

2010 Mill Tour Northern NSW Operations



A Joint Queensland Industry Association Venture



Austbrokers Premier; Alan Jones
 Australian Solar Timbers; Alan Rainbow
 Australian Solar Timbers; Reon Ross
 Beveridge Timbers; David Beveridge
 Boral Timber; Gordon Pearn
 Brims Builders Hardware; Mark Gillies
 Brunner-Hildebrand; Ingo Wallocha
 Disprax; Andrew White
 Disprax; Rachel Fisher
 Embelton; Steve Gibney
 Ford Timbers; Gordon Ford
 Ford Timbers; Mitchell Ford
 Forrest Timber Products; Peter Adams
 Forsyth & Romano; Simon O'Reilly
 Gill & Co Rocklea; Craig Titmarsh
 Greg Jacob; Greg Jacob
 Host; Bill Kranenburg
 Host; John McGregor-Skinner
 Host; Norm Forbes
 Host & Hoo-Hoo Club 218; John Muller
 Host & TABMA Queensland; Karen Johnston
 Host & Timber Queensland; Colin MacKenzie
 Howard Sawmill; Paul Deakin
 Howard Sawmill; Sue Deakin
 Jaymor Industries; Norm Agnew
 Kennedy's Classic Aged Timbers; Ben Lucy
 Kosny Corporation; Peter Camm
 Kyogle Council; Lindsay Passfield
 MacValves Pacific Inc.; Craig Bank
 Pacific Wood Products; Chris Gabb
 Pacific Wood Products; Jason Justice
 Peachester Timber Co.; Darren Bartsch
 PF Olsen; Phil Lacy
 Porters Home & Building Centre; Danielle Fagg
 Porters Home & Building Centre; Helen Dee
 Simmonds Lumber; Rod Schiefelbein
 Skookum Technology; Jonathan McLachlan
 Thora Wholesale Timbers; Danielle Shave
 Thora Wholesale Timbers; Justin Aaron
 Timbersmart; Evan Pashalis
 Timberzoo; David Hutchens
 Timberzoo; Murray Lamb
 UJ Trading; Hans Jansson
 Urban Salvage; Andy Mineur
 Versace Timbers; Graham Leddy



2010 Mill Tour Group - Boral Murwillumbah



All Aboard

With a 6am roll-call the participants of the 2010 Mill Tour gathered on Monday 15th March in Rocklea, Brisbane at the premises of Gunnersen. Breakfast bags of goodies and PPE packs (kindly donated for the tour by Hyne) were handed out as the group boarded the bus, ready to head into the southern lands. The first leg of the trip was a candy filled journey of just over two hours to our first port of call near Rappville.

TARMAC SAWMILLING: WYAN

Andrew Salgado, General Manager of the Tarmac Group was onsite to welcome our group and give a brief overview of the company. The site was purchased by Tarmac in November 2007 but has operated since the 1950's as Richards Milling. Predominantly a green landscape mill the acquisition was key to securing resource for the group to then value-add its product and distribute to market via its 5 companies throughout Australia. Across these sites in SA and QLD they operate CCA, ACQ and LOSP treatment facilities, run moulders, kilns and a frame & truss line.

The site processes approximately 60,000m³ log per year and has just secured 75,000m³ contract from local forestry. 700 tonne of sawdust and chip per week are sent to either the local sugar mill to use as energy or exported to Japan. There are 30 staff onsite sourced from the local community and Casino.



LEFT:

Logs lined up for debarking.

BELOW LEFT:

Log to board production line.

BELOW RIGHT:

Bill Kranenburg (Host), Norm Agnew (Jaymor Industries) & Hans Jansson (UJ Trading) looking at the Tarmac docking line.



In the debarking process, the logs are initially put through a scanner to assess the log diameter, then debarked and automatically sorted into bins by size. The site is equipped to process 200, 225 and 250mm logs. These are processed into 4.8, 5.4 and 6.0m lengths. From here the boards are sent throughout the sites for value adding with respect to kiln drying and/or treatment. The company is constantly looking to upgrade and is currently looking at an inline stress grader.

We enjoyed a fantastic lunch supplied by our hosts in their recreation facilities about 800 metres from the mill where we caught a relaxing breeze and sight of this old pump (pictured to the right). Renowned for having a squash court onsite which was previously used as the office, the Tarmac group have renovated it with Spotted Gum and look forward to holding some local tournaments.



