

Tahitian Gooseberry (Iba')

By Chelsea Taitano, Extension Assistant I Joe Tuquero, Extension Agent III Mark Acosta, Extension Agent I



Source: https://plantingman.com/phyllanthus-acidus-star-gooseberry-fruit-garden/

Introduction

Phyllanthus acidus, commonly known as Tahitian gooseberry or Otaheite gooseberry, is a subtropical-tropical tree that produces a small, edible, acidic berry. Native to the East Indies, Tahitian gooseberry has been widely distributed throughout Asia and the Pacific Islands since its introduction to the Philippines during prehistoric times (Morton, 1987).

In Guam, the Tahitian gooseberry is known as *iba*'. The iba' fruit is small and forms a hexagonal shape with eight ridges. It contains one single seed and is yellow and waxy with a very sour, crisp, and juicy pulp when mature (Morton, 1987). The fruit was once a favorite among the people in Guam,

especially children (Moore and McMakin, 1979). Today, iba' is not as commonly grown or consumed in Guam as it was before in the 20th century, but the iba' tree can be found growing sporadically throughout villages and farms.

Growing the Tahitian Gooseberry *General plant characteristics*

Tahitian gooseberry grows best in subtropical to tropical weather $(65^{\circ}F-70^{\circ}F)$ and grows year-round. The tree can thrive in a wide range of soil but prefers moist, well-drained, fertile soil (Planting Man, 2018). It grows best in full sunlight or partial shade.



Flowers of the Tahitian gooseberry. Source: <u>https://www.fruitipedia.com/2018/10/otaheite-gooseberry_phyllanthus_acidus/</u>

The fruits grow in clusters on small shrubs or trees that bear a bushy crown with thick main branches and greenish or pinkish branchlets (Morton, 1987). The flowers of the tree (Figure 1) are small with a reddish hue and grow on the branches after the leaves have fallen (Moore and McMakin, 1979).

Propagation and planting

The Tahitian gooseberry is easily grown from seed, but it can also be propagated by vegetative cuttings, budding, or air layering. Seedlings usually take 4 to 6 weeks to germinate. It is best to plant the seeds straight into the ground. It requires a sowing depth of 0.5-1 inches, moist soil, humidity, and to be planted in an area with full sunlight (Grow Plants, 2021).

For vegetative propagation, it is recommended to propagate in temperatures of 78°F and in small plastic planters or containers with holes. In Guam, Tahitian gooseberry can be planted any time of the year, according to the Guam Crop Charts. The Tahitian gooseberry tree takes up to four years to bear fruit (Morton, 1987) and grows to around 25-30 feet in height. For more information on propagation and planting, visit: <u>https://www.uog.edu/_resources/files/</u> <u>extension/publications/Guam_Crop_Charts.pdf</u>.



Figure 2 Mature Tahitian gooseberry tree with fruit. Source: <u>https://eol.org/pages/1153259</u>

Plant Care and Maintenance *Pruning*

Though the Tahitian gooseberry tree is a low-maintenance plant and pruning is not required, pruning still plays an important role in the care and quality of the fruits. Pruning encourages the plant to grow at a faster rate. Essentially, pruning is done for the overall design of the tree. For pruning, cut or pinch the stems and remove deadheads. It is important to remember not to prune during shooting season (Garden Plants, 2015).

Irrigation

Until the tree is fully established, Tahitian gooseberry saplings should be watered regularly (Cheerakuzhy, 2022). In climates that are dry or humid, watering should take place every one to two weeks for mature trees. Using mulch also helps conserve the moisture in the soil.

Plant nutrition and fertilizing

Using manure and fertilizers is recommended for the successful growth of Tahitian gooseberry trees. The amount of the manure and fertilizer is determined by the soil fertility, age of plant, and production (Cheerakuzhy, 2022). For trees that are about 1 year old, the recommended amount is 22 pounds of manure, 100 grams of nitrogen, 50 grams of phosphorus, and 100 grams of potassium.



Figure 3 Mature Tahitian gooseberry fruit. Source: <u>https://plantingman.com/phyllanthus-acidus-star-gooseberry-</u> <u>fruit-garden/</u>

Flowering and fruiting

Tahitian gooseberry trees begin to flower between January to May in subtropical and tropical climates. It takes approximately 90-100 days for the fruit to mature, which is about when the tree reaches 4 years of age and can produce substantial crops (Figure 3). The fruits tend to "explosively" burst open releasing their seeds (Orwa, et al, 2009).

Common Pests and Diseases

The Tahitian gooseberry is prone to attacks from caterpillars, specifically the Phyllanthus caterpillar. The Phyllanthus caterpillar is known to eat the bark and young leaves, which will cause total defoliation if not treated with pesticides (Morton, 1987). The Tahitian gooseberry is also prone to aphids, mealy bugs, and spider mites. When the fruits are mature, they are infested by the fruitfly (Orwa et al, 2009). No known diseases are detrimental to the survival of the Tahitian gooseberry tree.

Harvest and Post-Harvest Storage

Tahitian gooseberries are typically harvested when the fruit is fully mature. This is determined by a pale yellow, waxy, and firm exterior of the fruit. Harvesting normally takes place 90-100 days after the flush of flowering. It is recommended to harvest the Tahitian gooseberry tree during the early mornings or later afternoon hours of the day (Cheerakuzhy, 2022). When the fruit is over ripe, it will turn a brown color and be released from the tree.

After harvesting, the fruit can be kept at room temperature if it will be consumed in a few days. They can remain



Pickled iba'. Source: <u>https://www.etsy.com/listing/1257277135/pickled-iba-eba-</u> <u>with-real-guam-boonie</u>

fresh for a few weeks to a month if kept in an a container in the refrigerator (Fruits Info, 2004). The fruit can also be kept in the freezer, but it should be consumed within one year. The Tahitian gooseberries can also be dried. If this is the preferred method of storage, keep the dried fruit in a dark container stored out of direct sunlight.

Uses and Nutrition

The Tahitian gooseberry fruit is edible in its raw form when the fruit has matured. In Guam, mature fruits are commonly pickled with vinegar, salt or soy sauce, and sometimes chili peppers (Figure 4). In other countries, the fruits are candied, used as flavoring, turned into juice, and made into preserves. In India, the leaves are cooked as greens or cooked to enhance flavorings. The Tahitian gooseberry tree is also used to medicinally to treat ailments. When eaten raw, the fruit has properties that act as a blood-enhancer for the liver, while the juice of the fruit is used to help with stomach aches. The Tahitian gooseberry is a great source of Vitamin C and helps with building collagen, intestinal cleansing, and maintaining a healthy complexion (Salim, 2022). The leaves can help treat sciatica and rheumatism and help to lower blood pressure. The root is considered toxic, but when boiled, the steam can be inhaled to help with coughs and headaches and to alleviate asthmatic symptoms.

For More Information

Contact the UOG Cooperative Extension & Outreach office at the College of Natural & Applied Sciences at (671) 735-2080 for help or more information. Additional publications can be found on our website at: <u>uog.edu/extension/publications</u>.

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