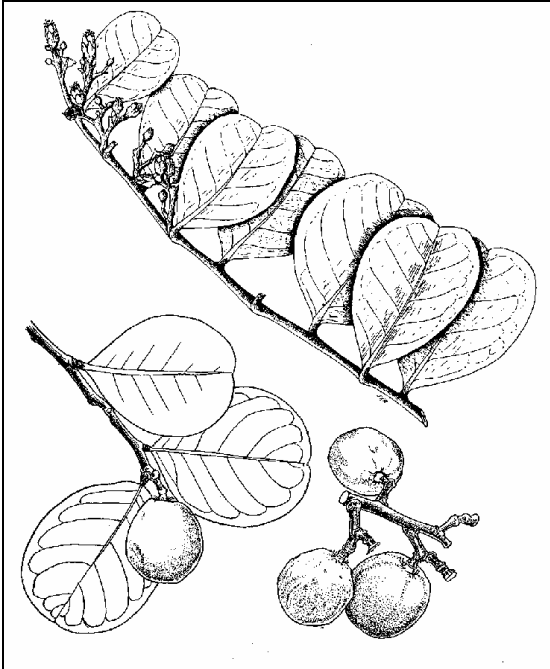


***Chrysobalanus icaco* L.**
CHRYSOBALANACEAE

coco-plum

Synonyms: *Chrysobalanus pellocarpus* G.F.W. Meyer
C. icaco L. var. *genuinus* Stahlé & Quentin
C. icaco L. var. *pilocarpa* (G.F.W. Meyer) C. Martius



General Description.—Coco-plum, also known as icaco, icaque ponne, pork-fat-apple, zicate, and many other common names, is a medium-sized coastal shrub or, rarely, a small tree. It generally has multiple brown or gray stems that are smooth to scaly. The twigs are green and hairless when young and turn reddish brown with raised lenticels. The shrub's habit may be creeping or erect. The branches support many shiny, dark-green, leathery, round, or elliptic leaves 3.8 to 8.2 cm in length and 2.5 to 5.7 cm in width. The under surfaces of the leaves are light green. The petiole is about 3 mm in length. The simple leaves are alternate in two rows, turned upward (Little and others 1974).

Range.—Coco-plum is native to coastal areas of southern Florida and the Bahamas through the Caribbean. It is also found along the coasts of Mexico, through Central America and South America, to Ecuador and northern Brazil. The range has been extended inland in those areas by

disturbance and planting (Little and others 1974). *Chrysobalanus orbicularis* Schum., *C. ellipticus* Soland. ex Sabine, and *C. atacarensis* A. Chev. from Africa were all once considered to be subspecies of coco-plum (Paradis 1987). Probably all the African references to *C. icacos* are really one of these species. There is disagreement among taxonomists as to whether varieties exist among coco-plumb (Howard 1988, Liogier 1985). At most, variation among populations is minor.

Ecology.—Coco-plum is a coastal species. It commonly grows as single plants or thickets on dunes and rocky headlands. It may also be found on shallow soils in moist areas up to a 450-m elevation in Puerto Rico (Little and others 1974). Although the species can survive a great deal of stress from storms, salt spray, and flooding, it is low in stature, relatively intolerant of shade, and only persists where competing vegetation is short. Scale insects and caterpillars sometimes damage natural and ornamental plants in Florida (Vargas-Simon and others 1997).

Reproduction.—The flower clusters (cymes) are shorter than the leaves and borne at the bases of the leaves near the ends of the branches. Several greenish-white flowers less than 1 cm in diameter compose the clusters. Coco-plum flowers and fruits nearly throughout the year. The white to purple fruits are drupes that resemble plumbs. Their thin flesh is spongy, whitish, and slightly sweet to almost tasteless when ripe. Immature fruits are astringent (Little and others 1974). The fleshiness of the mesocarp of fruits varies considerably across its range (Howard 1988). One large (2.5 m tall) coco-plum plant growing under a *Pinus caribaea* Morelet plantation in Puerto Rico yielded 760 ripe fruits in a single picking. Ripe fruits from another Puerto Rican collection weighed 4.36 ± 1.17 g (mean and standard deviation), and seeds averaged 1,790/kg in one Puerto Rican collection. This seed lot gave 89 percent germination beginning 34 days after sowing sample (Francis and Rodríguez 1993). No scarification or other seed treatment is needed. Seed

dispersion is presumed to be by gravity, water, birds, bats, domestic animals, and humans. Natural reproduction may be sparse to abundant. Artificial reproduction is usually by seeds with plants grown as potted seedlings. Apical and basal semiwoody, leafy cuttings treated with hormones will root in 6 to 8 weeks in mist bed conditions (Vargas-Simon and others 1997). The best treatment tested was Indol Acetic Acid (IAA) at 5,000 ppm applied to apical stem cuttings. Adventitious roots arose from the vascular cambium, and lateral roots arose from the paricycle.

Growth and Management.—Growth is slow in the nursery and the field, so new plantings of coco-plum must be protected from both herbaceous and woody competition.

Benefits.—The fruits are edible raw and can be made into preserves. Coco-plum seeds, which have a high oil content, are also edible. The wood is light brown, hard, and heavy (specific gravity 0.8) and is used for fuel and rustic construction (Little and others 1974). Various parts of the plant have been used in folk medicine. The species is known to have hypoglycemic effects (Costa 1977). It is a honey plant and furnishes food for wildlife. Coco-plum is used in the Eastern and Western Hemispheres as an ornamental. Another important benefit from the species is for dune and soil stabilization.

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