

LOCAL NAMES

English (aidan tree); Luganda (munyegenye)

BOTANIC DESCRIPTION

Tetrapleura tetraptera is deciduous; it reaches 20-25 m in height, with a girth of 1.5-3 m. The bole is slender and older trees have very small, low, sharp buttresses. In the forest, the crown is fairly small, thin and rounded, becoming flat when old, but it tends to spread when in the open. Bark fairly smooth, grey-brown, very thin; slash reddish, strong smelling, fairly thick. Twigs and young foliage virtually glabrous or minutely hairy.

Leaves are sessile, glabrous or minutely hairy with a common stalk 15-30 cm long, slightly channelled on the upper surface. The pinnae are in 5-9 pairs, 5-10 cm long, mostly opposite but sometimes alternate; 6-12 leaflets on each side of the pinna stalk, always alternate, 12-25 mm long, 6-12 mm broad, slightly elongated, elliptic or slightly obovate, rounded at both ends, the apex sometimes very slightly notched, the base usually unequal, practically glabrous, with slender stalks about 2 mm long; lateral nerves indistinct, running at a wide angle to the prominent midrib.

Flowers are pinkish-cream turning to orange and are densely crowded in spikelike racemes 5-20 cm long, usually in pairs in the upper leaf axils; individual flowers with slender stalks and 10 short stamens, the anthers carrying a gland at the apex.

Fruit is very persistent, hanging at the ends of branches on stout stalks 25 cm long. It is shiny, glabrous, dark purple-brown, usually slightly curved, 15-25 cm long by about 5 cm across, with 4 longitudinal, winglike ridges nearly 3 cm broad. Two of the wings are woody, the other 2 filled with soft, sugary pulp, oily and aromatic. The seeds, which rattle in the pods, are small, black, hard, flat, about 8 mm long, embedded in the body of the pod, which does not split open. The kernel contains oil.

The generic name comes from a Greek word meaning 'four ribs', referring to the ribbed fruit. The specific epithet means four winged.

BIOLOGY

In Ghana, the tree is deciduous in December. Flowering begins towards the end of February and is over in early April. The indehiscent pods are ripe from September to December. When the pods fall, their smell attracts small animals, who probably disperse the seeds.

ECOLOGY

T. tetraptera is common on the fringe of the West African rainforest belt. Trees are widespread in tropical Africa, in forest, especially secondary forest, and they are at their best in the rainforest. The species is found throughout the high forest zone, in riverian forest, in the southern savannah-woodland and in the forest outliers in the African plains.

DOCUMENTED SPECIES DISTRIBUTION

Native: Benin, Burkina Faso, Cambodia, Chad, Cote d'Ivoire, Gambia, Ghana, Guinea, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo, Uganda

Exotic:



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 fruit pulp is rich in sugars and may be used in flavouring food.

Timber: Reddish to brown, fairly hard heartwood and white sapwood.

Tannin or dyestuff: Tannin is obtainable from the fruit pulp.

Medicine: Leaves, bark, roots and the kernels are used for medicinal purposes.

Other products: Fruits and flowers are used as perfumes and in pomades prepared from palm oil.

GERMPLASM MANAGEMENT

Seed storage behaviour is orthodox, and there are about 6 290 seeds/kg.

FURTHER READING

Dale IR, Greenway PJ. 1961. Kenya trees and shrubs. Buchanan's Kenya Estates Ltd.

Eggeling. 1940. Indigenous trees of Uganda. Govt. of Uganda.

Hamilton A.C. 1981. A field guide to Uganda forest trees.

Hong TD, Linington S, Ellis RH. 1996. Seed storage behaviour: a compendium. Handbooks for Genebanks: No. 4. IPGRI.

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).

Keay RW. 1989. Trees of Nigeria. Clarendon Press Oxford.

Opeke LK. 1982. Tropical tree crops. John Wiley & Sons Ltd.

Savill PS, Fox JED. 1967. Trees of Sierra Leone. Forest Department, Freetown.

Taylor CJ. 1960. Synecology and silviculture in Ghana. CJ Taylor.

SUGGESTED CITATION

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