



SOUTHERN WOODS PLANT NURSERY



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Info 3: GROW NATURALLY DURABLE EUCALYPT TIMBER for VINEYARD POSTS

There is increasing interest by tree growers in this opportunity and the potential for producing sustainable naturally durable post timber in New Zealand as an alternative to CCA treated pine posts.

Growers should note that for good survival and growth, eucalypts generally require

- sheltered sites
- fertile and well drained soils
- a mild winters (not less than minus 4 degree frosts)
- regular annual rainfall.

Therefore, these species are best suited to low altitude, sheltered coastal areas of New Zealand.

Eucalyptus bosistoana (Coastal Grey Box)

Ground Durability Classification 1 - timber pale brown/pink sapwood with darker heartwood - fine even texture with interlocked grain - very strong & heavy - moderately difficult to work.

General Description - Largest of box group. Tall straight stemmed tree with small rounded crown. Occurs in coastal areas of southern NSW and eastern Victoria. Mean annual rainfall 700-1200mm per year. Grows well on good soils, preferably over limestone. Will stand both periodic waterlogged soils and periods of drought. May withstand up to 40 frosts per year.

Eucalyptus quadrangulata (White-topped Box)

Ground Durability Classification 1-2 - timber pale yellow brown heartwood - fine texture – very hard and heavy.

General Description - Tall tree with good form in forest situations. Occurs in tablelands of central and northern NSW. Mean annual rainfall 900-1700mm per year. Grows best on moderately heavy soils. May withstand up to 50 frosts per year.

Definitions

- Natural Durability is defined as the inherent resistance of a specific timber to decay and to insect attack.
- Natural Durability Classes provide the basis for rating the timber's performance and longevity in contact with the ground when exposed to average environmental conditions.

Natural Durability Classes

The classification system is based on the average life expectancy (in years) for a species, as shown in the table below.

Natural Durability –Probable Life Expectancy

Class	Probable in-ground life expectancy (years)
1	Greater than 25
2	15 to 25
3	5 to 15
4	0 to 5

Using these classifications to rate the timber of different tree species cannot be done with great precision because of the variability of wood properties within species and the wide variety of ground conditions in which it may be used.

Therefore the classifications are a guide with the actual life dependent on the local ground conditions and other factors that include the following.

- These classifications only apply to heartwood with all sapwood having poor resistance to decay and insect attack.
- The inner core of heartwood around the pith, generally has lower durability than the rest of the heartwood.
- Durability is also influenced by the size or diameter of the post i.e. the larger the piece size the longer it will last.
- The age of the tree used to cut the timber also generally influences natural durability with mature trees producing more durable timber than semi mature trees.

These classifications do not provide a natural durability rating against the following hazards:

- (i) Physical and mechanical hazards.
- (ii) Chemical hazards.
- (iii) Fire hazards.
- (iv) Marine hazard.