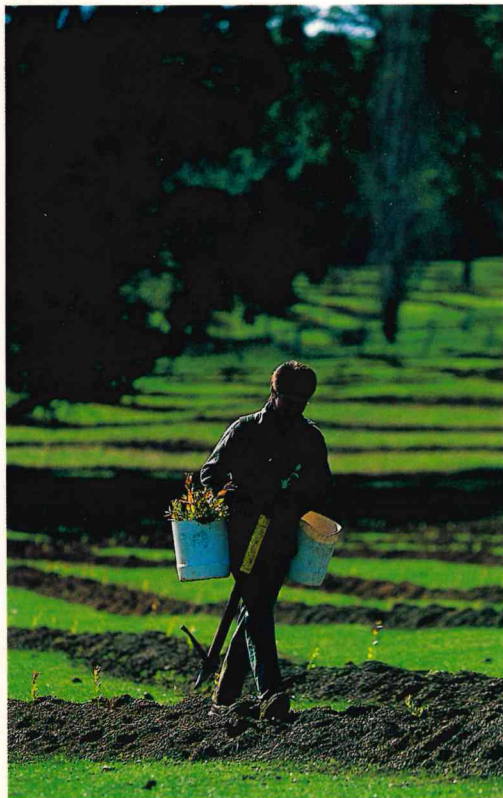


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THE
TREE GROWER'S
information kit



DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

THE TREE GROWER'S INFORMATION KIT

A grower's guide to selecting species, purchasing
plants and obtaining assistance for tree growing in
Western Australia.

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INTRODUCTION

This kit is designed so that you, as a tree grower, may have ready access to the Department of Conservation and Land Management's (CALM) Plant Propagation Centre and Advisory Services.

CALM is at the forefront of tree propagation and management for rural Western Australia. It shares with other agencies and community organisations the vision for a sustainable and productive agriculture that incorporates a properly distributed tree cover.

To enable your success in growing trees, whether for amenity, conservation or commercial purposes, CALM offers:-

- planning expertise
- the sale of seeds and seedlings
- growing technology
- commercial resources

We recommend that you use this booklet as a source of information and a place to keep other reference material.

HINTS FOR SUCCESSFUL PLANTING

PLAN

Establish what you expect from trees to be planted and how they fit into the land you have available for them.

SELECT

Choose species which suit your requirements—short and long term—are appropriate for the site and conditions in which they will be grown.

ORDER

Place orders early—to ensure quality and supply of the seedlings.

EARLY SITE PREPARATION

The designing of the planting area to enable management and preparation of the site should be given careful consideration. Some work can commence up to five months prior to winter. Consider fencing and pasture/weed reduction strategies.

ONE PASS OPTION—For extensive planting on certain soil types in moderate and low rainfall areas, an integrated tree planting unit, including ripper and scalper, may negate the need for early site preparations.

SOIL WORKS

Establish rip lines, mounds and drainage lines where required—before winter. Position in landscape, slope, soil type, areas prone to water logging, salinity, or wind erosion are factors which determine optimum layout and species arrangement. (Seek advice if in doubt.)

WEED CONTROL

Ensure grasses and other perennial weeds are rigorously controlled (ie: removed, sprayed), and prevented from regrowing by mechanical or chemical means. Aim for a weed-free zone of at least 80 cm around each seedling plot or either side of the planting line to be effective throughout winter/spring. It is also important to maintain weed control in the second year.

DELIVERY

At all times a covered vehicle should be utilised when transporting the seedlings for protection.

SEEDLING CARE

Take special care of seedlings on delivery. Check the water quality, provide adequate water, protection (eg: sun and wind) and retain a free airflow whilst they are in temporary storage.

PLANTING

Whatever planting technique is used, seedlings should be set firmly into prepared soil so that:-

- There are no air pockets around roots.
- The nursery level of the stem above root zone is at least 2 cm and no more than 8 cm under ground level.
- The roots are not excessively coiled or upturned.

FERTILISE

If warranted, fertilise with tablets or pellets containing nitrogen, phosphorous and some trace elements, at least 15 cm away from stem and roots, approximately 4–6 weeks after planting.

PROTECT

Identify and prepare to offset hazards that may hinder tree survival or growth, eg: grazing by animals, insect attack, fire or re-invasion by weed species.

LOSS FACTORS

Some factors that may seem to be beyond your management control—such as excessive waterlogging or wind blast; salt; frost; severe moisture loss in first spring/summer; soil dwelling plague or airborne insects, bird pests—could reduce planting success in a given year.

ADVISORY SERVICE

Through its Farm Forestry Unit (FFU) in regional parts of WA, CALM offers information and consultation services to rural tree growers. FFU has expertise in propagation, the integration of trees into farming, native bush management, land conservation techniques and commercial plantation management.

The Service works closely with the Agriculture WA and community groups and has advisers at a number of Regional Centres.

Enquires are welcomed. Ask for the Farm Forestry adviser.

NARROGIN REGIONAL OFFICE

7 Wald Street
Phone: (098) 811 444
Fax: (098) 813 297

GERALDTON REGIONAL OFFICE

193 Marine Terrace
Phone: (099) 215 955
Fax: (099) 215 713

COMO HEAD OFFICE

50 Hayman Road
Phone: (09) 334 0297
Fax: (09) 334 0327

BUSSELTON REGIONAL OFFICE

14 Queen Street
Phone: (097) 521 677
Fax: (097) 521 432

ESPERANCE REGIONAL OFFICE

92 Dempster Street
Phone: (090) 713 733
Fax: (090) 713 657

Information may also be obtained from the nearest Department of Conservation and Land Management District or Research office.

NURSERY, SEED CENTRE AND RESEARCH OPERATIONS

MANJIMUP PLANT PROPAGATION CENTRE
TELEPHONE: (097) 72 1377 FAX: (097) 72 1211

LOCATION:

Burnside Road, 11 kilometres West of Manjimup
Postal Address: Brain Street, MANJIMUP, WA 6258
Telephone: (097) 72 1377
Fax: (097) 72 1211

TRADING HOURS:

8.00 am–4.30 pm Monday–Friday

MANJIMUP NURSERY
TELEPHONE: (097) 72 1377 FAX: (097) 72 1211

The Manjimup Nursery is Accredited under the hygiene guidelines of the Nursery Industry Association.

SEEDLING ORDER INFORMATION:

Container stock

MINIMUM HARDWOOD SEEDLING ORDER OF 10 000

- Distribution Season: normally operates between 1 June and 31 August.
- Ordering before sowing period (prior to November) is essential.
- When placing an order the enclosed Seedling Order Form must be completed in full.
- Price will vary according to number (refer to current price list or contact the nursery).
- A deposit will be required upon placement of order.
- All orders must be collected from the Plant Propagation Centre.

Bare-rooted pine

MINIMUM SOFTWOOD SEEDLING ORDER OF 500

- Distribution Season: normally operates between 1 June and 31 July.
- Sowing period is August–September. Seedling Order Forms must be received by the Nursery prior to September.
- Price will vary according to number.
- All orders must be collected from the Plant Propagation Centre.

SEED CENTRE
TELEPHONE: (097) 72 1288 FAX: (097) 72 1305

From a small start in the basement of a city building in the 1920s, the Seed Centre today holds an estimated 200 million native seeds.

Now a part of the Plant Propagation Centre, the Seed Centre has been supplying native plant seeds to the public since it opened in the basement of the old R&I building in St. Georges Terrace.

The Centre was originally set up by the then Forest Department to supply seed for forest regeneration and, together with seed for other conservation purposes, this remains its key function.

Today's collection of three tonnes of seed is made up of a wide variety of Western Australian species, including those for their timber production, oils and decorative foliage.

The Seed Centre attracts clients from around the world—to date, seed has been exported to more than 40 countries in Asia, the Middle East, Europe and America.

The Centre offers many services:

- seed from more than 450 native Western Australian species, collected over a range of provenances, is available on request;
- comprehensive provenance information is held on a sophisticated data base and can be supplied on purchase, or checked as a future reference;
- the Centre's 1 750 seedlots are tested for viability and moisture content;
- seed collection trips within Western Australia can be arranged to suit a client's specific needs;
- seeds can be pre-treated on request prior to dispatch;
- the Centre can arrange documentation such as phytosanitary certificates for seed to be despatched overseas;
- a seed cleaning service is available;
- friendly assistance is available on all matters concerning seed propagation and seed management;
- the seed catalogue, including price list, is available on request.

Refer to the current Seed Centre Catalogue for purchasing arrangements.

RESEARCH FACILITIES
TELEPHONE: (097) 72 1200 FAX: (097) 72 1305

Advanced genetic tree breeding is continually being researched by CALM's Tree Breeding Officers within the Department's seed orchards.

<p>NARROGIN PLANT NURSERY TELEPHONE: (098) 81 1113 FAX: (098) 81 1645</p>

The Narrogin Plant Nursery is Accredited under the hygiene guidelines of the Nursery Industry Association.

LOCATION:

CALM Narrogin District headquarters, between Hough Street and the Williams Road,
3 kilometres west of the town centre.
Postal Address: PO Box 100, NARROGIN, WA 6312.
Telephone: (098) 81 1113
Fax: (098) 81 1645

TRADING HOURS:

8.00 am–4.30 pm Monday–Friday

PRODUCTION:

The nursery has the capacity to provide a wide range of tree and shrub species. Some 200 different types may be grown. Orders for unusual or unlisted varieties may be met if placed prior to October.

Narrogin Plant Nursery raises about 30 000 individually potted seedlings for dry land and small-scale domestic planting, and about 800 000 containerised (in multi-cell trays) seedlings for revegetation projects on farmland, mine sites and public land.

