

DEPARTMENT OF AGRICULTURE

Agriculture & Fisheries Information Service

GUYABANO



Guayabano, guyabano or soursop in English (*Anona muricata* Linn.) is a small tree about 5 to 7 meters in height. The leaves are alternate, oval in shape, pointed at both ends, smooth and shining, 7 to 20 centimeters long and with petioles about 5 millimeters long. The flowers are large, yellowish or greenish yellow and solitary. There are six large, fleshy or leathery petals in two series. They are heart-shaped, with pointed tip, and up to 5 centimeters in length and 3 centimeters in breadth. In the center of the flower is a cone-shaped mass of many carpels which will form the fruit, and below this are very numerous stamens.

A native of tropical America, was introduced into the Philippines at an early date and is now cultivated in all parts of the Archipelago.

Guayabano is a green, soft spine, pear-shaped fruit with a sweet-sour flavor. It weighs about two to five kilos. The skin is thin and its flesh is a white, soft fibrous pulp which has a very agreeable flavor but rather sour. Its mature, green fruit is used as vegetable and made into sweet meat, while the ripe fruit is eaten raw or for dessert.

A lot of concoctions can be made into guayabano like delicious sherbets, ice drops and fruit drinks. An assortment of punch and cocktail drinks can be made by mixing the nectar with wine rum or cola drinks or buko (fresh coconut) juice and ice.

There are two strains of guayabano: the sweet and the ordinary. Both have the same botanic description. The former, however, tastes sweeter than the ordinary.

Belonging to the family *Anonaceae*, other familiar fruits beside guayabano are atis (*Anona squamosa* or sugar apple), anonas (*Anona reticulata* or custard apple), and atemoya (*Anona*).

NUTRATIVE MINERAL CONTENT OF GUAYABANO

Guayabano fruit is an excellent source of vitamins B and C. However, it is deficient in Vitamin A, calcium and phosphorous.

Below is the mineral content analyses of the fruit:

| Constituents | Fresh sample | Oven-dried sample | Ash |
|-------------------|--------------|-------------------|----------|
| | Per cent | Per cent | Per cent |
| Moisture | 77.40-86.26 | - | - |
| Ash | 0.61-0.85 | 4.46 | - |
| Phosphorous (P2O) | 0.05 | 0.38 | 8.63 |
| Calcium (CaO) | 0.01 | 0.04 | 0.25 |
| Iron (Fe2O2) | 0.001 | 0.01 | 0.25 |
| Proteins | 0.38 | 0.01 | 0.25 |

SOIL AND CLIMATE

The plant grows in any kind of soil, but a fairly deep, friable soil of volcanic origin is conducive to growth and fruiting. It thrives very well from sea level up to 500 meters above sea level. It is best to plant them at the start of the rainy season.

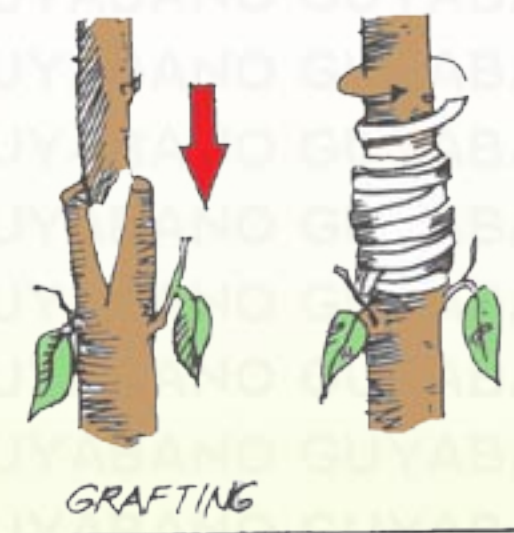


| Method of Propagation | Planting Distance | Maturity (Years) ¹ | Yield (Ton/hectare) ² |
|-----------------------|-------------------|-------------------------------|----------------------------------|
| Grafting, | 3-4 meters apart | 2-3 | 3.7 |
| cutting, | | | |
| marcotting, | | | |
| budding | | | |

Note:

1. Refers to time from field setting to first harvest. Asexually propagated plants generally mature about twice earlier than plants grown from seeds.
2. Computed on the bases of distances of planting given for each crop.



