

Native trees and shrubs for SW Victoria – site factors, attributes and uses

Rod Bird 2018

The following list of attributes for 245 trees and shrubs are provided to assist in selecting appropriate species to use in particular land-units in SW Victoria (see lists in *Native trees and shrubs for planting in land-zones of SW Victoria* (Bird, 2018). The species listed include those most likely to be considered for planting on farms, gardens and some parks in the region, but a number are less well known or used.

An explanation for each column of the **Native tree and shrub reference table** (p. 6) is provided below, together with additional comment on the benefits of mounding on wet and/or saline areas, and a mention of the function, structure and layout of windbreaks.

Column 1 – Botanic name

Many species have been assigned new botanic names. Such changes may affect both genus and species (e.g. the former *Casuarina stricta* is now *Allocasuarina verticillata*). However, in most cases only the species name has changed (e.g. *Callistemon macropunctatus* is now *Callistemon rugulosus*).

Column 2 – Common name

Common names can be confusing (e.g. *Eucalyptus leucoxylon* is variously called Yellow Gum, White Ironbark, White Gum or Blue Gum – and there are a lot of other "white gums" and "blue gums"), but they do help the non-specialist keep track of species for which the botanic names have been revised. For example, Grampians Gum is a name for a group once called *E. alpina* – that complex has been split into *E. serraensis* (small tree of north Serra Range with ovate leaves and large warty capsules) and *E. verrucata* (small tree in the Serra Range with thick round leaves and large warty capsules).

Column 3 – Species indigenous to SW Victoria

* Species indigenous to some part of south west Victoria covered in this report

In some cases the species is very localised (e.g. *Eucalyptus diversifolia* and *Melaleuca ericifolia* are found in a small area along the coast west from Portland). An attempt has been made to define in which land-zones species are indigenous. That is important if there is a need to plant only local species.

Column 4 – Invasive species – actual or potential weeds

These species may spread vigorously into surrounding areas, spread by wind, birds, livestock or by suckering.

Caution is required if using these species. Species such as Cootamundra Wattle, Coast Tea-tree, Sweet Hakea are difficult to eradicate from natural areas once established.

Column 5 – Average mature height (H) & width (W)

Mature size is dependent on site and can be extremely variable. Size quoted is generally the averages of ranges given in the literature – but modified, where thought appropriate, for farm sites in SE Australia.

Column 6 – Growth rate

S Slow (well below 0.5 m/year)
M Medium (about 0.5 m/year)
F Fast (greater than 0.5 m/year)

These estimates are approximate. Actual rates will also depend on soil, climate, availability of groundwater, establishment technique (ripping, mounding, weed control) and provenance.

Column 7 – Minimum rainfall requirement

This is the approximate minimum rainfall to give reasonable growth and establishment. Trees planted on lower slopes may get more water than trees planted on sandy rises, rocky hills and north or west aspect.

The original vegetation (species and height) gives the best indication as to what is likely to grow, regardless of the apparent limitation of annual rainfall.

The data do not relate to 'economic' rates of growth for commercial agroforestry purposes. The economics of forestry depend on many factors, but for most species it is unlikely to be profitable in areas of less than 500 mm rainfall.

Column 8 – Soil texture

- S Deep sand over clay or limestone
- L Sandy loam; loam or gravelly loam; silty loam; clay loam
- C Clay

Most species grow best on deep loam soils of moderate fertility, but some trees are able to grow well in extremes of soil texture and have a competitive advantage there *e.g.* Buloke and Grey Box are dominant in the winter-wet Wimmera clay plains; Swamp Gum is the dominant species on the lower-lying parts of the basaltic clay plains, while Manna Gum prefers well-drained sites, including stony rises.

Column 9 – Preferred soil pH

- L Low (below 5.5)
- M Medium (between 5.5 & 7.5)
- H High (above 7.5)

Most Australian native trees grow well in either acid (low pH) or neutral soils. Minerals are usually more available at neutral pH. Select trees suitable for alkaline (high pH) sites if the surface soil has a pH above 7.5, or has free lime less than 1 metre from the surface.

Column 10 – Soil drainage

- P Poor (*e.g.* water table within 1 metre of surface in winter)
- M Moderate (impeding clay may cause temporary winter waterlogging)
- G Good (freely drained during winter)

Drainage is a critical factor affecting tree growth. Make auger holes 1.5 metre deep in winter and observe the behaviour of the watertable. Tree growth will be limited if the watertable remains for several months within 1 m of the surface.

Poorly drained areas may be mounded to reduce waterlogging. Mounding of such sites appreciably assists survival and growth (see comments for Column 11 & 12). The trees once established may then be able to lower the watertable – good growth should result if the water is not too saline.

Column 11 – Tolerance to flooding

- F Species tolerating some period of flooding

Some trees withstand 'some' period of inundation. Other factors, such as degree of tolerance to salinity, often confuse the interpretation. Mounding of the planting site—even simple mounds created with off-set disks or a 3-furrow mouldboard plough (the soil is heaped up by running the plough along the line in one direction and then back on the other side)—can markedly improve early survival and growth on very wet and saline sites. River Red Gum, Flat-topped Yate, Black Box, Swamp She-oak and Grey bull-oak planted on mounded sites in the Hamilton-Balmoral area gave substantial improvements in early growth and survival of planted seedlings compared with seedlings not planted on mounds (see Appendix 20 in *Trees and shrubs for south west Victoria* (1996) by PR Bird, GA Kearney & DW Jowett).

Column 12 – Salt tolerance

- T Some tolerance, or good tolerance, to saline soil or groundwater

Information from field-testing or observation has been compiled from 12 published sources and work from PVI.

There are factors other than reported salinity tolerance that determine whether a species will thrive on a saline site. Most species cannot tolerate prolonged waterlogging or a cold, wet environment. Some salt-tolerant Western Australian species are unsuited to our conditions.

In salt-prone areas it is wise to select salt-tolerant trees for low-lying areas, regardless of current status. A major factor that determines whether a tree will live or die is often the advantage given by a slight elevation of the ground. Mounding will improve survival and growth of trees planted on saline/waterlogged sites, shown by research in the Hamilton-Balmoral region, with about 90 species/provenances/clones under examination (see Bird *et al.* 1996 reference above).