DELIVERY:

An efficient service is provided by the Narrogin Plant Nursery to designated collection points within a dispatch area which includes the Central Wheatbelt, Great Southern, South Coast and Southern Goldfields.

SEEDLING ORDER INFORMATION:

FOR SEEDLING ORDERS UNDER 10 000

- Distribution Season opens on 1 May and closes on 31 August.
- Early ordering (prior to November) is essential to ensure delivery of order. Some species are available throughout the Distribution Season.
- If a written order cannot be fulfilled at the time of dispatch, and no follow-up contact has been made, substitute trees may be included.
- For delivery to designated locations within the dispatch area, customer seedlings may be grouped. Orders from outside the dispatch area must be either collected from the nursery or delivered by Narrogin Plant Nursery to a point within the dispatch area. Alternatively, freight payment arrangements must be made by the client.

Species List

A Description of Plants Grown at
CALM's Manjimup and Narrogin Nurseries

EXPLANATORY NOTES

PLANT NAMES

Common names are not recorded for some species. Botanical names are reliable, usually appropriate, and should be quoted in preference.

SPECIES ORIGIN

Except where indicated otherwise in the text, the species listed are Western Australian native plants.

WEED STATUS

An asterisk (*) against the botanical name of a species indicates it has invasive potential, is exotic to WA and may, through seedling regeneration, occupy areas of natural or disturbed natural bushland after introduction to it.

TREE SIZE

The column headed SIZE shows, in metres, average maximum dimension (height x width) expected of the species grown to maturity in ideal growing conditions. Limiting site/soil characteristics (depth, nutrient, moisture, salinity and waterlogging), growing space, damage from insects, birds or wind, are factors which will restrict plant development and ultimate size.

SOIL TYPES

Soil categories appropriate for growing each species are coded as follows:

sa: sand	sl: sandy loam	cl: clay loam	gr: gravel
sc: sandy clay	lm: loam	cy: clay	

CLIMATIC OR GEOGRAPHIC ZONES

As a guide to suitable areas for growing the range of plants listed, one or several of seven climatic zones are shown for each species. The zones reflect, for the agricultural part of South Western Australia (see map and code descriptions), different growing conditions determined by rainfall and other climatic influences. Some plants suitable for the Goldfields and pastoral areas may be selected from zone 4 and zone 7 species. (See map on page 29.)

Zone No.

1. Main forested area of the South West—includes the higher rainfall zone, fertile soil types and strong coastal influence.
2. Moderate rainfall areas of the Wheatbelt.
3. West coastal area with moderate rainfall and strong Indian Ocean influence.
4. Eastern portion of the Wheatbelt under the influence of the Southern Ocean.
5. Northern extension of the Wheatbelt with a milder climate near the coast and some summer moisture.
6. South Coastal zone with moderate to low rainfall but with distinctive summer moisture particularly near the coast.
7. North eastern, lower rainfall part of the Wheatbelt, with consistently low humidity and shorter growing season.

USES

A list of notable attributes for the species is as follows:

- st: salt tolerant, to varying degrees
- wl: able to withstand temporarily waterlogged conditions
- rv: good for general revegetation on cleared farmland; some useful understorey species
- wb: suitable windbreak species
- sh: good shade trees
- fo: fodder, a degree of palatability
- tb: potential timber trees, product type dependent on species and wood quality
- or: ornamental, suitable for park/garden/street use, as distinct from farmland amenity species
- ho: honey—species known for good nectar or pollen yield

GROWN

The Nursery where the species is available:

- M: Manjimup Nursery
- N: Narrogin Nursery

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Acacia acuminata</i> raspberry jam	6x4	sc,sl,lm,cl	2,4,5,6,7	rv,wb, tb,or	Small tree with narrow foliage. Fragrant yellow flowers in July–October.	M,N
<i>Acacia anuera</i> mulga	6x4	sa,sl	6,7	wb,tb,or	Large shrub to small tree with narrow greyish leaves. Good drainage required.	N
<i>Acacia baileyana</i> * Cootamundra wattle	7x6	sc,sl,lm, gr	1,3 Wetter areas of 2,5,6	or	Widely planted Eastern States species with silvery-grey foliage and massed yellow flowers June–August.	M
<i>Acacia celastrifolia</i> glowing wattle	2x3	gr	2,4,5	rv,or	Attractive shrub with contrasting blue-grey foliage and bright yellow flowers. Showy ornamental species.	N
<i>Acacia collectiodes</i> spine wattle	2x3	sc,sl,lm,cl	2,4,5,7	st,rv,wb	Spreading, prickly shrub with massed yellow flowers July–September. Widely spread through southern Australia, it offers valuable bird refuge.	N
<i>Acacia cyclops</i> WA coastal wattle	3x3	sa,sl	1,3,6 Coastal parts	rv,wb	Spreading shrub with yellow flowers and distinctive red aril.	N
<i>Acacia hemiteles</i> tan wattle	2x2	sc,sl,lm, cl,cy,gr	2,4,5,6,7	rv,or	Small shrub with green-grey foliage and massed rounded flowers August–September. Good understorey species.	N
<i>Acacia meisneri</i> Meisner's wattle	3x3	sc,sl	3,4	or	Large shrub with attractive yellow flowers and blue grey foliage.	N
<i>Acacia melanoxylon</i> * Tasmanian blackwood	20x10	sc,sl,lm,cl	1,3 Wetter sites in 6	sh,wb, tb,or	Tall, long-lasting <i>Acacia</i> species from eastern Australia. Pale yellow flowers and dark green foliage; moist conditions are needed for good growth.	M,N
<i>Acacia merrallii</i> Merrall's wattle	2x3	lm,cl,cy	2,4,5,7	st,rv, wb,or	Spreading, mound-like shrub with masses of perfumed flowers and rounded blue-grey foliage. Good understorey species.	N
<i>Acacia microbotrya</i> manna gum	5x3	sc,sl,lm,cl	2,4,5,6,7	rv,fo,ho, or	Small, fast-growing tree with dense blue-green foliage. Yellow flowers in autumn. Useful revegetation species.	M,N
<i>Acacia pendula</i> weeping myall	10x5	sl,lm,cl	2,3 Coastal parts of 6	sh,wb, or	Hardy, eastern states species with silvery blue-green foliage and massed lemon-yellow flowers. Needs good site conditions to perform well.	N
<i>Acacia prainii</i> Prain's wattle	2x2	sc,sl,lm, cl,cy	2,4,5,6,7	st,rv,or	Spreading, wattle species, useful for understorey planting.	N
<i>Acacia redolens</i> vanilla-scented wattle	1x2	sa,sc,sl, lm,cl	2,4,5,6,7	st,rv, wb,or	Low, spreading, dense shrub with yellow flowers. Good understorey species for revegetation work.	N
<i>Acacia saligna</i> golden wreath wattle	5x3	sc,sl,lm, cl,gr	2,3,4,5,6	st,rv,fo, or	Widespread species. Foliage varies in size and shape. Versatile and quick-growing. Yellow flowers in spring.	M,N
<i>Actinostrobus arenarius</i> sandplain cypress	4x3	sa,sl	2,4	rv	A small tree with blue-grey dense conifer foliage.	N
<i>Actinostrobus pyramidalis</i> swamp cypress	4x2.5	sl,cl	2,4	rv	A small tree with bright green dense conifer foliage.	N
<i>Allocasuarina fraseriana</i> sheoak	10x6	sa,sl,lm, gr	1,2	rv,sh, wb,tb	Small to medium tree with fine needle-like foliage. Male and female flowers occur on separate trees July–September.	M,N
<i>Allocasuarina huegeliana</i> rock sheoak	10x6	sc,sl,gr	2,3,4,5,6	rv,wb, fo,tb,or	Small tree with fine needle-like foliage, often found growing near granite outcrops. Regenerates readily.	N

