



*The Forest Products Commission is committed to working with the private sector and other relevant Government agencies to help create a modern, vibrant and prosperous industry, which maximises the value of our unique native timbers and our plantation timbers through downstream processing and generates fresh employment opportunities. The Commission's focus is on encouraging and promoting greater levels of value adding of Western Australia's unique and world-class forest resources.*

## Old growth policy

The Commission worked with other Government agencies - the Departments of Conservation and Land Management; Industry and Technology; Employment and Training; and Treasury - and the private sector during the year to further progress the restructuring of the timber industry following the introduction of the State Government's policy "Protecting Our Old Growth Forests" in 2001.

The restructuring plans aim to maximise the use of the reduced amount of timber available, provide compensation to help businesses leaving the industry, assist workers affected by the changes, and to develop new opportunities for the industry.

In 2001-02, the Government assessed the areas of State forest where logging had been stopped, taking into account scientific, economic and community values and the impact of logging on salinity. The assessment identified areas that will be retained as part of the Wellington National Park, and the moratorium on three other forest areas at the Palmer and Leach blocks near Collie and at Helms Block near Nannup was lifted. These areas will be available for harvesting in the future.

The Department of Industry and Technology (DoIT) and the Commission worked closely to assess the eligibility of applications for Business Exit Assistance as part of the industry restructuring. DoIT received 86 applications in 2001-02. At June 30, \$28,429,441 in assistance had been approved of which \$15,366,507 had been paid to 26 businesses.

As part of industry development, the Commission has also worked with industry groups to help them achieve greater value from the timber available - making the most use of the timber and creating alternative jobs.

## Jarrah sawlogs proposals

The plan to restructure the timber industry and bring certainty for the people and communities involved reached a major milestone during the year.

The first stage of the process to determine the future use of jarrah sawlogs was completed and 10 industry proposals were selected for final consideration. All proposals incorporated the vision of the new timber industry in Western Australia with the focus on value adding and creating employment opportunities, including producing outdoor or fine furniture, timber flooring, joinery or woodcraft.

The critical factor in the selection of the final 10 proposals was that each showed a commitment to maximum recovery from the timber in the forest, in the mill, and at all stages of the supply chain.

Detailed business plans from each of the final proponents were analysed by representatives from the Commission, Department of Industry and Technology, Treasury and independent financial experts to confirm their financial viability and eligibility for Government assistance.

The timber contracts that will be developed from the proposals will be in line with the final sustained yield set for the next 10 years. This will be determined by the new Forest Management Plan, which is currently being finalised.

### First Albany blue gum plantation exports

The first shipment of plantation woodchips was exported from Albany to Japan in March 2002. The Commission is planting and managing about 26,000 hectares of blue gums in the region for this project.

The Albany Plantation Export Company's mill is expected to be processing one million tonnes of blue gum a year by 2007, creating about 630 jobs and earning \$80 million in export earnings.

The first shipment of woodchips from Albany was the culmination of a project that started in 1993 and stimulated the planting of over 150,000 hectares by a number of companies privately or with the Commission. The result is new timber industry and export income for Western Australia with flow-on effects to the industry and the region including increased employment and economic activity.



*Loading of woodchips from the Albany port.*

### Expansion of furniture exports

A crucial element of restructuring the native forest timber industry is the development and expansion of furniture manufacturing - an industry sector that can employ larger numbers of workers in the South-West and create maximum value from the reduced quantity of timber now being extracted from the State's forests.

Jarrah provides a world-class timber for furniture - hardwood which is durable as well as even-grained for finishing. Western Australian furniture is making an impression in export markets because of these features.

Outdoor jarrah furniture has made the largest gains, with substantial exports to both USA and Europe, estimated to be worth up to \$20 million. The Commission provides technical backup and assistance to timber furniture manufacturers. It also provides information on the management and sustainability of the forests from which the timber comes, to give customers confidence in the environmental aspects of timber harvesting.

Currently the indoor furniture sector is pursuing a similar increase in export markets. Access to those markets will provide the necessary financial return to allow the high-value industry to stand strongly and provide stable employment in Western Australia.

The Commission is proud to assist the Furnishing Industry Association of Australia (FIAA) in developing these markets. During the year the Commission was a Platinum sponsor of the National Furniture Awards in November 2001 and participated in the FIAA tradeshow at the San Francisco Furniture Mart in January 2002.



*The Hon Kim Chance, Minister for Agriculture, Forestry and Fisheries taking a closer look at newly established maritime pine plantations in Moora.*

### Expanding pine plantations

The plantation estate between Moora and Esperance was expanded during the year, with the Commission establishing 3234 hectares of first rotation sharefarm plantings and replanting another 943 hectares of second rotation land. Particular emphasis was given to maximising regional employment opportunities and the environmental benefits from the plantation sources.

