TIMBER Technology

Forest Products Commission WESTERN AUSTRALIA

Issue 2 Winter/Spring 2001

A number of very important changes have occurred since the first issue of our newsletter in October last year. The first change in November was the creation of our new organisation, the Forest Products Commission (FPC), from its earlier days as a division of the Department of Conservation and Land Management. Under its charter, the Commission is a government trading enterprise responsible for the commercial production of products from State-owned native forests and plantations and the marketing and development of the forest products industry. The FPC is overseen by a seven-member commission chaired by Mr Murray Jorgensen. The general manager is Dr Paul Biggs.

The second significant change was the implementation of a new forest policy following the change of State Government in February. With the change we now have a new Minister for Forestry, Mr Kim Chance.

Timber Technology itself has been active, too. Welcome to this edition which tells you all about our recent activities.

Promoting added-value processing

Government promotion of value-adding aims to maximise local economic activity from the State's natural resources. The provision of a wider range of log qualities from regrowth forests and plantations coupled with requirements to add value to the resource will impact heavily on the timber industry. Timber Technology has developed the following strategies to help the WA timber industry adjust to the changes:

Added-Value Products and Processes.
Research, develop and promote economic means of adding value to WA's native and plantation resource.

Marketing and Market Development.
Identify, document and promote the properties of WA's native forest and plantation products and assist with the development of product standards that support added value processing and utilisation.

Resource Improvement.
Establish the necessary linkages to enable manufacturers, processors and growers to work together to improve the quality of plantation, farm and forest sawlogs.

Industry Skills and Knowledge.
Promote the need for re-education and training and work with other training organisations to deliver training and education in value adding technologies.

Our Research and Development program is designed around these strategies to address the critical factors that will motivate and assist the industry meet the challenge of added value-processing.

Inside this issue

Carbon sequestration	2	Did you know?	2
Plantation timber exposed	2	New CRC	2
De Russett's Northcliffe operation	3	Interesting web sites	3
Successful timber auctions	3	Staff profiles	4
Fledgling industry	4	In memoriam	4

Carbon sequestration in forests and wood products

Carbon sequestration means absorbing or locking-up carbon. Trees do it very well and have the potential to absorb much of the carbon produced from fossil fuels. Consumers are placing more and more emphasis on the effects the products they use have on the environment. This can only be a good thing for forest products because they retain carbon over their entire lifecycle while there is extensive carbon release from energy use in manufacturing alternative products. The project that Timber Technology is involved in through the Carbon Accounting Cooperative Research Centre at ANU is measuring the impact on carbon sequestration of choosing timber over alternative materials. For more information contact Martin Beel at Timber Technology on 9729 1913.

Did you know?

Susceptible sapwood with a moisture content of between 8 and 30 per cent is prone to attack by the powder post borer, Lyctus brunneus.

Lyctid attack may be prevented by removal of the susceptible sapwood or by treatment with an approved preservative.

WA-grown timber species which have been found to have susceptible sapwood include WA sheoak, marri, karri, blackbutt, tuart and blue gum.

Plantation timber exposed

Always keen to raise the profile of plantation timbers and increase exposure in their use, Timber Technology supplied timber from four species to the South West Regional College of TAFE for use by first year furniture/cabinet making pre-apprentices.

Industry feedback is an important component of our research at Timber Technology and the students were asked to assess the utility of each of the species. The species were ranked for workability in the following order: spotted gum, yellow stringybark, blue gum and mountain ash. The overall consensus was that all the species sanded and polished well, revealing interesting figure and colour.

More recently, Timber Technology has been researching five plantation species grown on an Alcoa rehabilitated bauxite mine site in Jarrahdale.

Timber Technology in new CRC

Staff from Timber Technology will be involved in the new Cooperative Research Centre for Innovative Wood Manufacturing, a national joint industry/research initiative that was developed by the University of Melbourne. The CRC's four concurrent seven-year programs will start in July this year.

The CRC will build on six years of microwave technology research done by the university. There is a great need for improved value-adding technologies for our native and plantation-grown timbers. The new technology will become available to industry through commercialisation. Training and education are also essential components of CRC activities.

