# CHAYA

#### Spinach Tree, Arbre à épinard, Mayan Spinach

#### Cnidoscolus aconitifolius

Euphorbiaceae

ECHO® PLANT INFORMATION SHEET

# Description

Native to Mexico, this is a fast-growing, drought-tolerant, perennial shrub, typically reaching 3 m (10 ft) in height. As one of its common names (spinach tree) implies, it is grown for its dark-green leaves, which it produces in abundance.

## Uses

Chaya's young leaves and thick succulent stems make a tasty, nutritious, non-slimy vegetable when cooked. Both the domesticated strains, known as Chaya mansa, and the wild forms, Chaya brava, are edible. However, the wild forms characteristically possess stinging epidermal hairs that are highly irritating to the harvester's skin. The entire plant may be ground, dried and used as animal feed. Chaya leaf meal has been developed as a chick feed in Ghana.

### **Common Names**

- French
  - ∘ chaya
- Spanish
  - Cnidoscolus Acontifolius
  - Árbol De Espinaca
  - Espinaca Maya

# Cultivation

- Propagation : cuttings (domesticated strains will sometimes flower but rarely set seed)
- Soil: grows in a broad range of soil types, but is intolerant of waterlogged soil
- Elevation: 0-1300 m (4265 ft) Chaya will grow in both dry and hot, humid areas. It will die back to the base from occasional frosts in subtropical climates but normally it survives, producing sprouts from the base.

Chaya, characteristically of the dry tropics, exhibits exceptional drought tolerance. However, it also is well suited to low elevation regions in the hot humid tropics.

Large, somewhat woody cuttings, 15-60 cm (6-24 in) long are cut and planted upright or on a slant in moist (not water-soaked) soil. Plant the cuttings with the top end up and water the planted cuttings sparingly until they're well rooted. Chaya growth is rapid during the growing season; Chaya users may have to prune plants back to maintain a manageable size for harvesting.

# **Harvesting and Seed Production**

Do not harvest leaves from young Chaya plants as stunting may result. Established plants, however, withstand repeated harvesting of stem tips and young leaves as often as two to three times per week. The young leaves near the stem tips are the most tender. Wear gloves to harvest leaves of the brava varieties to avoid skin inflammation from the stinging hairs.

### **Pests and Diseases**

Chaya is quite disease- and pest-resistant. Young Chaya plants are susceptible to defoliation by leaf-eating tomato hornworms. Normally, recovery by new leaf production is rapid. Fungal (e.g., rust) or broad mite pests are usually seasonal.

# **Cooking and Nutrition**

Chaya leaves are highly nutritious, being a good source of protein; calcium, phosphorus, and iron; and vitamins A and C as well as niacin, riboflavin and thiamine. The leaves and stem tip materials normally are chopped into pieces before cooking like spinach. Chaya leaf and tip pieces also are added to soups and stews or mixed with onions and eggs to make tortillas.

CAUTIONS: Chaya must never be eaten raw, as it contains cyanogenic glycosides, sources of cyanide poisoning. Cooking Chaya in boiling water for 15 minutes, or frying, rids the stem and leaf materials of the poisonous cyanide components. Stir-fry cooking probably is not adequate to eliminate the cyanides. Avoid breathing in the vapors produced during cooking Chaya. Chaya leaves appear similar to those of *Jatropha curcas*; parts of jatropha (seeds and press cake in particular) should not be eaten as they are very TOXIC.

### References

Prota4U

Plants for a Future

Food Plants International