PLANT FACT SHEET

Tacca leontopetaloides (L.) O. Kuntze

GENUS *Tacca* **FAMILY** Dioscoreaceae

COMMON NAMES Polynesian arrowroot

EDIBLE PARTS AND USES

Edible parts: Tubers, Seeds, Leaves, Vegetable, Roots, Fruit

The starchy tuber is eaten. The tubers are scraped and mashed in cold water for 4-5 days. It is then prepared like sago. That is, normally the tuber is scraped into small shreds and then washed in water. The starch is filtered out and allowed to settle. The starch is washed several times to get rid of bitterness which is common with this plant. To get clean white starch, the tuber needs to be carefully peeled.
The starch can be hung in a cloth to allow the water to drain and then it can be sun dried. Once dry, the fine powdered arrowroot starch will store well in a sealed jar. The arrowroot starch is tasteless. The leaves have been recorded as eaten in Africa. The yellow fruit is also eaten by children in some places. The seeds are edible.

DESCRIPTION

A perennial herb with no stem but leaves up to 1 metre long and divided into 3 segments. The leaf stalks are 1.5 to 2 cm across and about 1 m long. The leaves are 1 to 1.5 m across and divided into 3 parts which are again divided. A single flower stem grows up beside the leaf stem. The flowers are green and purplish on top of a 1 m long flower stalk. There can be 30-40 small flowers and several long spreading and drooping coloured bracts or long thin threads hang from the flower. The leaf and flower stalks are hollow and ribbed which helps distinguish it from the somewhat similar looking leaf of elephant foot yam (where it is smooth and solid). The fruits are yellowish green, long shaped and with 6 raised lines along the side. They can be 4 cm long and 2 cm wide and have several seeds inside. Under the ground there is a round swollen root or tuber. It can be 30 cm across and weigh 1 kg. Some varieties produce several smaller tubers.

HABITAT

A tropical plant. It grows on the coast in the equatorial tropics and up to 200 m altitude and is mostly seen on sandy beaches, under coconuts and in grassland. It cannot tolerate salty soil. It suits drier areas. It is grown on some of the coral atoll islands. It needs a neutral to acid pH. It needs fertile, humus-rich, well-drained soil. It can grow in light shade. This is a crop mainly grown in tropical Asia and Polynesia. It is also grown in East Africa. They occur throughout the Philippines near the seashores. In the Cairns Botanical Gardens. It suits hardiness zones 10-12.

PRODUCTION

Cultivation

Plants are grown from division of the small tubers. A spacing 0.6 x 0.6 m is suitable. Polynesian arrowroot is a plant which grows during the wet season and dies during the dry season. When the leaves turn yellow and the plant dies back, the tubers are harvested. Small tubers are kept for replanting. Often plants just regrow naturally from these small tubers that are left in the ground after harvesting. The plant takes between 8 and 10 months to reach maturity. Plants can be grown from seed. The small tubers produced from seeds are then replanted or left to grow for another year.

Harvesting and Seed Production

Plants take 8-10 months to maturity. The tubers are scraped and mashed in cold water for 4-5 days. It is then prepared like sago. A tuber can weigh 1 kg.

Planting instructions

Polynesian arrowroot

Scientific name: Tacca leontopetaloides

What is the plant like?

Under the ground there is a round swollen root or tuber. It can be 30cm across and weight 1kg. Some varieties produce several smaller tubers.

The stem is hollow and ribbed. This is one way of telling this plant from the somewhat similar looking leaf of elephant foot yam (where it is smooth and solid). The leaf petiole is about 2cm across and over 1 metre long. They can be up to 3m tall.

The leaves have an irregular shape and are divided. They have light and dark green stripes. There are fine grooves along the stalk.

A single flower stem grows up beside the leaf stem. On the top the flowers are green and a dull dark purple. There can be 30-40 small flowers and several long spreading and drooping coloured bracts.

The fruits are yellowish green, long shaped and with 6 raised lines along the side. They can be 4cm long and 2cm wide and have several seeds inside.

Where is Polynesian arrowroot grown?

This is a crop mainly grown in tropical Asia and Polynesia. It is also grown in East Africa.

It is a coastal crop and is mostly seen on sandy beaches, under coconuts and in grassland. It is grown on coral atolls. They are mostly below 200 metres altitude.

How does arrowroot grow?

Polynesian arrowroot is a plant which grows during the wet season and dies during thew dry season. When the leaves turn yellow and the plant dies back, the tubers are harvested. Small tubers are kept for replanting. Often plants just regrow naturally from these small tubers that are left in the ground after harvesting.
The plant takes between 8 and 10 months to reach maturity.
Plants can be grown from seed. The small tubers produced and then replanted or left to grow for another year.

Names.

The common English name for this plant is mostly Polynesian arrowroot but also Tahitian arrowroot and East Indian arrowroot.

The scientific name is tacca leontopetaloides. A dutch scientist called Rumphius worked in the Moluccas in Indonesia just wet of New Guinea and he described "Tacca" plants in the year 1747, using the name tacca from the local Malay language. Sometimes in the past other scientific names were used such as Tacca pinnatifida. These are now incorrect.

How is Polynesian arrowroot used?

The starchy tuber is eaten. Normally the tuber is scraped into small shreds and then washed in water. The starch is filtered out and allowed to settle. The starch is washed several times to get rid of bitterness which is common with this plant.
To get clean white starch, the tuber needs to be carefully peeled.
The starch can be hing in a cloth to allow the water to drain and then it can be sun dried. Once dry, the fine powdered arrowroot starch will store well in a sealed jar.
The arrowroot starch is tasteless.
The leaves have been recorded as eaten in Africa.
The yellow fruit is also eaten by children in some places.

Pests and diseases.

It gets a leaf spot due to a fungus called Cercospora taccae.

NOTES

Also put in the family Taccaceae.

PICTURES



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)



Credit: Food Plants International (Bruce French)

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