



Weeping myall

BOOREE *Acacia pendula*

Species attributes

Acacia pendula is a hardy and versatile tree that yields a very hard, strong and dense wood. It is a long-lived wattle that can provide density to a windbreak, shade and shelter on the farm. Its elegant drooping form also make it an attractive ornamental tree. Until recently, *A. pendula* has been largely overlooked as a commercial species.

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Traditionally, the hard, close grain, dark colour and heavy weight of the timber produced fine boomerangs for Aboriginal hunting. It is currently used for making didgeridoos. Weeping myall became a valuable source of fuelwood during settlement, both for the settlers' own warmth and firewood sold as far as Melbourne. The timber was also utilised for making small wooden articles such as pipes and workboxes.

It has proven useful for stock fodder, particularly in times of drought. Outside Australia it has been successfully grown in both Kuwait and Iran with limited irrigation.

Wood and timber products

Craftwood	<i>Highly suited</i>
Furniture	<i>Excellent for fine joinery</i>
Fencing	<i>Small durable posts</i>
Firewood	<i>Clean and hot burning</i>



Market potential

Despite its current low profile in existing craft-wood and specialty timber markets, recognition of this species potential to provide timber of the highest quality and value to premium markets is on the increase, both in Australia and overseas.

This species has attributes that should make it of particular interest to farm forestry investors in the north of the region.

Species description

Acacia pendula (A. Cunn. Ex G. Don) is a small tree with rough grey bark. It has a stout trunk that divides into a few main stems that support drooping pendulums of silver-leaved branches. It commonly grows anywhere between 6 and 12 metres in height.

The smooth phyllodes (or leaves) are narrow and taper at both ends. They can be up to 10 cm long and are usually slightly curved. Three parallel veins may be obscured by very fine ashen hairs that press to the leaf surface. This provides a yellow tinge to their otherwise blue-green appearance.

Rather sparse yellow flowers are borne on a slender and short main stalk (peduncle) within the leaf and branch axil.

The seedpods are distinctively broad and flat, up to 8 cm in length, with a small wing along each margin.

Seeds usually ripen in mid to late summer (December - February).

Like all wattles and members of the Leguminosae family, *Acacia pendula* usually forms root nodules that contain nitrogen-fixing bacteria (*Rhizobium*).

It will coppice and produce suckers from damaged roots.

Other products

Seed	\$190 to \$250 per kg
Oils, gums and resins	Unknown



Natural Resources
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Flowering period

Flowers occur predominantly over the spring and winter periods, though this species has an irregular flowering habit and clusters may appear at any time of the year.

Seed viability	Moderate
Pre-treatment required	Yes
Optimal germination temperature	23°C
Seeds per gram (approx.)	45



Plant propagation

Like most wattles, the seed of *Acacia pendula* requires some pre-treatment in order to achieve a high rate of germination. A simple and effective approach is to place the seeds in a container and fill with water that has been boiled and allowed to stand for one minute. Give the water sufficient time to cool before removing the seed, indicated by a noticeable swelling and tarnishing of the seed (generally up to 24 hours). This method is particularly useful for treating large amounts of seed. An alternate scarification method suitable for breaking seed coat dormancy is to chip the shoulder of the seed at its base. This should be done below the funicle, which is easily distinguished as the point of attachment to the seedpod and where the roots eventually emerge. Remove no more than 1 mm and either sow immediately or soak in water overnight. Nail clippers may prove useful for this. Seeds can be sown into containers using a suitable seed-raising medium, or in favourable conditions direct drilled on site.

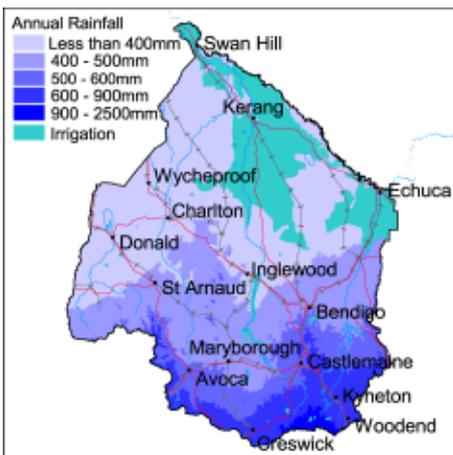


Natural distribution

Acacia pendula is common on the medium to heavy, dark riverine soils of New South Wales, extending northward from the Murray River, across the semi arid plains into Queensland. Victoria contains an isolated stand in the Little Desert area outside Warracknabeal.

