



TIMBER SPECIES 3

Through its R D projects, QFRI is finding solutions to plantation establishment, management and protection, wood quality and processing technologies for hardwood and softwood timbers.

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SPECIES	Red cedar
Botanical Names	<i>Toona ciliata</i> , syn. <i>T. australis</i> , <i>Cedrela australis</i> , <i>C. toona</i> , <i>C. toona</i> var. <i>australis</i>
Family Name	Meliaceae
Local Name	cedar
TREE DESCRIPTION AND OCCURRENCE	<p>A tall deciduous tree up to 40 m in height and 1.0 to 2.0 m stem diameter. Older mature trees can be 3 m in diameter. The trunk is often irregular in cross-section and older trees are often buttressed to some distance up the trunk. The bark is grey or brown in colour, very scaly and rough, and sheds in oblong pieces.</p> <p>This species is found in rainforests along the eastern coast of Australia. The main areas of distribution are between Ulladulla, New South Wales and Gympie, Queensland, and farther north it occurs on the Eungella Range west of Mackay, and the Atherton Tableland. Outside Australia it extends to Papua New Guinea and Philippines.</p> <p>Timber of this species is now of limited commercial availability as the main areas in which it occurs have received World Heritage listing.</p>
WOOD APPEARANCE	<p>Colour. The heartwood ranges from pink to deep red-brown. Sapwood is usually yellowish-white in colour.</p> <p>Grain. Coarse, open and usually straight. The occasional presence of wavy interlocked grain can produce an attractive fiddleback figure. Growth rings are obvious in back sawn timber.</p>
WOOD PROPERTIES	<p>Density. 450 kgm⁻³ at 12% moisture content; approximately 2.2 m³ of seasoned sawn timber per tonne.</p> <p>Strength Group. (S7) unseasoned; SD8 seasoned.</p> <p>Stress Grades. F4, F5, F7 (unseasoned) F4, F5, F7, F8 (seasoned), when visually stress graded in accordance with AS 2082:2000, 'Visually stress-graded hardwoods for structural purposes.'</p> <p>Shrinkage to 21% MC. 4.1% (tangential) 2.2 % (radial).</p> <p>Unit Shrinkage. 0.2% (tangential); not available for radial. This value applies to timber reconditioned after seasoning.</p> <p>Durability. Class 2 Highly resistant to decay when fully exposed to weather, clear of the ground and well drained with free air circulation.</p> <p>Lyctid Susceptibility. Untreated sapwood susceptible to lyctid borer attack.</p> <p>Preservation. Sapwood readily accepts preservative impregnation but penetration of heartwood is negligible using currently available commercial processes.</p>

	<p>Seasoning. Can be satisfactorily dried using conventional air and kiln seasoning methods.</p> <p>Hardness. Very soft (rated 6 on a 6 class scale) in relation to indentation and ease of working with hand tools.</p> <p>Machining. The timber will dress and mould to a smooth finish with sharp blades and cutters. When turned, some surface woolliness can occur. Sawdust can irritate nose and throat.</p> <p>Fixing. No difficulty has been experienced with the use of standard fittings and fastenings.</p> <p>Gluing. Can be satisfactorily bonded using standard procedures.</p> <p>Finishing. Will readily accept stain, polish and paint. Because of the coarse texture of the wood, filling may be necessary before finishing.</p>
USES	<p>Decorative. Furniture, plywood, shop and office fixtures, turnery, carving, inlay work, picture frames, lining, moulding, joinery.</p> <p>Others. Boat building (light), marine plywood, coach and vehicle building. Has been used for sporting goods, aircraft construction (seaplanes), pattern making, templates, blind rollers, venetian blind slats, gun stocks. High quality colonial and antique furniture made from this species is much prized.</p>
IDENTIFICATION FEATURES	<p>GENERAL CHARACTERISTICS</p> <p>Sapwood. Yellowish-white to light grey.</p> <p>Heartwood. Pink to dark red-brown.</p> <p>Texture. Coarse, vessel lines prominent on backsawn surfaces.</p> <p>WOOD STRUCTURE</p> <p>Growth Rings. Often prominent due to its ring porous structure.</p> <p>Vessels. Medium to large; arranged in short radial multiples with a distinct tendency to decrease in diameter from earlywood to latewood.</p> <p>Parenchyma. Indistinct under a lens but some terminal banding occurs.</p> <p>Rays. Visible without a lens.</p> <p>Intercellular Canals. Visible under a lens in some specimens.</p> <p>OTHER FEATURES</p> <p>Burning Splinter Test. A match size splinter burns to a full white ash.</p> <p>Figure. Prominent on back-sawn surfaces due to the ring porous structure.</p> <p>Odour. Heartwood has a pleasant and distinctly spicy aroma.</p>

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

Further reading

Ilic, J. 1991. CSIRO Atlas of Hardwoods. Crawford House Press.
 Tree Talk, Inc 1994. Woods of the World Pro. CD Rom.
 Boland, D.J., Brooker, M.I.H., Chippendale, G.M., Hall, N., Hyland, B.P.M., Johnston, R.D., Kleinig, D.A. and Turner, J.D. (1984) Forest Trees of Australia. CSIRO, Australia.