

## Eucalyptus tereticornis

mysore gum

Smith

Myrtaceae

### LOCAL NAMES

English (mysore-gum, chikkaballapur eucalyptus, eucalyptus hybrid, forest red gum, forest river gum, horn-cap eucalyptus, blue gum, mysore hybrid, Nandi hybrid, Queensland blue gum, red iron gum, slaty-gum); French (Eucalyptus); Hindi (safeda); Khmer (pré:ng khchâl' slök tô:ch); Swahili (mkaratusi); Trade name (mysore gum)

### BOTANIC DESCRIPTION

*Eucalyptus tereticornis* is a tree up to 45 m tall or taller; trunk erect, 1-1.8 m in diameter; crown large, open or fairly dense, variable; bark smooth, whitish, peeling in irregular thin sheets or large flakes, becoming mottled with white, grey or bluish patches, often some rough, dark grey bark at base; twigs reddish or yellowish-green.

Leaves alternate, drooping on slender leaf stalks, narrowly lance shaped, 10-21 x 12-25 mm, often curved, long pointed at tip and short pointed at base, slightly thickened, shiny green on both surfaces, hairless, with many fine side veins at an angle and a distinct vein along edge; juvenile leaves opposite for 2-3 pairs, with slender leaf stalks, elliptic to broadly lance shaped, 6-16 cm long, 5-6 cm wide, green.

Flower clusters (umbel) single at leaf base, 2.5-3 cm long including rounded stalk of 1 cm; flowers 5-12, spreading on equal stalks 5-7 mm; buds 12-16 x 5 mm, with half-rounded base and long, narrow, conical, hornlike lid.

Fruit or seed capsules several, half round or top shaped, 6-9 mm long, 8-10 mm in diameter, with raised disc and prominent rim, opening with 4-5 raised teeth curving inward; seeds many, tiny, 1 mm long and broad, shiny, dark brown to black.

The genus *Eucalyptus* was described and named in 1788 by the French botanist l'Héritier. The flowers of the various *Eucalyptus* species are protected by an operculum, hence the generic name, which comes from the Greek words 'eu' (well), and 'calyptos' (covered). The specific name 'tereticornis' is a Latin word meaning 'long', 'round' and 'horn', and refers to the very long, hornlike lid (operculum) of the flower bud.

### BIOLOGY

In plantations *E. tereticornis* begins to produce seed 3-6 years after establishment.



Rounded fruit at Hobdy collection, Maui, Hawaii (Forest and Kim Starr)



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(J.S. Peterson @ USDA-NRCS PLANTS Database)

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## ECOLOGY

*E. tereticornis* has the widest latitudinal distribution of any species in the genus. It occurs over a wide range of climatic conditions, and principally in open-forest formation with a number of other eucalypts and on river flats or hill slopes with alluvial or sandy to gravelly soils.

*E. tereticornis* has been most successful in summer rainfall conditions with a moderate to fairly severe dry season. It is considerably drought resistant but is susceptible to frost. The species tolerates occasional waterlogging. In many countries, among the *Eucalyptus* species, *E. tereticornis* is considered relatively fire resistant.

## BIOPHYSICAL LIMITS

Altitude: 0-1 000 m, Mean annual temperature: 2-12 to 22-32 deg. C, Mean annual rainfall: 500-1 500(3 500) mm

Soil type: Will grow on a variety of soils, with a preference for deep, well-drained soils of fairly light texture, including alluvial soils, silts and clays. A neutral or slightly acidic pH is suitable, but not a strongly acidic one.

## DOCUMENTED SPECIES DISTRIBUTION

Native: Australia, Papua New Guinea

Exotic: Argentina, Bangladesh, Brazil, Cambodia, Colombia, Congo, Cote d'Ivoire, Ethiopia, Fiji, Ghana, Greece, India, Indonesia, Israel, Kenya, Madagascar, Malaysia, Mozambique, Nigeria, Pakistan, Philippines, Sierra Leone, Solomon Islands, South Africa, Tanzania, Turkey, Uruguay, Vietnam, Zambia, Zimbabwe



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.

