



PRIVATE FORESTS TASMANIA

Tasmania



# Tasmanian Market Information Update for Farm Forestry



*Pricing, Stumpage, Market Analysis*

Number 1, January 2001



Natural  
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Helping Australia*

### **Acknowledgments**

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### **Disclaimer**

Although great care has been taken to ensure accuracy and completeness in this publication, no legal responsibility can be accepted by Private Forests Tasmania and URS Forestry for the information and opinions expressed within.

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# APPROACH

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The ***Farm Forestry Marketing and Financial Management Project*** is being developed by Private Forests Tasmania (PFT), with Natural Heritage Trust (NHT) funding, to provide practical, credible and commercially based information for growers and investors interested in farm forestry.

The project focuses on providing information on forest product prices and costs in Tasmania. The information should give private forest owners an insight into the current value of forest products from private property. The intention is for private forest owners to have access to sufficient market information to enable them to maximise economic gain in the supply of forest products.

Market prices for forest products, as well as costs associated with forest management, are shown as a range of values. Ranges are the preferred method of presenting indicative prices because of:

- variations in product quality for selected forest products;
- external factors affecting market values, for example cyclical down turns in the building industry; and
- the masking of real market prices that may have been supplied in confidence.

The project aims to provide farm foresters with a broader perspective of international and national trends in log prices. These trends are analysed to see what, if any, influence they may have on Tasmanian log prices. Therefore the reports are presented in three sections. These are:

**International:** To determine international price trends for selected forest products, information about log prices is collected from the United States, South Africa and New Zealand. The information will be charted over time to provide trends for log prices in these countries.

**Australia:** Information on a range of prices for forest products from Australian states, other than South Australia (to be added later), is collected for both hardwood and softwood from the public and private forest sectors. The information will be analysed to provide an indication of trends in domestic log prices.

**Tasmania:** A range of log prices is collected for Tasmania. Forest management costs that will initially include harvesting, roading and cartage costs, will also be provided in greater detail. A model will be provided that allows private forest owners to use indicative Tasmanian costs and prices and then calculate values into the future.

The market information will be provided in a format that will be well suited for use with the Farm Forestry Toolbox, Version 3. The software is available free from PFT (***for details, see – <http://www.privateforests.tas.gov.au>***) and can be installed on most IBM compatible personal computers with a CD-ROM drive. Once installed the package can provide a number of tools for the farm forester, including for example the conversion of all units used in this report into the appropriate units used for local farm forestry management.

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# BACKGROUND

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Private forests cover 14% of the total land area of Tasmania, however they account for almost half the total timber production each year. Private forests are a critical source of wood supply to the timber processing industries, which, combined with forestry, are the second largest manufacturing industry in Tasmania in terms of income generation.

The term private forests incorporates agroforestry and farm forestry, with little or no delineation between them, in the context of growing and managing stands of trees on private land for economic, environmental and social purposes.

The Commonwealth and Tasmanian governments have undertaken a number of initiatives to increase the area, and improve the quality, of private forests in Tasmania. These initiatives place Tasmania at the forefront of private forestry in Australia. The major plantation initiative being undertaken by the Commonwealth is the Plantations for Australia: The 2020 Vision (1997), which aims to create over three million hectares of plantations in Australia by 2020.

The major focus to date has been the development of new plantations on farm land currently used for purposes other than forestry. There are also initiatives being undertaken by the Commonwealth and state governments to develop and improve native forest stands on private land. Farm foresters, especially in Tasmania, are being encouraged to increase wood production from native forest stands that are being maintained as working forests.

A major initiative that has been undertaken by the Commonwealth government has been the completion of the Regional Forest Agreements in most states. These agreements, between the Commonwealth government and those states that own native forests, were developed to ensure there is adequate reserve areas to account for all types of bio-diversity, as well as to give security to forest and forest processing industries.

The Regional Forest Agreements process was initiated as a consequence of the National Forest Policy Statement (1992). Tasmania signed a Regional Forest Agreement in November 1997. This has created new opportunities, including export markets for woodchips and logs from native forests and plantations in Tasmania. With the lifting of Commonwealth export limitations in forest products, the market possibilities for timber from private forests have greatly improved.

One of the funding programs managed by the Commonwealth government for the development of private forests is the Farm Forestry Program, which is part of the Natural Heritage Trust (NHT). As a consequence, Private Forests Tasmania has sought and received funding from this program to undertake the development of a ***Farm Forestry Marketing and Financial Management Project***.

This project is to provide private forest owners with market information that will assist in developing more profitable private forest management. The project has been initially undertaken for private forest owners in Tasmania, however, it has been designed to have the capacity to assist private forest owners in all states in Australia. With limited additional data collection and changes to graphics and analysis in relation to state orientated data, it can be customised relatively easily to provide local information for the benefit of private forest owners in all, or any selected state, in Australia.

The information that will become available through the ***Farm Forestry Marketing and Financial Management Project*** will be an important step towards meeting the 2020 Vision criteria for private forests.

## **Private Forests Tasmania**

Private Forests Tasmania (PFT) is a Tasmanian government authority established under the Private Forests Act, 1994. PFT has a charter to specifically promote, foster and assist the private forest sector in Tasmania to sustainably manage native forests and encourage the expansion of plantations. PFT gives planning and policy advice across all areas of forest management, tree establishment, tree growth, as well as special services including education and information dissemination.

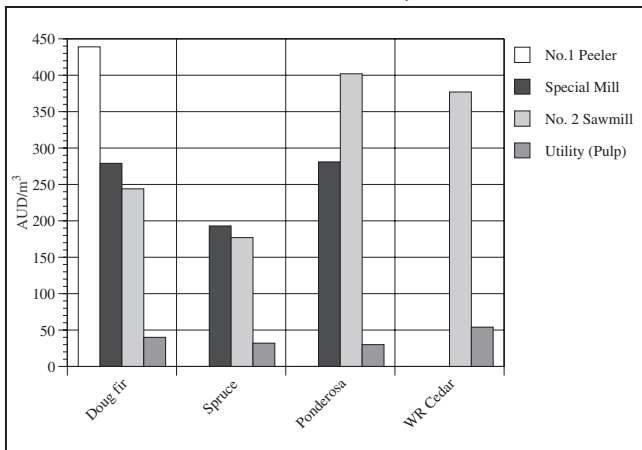
# INTERNATIONAL

## UNITED STATES OF AMERICA

### SOFTWOOD LOG PRICES

This market information service does not yet have access to time series data on US softwood log prices. For immediate reference, current prices have been converted to Australian dollars and are provided below. Given the variables involved in the conversion from thousands of board feet to cubic metres (mbf to m<sup>3</sup> (Box 1)), and the volatile currency exchange rates at present, stumpage prices are indicative only. Four major US softwood species have been selected, they are Douglas Fir, Spruce, Ponderosa and Western Red Cedar.

