Eucalyptus pellita

F. Muell.

Myrtaceae

large-fruited red mahogany

LOCAL NAMES
English (red stringy bark,red mahogany,large-fruited red mahogany,daintree stringy bark); Trade name (large-fruited red mahogany)

BOTANIC DESCRIPTION
Eucalyptus pellita is a medium-size to large tree, up to 40 m in height and 1 m in diameter at breast height. At its best, it has a straight trunk to about a half of the tree height and a large, heavily branched crown. The bark is rough and persistent to the small branches, shortly fibrous, shallowly to coarsely fissured, thick and brown to reddish-brown.

Leaves of seedlings opposite for about 4-7 pairs then alternate, petiolate, ovate, 5-15 x 1.6-7 cm, green, discolorous; juveniles are alternate, petiolate, ovate, 14-21 x 7-8.5 cm, green, discolourous; adult leaves alternate, petiolate, usually tapered to a long, fine point, broad-lanceolate to lanceolate, 10-15 x 2-4 cm, green, strongly discolourous.

Inflorescence simple, axillary, usually 7 flowered (rarely 3 or 9); penduncles broad, flattened, 1-2.5 cm long; pedicles occasionally absent, but usually stout, angular, 1-9 mm long; buds with obconical hypanthia, usually with ribs continuing from the angular pedicles, 9-21 x 6-12 mm; operculum shape very variable, generally rostrate and about 1-1.5 times the length of the hypanthium.

Fruits sessile or shortly pedicellate, hemispherical to obconical, often slightly ribbed, 7-14 x 7-17 mm; disc broad, more or less level; valves usually 4, exserted; operculum scar prominent (usually broader than disk), concave.

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, from the Greek words 'eu' (well), and 'calyptos' (covered). The specific name comes from the Latin word 'pellitus', meaning 'covered with a skin', which probably refers to the epidermis of the leaves. The type description refers to the moderately thick covering. The common name refers to the fruit size in comparison with E. resinifera and E. notabilis.

BIOLOGY
In Australia, E. pellita flowers from April-June and the mature seeds are harvested in August-November.

Eucalyptus pellita (Mulawarman)

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ECOLOGY

In its natural habitat, E. pellita is found in open forest formation with a large number of other Eucalyptus species, in tall sclerophyll forest and at the margins of rainforests. The tree grows mainly on gentle to moderately sloping topography, although it is found, to a limited extent, on steep, well-drained slopes of large ridges and even alongside small streams in the drier and hotter parts of its occurrence. On bare rock above beaches, it may be reduced to a bushy shrub. It grows quickly in humid and subhumid, tropical lowland regions and requires uniform to summer rainfall. The species is frost resistant.

BIOPHYSICAL LIMITS

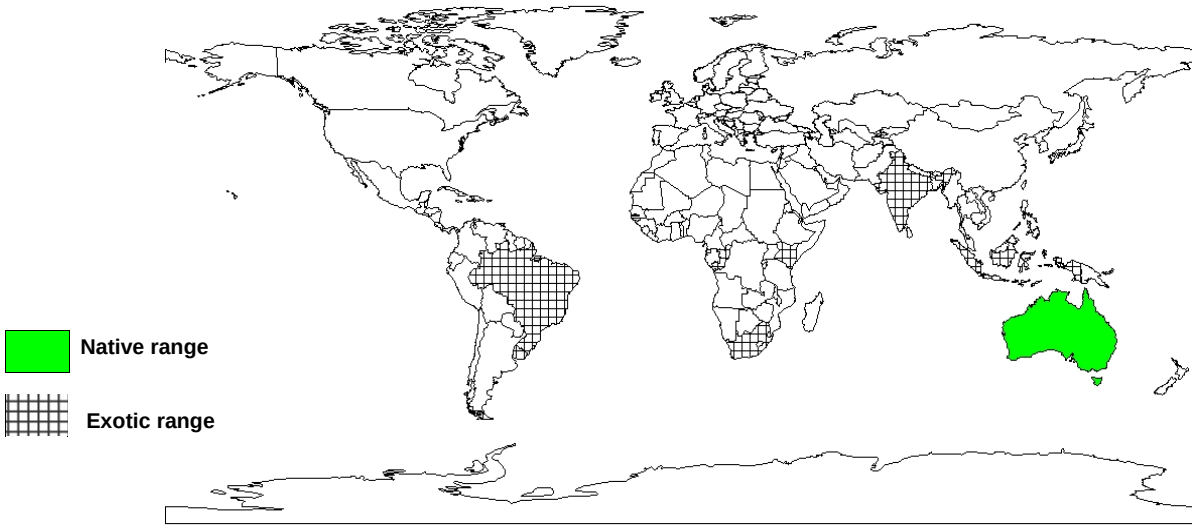
Altitude: 0-800 m, Mean annual temperature: 4-19 to 24-34 deg. C, Mean annual rainfall: 900-4 000 mm

Soil type: Well-drained soils ranging from shallow sands on sandstone ridges to shallow sandy podzols and deep forest loams.

DOCUMENTED SPECIES DISTRIBUTION

Native: Australia, Papua New Guinea

Exotic: Brazil, Congo, Fiji, India, Indonesia, Kenya, South Africa, Uruguay



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: The flowers are a minor source of thin, strong-flavoured honey. They provide large quantities of pollen for bee colonies.

Fuel: E. pellita is a suitable source of firewood and charcoal.

Timber: The heartwood is red to dark red, strong and durable, moderately heavy with a density of 990 kg/cubic m. Although the grain is somewhat interlocked, the wood is not difficult to work. It has a wide range of uses for buildings, heavy construction and heavy ornamental work. The timber is similar to that of red mahogany, E. resinifera.

Essential oil: The oil obtained from E. pellita is essentially monoterpenoid but rather variable. The major components are alpha-pinene (20-51%), limonene (11-44%), gamma-terpinene (0.2-23%), rho-cymene (0.3-11%), beta-pinene (2-6%) and terpinolene (0.5-3%). Oil yield is about 0.1%.

Poison: In Cuba, pure essential oils were extracted from the foliage of E. pellita and were found to have a highly repellent effect on the ant Wasmannia auropunctata, a pest of both forest plantations and plantation and fruit crops, for the 96 hours during which the observations were made.

SERVICES
Shade or shelter: The large, heavily branched crown makes E. pellita suitable for shade and as a windbreak.

Reclamation: Recommended for afforestation of coastal lands.

Ornamental: The species is widely planted in parks.

TREE MANAGEMENT
E. pellita is recommended for planting only on well-drained, sandy soils where at an early stage it forms a dense crown that shades out weeds once it is established.

GERMPLASM MANAGEMENT
The seeds remain viable for many years under controlled storage conditions. There are approximately 69 000 viable seeds/kg.

PESTS AND DISEASES
E. pellita is moderately resistant to the stem canker Cryphonectria cubensis. The sapwood is susceptible to attack by Lyctus borers.

FURTHER READNG

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SUGGESTED CITATION

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