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Banksia baueri</i> woolly banksia	1.5x2	sa	2,3,4	rv,or	A small bushy shrub with very large woolly flowers, nestled inside a rounded shrub.	N
<i>Banksia baxteri</i> Baxter's banksia	3x4	sa,sc	3,5,6	rv,or	Fast growing shrub with attractive lemon-yellow flowers—used in the cut flower industry. Needs a well-drained site.	M,N
<i>Banksia coccinea</i> scarlet banksia	8x3	sa	1,3,6	or	Fast growing large shrub noted for large showy red flowers.	N
<i>Banksia menziesii</i> Menzies' banksia	9x5	sa	1,3,6	or	Small tree, fibrous grey bark and large showy red/orange flowers.	M,N
<i>Banksia prionotes</i> orange banksia	8x6	sa	2,3,4,5,6	rv,sh,or	Reasonably fast-growing species with dull green leaves and conspicuous orange flowers. Needs a well drained site.	N
<i>Banksia speciosa</i> showy banksia	6x6	sa	6	wb,or	Rounded dense shrub, long toothed leaves with large yellowish flower.	N
<i>Banksia sphaerocarpa</i> round-fruited banksia	2x1.5	gr	2,4	wl,or	Rounded shrub with thin green/blue leaves with large globular flower spikes.	N
<i>Brachychiton gregorii</i> desert kurrajong	8x6	sl,lm,cl	2,4,5,6,7	sh,fo,or	Slow-growing, drought-resistant tree with a dense crown of bright green foliage.	N
<i>Callistemon citrinus</i> crimson bottlebrush	3x4	cl,cy	1,2,3,4,5,6	or	Spreading bush from the eastern states, with narrow leaves and massed deep red flowers.	M,N
<i>Callistemon glaucous</i> Albany bottlebrush	2x2	lm,cl	1. Wet sites	wl,rv,or	Erect shrub with large, bright red bottlebrush flowers September–December. Needs a wet site to grow well. (Former species' name 'speciosus'.)	M,N
<i>Callistemon phoenicius</i> lesser bottlebrush	3x3	sc,sl,lm,cl	2,3,4,5,6. Wetter sites	st,wl,rv, ho,or	Large bush with bluish-grey foliage. Has abundant bright red flowers in October–November. Needs a moist site to prosper. Good revegetation species.	M,N
<i>Callistemon rigidus</i> stiff leaved bottlebrush	2x3	sl,lm,cl	1,2,3,4,5,6	or	Compact bush from New South Wales. Has rigidly held, pointed foliage. Flowers bright red with golden tips.	M,N
<i>Callistemon salignus</i> willow bottlebrush	6x5	sc,sl,lm,cl	1,2,3,6	or	Upright, eastern states species with rough, papery bark. Small white flowers and a distinct pink tinge in the new foliage.	M,N
<i>Callistemon viminalis</i> weeping bottlebrush	8x5	sl,lm,cl, gr	1,2,3. Wetter sites in 5,6	wl,sh,or	Decorative, small tree from eastern states. Weeping habit. Mid-green foliage and bright red flowers. Popular amenity tree.	M,N
<i>Calothamnus quadrifidus</i> crimson-cluster net bush	1x2	sl,gr	2,4,5	rv,or	Fine ornamental with attractive red flowers and dense, dark green foliage.	N
<i>Calothamnus rupestris</i> mouse ears	1x2	lm,cl	2,3,4,5	rv,or	Spreading shrub with dense foliage and attractive red flowers. Good bird refuge species.	N
<i>Calothamnus sanguineus</i> bush honeysuckle	1x1	sl,lm	2,4	rv,or	Fine, needle-like foliage on a low bush with bright red feathery flowers. Needs well-drained soil.	N
<i>Casuarina obesa</i> swamp sheoak	10x5	sc,sl,lm,cl	1,2,3,4,5,6,7 Wet sites	st,wl,rv, wb,fo,tb	Small tree with blue-grey needle-like foliage. Suited to growing in salty, waterlogged areas.	M,N

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Dryandra carduacea</i> pingle bush	4x2	sa,gr	1,2,4	rv,or	Tall shrub with leaves and yellow/green flowers. Flowers July–November.	N
<i>Dryandra proteoides</i> king dryandra	1.5x1.5	sa,gr	2,4	rv,or	A prickly shrub with leaves 10–20cm long. The flowers are large 8–9cm long, borne on the older stems. Flowers September.	N
<i>Dryandra sessilis</i> parrot bush	3x2	sa,gr	1,2,3,4,5	wl,rv	Profuse pale yellow flowers with dark green prickly foliage.	N
<i>Eucalyptus accedens</i> powderbark wandoo	20x10	sl,lm,gr	2,3 Drier parts of 1	rv,sh, wb,tb, ho	Small to medium tree with a moderately dense crown and a distinctive white powder on the bark. Vigorous grower with rounded juvenile foliage.	M,N
<i>Eucalyptus (corymbia) calophylla</i> marri	30x20	sa,sl,lm, cl,gr	1,3 Wetter areas of 2,5,6	rv,sh, wb,tb, ho	Large, shady tree with fibrous bark and large, glossy leaves. Masses of white flowers in January–February. Important honey species.	M,N
<i>Eucalyptus (corymbia) calophylla</i> var. <i>rosea</i> pink-flowered marri	20x10	sc,sl,lm, cl,gr	1,3 Wetter areas of 2,5,6	sh,wb, tb,ho,or	Distinguished from marri by pink-coloured flowers. Mainly used as an ornamental and for honey production.	M,N
<i>Eucalyptus (corymbia) citriodora</i> * lemon-scented gum	25x15	sl,lm	1,3 Wetter areas of 2,5,6	tb,ho,or	Tall, smooth-barked Queensland species with very aromatic foliage. A graceful tree, white flowers in June–July.	M,N
<i>Eucalyptus alligatrix</i> * argyle apple	15x10	sc,sl,lm, cl,gr	1,3 Wetter areas of 2,5,6	sh,or	Small to medium tree from New South Wales and northern Victoria. Distinctive, rounded, silvery-blue foliage and brown, persistent bark on the trunk.	M,N
<i>Eucalyptus angulosa</i> ridge-fruited mallee	5x6	sa,sl,lm	6 Wetter areas of 4 Drier parts of 2	rv,wb, ho,or	Tree or mallee with shady habit and pale yellow flowers September–November.	M,N
<i>Eucalyptus argyphaea</i> silver mallet	10x8	lm,cl,gr	2,5,6 Wetter sites in 4	rv,sh, tb,ho,or	Smooth, silver-grey barked mallet with cream flowers December–February (formerly <i>E. falcata</i>).	N
<i>Eucalyptus aspersa</i>	5x3	gr	1	rv,wb	Small tree with rounded crown and slightly glossy green foliage. Needs good drainage.	N
<i>Eucalyptus astringens</i> brown mallet	15x8	sl,lm,cl, gr	2,3,4,5,6	rv,sh, wb,tb, ho	Shady, multi-stemmed tree with glossy foliage and creamy yellow flowers. Smooth-barked species with distinctive orange hue in the fresh bark.	M,N
<i>Eucalyptus botryoides</i> * bangalay	25x20	sc,sl,lm	1,3 Wetter sites in 2,5,6	wl,sh, wb,tb	Large tree with dense crown. Rough bark along trunk and smooth in the upper branches. White flowers December–February.	M,N
<i>Eucalyptus brockwayi</i> dundas mahogany	18x8	sc,sl,lm,cl	2,4,5,6,7	rv,sh, wb,tb, ho,or	Attractive, straight-trunked tree with glossy green foliage and smooth bark. Drought and frost resistant. Good street tree for drier areas.	N
<i>Eucalyptus burdettiana</i> Burdett's gum	4x3	sl	2,3,6 Wetter areas of 4	rv,wb, fo,ho,or	Attractive mallee with glossy green foliage and yellow-green flowers	N
<i>Eucalyptus burracoppinensis</i> Burracoppin mallee	4x5	sa,gr	2,4,7	rv,wb	Rounded cream mallee with blue/grey foliage and large white flowers.	N
<i>Eucalyptus caesia</i> subsp. <i>caesia</i> gungurru	6x5	sl,lm,cl	1,2,3 Wetter areas in 5, 6	or	Decorative tree with open crown of blue-green foliage, orange curling lower bark, upper pendulous branchlets and silvery white fruit. Flowers in June–September.	M,N

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Eucalyptus caesia</i> subsp. <i>magna</i> silver princess	6x5	sl,lm,cl	1,2,3 Wetter areas of 5,6	or	Attractive, pendulous-crowned, small tree with distinctive miniritchie-type bark at the base. Red or pink flowers May–August.	M,N
<i>Eucalyptus camaldulensis</i> * var. <i>camaldulensis</i> river red gum	20x15	sc,sl,lm,cl	1,3 Wetter sites in 2,4,5,6,7	st,sh,tb, ho	Occurs throughout mainland Australia except the south-west. Grows well in moist sites. Mid-green foliage and smooth white or grey bark. The 'Silverton' variety <i>subcinerea</i> has more glaucous foliage and good salt tolerance.	M,N
<i>Eucalyptus camaldulensis</i> * var. <i>obtusa</i> river red gum	10x8	sc,sl,lm,	1,3 Wetter sites in 2,4,5,6,7	sh,ho or	From inland Australia, including WA. Smooth, white or brown blotched bark, spreading crown and bright green foliage. Creamy white flowers in Summer.	M,N
<i>Eucalyptus campaspe</i> silver topped gimlet	7x5	sc,sl,lm, cl,cy	4,7 Drier parts of 2	rv,sh, wb,ho,or	Spreading crown, blue-grey foliage and unique coppery brown bark. Creamy white flowers October–January. Good street tree for drier areas.	M,N
<i>Eucalyptus capillosa</i> subsp. <i>capillosa</i> inland wandoo	15x10	sc,sl,cy	2,4,7	rv,sh, tb,ho	Medium tree with smooth white bark and blue-grey foliage. Creamy white flowers February–April.	N
<i>Eucalyptus cinerea</i> white leaved mallee	5x3	gr	2,4,6	rv,or,ho	Clean white barked small tree with distinctive blue/grey juvenile leaves—glossy adult.	N
<i>Eucalyptus cladocalyx</i> * sugar gum	25x15	sl,lm,gr	1,2,3,6 Wetter areas of 4,5	sh,wb, tb,ho	Tall, smooth-barked species from South Australia. Glossy green foliage (which can be toxic to stock in spring). Moderately quick growing.	M,N
<i>Eucalyptus cladocalyx</i> "nana" dwarf sugar gum	8x8	sl, lm,gr	1,2,3 Wetter areas of 4,5,6	sh,wb, ho,or	Small tree from South Australia. Spreading crown of glossy, dark green foliage (can be toxic to stock in spring). Flowers January–February.	M,N
<i>Eucalyptus clelandii</i> Cleland's gum	10x6	lm,cl,cy	4,7 Drier parts of 2,5	rv,ho,or	Multi-trunked tree with rough basal bark, smooth above. Blue-grey foliage and light yellow flowers. Good street tree for drier areas.	N
<i>Eucalyptus clivicola</i> green mallet	12x6	cl,gr	2,4,6	rv,sh, tb,ho,or	Smooth-barked, small tree with glossy green leaves and pale yellow flowers.	N
<i>Eucalyptus conferruminata</i> Bald Island marlock	10x8	sa,sl,lm	1,3,6 Moist sites in 2,5	rv,sh, wb,ho,or	Spreading, rounded tree with moderately dense light green foliage. Lemon-coloured flowers August–November in unusual tight cluster.	M,N
<i>Eucalyptus cornuta</i> yate	20x10	sl,lm,cl	1 Wet sites in 6	wl,rv, tb,ho	Usually upright, spreading tree with thick, rough basal bark, smooth above. Bright green leaves and light yellow flowers. Good south coastal species.	M,N
<i>Eucalyptus corrugata</i> rough-fruited mallee	10x6	sc,sl,lm,cl	4,7 Drier parts of 2	rv,sh, ho,or.	Small, mainly smooth-barked species with dark green leaves. Yellow flowers October–March. Distinctive, corrugated seed capsules.	N
<i>Eucalyptus crebra</i> narrow-leaved red ironbark	15x10	sc,sl,lm,cl	1,3 Wetter areas of 2,5,6	sh,tb,ho	Eastern states species with very fibrous, persistent bark. Blue-green foliage, with white flowers May–January	N
<i>Eucalyptus crucis</i> subsp. <i>crucis</i> silver mallee	5x6	sl,lm	4,7 Drier parts of 2,5,6	or	Decorative ornamental with miniritchie-like bark and rounded silvery-blue foliage. Useful cut-foliage species.	N