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### **PRODUCTS**

Apiculture: *E. tereticornis* is a major source of pollen and nectar, producing a caramel-flavoured honey.

Fuel: *E. tereticornis* is popular and widely used for firewood and charcoal.

Fibre: In India, the most important use of *E. tereticornis* is for its good quality pulp and paper. The strength properties of the paper improve after the tree reaches 9 years of age, but the dark colour of the heartwood, in comparison with some other *Eucalyptus* species, is a disadvantage. It is also used for hardboard, fibreboard and particleboard.

Timber: The wood is red, hard, heavy, strong, durable, uniform in texture and has an interlocked grain. In Australia the wood is one of the types most resistant to marine borer and is widely used as a construction and mining timber. It is also used for poles, stakes, boxwoods, bridge timber, railway sleepers and wharves. It is suitable for posts of all sizes.

Tannin or dyestuff: The wood contains 6-12% tannin, and the bark 3-15. In Congo, tannin is extracted from the wood and the bark.

Essential oil: The leaves are 1 of the sources of eucalypt oil, and the principal leaf oil is cineole (45%). The oil yield percentage by fresh weight is 0.9-1.4%. The wood contains 0.5% essential oil. Oil extraction is common in the Philippines.

### **SERVICES**

Shade or shelter: Planted in shelter-belts as a windbreak and for shade.

Reclamation: A suitable species in reforestation programmes.

**TREE MANAGEMENT**

The species coppices vigorously: a 99% rate has been reported from Congo. Rotation varies with site quality and the objects of management. In Congo, for example, the rotation is 5-7 years, and in Argentina it is 9-12 years with a single thinning at about 7-8 years.

**GERMPLASM MANAGEMENT**

Seed storage behaviour is orthodox. Viability can be maintained for several years in hermetic storage at 3 deg. C with 6-10% mc. A germination rate of 8% following 10 years of open storage at room temperature has been reported. There are approximately 320 000-600 000 viable seeds/kg.

**PESTS AND DISEASES**

In general, *E. tereticornis* has proved fairly free of pests and diseases. In many areas termites attack young plants if insecticide is not used while planting. In India, the most serious disease has been the canker caused by the fungus *Corticium salmonicolo*.

**FURTHER READNG**

- Albrecht J. ed. 1993. Tree seed hand book of Kenya. GTZ Forestry Seed Center Muguga, Nairobi, Kenya.
- Boland DJ, Brophy JJ, House APN. 1991. Eucalyptus leaf oils, use, chemistry, distillation and marketing. ACIAR/CSIRO. INKATA Press. Melbourne.
- Boland DJ. et. al. 1985. Forest trees of Australia. CSIRO. Australia
- FAO. 1979. Eucalypts for Planting FAO Forestry Series No. 11.
- Faridah Hanum I, van der Maesen LJG (eds.). 1997. Plant Resources of South-East Asia No 11. Auxillary Plants. Backhuys Publishers, Leiden, the Netherlands.
- Hocking D. 1993. Trees for Drylands. Oxford & IBH Publishing Co. New Delhi.
- Hong TD, Linington S, Ellis RH. 1996. Seed storage behaviour: a compendium. Handbooks for Genebanks: No. 4. IPGRI.
- Little EL. 1983. Common fuelwood crops. Communi-Tech Association, Morgantown, West Virginia.
- Luna R K. 1997. Plantation trees. International Book Distributors.
- Mbuya LP et al. 1994. Useful trees and shrubs for Tanzania: Identification, Propagation and Management for Agricultural and Pastoral Communities. Regional Soil Conservation Unit (RSCU), Swedish International Development Authority (SIDA).
- Parkash R, Hocking D. 1986. Some favourite trees for fuel and fodder. Society for promotion of wastelands development, New Delhi, India.
- Soerianegara I, Lemmens RHMJ (eds.). 1993. Plant Resources of South-East Asia. No. 5(1): Timber trees: major commercial timbers. Backhuys Publishers, Leiden.

**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/>)