Weeping myall is widespread on the fertile clay soils of the Darling River system, especially where there is good access to groundwater. These soils are often alkaline and/or saline. Stands of weeping myall are also found on the better-drained red earth soils in southern New South Wales, extending inland of The Dividing Range. Weeping myall occurs mainly within the cropping belt and has consequently been extensively cleared. This region receives rainfall within the 200-600 mm band at an altitude 90-350 metres above sea level.

Associated species vary greatly within each community, but may include black box *Eucalyptus largiflorens*, bumble box *E. populnea*, yarran *Acacia homalophylla* and brigalow *A. harpophylla*. Weeping myall will often form pure stands of open-woodland, and in the halophytic shrublands, co-exist with old-man saltbush *Atriplex nummularia*.



Occurrence in North Central Victoria

Weeping myall is planted as a specimen tree in gardens and public spaces, for shelter and fodder on farms, and along roadsides throughout the northern parts of the region.

Site preference

Weeping myall is a highly versatile species. It can survive drought conditions and ground subject to periodic flooding. It is frost tolerant and well adapted to the dry seasonal conditions experienced in its natural habitat. Its wide distribution reflects the ability of *Acacia pendula* to tolerate a wide range of soil conditions that may be either saline, neutral, slightly acidic or alkaline. In North Central Victoria this species is probably best suited to the clay soils of the northern plains.

Recommended establishment density

1000 trees per hectare and greater	4 x 2.5 m or 3.3 x 3 m spacings
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Silvicultural characteristics

Acacia pendula is a species with a very broad distribution and highly variable growth form. Little is currently known about its growth rate under cultivation, or the relative performance of different seed sources. In order to produce logs of reasonable length, high-density planting and rigorous form pruning is likely to be required. Higher establishment densities will reduce the need for intensive pruning and increase the scope for selection through the thinning process, ultimately increasing the quality of the stand. Information on select provenances is currently unavailable. Avoid collecting seed from isolated individuals or small populations as in-breeding may be of concern.

Establishment costs

Cost estimates for planting of 1000 trees per hectare.

Soil preparation	\$200
Weed control	\$100
Seedlings	\$450
Planting	\$150
Guards	\$300
Guarding	\$200
Total	\$1400

Due to the palatability of weeping myall foliage, seedlings will need to be protected from grazing and browsing animals.



Product specifications

Acacia pendula is not currently considered a commercial species due to supply limitations. Logs of reasonable size and quality are rare. When available, large sound logs with a diameter of 250mm or more are occasionally milled and sold as boards for craftwood and joinery.

Smaller logs are usually sold to wood turners.

Aim to produce defect-free logs with a minimum diameter of 250mm, at least 1 metre in length with the bark retained and intact.

Larger diameter logs are likely to fetch higher prices. Due to the stability of the timber, air-dried product is acceptable. The ends of the logs should be sealed to slow the rate of drying and minimise degrade.

Pests and diseases

In a tree's natural habitat, insects and diseases are continually present and a certain amount of damage can be expected in plantations. In the longer term a balance is usually achieved and tree growth sustained. Often a decline in tree health is the culmination of various stresses. Imbalance, for example, may result from severe insect attack combined with extreme environmental conditions such as prolonged drought.

Wood

The fragrant, durable heartwood can resist attack from the lyctid borer though the sapwood may prove susceptible in particular trees.

Foliage

Throughout certain regions the foliage may be subject to damage from larvae of the bag-shelter moth *Teara contraria*. Infestations may be indicated by a strong and pungent smell. Eggs are deposited in masses and form a yellowish ball up to an inch in diameter that is distinctly covered with hairs and scales from the moth's body. The small larvae shelter here at first and later construct large nests of twigs and leaves coated in webbing. They shelter in this over the day and disperse to feed on foliage during the night. The caterpillars are often referred to as processionary caterpillars due to the single-file pattern the group follows as they leave the tree in search of loose soil in which to pupate. The severity of defoliation and the tree's response will vary from year to year. The simplest method of control is to remove and destroy the egg mass (in summer) or the nest in the early stages of its development. Handle the nests carefully as the long brown hairs of the caterpillar, if touched, can produce a painful rash.

