PLANT FACT SHEET

Hyphaene thebaica (L.) Mart.

GENUS *Hyphaene* **FAMILY** Arecaceae

COMMON NAMES Gingerbread palm, Doum palm

EDIBLE PARTS AND USES

Edible parts: Cabbage, Fruit starch, seeds, Seed, Leaves, Palm heart, Nuts, Root

The spongy middle layer of the fruit is used for flour.
The kernel is eaten. The seed kernels are sprouted in soil then eaten.
The young fruit are boiled and eaten.
The palm cabbage is edible. The shoot from the developing seed before leaves emerge can be eaten.
The sap from the growing point can be drunk fresh or made into wine.
The trunk contains a kind of sago starch which is edible.

DESCRIPTION

A tall branched palm. There are usually 4 crowns but occasionally 8 or 16. Each branch gives rise to a crown. Each crown has 8-20 fan shaped leaves. It grows 15-20 m tall. The stem is smooth but it has the scars of the old leaf bases. The leaves are broad (130-180 cm) and with 20-40 long thin segments. The leaves are grey-green. The leaf stalk is 90-140 cm long and spiny with curved hooks along the edges. The male flower is 1.3 m long and the female flower is a similar length but is densely furry in the axils at the base of the fruit. The fruit is a dry fruit with a stone inside. They are about 7.5 x 5 cm and usually an irregular shape. The shiny outer layer encloses a middle layer which smells of gingerbread. This surrounds the hard stone which contains the seed kernel. The seeds are very hard and with a white kernel and a hollow centre. About 20-50 seeds weigh one kilogram. The mealy flesh of the fruit is edible.

HABITAT

A tropical plant. It will grow in warm temperate, subtropical and tropical regions. It will not tolerate frost. It grows in coastal regions. It can grow in arid places. It is found in the drier parts of West Africa. It grows in the Sahel. It is often on soil left by floods from rivers. It forms dense stands in hot dry valleys. They grow where the temperature is 20°C to 35° or 40°C. They grow up to 600 m altitude. They are common in areas with a rainfall between 150 and 600 mm per year. They can grow on salty soils. It can grow in arid places. They prefer a soil pH of 6.5-7.6. They are pollinated by wind. It suits hardiness zones 10-12. In Townsville palmetum.

PRODUCTION

Cultivation

Plants are grown from seed. Sometimes suckers are used. Seed should either be sown in a deep container or direct in the field. The seeds take a long time to germinate.

Harvesting and Seed Production

The first harvest occurs after 6-8 years. Fruit ripen in 8-12 months. A tree lasts for about 60 years. Tapping the tree for sap kills the palm.

NOTES

There are about 9 or 10 Hyphaene species. (Some authorities estimate 40). Chemical composition (per 100g) (leaves): Protein = 2.3g. Fat = 0.4g. Calcium = 210 mg. Kcal = 43; (nut, dried): Protein = 3.9g. Fat = 6.4g. Calcium = 144 mg. Kcal = 395; (flour): Protein = 2.6g. Fat = .4g. Calcium = 68 mg. Iron = 20 mg. Vitamin B1 = .05 mg. Vitamin B2 = .10 mg. Niacin = 3.4 mg. Kcal = 296; (nut, green: outer, edible portion): Protein = 1.4%. Fat - 0.1%. Carbohydrate = 13.6%. Fibre (crude) = 5.4%. Ash = 1.5%. CaO = 0.05%. P2O5 = 0.13%. Moisture = 78.0%. Kcal = 62; (nut, green: kernels and fluid): Protein = 1.9%. Fat = 0.2%. Carbohydrate = 19.8%. Fibre (crude) = 1.4%. Ash = 0.7%. CaO = 0.07%. P2O5 = 0.03%. Moisture = 76.0%. Kcal = 91; (nut, mature; edible portion): Protein = 2.8%. Fat = 0.4%. Carbohydrate = 74.7%. Fibre (crude) = 11.0%. Ash = 5.4%. CaO = 0.17%. P205 = 0.39%. Moisture = 5.7%. Kcal - 321. Chemical composition, after Abdelmuti) Protein (crude) = 1.7% (dry). Fat = 0.5% (dry). Ash (insoluble) = 1.9% (dry). Fibre (crude) = 7.3% (dry). Amino acids (g [16g N]-1): Aspartic acid = 6.8g. Threonine = 2.7g. Serine = 3.7g. Glutamic acid = 9.0g. Proline = 3.8g. Glycine = 5.3g. Alanine = 4.0g. Valine = 4.0g. Cysteine = 1.2g. Methionine = 1.5g. Isoleucine = 4.0g. Leucine = 5.3g. Tyrosine = 2.2g. Phenylalanine = 3.7g. Lysine = 2.8g. Histidine = 1.5g. Arginine = 4.3g. Minerals: Sulphur = 0.30% (dry). Potassium = 0.14% (dry). Magnesium = 0.28% (dry). Calcium = 0.13% (dry). Na = 0.09% (dry). K = 3.02% (dry). Zinc = 11 mg/kg (dry). Iron = 17 mg/kg (dry). Manganese = 11 mg/kg (dry). Copper = 25 mg/kg (dry).

PICTURES



Credit: Food Plants International (Bruce French)



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