

### TREE SPECIES LIST

Pages 3 and 4 list tree species that have the potential to grow in Tasmania, site requirements and other factors which form a guide to help you match potential tree species to your proposed tree planting site.

The trees listed can, or have the potential to, be used for timber production. There may be other species not listed here that are also suitable for wood production.

The recognized plantation species: *E. nitens*, *E. globulus*, *P. radiata*, *A. melanoxylon* and *C. macrocarpa* have been proven to suit Tasmania. However, many of the alternative species have been planted in Tasmania on a trial basis by Private Forests Tasmania, landowners and other organisations. While it is to be encouraged, the planting of these or other alternative species in Tasmania should be on a small scale and considered experimental, as their performance is relatively unknown at this stage. It is possible that some alternative species may fill a niche role, such as the production of naturally durable timber that can be used for exterior use without chemical treatment. It is not expected that these alternative species could be planted on a large scale, but rather as smaller plantings on suitable sites. Thus, they may offer landowners an opportunity to enter a high-value niche market that is not dominated by larger industrial scale growers. Landowners should seek further advice regarding species and site selection if considering alternative species.

This information has been collected from published sources. Titles of references are available from Private Forests Tasmania. Gaps in the table indicate where information was not available.


**Table 1: Terms used in Table 2a, and 2b.**

TERM	DESCRIPTION	PREFERENCE/TOLERANCE
Preferred annual rainfall	Average rainfall required for maximum growth.	Millimetres per year (25mm = 1.0 inch)
Minimum annual rainfall	Approximate average amount of rainfall needed for survival.	Millimetres per year (25mm = 1.0 inch)
Preferred position	Position in the landscape in which the species grows best.	Cool valley, lower slopes, plains, etc.
Preferred soil type	Soils in which the species grows best. This category is problematic because most species grow best in deep, moderately fertile, moist, warm, well-drained soil conditions which many species do not encounter in their natural condition. Further, species such as <i>Pinus radiata</i> , <i>C. macrocarpa</i> , <i>E. maculata</i> , <i>E. viminalis</i> , <i>A. melanoxylon</i> and other species are adaptable and will grow well on a wide range of soils provided they are not subject to severe waterlogging, or in some cases frost.	Heavy, light, shallow, deep, well-drained, loams, clays, sands, fertile, moist soils, etc.

Prohibitive conditions for survival and good growth	Soil conditions or other factors (excluding salinity) which prevent good growth.	Wet/heavy clay, infertile, deep sands, poor drainage, etc.
Tolerance of poor drainage	This is a major restriction on the suitability of many species for sites with impermeable clay sub-soil and consequent late winter-spring water-logging. Very high, high, moderate, low, very low (survival or growth).	
Tolerance of a dry site in a favourable rainfall zone	Ability to survive and grow in difficult conditions such as a hot, windy, north-facing position on sandy soil.	Very high, high, moderate, low, very low (survival or growth).
Tolerance to exposure	Ability to cope with strong winds and either very hot or cold conditions.	Very high, high, moderate, low, very low (survival or growth).
Frost resistance	Ability to cope with frost.	Very high, high, moderate, low, very low.
Pest problems	Insect/disease susceptibility. Trees of any species, when stressed, will be more prone to insect attack and disease. It may be helpful to include mixed species in buffer plantings that will provide refuge and food for insectivorous birds and insects, and/or leaf skeletonisers.	<b>FB</b> - fireblight larvae <b>G</b> - galls <b>B</b> - Lyctus borers <b>C</b> - cypress canker <b>A</b> - autumn gum moth caterpillar <b>S</b> - sawfly larvae <b>D</b> - dothistroma needle blight

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**Table 2a: Tree species list - Site requirements and other factors**

