

**LOCAL NAMES**

Arabic (suraya,serein); Fula (baggahi); Hausa (bagayi); Somali (qalaanqaal,dornai,ditab,caanamacays); Swahili (mvunja-vumo,kibilazi-mwitu); Wolof (n'debarghe,debarka)

**BOTANIC DESCRIPTION**

*Cadaba farinosa* is a slender shrub with a strongly furrowed stem, rarely straight with a yellowish grey bark. Young twigs densely covered with sessile or subsessile scales, sometimes mixed with stiff glandular and eglandular hairs.

Leaves numerous and small, alternate on young shoots, clustered on older wood; leaf blade elliptic to obovate, 4-40 x 3-30 mm, apically rounded or retuse, mucronate, basally rounded or cuneate, farinose on both surfaces or glabrescent; petiole up to 3-4 mm long, densely farinose.

Flowers yellowish-green in racemes with farinose axis, 0.8-4.5 cm long. Bracts trifold with reduced central segment, pedicels 0.7-1.5 cm long. Sepals 4, ovate-elliptic, commonly 5-12 x 4 mm, farinose outside, puberulous at margins. Petals 4, with claw 6-7 mm long and oblanceolate blade, 4-5 mm long. Androphore 7-9 mm long; stamens 5 with filaments 1-1.4 cm long, anthers 3.5 mm long. Gynophore 0.8-1.2 cm long, sparsely covered with subsessile or short-stalked glands. Ovary cylindrical, farinose and with a flattened stigma.

Fruit oblong, cylindrical with contractions 5cm long and densely farinose. The interior of the fruit is orange-red when mature. Seeds are the size of a millet grain, comma-shaped, shiny, dark brown, and arranged in a single layer within the fruit.

Two subspecies are recognized; subsp. *farinosa* with young twigs densely covered with sessile scales, pedicels and sepals shorter, subsp. *adenotricha* with young twigs covered with glandular or simple hairs often mixed with sessile scales, pedicels and sepals longer. *C. farinosa* Forssk. subsp. *rarifolia* is reported in Pakistan.

**BIOLOGY**

A hermaphroditic species whose flowers and fruit appear at the end of the rainy season and the beginning of the dry season.

**ECOLOGY**

*C. farinosa* is common in large depressions, but also found on sandy silts of valleys, around temporary ponds and on stabilized dunes, where there is a subsoil rich in fine particles. Commonly associated with *Maerua* spp. or on termite mounds.

**BIOPHYSICAL LIMITS**

Altitude: 0-1 600 m

Mean annual temperature: 29 deg C

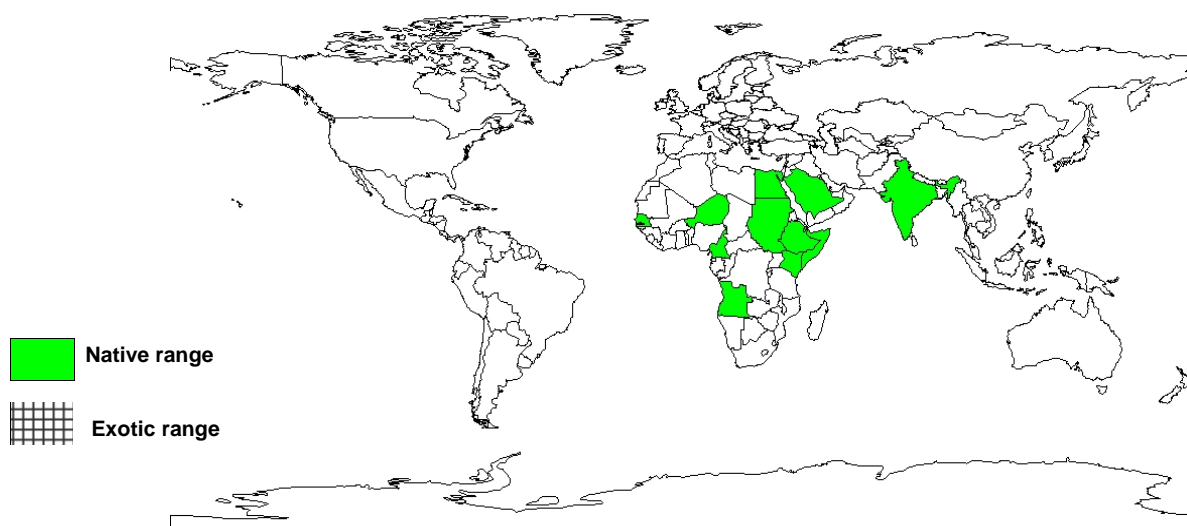
Mean annual rainfall: 200-500 mm

Soil type: Shows preference for heavy soils though it can also be found on rocky screes.

**DOCUMENTED SPECIES DISTRIBUTION**

Native: Angola, Cameroon, Democratic Republic of Congo, Djibouti, Egypt, Ethiopia, India, Kenya, Niger, Saudi Arabia, Senegal, Somalia, Sudan

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: The young leaves are edible and are also used in spicing and flavouring food.

Fodder: Flowers, leaves and fruits are relished by all livestock, except horses and donkeys, particularly during the dry season. Camels are particularly fond of them and are the main consumers, since other species find it difficult to reach the foliage. Buffalo, black rhino and hartebeasts also seek the foliage. The fodder has a high protein content, 30%, and a digestibility in vitro value of 78%. *C. farinosa* also has a high ash content.

Fuel: Provides fuelwood.

Medicine: Crushed leaves mixed with millet-flour are used as a medicine against coughs.

**Other products:**

The alkaloids cadabicine and cadabicine diacetate have been isolated from *C. farinosa* stem bark.

**SERVICES**

Erosion control: Protects the soil from wind and water erosion.

Shade or shelter: Provides shade to small stock, goats and sheep.

Reclamation: Used in sand dune stabilization.

Boundary or barrier or support: Can be used in constructing temporary fences for livestock.

Intercropping: Though it has shallow lateral roots, *C. farinosa* roots deeply. This implies that its intercropping potential could be average.

**Other services:**

Preparations made from the plant are used in cleansing ceremonies in the Sudan.

**TREE MANAGEMENT**

It can be lopped for fodder.

**GERMPLASM MANAGEMENT**

Seed storage behaviour appears to be orthodox.

**FURTHER READNG**

Ahmad VU et al. 1987. Cadabicine and cadabicine diacetate from Crataeva nurvala and Cadaba farinosa. Journal of Natural Products. 50 (6):1186.

Baumer M. 1983. Notes on trees and shrubs in arid and semi-arid regions. Rome FAO. Forestry Division.

Cisse MI and le Houerou HN. 1980. Effects of various stripping regimes on foliage production of some browse bushes of the Sudano-Sahelian zone, Browse in Africa, p. 211-214, International Livestock Centre for Africa; Addis Ababa; Ethiopia.

Hong TD, Linington S, Ellis RH. 1996. Seed storage behaviour: a compendium. Handbooks for Genebanks: No. 4. IPGRI.

von Maydell HJ. 1986. Trees and shrubs of the Sahel - their characteristics and uses. GTZ 6MBH, Eschborn.

**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/>)