### US SOFTWOOD STUMPAGE, 2000: AUD/m<sup>3</sup>



Source: ITTO

#### The Tasmanian equivalents of the four selected products are:

<b>USA:</b> No. 1 Peeler	<b>Tasmania:</b> Veneer Quality
Special Mill	1st Grade Sawlog
No. 2 Sawmill	2nd Grade Sawlog
Utility (Pulp)	Pulplog

#### BOX 1. US UNIT CONVERSIONS

The analysis of US wood product trends is complicated by the units used, eg board feet (bf), thousand board feet (*mbf*). It should be noted that in the American lumber market 'm' stands for a thousand. Another complication is the scale of measurements, which varies across regions – *the long-length Scribner scale* is most commonly cited, but there are others. Furthermore, conversion factors for mbf to cubic metres (m<sup>3</sup>) vary greatly with log length, diameter and taper.

However, as examples:

standard factor for conversion of **logs** / Scribner scale:

$$1 \text{ m}^3 = 221 \text{ bdf, or } 4.5 \text{ m}^3 = 1 \text{ mbdf}$$

for full sawn **lumber**:

$$1 \text{ m}^3 = 425 \text{ bdf}$$

Using the conversion for **logs**, and a currency exchange of AUD1.00 = USD0.55

for example:

$$\text{USD}700/\text{mbdf} = \text{AUD}280/\text{m}^3$$

Using the conversion for full sawn **lumber**, and a currency exchange of AUD1.00 = USD0.55 for example:

$$\text{USD}1500/\text{mbf} = \text{AUD}1160/\text{m}^3$$

In North America, **woodchip** prices are usually based on bone dry units (bdu). One bdu is equal to 2400 pounds of bone dry chips, fob vessel

Bone dry metric tonnes (bdmt) are sometimes used in the US (as in graphs shown opposite), and is the standard unit in Australia.

One bdmt is equal to 0.919 bdu.

### THE US ECONOMY

The performance of the US economy has a flow on effect on other economies of the developed world. The Australian economy is not an exception.

In 1999, the US economy grew by 4.1%, with a forecast of 5.0% growth in 2000, but then to fall to only 3.2% growth in 2001. Housing starts in the US have fallen from 1.64 million in 1999, with forecasts of 1.54 million in 2000, and down to 1.5 million in 2001.

However, in 2002, the US economy is forecast to grow by more than 3.5%, with housing starts also increasing to 1.6 million.

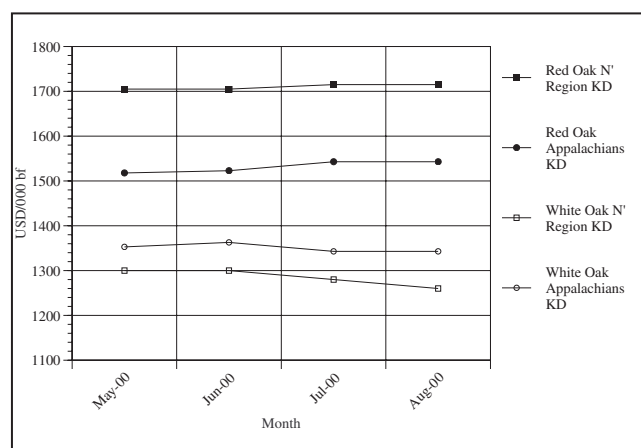
The Australian economy has been forecast to slow slightly during 2001 and 2002, with a forecast recovery in economic activity in 2003.

### HARDWOOD LUMBER

Time series data on US prices for hardwood lumber is available. Given the fluctuations in exchange rates, particularly in recent months, and the other variables identified in Box 1, price trends provided below are presented in USD per mbf.

Over the short period between May and Aug 2000, there were small variations in prices mostly associated with species rather than areas. There were slight falls in the price of White Oak lumber and small increases in Red Oak and Cherry.

### US PRICES FOR HARDWOOD KILN DRIED LUMBER EX SAWMILL: MAY'00 – AUG'00 (USD/000 bdf)



Source: ITTO KD = Kiln Dried

### CONCLUSION

- Log prices in the USA vary with species and grades.
- The trend in log prices in the USA has been that higher value logs have shown a very slight increase during the recent period when the economy has been strong.
- Lower value logs have not responded in the same way to the strong economy.
- While this is unlikely to have an impact on Australian log prices, it does indicate that prices for higher quality logs will move in step with economic growth.

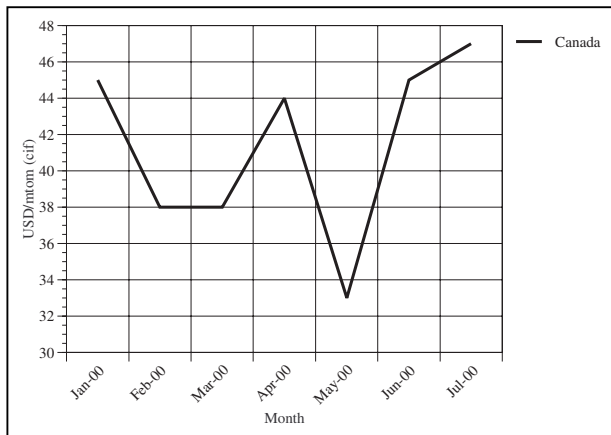
# INTERNATIONAL

## WOODCHIP PRICES IN THE USA

The prices for hardwood and softwood woodchip imports in recent months are charted below.

Imports of hardwood woodchips from Canada account for 95% of total hardwood woodchip imports to the US during the first half of 2000. The price (cif) for Canadian hardwood woodchip imports fluctuated due to local circumstances, but have trended upwards slightly during this period.

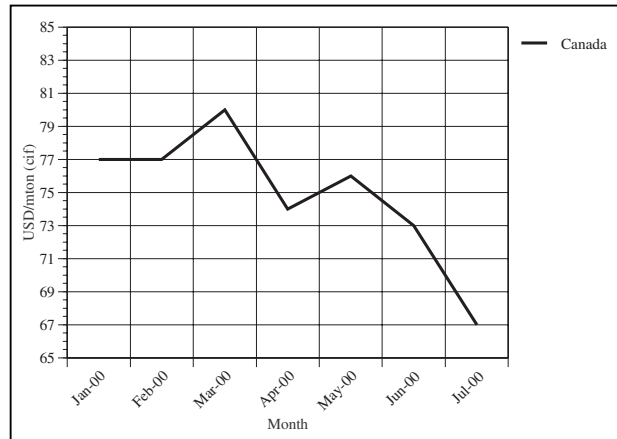
### US IMPORT PRICES HARDWOOD WOODCHIPS FROM CANADA: USD/TON (cif)



Source: Paperloop

Softwood woodchip import prices (cif) from Canada have trended downwards, with a substantial fall in June-July this year, possibly due to high stock levels entering the summer holiday period in the Northern Hemisphere. Canada supplies 99% of softwood woodchip imports into the USA.