Column 13 – Frost tolerance

- L Low (cannot withstand terrestrial minimum temperatures below -1°C)
- M Moderate (withstand terrestrial minimum temperatures to -5°C)
- H High (withstand terrestrial minimum temperatures lower than -5°C)

Frost tolerance may be critical, particularly when planting coastal species on inland sites. Some protection for frost-sensitive species may be afforded by selective siting on slopes. Plastic tree-guards and maintaining bare earth around the seedling may also assist species such as Spotted Gum that are frost-sensitive in the first year.

Column 14 – Soil conservation

- G Species useful for control of gully erosion

Trees help bind the soil with an extensive fibrous root system, dry out wet seepage areas, protect the soil surface with leaf mulch, and trap silt. Shallow-rooted species (many eucalypts) should not be used near gully edges – these trees are easily undermined and should be planted well back from the edges. Species such as Black Wattle suppress ground cover plants and are undesirable in many situations because that allows greater run-off. Casuarina, Allocasuarina, Callistemon, Leptospermum, Melaleuca, Bursaria and many Acacia species (including Blackwood) have strong fibrous root systems suited to stabilising actively eroding gully edges.

Column 15 – Attracting wildlife for ecological control of insects

- B Attract birds for control of leaf-eating insects
- W Attract wasps for control of leaf-eating insects
- M Attract sugar gliders for control of leaf-eating insects
- P Prickly species for bird and small mammal refuge

Many species of trees and shrubs provide nectar for birds, butterflies, wasps, bees and other insects, but all local native trees (particularly those that form hollows) and shrubs are important for bird habitat and should be included in plantings. Sweet Bursaria and Silver Banksia are particularly important because they provide nectar over the summer months to native wasps, birds and some small mammals.

Column 16 – Ability to withstand fire

- L Low flammability

Most native trees and introduced conifers are highly flammable because of high levels of oil in their foliage. Trees listed are among those that have lower flammability because their foliage has one or more of the following characteristics:

- Low oil content
- High salt content
- High moisture content

Some species, such as Spotted Gum and Yellow Gum that are very clean-limbed and have moderate levels of oil in their foliage, do not readily burn.

Species can be selected for growing near buildings that will, in the event of a fire, shield the building from radiant heat. Deciduous trees and a few natives (such as Boobialla and Blackwood) are often advocated for this. However, native species in general can be used provided they are planted at a distance of about 5 times their mature height from the buildings. This will put the building into the zone of maximum shelter (see reference Bird *et al.* 2007 in Column 18), yet be far enough away so as not to endanger it should the belt ignite.

Grass beneath such belts could be removed to reduce the likelihood of the shelterbelt burning. However, stock will browse the lower foliage and reduce the windbreak effectiveness. The removal of branches within 2 m of the ground has also been advocated by some. That will impair the shelterbelt's efficiency because it results in an increase in wind speed through the gap (a 30% increase has been measured) and the shelterbelt will not be as attractive or effective in shielding the property from fire.

Column 17 – Ability to regenerate after fire

Trees listed regenerate following a fire for one or more of the following reasons [39, 83]:

- T Species recover from fire due to production of new shoots from dormant (epicormic) buds on the trunk and branches – some species (*e.g.* Stringybarks) have thick bark that protects the main trunk.
- C Species coppice or produce root suckers following death of the trunk
- S Species regenerate rapidly from seed following fire

Protect burned areas from stock to allow regeneration. Sometimes a full year is needed before regeneration is apparent – this is because most of the seed germination has occurred in the spring following the burn. This occurred in garden beds burned at the Pastoral Research Institute following the Monivae fire in 1983. The result was a prolific regeneration of all the species that had been there, plus a few that were not previously planted there! Do not expect germination in the autumn, and do not be too impatient.

Column 18 – Shelter species for windbreaks or shade

- W Windbreak species
- S Shade species

WINDBREAKS – Trees that retain branches to ground level are especially suitable for single-row windbreaks. However, windbreaks will invariably function better if they have at least 2 rows, and preferably 5 rows, in order to cover gaps caused by tree establishment failures and to obtain the required uniform high density from ground to top. Wider belts also offer more benefits to wildlife.

A sloping windbreak profile is NOT desirable because it markedly reduces the effectiveness of the belt in protecting the paddock behind. Neither does a sloping profile create less turbulence to the lee of a belt than occurs with a belt having a vertical face. The major factor causing turbulence is the permeability of the belt. Very dense windbreaks (*e.g.* a high stone wall) will create turbulence to the lee, but there is no evidence that tree windbreaks attain such a low porosity. Rather, the difficulty is to achieve sufficient density throughout the belt.

The extent of shelter across the paddock depends upon windbreak height, so aim to have a good proportion of tall species in the windbreak. Details of windbreak design and function can be seen in the research paper entitled *Effects of windbreak structure on shelter characteristics* (PR Bird, TT Jackson, GA Kearney, A Roach) in *Australian Journal of Experimental Agriculture* (2007) **47**: 727-737.

Select trees that will grow on that site – which row they are planted on is of less concern, but to thrive small shrubs may need to be planted on the outside rows. Species such as Black Wattle can be interspersed among the eucalypts – this gives very early shelter from the belt and may encourage birds that control insect pests on eucalypts.

SHADE – Most eucalypts do not offer dense shade. There is an advantage in having tall shade trees because the area shaded moves throughout the day, and with it the livestock, so minimising compaction and fertility build-up at the base of the tree.

Column 19 – Coastal planting

- E Coastal planting (species tolerating severe exposure)

The list contains species assessed as being resistant to severe exposure from salt-laden winds.

Column 20 – Coppicing propensity

- C Species which produce vigorous coppice growth

Many species produce coppice shoots. Those listed show varying ability to coppice. The propensity of trees to produce coppice shoots varies with species, age and (occasionally) the environment. In general, most eucalypts with lignotubers coppice well. The ability to coppice declines with age. For a given age, larger stumps tend to produce more vigorous growth.

