

Securidaca longepedunculata Fresen.

Information and Contacts

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Optimization of Pesticidal Plants - Technology, Innovation, Outreach & Networks (OPTIONs). It is a project funded by the European Union through the University of Greenwich (UK). Project partners include the Royal Botanic Gardens Kew (UK), University of Zimbabwe, Mzuzu University (Malawi), Sokoine University of Agriculture (Tanzania), World Agroforestry Centre (ICRAF), Sustainable Global Gardens (UK) and the National Museums of Kenya.



Photo by M.Patel

Securidaca longepedunculata Fresen.

TAXONOMY & NOMENCLATURE

Family:

Polygalaceae

Synonyms

Elsota longepedunculata (Fresen.) Kuntze
Securidaca longepedunculata Fresen. var. *angustifolia* Robyns
Lophostylis angustifolia Hochst.
L. oblongifolia Hochst.
L. pallida Klotzsch

Local/ Common names

Violet tree (English), Mzigi, Muteya (Swahili, Digo), Muuka (Kamba), Mugaruka (Kikuyu, Tharaka).

Life form

Shrub or a small tree

Plant description

Securidaca longepedunculata is a medium sized semi-deciduous shrub or small tree that grows up to 7.5 m high. The bark is yellow - green on young branches, becoming stringy and pale, rough grey flaking to yellow below on maturity. The branches are small sometimes drooping. Leaves are alternate, thin and narrow, apex rounded up to 5 cm. The pink or purple flowers are sweetly scented and grow in small bunches on a peduncle. The fruit is rounded with a wing on one side that grow up to 50 mm long, hanging on bunches. The species flower and seed between April and August.

Distribution

Widespread in tropical Africa from Senegal to Ethiopia, to Namibia and South Africa.

Ecology

It occurs on rocky wooded bushland with light (sandy), medium (loamy) and heavy (clay) soils from 0 to 1 800 m. The mean annual rainfall, where species occur ranges from 600 to 1000

mm.

How to use as a Pesticide

The bark of roots of this tree is ground into powder and pesticide extracted in water (the powder is already soapy) or by directly mixing the powder with stored grains against various grain pests. This method of use is particularly well documented among the Kamba people of Eastern Kenya.



Illustration by N. Muema. Seeding mature *S. longepedunculata*

Other Uses

Extracts from the roots are used to manage swellings while wood from branches is used for bows in many parts of Kenya. More uses include firewood, charcoal, poles, medicine (bark, leaves), bee forage, ornamentals, fibre (inner bark) and oil (flowers and seeds).

Fruit harvesting and seed handling

To get quality seeds, fruits are collected by spreading a tarpaulin under the tree and then the tree is shaken. Fallen fruits are then picked from the tarpaulin. Seeds can also be collected from branchlets that have mature fruits using a lopper (extended arm pruner) or alternatively fruits can be collected by hand picking from lower branches.

Seed storage and viability

Seed type is recalcitrant. Therefore seeds are delicate and die following rapid drying. They remain viable for a few days under ambient conditions hence they cannot be stored for long period. It is important that seeds are propagated immediately after they are harvested.

Propagation technique

Freshly harvested and extracted seeds should be rinsed under clean fresh water and soaked for two to four hours. Propagation is achieved by sowing clean seeds in vermiculite, fine or coarse grit, sawdust, coco peat, forest soil, fine sand or habitat soil. During propagation, seedlings sprout between 8-20 (-35) days. Germination varies from



Illustration by N. Muema.

Adopted from Leakey et al. (1990)

no success to good success (0-100%) after 4-5 weeks depending on the type of media used and prevailing weather conditions. Germination medium used should preferably be well drained and maintained at around 30 degrees celcius. Seedlings should be transplanted into a suitable medium such as; grit: forest soil ratio 1:1 or red soil: sand: forest soil: compost in the ratio 2:1:1:1 or the habitat soil once they attain the two leaf stage.



Photo by I. Malombe: Farmers potting seedlings of *S. longepedunculata*



Photo by I. Malombe: - Ms Vivian Kathanambi with Ngutwa farmers

Threats to conservation of *S. longepedunculata*

Harvesting the roots and or the stem bark for medicine, pesticidal uses and effects of slash and burn cultivation leads to habitat loss. Resulting degradation therefore reduces the quality of the populations of the species.