Lovoa trichilioides

Harms

Meliaceae

African walnut

LOCAL NAMES
English (Uganda walnut,tiger wood,Nigerian golden walnut,lovoa,Congo wood,African walnut); Luganda (nkoba); Trade name (African walnut)

BOTANIC DESCRIPTION
Lovoa trichilioides is a large forest tree, up to 40 m high with a dark heavy crown. The bole is cylindrical and the first branches appear at 18-25 m. Butresses usually absent. The bark is greyish on younger trees, but brownish, thin and scaly on older trees. The slash is reddish, cedar scented and produces a little sticky sap.

Leaves compound pinnate, alternately placed, with 4-6 pairs of leaflets. The petiole is flat above and narrowly winged.

Flowers small and numerous, greenish-white to white, growing in large lax panicles up to 30 cm long, some terminal. Each flower 4-part with a staminal tube resembling that of Entandophragma.

Fruit black, spindle shaped and in bunches, open with 4 valves to release the 4-8 winged seeds. Each seed winged attaching it to the base of the fruit. The generic name Lovoa is after River Lovoi in Congo. The generic name 'trichilioides' implies its semblance to members of the genus Trichilia.

BIOLOGY
It is a monoecious, evergreen forest tree. Flowers can be found on the tree most of the year and its seeds are wind dispersed.

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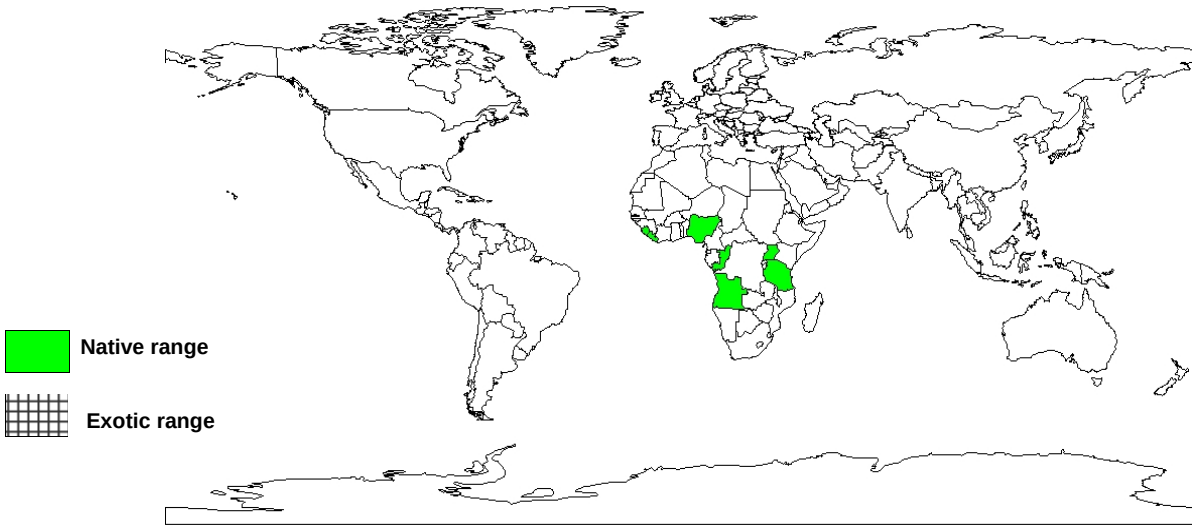
ECOLOGY
L. trichilioides, the only West African species of this genus is a monoecious evergreen forest emergent. But also occurs in thickets, gallery forest, mixed tropical forests and is extremely common in lake side forests in Uganda.

BIOPHYSICAL LIMITS
Altitude: 1 100-1 200 m, Mean annual rainfall: 1000-2800 mm, Mean annual temperature: 20-29 deg.C
Soil type: Prefers deep humid soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Angola, Congo, Liberia, Nigeria, Sierra Leone, Tanzania, Uganda
Exotic: Cote d'Ivoire



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
Fuel: The tree provides fuelwood.

Timber: The wood is easy to work, provided sharp tools are used. It dries easily, nailing and screwing are easy but the wood may sometimes crack. Drilling, turning and milling are easy glueing, varnishing, staining offer no difficulties. The wood has a specific gravity of 0.54. The sapwood is narrow, greyish to beige in colour and not durable. Lovoa is used as a substitute for true walnut in furniture and high-class joinery, veneer and plywood. Other uses include panelling, joinery, ship building flooring, pianos, radio cases, car and carriage building.

SERVICES
Shade or shelter: L. trichilioides is a good shade tree.

Reclamation: It is being promoted in afforestation programmes in Uganda.

Nitrogen fixing: It forms vesicular arbiscular mycorrhizal associations with some fungi.

Ornamental: Planted as an avenue tree.

Intercropping: Does well as a pure stand or together with crops, e.g. coffee and banana plantations in Uganda.

TREE MANAGEMENT
L. trichilioides tends to branch early and pruning should be done to improve its form. In plantations, it can take up to 30 years to mature.

GERMPLASM MANAGEMENT
The species seeds profusely and the winged seeds are gathered from the ground, there are about 4 400 seeds/ kg. The seeds are highly vulnerable to insect attack, it is therefore advisable to store them in sealed containers in a cool place.

PESTS AND DISEASES
Wood attacked by fungi and insects.

FURTHER READNG

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Tchoundjeu Z, Leakey RRB. 2001. Vegetative propagation of Lovoa trichilioides: effects of provenance, substrate, auxins and leaf area: Journal of Tropical Forest Science. 13(1):116–129.

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/)