Column 21 – Wood production

- T Timber for construction or joinery
- Y Firewood
- O Ornamental - *e.g.* wood-turning
- F Fence posts (some may need preservative treatment)
- P Paper pulp

TIMBER PRODUCTION – This list gives a general indication of trees suitable either for sawlogs, on-farm use (*e.g.* posts and poles) or speciality timber for furniture production.

FIREWOOD – Trees listed by Woods and Forests Department of S.A. are those which are very fast growing and coppice readily. All wood has approximately the same calorific heat value (18 MJ/kg) but dense wood has higher energy per unit volume and so it requires less stoking, and produces less coals. Fast-growing trees that coppice readily are also very suitable for firewood because they produce a large volume of wood.

Column 22 – Other products

- F Species which have browse or fodder value, or produce nuts or fruit
- H Species with pronounced honey value
- O Ornamental value

FODDER – The listing indicates that the foliage or other part (*e.g.* fruit, seed pods) are eaten by stock. While some trees produce fodder of moderately good quality and are readily browsed (*e.g.* Tagasaste) others are only suitable for drought fodder and are browsed only when stock are under stress.

HONEY – Flowers of the trees listed are of importance to apiarists for nectar (honey production) and/or pollen (food for worker bees). Around 80% of the State's honey comes from eucalypts (notably River Red Gum, Yellow Gum, Yellow Box, Red Ironbark, Grey Box, Black Box and Mallee species) and perhaps 70% of the honey is produced between October and April. Large blocks planted to one or only a few species (*e.g.* Sugar Gum belts) provide a large flow of honey. Most Casuarina, Melaleuca, Grevillea, Hakea and Banksia species are a good source of pollen for bees.

ORNAMENTAL VALUE – Some species have distinctive features of foliage, flowers or form that lead them to be commonly used in public and private amenity planting.

Native Trees & Shrubs Reference Table

Botanical name	Common name	SW Vic	Inv sp.	H x W (m)	Grow rate	Min. rain	Soil type	pH	Drainage	Flood tol.	Salt tol.	Frost tol.	Soil cons	Wild-life	Fire flam.	Fire regen	Shelter	Coast expos.	Copp-ice	Wood	Other prod.	
<i>Acacia acinacea</i>	Gold-dust wattle	*		1.5 x 2	M	350	SLC	LM	MG			M	G			SC	W				O	
<i>Acacia acuminata</i>	Raspberry jam wattle			6 x 4	M	300	SLC	LM	MG		T	M					W			FO	O	
<i>Acacia baileyana</i>	Cootamundra wattle		#	9 x 7	F	500	SCL	M	MG			M			L	S					O	
<i>Acacia brachybotrya</i>	Grey mulga	*		3 x 2	F	250	SLC	LMH	MG			H					W				O	
<i>Acacia calamifolia</i>	Wallowa	*		3 x 2	M	300	SLC	MH	MG			H		B		T	W				O	
<i>Acacia dealbata</i>	Silver wattle					650							G			TCS					YF	
<i>Acacia decurrens</i>	Green wattle		#	12 x 4	F	600	SLC	LM	MG			M	G			TCS	W			YPF		
<i>Acacia enterocarpa</i>	Jumping Jack wattle			1 x 2	M	400	L	M	MG			H		B							O	
<i>Acacia falciformis</i>	Hickory wattle			10 x 4	F	550	LC	LM	G			M				TCS	W			T		
<i>Acacia floribunda</i>	White sallow wattle			5 x 3	F	650	SLC	LMH	PMG			M				SC	W	E			O	