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Eucalyptus decipiens</i> subsp. <i>decipiens</i> red heart	8x5	sa,sc,sl	1,2,3	wb,or	Rounded crown with rough basal bark. Grey/green foliage and white flowers.	N
<i>Eucalyptus densa</i> subsp. <i>densa</i>	8x6	sl,lm,cl, cy	2,4,6	rv,sh, ho,or	Recently described mallee species, very similar to <i>E. gardneri</i> but found growing in lowland sites. Creamy yellow flowers May–August.	N
<i>Eucalyptus dielsii</i> cap-fruited mallee	7x4	cl,cy	4,7 Drier parts of 6	rv,or	Slender mallee with smooth green-brown bark and glossy green foliage. Creamy white flowers December–January	N
<i>Eucalyptus diptera</i> two-winged gimlet	8x6	cl,cy	4,7 Drier parts of 6	rv,sh, ho,or	Attractive, small tree with distinctive coppery bark on a twisted trunk. Creamy white flowers April–June	M,N
<i>Eucalyptus diversicolor</i> karri	45x25	sl,lm	1	rv,tb,ho	Tallest of the Western Australian trees, karri has a smooth, white bark (flaky when young) and moderately dense crown. White flowers September–February.	M,N
<i>Eucalyptus drummondii</i> Drummond's gum	6x6	sc,sl,lm, gr	2,3 Wetter areas of 5,6	rv,wb, ho,or	Attractive mallee with grey-green foliage and white powdery stems and fruits. Flowering period usually September–December, sometimes May–June.	N
<i>Eucalyptus dundasii</i> dundas blackbutt	12x8	sl,lm,gr	4,7 Drier parts of 2,5,6	rv,sh, wb,tb, ho,or	Medium tree with persistent, tessellated bark on the lower trunk. Leaves glossy green, flowers creamy white. Good dry area street tree.	N
<i>Eucalyptus ebbanoensis</i> subsp. <i>ebbanoensis</i> sandplain mallee	6x5	sa,sl	7 Drier parts of 2,5	rv,or	Mallee or small tree with smooth bark (rough at base). Massed light cream flowers in the latter half of summer.	N
<i>Eucalyptus eremophila</i> subsp. <i>eremophila</i> tall sand mallee	6x5	sc,sl,lm	2,4,5,6,7	rv,wb, ho,or	Smooth-barked mallee with olive-green foliage. Massed pale yellow flowers August–December. Good street tree for drier areas	N
<i>Eucalyptus erythrandra</i> rosebud gum	6x4	sa,sc,sl	6	rv,or	Spreading mallee with unusual large fruit	N
<i>Eucalyptus erythrocorys</i> illyarrie	6x6	sa,sl, limestone	3 Wetter parts of 5	rv,wb, or	Decorative spreading mallee with smooth bark and dark green leaves. Buds have bright red caps which are shed to reveal striking yellow flowers. February–April.	M,N
<i>Eucalyptus erythronema</i> var. <i>erythronema</i> red-flowered mallee	6x6	sc,sl,lm,cl	4,5,6,7 Drier parts of 2	rv,wb, ho,or	Small mallee. Plentiful red flowers and colourful smooth bark make this an ideal ornamental and street tree for drier areas. Flowers October–December.	N
<i>Eucalyptus ewartiana</i> Ewart's mallee	6x5	sl,lm	4,7 Drier parts of 2,5	ho,or	Distinctive tree with unusual brown-green curling bark. Cream to pale yellow flowers November–March.	N
<i>Eucalyptus famelica</i>	5x6	sc,cl	6	st,wl,rv	Spreading mallee with glossy green foliage. White flowers in April–July.	N
<i>Eucalyptus corymbia</i> f. <i>ficifolia</i> WA red-flowering gum	12x9	sa,sc,sl, lm	3 Coastal areas of 1,6	sh,wb, ho,or	Medium tree with rough brown bark and dense, deep green foliage. Massed pink to red flowers in December–February. Grows better in frost free areas.	M,N

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Eucalyptus flocktoniae</i> merritt	12x8	sl,lm,cl	2,4,7 Drier parts of 5,6	st,rv,sh, tb,ho,or	Small tree or mallet. with dark green foliage and smooth bark. Good street tree for drier areas. White flowers September–December.	N
<i>Eucalyptus formanii</i> Forman's mallee	6x6	sl,lm,cl	4,5,7	rv,ho,or	Small tree with bark persistent at the base and smooth above. Very narrow light green leaves and massed white flowers December–April.	N
<i>Eucalyptus forrestiana</i> subsp. <i>forrestiana</i> fuchsia gum	4x3	sl,lm,cl	2,3,4,5,6,7	rv,or	Decorative mallee with thick glossy green leaves and pendulous scarlet flower buds. Flowering period December–March.	M,N
<i>Eucalyptus gardneri</i> subsp. <i>gardneri</i> blue mallet	10x6	sl,lm,cl, gr	2,4	rv,sh, wb,tb, ho,or	Distinctive, small tree with blue-grey foliage, light yellow flowers and a smooth light coppery coloured trunk. Flowers March–November.	N
<i>Eucalyptus globulus</i> subsp. <i>bicostata</i> * eurabbie	40x20	sl,lm	1,3 Wetter areas in 2,6	wb,tb, ho	Upright blue gum from Victoria and NSW. Similar to Tasmanian blue gum though often has fuller crown and wider branching. Capsules in twos and threes on branchlets	M,N
<i>Eucalyptus globulus</i> subsp. <i>globulus</i> * Tasmanian blue gum	45x25	sl,lm	1,3 Wetter areas in 2,6	tb,ho	Fast-growing, tall, smooth-barked tree with long strap-like adult leaves and rounded blue-grey juvenile foliage. Capsules occur in singles. Needs a good site to sustain strong growth.	M,N
<i>Eucalyptus gomphocephala</i> tuart	30x20	sa,sl,lm	1,3 Wetter areas of 2,5,7	rv,sh, wb,tb, ho	Medium-spreading tree with fibrous grey-brown bark. White flowers January–April. Grows best where summer moisture is available.	M,N
<i>Eucalyptus goniantha</i> subsp. <i>goniantha</i> Mount Many Peaks gum	6x5	sa,sc,sl	6	rv,wb, or	Dense crown with glossy green foliage. Creamy white flowers November–February.	N
<i>Eucalyptus grandis</i> * rose gum	35x20	lm	1,3 Wetter sites in 6	tb,ho	Tall northern NSW tree with a straight smooth trunk and glossy green foliage, Flowers April–August.	M,N
<i>Eucalyptus griffithsii</i> Griffith's grey gum	7x4	sa,sc,sl	2,4,5,7	or	Glossy crowned mallee from the central goldfields. White flowers August–December.	N
<i>Eucalyptus guilfoylei</i> yellow tingle	30x20	lm,cl	1 South coastal areas	rv,tb	Tall, rough-barked tree with discoloured leaves and white flowers. Best suited to south coastal areas and better soil types.	M,N
<i>Eucalyptus halophila</i>	3x4	sc,sl,lm,cl	6	st,or	Spreading mallee with cream-coloured flowers during mid summer. Matt, grey-green foliage and light brown box-type bark.	M,N
<i>Eucalyptus horistes</i>	6x5	sl,lm	Wetter areas of 4,5,7 Drier parts of 2,6	rv,wb, ho,or	Rough-barked mallee with blue/grey foliage. White flowers December–February.	M,N
<i>Eucalyptus jacksonii</i> red tingle	45x30	sl,lm	1 South coastal areas	tb,ho	Tall tree with persistent fibrous bark. White flowers January–March. Does better in south coastal areas.	M,N
<i>Eucalyptus kochii</i> subsp. <i>kochii</i> Watheroo mallee	5x6	sl,lm,cl	Wetter areas of 4,5,7 Drier parts 2,6	rv,wb, ho,or	Rough-barked mallee with blue-grey foliage. White flowers December–February. Also called the oil mallee because of its high cineole content.	M,N