The projects in each of the four programs are:

Program 1. Microwave technology

1. Growth stress relief in logs from fast-grown trees
2. Microwave modification of wood to assist wood drying
3. Microwave modification of timber for preservative treatment
4. Microwave modified solid wood (MMW) products
5. Fundamental properties of microwave energy and its influence on wood modification

Program 2. Value-adding

1. Surface engineering of microwave processed and resin-modified and other machined solid wood products for enhanced adhesion and long term retention of bondability
2. Innovative technologies in the design and manufacture of high value furniture and wood products from microwave modified wood
3. Innovative techniques in bending of wood components
4. Development of high quality wood products for long-term service in a wide range of environmental conditions

Program 3. Technology Innovation, Transfer and Commercialisation

1. Innovation
2. Technology Transfer
3. Commercialisation
4. Market Intelligence

Program 4. Communication and Education

1. Communication
2. Higher Education Research
3. Training

De Russetts' Northcliffe mill and kilns

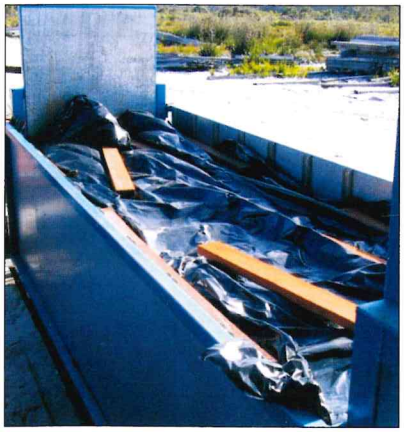
With the support and help of his wife Bev, Brian de Russett runs a small sawmill west of Northcliffe, within sight of the south coastal dunes. He mills jarrah, mostly from low grade logs and has designed and built his own kiln for drying flooring timber. His looks belie his attention to detail, his innovation and an ability to make things that work from bits and pieces.

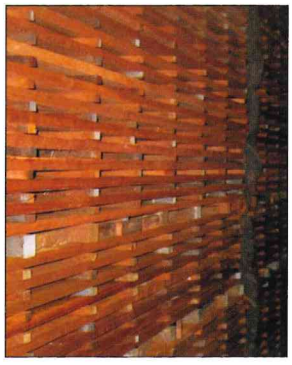
By selling his better timber dry rather than green, Brian is generating more income and employment at Northcliffe per cubic metre of log. Like all hardwood sawmillers, he is nervous about the future availability of native hardwood logs and is hesitant about making further investments on new equipment.

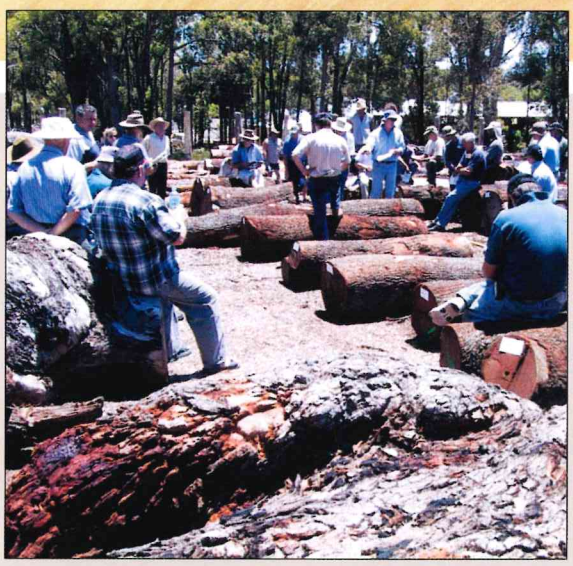
Brian's kiln is a simple insulated heat and vent kiln which takes 30 cubic metres of green boards suitable for flooring and dries them to 12%. By cutting timber to fixed dimensions, each kiln charge is perfectly rectangular—a must for getting uniform air flow and uniform drying.

