Paulownia Timber

An extraordinary boat building timber that has been grown in China for hundreds - if not thousands - of years, is now carefully grown in unique Australian plantations and currently finding great favour with DIY boatbuilders and surfboard manufacturers, not to mention a host of other applications.

Australia's acknowledged expert in this field, David Evans, explains how this unusually light, resilient timber made its way into our lives . . .

"My involvement with Paulownia began when I was asked by a client whom I had been building and shop fitting for over a 15 year period to make some plantation shutters for his new home in Parkdale, Victoria.

I did not wish to use cedar as this was commercially available in shutters and very hard to compete against without setting up a major enterprise.

We experimented with pine and craft wood to set us apart from what was already on the market with no success at all.

It was then suggested to me and my client to try this new imported timber called Paulownia (or commonly called KIRI) which is Japanese for Paulownia and was imported into W.A from China mostly for boating purposes, where KIRI had became known in the boating world almost as a guarantee of old growth, knot free, pristine timber.

I laughed at the first sample of this timber I received, and to prove its poor quality, I submerged it in water for 3 days, but much to my amazement it did not swell, and after cutting it in half, I realised it had not absorbed any water at all.

It had no oils, saps or gum, and being a light blonde colour, made it ideal to go up against the traditionally used cedar.

We played with the timber and the shutters for nearly 12 months to master the painting and manufacturing process before setting up Port Phillip Plantation Shutters in March 2003, and entering the market place with our new, unheard of timber, Paulownia.

We then undertook research to establish why most people wanted to paint their beautiful cedar shutters, and soon established home-makers no longer wanted to see red coloured timber (as it was going out of vogue) so we introduced a stained colour range not possible to match with cedar timber. This seemed to be well accepted, but still the staining and polishing process was far beyond our expertise.

We almost tossed the towel in when we had a call from Orange in western NSW, to place an order for stained shutters which we had to decline. This was due to the associated problems of staining and top coating, and the delivery interstate of fully assembled shutters with severe damage almost guaranteed on every delivery. Then we'd have to try and match colour batches to colours from memory that had been produced several weeks before. The whole process was just fraught with problems.

Having explained this to the client his reply was *"Well, send them to me in a raw timber unassembled, and I can stain and assemble them myself . . "*

With a little thought, the raw timber shutter kit was born.

This enabled the client to have the colour they required, in the finish they required and safe in the knowledge that there was plenty of finish coats and were able to recoat to another colour should it be necessary. Delivery of the shutter kit became almost indestructible in smaller, tightly packed parcels.

Around this time, the imported timber from China began to be over-harvested and the quality deteriorated to an unacceptable level, so we looked within Australia and found Coffs Harbour Paulownia Plantation.

They had invested large amounts of money in China to see how they had cultivated Paulownia for nearly 1000 years, and the resulting information has really paid for itself.

Together we travelled around Australia and visited most of the commercially viable plantations and came back very disillusioned about the future of Paulownia grown in Australia. Out of the 1 million odd trees we found, it seemed that only about 9% were ever likely to be of a harvestable size.

Unfortunately people were too trusting of the amazing claims of what the trees could produce and the time span required.

What we now know is that Paulownia trees need to be planted out almost 3 times the given distances; they rely heavily on huge amounts of water to flourish - but died ever so quickly if the roots remained in water for very long.

They require very well drained soil, and thrive in the warmer more humid areas and yet can tolerate very cold (even snow) for short periods.

Originally in China the Paulownia was referred to as the 'money tree' with the story relating back to when a daughter was born, Dad would plant a Paulownia tree which, when she was ready to marry, the tree would be large enough to be harvested to pay for the wedding.

The term 'Money tree' was adopted in Australia with a different meaning in that it grew so fast that huge returns were imminent within 10 years.

I think that the Paulownia investors failed to realise that they were not pine trees where once they were planted, you merely returned in 10 years to collect your fortune.

Investors didn't appreciate Paulownia plantations were more like a vineyard to look after, needing closely scrutinised pruning, regular fertilizing and watering, and had to be kept weed free.

It has been said on the internet that the best climate to grow Paulownia successfully is the central coast of NSW, and from our travels, we were quite amazed with the noticeable differences in the trees.

Up around Kingaroy they seemed to grow with a more dominant taper from bottom to top, and over in WA they seem to have a bend in the trunk more than elsewhere.

We found the Paulownia timber to be very stable in high humidity, direct sun and ideal for external use in alfresco areas, and privacy screens around spars and gazebos.

We were then approached by some of the bigger names in the surfing world, who'd heard about Paulownia's application for timber surf boards due to its unique quality of not sucking water and being even lighter than cedar.

Balsa is lighter than Paulownia but it also is very absorptive and needs to be sealed in fibre glass to remain dry and buoyant, thus adding to the weight.

Due to Paulownia's non-absorption quality we are able to seal our boards with linseed oil and gum turpentine adding virtually no weight at all and creating a great saving in construction and repair costs.

A few years ago, we were contacted by Mark Bowdidge Marine Designs (RINA) about the use of this relatively new (to Australia, at least) Paulownia timber, so we organised tests with the University of Queensland to satisfy the timber qualities for water craft in commercial (Survey) situations, and the results were outstanding, allowing the use of Paulownia as either a core material or timber in its own right. This can only be said of the Paulownia from Coffs Harbour, as this was the only timber tested.

We now have 9,000 of Australia's biggest and tallest trees to ensure an ongoing supply of the best Paulownia Australia has to offer and to guarantee the continued quality.

In fact, Paulownia Timber Supplies Australia is the only known forest to have a substantial supply of timber into the future from the tallest and largest trees, and have on site, a saw mill dedicated to cutting Paulownia trees, a water treatment plant and kiln to dry the timber to 12% moisture content.

Paulownia grows with a natural twist in the trunk and contains great spring when cut and a lot of the milling process is unique to Paulownia and should only be handled by experienced mill personal.

Paulownia Timber Supplies Australia also has a outlet and show room in Victoria-head office of Port Phillip Plantation Shutters Pty Ltd, open 6 days a week for the public to experience the feel of the timber, and view the many uses of it.

We are registered members of the Australia Made campaign.

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