

FGCU Food Forest

Plant Database

Bilimbi *Averrhoa bilimbi*

Quick Facts

Origin: Indonesia
Description: Tree producing fruit
Culinary Uses: Eaten raw or in dishes such as curry
Harvest: February through December
Flower: Flowers in February
Cold Tolerance: Needs protection from cold and wind

General Description: The tree is attractive, long-lived, reaches 16 to 33 ft (5-10 m) in height; has a short trunk soon dividing into a number of upright branches. The leaves, very similar to those of the Otaheite gooseberry and mainly clustered at the branch tips, are alternate, imparipinnate; 12 to 24 in (30-60 cm) long, with 11 to 37 alternate or subopposite leaflets, ovate or oblong, with rounded base and pointed tip; downy; medium-green on the upper surface, pale on the underside; 3/4 to 4 in (2-10 cm) long, 1/2 to 1 1/8 in (1.2-1.25 cm) wide.



- **Distribution and Habitat:** Possibly originated in Moluccas, Indonesia, the species are now cultivated and found throughout the Philippines, Indonesia, Sri Lanka, Bangladesh, Maldives, Myanmar (Burma) and Malaysia. It is also common in other Southeast Asian countries. In India, where it is usually found in gardens, the bilimbi has gone wild in the warmest regions of the country. Outside of Asia, the tree is cultivated in Zanzibar. In 1793, the bilimbi was introduced to Jamaica from Timor and after several years, was cultivated throughout Central and South America where it is known as mimbro. Introduced to Queensland at the end of the 19th century, it has been grown commercially in the region since that time. This is essentially a tropical tree, less resistant to cold than the carambola, growing best in rich and well-drained soil (but also stands limestone and sand). It prefers evenly distributed rainfall throughout the year, but with a 2- to 3-month dry season. Therefore the species is not found, for example, in

the wettest part of Malaysia. In Florida, where it is an occasional curiosity, the tree needs protection from wind and cold.

- **Varieties:** Bilimbis are all much the same wherever they are grown, but P.J. Wester reported that a form with sweet fruits had been discovered in the Philippines.
- **Climate:** The bilimbi is a tropical species, more sensitive to cold than the carambola, especially when very young. In Florida, it needs protection from cold and wind. Ideally, rainfall should be rather evenly distributed throughout most of the year but there should be a 2- to 3-month dry season. The bilimbi is not found in the wettest zones of Malaya. The tree makes slow growth in shady or semi-shady situations. It should be in full sun.
- **Soil:** While the bilimbi does best in rich, moist, but well-drained soil, it grows and fruits quite well on sand or limestone.
- **Propagation:** Most efforts at grafting and budding have not been rewarding, though Wester had success in shield-budding, utilizing non-petioled, ripe, brown budwood cut 1 1/2 to 2 in (3.8-5 cm) long. Air-layering has been practiced in Indonesia for many years. However, the tree is more widely grown from seed.
Bilimbi trees are vigorous and receive no special horticultural attention. It has been suggested that they would respond well to whatever cultural treatment gives good results with the carambola.
- **Season, Harvesting and Keeping Quality:** In India as in Florida, the tree begins to flower about February and then blooms and fruits more or less continuously until December. The fruits are picked by hand, singly or in clusters. They need gentle handling because of the thin skin. They cannot be kept on hand for more than a few days.
- **Culinary Uses:** In the Philippines, where it is commonly found in backyards, the fruits are eaten either raw or dipped on rock salt. It can be either curried or added as a souring agent for the common Filipino dish *sinigang*. The uncooked bilimbi is prepared as relish and served with rice and beans in Costa Rica. In the Far East, where the tree originated, it is sometimes added to curry. Bilimbi juice (with a pH of about 4.47) is made into a cooling beverage. In Indonesia, it is added to some dishes, substituting for tamarind or tomato. Additionally, the fruit can be preserved by pickling,^[2] which reduces its acidity. The flowers are also sometimes preserved in sugar. In another part of Indonesia, Aceh, it is preserved by sun-drying, the sun-dried bilimbi is called asam sunti. Bilimbi and asam sunti are popular in Acehnese culinary. It can replace mango in making chutney. In Malaysia, it also is made into a rather sweet jam. In Kerala, India, it is used for making pickles, while around Karnataka, Maharashtra and Goa the fruit is commonly eaten raw with salt and spice. In Seychelles, it is often used as an ingredient to give a tangy flavor to many Seychellois creole dishes, especially fish dishes. It is often used in grilled fish and also (almost always) in a shark-meat dish, called *satini reken*.
- **Medicinal Purposes:** In the Philippines, the leaves serve as a paste on itches, swelling, rheumatism, mumps or skin eruptions. Elsewhere, they are used for bites of poisonous creatures. A leaf infusion is used as an after-birth tonic, while the flower infusion is used for thrush, cold, and cough. Malaysians use fermented or fresh bilimbi leaves to treat venereal diseases. In French Guiana, syrup made from the fruit is used to treat

inflammatory conditions. To date there is no scientific evidence to confirm effectiveness for such uses. In some villages in the Thiruvananthapuram district of India, the fruit of the bilimbi was used in folk medicine to control obesity. This led to further studies on its antihyperlipidemic properties. The fruit contains high levels of oxalate. Acute renal failure due to tubular necrosis caused by oxalate has been recorded in several people who drank the concentrated juice on continuous days as treatment for hypercholesterolemia. These people were prompted into consuming this concoction by local media which played up studies done in experimental animals.

Bilimbi Averrhoa Scientific Classification
Kingdom: Plantae
(unranked): Angiosperms
(unranked): Eudicots
(unranked): Rosids
Order: Oxalidales
Family: Oxalidaceae
Genus: Averrhoa
Species: A. bilimbi

Sources

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