

## Entada africana

Guill. et Perrott.

Fabaceae - Mimosoideae

### LOCAL NAMES

Arabic (dorot); Yoruba (ogurobe)

### BOTANIC DESCRIPTION

*Entada africana* is a small tree up to 4-10 m in height and 90 cm in girth; branching low down, with a wide crown; bark brown-grey to black, very rough, transversely striped, scaly, peeling in long fibrous strips, slash fibrous, red or yellow-brown.

Leaves bipinnate, alternate, 3-9 pairs, with a glabrous common stalk 15-45 cm; rachis 25-30 cm long with 2-9 pairs of pinnae; 8-24 pairs of leaflets. Leaflets 2-3 x 0.5-1.5 cm, elongated elliptic with the apex rounded and occasionally minutely notched, the base asymmetrical with the lower edge more rounded than the upper; midrib and nerves distinct on both surfaces.

Flowers creamy-white or reddish-yellow, about 6 mm long, slightly scented, densely clustered in spike-like racemes 5-15 cm long including the short central stalk; spikes solitary or in small clusters in the leaf axils or arranged in panicles at the ends of shoots, 1-4. Sepals glabrous, small, 5-lobed; petals 3 x 1 mm, spatulate; 10 free stamens.

Fruit is a pod, 15-40 x 5-8 (15) cm, very persistent, hanging down untidily for many months and eventually breaking up on the tree, very flat and fragile (papery), with the seeds showing through, straight or slightly curved, with thick wavy margins, red-brown on the outside; breaking open with segments of the dry interior part of the pod, containing 10-15 broad elliptic flat seeds about 12 mm long; on breaking up, the outer coat of each segment of the pod peels off, the straw-coloured inner coat remaining attached to the seed and acting as a wing. Seeds 2-winged.

### BIOLOGY

In Nigeria, flowers appear with the new leaves in February to April.



*Entada africana* slash. (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



(Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



*Entada africana* flower. (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)

**ECOLOGY**

*E. africana* grows in high rainfall savannah areas. Trees are found in the Sudan zone, only exceptionally penetrating into the southern Sahel, in Burkina Faso, Senegal, Cameroon, Uganda and Zaire. It occurs on the lower slopes or banks of swamps, on ground water sites. It is very sensitive to bush fires, often mutilated by it, and is widespread and abundant in Nigeria.

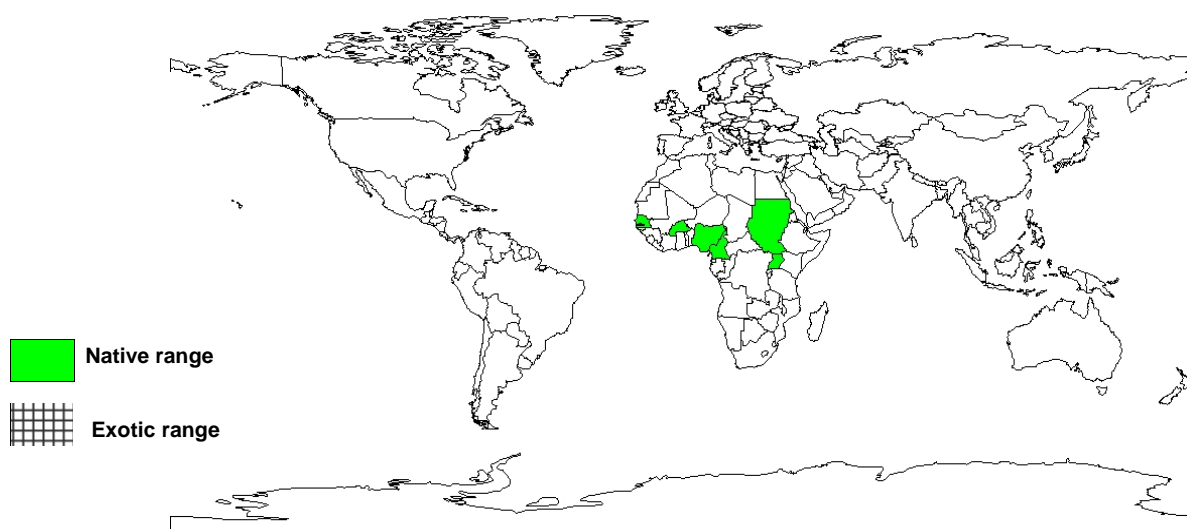
**BIOPHYSICAL LIMITS**

Mean annual rainfall: 600-1 200 mm, Mean annual temperature: 20-32 deg.C, Altitude: 200-1 500m

**DOCUMENTED SPECIES DISTRIBUTION**

Native: Burkina Faso, Cameroon, Democratic Republic of Congo, Nigeria, Senegal, Sudan, Uganda

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**

Fodder: Leaves of *E. africana* make good fodder.

Fibre: Bast fibres are used for ropes and bands; the bark of the root and stem yields a long fibre used for cordage, commonly for roof binding and grass matting.

Timber: Wood is light red, soft and easy to work.

Gum or resin: *E. africana* yields a low-quality gum.

Tannin or dyestuff: The bark contains tannin.

Poison: An infusion of the leaves at a concentration of 1:1 000 kills *Carassius auratus* (goldfish) in 12 hours.

Medicine: The bark is said to have abortive effects while a root decoction is a stimulating agent and tonic. The plant is said to have antidote effects against various toxic agents because of its emetic properties. Healing and fever-reducing beverages are prepared from leaves, bark, roots and shoots. In northern Nigeria and northern Ghana, an infusion of the leaves, or of the bark is taken as a tonic and for stomachache. The leaves also constitute a good wound dressing, preventing suppuration.

GERMPLASM MANAGEMENT

On average, there are 4 000 seeds/kg.

**FURTHER READNG**

Keay RW. 1989. Trees of Nigeria. Claredon Press Oxford.

Oliver-Beyer B. 1986. Medicinal plants in tropical West Africa. Cambridge University Press. Cambridge.

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/>)