### US IMPORT PRICES FOR SOFTWOOD WOODCHIPS FROM CANADA: USD/TON (cif)



Source: Paperloop

## CONCLUSION

- Woodchip import prices into the USA have shown some volatility during the first half of 2000, most likely due to local circumstances such as holiday periods and stock levels.
- Inventory levels have been high, which reduces both current and future prices (cif).
- Softwood is the preferred fibre in the US and the two charts above show that there has been a convergence between the softwood and hardwood prices.
- The US price movements have not yet been reflected in long term supply contracts being written in Australia.

### TERMS OF TRADE IN THE SALE OF LOGS

There are various abbreviated terms that are used to better define the price quoted by a vendor for the sale of logs or timber products. To clearly define what processing or shipping of logs and lumber the vendors price includes, and therefore at what stage the merchandise changes ownership the following terms are used:

*Stumpage* - the price of the log on the stump before any harvesting or cartage occurs.

*Mill Gate* - the price of logs at the purchasing mill's gate, price will include stumpage, harvesting and cartage costs.

*fas (free along side)* - the price of logs along side a ship ready for loading and shipping, the price includes stumpage, harvesting, cartage and any preparation the logs may require before loading.

*fob (free on board)* - the price will include all activities included in 'fas' but will also include loading and stevedoring charges where applicable.

*cif (cost including freight)* - the price will include the same activities included in 'fob' but will also include the cost of shipping to the destination port up to the stage before the merchandise is unloaded.

## SOUTH AFRICA

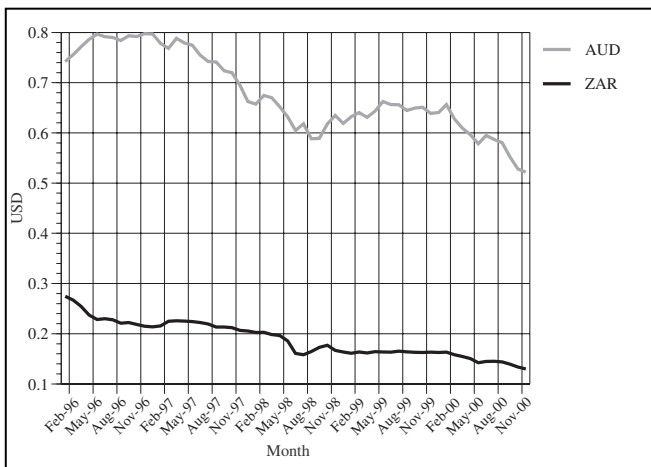
South African plantations are principally managed for the production of sawlogs and mining timbers. Mine posts and poles are grown through to 28 years of age, while pulp logs are thinned as a secondary product at 10 years. The major hardwood species are *Eucalyptus grandis* (Flood gum), *E. nitens* (Shining gum) and *E. maculata* (Spotted gum). The main softwood species are *Pinus elliottii* (Slash pine) and *P. patula* (Patula pine). There is little *P. radiata* (Radiata pine) grown due to the predominantly summer rainfall.

Building trends in South Africa have little influence on stumpage rates or lumber prices since most houses in the country are built of brick or wattle and mud.

Low labour costs allow trees to be high pruned to produce better quality sawlogs. There is a small sliced veneer industry with exports focused on a niche market in the USA.

Both hardwood and softwood prices in South Africa have been affected by the deteriorating local economy. Export prices have remained reasonably constant in US dollars, however, have escalated when converted into the domestic currency (South African Rand (ZAR)). The South African timber industry has been dependent on relatively small wood lots with less infrastructure than world scale resources would normally require. To assist South Africa achieve world scale efficiencies, the government has recently initiated large-scale plantation development with plans for new areas to be planted reaching up to 20,000 ha.

### ZAR AND AUD EXCHANGE RATES AGAINST THE USD: FEB'96 – NOV'00



Source: Uni of BC

### SOUTH AFRICAN CURRENCY

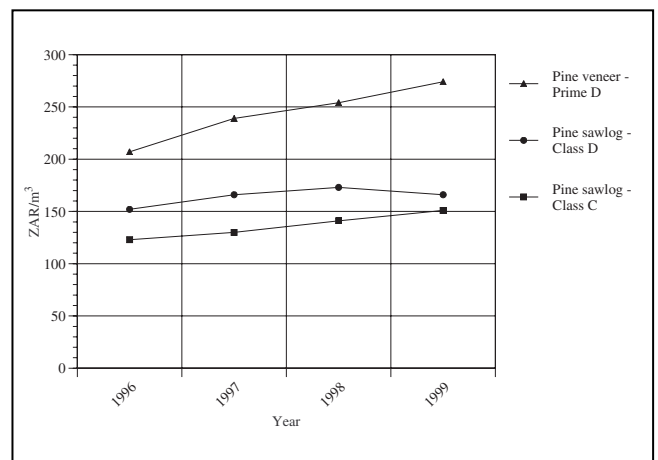
While the Australian dollar has weakened against the US dollar only fairly recently, the SA Rand (ZAR) has been weakening for a number of years. The impact, however, has been greater on the Australian currency in the short term.

The exchange rate between the Rand and Australian dollar and was about AUD1=R4 at the end of 2000.

### SOFTWOOD

The prices of South African pine sawlogs and veneer logs have risen in terms of the local currency. In South Africa a Class D pine sawlog is the top quality with sed >340 mm and 1.8m to 6.8m in length.

### SOUTH AFRICAN SOFTWOOD SAWLOG & VENEER PRICES AT ROADSIDE: 1996 – 1999 (ZAR/m<sup>3</sup>)



Source: Ausnewz

The above chart illustrates that the price for higher quality logs continues to increase overtime. Recently, however, sawlog prices for 1st and 2nd grade sawlogs have started to converge. Softwood veneer prices have climbed by 35% over four years. This would be expected for value adding products in a niche market.

