

# **Common names**

Loganiaceae

# Monkey orange, Dull-leaved mukwakwa,

Scientific name

# Strychnos innocua

Edible portion

Fruit, Seeds, Caution, Leaves,

# Description

A small or medium sized tree. It grows up to 13 m high. The trunk is straight. The bark is smooth and green or yellow, and powdery. The small branches are stout and smooth and also powdery. They are often twisted and hang downwards. The leaves are simple and occur in opposite pairs. They are widely spaced apart. They have short leaf stalks. They are oval and 3 -15 cm long by 2-9 cm wide. The leaves are wedge shaped at the base and leathery. They tend to be wider at the rounded tip. They can have fine hairs underneath. The veins are fine and net like. The flowers are green or yellow and in the axils of leaves. They are 8 mm long. Mostly 2-4 flowers occur in stalked clusters. Fruit are round and 6-10 cm across. They have a hard peel. They are bluish-green when young and turn yellow or orange when ripe. There are many seeds imbedded in a yellow pulp. The seeds are 4 sided and yellow. They are 1.5 cm across and very hard. The ripe fruit pulp is edible.

#### Distribution

It is a tropical and subtropical plant. It grows in the lowlands. It grows from sea level to 1,400 m altitude in Tanzania. It grows naturally in areas with a rainfall of 600 to 1,000 mm annually. The places have 60 to 100 rainy days per year. The temperature ranges are 17°C to 29°C. The relative humidity is from 45 to 80%. These areas have dry lowland forest. Trees need to be in sunny locations. It grows in open woodland and rocky hills. It can grow in arid places. It grows in Miombo woodland.

#### Found in:

Africa, Angola, Benin, Burkina Faso, Cameroon, Central Africa, Central African Republic, Chad, Côte d'Ivoire, East Africa, Egypt, Ethiopia, Ghana, Guinea, Guinée, Guinea-Bissau, **IVOry Coast**, Kenya, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, North Africa, Senegal, South Africa, Southern Africa, South Sudan, Sudan, Tanzania, Togo, Uganda, West Africa, Zambia, Zimbabwe,

#### Use

The fruit pulp is eaten. It is also dried and stored after the seeds are removed. It is inside a hard fruit case. The fruit pulp is also put in water to make a drink. The leaves are cooked and eaten. CAUTION: Many Loganiaceae are very poisonous. The seeds are poisonous.

### Cultivation

Plants can be grown from seed or root cuttings. The seed does not germinate easily due to the hard seed coat. If roots are damaged they shoot and can be replanted. When trees are felled new shoots arise and these can be used. Seeds should be sown directly where they are to grow. The stone should be cracked to assist the seed to grow. Seed should be sown as soon as collected. Trees can be pruned or topped.

# Production

Fruit remain on the tree and are picked when ripe. Flowers occur in August to January and fruit are ripe in July to December. It takes about one year from flower fertilization to fruit ripening.



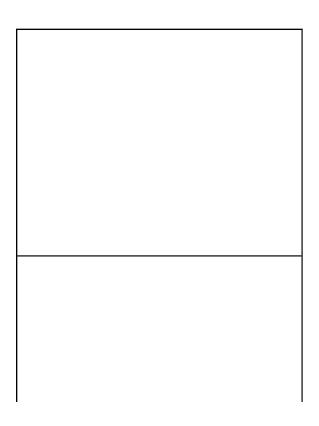
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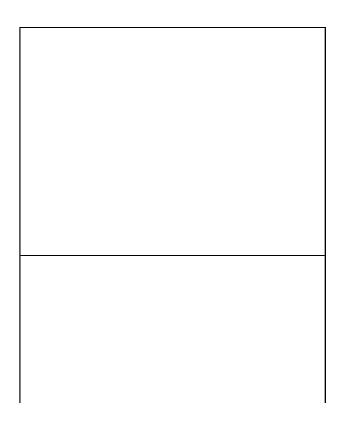


# **Nutritional Values**

# Strychnos innocua

Edible Part	Moisture /100 g edible portion %	Energy KJ	Energy Kcal	Protein g	Provit A µg	Vit C mg	lron mg	Zinc mg
Fruit	70.6	338	81	0.3				
Juice	91.0			7.9				
Seeds	9.0			15.8				





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