Gall rusts parasitise a number of Acacias and severe infestations can contribute to a decline in tree health. The fungus belongs to the *Uromycladium* genus of rusts that produce hard chocolate-coloured galls up to 4 cm in diameter that are often clumped together to form a larger mass. As they produce an enormous number of spores they can prove difficult to control. Maintain trees in a healthy condition as weakened trees will prove more susceptible. Remove and burn the galls in the early stages of development to prevent further spread. Other galls may disrupt the development of seed pods and severely limit seed production.



Timber characteristics

Appearance

The heartwood of *Acacia pendula* is deep chocolate brown in colour and burnishes to a dark toffee orange. The sapwood is a pale sandy brown that polishes to an amber lustre. Freshly cut wood is fragrant like rich violets and is slightly oily. The pleasant odour of the wood proved popular last century when made into boxes to store ladies handkerchiefs or underwear. The odour would permeate through the fabric and may have repelled insects.

Shrinkage and drying

Shrinkage is indicated by the difference between the green and air dried density and is due to moisture loss from the timber on drying. With *Acacia pendula* this is low, about 3.5% tangential to the growth rings. It can usually be air-dried without significant degrade. End-grain surfaces should be sealed with wax or lacquer, and sawn timber handled with care and efficiency. Stack timber away from sunlight and ensure a balance in the air and moisture circulation during the drying or seasoning process.

Performance of the timber under accelerated drying conditions ie. kiln drying is unknown.

Hardness & workability

Acacia pendula is a very hard and strong timber. The turning and finishing qualities are excellent with a medium-fine grain of even texture that is sometimes interlocked. Valuable features such as fiddleback appear rare.



Wood properties

Green density ¹	1280 kg/m ³
Air dry density ¹	1100 kg/m ³
Durability	High (Class 1)



Markets

The wood of *Acacia pendula* is highly suited to low volume-high value markets. In Australia, total wood sales within this craftwood market are estimated to be worth \$50-60 million

and growing. There are presently about 100,000 professional and amateur woodworkers in Australia and New Zealand. More than two million craftwood items, be they turned or hand-made furniture, are purchased by Australians annually. Sale of these products represents a value of \$570 million per annum.

A few dryland acacias, mulga (*A. aneura*) and gidgee (*A. cambagei*), are already established as craftwoods in Australian woodworking circles. The potential to market these craftwood acacias for export is considerable.

But despite increasing interest this market is currently limited by a lack of familiarity and *ad hoc* supply. A good understanding of product and markets is recommended.

The density and hardness, pleasant odour and dark colour of *Acacia pendula* are considered highly marketable attributes.

Weeping myall logs currently have an estimated wholesale value of \$700 - \$900 per tonne. Larger diameter logs may fetch \$1000 - \$1200 per tonne. Milling into boards increases the value to between \$1500 - \$2500 per m³.

The production of turning blanks / discs is another value adding option, involving further sawing and waxing. Turning blanks are valued by size (diameter, thickness), freedom from faults (knots, cracks, borers), special features (wavy, fiddleback) and maximising the proportion of heartwood to sapwood. Turning squares, for spindle turning, are valued similarly.

Select pieces may prove suitable in the making of musical instruments (fretboards, flutes, pegs, pins,) potentially fetching \$8-10,000 per m³.



Risks

To minimise risks, producers should aim to grow quality products for premium markets, and participate

in the marketing and promotion of the species.

Demand for *Acacia pendula* has the potential for considerable growth, particularly with increased recognition of Australian craftwoods overseas.

Supply of this species will need to increase to satisfy growing demand. Having the capacity to provide a continuous supply will become crucial; therefore a critical mass of product, supplied by a large number of growers will be required.

The craftwood market does not demand large dimension timbers, so consequently does not require logs of large diameter or length. Therefore, despite moderate growth rates, time to commercial harvest is reduced.



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