



< [Wood properties and uses of Australian timbers](#)

Spotted gum

Scientific name

Corymbia citriodora subsp. *variegata*, *C. citriodora* subsp. *citriodora*, *C. maculata*, *C. henryi*. Family: Myrtaceae

Other names

Lemon-scented gum (*C. citriodora* subsp. *citriodora* only); spotted iron gum

Description

- Grows to 45m high and 1.3m stem diameter on favourable sites otherwise to only half.
- Straight, slender trunks with smooth bark.
- Bark is shed in patches, giving its typical spotted appearance.
- Bark is pink to grey-blue.

Occurrence

- *Corymbia citriodora* subsp. *variegata* occurs mainly in the coastal areas of northern New South Wales and southern Queensland but also in western areas of southern Queensland.
- *C. citriodora* subsp. *citriodora* grows from the mid-north coast of NSW to the Windsor Tableland, North Queensland.
- *C. maculata* occurs from Bega (NSW) to the mid-north NSW coast, and separately in eastern Victoria.
- *C. henryi* grows in northern New South Wales and southern Queensland.
- Sawn timber is generally available, and spotted gum is currently the highest volume native hardwood harvested in Queensland.

Appearance

Colour

- Heartwood is light brown to dark red-brown.
- Sapwood is usually white and up to a 50mm wide band.

Grain

- Texture is moderately coarse and varies.
- Gum veins are common.
- Wavy grain, when present, can produce an attractive fiddleback figure (pattern).

Uses

Engineering

- Sawn or round timber to construct wharves and bridges, railway sleepers, cross-arms, poles, piles and mining timbers.

Construction

- Unseasoned timber in general house framing
- Seasoned dressed timber in cladding, internal and external flooring, linings and joinery.
- Fencing, landscaping, retaining walls and 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.
- Used, in the past, 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 which are subjected to high impact forces, such as axe handles.

Properties

- **Density:** 1010kg/m³ at 12% moisture content, about 1.0m³ of seasoned sawn timber per tonne; plantation-grown mature timber of *C. citriodora* subsp. *variegata*—87% (11 years), 108% (41 years); *C. citriodora* subsp. *Citriodora*—71% (3 years).
- **Strength groups:** *C. citriodora* and *C. henryi*—(S2), *C. maculata*—S2 unseasoned; *C. citriodora* and *C. henryi* —(SD2), *C. maculate*—SD2 seasoned (brackets indicate provisional value).
- **Stress grades:** F11, F14, F17, F22 (unseasoned); F17, F22, F27, F34 (seasoned) when visually stress-graded according to AS 2082—2000: *Timber—Hardwood—Visually stress-graded for structural purposes*.
- **Joint groups:** J1 unseasoned, JD1 seasoned.
- **Shrinkage to 12% MC:** *C. citriodora* subsp. *variegata*—6.1% (tangential), 4.3% (radial); plantation-grown (41 years)—5.8% (tangential), 3.4% (radial).
- **Unit shrinkage:** 0.4% (tangential), 0.3% (radial)—natural and plantation grown.
- **Durability above-ground:** Class 1 (life expectancy more than 40 years).
- **Durability in-ground:** Class 2 (life expectancy 15–25 years).
- **Lyctine susceptibility:** untreated wood susceptible to lyctid borer attack.
- **Termite resistance:** resistant.
- **Preservation:** sapwood readily impregnates with preservative, but penetration of heartwood is negligible using available commercial processes.
- **Seasoning:** satisfactorily dries using conventional air and kiln seasoning.
- **Hardness:** very hard (rated 1 on a 6-class scale) to indent and work with hand tools.
- **Machining:** machines well due to its natural greasiness.
- **Fixing:** no difficulty using standard fittings and fastenings.

Identification features

General characteristics

- **Sapwood:** white and distinct from heartwood.
- **Heartwood:** 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 a few solitary; vessel lines are very prominent on dressed longitudinal surfaces; abundant tyloses.
- **Parenchyma (soft tissue):** abundant; paratracheal (surrounding pores) and diffuse, often zonate arrangements.
- **Rays:** fine, visible in tangential section.

Other features

- **Burning splinter test:** splinter burns to a complete white ash.

Research and resources

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