

Australian blackwood (*Acacia melanoxylon*)

Sustainable Land Management Programme

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Introduction

The Australian blackwood has become very popular in New Zealand over the past 15-20 years as a special purpose timber. It has excellent wood qualities and high market value.

However, blackwood is renowned for its poor form. In an open growing situation, the tree has poor leader dominance and heavy branching. It has better form when grown within canopy gaps. This is because side shading encourages strong leader dominance as blackwood is an emergent species.

The natural habitat of Australian blackwood is widespread, from southern Queensland along the New South Wales coastal ranges, across Victoria and south-eastern Australia and Tasmania

Site selection

Blackwood can tolerate a wide range of soils and sites but will lack vigour in poorly drained, swampy conditions. It grows best on well drained loam soils with cool winters and frosts of less than -8°C . Soils that are phosphorus deficient may require fertilising with superphosphate.

Blackwood management regime

There are a number of regimes being used for growing blackwoods, so it is advisable to closely investigate what regime best suits the site

Common Regime: 35-45 year rotation

Year 1. Plant alternate rows, 3.2 metres apart, of blackwood and nurse crop, eg. eucalyptus species, with seedlings spaced 3 metres apart, in the rows. Offset seedlings planted in adjoining rows (525 trees/ha of both blackwood and nurse crop)

Year 2-8 Form prune blackwoods annually using a 30mm gauge (ie. Prune branches larger than 30mm).

Year 4-8 Stem prune blackwoods to 6 metres leaving 50% green crown.

Year 8-9 Remove nurse crop before it reaches 15 metres in height. Thin blackwoods to a final crop of 150 stems/ha.

Note Less vigorous eucalypts such as *E. obliqua*, *E. muelleriana*, *E. globoidea* or *E. fastigata* are recommended as suitable nurse crops



Australian blackwood

Pests and diseases

Pests and diseases found to affect blackwoods include:

- Psyllids (*psylla acaciae*) and leaf miners (*Acroceroptis alysidota*), which affect leader growth.
- Possums prefer juvenile foliage, damaging branches in the process of eating the foliage.
- Rabbits and hares can be a problem initially when seedlings are planted.
- Large female cicadas can attack the bark, usually on the underside of branches near the stem. This can result in the tree being ringbarked. Trees over 10 metres are more able to withstand cicada attacks.
- The New Zealand pinhole borer (*Platypus apicalis*) and lemon tree borer (*Oemona hirta*), have been observed boring into blackwoods, however, the damage is not economically significant.
- Rust fungus (*Uromycladium robinsonii*) can attack blackwoods causing brown galls on small branches. Another rust fungus (*Uromycladium notabila*), can cause large brown galls. A severe attack can kill a tree in about 3-4 years.

Timber properties

Blackwood is highly decorative, the heartwood is a rich golden-brown with streaks of reddish-brown and is commonly used for furniture, sliced veneer, panelling, turnery, boat building and carving. It is easy to cut into sawn timber. The wood is easily dried with minimal shrinkage occurring. The heartwood is naturally durable lasting 15-25 years in the ground.

Yields and values

Limited data is available on yields and values, as generally only small blocks have been harvested to date. In the past, values have been low due to the poor quality of material, but higher grade timber is predicted to increase in value. The tables on the back of the page show the likely yields and values that can be expected from high grade timber harvested at age 30-40 years.

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Blackwood Log Yields

Log grade	Volume/ha (m ³)
Pruned butt logs	70-85
Small branched sawlogs	20-30
Large branched sawlogs	45-55
Firewood	40-70

Grades, Yields and values for Mature Blackwood

Grade (sawn timber)	Percentage of Production	1996 Value (NZ\$/m ³)
Clears (select heart)	28	1,800.00
Dressings	8	870.00
Factory	10	750.00
Merchantable	16	600.00
Framing	26	500.00
Box	12	350.00

Source: Ministry of Forestry