Increasing demand in the softwood timber markets has resulted in Wespine planning to take 300,000 cubic metres in 2002-03 compared with 275,000 cubic metres in 2001-02.

Wespine is also working with the Commission on a joint sawmilling study to investigate the different traits involved in tree breeding to develop the most profitable, rather than the biggest trees. The study is looking at factors including growth rate, stem straightness, branch size and wood density and how they affect the quality of the sawn product. Preliminary results during the year show an improvement in grade yields from the timber in the trials.

### Laminated veneer lumber plant

Negotiations to establish a laminated veneer lumber (LVL) plant at Neerabup were largely completed during the year and the new plant is expected to be built and operational in 12 to 18 months. The plant will produce laminated veneer for targeted export markets including Japan and the United States of America.

The agreement between the State Government and Wesbeam includes 25 years access to the State pine resources in the Gngangara plantations. This will enable the Forest Products Commission to move ahead with the clearing of the Gngangara mound more quickly, opening up the area for water production, conservation and recreation purposes.

The LVL process involves peeling pine logs, cutting them to a thickness of three millimetres and then layering them with resin before being re-sawn into boards. The end product has high strength and is capable of replacing native timbers in structural uses.



*Close up of laminated veneer lumber (LVL) (top) and one of the many uses of LVL.*

### New eucalypt sawlog industry

Considerable progress was made during the year to develop a new industry based on the commercial growing of eucalypt farmland, and the first trees in the project will be planted in winter 2002. The key objectives are to:

- improve farm profitability and sustainability;
- improve water quality in key water catchments;
- establish a core resource for a new eucalypt sawlog industry; and
- create new commercial opportunities for rural communities including downstream processing to add value.

Under the scheme, landowners provide land in exchange for up-front incentive payments and a share of the timber crop at harvest time. The first projects are centred on the lower rainfall areas of the water resource recovery catchments in the Collie, Warren-Tone and Kent River catchments, and Commission staff are working closely with farmers to help plan their individual requirements.

More than 400 hectares are expected to be planted in the Warren-Tone and Kent catchment areas this winter as part of a joint initiative with the Waters and Rivers Commission, supported by funding from the National Heritage Trust.

Negotiations are underway for other areas to be involved in the new eucalypt sawlog industry which aims to establish about 1000 hectares a year, subject to future funding.



*The Forest Products Commission is working closely with farmers in establishing a new eucalypt sawlog industry.*



## Timber Advisory Centre

The Commission was a key contributor to the development of a new timber products building display centre opened at the Home Base Complex in Wembley in June 2002. The Timber Advisory Centre's Lifestyle Home and Exhibition Centre features an architect-designed timber home that combines plantation softwoods, native hardwoods and modern building materials.

It also includes displays highlighting timber products in features including joinery, floors, decking, pergolas and furniture, with experts available to provide advice on timber and its uses.

The centre is a project of the Forest Industries Federation of Western Australia (FIFWA) following a proposal from one of its sub-committees, the Timber Promotion Council. The Commission is represented on the Council's advisory panel and will provide \$20,000 funding towards the Centre's operation each year.



*Value adding of sandalwood has increased significantly this financial year, in particular, with the production of New Mountain mosquito sticks.*

## Sandalwood

Sandalwood is found across an estimated 161 million hectares of Western Australia with an area of 79 million hectares excluded from any form of harvesting. The reserved sandalwood area is equivalent to about the size of England and France combined. The current annual harvest of green sandalwood is between 1000 and 1200 tonnes each year, and a similar volume of dead sandalwood is harvested.

During the year the Commission signed a contract with New Mountain, part of the Wescorp group, to use Western Australian sandalwood powder in a range of new incense products including mosquito-repellent sticks.

The contract allows for 200 tonnes of sandalwood powder to be purchased annually from the Forest Products Commission. This figure has been achieved without increasing harvest levels, but by using powder extracted from sandalwood oil production or by using dead sandalwood.

At full capacity, New Mountain's new factory in Bibra Lake is expected to produce more than one million sticks a week and create about 50 new full-time jobs.

The Commission has set a target of half the sandalwood production in Western Australia being value added within the next five years. The New Mountain contract lifts the value adding component of the current annual sandalwood production from 25 percent to 30 percent.

The Commission has also continued to support Mount Romance Australia, based near Albany, which is Australia's major producer of sandalwood oils with value added markets based on perfumery and pharmaceutical products.

Small-scale plantations of WA sandalwood are being established alongside farms being planted with maritime pine and will provide additional sandalwood resources in 20 to 30 years.

## Timber technology

The Timber Technology Centre is funded and directed by Government to “support the development of products and processes that motivate the industry to use Western Australian timbers in higher value products”. The focus of the Timber Technology Centre in the past year has been on plantation timber research.

