Cupressaceae

Fitzroya cupressoides

(Molina) I.M. Johnston 1

Commercial names:
engl.: Chilean false larch, Patagonian cypress
esp.: Alerce, Ciprés de la Patagonia
fr.: Alerce

Common names: Lahuan, Lahuén

Scientific synonyms: *Fitzroya patagonica* Hook. f.

Subject to CITES regulations: All parts and derivatives.

Macroscopic characteristics of the wood: Wood yellow ochre, non porous, growth rings distinct, but very narrow. Sapwood and heartwood differentiated; the sapwood is yellow ochre, the heartwood has a very characteristic pinkish brown or reddish colour, sometimes the wood shows a brownish violet grain. Resin absent. There is pleasant smell of cedar when the tree is freshly cut. Fibres straight.
Hardness: soft to moderately hard
Grain: fine
Specific weight: 0.38 – 0.58 g/cm^3

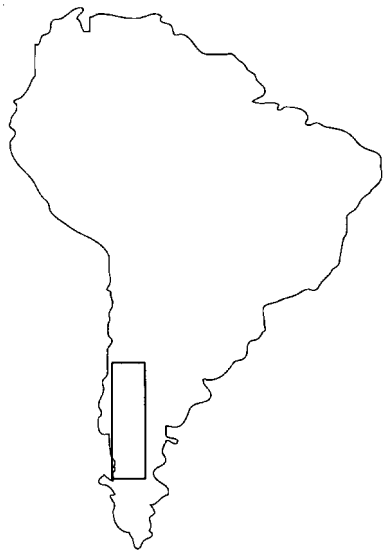
Microscopic characteristics of the wood: Wood non-porous. Resin canals absent. Growth rings visible. Tracheids radially distributed, (1700 –) 2400 (– 3800) µm long and 17 µm in average diameter. Late wood is very thin. Bordered pits are found on the tangential face of the tracheids, slightly smaller than those on the radial face, in a single row. Cross-fields pits cupresoid, 1 to 4 per cross-field. Axial parenchyma usually terminal, with nodular thickenings on the horizontal walls. Radial parenchyma sometimes with nodular thickenings on the terminal walls. Rays short, uniseriate, 1 to 15 cells high, sometimes with up to three radial tracheids. Both the axial and radial parenchyma contain dark deposits.

Characteristics of the trees: A tree up to 45 metres high, with a narrow pyramidal crown, it has a straight and cylindrical trunk 2.5 – 3.5 metres in diameter, with an average of about 30 and 1.2 metres respectively. The bark is dark brown, thick and smooth, and when split longitudinally it forms long longitudinal strips. Under the bark, there is a dark, very resinous, fibrous substance. The branches are thick, irregular and open.

This is a slow-growing species, forming very narrow annual growth rings. In some cases, it grows in diameter by approximately 1 mm every three years. It usually grows in swampy areas and in wet forests at elevations between 500 – 900 metres in altitude.

Characteristics of trade: The logs are usually straight, well formed and can be up to 24 metres long. There are other species in Europe, Asia and the Americas also known a larch, but these belong to the genera *Larix*, *Sequoia* and *Thuja*.

Distribution: Central Chile and in the province of Chubut in southern Argentina (Southern Andes)



Use: The wood is very resistant to and can be used outside without any treatment. Used for exterior and internal flooring, mouldings, shingles, corbels, plywood, pencils, doors and windows, telephone posts, naval construction, masts, refrigeration towers, outdoor furniture, moulds for castings, barrels and musical instruments. The inside layer of bark (*estopa de alerce*) is used to calk boats. The resin is also gathered and is burned as incense or make cigar boxes.

Similar species: There is only one species in the genus *Fitzroya*, although there are species in other genera that are similar.