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Eucalyptus kochii</i> subsp. <i>plenissima</i>	6x5	sc,sl,lm	Wetter areas of 4,5,7 Drier parts 2,6	rv,wb, ho,or	Rough-barked mallee with blue/grey foliage. White flowers December–February.	M,N
<i>Eucalyptus kondininensis</i> Kondinin blackbutt	12x8	sc,sl,lm, cl,cy	2,4	st,wl,rv, sh,tb,ho	Upright, spreading tree with persistent black bark on the lower trunk. Glossy, green foliage, cream flowers October–December. Good street tree.	M,N
<i>Eucalyptus kruseana</i> bookleaf mallee	3x3	sc,sl,lm	2,3,4,5,6	or	Very decorative mallee with rounded silver foliage and creamy yellow flowers. Foliage used in floriculture trade.	M,N
<i>Eucalyptus laeliae</i> Darling Range ghost gum	9x5	sa,sc,sl,gr	1,3,6	wb,or	Small tree with smooth whitish bark. Bright green dense foliage with white flowers.	N
<i>Eucalyptus lane-poolei</i> Lane-Poole gum	6x5	sa,sc,sl	1,3,6	rv,wb, or	Small to medium tree with smooth powdery white bark. White flowers December–February.	N
<i>Eucalyptus lansdowneana</i> subsp. <i>lansdowneana</i> purple-flowered gum	8x6	sa,sc,sl	1,2,3,4,6	wb,or	Decorative mallee with pink to purple flowers.	N
<i>Eucalyptus lehmannii</i> bushy yate	4x5	sc,sl,lm,cl	3,6 Wetter areas of 2,5	rv,wb, ho,or	Mallee with smooth bark and rounded crown. Tight clusters of yellow flowers January–April. Similar in appearance to <i>E. conferruminata</i> .	M,N
<i>Eucalyptus leptopoda</i> subsp. <i>leptopoda</i> Tammin mallee	5x5	sa,sl	5,7 Drier parts of 2	rv,or	Spreading mallee with attractive peeling bark. Cream flowers December–March. Light green foliage.	N
<i>Eucalyptus lesouefii</i> Goldfields blackbutt	12x8	cl,cy	4,7	rv,sh, ho,or	Short-trunked tree with distinctive persistent bark on lower trunk. Matt green foliage, with pale yellow flowers November–February.	N
<i>Eucalyptus leucoxydon</i> subsp. <i>megalocarpa</i> yellow gum	8x6	sl,lm,cl	1,2,3,6 Wetter areas of 4,5	sh,wb, ho,or	Spreading tree from South Australia and Victoria. Smooth bark, matt green foliage and abundant flowers. Common variety "rosea" is similar.	M,N
<i>Eucalyptus leucoxydon</i> subsp. <i>leucoxydon</i> SA blue gum	12x8	sc,sl,lm	1,2,3 Wetter areas of 4,5,6	sh,tb, ho,or	Medium-sized, upright tree with spreading crown. Smooth bark, matt green foliage and abundant flowers.	M,N
<i>Eucalyptus longicornis</i> red morrel	20x10	cl,cy	2,4,7 Drier parts of 5,6	rv,sh,tb, ho	Straight-trunked tree with rough bark and a spreading crown of glossy green leaves. Creamy white flowers November–March.	N
<i>Eucalyptus loxophleba</i> subsp. <i>lissophleba</i> smooth barked York gum	6x6	sl,lm,cl	2,4,7	rv,sh, ho,or	Large mallee with very glossy green foliage and coppery coloured smooth bark. White flowers September–February.	M,N
<i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> York gum	15x10	sl,lm,cl	2,4,5,6	st,rv,sh, tb,ho	Medium tree with spreading crown of glossy green foliage. Persistent bark on the lower trunk and smooth above. White flowers September–December.	M,N
<i>Eucalyptus macrandra</i> long-flowered marlock	5x5	sc,sl,lm,cl	6	ho,or	Smooth-barked mallee with profuse yellow-green flowers in January–March. Good street tree.	M,N
<i>Eucalyptus macrocarpa</i> subsp. <i>macrocarpa</i> mottlecah	4x5	sa,sc	2,3,4,5,6	or	Spreading mallee with silvery-blue foliage and large red flowers October–January.	M,N

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<i>Eucalyptus (corymbia) maculata</i> * spotted gum	30x15	sc,sl,lm,cl	1,3 Wetter areas of 2,5,6	sh,wb, tb,ho	Upright and well-formed tree with a dense crown of dark green foliage. Smooth, light bark with purplish blotches. White flowers May–September.	M,N
<i>Eucalyptus marginata</i> subsp. <i>marginata</i> jarrah	25x15	sl,lm,gr	1,3 Wetter sites in 2	tb,ho	Tall tree with persistent fibrous bark and dark green leaves. White flowers September–January. Relatively slow growing.	M,N
<i>Eucalyptus megacarpa</i> bullich	15x8	sc,sl	1 Wet sites	wl,or	Variable formed species, distinctive with its alabaster white bark, large leaves and white flowers. Needs a summer wet site to do well.	M,N
<i>Eucalyptus megacornuta</i> warted yate	10x8	sc,sl,lm,cl	2,3,4,6	rv,sh, ho,or	Fast-growing, open-crowned species with unusual green flowers and densely warted bud caps. Grows well on a wide range of sites.	M,N
<i>Eucalyptus melanoxylon</i> black morrel	15x10	lm,cl	4,7 Drier parts of 2	rv,sh, tb,ho	Rough-barked, upright tree with glossy dark green foliage. Cream flowers December–March. Good species for difficult sites.	M,N
<i>Eucalyptus melliodora</i> yellow box	20x15	sl,lm,cl	1,3 Wetter areas of 2,5,6	sh,wb, tb,ho	Graceful, medium-sized, eastern Australian tree species with fibrous, grey bark and grey-green foliage. Flowers September–February. Regarded as top honey producing species.	M,N
<i>Eucalyptus microcarpa</i> grey box	20x15	sc,sl,lm,cl	1,3 Wetter areas of 2,5,6	rv,wl, sh,tb,ho	Medium-sized, eastern states species with dull green foliage. Persistent bark on trunk and larger limbs, becoming smooth on smaller branches.	M,N
<i>Eucalyptus microcorys</i> tallowwood	35x15	sl,lm	1	tb	Tall, eastern coast species with straight trunk and persistent fibrous bark. Creamy white flowers August–December.	M,N
<i>Eucalyptus muelleriana</i> yellow stringbark	35x20	lm,cl	1	wb,tb	Tall, south-eastern Australian species with straight trunk and persistent, fibrous bark. Does best in good soils with summer moisture.	M,N
<i>Eucalyptus myriadena</i> subsp. <i>myriadena</i> snap and rattle	10x8	lm,cl,cy	4,7 Drier parts of 2	st,rv,sh, wb	Upright, spreading tree with dark green foliage. Rough, persistent bark on lower trunk, smooth above. White flowers November–April.	M,N
<i>Eucalyptus nicholii</i> narrow-leaf peppermint	20x15	sl	1,3 Wetter areas of 2,5,6	sh,wb, or	Graceful, medium-sized tree from NSW. Weeping, blue-green foliage and persistent, rough bark. White flowers March–April.	M,N
<i>Eucalyptus "nutans"</i> red-flowered moort	5x5	lm,cl,cy	6	rv,ho,or	Small, spreading mallee with a moderately dense crown. Red (sometimes cream) flowers September–October.	M,N
<i>Eucalyptus occidentalis</i> var. <i>occidentalis</i> flat-topped yate	18x10	lm,cl,cy	Wetter sites 2,3,4,5,6	st,wl, rv,sh, tb,ho	Quick-growing, medium tree with a flat-topped shady crown and rough basal bark. Creamy white flowers November–May. Suited to moister sites, tolerates mild salinity.	M,N
<i>Eucalyptus oldfieldii</i> Oldfield's mallee	5x5	sa,sc,sl	5,7 Drier areas of 4	rv,wb, or	Spreading mallee with a rounded crown of grey-green foliage. Large, white flowers July–November.	N

