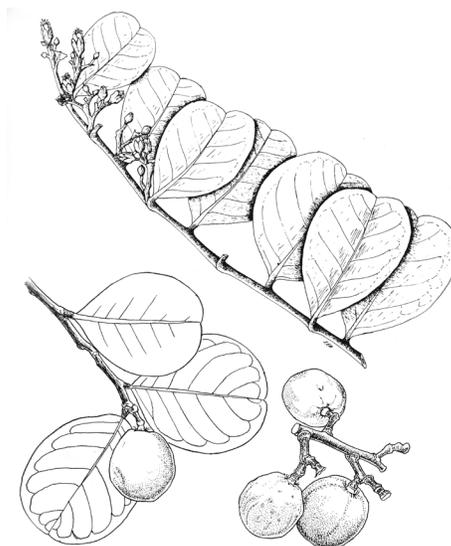


Figure 2. Coco plum leaves, flowers and fruits (Illustration from Little et al.).

gent tasting when green and slightly sweet when ripe. There is one hard, woody stone in the center of each fruit containing a fatty, edible seed. Ripe fruit was collected in the Sandy Point Wildlife Refuge (SPWR) from August to January in different years. Fruits from Puerto Rico and other locations are reported to weigh roughly 0.14 oz (4 g), while several collections from SPWR averaged 0.48 oz (12.71 ±0.81), roughly triple that size.

Seed Collection and Processing

Ripe fruits with mature seeds should be taken directly from the plant when the fruit is pink and spongy. Flesh should be removed from the woody nut to prevent fungal infection of the seed. Preparing large



Figure 3. Ripe fruit and cleaned seeds ready to be planted.



Figure 4. Early development stages of coco plum with a U.S. quarter used for size reference.

quantities of seeds is time-consuming, but made easier by soaking the fruits in water and scraping them across a coarse screen. There is an average of 200 seeds per pound (445 seeds/kg).

Seed Treatments and Germination

The large seeds should be started in deep germination trays in well-drained potting mix. Germination begins between 35 and 40 days. Clean seeds germinate at 75% success without any further treatment. During experiments at UVI-AES, manual and acid scarification, soaking in water and hormone treatments did not increase germination rates nor cause the process to begin significantly earlier, so none is recommended.

Greenhouse Management

Seedlings should be transplanted to pots after formation of the third leaf. These plants are susceptible to over-watering, which causes the leaves to turn brown and may even kill the plant. Use well-drained potting soil with coarse sand or perlite and

do not over-pot. Even young plants are extremely drought and salt tolerant and can be quickly acclimated to full sun.

Outplanting and growth

Growth is slow both in the greenhouse and in the field. UVI-AES experiments to establish coco plum in hilly areas with caliche soil have been mostly unsuccessful.

Landscape Uses

Coco plum is well suited for beach plantings, coastal erosion control, as well as landscape use. It does well when planted closely together and can be shaped into a hedge (such as the imported purple-fruited variety planted at the airport in St. Croix). New leaves are red at first then turn green, giving a pleasant texture and variety to group plantings.

Traditional Uses

The fruit is slightly sweet and can be eaten raw or used in preserves. The seed is also edible, has high oil content and a nutty, but somewhat bland, flavor. It is also reported

to be a good honey plant.

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Additional Reading

Francis, J.K and A. Rodriguez. 1993. *Seeds of Puerto Rican trees and shrubs: second installment. Research Note SO-374. U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station. New Orleans, LA 5p.*

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Little, E.J, Woodbury, R.O. and Wadsworth, F.H. 1974. *Common Trees of Puerto Rico and the Virgin Islands, Second Volume. Agriculture Handbook No. 449 U.S. Department of Agriculture, Forest Service. Washington, D.C. 1024 p.*

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