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CULTIVATION OF STARFRUIT OR CARAMBOLA (*Averrhoa carambola* L)

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Introduction

The starfruit, or carambola, is a tropical evergreen tree, reaching a height of between fifteen and twenty feet. It is a very popular fruit, also valued for its medicinal properties and other uses. The starfruit can be eaten as a fresh fruit or can be processed into jams or juices. The fresh fruit can be used in relishes and seasonings. The dried fruit is made into cakes and pastries. The flowers and leaves are edible and are used in salads. The leaves can be cooked as vegetable greens. The fruit can be used as a laxative to treat stomach disorders and is used to treat fevers, high blood pressure and diabetes. The leaves are used against rheumatism, the flowers for coughs, and the seeds for asthma. The juice of the starfruit has other uses such as a stain remover and brass polish, the unripe fruits are used as dyes, and the wood of mature trees is used as construction materials.

Propagation

The starfruit is propagated from seeds, but these seeds do not remain viable for too long. The seeds are planted in potting soil to a depth of about half an inch and sprout within a week or two. The transplanted starfruit seedlings must be well watered and protected from direct sunlight and strong winds until they become accustomed to the open environment.

Soil Preparation

The starfruit thrives in many different soil types, but light, sandy, acid soils with a pH range of 6.5 to 7.5 are most suitable. The limestone soils of the Bahamas tend to be strongly alkaline, in the range 7.9 to 8.3 pH. Organic material such as degraded vegetation, humus and animal manures need to be added to reduce the pH and enrich the soil.

Cultivation

The starfruit tree requires full sunlight for proper growth and development. It grows very rapidly and requires fertilising to maintain a healthy, vigorous tree. A commercial N-P-K fertiliser, such 8-18-8, should be applied at least twice per year at a rate of 2-3 pounds per plant. The granular fertiliser should be worked into the soil around the root zone of the tree and watered. Cured animal manure may be used as fertiliser, but one must be careful of too much nitrogen as this may result in the growth of lush foliage at the expense of flowering and fruiting. The plants should be watered regularly, especially during the dry periods of the year. During the rainy seasons, heavy downpours adversely affect the pollination of flowers and production of fruit.



Pests and Diseases



The starfruit is susceptible to a wide range of pests including scale insects, mites, mealybugs, caterpillars, beetles and fruit flies. These pests attack the ripening fruit. Snails are also a problem, particularly among the younger plants. They strip the bark and leaves off the plants, exposing them to diseases. Commercial snail bait can be sprinkled around the base of the plants to alleviate this problem. Commercial insecticides can be applied, but care must be taken not to kill off beneficial insects during pollination of flowers. Homemade pesticide remedies such as a cup vegetable oil in a gallon of water can be used to suffocate small insects, insect larvae and eggs.

Fungal diseases such as anthracnose, sooty mould and leaf spot are among the common diseases of the starfruit. Algae may become problematic during the cooler seasons. Proper care and upkeep of the starfruit tree is the best protection against disease problems. Spraying the tree with fungicides early in the season may prevent disease development.

Harvesting

The starfruit does not ripen when picked green and is harvested as a fully matured fruit. The fruit is ready for picking when the colour has turned from green to yellow, with the ribs remaining green.

Internet Resources

Plants for a Future (<https://pfaf.org/user/Plant.aspx?LatinName=Averrhoa+carambola>)

Carambola Diseases (<https://www.growables.org/information/TropicalFruit/caramboladiseases.htm>)