# INTERNATIONAL

## SOUTH AFRICAN DOMESTIC LOG GRADES

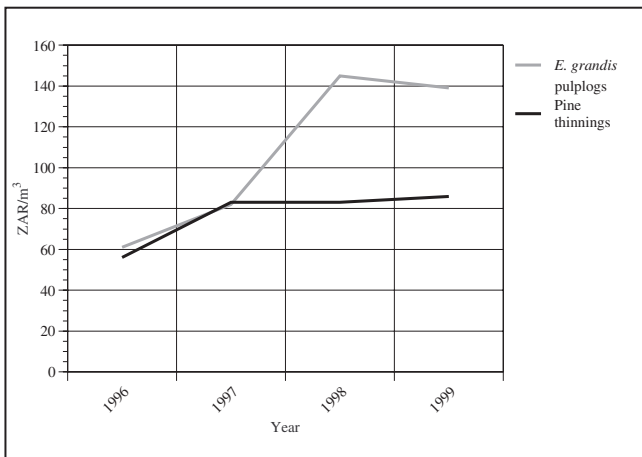
Softwood	SED (mm)	Length (m)
S	<130	2.2-2.4
A	130-179	1.8-3.3
B	180-259	1.8-6.6
C	260-339	1.8-6.7
D	>340	1.8-6.8
Hardwood		
S	<130	2.2
A	130-179	2.4
1A	180-299	2.4
1B	>300	2.4
Poles	120-199	5.0-15.0

Source: Ausnewz

## PULPLOGS

For a period leading up to 1997, hardwood and softwood pulplogs were of a comparable value. However, since then hardwood pulplogs have increased by approximately 75% in value, while the price of softwood pulplogs has remained almost static.

## SOUTH AFRICAN PULPLOG PRICES AT ROADSIDE: 1996 – 1999 (ZAR/m<sup>3</sup>)



Source: Ausnewz

## CONCLUSION

- A weak currency and a poorly performing domestic economy have depressed the log market in South Africa.
- While the South African log market has shown some volatility over a short period, it is not expected to influence Tasmanian prices since the domestic markets remain isolated.
- The weakening economy and currency in South Africa have increased the export log prices.

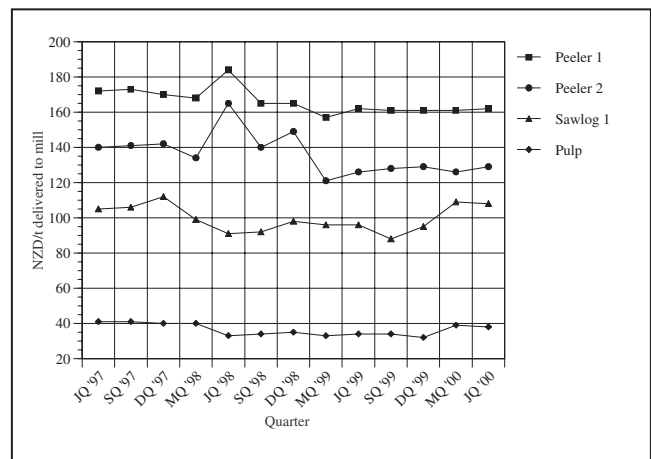
## NEW ZEALAND

New Zealand log price movements over the past three years are presented in the charts and tables below. Prices have fluctuated in both domestic and export markets over the past three years, but within a relatively small range.

### DOMESTIC LOG GRADES

Returns to small growers may be lower than those recorded since larger forest growers are in a stronger negotiating position to maintain better prices when the economy is slowing. The prices are drawn from Ministry of Agriculture and Forests' historical data and are indicative only.

### NZ DOMESTIC LOG PRICES: NZD/t DELIVERED TO MILL: JQ'97 – JQ'00 (NZD/t)



Source: NZ MAF

### NZ DOMESTIC LOG GRADES

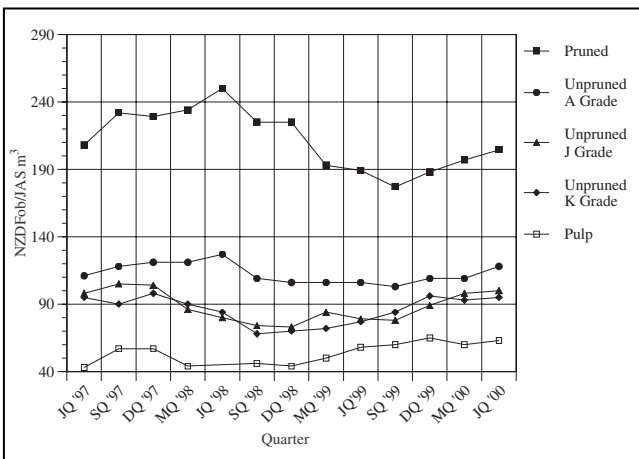
Log Grade	Log Status	sed * (mm)	Max. knot size (mm)
Peeler P1	Pruned	400	
Peeler P2	Pruned	300 – 399	
Sawlog S1	Unpruned	400	6
Sawlog S2	Unpruned	300 – 399	6
Sawlog S3	Pruned or Unpruned	200 – 299	6
Residual L1	Unpruned	400	14
Residual L2	Unpruned	300 – 399	14

Source: NZ MAF \*sed = small end diameter

## NZ EXPORT LOG GRADES

New Zealand export prices for pruned logs came off a high of NZD250/m<sup>3</sup> in the June quarter 1998 falling to a low of NZD175/m<sup>3</sup> in the September quarter 1999. They have since recovered to over NZD200/m<sup>3</sup>. Prices of unpruned export logs for Japan and Korea have been volatile, but have shown no significant trend since June quarter 1997. Softwood pulp export prices have trended upwards slowly over the last three years.

## NZ LOG EXPORT PRICES: JQ'97 – JQ'00 (NZDFOB/JASm<sup>3</sup>)



Source: NZ MAF

The New Zealand dollar has been depreciating against the US dollar faster than the Australian dollar. The exchange rate was AUD1 = NZD1.28 at the end of 2000.

## NZ EXPORT LOG GRADES

Log Grade	sed (mm)	Maximum knot size (mm)	Length (m)
Pruned Peellers	300+		4.0
			6.0
Japan A	200 – 340	d/3 up to 150 mm max Excessive no. large knots not permitted	4.0
			8.0
			12.0
Japan J	200 - 260	d/3 up to 150 mm max Excessive no. large knots not permitted	4.0
			8.0
			12.0
Korea K	200 - 260	d/3 up to 150 mm max Excessive no. large knots not permitted	3.0
			5.0
			7.0
			11.0
			12.0
Pulp (Japan)	100+	No Limit	4.0
			6.0
			8.0

Source: NZ MAF Note: d = small end diameter. For export grades, small end diameter is measured at the wharf under the Japanese Agricultural Standard (JAS) convention, ie, rounded down to the nearest two-centimetre interval.

## CONCLUSION

- In 2000, New Zealand is harvesting approximately 20 million cubic metres per annum of softwood with approximately 5 million cubic metres being exported.
- Traditionally New Zealand export markets have been mostly Korea, and to a lesser extent, Japan.
- In 2000, export prices to Korea and Japan are weakening with no sign of strong recovery in the short term.
- It should be noted that New Zealand will be Tasmania's main competition in the softwood export market.