Latin name	**Distribution**	**Common name**
Sequoia sempervirens	North America	Sequoia
Thuja plicata	North America	Tuya
Larix decidua	Europe	European larch
Larix occidentalis	North America	American larch
Larix sibirica	Northern Asia	Siberian larch

Species → **Characteristics** ↓	***Fitzroya cupressoides***	***Sequoia sempervirens***	***Thuja plicata***	***Larix decidua*** ***L. occidentalis*** ***L. sibirica***
Colour sapwood	ochre yellow	white to yellow	white	light yellow
Colour heartwood	pinkish brown	brownish red	brownish red	brownish red
Grain	fine and uniform	fine and uniform	fine and uniform	fine and uniform
Fibres	straight	straight	straight	straight
Hardness	soft	semisoft	soft	semisoft
Specific weight	0.38 - 0.58 g/cm3	0.42 g/cm3	0.37 g/cm3	0.59 g/cm3

The work on the timber manual was carried out under the supervision of Prof. Dr M. Clemente
(text and slides: Dr Miguel A. Vales, Prof. Dr Margarita Clemente, Dr Luis García Esteban)
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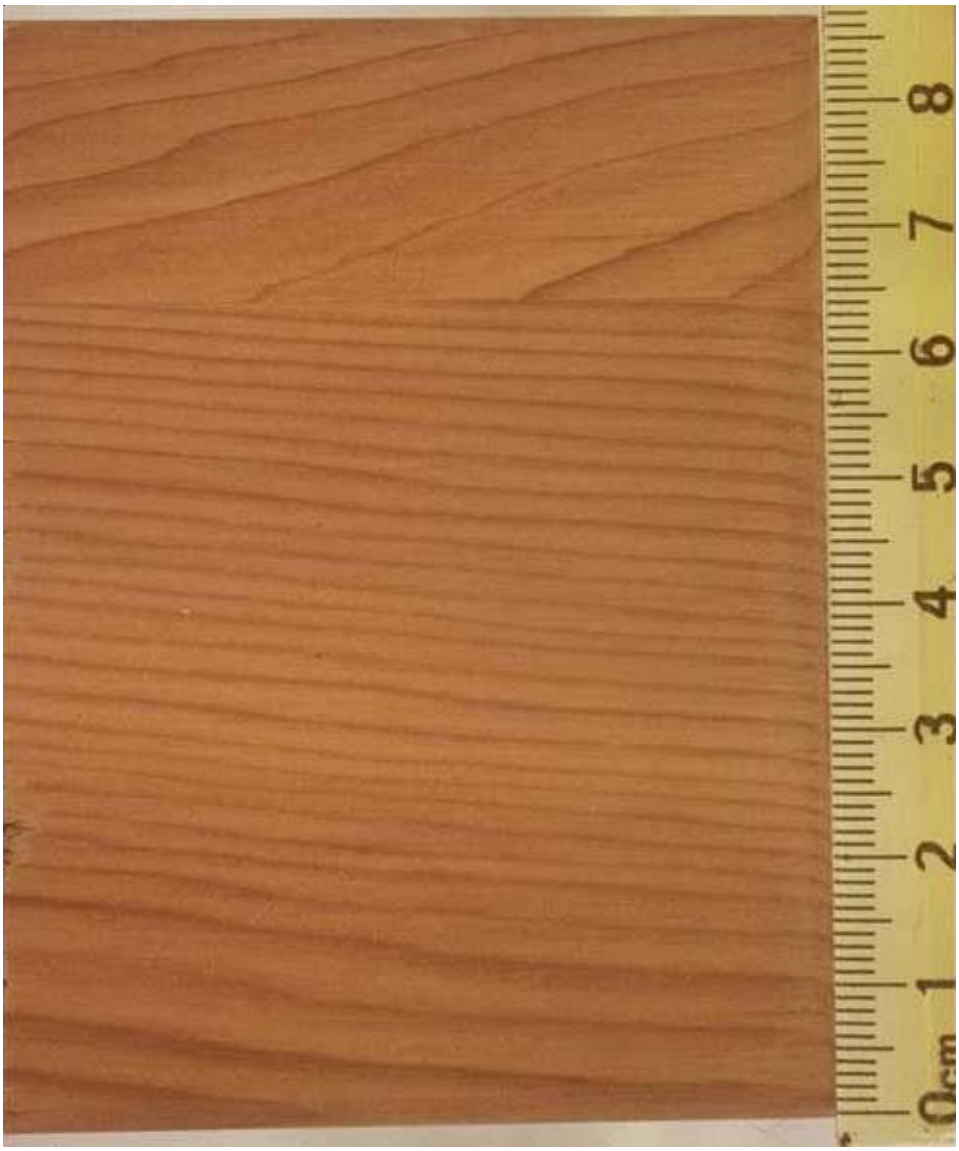
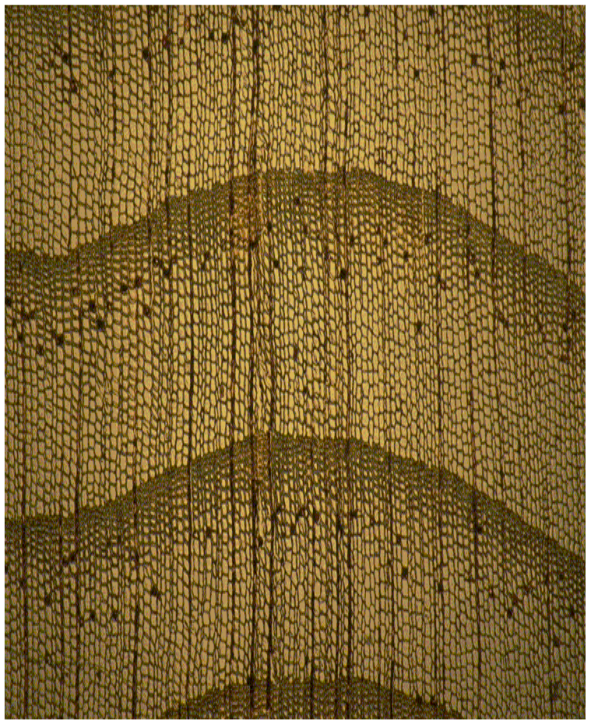
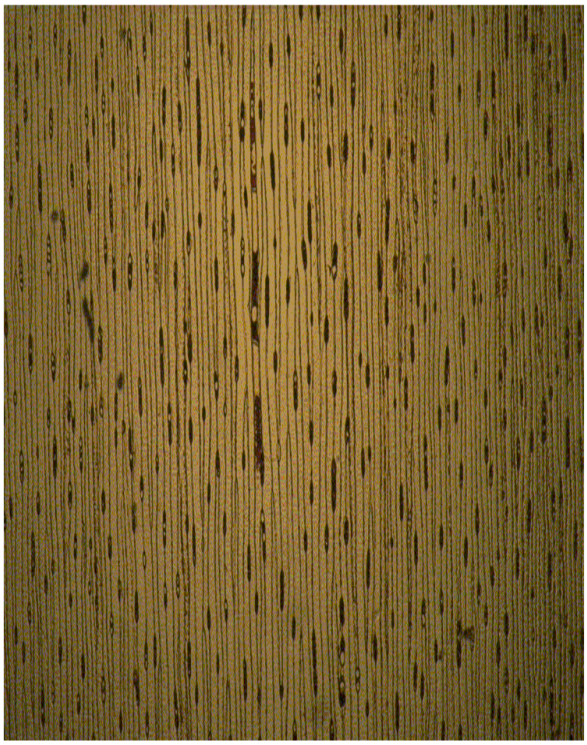
Fitzroya cupressoides

