

Averrhoa bilimbi

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Scientific classification

Kingdom:	Plantae
(unranked):	Angiosperms
(unranked):	Eudicots
(unranked):	Rosids
Order:	Oxalidales
Family:	Oxalidaceae
Genus:	<i>Averrhoa</i>
Species:	<i>A. bilimbi</i>

Binomial name

Averrhoa bilimbi
L.

Averrhoa bilimbi (commonly known as **bilimbi**, **cucumber tree**, or **tree sorrel**) is a fruit-bearing tree of the genus *Averrhoa*, family Oxalidaceae. It is a close relative of the carambola.

Nomenclature

The tree and fruit are known by different names in different languages.^[1] They should not be confused with the carambola, which also share some of the same names despite being very different fruits. *Balimbing* in the Philippines actually refer to carambola and not bilimbi (which they call *iba* in Cebuano and *kamias* in Tagalog).



Averrhoa bilimbi fruit

Country	Name
English	<i>cucumber tree</i> or <i>tree sorrel</i>
India	<i>bilimbi</i> , <i>Irumban Puli</i> , <i>Chemmeen Puli</i> , <i>bimbul</i>
Sri Lanka	<i>Bilincha</i> , <i>bimbiri</i>
Dominican Republic	<i>Vinagrillo</i>
Philippines	<i>kamias</i> , <i>kalamias</i> , or <i>iba</i>
Malaysia	<i>belimbing asam</i> , <i>belimbing buloh</i> , <i>b'ling</i> , or <i>billing-billing</i>
Indonesia	<i>belimbing wuluh</i> or <i>belimbing sayur</i>
Thailand	<i>taling pling</i> , or <i>kaling pring</i>
Vietnam	<i>khế tàu</i>
Haiti	<i>blimblin</i>
Jamaica	<i>bimbling plum</i>
Cuba	<i>grosella china</i>
El Salvador & Nicaragua	<i>mimbro</i>
Costa Rica	<i>mimbro</i> or <i>tirigur</i>
Venezuela	<i>vinagrillo</i>
Surinam and Guyana	<i>birambi</i>
Argentina	<i>pepino de Indias</i>
France	<i>carambolier bilimbi</i> or <i>cornichon des Indes</i>
Seychelles	<i>bilenbi</i>

Distribution and habitat

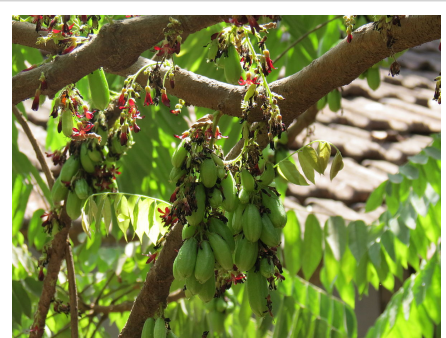
Possibly originating on the Moluccas, Indonesia, the species is cultivated or found semi-wild throughout Indonesia, The Philippines, Sri Lanka, Bangladesh, Myanmar (Burma) and Malaysia. It is common in other Southeast Asian countries. In India, where it is usually found in gardens, the bilimbi has gone 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.

Tree description

The bilimbi tree is long-lived and reaches 5-10 m in height. Its trunk is short & quickly divides up into ramifications. Bilimbi leaves, 3-6 cm long, are alternate, imparipinnate and cluster at branch extremities. There are around 11 to 37 alternate or subopposite oblong leaflets. The leaves are quite similar to those of the Otaheite gooseberry.



Bilimbi fruit tree

Varieties

There are few cultivated varieties of bilimbi. However, there is a sweet variety in the Philippines - where the sour bilimbis are called "kamias", while the sweet variety is called "balimbing".

Nutritional value for 100 g of edible portion

- Moisture 94.2-94.7 g
- Protein 0.61 g
- Ash 0.31-0.40 g
- Fiber 0.6g
- Phosphorus 11.1 mg
- Calcium 3.4 mg
- Iron 1.01 mg
- Thiamine 0.010 mg
- Riboflavin 0.026 mg
- Carotene 0.035 mg
- Ascorbic Acid 15.5 mg
- Niacin 0.302 mg

Culinary interest

In the rural parts of the Philippines, where it is commonly found as a backyard plant, it is eaten either raw or dipped in rock salt (or other savoury powders - *masala*), as a snack. It could either be curried or added as flavoring 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*.

Medical interest

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.^{[3][4]}

Other uses

In Malaysia, very acidic bilimbi is used to clean the *kris* blade.^[5] In the Philippines, it is often used in rural places as an alternative stain remover.^[6]



Averrhoa bilimbi fruit in Malaysia



Averrhoa bilimbi flowering in Malaysia

See Also

- *Averrhoa carambola*, a closely related tree

References

- [1] Bilimbi (<http://www.hort.purdue.edu/newcrop/morton/bilimbi.html>)
- [2] Achard bilimbi (Bilimbi pickle) (<http://ile-maurice.tripod.com/bilimbi.htm>)
- [3] Pushparaj, Peter Natesan (2004).
[<https://scholarbank.nus.edu.sg/bitstream/handle/10635/14689/Thesis%20of%20Peter%20HD97-1093R.pdf?sequence=1> *Evaluation Of The Anti-Diabetic Properties Of Averrhoa bilimbi in Animals with Experimental Diabetes Mellitus* ([https://scholarbank.nus.edu.sg/bitstream/handle/10635/14689/Thesis of Peter HD97-1093R.pdf?sequence=1](https://scholarbank.nus.edu.sg/bitstream/handle/10635/14689/Thesis%20of%20Peter%20HD97-1093R.pdf?sequence=1))]. *National University of Singapore*. . Retrieved December 2010.
- [4] Ambili, Savithri; Appian, Subramoniam; Nagarajan, Natesan Shanmugam (2009). *Studies on the Antihyperlipidemic Properties of Averrhoa bilimbi Fruit in Rats* (<http://www.thieme-connect.com/ejournals/abstract/plantamedica/doi/10.1055/s-0028-1088361>). *Planta Med.* doi:10.1055/s-0028-1088361. .
- [5] "Averrhoa bilimbi" (<http://www.uwcsea.edu.sg/page.cfm?p=1593>). United World College of South East Asia (<http://www.uwcsea.edu.sg>). . Retrieved 16 December 2010.
- [6] "Growing Kamias and Its Many Uses" (<http://www.mixph.com/2009/07/growing-kamias-and-its-many-uses.html>). *EntrePinoy's Atbp.* (<http://www.mixph.com>). . Retrieved 16 December 2010.

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- Pictures of *Averrhoa bilimbi* (<http://www.flickr.com/search/?ss=2&w=all&q=Averrhoabilimbi&m=tags>)

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