Botanical Name	Common Name	Preferred Rain (mm)	Minimum Rain (mm)	Preferred Position	Preferred Soil Type for Best Growth	Prohibitive Conditions for Survival or Good Growth
<i>Eucalyptus globulus sub species globulus</i>	Blue gum	900+	700	Cool valley	Heavy loam-clay	
<i>Eucalyptus nitens</i>	Shinning gum	1000+	700	Cool wet slope	Clay-loam	
<i>Pinus radiata</i>	Radiata pine	800+	500	Slope	Sandy-loam over clay	fire; wet/heavy clay
<i>Acacia melanoxylon</i>	Blackwood	900+	650	Cool valley	Fertile clay-loam	infertile heavy clay
<i>Cupressus macrocarpa</i>	Monterey cypress	800+	650	Lower slope	Fertile clay-loam	fire; deep sand; wet clay
<i>Cupressus lusitanica</i>	Mexican cypress	750+	600	Lower slope	Fertile sandy clay-loam	fire; wet clay
<i>Eucalyptus fastigata</i>	Brown barrel	1100+	800	Valley/slope	Granite loams	
<i>Eucalyptus fraxinoides</i>	White ash	1000+	800	Upper valley	Well-drained soils	
<i>Pinus greggii</i>	Gregg's pine	1600	650	Lower slope	Deep heavier soils	
<i>Pinus ponderosa</i> (Plumas)	Ponderosa pine	750+	500	Lower slope/valley	Deep, well-drained	poor drainage
<i>Castanea mollissima</i>	Chinese chestnut	1000	900	Sheltered foothills	Deep, well-drained	hot winds, wet soils, lime
<i>Castanea sativa</i>	Spanish chestnut	1000	760	Lower foothills/mtns	Deep, fertile, moist	shallow soils; wet soils
<i>Castanea dentata</i>	American sweet chestnut	1000+	800	Foothills	Fertile well-drained	shallow chalky soils; wet
X <i>Cupressocyparis leylandii</i>	Leyland cypress	1000+	650	Lower slope	Moist, fertile	
<i>Eucalyptus macrorhyncha</i>	Red stringybark	600+	500	Hill/slope	Rocky clay-loam	heavy clay
<i>Eucalyptus maculata</i>	Spotted gum	800+	600	Valley/slope	Sandy clay	wet/heavy clay
<i>Eucalyptus melliodora</i>	Yellow box	600+	400	Low slope	Sandy clay-loam	heavy clay
<i>Eucalyptus muelleriana</i>	Yellow stringybark	800+	800	Valley	Deep clay-loam	wet/heavy clay
<i>Juglans nigra</i> (west coast USA)	Black walnut	1250	650	River valley	Fertile, deep	shallow, rocky soils
<i>Metasequoia glyptostroboides</i>	Dawn redwood	900+	750	Cool moist valley	Deep moist, fertile	drying (hot) winds
<i>Pinus contorta</i>	Lodgepole pine	900+	450	Gentle slopes/basins	Deep loam	shade
<i>Pinus nigra var calabrica</i> (maritima)	Corsican pine	1500	1000	Lower slope	Deep sands-clays	shallow, wet soils
<i>Pinus pinaster</i>	Maritime pine	1250	500	Coastal	Well-drained sandy-loam	clay; poor drainage
<i>Pseudotsuga menziesii</i>	Douglas fir or Oregon pine	1000+	800	Humid, wet sites	Fertile sandy-loam	heavy clay
<i>Quercus sessiliflora</i>	Sessile Oak	1000+	650	Foothills	Deep, fertile, acid	shade, wet soils
<i>Sequoia sempervirens</i>	Coast redwood	1200+	750	Foggy valley	Moist, fertile, deep	shallow soil; poor drainage
<i>Abies nordmanniana</i>	Caucasian fir	700+	600	Mountainous	Fertile clay-loam	shallow soil; clay pan
<i>Acacia acuminata</i>	Jamwood wattle	500	300	Plains	Sandy-loam	wet soil
<i>Eucalyptus microcarpa</i>	Grey box	600+	400	Clay plain	Clay-loam	deep sand
<i>Eucalyptus occidentalis</i>	Swamp Yate	500+	250	Clay flat	Sandy-clay	
<i>Eucalyptus sideroxylon</i>	Red ironbark	550+	350	Hill/slope	Heavy clay-loam	deep sand
<i>Eucalyptus viminalis</i>	Manna gum	950+	700	Valley/slope	Deep sandy-loam over clay	deep infertile sand
<i>Maclura pomifera</i>	Osage orange	500+	400	Low lands	Any well-drained soil	poor drainage
<i>Pinus pinea</i>	Stone pine	750-900	400	Low lands	Well-drained heavy clay	lime; clay pan