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<i>Eucalyptus patens</i> WA blackbutt	30x20	sl,lm,cl	1	sh,tb,ho	Straight-trunked tree with thick fibrous bark and blue-grey foliage. Grows best on moist, but not waterlogged, sites.	M,N
<i>Eucalyptus phaenophylla</i> subsp. <i>phaenophylla</i> mallee white gum	4x5	sc,sl	2,4,6	rv,wb,ho,or	Small, spreading mallee, formerly confused with <i>E.redunca</i> . Smooth-barked species with pale yellow flowers August–November.	N
<i>Eucalyptus pileata</i> capped mallee	6x5	sc,sl,lm,cl	4,7 Drier parts of 2,6	rv,sh,wb,or	Attractive mallee with smooth coppery bark which peels off in long ribbons. Glossy dark green foliage. White flowers February–May.	N
<i>Eucalyptus pilularis</i> eastern states blackbutt	35x20	lm	1	tb	Tall forest species from eastern Australia with a smooth white trunk above persistent basal bark. Needs good soil and summer moisture to do well.	N
<i>Eucalyptus platypus</i> var. <i>heterophylla</i> coastal moort	4x5	sa,sc,sl	3,6 Wetter areas of 5	rv,wb,ho,or	Rounded-crown, small tree with dark foliage and smooth, light brown bark. Massed white flowers.	M,N
<i>Eucalyptus platypus</i> var. <i>platypus</i> moort	5x6	cl,cy	2,3,4,5,6	st,rv,wb,ho,or	Small tree or mallee with matt green, thick leaves forming a compact, rounded, dense crown. Massed white flowers September–January.	M,N
<i>Eucalyptus pluricaulis</i> subsp. <i>pluricaulis</i> blue leaved mallee	4x4	sl,gr	2,4	wb,or	Creamy yellow flowers and purplish blue foliage. Very attractive rounded mallee.	N
<i>Eucalyptus preissiana</i> subsp. <i>preissiana</i> bell-fruited mallee	3x4	sc,sl,lm,cl,gr	1,3 Wetter areas 2,5,6	or	Decorative mallee with large yellow flowers contrasting with thick blue-green foliage. Versatile ornamental species.	M,N
<i>Eucalyptus regnans</i> mountain ash	40x20	lm	1	tb	Very tall, straight-trunked species from south-eastern Australia. Needs very good soil and abundant summer moisture to survive.	M,N
<i>Eucalyptus resinifera</i> red mahogany	30x15	sl,lm	1	tb,ho	Tall forest species from the eastern states with thick persistent bark. Needs a good soil type and summer moisture to do well.	M,N
<i>Eucalyptus robusta</i> swamp mahogany	25x20	lm,cl,cy	1,3	sh,wl,tb	Rough-barked, eastern states species with a spreading crown of large, dark green leaves. White flowers May–July. Needs a moist site to grow well.	M,N
<i>Eucalyptus rudis</i> subsp. <i>rudis</i> WA flooded gum	15x15	sc,sl,lm,cl,cy	1,3 Wetter sites in 2,5,6	wl,rv,sh,wb,ho	Spreading often multi-trunked tree with persistent basal bark and smooth branches. Suited to moisture-gaining and mildly saline sites. Good revegetation species.	M,N
<i>Eucalyptus salicola</i> salt gum	10x5	sa,sl	2,4,6	st,rv	Medium sized tree, spreading crown with smooth white bark and glossy green foliage.	N
<i>Eucalyptus saligna</i> * Sydney blue gum	35x20	sl,lm,cl	1,3 Wetter areas of 2,6	sh,tb	Fast-growing, tall, forest species from eastern Australia. Clean white bark and strongly discoloured leaves. White flowers January–April.	M,N
<i>Eucalyptus salmonophloia</i> salmon gum	20x15	sc,sl,lm,cl	2,4,5,7	rv,sh,tb,ho,or	Umbrella-shaped tree with very distinctive salmon-red fresh bark. Shining, bright green foliage, White flowers December–March.	M,N

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<i>Eucalyptus salubris</i> gimlet	12x10	lm,cl,cy	4,7 Drier parts of 2	rv,sh, tb,ho,or	Compact, glossy foliage and attractive, red-brown bark on fluted, twisted trunks. White flowers December–March. Good street tree for drier areas.	N
<i>Eucalyptus sargentii</i> subsp. <i>sargentii</i> salt river gum	10x8	sc,sl,lm, cl,cy	2,4,5	st,wl, rv,ho,or	Upright, spreading tree with rough basal bark and smooth coppery bark above. Glossy olive green foliage. Creamy white flowers October–January. Salt tolerant.	M,N
<i>Eucalyptus semiglobosa</i> Jerdacuttup mallee	5x5	sl,lm	6 Coastal areas	rv,ho,or	White-trunked mallee with creamy white flowers and thick dark green leaves. Flowering April–June. (Formerly <i>E. goniantha</i>)	N
<i>Eucalyptus sheathiana</i> ribbon bark mallee	7x6	sc,sl,lm,cl	4,7	rv,sh, ho,or	Attractive small tree with peeling bark. Large, grey-green leaves. Light yellow flowers January–April.	N
<i>Eucalyptus sideroxylon</i> subsp. <i>sideroxylon</i> pink-flowered ironbark	15x10	sc,sl,lm, cl,cy,gr	1,3 Wetter areas in 2,5,6	sh,wb, tb,ho,or	Medium-sized tree from eastern Australia with persistent, very thick dark fibrous bark. Blue-grey foliage and massed flower (often red or pink).	M,N
<i>Eucalyptus spathulata</i> swamp mallet	8x6	sc,sl,lm, cl,cy	2,3,4,5,6	st,wl, rv,sh, wb,ho, or	Rapid-growing, adaptable species with matt olive-green foliage. Massed white flowers December–March. A good street tree for drier areas.	N
<i>Eucalyptus steedmanii</i> Steedman's mallet	8x5	sl,gr	2,4	rv,or	Bushy small tree with distinctive fruit, smooth coppery bark and glossy green foliage.	N
<i>Eucalyptus stoatei</i> scarlet pear gum	6x5	sl,lm	6	rv,wb, or	Spreading mallee with distinctive, large, red flower buds, flowering intermittently throughout the year. Good street tree for drier areas.	N
<i>Eucalyptus stricklandii</i> Strickland's gum	8x6	sc,sl,lm, cl,gr	4,7	rv,sh, ho,or	Decorative small tree with thick, glossy leaves, bright yellow flowers and coppery coloured bark. Good street tree.	M,N
<i>Eucalyptus talyuberlup</i> pretty yate	5x5	sc,lm,gr	Wetter areas of 6 Drier parts of 1	rv,wb, ho,or	Rounded-crown, smooth-barked mallee with distinctive, clustered seed capsules. Large yellow-green flowers May–September.	M,N
<i>Eucalyptus tereticornis</i> forest red gum	40x20	sc,sl,lm,cl	1,3,6 Wetter areas of 2	rv,tb,ho	Smooth barked, tall tree with steeply ascending branches. Flowers June–November.	N
<i>Eucalyptus torquata</i> coral gum	10x8	sc,sl,lm, cl,cy,gr	2,4,5,6,7	sh,ho, or	Blue-grey-green foliage forming a compact crown. Showy pink-red flowers through most of summer. Thick persistent bark. Good street tree.	M,N
<i>Eucalyptus torwood</i> torwood	8x6	sl,lm,cl, gr	2,4,5,6,7	ho,or	Small tree with massed pink-red flowers, blue-grey foliage and smooth bark. Good street tree.	N
<i>Eucalyptus transcontinentalis</i> redwood	15x10	sc,sl,lm,cl	2,4,7	rv,sh, wb,tb, ho,or	Attractive, small tree with smooth bark and blue-grey foliage. Massed yellow flowers August–November.	N
<i>Eucalyptus uncinata</i> hook-leaved mallee	3x4	sc,sl,cl	2,4,6	rv,ho,or	Grey-barked mallee with light green foliage. White flowers January–April.	N
<i>Eucalyptus vegrans</i> swamp mallee	4x3	sc,sl,lm,cl	2,4,6	wl,rv, wb,ho,or	Attractive mallee with smooth, coppery new bark. Glossy, olive-green foliage. Masses white flowers December–March.	M,N

