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Eucalyptus urophylla S.T. Blake

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Eucalyptus urophylla S. T. Blake

Taxonomy and nomenclature

Family: Myrtaceae

Synonyms: none. The species is sometimes wrongly referred to as *Eucalyptus alba*, a species it is very similar to.

Vernacular/common names: Timor mountain gum, Timor white gum (Eng.); ampupu, popo, palavao preto (Indonesia).

Distribution and habitat

E. urophylla is indigenous to Indonesia where it is distributed in the south-east, scattered on and around the islands of Timor and Flores. It is found from sea level and up to 3000 m altitude, in areas with annual rainfall of 700-2500 mm and mean annual temperature of 24-28°C. In its natural range the rainfall is monsoonal with 2-8 dry months per year. It tolerates poor soils as long as the texture is loose and prefers soils that remain moist during the dry season.

1, flowering branch; 2, fruiting branch. Copyright: PROSEA Foundation

Uses

The wood is mainly used for pulp and boards. It is less dense than most eucalypts, the basic density is in the range of 540-570 kg/m^3. Timber from older trees can be sawn and used for general construction. Young trees provide good firewood and charcoal. The species is useful in protecting river banks and for providing shade, and because it has no major soil requirements, it is appropriate for reforestation, both in flooded soils and in dry soils in tropical lowlands. It is also a good honey-producing species.

Botanical description

This species is extremely variable, particularly in bark, fruit size and fruit shape. The trees are normally 25-45 m tall and with diameter about 1 m. Under very favourable conditions it can reach up to 50 m in height and diameter over 2 m. The bole is straight for half to two-thirds of the tree height. The bark is rough, a feature that distinguishes the species from *E. alba* which has a smooth bark or rough only over part of the trunk. The leaves on young trees are different from those on older trees. They are smaller and rounded. On older trees, the leaves are longer, 12-20 cm, and narrower. The end of the leaf tapers to a point, forming a so-called 'drip-tip'. Flowers in single, axillary inflorescences, with 5-10 flowers in each.

Fruit and seed description

Fruit: the fruit is a typical eucalypt capsule, it is cup-shaped and has 3-5 valves. It has a double operculum (lid) and the outer operculum is lost early.

Seed: on average there are 400.000-700.000 seeds/kg.

Flowering and fruiting habit

The trees may begin to set flowers when they are 2-3 years old and seeds are produced abundantly within 4 years growth. Flowering occurs during the dry season and 6 months later the seeds are mature. The flowers are pollinated by a number of insects, birds and mammals and to a lesser extent by wind.

Harvest

When the fruit becomes hard and brown and begins to open, the seeds are mature. Before they open, the fruits are cut from the branches by hand and placed in paper or cloth bags. The seeds must be kept well ventilated to avoid fungi and they should not be exposed to high temperatures.

Processing and handling

After collection the fruits are spread out in a thin layer on a sheet in a dry and well-ventilated place either in the sun or in the shade. The fruits are shaken daily and the seed removed so that it is not exposed to high temperatures longer than necessary. Within three days all fruits have normally opened. After drying, the fruits must be vigorously shaken to release all the seeds, otherwise only the chaff may be released. The fertile seeds and chaff can be separated from other

matter by sieving. If further cleaning is needed, most of the chaff can be separated from the seeds in a seed blower.

Storage and viability

The seeds are orthodox and should be dried to low moisture content (4-8%). They can be stored for several years provided they are kept dry and cool.

Dormancy and pretreatment

The seeds have no dormancy and need no pretreatment.

Sowing and germination

The untreated seeds are sown in seedbeds and when the seedlings have two pairs of leaves they are transplanted into containers in a free-draining loam-sand mix. After 10-12 weeks when the seedlings are about 25 cm tall they are ready for planting in the field. The species coppices readily and is easily propagated by rooted cuttings or in tissue culture

Stand of *Eucalyptus urophylla*, Mount Egon, Flores, Indonesia. Copyright: Brian Gunn/CSIRO Forestry and Forest Products

Selected readings

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