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# AUSTRALIA

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## BACKGROUND

In Australia, the forest products processing industry has historically been based on state owned native forest and plantation resources. State ownership and funding enabled sufficient areas of timber resources to be developed which, it was hoped, would be enough to reduce the strong dependence Australia has had on imported timbers. Australia is still dependent on imported timbers, but state governments are now reducing their active participation in forest management and are encouraging increased investments by domestic and international companies.

Notwithstanding the historical shortage of wood, state forest agencies have in the past successfully attracted forest product processing industries to their respective states through the management of log prices. However, even though there is a continuing shortage of logs, private forest growers remain generally 'price takers'. The dominance of supply by state agencies, and now multi-national forest managers, enables these companies and forest agencies to set forest product prices through economies of scale.

## STUMPAGE PRICES

The stumpage price offered by a processing mill to a private forest owner will be influenced by a number of factors. Examples are:

- Victoria was the first state to privatise its softwood forest assets. In the future plantation resources in other states will increasingly be managed or purchased by local or international interests. Large companies that own and/or manage forests are more inclined to abide by market prices for the sale of logs, rather than set log prices by policy.
- Harvesting costs are influenced by many factors including the type of forest being harvested, species, type of harvesting equipment, terrain and, most importantly, the quality of logs being harvested. Generally, the harvesting of high quality sawlogs will be more expensive than the harvesting of residual sawlogs, which in turn will be more expensive than the harvesting of pulplogs. If harvesting costs are high then the processing mill may wish to negotiate a reduction in stumpage rates.

- Roading costs in state forests vary considerably between states. In Western Australia many of the forest roads are used only for forest management and harvesting, while in New South Wales the roads are more accessible to the public. In all states, many forest roads are maintained sufficiently for fire fighting, but have to be upgraded and maintained when harvesting operations occur. The common feature, whether the roads and forests are under public or private ownership, is that the income for the logs taken from the forests should be sufficient to cover at least the maintenance of the roads, if not their construction. The costs of road construction and maintenance to private forest owners should also be a factor in determining stumpages. Either stumpages are sufficient to cover roading costs on private land or state forests or there will be reduction in profits.
- Cart distances between forests and mills vary considerably between regions. In some, the average cart distance can be more than 250 kms, while other regions an average cart distance may be less than 60kms. Longer cart distances will invariably place pressure to reduce stumpage rates. State agencies are often in a position to negotiate reduced stumpages for longer cart distances, then often these lower rates are used by processing mills to negotiate equivalent reduced stumpage rates from private forest owners.

The table on the opposite page presents price ranges for selected Australian log products.

## AUSTRALIAN STUMPAGE RANGES, 2000 (AUD)

Softwood	Sawlog veneer \$/m <sup>3</sup>		Sawlog prime \$/m <sup>3</sup>		Sawlog residual \$/m <sup>3</sup>		Pulp standard \$/t	
	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper
NSW	50	80	40	60	5	15	1	12
QLD	75	90	50	70	10	15	3	10
VIC	75	85	70	80	20	30	3	10
WA	50	75	50	65	20	30	5	10
TAS	50	85	40	75	20	30	5	10
<b>Hardwood</b>								
NSW	60	110	30	90	8	17	5	18
QLD			50	70	15	25	5	10
VIC	70	90	50	70	15	25	5	12
WA	50	70	45	65	15	30	6	18
TAS	35	70	25	40	15	25	5	15

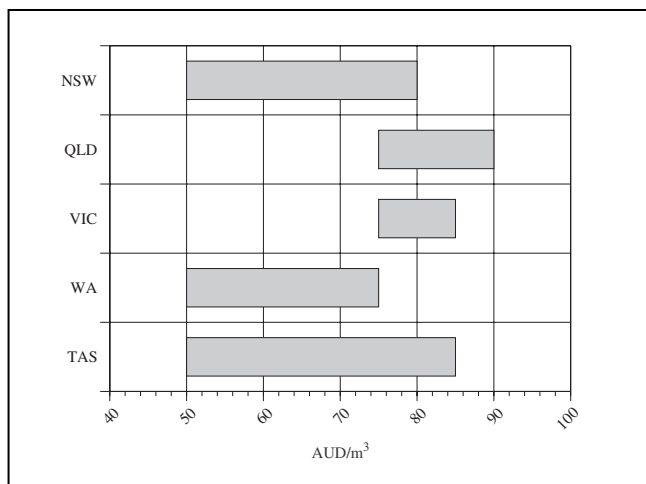
Source: Ausnewz

Based on the above price ranges, indicative examples are shown in the following charts that graphically illustrate the variability of prices for softwood veneer logs and hardwood prime sawlogs.

### It is important to note that:

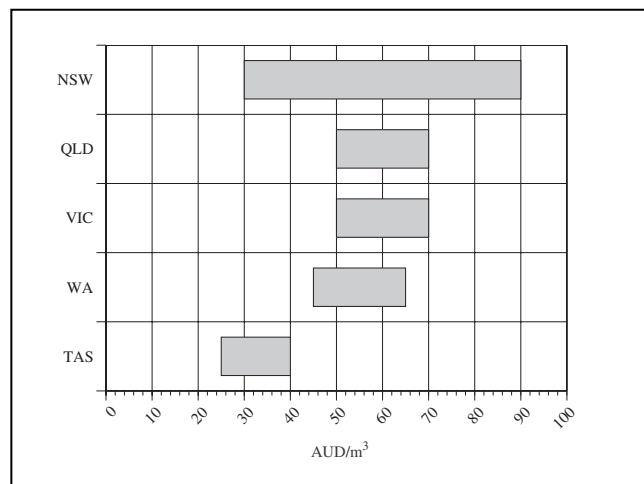
- a comparison of price ranges for 'similar products' between states is not a true comparison, since even though the logs may be categorised the same – their grading, quality, species etc may differ greatly between states;
- pulpwood stumpage varies between thinnings and clearfall reflecting the percentage of fibre in the logs, and
- some special species may command higher prices depending on local conditions.

### SOFTWOOD VENEER STUMPAGE RANGES, 2000: (AUD/m<sup>3</sup>)



Source: Ausnewz

### HARDWOOD PRIME SAWLOG STUMPAGE RANGES, 2000: (AUD/m<sup>3</sup>)



Source: Ausnewz

# AUSTRALIA

## ESTIMATED VOLUMES BY STATE AND SECTOR

The following table and charts provide estimated volumes for logs harvested by state and by forest sector for all Australian states except for South Australia where data is not available but should be added in future reports.

