

JATROPHA

Barbados Nut, Physic Nut, Purging Nut

Jatropha curcas

Euphorbiaceae

ECHO® PLANT INFORMATION SHEET

Description

This drought-tolerant shrub or small tree (up to 6 m/20 ft) originating in Meso America is now cultivated pantropically. It grows under 300-1000 mm annual rainfall and tolerates low soil fertility. The semi-succulent, palmate leaves are deciduous in dry season.

Uses

Cultivated primarily for the oil in the seed, jatropha or curcas oil is an important lubricant, ingredient for soap and cosmetics and fuel for lamps. The oil is also used for making candles and has recently been selected for use as a biofuel. All parts of the plant are used for traditional medicine and veterinary purposes, some with anti-cancer properties. A decoction of leaves with the latex sap is used as an antiseptic for wound care. As a living fence, Jatropha cuttings are planted close together in stockade fashion; cows/goats will not eat it. Jatropha can be planted to reduce erosion. The leaves and press cake from the oil extraction are a valuable fertilizer. Different plant parts have also demonstrated insecticidal properties.

Common Names

- Spanish
 - Jatropha
 - Piñón
- French
 - purghère

Cultivation

- Propagation: by seeds, seedlings or cuttings
- Soil: grows best with irrigation, but is stunted in saturated soil
- Elevation: 0-1200 m (4000 ft)
- Temperature: above 20° C (68° F)

Seed Jatropha directly into the field or into pots. Space plants 2 meters (6 ft) apart. Prune to stimulate branching and maintain at ~2 m height. Cuttings 4-5 cm (1-1.5 in) at the base and >40-50 cm (15-20 in) long will root best. Flowers appear in the fall and spring, and are open-pollinated.

Harvesting and Seed Production

When cuttings are planted, a harvest can take place after the first rainy season but when seeds are planted the fruit will not be ready for harvest until after the second rainy season. The fruits contain up to 3 large, oily seeds, and are ripe for harvest when they turn a lemon-yellow color. At this point the husk is easily removed and seeds are allowed to dry. The decorticated seed kernel or entire seed is heated and pressed to yield the curcas oil. Mature, whole seeds may be stored in a cool, dry place (~20° C) for 2 years or longer.

Pests and Diseases

Leaves, flowers and young seedlings may be damaged by powdery mildew, Alternaria, flea beetles and millipedes. Jatropha is a host for several cassava viruses making it risky to plant near cassava. It does not compete well with weeds in the early stages of seedling growth. Jatropha is not considered invasive.

Cooking and Nutrition

Leaves are used for flavoring meat dishes, as long as they are steamed or boiled first (to remove anti-nutritional fact)

CAUTION: There is one race of Jatropha found in Mexico that has edible seeds, but in general, the seeds and press cake are TOXIC and should not be fed to livestock or humans. Bark, fruits, leaves, and woody tissue are all reported to contain HCN (hydrocyanic acid; precursor to cyanide).ors; see comment on HCN below).

References

<http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=1297>