<i>Acacia howittii</i>	Sticky acacia			5 x 4	F	500	LC	LM	MG			L			L	TCS	W				O	
<i>Acacia implexa</i>	Lightwood	*		8 x 4	M	500	SLC	LM	MG			M	G		L	T	WS			T		
<i>Acacia iteaphylla</i>	Gawler Range wattle		#	3 x 3	F	350	SLC	LM	MG		T	M			L	TCS	W				O	
<i>Acacia longifolia</i>	Sallow wattle	*	#	5 x 4	F	450	SL	LM	MG		T	M	G			S	WS	E			O	
<i>Acacia mearnsii</i>	Black wattle	*		10 x 5	F	500	SLC	LM	MG			M		M		TCS	W			TYPF		
<i>Acacia melanoxylon</i>	Blackwood	*		10 x 5	F	600	LC	LM	MG	F		M	G	M	L	TCS	WS			TYO		
<i>Acacia mitchellii</i>	Mitchell's wattle	*		1 x 1	M	500	SL	LM	MG			M									O	
<i>Acacia montana</i>	Mallee wattle	*		2 x 2	F	350	SL	LMH	G			M				C	W				O	
<i>Acacia myrtifolia</i>	Myrtle wattle	*		1.5 x 2	M	450	SL	LMH	MG			M						E			O	
<i>Acacia oxycedrus</i>	Spike wattle	*		2 x 2	F	600	SL	LMH	G			M		P								
<i>Acacia paradoxa</i>	Hedge wattle	*	#	3 x 3	F	500	SLC	LM	MG			H		P				E				
<i>Acacia pendula</i>	Weeping myall			6 x 3	M	350	LC	LM	PM	F		H				C				YOF	O	
<i>Acacia pravissima</i>	Ovens wattle			6 x 5	F	650	SL	LM	PMG	F		M	G		L	TCS	W	E			O	
<i>Acacia prominens</i>	Golden rain wattle			6 x 4	F	650	SLC	LM	MG			M			L	CS		E			O	
<i>Acacia pycnantha</i>	Golden wattle	*		4 x 3	F	350	SLC	LM	PMG			M	G	BM		TS	W	E		Y	O	
<i>Acacia retinodes</i>	Wirilda	*		5 x 3	F	450	LC	MH	MG	F	T	M	G		L	TCS	W	E		Y	O	
<i>Acacia rigens</i>	Nealie	*		2 x 2	M	300	SL	LM	G			H		B			W			Y	O	
<i>Acacia salicina</i>	Willow wattle	*		7 x 4	F	300	SLC	LMH	PMG		T	M	G				W			Y	FO	
<i>Acacia saligna</i>	Golden wreath wattle		#	5 x 5	F	450	SLC	LMH	PMG		T	M	G		L	CS	W	E		Y	O	
<i>Acacia longifolia</i> var. <i>sophorae</i>	Coastal wattle	*	#	4 x 6	F	450	SL	LM	MG		T	L	G		L	S	W	E		Y	O	
<i>Acacia stenophylla</i>	River coobah			9 x 4	M	300	SL	LM	MG		T	H	G							TYFO		
<i>Acacia stricta</i>	Hop wattle	*		3 x 2	M	600	SL	LMH	MG			M										O
<i>Acacia verniciflua</i>	Varnish wattle	*		3 x 2	F	500	LC	LMH	MG			M					W				O	
<i>Acacia verticillata</i>	Prickly moses	*		4 x 3	F	600	LC	LM	PMG	F		M	G	P		TCS	W				O	
<i>Agonis flexuosa</i>	Willow myrtle	*		6 x 4	M	500	SL	LMH	MG			L				CS	W	E			O	
<i>Allocasuarina luehmannii</i>	Bull-oak	*		10 x 5	M	350	CL	MH	PM	F	T	H	G			CS	WS			YO	F	
<i>Allocasuarina muelleriana</i>	Slaty she-oak	*		3 x 3	F	250	SL	LMH	G			M					W				O	
<i>Allocasuarina paludosa</i>	Scrub she-oak	*		3 x 2	S	400	SLC	LM	PM	F		M					W				O	
<i>Allocasuarina pusilla</i>	Dwarf she-oak	*		2 x 2	S	400	SLC	LM	PM			M		B							O	
<i>Allocasuarina torulosa</i>	Rose she-oak	*		12 x 4	M	600	L	LM	MG		T	M					WS	E		TYFO	O	
<i>Allocasuarina verticillata</i>	Drooping she-oak	*		9 x 6	F	500	SL	LMH	MG		T	M	G	B		S				TYFO	FO	
<i>Araucaria heterophylla</i>	Norfolk Island pine			20 x 9	S	600	SL	LMH	G		T	L					S	E		TY	O	
<i>Angophora floribunda</i>	Rough-barked apple			13 x 7	F	500	LC	LMH	PM			L		B		C	W	E			H	
<i>Atriplex amnicola</i>	River saltbush			1 x 1	F	350	SLC	LM	PM	F	T	M			L						F	
<i>Atriplex cinerea</i>	Grey saltbush			0.3 x 6	F	350	SL	LM	MG		T	M			L						F	
<i>Atriplex halimus</i>	Saltbush			1 x 1	F	350	SLC	LM	PM		T	M			L						F	
<i>Atriplex lentiformis</i>	Quail saltbush			2 x 2	F	300	SL	LM	G		T	M			L						F	

