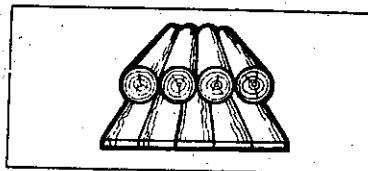
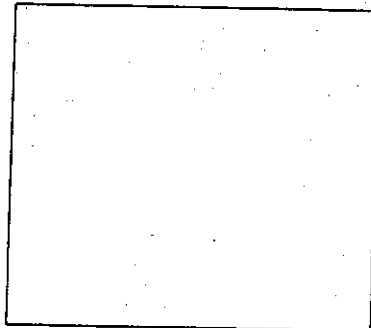


Department of Conservation and Land Management, W.A.

SMALL EUCALYPT PROCESSING STUDY



A Public Interest Project



Manager: Phil Shedley



AIM

Establish techniques and develop equipment to process small eucalypt regrowth logs in a commercially viable manner, particularly with a view to use in high quality furniture.

OBJECTIVES

1. Sawmilling

Establish techniques for avoiding loss of wood quality and for the recovery of maximum volume and value of timber.

2. Seasoning

Establish techniques for drying timber with a minimum of degrade and develop commercially viable equipment to operate those techniques.

3. Product Development and Marketing

Target suitable markets for regrowth eucalypt wood and develop processes for meeting the needs of those markets.

4. Use of Residues

Improve the use of the residues which result from wood processing.

STRATEGIES

1. Sawmilling

- 1.1 Interface with tree growers to keep them in touch with consumers' needs.
- 1.2 Develop an objective log grading system.
- 1.3 Establish optimum techniques for protecting wood quality of the log resource prior to processing.
- 1.4 Study techniques of log conversion best suited to converting regrowth eucalypts to high value timber.
- 1.5 Study the wood destroying organisms which are of commercial significance in reducing the value of timber from regrowth eucalypts.

2. Seasoning

- 2.1 Assist in the validation of the Australian Timber Research Institute's models by collecting relevant data on W.A. species.
- 2.2 Develop efficient initial curing schedules and commercial equipment which will allow subsequent defect-free drying to be carried out.
- 2.3 Establish efficient schedules and develop commercial equipment for drying timber from regrowth eucalypts.

3. Product Development and Marketing

- 3.1 Develop a computer model, depicting all sectors of the forest products industry, which will facilitate efficient management of the forest resource.
- 3.2 Describe timber markets in volume and value terms.
- 3.3 Identify target markets with needs which could be supplied by timber from regrowth eucalypt.
- 3.4 Develop processes to meet the needs of the target markets.
- 3.5 Co-operate with processors and manufacturers to expand potentially valuable markets.
- 3.6 Quantify the physical properties of regrowth eucalypt wood.

4. Residues

- 4.1 Identify the residue types and quantities.
- 4.2 Analyse established and potential markets.
- 4.3 Test the suitability of regrowth eucalypt residues for potential markets.

RESEARCH AND DEVELOPMENT PROGRAMS

	Principal Researcher	Estimated Completion
1. Sawmilling		
Harvesting trial	Gary Brennan	Complete
Debarking review	Amalgamated Mining	Complete
Stockpile trials	Gary Brennan	1989
Sawing patterns	Kevin White	1989
Saw technology	Kevin White	1989
Wood corrosion	W.T. & F.R.D.	1988
Objective log grading	Cecil Scott	1989
Brownwood in karri	Elaine Davison	1990 +
Lycus	Gary Brennan	1989
Veneer slicing	Graeme Siemon	1989
2. Seasoning		
Protection and curing	Gary Brennan	1989
Drying green to fibre saturation point (f.s.p)		
Tunnel kilns	Trevor McDonald	Deferred
Batch kiln	Gary Brennan	1990 +
Development of prototype dryer	Trevor McDonald	1988
Dry f.s.p. to equilibrium moisture content (e.m.c.)		
Collapse recovery	Allan Thomson	1989
High temperature	Allan Thomson	1989
Monitoring moisture content during drying		
Ultrasonics	U.W.A.	1989
Drying round timber		
Kerfing karri poles	Des Donnelly	1988
Presurfacing		Deferred
Hot water pre-drying treatment		Deferred
3. Product Development and Marketing		
GUMTREE model	Diane Gibson	1989
Furniture market survey	Don Challis	1988
General timber market survey	Don Challis	1988
Edge jointed panel processing	Peter Newby	1989
Strength testing - sawn and round	Graeme Siemon	1988
Durability testing	C.S.I.R.O.	1990 +
In-line moisture testing device (Sirograder)	C.S.I.R.O.	1989
Hand held moisture meter for furniture	Aranda & Assoc.	1989
Permeability testing	Graeme Siemon	1988
4. Use of Residues		
Firewood drying trials	Allan Thomson	1988
Pulping properties	C.S.I.R.O.	1988
Market surveys and analysis	Don Challis	1988

ITINERY FOR VISIT TO HARVEY

THURSDAY 12 MAY 1988

10.00	MORNING TEA
10.30	WELCOME BY PETER HEWETT, DIRECTOR OF FORESTS VIDEO PRESENTATION (15 MIN.)
11.00	TOUR OF WOOD UTILISATION RESEARCH CENTRE FACILITIES (FIVE CONDUCTED PARTIES)
12.00	INTRODUCTION OF HON MINISTER BY SYD SHEA, EXECUTIVE DIRECTOR. COMMISSIONING OF NEW RESEARCH PROGRAM BY HON MINISTER, BARRY HODGE
12.30	LUNCH

SUMMARY OF RESOURCES

Funds

July 1986 - June 1990

Staff	\$1 915 000	
Construction	\$1 245 000	
Materials and Contract	\$1 471 000	
Total		\$4 631 000

Staff

Salaried	14 persons
Wages	6 persons
