

Vitex keniensis

meru oak

LOCAL NAMES

English (Meru oak); Swahili (mfuu); Trade name (meru oak)

BOTANIC DESCRIPTION

Vitex keniensis is a tree 12-30 m tall, up to 1.8 (max. 3) m in diameter; bole 12-18 m; bark very thin, rough and slightly fissured; slash creamy-yellow turning dirty green; stems, petiole and leaf venation beneath with long shaggy indumentum.

Leaves 5-foliolate; leaflets obovate 5.5-1.7 x 3.2-8.5 cm, broadly rounded to obtusely acuminate at the apex, cuneate to rounded at the base, coriaceous, sparsely puberulous above, paler beneath and completely covered with soft ochraceous tomentum and glands; petiole 13.5-17 cm long; petiolules absent. Cymes ochraceous, tomentose, somewhat lax, forming axillary panicles up to 12 cm long, 24 cm wide.

Flowers small, 7-8 mm long, white or purplish, with largest lobe dark mauve, in axillary dichasia 12-18 cm long.

Fruit ellipsoid, 13-16 mm long, green at first, becoming soft and black when mature, the hairy calyx persisting. The inner nut usually has 4-5 seeds.

The generic name, 'Vitex', is an old Latin name for the genus.

BIOLOGY

Vitex species generally exhibit hermaphroditism, where both functional male and female organs are in the same flower (Lars Schmidt, 2000).

Turill

Verbenaceae



Recently extracted seed from few extant trees used for on-farm plantings in Kenya (Anthony Simons)



Vitex keniensis tree in flower at the ICRAF Hq campus, Nairobi, Kenya. (AFT team)



Vitex keniensis specimen at the Nairobi arboretum. (AFT team)

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ECOLOGY

Common in moist evergreen forest and on thicketed rocky hills.

BIOPHYSICAL LIMITS

Altitude: 1 290-2 100 m

Mean annual rainfall: 900-3000 mm

Soil type: Prefers deep sandy-loam soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Kenya, Tanzania

Exotic: Uganda



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.

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PRODUCTS

Food: The fruit is edible but usually eaten only in an emergency.

Fuel: *V. keniensis* is a suitable source of firewood.

Timber: Wood is pale greyish-brown, coarse textured with well-marked growth zones and often with a wavy grain figure; seasons well. The heartwood of trees over 60 cm in diameter is often dark and very decorative. The timber is hard and durable, very pale and similar to teak. It works easily and is used for cabinet work, panelling, veneer, furniture and coffin boards.

SERVICES

Shade or shelter: The tree is sometimes planted as a windbreak.

Soil improver: Deciduous and produces a useful mulch of leaf litter.

Ornamental: A popular ornamental tree.

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TREE MANAGEMENT

A fairly fast-growing tree. Coppicing is practised. The crop may reach a mean thinning cycle of 3-5 years. It might be justifiable to thin the crop down to 200 stems/ha or fewer and leave it to grow to age 45.

GERMPLASM MANAGEMENT

Orthodox seed storage behaviour. Seeds tolerate desiccation to 8.5% mc. Viability can be maintained for at least 1 year in hermetic storage at 3 deg. C with 5.5-9.5% mc. There are about 2 500 seeds/kg.

PESTS AND DISEASES

The tree is normally attacked by the fungus *Armillaria mellea* that results in a black resin on the stems of some trees in plantations. This is not a threat to the establishment of the species, however, and can be checked by uprooting the affected trees during the 1st thinning operation. Various game animals may damage the trunk, exposing it to drying and fungi.

FURTHER READNG

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SUGGESTED CITATION

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