ABOVE: Operator explains the process of cutting the board through the cutting line.

LEFT to RIGHT: Andrew Salgado (Tarmac Group), Rod Schiefelbein (Simmonds Lumber), Alan Jones (Austbrokers Premier), Hans Jansson (UJ Trading), Ben Lucy (Kennedy's Classic Aged Timbers) & Danielle Shave (Thora Wholesale Timbers).



TOP: Logs cut into planks.

MIDDLE: Bill Kranenburg (Host) & Justin Aaron (Thora Wholesale Timbers) watch boards cut from squared posts.

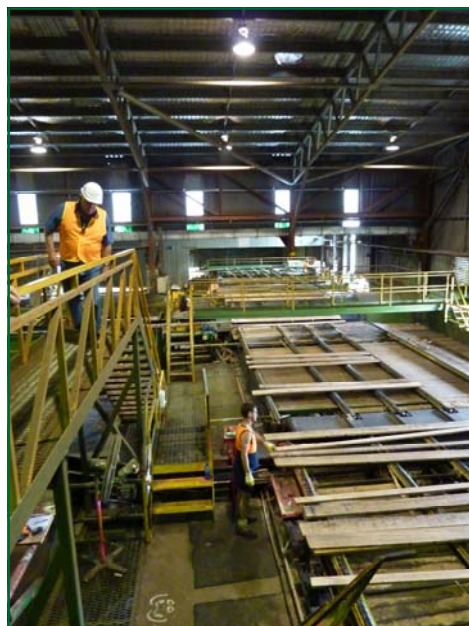
BOTTOM: The cut boards travel to the laser and saw to then trim to size.

BORAL: KOOLKHAN

Darren Grainger gave us a site induction before we split into four groups to tour the Boral Koolkhan plant. The site sources a variety of Australian hardwood species from the local area, currently processing approximately 50,000 to 52,000m³ log per year to produce flooring to supply both Boral's Kyogle and Engineered Flooring facility in Murwillumbra. They aim to supply the high end flooring market with 75mm being the smallest board cut. As they cut green they tend to overcut to allow for shrinkage during the drying process.

The goal is 33% recovery of the log for boards. 90% of the remaining chip is also recoverable with 45% of this being exported and the other going to a local organic landscaping company.

Once cut the boards are sorted by both species and into small, medium and long length boards, into a 36 stack bin sorter using an semi auto stack. The product is air dried prior to treatment. They ACQ treat flooring with a 14m³ pack taking 20-25 minutes in the pressure tank to treat the sapwood. Boral uses Osmose chemicals who conduct weekly testing to ensure the right chemical levels are being used and the uptake is effectively meeting standards.



ABOVE: John Muller (Host) overseeing the boards produced post docking.

Darren explains the sorting process prior to walking along the auto stacker.



Greg Jacob (Greg Jacob), Rachel Fisher (Disprax) & Alan Jones (Austbrokers Premier) on the walkways above the production line.

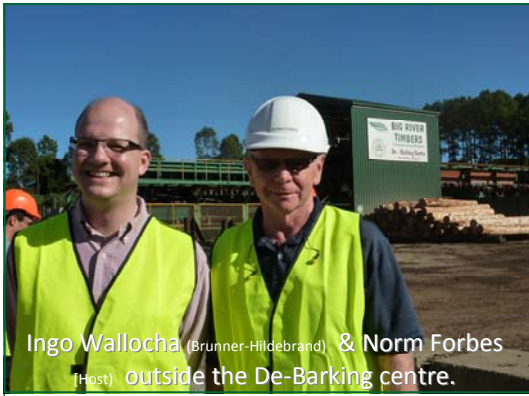


BIG RIVER TIMBERS: GRAFTON

Our first stop on Tuesday morning after a huge buffet breakfast was the head office of the Big River Group in Grafton where Jim Bindon greeted us. This site has 160 staff members producing flooring, formply and formwork steel. Up until the early 1980s the plant only produced scrubwood veneers however with a change in resource they have now combined this with plywood and hardwoods to value-add their product for market. Processing approximately 43,000m³ log per year they use a lot of labour per cubic metre but due to their focus on value adding they feel the quality produced is justified. The equipment throughout the plant is typically secondhand that the company's team of 18 engineers recondition to suit their facilities and operations. This keeps their capital expenditure from crippling operations.