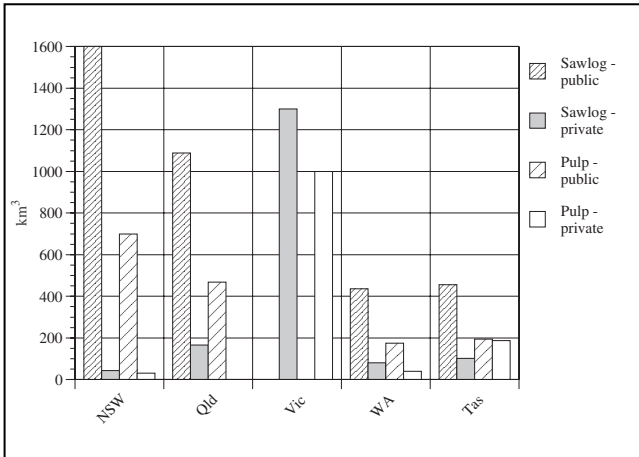
In most states, both hardwood and softwood production from private forests is considerably less than from public forests, but it is growing in importance. The major exceptions are Victoria where the government has already sold all the public softwood assets to the private sector and Tasmania where the public softwood assets have been placed in a joint venture between Forestry Tasmania and GMO Resources. In New South Wales, the state government has created a new division titled 'Office for Private Forests'. The intention is to improve upon the low levels of production from private forests in NSW and to create a focal centre for support for private forest growers within the government. The hardwood sawlog market in Queensland is already heavily reliant on production from private forests.

### ESTIMATED HARDWOOD & SOFTWOOD PRODUCTION BY STATE & SECTOR: 1999/00

Type	Product	Sector	NSW	Qld	Vic	WA	Tas
<b>Softwood</b>	Sawlog (000m <sup>3</sup> )	Public	1600*	1088	na	436	455
	Sawlog (000m <sup>3</sup> )	Private	43	166	1 300*	80	102
	Pulp (000t)	Public	700*	468	na	175	195
	Pulp (000t)	Private	30	na	1 000*	40	188
<b>Hardwood</b>	Sawlog (000m <sup>3</sup> )	Public	662	167	1000	590	400
	Sawlog (000m <sup>3</sup> )	Private	102	244	na	10	250
	Pulp (000t)	Public	398	na	600	525	1800
	Pulp (000t)	Private	na	na	na	30	3000

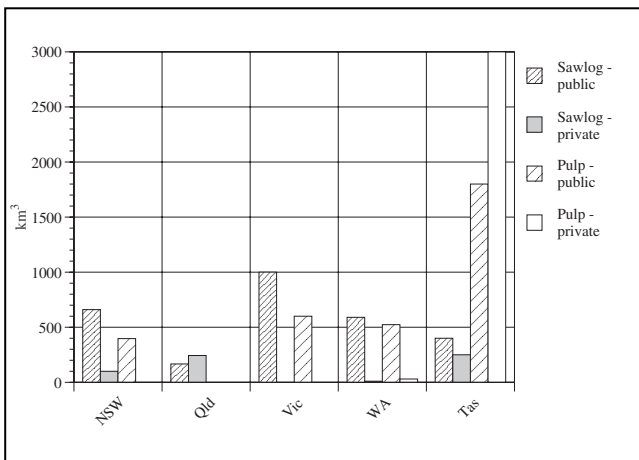
Source: Ausnewz Note: \* = Ausnewz estimate

## ESTIMATED VOLUMES OF SOFTWOOD FOR HARVESTING: 1999/00 (000m<sup>3</sup>)



Source: Ausnewz

## ESTIMATED VOLUMES OF HARDWOOD FOR HARVESTING: 1999/00 (000m<sup>3</sup>)



Source: Ausnewz

## CONCLUSION

- The above charts show that most of the log volume harvested is drawn from public forests. Private forests in Queensland are providing a substantial contribution to hardwood sawlog supply, and in Tasmania private forests provide a substantial quantity of both hardwood and softwood sawlogs and pulp logs.
- Victoria has no softwood resource left under public ownership.

# TASMANIA

## BACKGROUND

The wood and paper product industry is the second largest manufacturing industry in Tasmania, after food and beverage manufacturing, in terms of both turnover and industry value adding. Historically, the Tasmanian government has given support to both the management of state owned forests through the stewardship of Forestry Tasmania (FT), and to the private forests sector through Private Forests Tasmania (PFT).

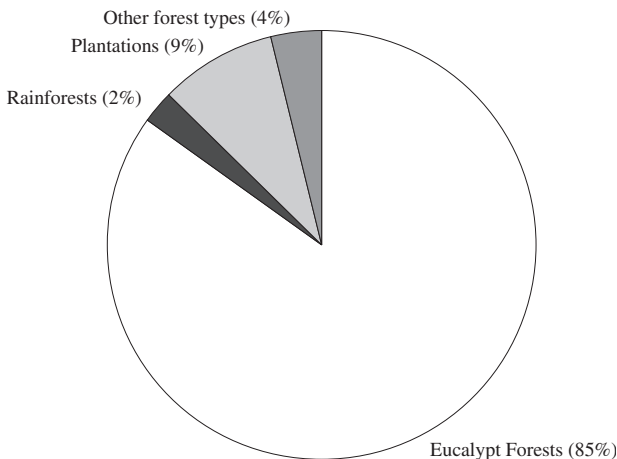
PFT has sought and received funding from the Federal Government under the Natural Heritage Trust, in support of the Plantations for Australia: 2020 Vision, to develop and provide a Farm Forestry Market Intelligence Service. This service is intended to provide private forest growers with the necessary market intelligence to enable them to manage their forest stands profitably in the production of high value products.

Forests on private land in Tasmania cover more than 1 million hectares, or approximately 15% of the total land area of the state. These forests are managed for uses that include wood production, soil, water and vegetation conservation, and crop and livestock shelter.

### Private forests in Tasmania consist of:

- 873,000 ha of low and tall eucalypt forests
- 25,000 ha of rainforests
- 91,000 ha of plantations
- 39,000 ha of other forest types

## PRIVATE FORESTS LAND COVER IN TASMANIA BY PERCENT



Source: Private Forests Tasmania

## STUMPAGES

FT has historically dominated the sales of sawlogs in Tasmania. As a consequence FT's stumpage rates are taken as benchmarks for the setting of sawlog and pulp log stumpages for the industry. It is currently in the process of renewing 'administered supply' contracts and is negotiating a 10% immediate increase in the price of sawlogs in exchange for 15 years security of supply. Sawmillers will also be subject to an automatic 3% increase for the next three years and 2% for the following 11 years.

