PLANT FACT SHEET

Barringtonia procera (Miers) R Knuth

GENUS *Barringtonia* **FAMILY** Lecythidaceae

COMMON NAMES Pao nuts, Cut nut

EDIBLE PARTS AND USES

Edible parts: Nuts

The nuts are eaten. They are baked or roasted.

DESCRIPTION

A small tree up to 15 m tall. The trunk is 8 cm across and the twigs are about 1 to 1.5 cm across. The leaves are smooth and hairless and can be 30 to 50 cm long by 8 to 20 cm wide. They are oblong and very shiny. They have a tapering tip that curves backwards and at the base are wedge shaped. The flower stalk is at the end of a branch, is 30 to 80 cm long and hangs down. There can be up to 120 flowers. The fruit are 8 sided and about 6-8 cm long by 3-5 cm across. The seed kernel inside the hard shell inside the fruit is about 3 cm by 1.5-2 cm cross. It is slightly flattened in one direction. This nut tree has short flower stalks (shorter than Barringtonia edulis) and the skin colour of the ripe fruit is purple. The leaves also are almost without stalks.
This species differs from Barringtonia novae-hibernae.

HABITAT

A tropical plant. It grows in secondary rainforest at low altitude. It is also planted in villages. It can grow in light or heavy soils but they must be well drained. It can grow in coastal coral soils. It can tolerate salty and infertile soils. It can grow in light shade. It grows from sea level to 600 m altitude. It grows in areas with a rainfall between 1500-4300 mm per year. It is normally in areas with a uniform rainfall. It suits areas with a temperature between 26° and 28°C.

PRODUCTION

Cultivation

Plants are normally grown by seed. The mature fruit is planted whole. Seed should be planted fresh. Plants can be grown by air-layering or stem cuttings. Seed do not have dormancy and germinate in 2-3 months. Seedlings can be transplanted after 2-3 months and preferably during a wet season.

Harvesting and Seed Production

It has a moderate growth rate. Trees flower and fruit throughout the year. The yield of nuts is about 10-50 kg per year for each tree. Trees live for 80-90 years.

NOTES

There are about 40 Barringtonia species.
Pao nuts Barringtonia spp.

What is the plant like?

A pao nut tree is a small tree in the coastal areas of Papua New Guinea. The tree grows up to 6 or 8 metres tall. The trunk is often only 10-15 cm across and near the top the tree has a few short thick branches.

The leaves are large and shiny. The leaves are crowded towards the end of branches. A leaf can be 50 or 60 cm long and 20-24 cm across. Near the tip of the leaf the edge is wavy and often slightly toothed, with the tip bent backwards. The veins of the leaf show up clearly on both sides of the leaf. The leaf stalk is only short about 1 cm long.

A long hanging yellow flower is produced from the branches. It can be 80 cm long and is densely covered with flowers. There can be up to 120 flowers along a stalk. The flowers do not have a scent. Along this the fruits form, giving a long hanging stalk of quite large nuts.

The fruit is oval shaped and about 6-8 cm long by 3-4 cm across. The seed or nut inside the fruit has lines running along its surface. This edible part is about 3 cm long by 1-2 cm across and white coloured, The seed is flattened particularly on one side.

Pao nuts

Pao nut trees tend to flower and produce nuts throughout the year.

There are some different kinds. The size and shape of the nuts can vary slightly. Also some are white inside and some are red. The most obvious difference is the colour of the outside of the fruit. Some kinds are green or slightly blue whereas other kinds are a dark reddish black.

The nuts have a fairly hard shell and are split open with a knife. The white part in the centre is eaten raw. It also has a fairly hard texture.

Naming of Pao nut trees.

Pao nut is one of the more common Tok Ples names for these nuts and is often used for them in Tok Pisin. They also have different Tok Ples names and they have been given scientific names by scientists.

Two species are grown and used as food in Papua New Guinea. Then scientific names of the two plants are:-

Barringtonia procera
and Barringtonia novae-hibernae.

In 1875, the first plant was named Butonica procera by a botanist named Miers. As more was learned about the plant it was renamed Barringtonia procera in 1939 by another scientist named Knuth. Sometimes other names like Barringtonia magnifica have been used for this plant. They have now been replaced. The other species was first named by a botanists called Lauterbach in 1911. The name Barringtonia was given after and English naturalist Daniel Barrington who was born in the year 1800.

Barringtonia procera is a less branched tree and tends to grow nearer the coast. The leaves are larger.

Barringtonia novae-hibernae has a more branched trunk and a smaller leaf. It grows more inland and has a sweeter nut.

TOK PLES NAMES

Papua New Guinea

Province Language B. procera B. novae-hibernae
Madang tegeli
Morobe Laluan pao
Manus pulei/purei
New Ireland Pala paua-hutun pao
New Britain Kuanua pao-vutug pao
North Solomons Siwai hari

Solomon Islands
Shortland Is borolong sioko
New Georgia tinga hala/fala/kenu
San Cristobal hara hara
Santa Cruz nua nuado

Vanuatu
va rodh vevingen

In Fiji, a very similar, but different species is used for its edible nut. The scientific name of this species is Barringtonia edulis. It does not occur in Papua New Guinea but sometimes this name has been used incorrectly for the Papua New Guinea plant.

Where do Pao nut trees grow?

Pao nuts mostly grow in tropical lowland coastal areas. In Papua New Guinea they are common along the North coast at places such as Madang and nearby islands, then they are very common in New Ireland and occur on New Britain near Rabaul. They also grow in the Solomon Islands and in Vanuatu. A similar, but different tree grows in Fiji.

The map below will show you some of the places where pao nuts are know to occur.

How do you grow pao nut trees?

Pao nut trees are mostly grown from seed. Several different races or types of pao nut have been selected by villagers and these trees seem to produce fruit that is similar to the seed that was planted.

Trees can be grown from stem cuttings. Trees grown from cuttings have shorter trunks and branch closer to the ground.

If trees are planted in suitable sites and well looked after they can produce fruit in a year or two.

As pao nuts often do well and are most common on low off shore islands and coral waterfront villages, it may be particularly suited to coral and alkaline soils. This needs to be further studied.

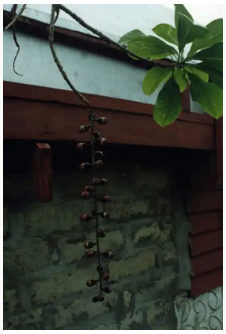
PICTURES



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