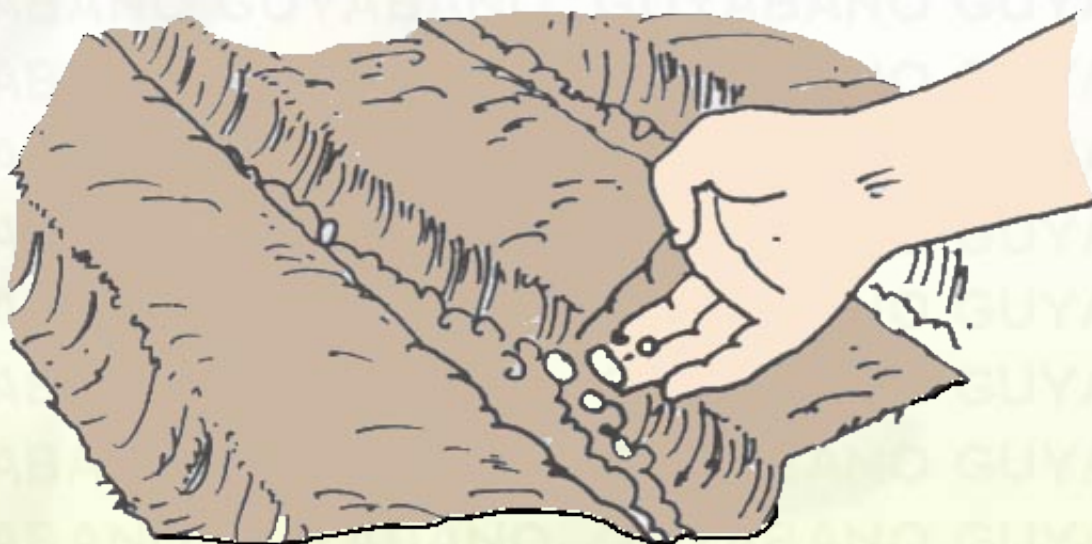


FERTILIZATION GUIDE

| Age of Plant | Recommended Rate of N-P-K (kg/hectare) | Method of Application |
|-------------------------|---|--|
| Planting Time | 250-300 gms. Complete fert. (14-14-14) or (12-24-12) | Apply 3 inches below the roots and 5 inches to side of seeding at planting. 8 cm below roots and 10 cm to the side. |
| Young trees (1-3 years) | 300-500 gms. of complete fert. (14-14-14) or (12-24-12) plus 200-300 gms Urea (45-0-0) | Mix and apply in two equal doses by digging along periphery of the tree. 1st application-start of rainy season 2nd application - end rainy season. |
| Bearing Trees | 1.5-3.0 kg complete fertilizer plus 200-300 gms. Muriate of potash (0-0-60) | - same as above - |

* - can be omitted if soil
conditioning thru compost
or organic fertilizer is ap-
plied





PEST CONTROL

| Insects | Insecticide Common/Brand Name | Application Rate (tbsp/ 5 gals. H ₂ O) | Method of Application |
|------------------------------------|----------------------------------|--|--|
| Aphids | Carbaryl/Servin 85 S | 6 ml/gal water | Spray leaves, branches & trunks when insects appear. Repeat at 7-14 days interval if necessary. |
| Leafminers | / Marsbyl 85 WP | 4 ml/gal water | |
| Leaf caterpillars | | | |
| Beetles | | | |
| Mealy bugs | | | |
| Tip borers | | | |
| Twig borers, bark borers, | Fenitrothion/Sumithion L | 4 ml/gal water | Spray on foliage and repeat every 7-14 days if necessary |
| ants, fruit worms, fruit flies, | Tetrachlorvinphos/Gardona | 2-4 ml/gal water | |
| mites | 75 WP | | |
| flies, mites | Ethion/Ethion 4 EL | 4-6 ml/gal water | |

Source: Farming Handbook





DISEASE CONTROL

Anthracnose is the most common disease of guayabano, caused by a fungus and transmitted by means of windsplashed rain and contact with infected fruits. Spray flowers and developing fruits with any of the following:

Benlate at 2-4 grams per gallon of water
Manzate at 6-8 grams per gallon of water

Pink disease is caused by a fungus. Infective material is the common mode of transmission. Symptoms: appearance of cracks on trunks or branches and secretions of gums; affected area covered with a thick mass of pink mycelia during the rainy season; drying of mycelia during dry weather with color changing to dirty white or gray eventually leading to die-back condition.

