

LOCAL NAMES

English (myrrha,gum myrrh,common myrrh); Somali (didin)

BOTANIC DESCRIPTION

Commiphora myrrha is a sturdy, spiny, glabrous shrub or small tree, usually with a distinct short trunk up to 4 m tall. Outer bark silvery, whitish or bluish grey, peeling in large or small papery flakes from the greener under-bark; exudate hardly scented, viscid, producing a hard translucent yellowish gum-resin. All branches are spine tipped and knotted.

Leaves trifoliate, chartaceous, greyish green or glaucous, very variable in shape and size; petiole 1-10 mm long; a few lateral leaflets, sometimes very minute may be found on both short and long and short shoot leaves, the leaves may be elliptic, spatulate or lanceolate, attenuate, cuneate, rounded or truncate at the base, rounded or acute apically, 6-44 mm long, 3-20 mm wide, with 3-4 rather weak main veins, margin entire or 6-toothed on each side.

Male flowers usually precocious, 2-4 in dichasial cymes 3-4 mm long which are often sparsely glandular; bracteoles pale brown. 0.5-0.7 mm long and wide, often lightly attached at the base and forming a fragile detachable collar; receptacle beaker-shaped, petals oblong, tapering pointed and recurved at the tip, 4.5 mm long, 1.5 mm wide; filaments 1.4 and 1.2, anthers 1.2 and 1.0 mm long.

Fruits 1-2 on jointed stalks, ovoid, flattened and beaked 2-4 mm long. Seed smooth with gentle swellings.

C. myrrha is a very variable species, both in its leaves and in its pseudaril. The different forms seem to merge so imperceptibly that the recognition of infraspecific taxa is often difficult. Forms in which the lateral leaflets are half as large as the terminal leaflet seem to occur only in the northern part of the area of the species and have not been seen in Kenya.

The generic epithet is derived from Greek 'kommis' and 'phora' meaning gum bearer.

ECOLOGY

C. myrrha is normally found in open Acacia, *Commiphora* bushland on shallow soil, chiefly over limestone.

BIOPHYSICAL LIMITS

Altitude: 250-1300 m

Mean annual rainfall: 230-300 mm

Soil type: Prefers shallow soil, chiefly over limestone.

DOCUMENTED SPECIES DISTRIBUTION

Native: Ethiopia, Kenya, Oman, Saudi Arabia, Somalia

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

Gum or resin: The oleo-gum resin from the stem has an aromatic taste and odour, may be acrid and bitter. It is inflammable, but burns feebly. Its products are highly prized in Asia.

Essential oil: Myrrh oil is deep amber in colour with a warm, spicy, bitter and smoky aroma. Today myrrh oil is still considered helpful for meditation, and aromatherapists recommend the naturally antiseptic essential oil for skin and mouth problems.

Poison: This herb is contraindicated during pregnancy because of its emmenagogic activity. It is advisable to dilute myrrh before use and administer moderate doses. Allergic reactions have been observed.

Medicine: Myrrh stimulates the production of gastric juices, tones the digestive tract and used to treat diarrhoea, flatulence, dyspepsia, loss of appetite. Stimulates the production of menstrual blood (emmenagogue). Also used to treat genital infections, leucorrhoea, thrush, scanty periods, used for haemorrhoids, arthritis has expectorant activity and is also used for flu, catarrh, bronchitis, asthma, sore throat. Stimulates the production of white blood cells regeneration of skin cells, assists in the healing of wounds. Myrrh treats eczema, wounds, wrinkles and has very good mollifying qualities. Use of myrrh imparts a cooling, calming effect, combating apathy and increasing mental clarity and focus. Myrrh is also administered as horse tincture in veterinary practice for healing wounds. Because of its anti-fungal properties it can be used as a vaginal wash for thrush or in a footbath for athlete's foot.

Other products: Myrrh is a common ingredient of toothpowder, and is used with borax in tincture, with other ingredients, as a mouth-wash. The thick, pale yellow oil contains myrrholic acid and heerabolene, a sesquiterpenene.

SERVICES

Erosion control: An important species protecting soil in wind erosion prone areas.

Other services: Myrrh essential oil has been used since antiquity to inspire prayer and meditation, and to fortify/revitalize the spirit.

TREE MANAGEMENT

The stem is cut, gum-resin gathered and then carbonized.

FURTHER READNG

Gillett JB. 1991. Burseraceae. In: Flora of Tropical East Africa. Balkema, Rotterdam.

Nada SA, Bashandy SAE and Negm SA. 1997. Evaluation of the hypoglycemic activity of a traditional herbal preparation in male diabetic rats. *Fitoterapia*. 68(3): 240-244.

SUGGESTED CITATION

Orwa C, A Mutua, Kindt R , Jamnadass R, S Anthony. 2009 *Agroforestry Database: a tree reference and selection guide* version 4.0 (<http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp>)