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Atriplex nummularia	Old man saltbush			1.5 x 2	F	200	SLC	LM	MG		T	H			L						F
Atriplex undulata	Wavy-leaf saltbush			1 x 2	M	300	SL	LM	MG		T	M			L						F
Baeckea behrii	Broom baeckea	*		2 x 1	M	500	S	LM	G			M								F	
Banksia ericifolia	Heath banksia			3 x 2	M	500	SLC	LM	PM			M		B				E			H
Banksia integrifolia	Coast banksia			8 x 5	M	500	SL	LM	G			M		B	L	S		E			
Banksia marginata	Silver banksia	*		7 x 4	M	400	SL	LM	MG			M		BWM	L	S	W	E			HO
Banksia ornata	Desert banksia	*		3 x 3	M	250	SL	LM	G			H		BWM		S	W				HO
Banksia saxicola	Grampians banksia			6 x 3	F	600	SL	LM	G			M		BWM							O
Banksia spinulosa	Hairpin banksia			3 x 2	M	600	SL	LM	MG	F	T	M		B							
Brachychiton populneus	Kurrajong			8 x 5	S	350	SL	MH	G			M				C					OF
Bursaria spinosa	Sweet bursaria	*		4 x 3	M	400	SLC	LM	MG	F	T	M	G	BPW			W			O	O
Callistemon citrinus	Crimson bottlebrush			4 x 3	F	500	SLC	LM	MG			M		B		TCS	W				HO
Callistemon pallidus	Lemon bottlebrush			4 x 4	M	650	SL	LM	PM	F		M		B			W				O
Callistemon rugulosus	Scarlet bottlebrush	*		3 x 2	M	450	LC	LMH	PMG	F		M		BP		TCS	W				O
Callistemon rigidus	Stiff bottlebrush			2 x 2	M	400	SLC	LMH	MG			M		B							O
Callistemon salignus	Willow bottlebrush			5 x 3	F	500	LC	LM	PMG	F	T	L				TCS	W				O
Callistemon viminalis	Weeping bottlebrush			7 x 4	M	550	SLC	LM	PMG	F		M		B		TCS	W	E			
Callistemon wimmerensis	Wimmera bottlebrush	*		8 x 2	M	550	LC	LMH	PMG	F		M		BP		TCS	W				O
Callitris glaucophylla	Murray pine			15 x 5	S	350	SL	MH	G		T	H					WS			TYF	
Callitris gracilis	Slender cypress pine	*		10 x 5	M	350	SL	MH	G			H					WS	E		TFY	
Callitris rhomboidea	Oyster Bay pine	*		5 x 3	S	400	SL	L	G			H					W	E			O
Callitris verrucosa	Scrub pine	*		4 x 3	S	250	SL	LM	G			H					W				
Casuarina cunninghamiana	River she-oak			15 x 6	F	500	SLC	LMH	MG	F	T	M	G		L	SC	WS	E		TY	F
Casuarina glauca	Grey bull-oak	#		12 x 6	F	400	SLC	LMH	PM	F	T	M	G		L	S	WS	E		TYF	F
Casuarina obesa (Wimmera prov.)	Swamp she-oak	*		10 x 5	F	400	SLC	LMH	PM	F	T	M	G		L	S	WS	E		TY	F
Casuarina pauper	Belah	*		10 x 5	M	250	SLC	LMH	MG		T	H	G		L	SC	WS	E		TY	F
Corymbia maculata	Spotted gum			20 x 10	F	500	L	LM	MG		T	L		B	L	-	WS			TY	OH
Dodonaea viscosa ssp. cuneata	Wedge-leaf hop-bush	*		2 x 2	S	250	SL	LMH	G			M				TC	W	E			O
Dodonaea viscosa ssp. viscosa	Giant hop-bush	*		4 x 2	S	250	SL	LMH	G			H				TC		E			
Eucalyptus aggregata	Black gum			15 x 10	M	650	LC	LM	PM	F		H					W			Y	
Eucalyptus alaticaulis	Grampians Grey Gum			25 x 15	F	700	SL	LM	MG			H								TY	
Eucalyptus aromaphloia	Scent-bark	*		15 x 10	M	600	SL	LM	PMG			M				TC	WS				
Eucalyptus arenacea	Desert stringybark	*		15 x 10	M	400	S	LM	G			H		B			W			TYF	H
Eucalyptus astringens	Brown mallet			15 x 7	F	400	LC	MH	G		T	M				T	WS		C	TYF	H
Eucalyptus baxteri	Brown stringybark	*		15 x 10	M	600	SL	LM	G			M		B			W			TYF	H
Eucalyptus behriana	Bull mallee	*		6 x 6	M	250	SL	LM	G			H					W			Y	
Eucalyptus benthamii	Camden white gum			25 x 15	F	700	SLC	LM	MG			M					W			TY	
Eucalyptus blakelyi	Blakely's red gum	*		20 x 15	M	650	SL	LM	MG			M		B		C	WS		C	TY	H
Eucalyptus bosistoana	Gippsland grey box			25 x 15	M	650	LC	LM	PMG			M					WS		C	TY	H
Eucalyptus botryoides	Southern mahogany			20 x 15	F	450	LC	LM	PM	F	T	M				TC	WS	E	C	TY	H
Eucalyptus brockwayi	Dundas mahogany			15 x 8	S	300	SL	MH	G		T	H					WS			TYF	H
Eucalyptus calycogona	Red mallee	*		7 x 6	S	300	SL	MH	G			H					W				HO
Eucalyptus camaldulensis	River red gum	*		20 x 15	F	500	SL	LMH	PMG	F	T	M		BM		C	WS		C	TYFO	H
Eucalyptus camaldulensis var. obtusa	Silvertown gum			12 x 12	M	300	SL	LMH	MG	F	T	M									
Eucalyptus campaspe	Silver-topped gimlet			8 x 5	S	250	LC	LM	MG		T	H				C	WS			Y	HO
Eucalyptus camphora	Broad-leaved sallee			10 x 5	S	600	LC	LM	PM	F		H		B			WS				
Eucalyptus citriodora	Lemon-scented gum			20 x 15	F	400	LC	LM	MG			L			L		WS	E		TY	O
Eucalyptus cladocalyx	Sugar gum	*		20 x 10	F	400	SL	LMH	MG		T	L				C	WS		C	TYF	H
Eucalyptus cladocalyx var. nana	Bushy sugar gum			12 x 7	F	500	CL	LMH	MG			L				C	W		C		H

