

Eucalyptus brassiana S.T. Blake

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MYRTACEAE (MYRTLE FAMILY)

No synonyms

Eucalipto

Eucalyptus brassiana occurs in the northeastern Cape York Peninsula, Queensland, as far south as Helenvale, Australia, where it grows on seasonally flooded flats and depressions, well-drained rocky slopes and some slightly undulating plains, in woodlands and open forests in poor soils. The species also occurs in southwestern Papua, New Guinea (Flora de Australia 1988).

Eucalyptus brassiana is a fast-growing tree that can reach 30 m in height. In general, its form is poor. The whitish or grayish bark is smooth, and comes loose in narrow strips or fringes. The young branches are hanging and frequently reddish. The young leaves are opposite or alternate, petiolate, widely oval, whole, and glabrous. Adult leaves are lanceolate, sometimes curved, hanging coriaceous, acuminate, 7 to 20 cm long, with a yellowish or reddish middle vein. The tree shows promising growth in loose sandy soils. It grows in moderately deep soils with a medium to low fertility. Calcareous soils delay its growth. It grows at elevations from sea level up to approximately 1000 m, with an average annual temperature of 25 °C and annual precipitation of 600 to 1400 mm. The species is found in vegetal formations of the Tropical dry forest (bs-T) (Florence 1996).

The wood of *E. brassiana* is used for pulp and in plywood and agglomerate boards. It is also used as crossbeams, long-lasting posts, and pilings and in construction, cabinet-making, and general carpentry. Finally, it is used as a shade tree and in bee-keeping operations.

The flowers are white, pedicellate, medium, and arranged in axillary umbels that are isolated. Each umbel has many flowers with pedicels or cylindrical peduncles. The hemispheric fruit measures 6 to 10 mm long, with a convex shoot and three valves.

Because knowledge about *E. brassiana* is limited, the following information is about the *Eucalyptus* genus.

The fruits are separated from the branches by hand or scissors and are placed in paper bags. They must be kept well ventilated to prevent attacks by fungi, and they should not be exposed to high temperatures. Fruits can be dried in the open air or in an oven. When dried, the fruits quickly begin their dehiscence.

Eucalyptuses, in general, produce a great quantity of seeds, which vary greatly in size, shape, and color. The ripened seeds can be kept viable for 5 to 30 years if they are stored in sealed containers at a low moisture content (8 to 10 percent) and a temperature of 3 to 5 °C. Before storing, the seeds must be treated to protect against insects and fungi.

Most *Eucalyptus* seeds germinate well without pregermination treatment, but some species require cold and humid stratification to break latency. This treatment consists of moistening the seeds and placing them in a cold chamber (3 to 5 °C) for 2 to 10 weeks. The appropriate temperature for germination is 20 °C. Complete germination occurs in 10 to 21 days, depending on the species.

The substrate for sowing can be sand, vermiculite, or sifted vegetal soil. The substrate must be carefully sterilized before sowing. A simple sterilization method involves using a 3-percent sulfuric acid solution in water, at a rate of 3 L per m².

After the seeds are planted, the surface is moderately packed down, covered with a thin layer of sand or fine soil, and watered again. Until the plantules finish emerging (10 to 20 days) the seedbeds must be kept in the shade; they can then be uncovered during the cooler hours. As they strengthen they can be left under direct light and become ready for dibbling. Pesticides must be applied for 30 to 45 days.

Because *Eucalyptus* is very susceptible to competition, especially from grass, the site should be cleaned. Burning after cleaning is a very common practice; removal of woody material facilitates planting, provides good control of the competi-

tion, and liberates a great amount of nutrients. However, burning does damage microorganisms in the soil. If the soil is poor or overpastured, plowing, subpaving, or fertilizing is necessary (Prado and Barros 1991).