PLANT FACT SHEET

Use with caution

This plant can be harmful if it is eaten raw, in large amounts or without the right preparation. Read the whole fact sheet before use.

Strychnos innocua Delile

GENUS *Strychnos* **FAMILY** Loganiaceae

COMMON NAMES Monkey orange, Dull-leaved mukwakwa

EDIBLE PARTS AND USES

Edible parts: Fruit, Seeds, Leaves

The ripe fruit pulp is eaten raw. 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.

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.

HABITAT

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.

PRODUCTION

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.

Harvesting and Seed 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.

NOTES

The wood burns very easily.

REFERENCES

Abbiw, D.K., 1990, Useful Plants of Ghana. West African uses of wild and cultivated plants. Intermediate Technology Publications and the Royal Botanic Gardens, Kew. p 48

Achigan-Dako, E, et al (Eds), 2009, Catalogue of Traditional Vegetables in Benin. International Foundation for Science.

Acipa, A. et al, 2013, Nutritional Profile of some Selected Food Plants of Otwal and Ngai Counties, Oyam District, Northern Uganda. African Journal or Food, Agriculture, Nutrition and Development. 13(2)

Anywar, G., et al, 2014, Wild Plants Used as Nutraceuticals from Nebbi District, Uganda. European Journal of medicinal Plants. 4(6):641-660

Asfaw, A., et al, 2023, Ethnobotanical study of wild edible plants and implications for food security. Trees, Forests and People. 14 (2023) 100453 p 9

Balemie, K., & Kebebew, F., 2006, Ethnobotanical study of wild edible plants in Derashe and Kucha Districts, South Ethiopia. Journal of Ethnobiology and Ethnomedicine. 2:53

Bekele-Tesemma A., Birnie, A., & Tengnas, B., 1993, Useful Trees and Shrubs for Ethiopia. Regional Soil Conservation Unit. Technical Handbook No 5. p 420

Belem, M., et al, 2017, Strategy of Conservation and Protection of Wild Edible Plants Diversity in Burkina Faso. ANADOLU 27 (2) 2017, 82-90

Berihun, T. & Molla, E., 2017, Study on the Diversity and Use of Wild Edible Plants in Bullen District Northwest Ethiopia. Hindawi Journal of Botany. Article ID 8383468

Bonou, A., et al, 2013, Valeur economique des Produits Forestiers Non Ligneux (PFNL) au Benin. Editions Universitaires Europeennes p 97

Bruschi, P., et al, 2014, Traditional use of plants in a rural community of Mozambique and possible links with Miombo degradation and harvesting sustainability. Journal of Ethnobiology and Ethnomedicine. 2014, 10:59

Burkill, H. M., 1985, The useful plants of west tropical Africa, Vol. 3. Kew.

Centurie de plantes d'Afrique 53. 1826 (F. Cailliaud, Voy. Meroe 4:346. 1827)

Diarra, N. et al, 2016, Etude ethnobotanique des plantes alimentaires utilisées en période de soudure
dans les régions Sud du Mali. Int. J. Biol. Chem. Sci. 10(1): 184-197

Ethiopia: Famine Food Field Guide.
http://www.africa.upenn.edu/faminefood/category3.htm

FAO. 1983, Food and fruit-bearing forest species 1: Examples from Eastern Africa. FAO Food and Forestry Paper 44/1 p 103

Fowler, D. G., 2007, Zambian Plants: Their Vernacular Names and Uses. Kew. p 62

Gallagher, D. E., 2010, Farming beyond the escarpment: Society, Environment, and Mobility in Precolonial Southeastern Burkina Faso. PhD University of Michigan.

Goode, P., 1989, Edible Plants of Uganda. FAO p 30

Goode, P., 1989, Edible Plants of Uganda. FAO p 37

Grivetti, L. E., 1980, Agricultural development: present and potential role of edible wild plants. Part 2: Sub-Saharan Africa, Report to the Department of State Agency for International Development. p 43, 72

Hahn, K., et al, 2018, The use of wild plants for food: a national scale analysis for Burkina Faso (West Africa). FVSS FoodPlants Supplement

Hedrick, U.P., 1919, (Ed.), Sturtevant's edible plants of the world. p 636

http://www.fao.org/forestry/25323-096344a3de335832e8f363c3ac5184a66.pdf

INFOODS:FAO/INFOODS Databases

Jardin, C., 1970, List of Foods Used In Africa, FAO Nutrition Information Document Series No 2.p 48, 163

JSTOR Global Plants edible

Katende, A.B., Birnie, A & Tengnas B., 1995, Useful Trees and Shrubs for Uganda. Identification, Propagation and Management for Agricultural and Pastoral Communities. Technical handbook No 10. Regional Soil Conservation Unit, Nairobi, Kenya. p 592

Kidane, B., et al, 2014, Ethnobotany of Wild and Semi-wild Edible Fruit Species used by Maale and Ari Ethnic Communities in South Ethiopia. Ethnobotany Research and Applications. Vol. 12, 1546-3465-12-455

Lulekal, E., et al, 2011, Wild edible plants in Ethiopia: a review on their potential to combat food insecurity. Afrika Focus - Vol. 24, No 2. pp 71-121

Malaisse, F., 1997, Se nourrir en floret claire africaine. Approche ecologique et nutritionnelle. CTA., p 69

Masters, T., 2021, Traditional food plants of the upper Aswa River catchment of northern Uganda—a
cultural crossroads. Journal of Ethnobiology and Ethnomedicine (2021) 17:24

Maundu, P. et al, 1999, Traditional Food Plants of Kenya. National Museum of Kenya. 288p

Mbuya, L.P., Msanga, H.P., Ruffo, C.K., Birnie, A & Tengnas, B., 1994, Useful Trees and Shrubs for Tanzania. Regional Soil Conservation Unit. Technical Handbook No 6. p 456

Mengistu, F. & Hager, H., 2008, Wild Edible Fruit Species Cultural Domain, Informant Species Competence and Preference in Three Districts of Amhara Region, Ethiopia. Ethnobotany Research & Applications 6:487-502

Mgalula, M. E., 2024, An ethnobotanical study of wild edible fruits in miombo woodlands of Tabora region in Western Tanzania. Journal of Ethnobiology and Ethnomedicine. 20:23

Moksia, F., et al, 2019, Diversity and Socio-Economic Value of Wild Edible Plants in the Mounts Mandara Region, Cameroon. International Journal of Sciences. Vol. 8:10

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