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<i>Eucalyptus conferminata</i>	Bushy yate			5 x 5	M	450	SL	LM	PMG		T	L					W	E			OH	
<i>Eucalyptus cornuta</i>	Yate			12 x 8	M	500	LC	LMH	MG		T	M		B		C	WS	E	C	Y	HO	
<i>Eucalyptus cosmophylla</i>	Bog gum (Cup gum)			6 x 6	M	650	LC	LM	PMG	F		M		B		TC	WS	E		YF	H	
<i>Eucalyptus crenulata</i>	Buxton gum (Silver gum)			7 x 6	M	500	LC	LM	PMG	F		M		B		TC	WS	E			O	
<i>Eucalyptus cypellocarpa</i>	Mountain grey gum			25 x 15	F	700	SLC	LM	MG			M					W				TY	
<i>Eucalyptus dalrympleana</i>	Mountain gum	*		25 x 15	F	700	SL	LM	MG			H					W				Y	
<i>Eucalyptus delegatensis</i>	Alpine ash			25 x 10	F	800	L	LM	G			M									TP	
<i>Eucalyptus dendromorpha</i>	Budawang ash			25 x 10	F	750																
<i>Eucalyptus diversifolia</i>	Soap mallee	*		5 x 5	M	400	LS	H	G		T	M									Y H	
<i>Eucalyptus diversicolor</i>	Karri			30 x 15	F	750	L	LM	G			M					W				TY	
<i>Eucalyptus dumosa</i>	Dumosa mallee	*		5 x 5	M	250	SLC	LMH	MG		T	H				TC	W				Y H	
<i>Eucalyptus dundasii</i>	Dundas blackbutt			15 x 8	M	350	SLC	LMH	G			L					W				Y H	
<i>Eucalyptus elata</i>	River white gum			20 x 10	F	650	SL	LM	MG	F		M							C			
<i>Eucalyptus famelica</i>	Salt mallee			4 x 4	S	350	LC	LM	PM	F	T	M		B			W				O	
<i>Eucalyptus fasciculosa</i>	Pink gum	*		12 x 10	M	400	SL	MH	MG			M										
<i>Eucalyptus fastigata</i>	Brown barrel			25 x 15	F	800	L	LM	G			M									TP	
<i>Eucalyptus ficifolia</i>	Red-flowering gum			8 x 7	M	500	SL	L	G			L		B		C	W	E			HO	
<i>Eucalyptus fraxinoides</i>	White ash			20 x 10	F	700	L	LM	G			M									TP	
<i>Eucalyptus froggattii</i>	Kamarooka mallee	*		7 x 4	M	400	L	LM	MG			H										
<i>Eucalyptus globoidea</i>	White stringybark			20 x 10	F	600	LC	LM	MG			H					WS				TYF	
<i>Eucalyptus globulus</i> ssp. <i>bicostata</i>	Eurabbie	*		25 x 15	F	650	L	LM	MG			M				TC	WS		C		TYP H	
<i>Eucalyptus globulus</i> ssp. <i>globulus</i>	Southern blue gum			30 x 15	F	700	L	LM	MG			M					WS		C		TYP H	
<i>Eucalyptus globulus</i> <i>maidenii</i>	Maiden's gum			30 x 15	F	700	L	LM	MG			M					WS		C		TYP H	
<i>Eucalyptus gomphocephala</i>	Tuart			12 x 7	F	500	SL	LMH	G		T	L		B		TC	WS	E			T H	
<i>Eucalyptus goniacalyx</i>	Bundy	*		10 x 10	M	500	SL	LM	G			M		B							O	
<i>Eucalyptus gracilis</i>	White mallee	*		5 x 4	M	300	SL	MH	G		T	H		B			W				F H	
<i>Eucalyptus grandis</i>	Flooded gum			30 x 15	F	700	SLC	LM	MG			M										TYP H
<i>Eucalyptus halophylla</i>	Salt lake mallee			3 x 3	M	350	LC	LM	PM	F	T	H		B	C	W			C		O	
<i>Eucalyptus incrassata</i>	Yellow mallee	*		5 x 5	M	250	SL	LMH	G		T	H		B		C	W				H	
<i>Eucalyptus kitsoniana</i>	Gippsland mallee	*		5 x 5	F	600	LC	LM	PMG	F		M		B		TC	W				O	
<i>Eucalyptus kondiminensis</i>	Stocking gum			10 x 6	M	400	LC	LM	MG		T	H					W				H	
<i>Eucalyptus landsdowneana</i> <i>albo-purpur.</i>	Port Lincoln gum			6 x 5	M	400	SL	MH				M					W				H	
<i>Eucalyptus largiflorens</i>	Black box	*		15 x 10	S	250	SLC	LM	PMG	F	T	M		B			W				TY H	
<i>Eucalyptus leptophylla</i>	Slender-leaved mallee	*		5 x 5	M	250	SL	MH	MG			H					W				O	
<i>Eucalyptus leucoxydon</i> ssp. <i>leucoxydon</i>	Yellow gum	*		17 x 12	F	350	L	LMH	PMG		T	M		BM		TC	WS	E	C		TYF HO	
<i>Eucalyptus leucoxydon</i> ssp. <i>megalocarpa</i>	Red-flowering yellow gum			6 x 6	M	500	L	LMH	PM			L		BM			W	E			Y HO	
<i>Eucalyptus longifolia</i>	Woollybutt			20 x 10	F	700	L	LM	MG			M					WS				TYF H	
<i>Eucalyptus macrorhyncha</i>	Red stringybark	*		20 x 15	M	500	CL	LM	G			M				TC	WS				TY H	
<i>Eucalyptus mannifera</i>	Brittle gum			25 x 15	F	600	SLC	LM	MG			G		B			WS				Y O	
<i>Eucalyptus melliodora</i>	Yellow box	*		17 x 12	M	450	LC	LMH	G		T	M		BM		TC	WS		C		TYF H	
<i>Eucalyptus microcarpa</i>	Grey box			15 x 10	M	450	LC	LMH	PM		T	M		BM		TC	WS		C		T H	
<i>Eucalyptus mollucana</i>	Grey box			15 x 10	M	500	LC	LM	MG			M					WS				TYF H	
<i>Eucalyptus muelleriana</i>	Yellow stringybark			25 x 15	F	650	SL	LM	G		T	M				TC	W		C		T	
<i>Eucalyptus nicholii</i>	Willow-leaved peppermint			15 x 8	F	650	SL	LM	G			M		B		TC	WS		C		Y O	
<i>Eucalyptus nitens</i>	Shining gum			25 x 15	F	650	SL	LM	MG			H									TYF	
<i>Eucalyptus obliqua</i>	Messmate stringybark	*		20 x 10	M	650	L	LM	G			M		B	L		WS		C		TYF H	
<i>Eucalyptus occidentalis</i>	Swamp yate			17 x 10	F	400	LC	LM	PMG	F	T	M				TC	WS				TY H	
<i>Eucalyptus ovata</i>	Swamp gum	*		15 x 12	M	600	LC	LM	P	F	T	M		BM		TC	WS				Y H	
<i>Eucalyptus paliformis</i>	Wadbilliga ash			12 x 5	F	600	SL	LM	G			M									TY	
<i>Eucalyptus paniculata</i>	Grey ironbark			25 x 10	M	700	SL	LM	MG			M			L	TC			C		TYF H	