Control:

- 1.) Prune and burn infected branches and twigs.
- 2.) Disinfect by spraying with copper fungicide or limesulfur mixture.
- 3.) Keep orchard clean of any source of infections.



MATURITY

Fruits are mature when they become dark and shiny green with recurved spines set far apart and the skin appearing to burst with pressure from within. Ripe fruits are light yellow and soft.



MEDICINAL VALUE

The guayabano fruit is used as a cure for cough, scurvy and fever. It contains Vitamin A, calcium, phosphorous and rich with vitamin B and C. It also contains 11.62 percent sugar, mostly glucose and fructose.

The green fruits and seeds can induce vomiting, remedy dysentery and arrest secretion or bleeding.

The sap of the young leaves may be applied directly on pimples to induce suppuration. The sap is also considered parasitidal. An alcoholic extract of the leaves, when distilled with steam, yields a small amount of essential oil. The portion of alcoholic extract which is soluble in water contains a large amount of potassium chloride together with dextrose tannis, amorphous products, and a small amount of an alkaloid substance which could not be crystallized. The leaves and roots also cure colic and convulsions.

PROCESSING OF GUAYABANO

Guayabano Nectar

Wash and peel guayabano. Remove core and seeds. Cut into small pieces. Mix two cups water for

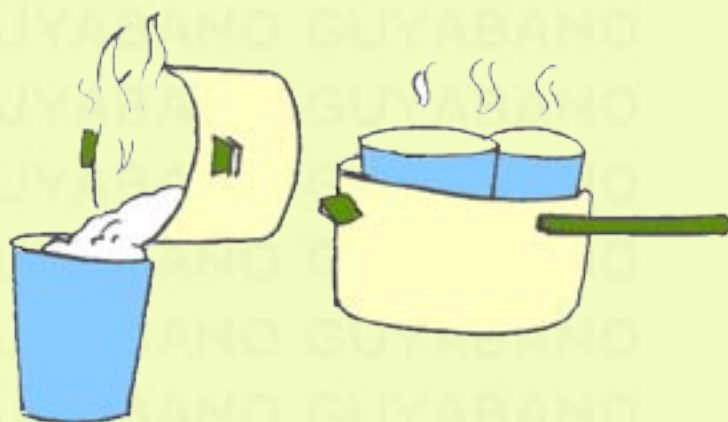


every three cups of pulp.

Pass guayabano pulp through a juice extractor or corn mill grinder. Add little by little so juice can be fully extracted.

Strain through a stainless steel strainer. Measure extracted pulp juice and add one cup of water for every two cups juice. Add one cup sugar for every 3 cups of pulp mixture.

Pass sugared mixture through a juice mixer or beat with a rotary egg beater. Place the mixture in an enamel casserole or a stainless steel kettle, and cook until it simmers. Do not let it boil. Lower the heat



and stir from time to time until mixture become thick.

Pour cooked mixture into tall tin cans while still hot, leaving 1/4 inch space on top of the mixture. Seal the cans and place them in a pressure cooker for 15 minutes at 10 pounds pressure.

Cool and label

Guayabano Ade

Ingredients:

1 kilo ripe guayabano
4 cups water
3/4 cup sugar
Calamansi juice

Procedure:

Wash and peel fruits. Remove the core and seeds. Then cut pulp into small pieces.

Heat in four cups water. Cool. Strain mixture through a clean cheese cloth into a pitcher, then squeeze the juice.

Add sugar and enough calamansi juice or make the mixture a little sour. Serve with ice cubes. Add more sugar if desired.



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