PLANT FACT SHEET

Pandanus jiulianettii Martelli

GENUS *Pandanus* **FAMILY** Pandanaceae

COMMON NAMES Karuka

EDIBLE PARTS AND USES

Edible parts: Nuts, Seeds

The nuts can be eaten raw or cooked.
The flesh in the centre of the fruit can be eaten cooked.
Dried nuts store well.

DESCRIPTION

Pandanus jiulianetii is cultivated karuka. Pandanus trees are separately male and female. With cultivated karuka, male trees are rare. About 25-30 cultivated varieties of cultivated karuka are recognised and named within an area of cultivation. The karuka tree is a tall palm like tree with a straight trunk and aerial prop roots at the base. Sometimes it branches near the top to produce 3 or 4 crowns of leaves. The leaves grow in pairs opposite each other and they are twisted to look like a spiral going up the trunk. The leaves are long (3 m), narrow, have spikes along the edges and are often bent at the tips. The fruit is a round composite fruit 15 to 30 cm across which is made up of about 1,000 individual keys which contain the nut which is eaten. On a branch that is about to bear fruit, the leaves are upright and clumped slightly together. The fruit bunch emerges from the centre of these leaves. It hangs close to the trunk amongst the dead hanging leaves. Large leaves (bracts) almost cover the fruit bunch while it hangs there.

HABITAT

A tropical plant. Trees grow between 1800 and 2500 m altitude. It grows in the highlands. They do best in the forest clearings. They also occur in Papua Province of Indonesia. Outside this range it often does not grow well. They do best in the forest clearings. The micro-environment for karuka to grows best includes fairly good soil fertility such as along the banks of small creeks; in the natural hollows that occur around the edges of hills, and around the edges of small clearings in the bush. Karuka on knobs in the grassland often only bear small nuts.

PRODUCTION

Cultivation

Trees can be grown from seed. More commonly vegetative cuttings of the top section of a branch is used. This is suitable for a tree that has several branches. When planted in moist fertile soil it quickly develops roots and becomes established. This maintains the trees true to variety. Old trees with a number of branches tend to have smaller clusters of fruit because the fruit are competing on the same plant for their requirements so this pruning inproves production. Sometimes karukas develop young suckers or shoots near the ground. When these are

seen, they are broken off and replanted from these vegetative suckers. All cultivated karuka are planted. Seedling trees are slower to produce and have a taller straighter trunk. Karuka can be grown from seeds. It is best to wait till the nuts are fully ripe and start falling naturally from the tree. These nuts are taken and planted while fresh. They are planted in the shell with the bristles uppermost. Normally the seeds are established in a nursery and then transplanted to their permanent sites a few months later. Clonally propagated trees produce 5-8 years after planting. To produce good sized nuts the karuka plantation needs to be kept free of weeds. Fruiting is seasonal and probably biennial for any individual branch of the tree. One crown of leaves on the one branch of a karuka tree normally only produces one cluster of nuts (called a syncarp) during the one season. In fact, that particular branch normally only produces one bunch every second year. Both the kernel inside the individual nut is eaten and the mesocarp inside the cephalium is eaten.

Karuka nuts can be harvested before they are fully ripe by climbing the tree and cutting the whole bunch. When this is done, the fruit bunch is cut in half the central pink portion cooked and eaten and the two halves with the outside skin burnt off can be stored in a platform above the fire. These halves can be cooked over hot stones and the nuts eaten. The season is normally Dec to Feb but may occur in mid year. Trees last 50-60 years. The nuts can be eaten raw or cooked. Dried nuts store well

Harvesting and Seed Production

The season is normally Dec to Feb but may occur in mid year. Trees bear every second year. They take 5-8 years from planting to first harvest. Trees last 50-60 years. An average karuka fruit can be about 6 kg weight. It is about 25 cm high and 20 cm across. It contains about 1000 separate nuts. After burning off the outside and removing the stalk, the weight is about 5 kg. A single kernel weighs about 0.5 g. The weight of edible kernels in a fruit is about 8% of the total fresh weight or about 0.5 kg.

NOTES

There are about 600 Pandanus species. They grow in the tropics. Demo

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



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