

# SUGAR APPLE

Sweetsop, Anon, Ata, Sharifa, Sitaphal

*Annona squamosa*

Annonaceae

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## ECHO® PLANT INFORMATION SHEET

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### Description

Sugar apple is a drought-tolerant tree, growing to 6 m in height, and is the most widely grown of the Annonas. The sweet fruit is eaten fresh and can be used in beverages, ice cream and milkshakes.

### Uses

Sugar Apple is a prized dessert fruit of the tropics. The pulp of the mature fruits is eaten fresh. Strained fruit pulp (to remove the seeds) provides nectar useful in ice cream and sherbet preparations. The juice also may be combined with milk as a flavorful beverage. The seeds are toxic and should NOT be eaten. Powdered seeds reportedly are used in India as a fish poison and as an ingredient in a paste to control human head lice.

### Common Names

- Spanish
  - Anona
  - Annona Blanca

### Cultivation

Sugar Apple has high potential for home gardens in the hot humid lowlands of the tropics and subtropics. Sugar Apple tolerates light frosts but its fruits ripen poorly in cold weather climates. This species has been successfully introduced into Southern Florida, for example, but it does not thrive in California's cooler climate. It can be propagated successfully from seed though Sugar Apple is often grafted by shield budding or inarching onto a seedling Sugar Apple or Bullock's Heart (*Annona reticulata*) rootstock. Sugar Apple is tolerant of a wide range of soil salinity conditions but it does not tolerate water-logged soils. The trees are drought-tolerant and normally exhibit good growth in coarse-textured, even rocky, soils. Humid atmospheric conditions promote pollination. Plantations in arid regions sometimes use close tree spacing (approximately 3 m X 3 m) to maintain high humidity among the trees during pollination. Germination, normally requiring 30 days or more, is promoted by soaking seeds for 3 to 4 days or by seed scarification. The best seeds for planting are those sown one week after the fruits have been harvested. Seedlings normally bear fruit in 3-4 growing seasons. The addition of manure or fertilizer will promote fruit set and high yields.

### Harvesting and Seed Production

Sugar Apple requires 90-100 days from flowering to fruiting. The fruit segments swell at maturity revealing white to cream-colored separation lines against the green-colored exterior. Mature Sugar Apple fruits perish rapidly. They need to be picked soon after fruit swelling occurs as the over-ripe fruits will fall to the ground split open. Picked fruits similarly fall apart within 2-3 days after harvest. The fruits ripen in series allowing repeated harvests over a 10-week period. The ripe fruits contain numerous seeds.

### Pests and Diseases

Normally, Sugar Apple trees are relatively pest- and disease-free. Especially in plantations, however, the Annona seed borer or seed chalcid (*Bephratelloides* spp.) may infest the seeds. The fruits are most vulnerable to the seed borer wasp while the fruits are small (1-5 cm/0.5-2 in diameter) and the seeds are still soft. Bagging fruits with polyethylene bags is a successful deterrent if used at the wasp-vulnerable stage. The papaya scale insect or Philaphedra scale (*Philaphedra tuberculosa*) is a reported pest that attacks leaves, young stems and fruits. Look for evidence of scales principally on the undersides of leaves. Mealy bugs also have been reported as Sugar Apple pests as well. Anthracnose (*Colletrichum* sp.) causes blossom blight and fruit damage in Sugar Apple.

### Cooking and Nutrition

Sugar Apple is primarily a fresh food source; however, the fruit pulp is used in jelly preserves and the juice sometimes fermented to make a cider. The fruit is a carbohydrate source containing a variety of simple sugars. The pulp is considered a good source of calcium and potassium and it possesses a moderate level of Vitamin C. If the pulp is eaten fresh the seeds need to be removed or spit out, not swallowed. The seeds contain a toxic alkaloid, anonaine

### References

Morton, J. 1987. Sugar Apple. p. 69-72. In: Fruits of warm climates. Julia F. Morton, Miami, FL.

<http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=414>