Historically, the term Royalty applied to the payment for logs taken off Crown land, which would have been applicable to log sales undertaken by the previous Forestry Commission. The term Stumpage has always applied to the income generated by the sale of logs from private land. Since the Forestry Commission became Forestry Tasmania there has been a corporate decision taken to replace the term Royalty with Stumpage for all sales from Crown land.

The following table lists current stumpage rates, before any proposed increases that are under negotiations, for Tasmanian hardwood and softwood logs.

## STUMPAGE/ROYALTY RATES IN TASMANIA, 2000 (AUD)

Product	Hardwood	Softwood	Special Species
Veneer	35-70	50-85	55-70
Sawlog Prime	25-40	40-75	55-70
Sawlog Residual *	15-25	20-30	25-40
Non Sawlog **	na	na	10-20
Pulp	5-15	5-10	na
Poles and Posts	55-70	55-70	

Source: Forestry Tasmania and Private Forests Tasmania

\* Residual log for Special Species is referred to as a 'Utility log'.

\*\* Special Species logs that do not qualify as any type of sawlog, but are above pulp specifications, will be sold as 'Craftwood'.

## MOST FREQUENT TIMBER SPECIES IN TASMANIA BY WOOD TYPE

Classification	Botanical Name	Common Name
Hardwood	<i>Eucalyptus delegatensis</i>	Gum-Stringybark, White Top
	<i>Eucalyptus globulus</i>	Southern Bluegum
	<i>Eucalyptus obliqua</i>	Brownto Stringybark
	<i>Eucalyptus regnans</i>	Swamp Gum (Southern Tas) Stringy Gum (Northern Tas)
	<i>Eucalyptus sieberi</i>	Ironbark
Softwood	<i>Eucalyptus viminalis</i>	White Gum
	<i>Pinus radiata</i>	Radiata Pine
	<i>Acacia dealbata</i>	Silver Wattle
	<i>Acacia melanoxylon</i>	Blackwood
	<i>Atherosperma moschatum</i>	Sassafras
Special Species	<i>Nothofagus cunninghamii</i>	Myrtle
	<i>Phyllocladus aspleniifolius</i>	Celery Top Pine

Source: Forestry Tasmania & Private Forests Tasmania

Note: King Billy Pine and Huon Pine have not been included in the above table as they are a scarce resource and are only available off Crown land and require special permits.

## LOG SPECIFICATION

To ensure a standard for specifying log quality is adhered to, all logs taken from public and private forests in Tasmania are categorised by the definitions set out in the Forestry Tasmania Log Specification Handbook. The handbook defines the specifications for veneer logs (VQ1 & VQ2), sawlogs (Category 1, 2, and 3), Special Species sawlogs (Category 4), Power poles and Pulpwood. The table below lists specifications for Categories 1, 2 and 3 sawlogs.

### TASMANIAN SAWLOG SPECIFICATIONS

	Cat 1 (mature)	Cat 2	Cat 3 (regrowth)
<b>Min length</b>	3.6 metres	2.4 metres	3.6 metres
<b>Min diameter</b>	40 cm	30 cm	30 cm
<b>Limbs and Bumps</b>	≤ one significant bump per 3.0m log length	≤ two significant bumps per 2.4m log length	≤ one significant bump per 3.0m log length
<b>Spiral Grain</b>	≤ 25cm of twist per 2.0m log length	≤ 25cm of twist per 2.0m log length	≤ 25cm of twist per 2.0m log length
<b>Scars</b>	Total length of scar(s) ≤ 2m per 3.6m of log length	Total length of scar(s) ≤ log length	Total length of scar(s) ≤ 2m per 3.6m of log length
<b>Sweep</b>	≤ 1/7 of mid diameter under bark in any 2.4m log length	≤ 1/7 of mid diameter under bark in any 2.4m log length	≤ 1/7 of mid diameter under bark in any 2.4m log length
<b>Split logs</b>	Min length 3.6m Min Flitch 40cm x 30cm	Min length 2.4m Min Flitch 30cm x 30cm	Min length 3.6m Min Flitch 40cm x 30cm
<b>Suncracks</b>	≤ 10% of diameter	Not more than 10% of diameter	≤ 10% of diameter
<b>Overcut</b>	10cm if log ≤ 5.4m 20cm if log > 5.4m	10cm if log ≤ 5.4m 20cm if log > 5.4m	10cm if log ≤ 5.4m 20cm if log > 5.4m

Source: Forestry Tasmania & Private Forests Tasmania

# TASMANIA

## PREFERRED SPECIES FOR TREATED POLE PRODUCTION

Preferred Species	Comments
<i>Eucalyptus delegatensis</i>	
<i>Eucalyptus globulus</i>	Plantation material not suitable. Native forest resource good for piling.
<i>Eucalyptus nitens</i>	Plantation material good for pilings. Limited by cavities due to not self pruning.
<i>Eucalyptus obliqua</i>	
<i>Eucalyptus regnans</i>	
<i>Eucalyptus sieberi</i>	Preferred for railway sleepers
<i>Eucalyptus viminalis</i>	Wide sap required

Source: Koppers Timber Preservation Pty Ltd

## METHODS OF SALE

There are four basic methods used for the sale of logs in Tasmania. They are:

- i. On the Stump. Logs are sold standing with all harvesting and cartage costs paid by the purchaser.
- ii. Road Side. The forest owner pays for all harvesting operations and expects the log price to cover stumpage, harvesting and often some roading costs. The logs are stored at forest roadside. The processing mill pays for loading and cartage.
- iii. Mill Gate. The forest owner pays for harvesting and cartage of logs to the processing mill and expects the log price to compensate him for stumpage, harvesting and cartage costs.
- iv. Sale by Tender. A forest owner may elect to undertake a harvesting operation and to sell the logs by tender. This method is most likely to be used for the sale of Special Species (Myrtle, Sassafras, Blackwood, etc) or high quality eucalypt logs. The tender process may either be by Contract Tender submitted prior to harvesting (and may include harvesting), or by a Spot Tender once the logs have been cut. Under a sale by tender the cartage costs are usually the responsibility of the processing mill.

## HARVESTING COSTS

With very few exceptions, all commercial harvesting operations require a Forest Practices Plan to be completed and approved by an appropriate authority. In certain municipalities there may be a requirement for a Development Application if the private forest has not been designated a Private Timber Reserve. Other requirements, including Occupational Health and Safety and Fire Protection procedures, must be complied with as required.

Harvesting costs can be influenced by a number of factors and may vary considerably across forest types and terrain. The table below provides indicative harvesting costs, however, costs will increase if cable logging is necessary.

