### TIMBER SPECIES

**Spotted gum**

<table>
<thead>
<tr>
<th><strong>SPECIES</strong></th>
<th><strong>Spotted gum</strong></th>
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<tbody>
<tr>
<td><strong>Botanical name</strong></td>
<td>Corymbia citriodora subsp. variegata, C. citriodora subsp. citriodora, C. maculata, C. henryi</td>
</tr>
<tr>
<td><strong>Family name</strong></td>
<td>Myrtaceae</td>
</tr>
<tr>
<td><strong>Trade name</strong></td>
<td>Spotted gum</td>
</tr>
<tr>
<td><strong>Local names</strong></td>
<td>Spotted gum, lemon-scented gum (C. citriodora subsp. citriodora only), spotted irongum</td>
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### TREE DESCRIPTION

On favourable sites, these species grow to 45 m in total height and 1.3 m in stem diameter, but attain only half these dimensions on poorer sites. They have straight slender trunks with smooth bark. This is shed in patches leaving slight depressions in the surface, which give a characteristic spotted appearance. Colour tones range from pink to grey-blue.

### NATURAL OCCURRENCE

*Corymbia citriodora subsp variegata* occurs mainly in the coastal areas of northern NSW and southern Queensland, but also in western areas of southern Queensland. *C. citriodora* subsp. *citriodora* – mid-north NSW coast to the Windsor Tableland, north Queensland. *C. maculata* - Bega (NSW) to mid-north NSW coast, and also a disjunct occurrence in eastern Victoria. *C. henryi* - northern New South Wales and southern Queensland.

### PLANTATION-GROWN TIMBER

Sawn timber from these species has been readily available from native forests, and spotted gum is currently the highest volume native hardwood harvested in Queensland. Through its Hardwoods Queensland R&D project the Queensland Forestry Research Institute is defining plantation site suitability for a number of hardwood timber species. Early results suggest that future supplies of plantation-grown spotted gum will be available from most regions in central and southern Queensland on suitable soils and where the mean annual rainfall exceeds 600 mm.

### WOOD APPEARANCE

| **Colour** | The heartwood ranges from light brown through to dark red-brown. Sapwood is usually white in colour and up to 50 mm wide. |
| **Grain** | Moderately coarse textured and variable. Gum veins common. The presence of wavy grain can produce an attractive fiddle back figure. |

**Timber samples are available from QFRI, 80 Meiers Road, Indooroopilly, Brisbane, Qld 4068, Ph: 07 3896 9708**

### PROPERTIES OF MATURE, NATURAL GROWN TIMBER

*QFRI is currently assessing wood properties of plantation-grown timber.*

- **Air dry density:** 1010 kg m⁻³ at 12% moisture content; approximately 1.0 m³ of seasoned sawn timber per tonne.

- **Strength group:** S2 unseasoned; SD2 seasoned.

- **Stress grades:** F11, F14, F17, F22 (unseasoned), F17, F22, F27, F34 (seasoned), when visually stress graded in accordance with AS 2082:2000, ‘Visually stress-graded hardwood for structural purposes.’

### Shrinkage to 12% MC

<table>
<thead>
<tr>
<th><strong>Unit shrinkage</strong></th>
<th><strong>Natural grown</strong></th>
<th><strong>Plantation-grown (41 years)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>tangential</strong></td>
<td>6.1%</td>
<td>5.8%</td>
</tr>
<tr>
<td><strong>radial</strong></td>
<td>4.3%</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>tangential</strong></td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>radial</strong></td>
<td>0.3%</td>
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</tr>
</tbody>
</table>
Durability
Class 2. Highly resistant to decay when fully exposed to weather, clear of the ground and well-drained with free air circulation. Moderately decay resistant in the ground.

Lyctid susceptibility
Untreated wood susceptible to lyctid borer attack.

Preservation
Sapwood readily accepts preservative impregnation but penetration of heartwood is negligible, using currently available commercial processes.

Seasoning
Can be satisfactorily dried using conventional air and kiln seasoning methods.

Hardness
Very hard (rated 1 on a 6 class scale) in relation to resistance to indentation and ease of working with hand tools.

Machining
Machines well due to its natural greasiness.

Fixing
No difficulty has been experienced with the use of standard fittings and fastenings.

Gluing
As with most high density species, machining and surface preparation should be done immediately before gluing.

Finishing
Will readily accept paint, stain and polish. Has lower tannin content than most other eucalypts, therefore staining of paintwork, brickwork etc., as a result of water running over unpainted timber surfaces, is less likely to occur.

USES
Engineering
As sawn or round timber in wharf and bridge construction, railway sleepers, cross-arms, poles, piles and mining timbers.

Construction
As unseasoned timber in general house framing and as seasoned dressed timber in cladding, internal and external flooring, linings and joinery. Also in fencing, landscaping, retaining walls and as structural plywood and hardboard.

Decorative
Internal fine furniture, outdoor furniture, turnery, joinery, parquetry.

Others
Tool handles, boat building (keel and framing components, planking, decking), coach, vehicle and carriage building, agricultural machinery, sporting goods (baseball bats, croquet mallets, spring and diving boards, parallel bars) and bent work. It has been used for butcher’s blocks, meat skewers, mallet heads, ladder rungs, wheel spokes, wine casks and broom handles. Spotted gum is the main Australian species for tool handles subject to high impact forces e.g. axe handles.

IDENTIFICATION FEATURES
GENERAL CHARACTERISTICS
Sapwood
White in colour and distinct from heartwood.

Heartwood
Colour variable from light brown to dark red-brown often with lighter shades.

Texture
Open, often with interlocked grain; greasy to touch.

WOOD STRUCTURE
Growth rings
Absent.

Vessels
Small to moderately large, generally arranged in short radial multiples with few solitary. Vessel lines very prominent on dressed longitudinal surfaces. Tyloses abundant.

Parenchyma
Abundant, paratracheal (surrounding pores) and diffuse with a tendency to zonate arrangement.

Rays
Fine, visible in tangential section.

OTHER FEATURES
Burnishing splinter test
Splinter burns to a complete white ash.

For more information and publications about growing, processing and pests and diseases of Queensland hardwood timbers, visit www.dpi.qld.gov.au/hardwoodsqld or call the DPI call centre: 132 533

Further reading
Tree Talk, Inc 1994. Woods of the world Pro. CD Rom