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<i>Eucalyptus pauciflora</i> ssp. <i>pauciflora</i>	Snow gum	*		12 x 8	M	650	L	LM	PMG	F		H		B		TC	WS	E		YF	
<i>Eucalyptus pilularis</i>	Blackbutt			25 x 15	F	700	LC	LM	MG			M				C	WS	E		TYF	
<i>Eucalyptus platypus</i> var. <i>heterophylla</i>	Coastal moort			5 x 5	M	400	LC	LM	G		T	L		B		C	WS				H
<i>Eucalyptus platypus</i> var. <i>platypus</i>	Moort			5 x 5	M	400	LC	LMH	MG		T	M				C	W	E			
<i>Eucalyptus polyanthemus</i>	Red box	*		13 x 8	M	500	SLC	MH	MG	F	T	M				TC	WS		C	TY	H
<i>Eucalyptus porosa</i>	Black mallee box	*		7 x 8	M	500	S	MH	G			M					W			YF	H
<i>Eucalyptus punctata</i>	Grey gum			20 x 10	F	700	SL	LM	MG			L								TY	
<i>Eucalyptus pyrocarpa</i>	Large-fruited blackbutt			20 x 10	F	700	SL	LM	G			M								TY	
<i>Eucalyptus radiata</i>	Narrow-leaf peppermint			20 x 9	F	700	L	LM	G			M				TC	WS			TY	
<i>Eucalyptus regnans</i>	Mountain ash			30 x 15	F	900	L	LM	G			M				S				T	
<i>Eucalyptus resinifera</i>	Red mahogany			25 x 10	F	700	SL	LM	MG			L					WS			TY	H
<i>Eucalyptus rigens</i>	Salt lake mallee			2 x 4	S	350	SL	LM	MG		T	H		B	L						O
<i>Eucalyptus robusta</i>	Swamp mahogany			20 x 10	M	650	LC	MH	PM	F	T	M				C		E			
<i>Eucalyptus rubida</i>	Candlebark gum	*		15 x 10	F	500	SLC	LM	G			M		M		C	WS		C	TY	OH
<i>Eucalyptus saligna</i>	Sydney blue gum			30 x 15	F	700	SCL	LM	MG			M				TC			C	TYP	
<i>Eucalyptus salmonophloia</i>	Salmon gum			15 x 10	M	300	LC	MH	MG		T	M					WS			TYF	O
<i>Eucalyptus salubris</i>	Gimlet			10 x 8	M	350	SLC	LMH	MG		T	H				C	WS			F	HO
<i>Eucalyptus sargentii</i>	Salt river gum			7 x 5	S	400	SLC	LM	MG		T	H				-	W				H
<i>Eucalyptus scoparia</i>	Wallangarra white gum			10 x 8	M	500	SL	LM	MG			M		B							O
<i>Eucalyptus sideroxylon</i>	Red ironbark			17 x 10	S	500	SLC	LM	G		T	M		B		C	WS		C	TYF	HO
<i>Eucalyptus tricarpa</i>	Red ironbark	*		17 x 10	S	500	SLC	LM	G		T	M		B		C	WS		C	TYF	HO
<i>Eucalyptus sebsii</i>	Silvertop			20 x 8	F	650	SLC	LM	G			H			L					TYP	
<i>Eucalyptus serraensis/alpina</i>	Grampians gum	*		6 x 4	F	500	L	LM	MG			M		B		TC	W				O
<i>Eucalyptus smithii</i>	Gully gum			20 x 10	F	700	SLC	LM	MG			M								TY	
<i>Eucalyptus spatulata</i>	Swamp mallet			7 x 7	S	400	SC	LM	PM	F	T	M				-				YF	H
<i>Eucalyptus steedmanii</i>	Steedman's gum			7 x 6	M	400	LC	LMH	MG			M		B		-		E			HO
<i>Eucalyptus stricklandii</i>	Strickland's gum			8 x 6	M	350	SL	LMH	MG		T	M		B		-		E			HO
<i>Eucalyptus tereticornis</i>	Forest red gum			20 x 15	F	550	SCL	LM	PMG		T	M					WS		C	TYF	
<i>Eucalyptus verucata</i> (alpina)	Grampians gum	*		6 x 4	F	500	L	LM	MG			M		B		TC	W				O
<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>	Manna gum	*		25 x 12	F	650	L	LM	MG			H		BM		TC	WS	E	C	TY	OH
<i>Eucalyptus viminalis</i> ssp. <i>cygnetensis</i>	Rough-barked manna gum	*		15 x 10	F	650	SL	LM	MG			H		BM		C	WS	E	C	Y	OH
<i>Eucalyptus viridis</i>	Green mallee	*		7 x 4	M	400	LC	LM	G			M				C	W		C		OH
<i>Eucalyptus wandoo</i>	Wandoo			15 x 10	M	450	LC	LM	PM			M				C	WS			TYF	H
<i>Eucalyptus willisii</i>	Shining peppermint	*		10 x 10	M	600	SL	LM	PMG			M		B			W			Y	O
<i>Eucalyptus woodwardii</i>	Lemon-flowering gum			10 x 5	M	350	SL	LMH	MG		T	M		B		C					HO
<i>Eucalyptus yarraensis</i>	Yarra gum	*		15 x 10	F	600	SC	LM	PMG			M					W			Y	
<i>Exocarpos cupressiformis</i>	Cherry ballart	*		8 x 4	M	600	SL	LM	MG			M									O
<i>Goodenia ovata</i>	Hop goodenia	*		1.2 x 2	F	500	LC	LM	MG			M			L	C	W				O
<i>Goodia lotifolia</i>	Golden-tip	*		2 x 2	F	600	SL	LM	MG			M									O
<i>Goodia medicaginea</i>	Western golden-tip	*		1.5 x 1	F	300	SL	LM	MG			M									O
<i>Grevillea aquifolium</i>	Variable prickly grevillea	*		1.5 x 2	M	400	SL	LM	G			M		B							O
<i>Grevillea illicifolia</i>	Holly grevillea	*		1.5 x 2	M	300	SL	LMH	G			M		B							O
<i>Grevillea robusta</i>	Silky oak			15 x 7	S	500	SLC	LMH	MG			M		B		-		E		TO	HO
<i>Grevillea rosmarinifolia</i>	Rosemary grevillea			3 x 4	M	500	SL	LM	PM			M									
<i>Hakea elliptica</i>	Oval-leaf hakea			4 x 3	F	500	SLC	LM	MG			M					W	E			O
<i>Hakea laurina</i>	Pincushion hakea			5 x 4	M	350	SL	LM	G			M		B		-	W	E			OH
<i>Hakea nodosa</i>	Yellow hakea	*		3 x 3	M	550	SLC	LM	PMG	F		M		B			W				O
<i>Hakea petiolaris</i>	Sea-urchin hakea			4 x 3	M	400	SL	LMH	G	F	T	L		B			W				OH
<i>Hakea rostrate</i>	Beaked hakea	*		1.5 x 1	M	400	SL	LM	MG			H		BP							O
<i>Hakea rugosa</i>	Dwarf hakea	*		1 x 1	S	300	SL	LMH	MG			H		B							O
<i>Hakea salicifolia</i>	Willow hakea			4 x 3	M	600	SLC	LMH	PMG			L		B	L	SC	W	E			H

