

## NZ Myrtaceae Key - Online edition

# *Eucalyptus regnans* F.Muell.

### Common Names

giant ash, giant gum, mountain ash, stringy gum, swamp gum, Tasmanian oak, Victorian ash, white mountain ash

### Origin

Australia: high rainfall areas on deep fertile soils in eastern highlands of Victoria and northern and south-eastern Tasmania.

### Cultivation

In New Zealand cultivated in timber plantations, and occasionally in tree collections and for amenity; occasional naturalisation from nearby planted specimens.

### Distribution

Scattered records from throughout the North Island; less common in the South Island of New Zealand.

### Distinguishing Features

- A tree to 90 m tall (the tallest known hardwood species in the world), with thin, fibrous, rough bark on the lower part of the trunk, and smooth bark that is cream, grey-green, pale grey, brown or yellow-white on the upper trunk and branches, with ribbons of shedding bark in the upper branches.
- Adult leaves that are green, glossy, same colour above and below, alternate, stalked, blade lanceolate to sickle-shaped, to 230 mm long and 50 mm wide, usually the two sides of the leaf base meeting at different points on the midrib (oblique), or tapering to the stalk, side-veins at an acute angle to midrib.
- Juvenile leaves opposite and short-stalked for 2 to 3 pairs, then alternate, stalked, ovate, to 120 mm long and 50 mm wide, becoming shaped like the adult leaves, green, held horizontally.
- Flowers often in paired clusters in leaf axils (but may be single also); stalk of cluster to 14 mm long, buds in clusters of 7 to 15 or more; mature buds stalked (bud stalks to 7 mm long), club-shaped, to 7 mm long and to 4 mm wide, green, brown or yellow, bud cap rounded to conical, with a small point, usually less drawn-out than on bud caps of *E. fastigata*.
- Fruit a stalked woody capsule, stalks to 7 mm long, cup-shaped to funnel-shaped, to 9 mm long and 7 mm wide, disc broad, more or less level, often slightly below rim of the capsule, valves usually 3, near rim level.

### Habit

A medium-sized to very tall forest tree to 90 m tall.

### Bark and Stem/Trunk

Bark rough at the base, up to about 15 m of trunk, relatively thin, fibrous or with a crumbly surface, grey, brown or black; smooth bark on upper trunk and branches is cream, grey-green, pale grey, brown or yellow-white, with ribbons of shedding bark in the upper branches. Hairs and adventitious roots absent. Young stem rounded in cross-section, smooth or warty, side-veins at an acute angle to midrib.

### Leaves

Adult leaves alternate, stalked, blade lanceolate to sickle-shaped, 90–230 mm long, 15–50 mm wide, usually the two sides of the leaf base meeting at different points on the midrib (oblique), or tapering to the stalk, same colour above and below, glossy, green, side-veins at an acute angle to midrib, vein reticulation sparse to moderate, intramarginal vein parallel to and well removed from margin, oil glands present; leaf stalk 8–25 mm long.

Juvenile leaves opposite and short-stalked for 2 to 3 pairs, then alternate, stalked, ovate, 55–120 mm long, 22–50 mm wide, the two sides of the leaf base meeting at different points on the midrib (oblique), glossy, green, held horizontally.

### Flowers

Flowers often in paired clusters in leaf axils, but may be single also; stalk of cluster angular, 4–14 mm long, buds in clusters of 7 to 15 or more; mature buds free, stalked (bud stalks 3–7 mm long), club-shaped, 4–7 mm long, 2–4 mm wide, green, brown or yellow, bud cap rounded to conical, with a small point, flowers (stamens) white; in mature open flowers, petals and sepals absent. Main flowering period: autumn.

### Fruit

Capsules woody, stalked (stalks 1–7 mm long), cup-shaped to funnel-shaped, 5–9 mm long, 4–7 mm wide, disc broad, more or less level, often slightly below rim of the capsule, valves usually 3, near rim level or slightly enclosed within the capsule, or occasionally slightly projecting above the rim.

### Similar Species

*Eucalyptus regnans* is a green-leaved ash eucalypt species with only a short stocking of rough bark. It has only one close relative, *E. fastigata*, both having ribbons of shedding bark in the crown and the rare character of paired clusters of buds and capsules in the leaf axils.

*Eucalyptus fastigata* differs in having rough bark over the whole trunk (although upper branches are smooth) and capsules with a slightly domed disc. *Eucalyptus regnans* has capsules with a slightly sunken disc.

The other tall, green-leaved ash eucalypt species is *E. obliqua*, which differs in the rough bark to the branchlets, larger, thicker, broadly ovate juvenile leaves, single clusters of buds or capsules in leaf axils, and barrel-shaped capsules.

## Notes

*Eucalyptus* is a genus of nearly 800 species, most of which are endemic to Australia, with a few species extending to parts of Malesia and as far north as the Philippines.

## External Links

- [CitSciHub](#)
- [EUCLID](#)
- [Flora of Australia](#)
- [Flora of New Zealand Online](#)
- [GBIF](#)
- [iNaturalist NZ](#)
- [NZPCN](#)
- [VicFlora: Flora of Victoria](#)

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