The local supply is limited so Big River also sources logs from Tumbarumba. Hardwood logs are steamed prior to peeling for a better peel and to avoid snapping the log in the process. They have 4ft and 8ft lathes in operation for cross and long band veneer. The newer lathe can do 100,000 cuts before re-sharpening. They try to extract as much appearance grade as possible, however the other grades are utilised in formply or central sheets of the plywood so waste is minimal. This mill is the only plant in Australia that is peeling hardwood. They apply 3mm hardwood veneer sheets to 5mm plywood. The veneered stair treads produced are suitable for internal application only due to the bond used, however they are keeping tabs on research into an alternative glue that can be used for external application.

The site offsets their own energy usage by about 40% due to their boiler and co-generation plant, using their woodchipped waste. Jim believes that in the future if a company needs to rely on outside fibre (ie. purchasing waste) they will be in trouble.



Ingo Wallocha (Brunner-Hildebrand) & Norm Forbes (Host) outside the De-Barking centre.



Steaming logs prior to peeling.



Peeling logs.



Drying line for recently peeled sheets.



Sheets graded and sorted.



ABOVE: Jonathan McLachlan (Skookum Technology) (R) next to Jim Bindon presenting veneered flooring product to the group.

BELOW LEFT: Stacks of peeled veneer by species ready for application to plywood.

BELOW RIGHT: Applying filler to knots or defects to ensure structural integrity of inner ply sheets.

UPPER RIGHT: Co-generation Energy Engine.

LOWER RIGHT: Product going through the finishing line.



KOPPERS: GRAFTON

The procurement and production managers took our entire group through the Koppers pole plant in Grafton. Koppers have approximately \$8 million of stock onsite with the value of an average pole being between \$500-\$1,000. This site supplies Australia, New Zealand, parts of Asia and the Pacific Islands. The largest pole operation in Australia, about 50% of their stock is sourced from state forest allocation and 50% from private property. Blackbutt is the main species (about 70%) received from their state forest allocation, while the private source usually has greater species variety but tend to be smaller logs. They produce approximately 30,000 poles per year and have supply agreements in place until 2023. Utility contracts are the primary application for the poles produced which have a more constant demand. Project work (road foundations, jetties, wharves etc.) seems to have dropped off during the recent market slowdown.

If the pole is damaged during the debarking process, the pole is rejected as the treatment of the sapwood layer will be compromised. Once accepted the poles are dipped, separated by species and size and air dried for about 4 months. Koppers have a CCA treatment facility onsite and periodically perform strength tests on poles. The untreated offcuts are sold as firewood.

Concrete and steel are the largest competitors in this market segment and they promote that these materials will last longer. Tests conducted have verification of timber poles up to 70 years old (in use prior to treatment), while concrete/steel have only been used in the past 30 years and evidence suggests they may not last 50 years. Comparison between steel/concrete and timber with respect to carbon usage in production is about 30:1 for non treated, and about 20:1 for treated poles.



Mitchell Ford [Ford Timbers] & Paul Deakin [Howard Sawmill]
Impressed by the log size.



Michael gives the group a site induction while we enjoy a morning tea break.



Presenting information to the group.



Hans Jansson [UJ Trading] & Evan Pashalis [Timbersmart]
inspect trials of longitudinal butt boring for improved internal treatment.



Preparing the poles for cross arm king bolts.



Capping the smaller poles.



Poles air drying after treatment process. They passed around samples to show the treated sapwood layer.



Reon ROSS (Australian Solar Timbers) (L) checks out the pole testing facility.

COFFS HARBOUR HARDWOODS: GLENREAGH

Established in 1961, Gary McCarthy from Coffs Harbour Hardwood is the second generation of his family to run this business (the third are currently working in the business also). The present site covers 122 ha and includes 2 desap lines, 2 treatment facilities, a complete workshop and boiler waste disposal system. Specialising in large logs sourced primarily from state forest allocation, the site produces large treated power poles (about 15,000m³/year), bridge beams and girders, cross arms and overlay and strip flooring product.



ABOVE LEFT: Saw trimming the log into slabs for docking.
ABOVE RIGHT: Gordon Ford [Ford Timbers] and Gary McCarthy.



ABOVE: The group observing the debarked log.