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Hakea sericea	Bushy hakea	*		3 x 3	M	450	SL	LM	G			M		B P		C S					O	
Hakea suaveolens	Sweet hakea	*	#	3 x 3	M	450	SLC	LM	G			M		B P	L	C	W	E				O
Hakea teretifolia	Dagger hakea	*		1.5 x 1	M	500	SL	LM	PM			M		P		C S						O
Hakea ulicina	Furze hakea	*		2 x 2	M	500	SL	LM	MG			M		P		C S						O
Kunzea ambigua	White kunzea	*		3 x 2	M	600	SL	M	M			M		B				E				O
Kunzea baxteri	Baxter's kunzea	*		2 x 2	F	600	SL	LM	MG			M		B				E				O
Kunzea parvifolia	Violet kunzea	*		2 x 2	S	700	SL	L	PM			M		B				E				O
Lagunaria Patersonia	Pyramid tree	*		8 x 5	F	450	SLC	LM	PMG	F	T	L		B			W S					O
Lasiopetalum behrii	Pink velvet-bush	*		0.7 x 1	M	450	S	LM	G			M		B								O
Leptospermum continentale	Prickly tea-tree	*		4 x 2	M	500	SLC	LM	PMG	F	T	M	G				C S	W	E			O
Leptospermum laevigatum	Coast tea-tree	*	#	5 x 3	F	500	SL	LM	MG			M					C S		E			O
Leptospermum lanigerum	Woolly tea-tree	*		4 x 3	M	600	SLC	LM	PM	F		M					C S	W				OH
Leptospermum myrsinoides	Heath tea-tree	*		1 x 1	S	400	SL	LM	MG			M					C S					O
Leptospermum turbinatum	Shiny tea-tree	*		2 x 2	M	600	SL	L	G			M					S					O
Leptospermum obovatum	River tea-tree	*		4 x 2	F	600	SL	LM	PM	F	T	M					C S					O
Leptospermum scoparium	Manuka	*		2 x 2	F	600	SL	LM	PM	F	T	M					T C S		E			H
Melaleuca armillaris	Giant honey-myrtle	*		5 x 4	F	400	SLC	LMH	PMG	F	T	M		B			T C S	W	E			OH
Melaleuca cuticularis		*		4 x 5	M	400	LC	LM	PM	F	T	H		B			S	W				O
Melaleuca decussate	Totem poles	*		4 x 3	F	400	SLC	LM	PMG	F	T	M		B			T C S	W	E			O
Melaleuca ericifolia	Swamp paperbark	*		4 x 3	F	450	LC	LMH	PM	F	T	M	G	B			T C S	W	E			O
Melaleuca gibbosa	Slender honey myrtle	*		2 x 2	S	500	SL	LM	PM	F	T	M		B			T C S					O
Melaleuca halmaturorum	Salt paperbark	*		5 x 4	M	450	SLC	LMH	P	F	T	M	G				T C S	W	EE			O
Melaleuca hypericifolia	Hillock bush	*	#	2 x 2	M	450	SL	LMH	PMG			M		B					E			O
Melaleuca lanceolata	Moonah	*		7 x 4	M	500	SLC	LMH	PMG	F	T	M		B	L		C S	W S	E			O
Melaleuca linariifolia	Flax-leaf paperbark	*		5 x 4	M	500	SLC	LM	PMG	F	T	M		B			C S	W	E			HO
Melaleuca neglecta	Mallee honey-myrtle	*		2 x 2	S	400	SLC	LM	PM	F	T	H		B								O
Melaleuca nesophila	Showy honey-myrtle	*		3 x 4	M	600	SLC	LMH	PM	F	T	M					C S	W	E			O
Melaleuca squamea	Swamp honey-myrtle	*		1 x 1	S	600	SC	LMH	P	F	T	M		B					E			O
Melaleuca squarrosa	Scented paperbark	*		4 x 2	S	600	LCS	L		F	T	M		B			T C S	W	E			O
Melaleuca styphelioides	Prickly paperbark	*		7 x 4	M	500	SLC	LM	PMG	F	T	M		B			T C S	W	E			O
Melaleuca uncinata	Broom honey-myrtle	*		3 x 2	M	250	SL	LM	MG			H		B				W		F		O
Melaleuca wilsonii	Violet honey-myrtle	*		2 x 3	S	400	SLC	LMH	PM			H		B								O
Melia azedarach	White cedar	*		8 x 4	S	400	SL	LM	PM			H					T S		E			O
Melyctus dentata	Tree violet	*		2 x 3	S	600	SL	LM	MG			M										O
Micromyrtus ciliata	Heath myrtle	*		1 x 1	S	300	SL	LM	G			H										O
Myoporum insulare	Boobialla	*		5 x 5	F	500	SLC	LM	MG	F	T	M	G	B	L		C	W	E			O
Myoporum viscosum	Sticky boobialla	*		3 x 3	M	500	SLC	LM	MG			M	G	B	L		C	W	E			O
Ozothamnus ferrugineus	Tree everlasting	*		3 x 3	M	600	SL	LMH	PMG			M										O
Pittosporum phylliraeoides	Weeping pittosporum	*		5 x 3	M	250	SL	LM	MG			H		B			T C	W	E			O
Pittosporum undulatum	Sweet pittosporum	*	#	8 x 5	M	500	LC	LMH	MG			L			L				E			O
Pomaderris apetala	Hazel pomaderris	*		5 x 2	M	750	SL	LM	MG			M										O
Pomaderris oraria	Coast pomaderris	*		2 x 1	M	700	SL	MH	G			L							E			O
Prostanthera lasianthos	Victorian christmas-bush	*		8 x 4	M	650	LC	LM	G			M										O
Prostanthera rotundifolia	Round-leaf mint-bush	*		2 x 2	F	500	SL	LM	G			H										O
Solanum laciniatum	Kangaroo apple	*		3 x 3	F	600	SLC	LM	G			M		B	L		S	W				O
Thryptomene calycina	Grampians thryptomene	*		2 x 3	M	500	SL	LM	G			M										O
Tristania conferta	Brush box	*		10 x 9	F	550	SL	LM	G			L					-	S				O
Viminaria juncea	Golden Spray	*		4 x 2	F	500	LC	LM	P	F	T	M	G	W B	L		S	S				O