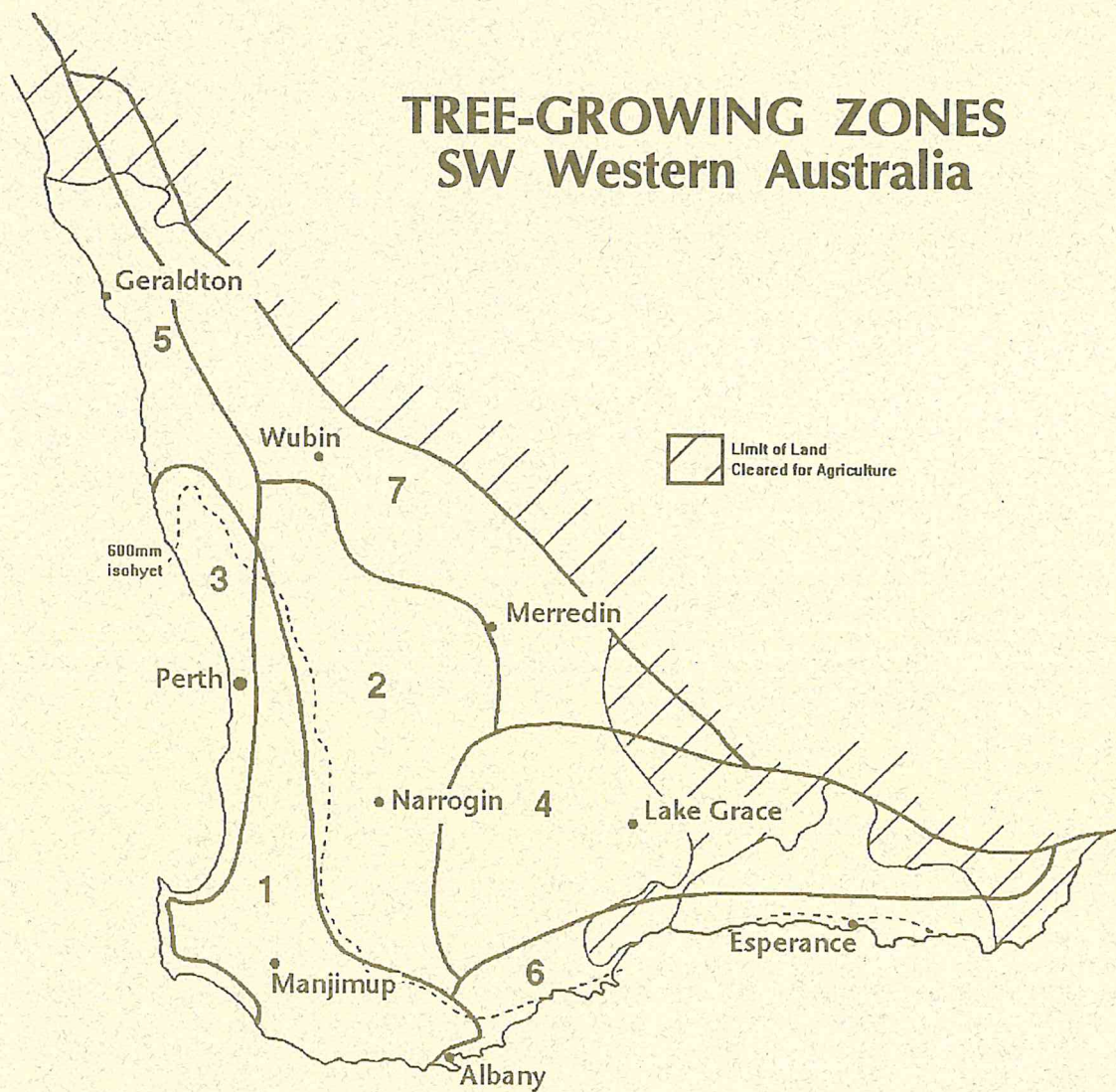
SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Eucalyptus viminalis</i> subsp. <i>viminalis</i> manna gum	35x20	sc,sl,lm,cl	1,3	sh,tb	Tall, forest species from the eastern states. Distinctive habit of shedding long ribbons of bark when mature. Needs good soil to grow well.	M,N
<i>Eucalyptus wandoo</i> subsp. <i>wandoo</i>	20x15	sc,sl,lm,cl,cy,gr	2,3 Drier parts of 1	rv,sh,wb,tb,ho	Spreading-crown tree with smooth white bark and grey-green foliage. White flowers December-May.	N
<i>Eucalyptus websteriana</i> subsp. <i>Websteriana</i> Webster's mallee	4x5	sl,lm	2,4,7	or	Unusual, small tree with curling orange bark, broad, light green leaves and pale yellow flowers	N
<i>Eucalyptus woodwardii</i> lemon-flowered gum	8x6	sl,lm,cl	4,7 Drier parts of 2	ho,or	Attractive, small tree with massed yellow flowers, smooth bark and large grey-green leaves. Good ornamental for drier areas.	N
<i>Eucalyptus yilgarnensis</i> yorrell	12x10	sc,sl,lm,cl,cy	2,4,5,7	st,rv,sh,ho,or	Small tree with glossy green foliage, white flowers and smooth coppery bark above rough basal bark.	N
<i>Eucalyptus youngiana</i> yarldarlba	6x4	sa,sc,sl	2,3,4,5,6,7	or	Decorative mallee with large yellow flowers, rough bark to most of the trunk and blue/green foliage. Needs a well drained site.	N
<i>Hakea baxteri</i> fan hakea	6x4	sc,sl,lm,cl,gr	2,4	or	Rounded shrub with unusual fan-shaped foliage. An interesting ornamental species that adapts to most soils.	M,N
<i>Hakea bucculenta</i> red pokers	4x3	sa,sl	2,5	rv,or	Upright, spreading shrub with long narrow leaves and large, bright red flowers.	N
<i>Hakea francisiana</i> grass-leaf hakea	4x4	sa,sl	2,4,5	rv,or	Spreading shrub with smooth grey bark, bright light green leaves and massed red-pink flowers.	N
<i>Hakea laurina</i> pincushion hakea	5x4	sc,sl,lm,cl,cy	2,3,4,5,6	rv,or	Distinctive, spreading shrub with large rounded red-cream flowers, matt green leaves and smooth grey bark. Excellent ornamental species.	M,N
<i>Hakea lissocarpa</i> honey bush	2x3	sc,sl,lm,cl,gr	1,2,3	rv,or	Dense, prickly shrub with masses of creamy white, sweetly scented flowers. Excellent shrub for attracting bird life.	M,N
<i>Hakea multineata</i> grass-leaf hakea	4x3	sa,sl,gr	2,5	rv,or	Smooth-barked shrub with bright green leaves and long spikes of pink flowers.	N
<i>Hakea oleifolia</i> olive leaf hakea	6x4	sl,lm,cl	1,3 Wetter areas of 6	rv,or	Small tree with olive-green foliage and discreet white flowers. Good street tree for higher rainfall areas.	N
<i>Hakea pandanocarpa</i>	2x2	sa,sl	4,6	or	Erect, open shrub with white flowers and grey-green foliage. Interesting ornamental species.	N
<i>Hakea petiolaris</i> sea urchin hakea	4x4	sl,lm,gr	2,4	or	Cream-coloured flower contrasting with blue-green foliage and shining grey bark makes this species a good garden specimen.	N
<i>Hakea preissii</i> needle tree	6x4	cl,cy	2,4,7	rv,or	Very prickly small tree with masses of yellow flowers. Good bird habitat.	N
<i>Hakea undulata</i> wavy-leafed hakea	2x2	sl,gr	2,5,6	or	Upright shrub with irregularly shaped leaves. White flowers in spring.	N
<i>Kunzea baxteri</i> Baxter's kunzea	2x2	sc,sl,lm,cl	1,3,6	or	Compact, rounded shrub with bright red, bottlebrush style flowers.	M,N

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Kunzea ericifolia</i> heath kunzea	5x4	sc	1 Wetter sites 3,6	wl,or	Tall spreading shrub with stringy bark and cream coloured flowers in summer. Frost hardy. Bird attracter.	N
<i>Kunzea pulchella</i> granite kunzea	3x3	sc,sl,lm, gr	2,4	or	Decorative species with silky grey-green leaves and vivid scarlet flowers.	N
<i>Kunzea recurva</i> pink flowered kunzea	2x1.5	sa,sl,gr	2,3,4,6	or	Spreading shrub with mauve/pink flowers. Attractive springtime flowers.	N
<i>Leptospermum erubescens</i> tea tree	2x3	sa,sc	2,3,4,5,6	rv,or	Spreading tea-tree with white or pinkish flowers. Good for stabilising sandy sites.	N
<i>Melaleuca acuminata</i> broom bush	2x2	cl,cy	2,4,6	st,wl, rv, or	Spreading, understorey species with masses of fragrant, cream flowers. Good revegetation species.	M,N
<i>Melaleuca armillaris*</i> bracelet honey-myrtle	6x5	sl,lm,cl	1,3 Wetter areas of 2,5,6	wl,sh, wb,or	Small tree from south and eastern Australia, with rough grey bark, narrow leaves and massed white flowers. Prefers summer damp sites.	M,N
<i>Melaleuca brevifolia</i> mallee honey-myrtle	4x4	cl,cy	1,2,3,4,5,6	st,wl, rv,wb, or	Bushy shrub with tiny dark leaves, white flowers and rough bark. Good for revegetation on difficult sites.	N
<i>Melaleuca cardiophylla</i> umbrella bush	2x2	sa	Coastal areas 3,5,6	rv,or	Medium shrub with papery bark, heart shaped leaves and creamy/white flowers.	N
<i>Melaleuca conothamnoides</i> purple flowered honey myrtle	1x1.5	sa,gr	1,6 Drier sites of 3,5	or	Spreading shrub with large oblong leaves and mauve/purple flowers.	N
<i>Melaleuca cuticularis</i> salt water paperbark	8x6	sc,cl,cy	1,2,3,4,5	st,wl, rv,sh,or	Spreading-crown tree, with white papery bark. Massed white flowers in early summer. Suitable for saline sites that are winter wet and summer damp.	M,N
<i>Melaleuca diosmifolia</i> green honey-myrtle	3x3	sl,lm,cl	1,3,6	or	Large, dense shrub with unusual small leaves crowded thickly along the branches. Pale green to yellow-green flowers in late spring or early summer.	N
<i>Melaleuca elliptica</i> granite honey-myrtle	3x2	sc,sl	2,4,6	wb,or	Low, spreading shrub with rough peeling bark, light green leaves and large red flowers. Suited to summer damp sites	N
<i>Melaleuca hamulosa</i>	3x4	sl,lm,cl, cy	2,3,4,6	st,wl, rv,wb, or	Dense, spreading shrub with fine foliage and creamy white flowers. Excellent revegetation and understorey species.	N
<i>Melaleuca huegelli</i> chenille honey-myrtle	5x4	sa,sl	1,3 Wetter areas of 5,6	or	Large shrub with numerous white candle-like flower spikes in early summer. Needs some summer moisture to survive.	M,N
<i>Melaleuca hypericifolia</i> hillock bush	5x4	sc,sl,lm,cl	1,3	or	Attractive woody shrub from temperate New South Wales, with large red-orange flowers in early summer.	N
<i>Melaleuca incana</i> grey honey-myrtle	3x3	lm,cl	1,3,6	wl,or	Soft, weeping shrub with grey-blue foliage and yellow flowers. Needs a moist site to succeed.	M,N
<i>Melaleuca lanceolata</i> Rottneest Island tea tree	6x5	sa,sc,sl	2,3,4,6 Wetter parts of 5	sh,wb, or	Small tree with dense dark foliage. Masses of white flowers in summer. Suited for coastal areas with summer moisture.	M,N