Most sawmillers who dry their own timber would like to use waste wood to heat their kilns. Brian has combined his ingenuity and his manual skills to devise a simple but very effective wood burning system. Wood is burnt to heat air, which is then ducted into the kiln. The burner is fed with wood from a gravity-fed hopper, which only needs to be fed once or twice a day, depending on the weather.

Knowing how important it is to keep the surface of green timber from drying too rapidly, Brian reticulates his green timber as it waits to be stripped for drying. He has also devised a simple stripping jig that further protects the timber. The sides stay put and the stacked timber is hydraulically lowered. The person stripping the timber keeps working at a comfortable height rather than constantly bending up and down.







Successful timber auctions

Since our last newsletter, Timber Technology has held two successful specialty log auctions.

Each auction presented over 200 tonnes of 20 different timber species from around the State. Buyers found some bargains and were pleased with the quality of the products presented.

Small lot sizes of logs can be obtained by any registered bidder, and a contract with the Commission is not required. The auctions provide buyers with the opportunity to purchase unusual species from the State's arid regions coupled with the offer of high value logs from the southwest (eg. curly jarrah and sheoak).

Amid some frantic bidding and nervous moments, the last auction also provided bidders with a small amount of a recently found purple timber named Passionwood. This was the first time this timber has been offered. Passionwood buyers commented on the great potential of the coloured timber.

The specialty log auctions are held every 3 to 4 months, and further information can be obtained by contacting Timber Technology on 9729 1913. The next auction will be held on August 22.

Interesting web sites

When you're surfing the Net, you might like to check out these sites.

Got a question about forestry, timber or wood products? Ask Hardwood Harry and Softwood Sal at **www.nafi.com.au** National Association of Forest Industries.

NAFI's world-class forestry edu-entertainment site **www.timbertrek.com.au** is great fun for the kids. The site delivers substantial educational and public awareness benefits to forest managers and the forest industry both in Australia and overseas.

Staff profiles

Martin Beel

Some of you may know Martin, our research scientist, from the Forest Industries Federation where he was the Market Development Manager. Martin has qualifications in architectural science materials technology and has recently completed a masters in physics.

In the two years that Martin has been with us, he has worked on R&D strategies to help the timber industry adjust to a changing environment. He is also working on carbon accounting in timber products and keeps his technical staff busy with research challenges. He is a welcome acquisition.

Stefan Prokopyszyn

Stefan has worked in forestry for 33 years and can tell many a great yarn about days gone by. He has completed the full circle at the Harvey site, first starting here back in the late sixties, when the Forests Department ran the pine mill, and then returning in 1993.

His dedication to fire duty for 29 years earned him a national service medal. Stefan acknowledges that while fighting fires, the healthy meals now supplied are a definite improvement on the days of eating meals from a tin can.

Stefan really enjoys working at Timber Technology, meeting new people and taking on new challenges. He is a bundle of information and is only too happy to share his sawmilling expertise with customers.

Fledgling industry enjoys field days

Farmers from the Eneabba and Dongara districts took advantage of our portable Wood Miser bandsaw at two recent field days to have some of their timber milled.

The purpose of the visit was to demonstrate the fine kerf sawing of 14-year old unpruned radiata and pinaster pine compared to low/high pruned 18-year old pine. While the 18-year old pine produced slightly better quality timber, the plantation was suffering from the effects of drought.

For various sawmilling information phone Steve Davis at Timber Technology on 9729 1913.

In memoriam: John Dorlandt

Friends and colleagues will sorely miss the warm personality and dedication of John Dorlandt. John passed away suddenly on April 6 after suffering a heart attack. He had been crunching numbers and managing finances with the Department of Conservation and Land Management for 35 years and Timber Technology for 15 years.

John was a true woody, always fossicking through the stockpiles whenever he visited Timber Technology. He loved nothing more than to tinker in his shed. John was a friend to the entire staff.

If you have any queries regarding our newsletter please contact Judi Pitcher at Timber Technology.
Ph (08)9729 1913, Fax (08)9729 2063, Post P.O. Box 505, HARVEY WA 6220
or Email timbertech@fpc.wa.gov.au

2001332-07-2M