**Table 2b: Site requirements and other factors continued** (note the species list is the same as Table 2a - site requirements and factors differ)

Botanical Name	Common Name	Tolerance of Poor Drainage	Tolerance of Dry Site	Tolerance to Exposure	Frost Resistance	Pest Problems
<i>Eucalyptus globulus sub species globulus</i>	Blue gum	Moderate	Very low	Moderate	Moderate	S, A, B
<i>Eucalyptus nitens</i>	Shinning gum	High	Very low	High (cold)	Very high	S, A
<i>Pinus radiata</i>	Radiata pine	Low	Moderate	High	High	D
<i>Acacia melanoxylon</i>	Blackwood	Moderate	Low	High	High	B
<i>Cupressus macrocarpa</i>	Monterey cypress	Moderate	Moderate	High	Very high	C
<i>Cupressus lusitanica</i>	Mexican cypress	Low	High	Moderate	Very high	
<i>Eucalyptus fastigata</i>	Brown barrel	Low	Very low	Moderate	Very high	
<i>Eucalyptus fraxinoides</i>	White ash	Low	Low	Moderate	Moderate	
<i>Pinus greggii</i>	Gregg's pine				Moderate	
<i>Pinus ponderosa</i> (Plumas)	Ponderosa pine	Low	Moderate	Moderate	High	
<i>Castanea mollissima</i>	Chinese chestnut	Low	Low	Moderate/low	Low (spring frosts)	
<i>Castanea sativa</i>	Spanish chestnut	Low	Very low	Low	Low (spring frosts)	
<i>Castanea dentata</i>	American sweet chestnut	Low	Low	Low	High	
X <i>Cupressocyparis leylandii</i>	Leyland cypress	Moderate	Moderate	Moderate	Moderate	
<i>Eucalyptus macrorhyncha</i>	Red stringybark	Low	High	High	High	
<i>Eucalyptus maculata</i>	Spotted gum	Low	Moderate	High	Low	
<i>Eucalyptus melliodora</i>	Yellow box	Moderate	High	High	High	
<i>Eucalyptus muelleriana</i>	Yellow stringybark	Very low	Moderate	High	High	
<i>Juglans nigra</i> (west coast USA)	Black walnut	Low	Moderate/low	Low	Low (spring frosts)	
<i>Metasequoia glyptostroboides</i>	Dawn redwood	Low	Very low	Very low	High	
<i>Pinus contorta</i>	Lodgepole pine	Low	Moderate	Moderate	Moderate/high	
<i>Pinus nigra var calabrica</i> (maritima)	Corsican pine	Low	Moderate	Moderate	Moderate	
<i>Pinus pinaster</i>	Maritime pine	Moderate	Moderate	Moderate	Low/ moderate	
<i>Pseudotsuga menziesii</i>	Douglas fir or Oregon pine	Low	Very low	Low	Moderate	
<i>Quercus sessiliflora</i>	Sessile Oak	Moderate	Low	Moderate	Moderate	
<i>Sequoia sempervirens</i>	Coast redwood	Low	Very low	Low		
<i>Abies nordmanniana</i>	Caucasian fir		Low/moderate			
<i>Acacia acuminata</i>	Jamwood wattle	Low	Moderate/high	Moderate	Very low	
<i>Eucalyptus microcarpa</i>	Grey box	High	High	High	Very high	
<i>Eucalyptus occidentalis</i>	Swamp Yate	Very high	Very high	Very high	High	
<i>Eucalyptus sideroxylon</i>	Red ironbark	Low	Very high	Moderate	High	
<i>Eucalyptus viminalis</i>	Manna gum	Moderate	Moderate	High	Very high	
<i>Maclura pomifera</i>	Osage orange	Low	Very high	Moderate/high	Low (spring frosts)	
<i>Pinus pinea</i>	Stone pine	Low	Moderate	High	Low/moderate	