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.

Dioscorea dumetorum (Kunth) Pax

GENUS *Dioscorea* **FAMILY** Dioscoreaceae

COMMON NAMES African bitter yam, Cluster yam, Three leafed yam

EDIBLE PARTS AND USES

Edible parts: Tubers, Leaves, Vegetable, Root

CAUTION: Some forms are poisonous. They must be processed before being used.
The tuber is boiled, peeled, sliced, pounded, and steeped in running (preferably salt) water then dried.
It is also used to make an alcoholic drink. Caution: Alcohol is a cause of cancer.

DESCRIPTION

A climbing yam plant. It can be 10 m long. The vine twines left or clockwise. The vine is robust and has prickles near the base. The leaf has 3 leaflets. The flowers are small and round. Sometimes it forms bulbils or small aerial yams along the stem. Underground the tubers are usually fused together to form a cluster. Some wild forms are very poisonous. The tubers vary in shape and colour. There is often a main tuber with deep lobes then small tubers around it. They are near the soil surface and 3-7 cm across. The flesh can be white, pale yellow or dark yellow.

HABITAT

A tropical plant. It is native to tropical Africa. It grows between 15°N and 15°S. It grows on the edges of forests and along river banks. It occurs between 500-1,400 m altitude.

PRODUCTION

Cultivation

Plants are grown from setts or section of the tubers. Sections of the vine can be used.

Harvesting and Seed Production

A crop takes 8-10 months to maturity. Tubers are collected soon after the rainy season finishes.

NOTES

There are about 650 species of Dioscorea. The tuber contains a water soluble toxicant, dioscorine, which is leached out.

REFERENCES

Asfaw, Z. and Tadesse, M., 2001, Prospects for Sustainable Use and Development of Wild Food Plants in Ethiopia. Economic Botany, Vol. 55, No. 1, pp. 47-62

Baa-Poku, F. & Asante, I. K., 2020, Use of Neglected and Underutilized Crop Species (NUCS) in some farming communities in the Upper Afram and Upper Dayi River Basins in Ghana. International Journal of Technology and Management Research 5 (2): 48-63

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.

Burkill, I.H., 1966, A Dictionary of the Economic Products of the Malay Peninsula. Ministry of Agriculture and Cooperatives, Kuala Lumpur, Malaysia. Vol 1 (A-H) p 830

Codjia, J. T. C., et al, 2003, Diversity and local valorisation of vegetal edible products in Benin. Cahiers Agricultures 12:1-12

Coursey, D.G., 1979, Yams, in Simmonds N.W.,(ed), Crop Plant Evolution. Longmans. London. p 70

Dalziel, J. M., 1937, The Useful plants of west tropical Africa. Crown Agents for the Colonies London.

Dansi, A., et al, 2012, Diversity of the Neglected and Underutilized Crop Species of Importance in Benin. The Scientific World Journal. Volume 2012, Article ID 932947, 19 pages

Dounias, E., Perception and Use of Wild Yams by the Baka Hunter-Gatherers in South Cameroon. Tropical forests, people and food. Chp. 52 p 621

H. G. A. Engler & K. A. E. Prantl, Nat. Pflanzenfam. 2(5):134. 1888

FERRYet al,

Fowler, D. G., 2007, Zambian Plants: Their Vernacular Names and Uses. Kew. p 66

Fox, F. W. & Young, M. E. N., 1982, Food from the Veld. Delta Books. p 182

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

Gohre, A., et al, 2016, Plants from disturbed savannah vegetation and their usage by Bakongo tribes in Uíge, Northern Angola. Journal of Ethnobiology and Ethnomedicine (2016) 12:42

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 24, 47

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

Harris, D. J., 2002, The vascular plants of the Dzanga-Sangha Reserve, Central African Republic. National Botanic Garden of Belgium, 2002. – 274 pages p 228

IRVINE,

Jardin, C., 1970, List of Foods Used In Africa, FAO Nutrition Information Document Series No 2.p 14

Karhagomba, I. B., et al, 2013, The cultivation of wild food and medicinal plants for improving community livelihood: The case of the Buhozi site, DR Congo. Nutrition Research and Practice (Nutr Res Pract) 2013;7(6):510-518

Kay, D.E., 1973, Root Crops, Digest 2, Tropical Products Institute, London, p 190, 203

Kays, S. J., and Dias, J. C. S., 1995, Common Names of Commercially Cultivated Vegetables of the World in 15 languages. Economic Botany, Vol. 49, No. 2, pp. 115-152

Kiple, K.F. & Ornelas, K.C., (eds), 2000, The Cambridge World History of Food. CUP p 1733

Koukou, E., et al, 2022, Local knowledge of agricultural biodiversity and food uses in two agroecological zones of southern Benin. Ethnobotany Research and Applications 23:29 (2022) p 9

Lim, T. K., 2015, Edible Medicinal and Non Medicinal Plants. Volume 9, Modified Stems, Roots, Bulbs. Springer p 35

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

Macmillan, H.F. (Revised Barlow, H.S., et al) 1991, Tropical Planting and Gardening. Sixth edition. Malayan Nature Society. Kuala Lumpur. p 339

Malaisse, F., 1997, Se nourrir en floret claire africaine. Approche ecologique et nutritionnelle. CTA., p 61

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

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

MORTIMORE,

Mutie, F. M., et al, 2023, Important Medicinal and Food Taxa (Orders and Families) in Kenya, Based on Three Quantitative Approaches. Plants 2023, 12, 1145

Nyadanu, D., et al, 2015, Agro-biodiversity and challenges of on-farm conservation: the case of plant genetic resources of neglected and underutilized crop species in Ghana. Genet. Resourc. Crop Evol. 62(7):

Onwueme, I.C., 1978, The Tropical Tuber Crops. Wiley, p 9

Peters, C. R., O'Brien, E. M., and Drummond, R.B., 1992, Edible Wild plants of Sub-saharan Africa. Kew. p 17

Pickering, H., & Roe, E., 2009, Wild Flowers of the Victoria Falls Area. Helen Pickering, London. p 59

Purseglove, J.W., 1972, Tropical Crops. Monocotyledons. Longmans p 106

Ruffo, C. K., Birnie, A. & Tengnas, B., 2002, Edible Wild Plants of Tanzania. RELMA p 272

Full reference list (13 more) at https://www.echocommunity.org/en/resources/73eac15b-ecfa-4599-b5c7-df8e9fc5540e

PROVIDED BY **Food Plants International**

French, B.R. & Maynard, A.R. Food Plants International Database. Food Plants International

LICENCE CC BY-NC-SA 3.0

ONLINE FACT SHEET https://www.echocommunity.org/en/resources/73eac15b-ecfa-4599-b5c7-df8e9fc5540e