Tree Species No. TTS6

Artocarpus altilis, Family Moraceae

The breadfruit tree a is perennial tropical tree that thrives in humid areas. It is an important food source in native areas but has limited commercial importance. It is a good source of carbohydrates and calcium providing 113 kcalories per 100g edible parts. It has large lobed leaves and its attractive foliage makes it a popular ornamental tree and is commonly grown in gardens and parks.

Synonyms: *Artocarpus communis, Artocarpus incisus*.

Common names: Breadfruit, arbre à pain, fruit à pain, arbol de pan.

Distribution: The breadfruit tree is native to Polynesia and the Sunda Islands but has spread to most tropical regions.

Ecology

Rainfall: 1500-2500mm per year. 7116mm as been recorded as an upper limit.

Temperature: 21-32° C.

Altitude: 0-800m.

Soil type: The breadfruit will tolerate most soils types but will not tolerate waterlogging or shallow soils.

Other: Prefers warm humid conditions.

Botany

Height: 15-20 metres.

Diameter at breast height: Approximately 0.60 metres.

Crown: A dense spreading crown.

Flowers: Male and female flowers occur on the same tree and are numerous and small. The male flowers are 12-35 cm long tube shaped spikes and the female flowers are 6-7 cm long and ellipsoid or shaped like a globe.

Fruit: There are two types of fruit, one is seed bearing and is known as the breadnut and the more common is the seedless form that is known as the true breadfruit. They weigh up to 4 kg and are 15-25 cm in diameter.

Uses

Main: It is most commonly grown for its edible fruit and the seeds are roasted and eaten as nuts but it is also used as an ornamental tree.

Others: Fodder, wind break, living fences, potential in box manufacture and toys and its latex is used as a glue for trapping birds.

Yield: 700-3500kg per mature tree.

Cultural instructions

Seeds: The seeds will lose viability quickly if allowed to dry. No pre-treatment is needed.

Germination: The seeds germinate readily.

Nursery: Because the majority of the fruit produced is seedless, trees are often grown from cuttings. Use 10-15cm long root cuttings with a diameter of 2cm. These can be dug during the rainy season and placed diagonally in a light sandy soil with the trunk end of the cutting showing approximately 1cm at the top. Root suckers can also be used.

Spacing: 10-15m and not less than 8m apart.

Management: Root cuttings require frequent watering. Young plants grow best under shade, adult plants however, require full light for fruit to ripen fully.

Other

Pests and diseases: The beadfruit is rarely subject to serious attack however the following pests and diseases may cause damage. Black root rot (*Rosellinia pepo, R. bunodes*) causes wilting and death of the host and is characterised by a mycelial fan that surrounds the stem at ground level. Control by removing infected material from the soil. Leaf spot (*Cercospora artocarpi*) causes black spots to appear on the leaves. Fruit rot (*Phytophthora palmivora*) cause water soaked lesions with brown centres which results in mummification of the fruit and soft fruit rot (*Rhizopus stolonifer, R. artocarpi*) causes the fruit to rot. This can be controlled by strict sanitary measures. It can also be effected by coconut scale (*Aspidiotus destructor*) a sucking insect that causes discolouration of the leaves.

Pesticidal properties: The leaves can be used as an antifeedant on the dermestid, *Attagenus piceus* that can cause problems in wrapping, textiles and storage. This can be achieved by aqueous extraction.

Limitations: The fruit are highly perishable.

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