Commiphora africana (A. Rich.) Engel.
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**Commiphora africana (A. Rich.) Engel.**

**Taxonomy and nomenclature**

**Family:** Burseraceae  
**Vernacular/common names:** African myrrh, poison-grub *commiphora* (English); mbambahara, mponda, mturituri, mtwiri (Swahili); angka, gafal (Arabic); harige kanniedood (Afrikaans); dabba’un’un, hammessagara (Somali).

**Distribution and habitat**

*Commiphora africana* has a widespread native distribution throughout dry zones in Africa south of the Sahara, with rainfall between 300 and 800 mm. It occurs naturally in Angola, Botswana, Burkina Faso, Chad, Eritrea, Ethiopia, Kenya, Mali, Mauritania, Mozambique, Namibia, Niger, Senegal, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe.  

It is a typical species of the dry savannah (*Acacia-Commiphora* bushland). It is primarily a plane and lowland species growing up to 800 masl; occasionally, however, found up to 1600 masl. Occurs in areas with 300-800 mm mean annual rainfall. In the savannah it occurs on a variety of soil types often rocky sites, lateritic crusts and sand. Although it is found on clay, it does not do well on stiff types like vertisols.

**Uses**

An important multipurpose tree species in an otherwise poor environment. The species mostly used as a fodder species especially for camels and goats, at the end of the dry season when the tree busts into leaf before most other trees and before new grass sprouts. The species is most important for nomadic pastoralists in the Sahel. Wood is termite resistant and has all-round use as utility construction timber and for household implements. Fruits, bark and roots have alleged medical properties and are used in local medicine. Fruits are used for treatment of typhoid fever and as a remedy for stomach problems while bark powder is mixed with porridge and taken as cure for malaria.  

In sedentary agroforestry systems the species may be used as fodder species as well as for live fences and hedges.

**Botanical description**

*Commiphora africana* is a deciduous shrub or small tree, rarely exceeding 5-10 m. It is low branching with a short trunk and rounded crown. Branches grow upwards, then spreading horizontally. Branches possess long spines from modified branchlets. Bark grey-green, peeling off in papery roles or scales revealing green under-bark. Leaves trifoliate with 1½-2 cm long petiole. Leaflets crenate, hairy under the margin and below; base cuneate. Terminal leaflet up to 4 long and 2½ cm wide; the two side leaflets smaller.  

Flowers in axillary clusters of 4-10. Individual flowers are small, about 5-6 mm long, red with 4 free petals forming a corolla tube.

**Fruit and Seed description**

**Fruit:** Fruit an ellipsoid drupe, reddish, 8-10 mm long, 6-8 mm across, with short peduncle. The fruits split open when dry and expose a hard, furrowed stone embedded in a red, resinous flesh.  

**Seed:** The seed handling unit is the pyrene / stone with enclosed morphological seed. The stone is about 4-5 mm long with a rough surface. There are about 8000 seeds per kg.
Flowering and fruiting habit
Flowering occurs at the beginning of the dry season usually before the leaf flush. Flowering and fruiting are irregular and do not occur every year. Pollination by insects. The seeds are dispersed by animals and birds.

Processing and handling
The stones are extracted by removing the exo- and mesocarp. The fruit is relatively dry and dry extraction is easiest, e.g. by rubbing seeds between rough surfaces.

Storage and viability
The seeds are orthodox, can presumably be stored for several years at room temperature. Cold storage prolongs longevity.

Dormancy and pretreatment
Imbibition is restricted because of the hard endocarp. Various methods to accelerate imbibition by surface treatment (e.g. acid) may work but is not reported in literature.

Sowing and germination
Germination is hypogeal.

Propagation
Means of propagation: Stakes, large cuttings or seeds. It is easy to propagate with cuttings.

Selected readings

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