

## Noni, Indian-mulberry

*Morinda citrifolia* L.

Madder or coffee family (Rubiaceae)

Native species (indigenous)

This small tree of moist lowlands, especially in gullies, apparently was introduced by the early Hawaiians. It is characterized by paired large elliptical shiny dark green leaves, many small white tubular flowers in balllike clusters, and whitish or yellowish egg-shaped or elliptical multiple fruits slightly resembling small pineapples, fleshy and malodorous.

Small evergreen introduced tree to 20 ft (6 m) high and 5 inches (13 cm) in trunk diameter or shrubby. Bark gray or brown, smoothish and slightly warty or scaly, soft. Inner bark light brown and tasteless or slightly irritating. Twigs stout, four-angled, light green, hairless, with ring scars.

Leaves opposite, hairless, with stout green leafstalks of about ½ inch (13 mm) and paired rounded scales (stipules) about ¼ inch (6 mm) long at base of each pair, leaving ring scar upon shedding. Blades 5–11 inches (13–28 cm) long and 2½–6½ inches (6–16.5 cm) broad, not toothed on edges, thin, with sunken curved side veins, upper surface shiny dark green, and lower surface light green with small tufts of hairs in vein angles along midvein.

Flower clusters (heads) elliptical or rounded, about 1 inch (25 mm) wide, light green, mostly single on stalks of ½ inch (13 mm) above leaves. Flowers many, crowded, united at base, more than ½ inch (13 mm) long. Base (hypanthium) more than ⅛ inch (3 mm) long, light green, with very short light green calyx rim; corolla white, nearly ½ inch (13 mm) long, tubular with 4–6 lobes ⅜–½ inch (10–13 mm) across; 4–6 stamens ⅜ inch (5 mm) inserted near mouth of corolla tube; and pistil composed of inferior two-celled ovary with slender light green style and two-lobed stigma.

Multiple fruit (syncarp) from flower head is a compact soft juicy mass 3–4 inches (7.5–10 cm) long and 2½ inches (6 cm) broad, with irregular warty surface. Individual fruits ½ inch (13 mm) across, 4–6-sided, each two-celled and two-seeded. Seeds more than ⅛ inch (3 mm) long. Flowering and fruiting nearly through the year.

Wood bright yellow or yellow-brown, soft, fine-textured and straight-grained. Not used in Hawaii.

This species was grown by the Polynesians and Hawaiians for dyes. Red for coloring tapa or bark cloth was obtained from the bark and yellow from the trunk and roots. The fruits with fetid cheeselike odor and insipid or unpleasant taste were eaten raw or cooked and were fed to hogs. Fruit juice as an insecticide was an ingredient in a hair shampoo. Leaves, bark, and fruits were used in folk remedies.

The English name *painkiller* refers to use of the leaves in the Virgin Islands, Trinidad, Guyana, and probably elsewhere in alleviating pain. According to different directions, a hot leaf (heated over a fire) or wilted leaf is pressed against the body on painful swellings, a poultice of the leaves is applied to wounds or to the head for headaches, or crushed leaves in lard or camphor oil are put on the face for treatment of neuralgia or head colds.

This small tree is sometimes used as an ornamental. A variety with variegated leaves (*M. citrifolia* var. *potteri* Deg.) is occasionally cultivated. It was introduced from Fiji by Degener in 1941.

Planted and naturalized in lowlands to 1500 ft (457 m) through Hawaii, especially in moist small valleys and pockets of soil in lava rocklands, also frequent in sandy coastal areas. Perhaps persistent on old home sites.