While eucalypts grow well as plantations, studies undertaken at the Centre in Harvey show that knots from unpruned branches seriously limit the value of unmanaged stands of eucalypt trees. Utilisation studies on trees that are pruned at an early age show the effect of silviculture on the quality of sawlogs. The work is aimed at being able to provide silvicultural recommendations for growers so they can achieve the best results.

Western Australia also joined the Cooperative Research Centre (CRC) for Wood Innovations, which is based at the University of Melbourne with partners in other States. This is a seven-year national research project that developed from an earlier project initiated by the University. The new project aims to control the use of microwaves to modify the cell structure of wood. Involvement in the work means Western Australia will have a share of the intellectual property from the project and that species of interest to the State can be evaluated.

Work on native timbers, which has been the major focus of Timber Technology for the past 15 years, is also continuing. The Commission works with buyers of native logs to help solve technical problems in producing value added products. The aim of the research is to maximise the use of the native timber to help improve business and create additional jobs.

The Commission has also completed the third year of its involvement with the CRC for Carbon Accounting, quantifying carbon stocks and changes associated with timber use in building and construction. An assessment of a single-storey home this year will be followed by a similar assessment of a two-storey home the following year. The project aims to enable the forest products industry to demonstrate the advantages of using timber for building.



*Commission Technical Officer, Justine Murphy and Research Scientist, Martin Beel inspecting timber that has been passed through a planing machine.*



## Tree research

Work has continued on a National Heritage Trust funded project to improve the drought tolerance of commercial tree crop species. The project, involving the major conifers (*Pinus pinaster*, *Pinus radiata* and *Pinus brutia*), is particularly relevant to commercial forestry in medium rainfall areas and all of the trials have shown more than 95 percent survival.

As part of the project, trials of *P. pinaster* are continuing on farms from Moora to Esperance and research plots using *P. brutia* were established at Esperance and Dandaragan. *P. brutia* has a capacity to survive drought and is potentially a very important species for Western Australia.

The Commission is a partner in the Australian Low Rainfall Tree Improvement Group, which has established trials on 10 sites across Southern Australia. As part of this project, large family trials of important species of low-rainfall eucalypts were established at Moora and Esperance during the year.

Encouraging early results were also obtained from the trials of various forms of western blue gum seedlings planted at Rocky Gully and Denmark during the previous year. The one-year-old trees at Denmark had an average height of 3.6 metres compared with three metres for a tree grown in its usual place of origin.

## The Year Ahead

### Introducing treejacking

One of the challenges facing the Commission is to continue to develop harvesting methods and, during the year, treejacking was introduced to help achieve this. Treejacking involves felling trees 180 degrees against their lean using special hydraulic jacks. Trials have shown that treejacking can increase the coupe utilisation and environmental protection, enabling falling of trees that would otherwise be left standing or risk falling into sensitive reserve areas. The process also has safety advantages as well as benefits for fire control and silviculture.

The Commission bought two jacks and trained two staff in the first stage of introducing treejacking into Western Australia. The Commission demonstrated the use of the equipment to its harvesting contractors in the Manjimup area in December.

### Safer felling

Tree harvesters are a safer way of felling trees and are being used increasingly in plantation areas and native forest. The Commission brought an assessor to Western Australia in December and 30 contractor staff were certified as meeting the National Australian Standards to operate tree harvester machines.

### WA selected for new research project

The Commission's worldwide reputation as a leader in improving the genetics of *Pinus radiata* has resulted in Canadian forest biotechnology company, CellFor, selecting Western Australia to test its new tissue culture technology.

The technology, which involves a sophisticated propagation and freezing process, opens new opportunities for *P. radiata* and has the potential to greatly improve the profitability and productivity of plantations. It would mean a greater supply of wood with more desirable characteristics such as straight grain, consistent size, increased wood fibre and superior overall quality.

Trial plantings will be established at Jarrahwood, near Busselton, next year.



*Commission Technical Officer, Natalie Broadbent, transferring seedlings from CellFor.*

*In the year ahead the Commission expects to:*

- *Gear up harvesting contracts and finalise logging plans to supply the proposed new laminated veneer lumber plant as soon as it is built.*
- *Develop opportunities for marketing surplus industrial wood from Albany and Bunbury.*
- *Develop contracts for the Pemberton sawmill to maintain or increase employment levels through value adding opportunities.*
- *Develop contracts, from some or all of the 10 industry proposals for the future use of jarrah sawlogs, that will lead to new processing industries in the South-West.*
- *Increase the proportion of sawlog sales constituted by bole sawlogs and third grade sawlogs.*
- *Increase prospects for the marri furniture industry through the development of new markets for marri residues.*