Vangueria madagascariensis

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Rubiaceae

LOCAL NAMES
Bislama (sinara); English (common wild medlar); Swahili (mviru,muiru); Tigrigna (harnkeren)

BOTANIC DESCRIPTION
Vangueria madagascariensis is a profusely branched shrub or small tree, 2-15 m tall, with smooth grey bark and a whitish or cream slash.

Leaves opposite, elliptic-ovate or rotundate, dark green above, paler beneath, glabrous or, rarely, slightly pubescent, with acuminate or, rarely, obtuse or acute apex and prominent venation below, 7-20 x 2-11 cm. Leaf stalks 5-10 mm long.

Flowers greenish-yellow, yellow or cream, fulvous-pubescent, borne in dense axillary cymes, sweet scented.

Fruit globose, very smooth and shiny, 3-4.5 x 2.5-4.2 cm, greenish when immature, changing to yellowish-brown when ripe, contain 4-5 woody seeds up to 1.6 cm long.

The generic name ‘Vangueria’ is derived from a Malagasy word.

BIOLOGY
Flowering takes place in the rainy season, while fruit ripening occurs during the dry season. Fruit takes 6-8 months from flower fertilization to ripening, depending on locality.

ECOLOGY
V. madagascariensis is commonly found in evergreen forest, riverine forest, wooded bushland and wooded grassland throughout Africa and into Asia and Australia. It grows naturally in riverine-lowland forests and Brachystegia-Combretum woodland. The species is fire sensitive.

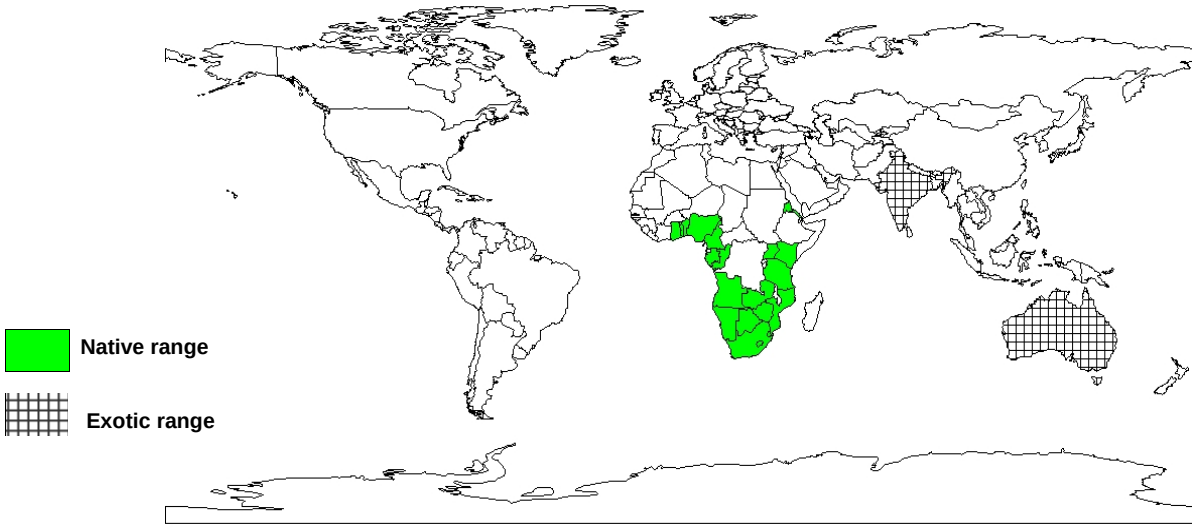
BIOPHYSICAL LIMITS
Altitude: 600-2130 m, Mean annual temperature: 17-29 deg. C, Mean annual rainfall: 930-1240 mm

Soil type: Volcanic ash soils; light yellowish-brown to reddish-yellow, gritty, sandy clay loams and red to dark red friable clays with lateritic horizon.

DOCUMENTED SPECIES DISTRIBUTION

Native: Angola, Benin, Botswana, Cameroon, Central African Republic, Congo, Democratic Republic of Congo, Eritrea, Gabon, Ghana, Kenya, Lesotho, Mozambique, Namibia, Nigeria, South Africa, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe

Exotic: Australia, India, Singapore, Trinidad and Tobago



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS
Food: The ripe fruit pulp is edible and has a pleasant chocolate-like flavour. The fruit is also used to add flavour to beer.

Apiculture: The pleasant-smelling flowers of V. madagascariensis attract bees, and are therefore a suitable honey source.

Fuel: This multibranched shrub or tree is popular as a source of both firewood and charcoal.

Timber: Wood is suitable for building construction, tool handles and carving.

Medicine: Roots and bark are used in traditional medicine; for example, in Tanzania an extract from the roots is used to treat worm infections.

TREE MANAGEMENT
Coppicing and pollarding are suitable management practices. The crop is mostly semi-cultivated on farms. Because it is a light demander, the planting area should be cleared of most other vegetation. Weeding the crop until it is well established is essential.

GERMPLASM MANAGEMENT
Can retain viability for a year if dried properly. There are 500-600 seeds/kg.

FURTHER READNG

Beentje HJ. 1994. Kenya trees, shrubs and lianas. National Museums of Kenya.

FAO. 1983. Food and fruit bearing forest species. 1: Examples from Eastern Africa. FAO Forestry Paper. 44/1. Rome.

Hines DA, Eckman K. 1993. Indigenous multipurpose trees for Tanzania: uses and economic benefits to the people. Cultural survival Canada and Development Services Foundation of Tanzania.

ICRAF. 1992. A selection of useful trees and shrubs for Kenya: Notes on their identification, propagation and management for use by farming and pastoral communities. ICRAF.

Katende AB et al. 1995. Useful trees and shrubs for Uganda. Identification, Propagation and Management for Agricultural and Pastoral Communities. Regional Soil Conservation Unit (RSCU), Swedish International Development Authority (SIDA).

Mbuya LP et al. 1994. Useful trees and shrubs for Tanzania: Identification, Propagation and Management for Agricultural and Pastoral Communities. Regional Soil Conservation Unit (RSCU), Swedish International Development Authority (SIDA).

Noad T, Birnie A. 1989. Trees of Kenya. General Printers, Nairobi.

SUGGESTED CITATION

Orwa C, Mutua A , Kindt R , Jamnadass R, Simons A. 2009. Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/af/treedb/)