

**LOCAL NAMES**

Afrikaans (stamvrug); English (stem fruit, Transvaal milkplum); Swahili (mduyuyu); Tswana (motlhatswa); Zulu (amanumbela)

**BOTANIC DESCRIPTION**

*Englerophytum magalismontanum* is a small to medium size, multi-stemmed, evergreen tree or shrub that varies in height from 2-15 m; low-branching with the branches sometimes touching the ground; the bark greyish, smooth and slightly scaly; young twigs or branchlets densely covered with russet-brown hairs; has a compact rounded crown.

Leaves simple, alternate or spirally arranged, glossy dark to blue-green, borne in rosettes at the end of branchlets with the young leaves conspicuously golden-brown; leaf shape narrowly elliptic to oblanceolate (60 - 150 x 20 - 50 mm) with a rounded apex that sometimes can be notched, the base narrowly tapering, continuing into the rather stout petiole, up to 14 mm long, covered with russet-brown hairs; stipules slender and persistent.

Flowers small, strongly, unpleasantly scented; star-shaped and creamy-white to brownish pink; clustered on new and old wood, borne in leaf axils, a few to many flowers per cluster; unopened flowers and their stalks densely covered by red-brown hairs.

Fruit a berry, ellipsoid to sometimes round, fleshy, 15 – 25 x 10 – 18 mm in size, bright red when ripe, 1-2-seeded and contains sticky, milky latex; densely crowded on the stems, branches and branchlets, hence the Afrikaans common name stamvrug referring to the fruit forming on the stem.

The species name *magalismontanum* means from the Magaliesberg mountains.

**BIOLOGY**

*E. magalismontanum* is a hermaphrodite plant flowering June to December. Fruits develop soon after flowering but at times flowers and fruits can be found on the plant at the same time. Although flowers and young fruits occur in profusion along the old wood, much less fruits mature compared to the abundance of flowers produced each season; many of these flowers and young fruits are aborted before they mature.

**ECOLOGY**

*E. magalismontanum* tree is characteristic of rocky outcrops and quartzite ridges, and also occurs in riverine forest fringes, bushveld, evergreen forests and at the edges and sometimes in the interior of moist mountainous forests, also in anthill thickets. Associated species often include *Kirkia acuminata*, *Croton gratissimus* var. *gratissimus*, *Combretum apiculatum*, *Adansonia digitata*, *Pseudolachnostylis maprouneifolia*, *Acacia caffra*, *Protea caffra* ssp. *caffra*, *Diplorhynchus condylocarpon*, *Albizia tanganyicensis* and *Combretum molle* among others. The tree is frost, fire and drought-resistant.

**BIOPHYSICAL LIMITS**

Altitude: 0-1 800 m or more

Temperature: 17-20°C

Rainfall: 600-1800 mm

Soil type: Always associated with quartzite and granite rocks in sandy soils. The species is therefore a certain indicator of the presence of such rocks.

**DOCUMENTED SPECIES DISTRIBUTION**

Native: Angola, Botswana, Cameroon, Central African Republic, Cote d'Ivoire, Democratic Republic of Congo, Gabon, Ghana, Guinea, Liberia, Malawi, Mozambique, Nigeria, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe

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:** Ripe fruits are eaten fresh; fruits are sweet but with rather astringent flavour and have high vitamin C content. Fruits can also be used for making wine, vinegar, brandy, syrup and a good tart jelly. In the past the fruits were sometimes distilled to produce a very strong alcoholic drink known as "mampoer" in Afrikaans.

**Timber:** The wood is coarse-grained, white to reddish, hard, tough, and heavy and has been extensively used in hut building, making tool handles and spoons.

**Medicine:** Powdered roots are used to treat rheumatism, and a decoction is used to treat abdominal pain; an infusion of finely powdered roots and fruits has been used to cure epilepsy, headaches and fits.

**SERVICES**

**Ornamental:** Although rarely cultivated, this tree is an excellent and very attractive garden plant. The dark green and dense foliage and bright red fruits are very attractive and attract birds to the garden; also a decorative shade and container plant.

**Intercropping:** It is quite fast growing and hardy plant suitable for Agroforestry.

**Other services:** Semi-parasites or lichens found on the tree are used in traditional preparations and burned to invoke ancestral spirits in certain ceremonies.

**GERMPLASM MANAGEMENT**

The seeds are recalcitrant and cannot be stored.

**PESTS AND DISEASES**

The tree is a larval food plant for the butterfly *Pseudacraea boisduvalii trimeni*. Animals like baboons and monkeys eat the fruit while bushpigs readily eat the roots and fruits. Various birds and millipedes also feed on the ripe fruits.

**FURTHER READING**

Arnold TH & De Wet BC (eds.). 1993. Plants of Southern Africa: names and distribution. Mem. Bot. Surv. S. Africa no. 62.

Coates Palgrave K. 1977. Trees of Southern Africa. C. Struik, Cape Town, South Africa.

Coates Palgrave M. 2002. Keith Coates Palgrave Trees of southern Africa (edn.3). Struik, Cape Town.

Dyer RA. 1975. The genera of southern African flowering plants, vol. 1, dicotyledons. Flora of southern Africa. Botanical Research Institute, Pretoria.

Exell AW et al. (eds.). 1960. Flora Zambesiaca. vol. 1- Crown Agents, London.

Fox FW & Norwood Young ME. 1982. Food from the veld - edible wild plants of Southern Africa. Delta Books, South Africa. p.157

<http://www.plantzafrica.com/plantefg/engelermagal.htm>

<http://www.sntc.org.sz/flora/speciesinfo.asp?spid=2206>

Hutchings A, Scott A, Lewis G, & Cunningham AB. 1996. Zulu Medicinal Plants : An Inventory. University of Natal Press, Pietermaritzburg.

Low AB & Rebelo AG. 1996. Vegetation of South Africa, Lesotho and Swaziland. Dept. Env. Affairs & Tourism, Pretoria.

Palmer E, Pitman N. 1972. Trees of Southern Africa Vol. 2. A.A. Balkema Cape Town.

Pennington TD. 1991. The genera of the Sapotaceae. Royal Botanic Gardens, Kew, England, U.K. and New York Bot. Garden, Bronx.

Pooley E. 1994. The Complete Field Guide to Trees of Natal, Zululand and Transkei. Natal Flora Publications Trust. Durban

Ruffo CK, Birnie A and Bo Tengnas. 2002. Edible wild plants of Tanzania. Technical handbook No. 27. RELMA/SIDA, Nairobi, Kenya. pp 716-717.

Schmidt E, Lötter M & McClelland W. 2002. Trees and Shrubs of Mpumalanga and Kruger National Park. Jacana, Johannesburg.

Steel B & Behr K. 1988. Cultivating Bequaertiodendron magalismontanum and Landolfia capensis from seed. Veld & Flora 74: 4.

Thomas V & Grant R. 1998. SAPPI tree spotting. Highveld and the Drakensberg. Jacana, Johannesburg.

Turrill WB, Milne-Redhead E. 1952. Oleaceae. In: Flora of tropical East Africa. Crown Agents, London.

Van Wyk B, Van Wyk P. 1997. Field Guide to the Trees of Southern Africa. Struik, Cape Town.

Van Wyk, B-E. & Gericke, N. 2000. People's plants. A guide to useful plants of southern Africa. Briza Publications, Pretoria.

Venter F, Venter J-A. 1996. Making the most of Indigenous trees. Briza Publications.

**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/>)