

**LOCAL NAMES**

Creole (blod tri); English (orange-milk tree, blood tree); Hausa (alillibar); Igbo (ururtu); Luganda (mulirira, mulilira); Swahili (ngoningoni, mgondogondo, mdamu mdamu, mbura, kumamaji); Yoruba (elepo)

**BOTANIC DESCRIPTION**

*Harungana madagascariensis* is a small to medium sized bushy tree 4-7 m in height, sometimes reaching 10-25 m; it is much branched with a cylindrical trunk. Crown is golden-green, deep and spreading with fine almost whorled branches. Bole is often rather angular and forked. Bark greyish or red-brown rather rough and scaly, frequently vertically fissured, with very small vertically arranged scales which flake off easily; slash bright orange, thin, rather wet and turgid, but will peel off in long strips, and when cut, brilliant, almost fluorescent orange latex flows abundantly and by it, the tree can be recognized immediately. This orange paint-like sap exudes if leaves are snapped off or if branches are broken. Most parts of the tree are covered with fine stellate hairs.

Leaves opposite, simple, ovate or ovate elliptic, 6-20 x 3-10 cm, glossy, dark green above with prominent veining, the under surface with dense rusty hairs which may be partially lost by maturity but usually persist, and rather numerous lateral nerves, which are prominent beneath; young leaves at the ends of branches are distinctive and remain tightly pressed together until quite large, the brown lower surfaces quite characteristic; apex tapering; base broadly tapering to rounded; margin entire; petiole 1.5-3 cm long.

Flowers whitish or cream, about 5 mm in diameter, sweetly almond scented, in dense many-flowered flat terminal heads (corymbose panicles), 8-20 cm in diameter, the stalks and calyx covered with short rusty hairs, bisexual; 5-merous; sepals glandular; petals with hairs on the inside and black gland dots; stamens in 5 clusters, each cluster made up of a few stamens joined for most of their length, with a sterile cluster, or a fasciclude between each fertile cluster; ovary 5-chambered.

Fruits berry-like (drupe), 2-4 mm in diameter, greenish-orange becoming red when mature, in heavy, massed, terminal heads up to 25-30 cm in diameter, rather dry, with a crustaceous pericarp enclosing the 5 pyrenes, 2-4 seeded.

**BIOLOGY**

In southern Africa, flowering can be observed from January to April followed by fruiting until October. In Sierra Leone, flowering begins sparingly in May, reaches its height in August and September and then tapers off up to about December; flowering is always very profuse. Fruits of the usually evergreen tree ripen from September up to January.



*Harungana madagascariensis* foliage (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



*Harungana madagascariensis* flowers (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



*Harungana madagascariensis* slash (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)

ECOLOGY

H. madagascariensis occurs at medium to low altitudes in evergreen forest, at forest margins and along river and stream banks. It is a common and widely distributed tree from the Sudan to South Africa, often a pioneer when a forest has been cleared. The species is widespread in tropical Africa, and is found in clearings in forest regions and fringing forest in savanna regions. It is found all over Sierra Leone in young farm bush, usually associated with Trema musanga and Nauclea latifolia. In Uganda, it is found in forest edges and in secondary scrub, and is usually associated with Maesopsis eminii and Trema orientalis. The trees have a general brownish-yellow appearance in the field

It form dense thickets which excludes, other species and can possibly become a permanent component of tropical rainforests, potentially making it weedy.

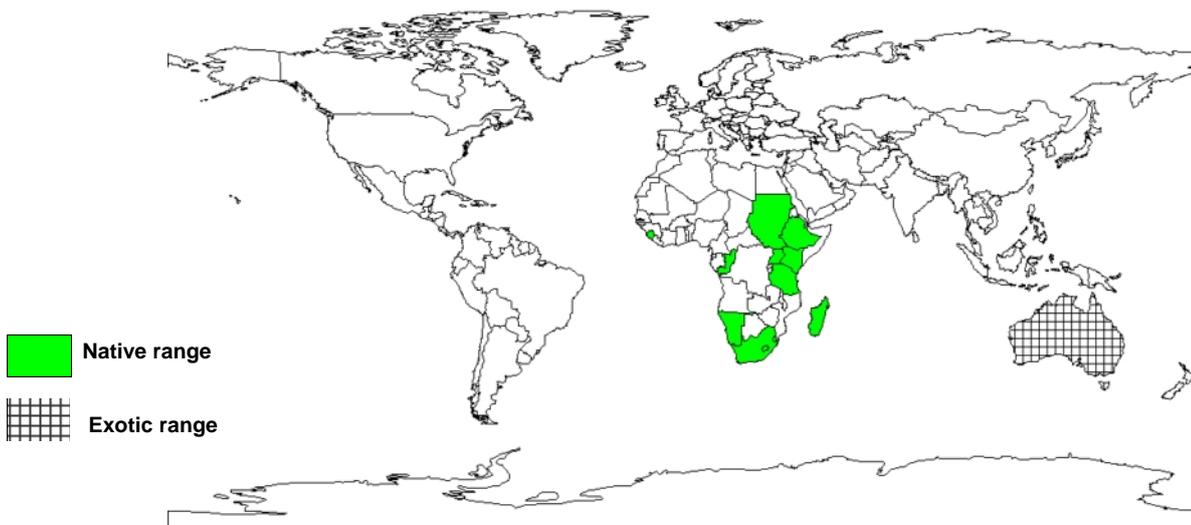
BIOPHYSICAL LIMITS

Altitude: 0-1 800 m, Mean annual rainfall: 1100-1800 mm, Mean annual temperature: 20-32 deg.C

DOCUMENTED SPECIES DISTRIBUTION

Native: Central African Republic, Congo, Democratic Republic of Congo, Ethiopia, Kenya, Lesotho, Madagascar, Namibia, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Uganda

Exotic: Australia



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:** *H. madagascariensis* is a source of firewood and is used in the production of charcoal.

**Timber:** The wood is pink, orange-red to yellow and can have most attractive colouring in larger specimens. The tree is not used commercially because it seldom grows to a merchantable size, though the rather light wood is used to make poles for building houses.

**Tannin or dyestuff:** Sap extracted from the bark of orange-milk tree is used to dye palm leaves for making mats and other craft items.

**Medicine:** Sap is used in the treatment of scabies and as an anthelmintic (tapeworms), while leaves are used as a remedy for hemorrhages, diarrhoea, gonorrhoea, sore throats, headaches and fevers. Resin from the flower stalks is believed to ease colic and to check infection after childbirth, while a decoction of the bark is drunk as a remedy for malaria or jaundice. Roots are used to hasten breast development in young women while roots and bark are boiled in water, and the infusion drunk twice a day, to interrupt the menses. Young leaves are sometimes used a medicine for asthma and fruits are occasionally used in cases of abortion in the belief that the red juice averts bleeding.

**TREE MANAGEMENT**

H. madagascariensis coppices easily and is a fast growing species which requires thinning after planting, for adequate growth.

**GERMPLASM MANAGEMENT**

Seeds should be kept in sealed containers and sown within 2 months. To prevent insect attack on seeds, ashes need to be added.

**PESTS AND DISEASES**

Seeds are susceptible to insect attack.

**FURTHER READNG**

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**SUGGESTED CITATION**

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