White Cypress Pine - Callitris glaucophylla

formerly *Callitris columellaris and Callitris glauca*

Is a member of the Callitris genus which has 13 species native to Australia and 3 species native to New Caledonia. ***Callitris*** is a conifer in the Cupressaceae (cypress family).
White Cypress Pine is the most common Australian native conifer. It is also the hardest conifer worldwide.
It is widely distributed in inland eastern Auatralia. The largest forest of Cypress Pine is the Pilliga scrub, a "Million" wild acres. Most of the areas cleared for wheat growing in eastern Australia was covered by White Cypress Pine

Description

It is a small to medium-sized trees or large shrubs, reaching 5–25m tall and in the right condition 40m, slow growing. The silviculture of this tree is extremely interesting. Unlike eucalypts, they are shade tolerant and not crown shy, thus are very poor at self thinning. They are also extremely drought and frost tolerant but very susceptible to fire.

Following fire or logging with virtually no surviving mature trees, the regeneration is described as Wheatfield like, over a million seedlings per hectare. The seedlings will reach a certain size (1.5 to 3 meters tall) and with no intervention to the forest it will become "locked". Stands can be in that locked state for many decades and remain at this height. If only thinned lightly the remaining trees will grow until they reach a taller height then again become locked. If thinned again the will then grow to a taller height, then potentially enter into another locked state.

I asked Chris Lacey and John Lowry, the ground breaking lead researchers of this tree, "How high can it grow?" They both answered they did not know as the older trees died from fire or from a yellow fungus. Every time they thinned a stand no matter the age of the tree they had a height growth response.

The young seedlings are very vulnerable to grazing. Most of the large locked Wheatfield stands on the 1960s and 1970s result from the reduction of grazing by rabbits following the introduction of Myxomatosis.

The leaves are evergreen and scale-like. But young seedlings have needle-like leaves.
The male cones are small, 3–6mm long, and are located at the tips of the twigs. The female cones start out similarly inconspicuous, maturing in 18–20 months to 1–3cm long and wide, globular to ovoid, with six overlapping, thick, woody scales, arranged in two whorls of three.
The cones remain closed on the trees for many years, opening only after being scorched by a bushfire; this then releases the seeds to grow on the newly cleared burnt ground.

Female cones

Taxonomy

Glaucophylla, from the Greek words ”glaucos”, meaning silvery or bluish-green, and “phyllon”, meaning leaf, thus referring to bluish foliage.

Other interesting facts

Common in inland woodlands on loamy plains, sandy rises and outcrops of sedimentary and granitic rock. It the more rocky areas and areas of poorer soils it is replaced by Black Cypress Pine, *Callitris endlicheri*.

In Victoria it is known to hybridise with *Callitris gracilis*.

If you grow the tree from seed you will need refrigeration to encourage germination. Germination usually occurs within 2-8 weeks however this can be speed up to 2 to 4 weeks with a smoke treatment. Germination is delayed in hot weather. In the NSW Private Native Forestry Code of Practice you only measure successful re-generation after the second wet winter.

Timber

The sapwood is a pale yellow and heartwood is variegated browns. It is straight grain that readily splits, resists decay and termite attack. When burnt or freshly milled it is very aromatic. It is knotty but knots are held tight.

The green density is around 800kg/m^3 and the aid dry density is about 680kg/m^3. It has the lowest shrinkage rate of any commercial native species – 2.5% radial and 3% tangential. As the timber age increase or the moist content drops it becomes brittle. Keith Bootle does not recommend dressing the timber when it is at low moisture content because of its brittleness.

If you are working with old or dry timber you will need to pre-drill for all nails and screws. If it dries too rapidily it will be subject to small surface checking.

Also take care when sanding as its dust is an irritant to mucous membranes of some people. Wear a dust mask.

Largely used for building scantlings, flooring, linings and weatherboards, with small-diameter round material used for fencing and small poles. Useful timber for bottom boards of beehives in contact with ground.

Other Uses

Cypress-pines are occasionally planted as ornamental trees, but their use is restricted by the high risks imposed by their very high flammability in bushfires.

The bark often produces a resin called sandarac which is used in confectionery and pharmaceuticals. The wood has been distilled by the Japanese to produce an organic insecticide for use in termite control.

The Aborigines used the resin as a waterproof adhesive, and wood used for making implements including woomeras, canoe poles and spear shafts. Leaves contain pinene (antiseptic oil). Leaves smoked over fire or soaked to make a wash, or mixed with fat to make ointment for colds.