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Melaleuca lateritia</i> robin redbreast bush	2x3	sc,cl,cy	2,3,6	or	Attractive shrub with thin linear leaves, large orange-red flowers. Flowers summer to early autumn. Best in wet depressions.	M,N
<i>Melaleuca lateriflora</i> oblong leaf honey myrtle	3x1.5	sl,lm,cy	2,3,4,5,6,7	st,wl, rv,wb	Medium sized upright shrub with dark green glossy foliage and creamy/white flowers.	M,N
<i>Melaleuca nesophila</i> western tea myrtle	5x6	sa,sc,sl	1,3 Moist sites 2,5,6	rv,sh, wb,or	Spreading, domed, small tree with thick flaky bark. Rounded leaves and massed mauve flowers. Most suited to the south coastal areas.	M,N
<i>Melaleuca pauperiflora</i> subsp. <i>Fastigiata</i> boree	4x3	lm,cl	2,4,5,6,7	rv,wb, or	Upright large shrub with coarse-textured bark and massed white flowers. Good understorey species.	M,N
<i>Melaleuca pauperiflora</i> subsp. <i>Pauperiflora</i> dryland tea tree	4x4	sl,lm,cl	2,4,5,6,7	rv,wb, or	Rough-barked species with masses of white flowers. Grows into a small tree and is a good understorey species. Has been used for fence posts.	M,N
<i>Melaleuca pentagona</i> prickly leaf honey myrtle	3x2.5	sa	2,4	rv,or	Spreading shrub with pink flowers and needle-like leaves.	N
<i>Melaleuca pungens</i> needle leaf honey myrtle	1x1	sa,gr	1,2,4,6,7	rv,or	A bushy prickly shrub. Flowers are bright yellow in September–October. Good bird refuge.	N
<i>Melaleuca radula</i> graceful honey myrtle	2x2	sc,sl,lm,cl	2,3,4,5,6	or	Attractive spreading small bush with fluffy mauve-pink flowers in July–September.	N
<i>Melaleuca raphiophylla</i> swamp paperbark	8x8	cl,cy	1,3,6 Wet sites	wl,sh, wb,or	Bushy-crowned, small tree with fine grey-green foliage and massed white flowers. Does best in wet, swampy conditions.	M,N
<i>Melaleuca scabra</i> rough honey myrtle	1x1	sa,gr	1,2,4,6,7	rv,or	Small shrub with many thin woody branches. Flowers are deep pink in numerous heads, flowering in September–October.	N
<i>Melaleuca spicigera</i>	1x2	lm,cl,cy, gr	2,4,7	rv,or	Low-branching shrub with blue-green ovate leaves and pinkish-mauve flowers. Good bird-attracting species.	N
<i>Melaleuca steedmanii</i> Steedman's honey myrtle	2x2	sc,sl,lm	2,4,6	or	Open, spreading shrub with narrow elliptical leaves and showy spikes of red flowers.	N
<i>Melaleuca thyoides</i> scale leaf honey myrtle	2x2	sc,sl,cl,cy	2,3,4,5,6	st,wl, rv,or	Low, spreading shrub with rough, grey bark and very small leaves. Flowers creamy white, late spring–early summer. Excellent revegetation species.	M,N
<i>Melaleuca viminea</i> white flowered honey myrtle	4x3	sc,sl,sl	1,3,6. Wetter areas of 2	rv	Medium shrub with crowded leaves and scented white flowers	N
<i>Melaleuca wilsonii</i> Wilson's honey-myrtle	2x2	sc,sl	1,3	or	South eastern Australian species with dense foliage and corky bark. Deep pink flowers September–October.	N
<i>Pinus halepensis</i> aleppo pine	15x8	sa,sc,sl, lm	2,4,5,6	sh,wb, or	Small-stature Mediterranean pine, with relatively short needles and thick-plated bark. Needs access to summer moisture if in sandy soils.	N

SPECIES	SIZE	SOIL	ZONE	USES	DESCRIPTION	GROWN
<i>Pinus pinea</i> stone pine	10x8	sa,sc,sl, lm	1,2,3 Wetter areas of 5,6	sh,wb, or	Small tree from the northern Mediterranean with large cones which yield edible nuts. Needs access to summer moisture to survive.	N
<i>Pinus pinaster</i> maritime pine	36x10	sa,sl	1,3,6 Parts of 2,4,5	tb	A native of the Mediterranean region. The trunk is erect and branching, with deeply furrowed, reddish bark. Good saw milling timber	M
<i>Pinus radiata</i> Monterey pine	45x12	sl,lm	1	tb	A native of Eastern North America. Trunk is erect and stout with horizontal branches. The major pine species used today for furniture and construction.	M
<i>Pittosporum phillyraeoides</i> native apricot	5x4	sc,sl,lm,cl	2,3,4,5,6,7	st,rv, or	Graceful, pendulous, dense, mid-green foliage. White flowers with unusual orange-coloured seed capsules.	N
<i>Santalum spicatum</i> sandalwood	4x4	lm,cl	2,3,4,5,7	tb,or	Small often twisted tree, rough bark and stiff blue-grey foliage. Needs host species for long-term survival. Fragrant timber and edible fruit. Slow growing.	N

TREE-GROWING ZONES SW Western Australia



CLIMATIC/GEOGRAPHIC ZONES

Zone No.

1. Main forested area of the south west – includes the higher rainfall zone, fertile soil types and strong coastal influence.
2. Moderate rainfall areas of the Wheatbelt.
3. West coastal area with moderate rainfall and strong Indian Ocean influence.
4. Eastern portion of the Wheatbelt under the influence of the Southern Ocean.
5. Northern extension of the Wheatbelt with a milder climate near the coast and some summer moisture.
6. South Coastal zone with moderate to low rainfall but with distinctive summer moisture particularly near the coast.
7. North eastern, lower rainfall part of the Wheatbelt, with consistently low humidity and shorter growing season.

PLANT PROPAGATION CENTRE, MANJIMUP

The Plant Propagation Centre, is a leading forestry facility which integrates research and operational activities.

Originally, the land upon which the main nursery is now situated had been taken up as 'group settlement' in the 1920s, but then it reverted to the Crown. It served as a tobacco-growing training centre late in World War II, and later was managed as a research station for horticulture by the Department of Agriculture.

The Forests Department took control of the farm in 1966 to begin growing karri and other eucalypts for its afforestation programs, and to operate a Cadet School.

A major overhaul of the nursery function and administration, during 1988 and 1989, culminated in an official opening of the Plant Propagation Centre in July 1990. Functions such as research, pine production, and seed management, previously dispersed at other locations were amalgamated to form the Plant Propagation Centre.

Within the Plant Propagation Centre, the Nursery has a seedling production capacity in excess of twenty million. A Seed Centre that manages more than 500 species of seeds and a Research Unit involved in tree breeding for a range of commercial species.

As a result, technical and economic benefits have accrued to the afforestation business in Australia. (mainly in the south of Western Australia)

NARROGIN PLANT NURSERY

The Narrogin Nursery has been providing an annual supply of native tree seedlings to rural WA since 1967.

In the Forests Department's earliest days it pioneered native seedling propagation and the use of trees for agricultural and arid areas. The first inland nursery was established in Kalgoorlie in 1946. By 1955, the facility was transferred to the Dryandra settlement, where seedlings were grown in terracotta pots, then removed and wrapped in newspaper for dispatch. Labour input was intensive, and the site relatively isolated. Twelve years later, the Nursery was relocated to the current site in Narrogin.

With a current capacity of 800 000 containerised seedlings, the facility is administered and managed within CALM's Narrogin District, which also manages over 200 nature reserves. The Nursery specialises in local species, which are grown to order in pots and trays, and distributed to customers throughout the Wheatbelt and Goldfields, mainly for farmland revegetation and amenity planting projects.

As a result of a more functional site in the Narrogin township, CALM is now a leader in providing seedlings and advice for rural revegetation.

CONDITION OF SALE

Our aim is to provide seedlings that are of a high quality, genetically improved, to customer specifications, on time and at an agreed price.

1. WARRANTY

All seedlings sold are of the description and kind specified at the time of sale. We give no warranty as to their growth description, quality or productiveness, and will not be in any way responsible for the crop, as these factors are governed by forces beyond our control. Where reasonable proof is given that seedlings have been incorrectly labelled, we will correct the mistake by replacing the seedlings or refunding the original purchase money. All sales are made subject to these conditions.

2. AVAILABILITY

All orders are accepted subject to availability of the species. Every effort is made to produce all plants listed in our brochure; however, occasionally some of the seeds fail to germinate making them unavailable. As we do not produce unlimited quantities of seedlings, all species are only available until sold out. In order to secure your selection of seedlings we recommend you place your order the previous July/August for Softwood seedlings and October/December for Hardwood seedlings. You can order at any time but orders will not be guaranteed, as this is subject to available stock on hand.

3. DESPATCH

Despatches shall begin during June/July, subject to the weather or any prior arrangements made with management. Where consignments are despatched by private transport or transport companies they are at the customer's risk and cost. CALM will not be held liable for delays or rough handling or any loss or damage whilst the consignment is in transit. In some instances insurance cover can be arranged at customer's cost.

4. PRICES

- 4.1 On placement of each seedling order a deposit equal to 33 1/3% of the purchase price shall accompany each order, with the balance due on delivery. Cheques shall be made payable to "DEPARTMENT OF CONSERVATION and LAND MANAGEMENT" and forwarded to Plant Propagation Centre, Brain Street, Manjimup, W.A., 6258.
- 4.2 Where the purchase price is paid by instalments each instalment shall be deemed to be in the nature of a deposit and the customer shall have no right to a refund thereof.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

Plant Propagation Centre, Brain Street, Manjimup, W.A., 6258
Phone: (08) 9772 1377 or Fax: (08) 9772 1211

TREE SEEDLING ORDER FORM - PRIVATE SALES

COMPANY/PERSON ORDERING

CUSTOMER NAME: _____

ORGANISATION: _____

ADDRESS: _____

POSTCODE: _____

CONTACT NAME: _____

TELEPHONE: BUSINESS: HOME: FAX:

SIGNATURE: _____ DATE: _____

COMPANY/PERSON RESPONSIBLE FOR PAYMENT

INVOICE TO: _____

ORGANISATION: _____

ADDRESS: _____

POSTCODE:

TELEPHONE: BUSINESS: HOME: FAX:

SIGNATURE: _____ DATE: _____

Species Code	Species	Unit Price	No. of Trays (64 Kwik Pots)	Pine	Seedlot
TOTALS					