BELOW MIDDLE: Stacks of flooring boards air drying.

BELOW BOTTOM: Flooring board from the stacker put through the profile moulder.



ABOVE: Cross arms cutting, sorting, stacking & marking.

BELOW: Bill Kranenburg [Host] & Gordon Pearn [Boral] in the flooring & decking storage area.



TOP: Large (300 x 250) beams.

MIDDLE: Gordon Ford [Ford Timbers] , Paul Deakin [Howard Sawmill] & Mark Gillies [Brims Builders Hardware] observe the operations.

BOTTOM: Sorting of product from the line.

FOREST ENTERPRISES AUSTRALIA

Randall from FEA escorted our group to the Ellangowen Road plantation about an hour and a half north of Grafton. They have performed many trials in this area to see which species are best suited and currently the plantation is primarily Dunn's White Gum (*Eucalyptus Dunnii*) which is quick growing, ideal for paper and pulp and can handle colder temperatures but is not suitable for structural usage. They also need to be aware of fungal diseases and insects that some species in specific areas are prone to. Some Sydney Blue Gum have been planted and so far are growing well with respect to quality and size, but they need to be mindful of Cosset Moth which affects the timber quality. There are growth rate variations in different locations and most species seem to do better closer to the coast with better rainfall and suitable soil. This area is troubled by distance to Brisbane or Newcastle ports therefore making transportation of low value chip expensive so FEA are looking to value-add rather than just export their product. Maintenance of the plantation includes monitoring for disease/bugs, fuel reduction burning and keeping weeds to a minimum.

In conjunction with FEA Tasmania they have had successful trials of Eco-Ash which performs better than pine but not as good as native hardwood in structural tests. The earliest trials are available at 10 years.



Randall presents to the group.



The plantations.



BORAL: MURWILLUMBAH

Brian Mussared gave our group a general site induction (no cameras allowed inside the factory) before we toured the Engineered Timber Flooring facility. An empty site only 5 years ago, this operation was very impressive with respect to cleanliness (quality extraction fans in use), the safety of equipment (cages, guards etc), minimisation of manual handling of product and the layout to suit work flow.

Supplied with stripped board from local Boral mills, the product is dried in the 7 Mahild kilns onsite to very low levels (approximately 9%) with the process from green to dry taking 3 months. As large defects can cause mechanical damage to the frame saw, the thick board is first sized to fit the frame saw to produce 38mm and 43mm thick boards with a precise +/- 0.2mm variation. From the frame saw, thin floor veneer boards are graded, docked, stacked and arranged onto pallets.

Three sizes of strip flooring are produced onsite; 150mm one strip, 200mm one strip and 200mm 2 strip. Shorts are butt glued to form long length board to achieve 2.0, 2.2 and 2.4m flooring boards that are sold to market. Boral does not attempt to colour match the timber; the organisations' philosophy being that timber in its' natural form has colour variation and they prefer to keep it that way. The strip boards then go through the press and lacquer line during which radiata plywood backing is applied with a double glue bond. Knot holes, splits etc. are puttied by hand then go under a UV scan which sets the putty. The product is allowed to stand for 24 hours then finishing is applied. The line is currently running every second day which is meeting current market demand with a slight excess stock.

Producing an average of 6,000 boards per day the species used include Blackbutt, Spotted Gum, Blue Gum, Red Mahogany, Stringy Bark, Tallowood, Brush Box; with a smaller amount of Jarrah and Tasmanian Oak. As the product has been engineered for Australian conditions only a limited portion is exported due to the different humidity/temperatures of different geographic regions. The product is primarily distributed through flooring retailers, the Harvey Norman chain and carpet shops (ie. Solomons/Andersons).

WHAT HAPPENS ON TOUR AND FINAL COMMENT

The Jacaranda Motel in Grafton (our accommodations for the two nights) had to make an additional alcohol run to re-stock the bar for our second night, and they still ran out of rum and sambuca. We also introduced them to the very girly but ultra delicious Toblerone cocktail. Thanks to Ben Lucy (Kennedy's Classic Aged Timbers) they now have an array of drinks specials featuring 'Lift' known as 'Juicy Lucy's', and we were ALL kept amused by *The Great Hills Hoist Theft Saga*.

From all reports received the tour was a great success and we look forward to organising another trip for 2011. Any comments and constructive feedback or even suggested destinations are welcome.