



PLANT FACT SHEET

Annona cherimola Mill.

GENUS *Annona* FAMILY Annonaceae

COMMON NAMES Cherimoya

EDIBLE PARTS AND USES

Edible parts: Fruit

Fruit can be eaten raw or used to make drinks.

They can be used for ice cream, custards, cakes and pies.

DESCRIPTION

A small deciduous tree up to 6 -10 m tall. In some locations trees keep their leaves throughout the year. It has a brown velvety tomentum on the under surface of the leaves. The leaves are 8-20 cm long and up to 10 cm wide. There is a single leaflet. The flowers occur either singly or 2-3 together along the branches. The female parts of the flower open first then the male parts. The fruit is 8-15 cm across with black or brown seeds in white flesh. The fruit is cone or heart shaped. It can be 10-20 cm long by 10 cm wide. Fruit can weigh 0.5 kg. The skin can have finger like markings. The flesh is juicy and each segment has one seed. There can be 20-40 large brown seeds in each fruit.

HABITAT

A tropical and subtropical plant. It suits the highland tropics. It grows at higher altitudes in the equatorial tropics. It can grow up to 2,000 m altitude in tropical areas. They suit places with cool nights. It is better suited to a dry climate but not desert. It is a subtropical or warm temperate plant. In Colombia it grows between 1,600-1,900 m above sea level. It can only tolerate light frosts. Young trees are very frost sensitive. They need 50 to 100 hours of mild chilling to remain productive. Trees do best in a sunny position. A pH of 6.5 to 7.6 is best. It can grow in arid places. It suits hardiness zones 10-12. In Yunnan.

PRODUCTION

Cultivation

Trees are usually grown from seeds but cuttings of ripe wood will root in sand. It can be grafted or budded. Seeds can only be stored for 2-3 days when fresh but can be stored for several years if kept dry. Seeds will then still grow or they can be planted fresh. Seeds are planted about 3 cm deep in fine soil. They will germinate in about 21-40 days. Seedlings are often transplanted into pots or plastics bags after 3-4 months then into nursery beds when one year old. They are easy to transplant and even trees 3 or 4 years old can be transplanted when the leaves have fallen off. It is best done while trees are still dormant.

Fruit setting is often greatly improved by hand pollination. In some places natural pollinating agents do not occur. To hand pollinate take the pollen from male flowers and place it on the partly open female flowers. (Pollen

can be stored overnight in a refrigerator if necessary.) Several trees should be planted near each other to allow them to pollinate. Young trees need support. For best growth they need adequate moisture during the growing season and good soil nutrition. Pruning during the dormancy period is done to allow strong branches for fruit bearing.

For better kinds of trees it is necessary to use budding or grafting. Rootstocks of *Annona reticulata* or *A. squamosa* can be used. Grafted trees fruit after about 6 years while seedling trees fruit after 11 years. Shield budding done at the beginning of the growing season is often used.

Trees can be spaced 8 metres apart. They can be pruned to give a better shaped tree and this should be done when leaves have fallen. Fruit are carried on both current years growth but also more prolifically on mature wood. Several trees should be planted near each other for pollination. As the roots are very sensitive, fertiliser should not be used at transplanting.

Cherimoya needs to be in areas with high humidity during the flowering period. Otherwise they suit areas that are cool and fairly dry. It is essentially a sub tropical fruit and grows in higher altitudes in equatorial regions. Temperatures should be above 14° to 15°C. Mature trees can stand light frosts. Good deep soils are best but clays that are well drained are suitable.

Hand pollination of the flowers can give more even shaped fruit and also ensure more fruit are formed. To do this, flowers are gathered in a small brown paper bag and kept till the pollen falls. Then with a small brush the pollen is put on freshly open flowers. The three petals of the flower are gently held open and the pollen spread around on the female flower parts (pistils).

As fruit ripen they develop a bloom on the skin and the carpels begin to separate. Fruit can be stored under refrigeration. The stalk should be cut from the tree and fruit need to be handled carefully.

Harvesting and Seed Production

Trees are fairly fast growing. Trees can fruit in 4 years. Trees mostly only produce fruit every second year. Fruit turn a pale green or cream colour as it ripens. Fruit can only be stored for short periods. They need to be stored above 13°C. The fruit weigh 200-300 g. They are 17-18% sugar. In Kerala plants flower and fruit May to August.

Planting instructions

Cherimoya

Scientific name: *Annona cherimola*

What is the plant like?

This is a small tree up to 6 m tall. It grows new shoots from the branches after the leaves fall.

The leaves are quite large (10cm x25cm) and are light green. Underneath the leaves are densely covered with short soft hairs.

Flowers usually occur singly on young and old wood. They are long(2.5cm) and narrow.

Fruit are up to 15cm long and 10cm wide. The fruit is fairly round but covered with many fleshy scale like parts. The outside of the fruit can be dark green to black. Dark brown seeds about 1cm long are inside the flesh. The flesh around the seeds is eaten.

Where does it grow?

The cherimoya is better suited to slightly cooler places and to drier climates. Therefore it does better in the hills than on the coast. It will probably grow well at about 1000m altitude and may grow up to about 2300m.

How do you grow cherimoya?

Trees are mostly grown by seed. Seeds can be stored for several years and will still grow or they can be planted fresh. Seeds grow in about 4 weeks. Seedlings can be transplanted when one year old. They are easy to transplant and even trees 3 or 4 years old can be transplanted when the leaves have fallen off.

For better kinds of trees it is necessary to use budding or grafting.

Trees can be spaced 8 metres apart. They can be pruned to give a better shaped tree.

Hand pollination of the flowers can give more even shaped fruit and also ensure more fruit are formed. To do this, flowers are gathered in a small brown paper bag and kept till the pollen falls. Then with a small brush the pollen is put on freshly open flowers. The three petals of the flower are gently held open and the pollen spread around on the female flower parts (pistils).

NOTES

There are about 100-150 Annona species. It has anticancer properties. Fruit are high in folates 48µg/100. Custard apple family

Four or five fruits in this group of plants are grown for their edible fruits in Papua New Guinea. Sometimes they are called Custard apples but because this name is used for different ones at different times it is best to use other separate names. The names used here are:

English name Tok Pisin Scientific name

Bullock's heart Annona reticulata

Cherimoya Annona cherimolia

Soursop Sapaſap Annona muricata

Sweetsop Annona squamosa

Atemoya A.cherimolia x A.squamosa

In other tropical countries there are about 8 other fruit trees in this group called Annona which are grown for their edible fruit. There are about 100 Annona species.

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



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