



PLANT FACT SHEET

Annona muricata L.

GENUS *Annona* FAMILY Annonaceae

COMMON NAMES Soursop

EDIBLE PARTS AND USES

Edible parts: Fruit, Leaves, Vegetable

Fruit can be eaten fresh or used in ice-cream and for drinks.

Young fruit can be cooked as a vegetable.

Leaves are edible cooked. They are used for tea.

CAUTION The seeds are toxic, so should be removed before processing.

DESCRIPTION

It is a low bushy tree 8-10 m high. The leaves are long (14 cm) and narrow (4 cm). The leaves are thick and slightly shiny on top. The flowers are large (2-3 cm), rounded and produced on short stems on the branches. They occur singly, or in groups of three. The flowers have two layers of thick fleshy petals. The fruit are 10-30 cm long. The fruit is spiny and the flesh is juicy. Many black seeds are embedded in the white flesh. Fruit are often distorted due to only some of the ovules being fertilised. Beetles are normally thought to do the pollinating. This means fruit end up heart shaped when unevenly pollinated. The flesh of the fruit is white. Several kinds with different sweetness, shape and juiciness occur.

HABITAT

A tropical plant. It grows in tropical lowland areas below 1200 m altitude. In Colombia it grows between 100-2,000 m above sea level. It can tolerate quite poor soils and a humid climate. It cannot tolerate frost. The trees can withstand temperatures down to freezing (0°C) for a short time but salt laden winds from the sea can kill the trees. They need a well drained soil and cannot tolerate water-logging. The trees continue to grow and produce satisfactorily in fairly poor compact soil. But improving the fertility increases the amount of fruit. They can grow well in hot humid areas but a fungus disease called Blossom blight can cause flowers to fall off. In XTBG Yunnan. It suits hardiness zones 10-12.

PRODUCTION

Cultivation

Trees are grown either as seedling trees or grafted plants. They can be grown from cuttings or air layering. Trees are easy to grow and maintain. Plants can easily be grown from seeds. Seeds can be planted fresh or stored.

Seeds grow in about 15 to 20 days. Trees grown from seeds vary in the quality of the fruit. Seedlings are transferred to polythene bags when 15 cm tall. Trees can also be grown from cuttings or by grafting. This allows

better trees to be selected and produced. Seedlings are suitable for grafting after 6 months. Trees need to be about 5m apart. Flowers are pollinated by insects. Hand pollination of flowers can increase the number of fruit that are produced. Fruit are soft and fleshy and difficult to transport.

Harvesting and Seed Production

Trees grow quickly. Trees commence bearing by the third year. It bears fruit almost continually throughout the year, but there is normally one season when more fruit are getting ripe. Fruit can weigh up to 4-5 kg each. A tree can produce 12-24 fruit in a year. The fruit contain 11-14% sugars.

Planting instructions

Soursop

Scientific name: *Annona muricata*

The plant.

Soursops or sapsap are small coastal trees which have been introduced to Papua New Guinea originally from South America. The trees are up to 5 or 6 metres high and have low branches with limbs that turn upwards giving the tree a slender look. The bark is brown and smooth. The tree has leaves all year round.

The leaves are long (14cm) and narrow (4cm) slightly shiny on top and without hairs. The leaves are carried one after the other on opposite sides of the branches. The leaves feel thick and like leather.

The flowers are large (2-3cm long), rounded and produced on short stems on the branches. The flowers have thick yellow petals.

Mostly only one or two flowers are produced together.

The fruit is large and has soft spines over its surface. The fruit can be 15 to 25 cm long and can weigh up to 2kg. The fruit is dark green in colour, soft and fleshy and heart shaped but often with one side flattened.

Inside, the fruit has many black seeds scattered through the white juicy pulp. Not all of the segments of the fruit have a seed in them. Seeds are commonly 1 to 2cm long. The fleshy pulp has fibres in it.

The leaves, fruit and flowers can all have a slightly unpleasant smell.

Where do soursops grow?

Soursops are a tropical plant. They grow best in the hot lowlands. They are mostly grown from sea level up to about 1000m altitude. In Papua New Guinea they are seen around many coastal towns.

The trees can withstand temperatures down to freezing (0°C) for a short time but salt laden winds from the sea can kill the trees.

They need a well drained soil and cannot tolerate waterlogging. The trees continue to grow and produce satisfactorily in fairly poor compact soil. But improving the fertility increases the amount of fruit.

They can grow well in hot humid areas but a fungus disease called Blossom blight can cause flowers to fall off.

How do you grow soursops?

Plants can easily be grown from seeds. Seeds can be planted fresh or stored. Seeds grow in about 15 to 20 days. Trees grown from seeds vary in the quality of the fruit.

Trees can also be grown from cuttings or by grafting. This allows better trees to be selected and produced.

Trees need to be about 5m apart.

Hand pollination of flowers can increase the number of fruit that are produced.

How well do trees produce?

Trees grow quickly. They can start producing fruit in 3 or 4 years.

Trees flower and fruit throughout the year but there is normally one season when more fruit are getting ripe. Often a tree only produces 12 to 20 fruit in a year.

Soursop as food.

The fruit contain 81% moisture and 12.7% total sugars. The fruit have 0.4% protein. The flesh of the fruit is therefore juicy and somewhat sweet but with a sour taste due to the amount of acid they contain.

Soursop seeds are poisonous.

Pest and Disease.

In Papua New Guinea trees are often infested with scale insects and mealy bugs. Red ants live in connection with these insects in many places so that trees and branches are often covered with ants. As well, these scale insects and mealy bugs leave behind them a liquid called honey dew. A black sooty mould fungus then grows on the leaves where the honeydew occurs. So leaves are commonly covered by a black sooty mould. The mould can be rubbed off with the fingers as it only grows on the surface of the leaf. If the scale insects are controlled the sooty mould stops growing.

In wet humid places another fungus grows on the flowers and causes them to fall off. This is called Blossum blight and is due to a fungus (*Colletotrichum gloeosporoides* Penz.). Improving the growing conditions and allowing more sunlight in by pruning can help reduce the amount of damage by this disease.

NOTES

There are about 100-150 *Annona* species. It has anticancer properties. It is also used for a range of other medicinal conditions.

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)

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