### Special areas

Waimea Arboretum, Bishop Museum, Haleakala, Volcanoes

### Range

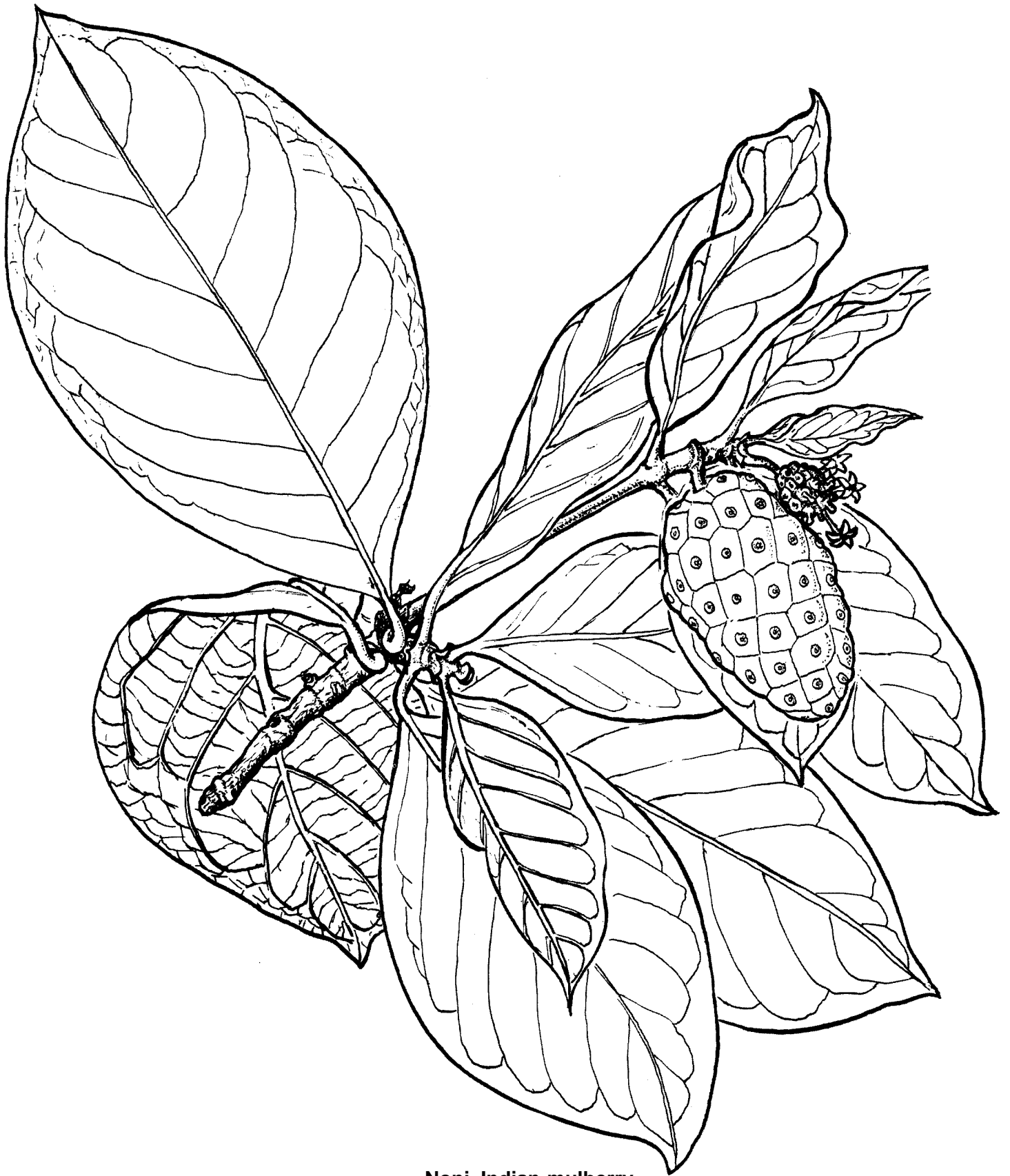
Native of India, Malaya including East Indies, and tropical Australia and introduced into other tropical areas. Cultivated and in part naturalized through West Indies including Puerto Rico and Virgin Islands and in Guianas. Rarely planted at Key West, Florida.

### Other common names

painkiller; morinda, gardenia hedionda, noni (Puerto Rico); lada (Guam, N. Marianas); ngel (Palau); lol (Yap); nen (Truk); weypul (Pohnpei); ee (Kosrae); nen (Marshalls); nonu (Am. Samoa)

The lightweight seeds have an air-sac and may have been disseminated along beaches by floating.

Hawaii has two native species of *Morinda*, called noni kuahiwi (meaning noni of the mountains): *Morinda sandwicensis* Deg., Hawaiian morinda, of Oahu, and *Morinda trimera* Hillebr. on Oahu, Maui, and Lanai.



**Noni, Indian-mulberry**

*Morinda citrifolia* L.

Twig with flowers and fruit, 0.9 X (P.R. v. 1).