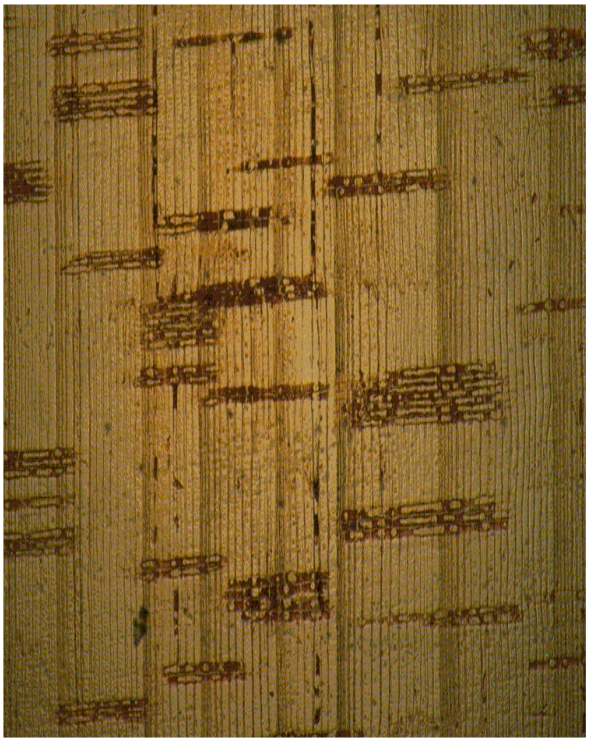




transverse section



tangential section



radial section

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