### TASMANIAN HARVESTING COSTS

Resource	Harvesting Costs
Native Forest	Veneer logs \$16-\$20/m <sup>3</sup>
	Sawlogs \$16-\$20/m <sup>3</sup>
	Pulp logs \$13-\$17/t
Hardwood Plantation	Thinning \$22-\$30/t
	Clearfall \$18-\$20/m <sup>3</sup>
Softwood Plantation	Thinning \$15-\$17/t
	Clearfall \$12-\$15/m <sup>3</sup>

Source: Forestry Tasmania and Private Forests Tasmania

## CARTAGE COSTS

Cartage costs consist of a flag fall for loading and then set rates dependent on haul distance. In addition, a road toll may be imposed where the road construction or maintenance is not included in the stumpage or royalty. These tolls are between \$4/t and \$7/t.

The following table lists indicative cartage rates.

### TASMANIAN CARTAGE RATES (AUD)

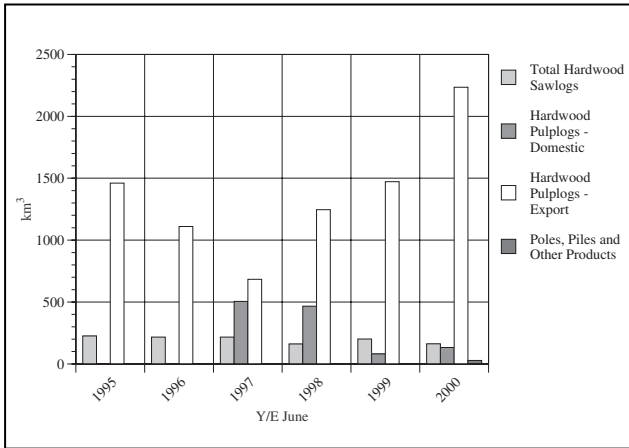
Flag Fall	\$2.30/t
0-179 km	9.3 c/t/km
180-249 km	9.2 c/t/km
250+ km	9.1 c/t/km

Source: Forestry Tasmania

# TASMANIA

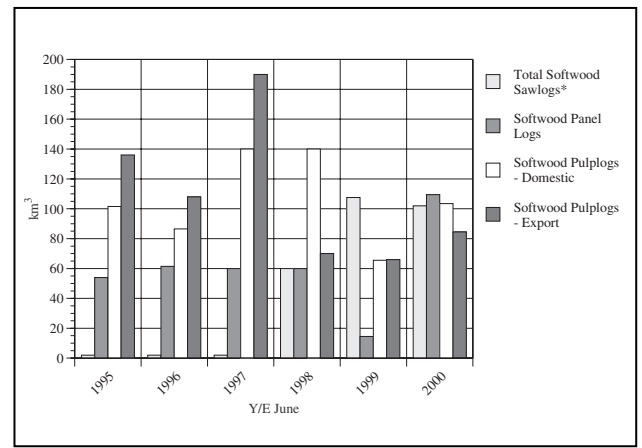
The sale of forest products from private land in Tasmania since 1994-95 is reflected in the following charts:

## VOLUME OF NATIVE HARDWOOD PRODUCTS SOURCED FROM PRIVATE PROPERTY IN TASMANIA 1995-2000 (m<sup>3</sup>)



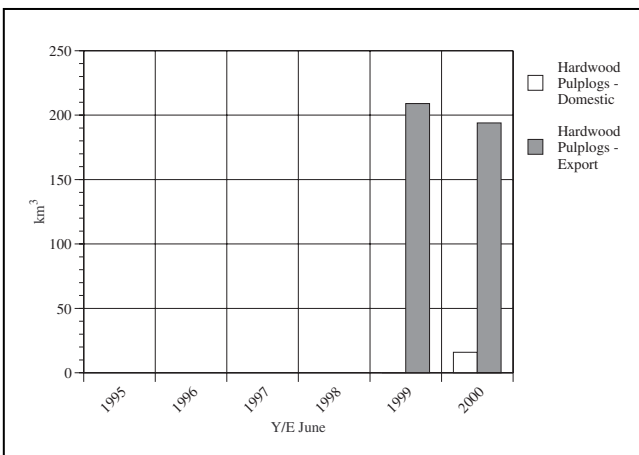
Source: Private Forests Tasmania

## VOLUME OF SOFTWOOD PRODUCTS SOURCED FROM PRIVATE PROPERTY IN TASMANIA 1995-2000 (m<sup>3</sup>)



Source: Private Forests Tasmania  
\*1995 – 1997, Total Softwood Sawlog production data incomplete.

## VOLUME OF PLANTATION HARDWOOD PRODUCTS SOURCED FROM PRIVATE PROPERTY IN TASMANIA 1995-2000 (m<sup>3</sup>)



Source: Private Forests Tasmania

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# MARKET ANALYSIS

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## SOFTWOOD SAWLOGS

### International

- International log prices have basically remained static during the recent period of global economic growth.
- The only improvement in prices for the USA and South Africa has been for quality logs capable of being used in value adding processes.

### Australia

- New Zealand is Australia's major competitor in the softwood log export market, and there are signs that, except for the top quality logs, export prices are falling.
- The major markets for softwood log exports remain predominantly Korea and Japan, with a growing export market in China.
- The export of softwood logs from Australia would not be expected to grow significantly since Australia remains a net importer of softwood lumber.
- In Australia, log prices have been held up by the building boom at the start of 2000, however, post Olympics and with the introduction of the GST, Australia has witnessed a downturn in the housing/building industry, which has placed downward pressure on log prices.

### Tasmania

- While there are only two major softwood sawlog processors in Tasmania, both companies are intent on seeking improvements in the quality of their sawlog intake.
- Previous plantation regimes that produced pruned clearwood from four to six meters are no longer preferred by sawmillers.
- Processors encourage private forest owners to grow quality logs with higher fibre content and tight knots.
- The current focus for plantation establishment is now on hardwood pulpwood, however, quality softwood sawlogs provide better stumpage rates at lower cost, although the rotation is longer.
- While quality softwood log production is shown to be economically viable, it is necessary for private forest growers to be certain that:
  - i. their property has the appropriate conditions for growing good softwood logs;
  - ii. they understand the sawmillers preferred specifications, and
  - iii. their property is within an economic cart distance of softwood processing centres.

## SOFTWOOD PULPWOOD

- Softwood woodchip prices in the USA have recently fallen by 17%, however, to date there appears to be no impact on Tasmanian softwood woodchip prices.
- Current calculations suggest that there is more long-term economic gain for farm foresters to grow softwood sawlogs rather than focusing on the export pulpwood market.
- The softwood woodchip market might be more appropriately used for disposing of thinnings from plantations, as well as sawmill residues.

## POLES & POSTS

- There are profitable opportunities for private forest growers in the production of poles and posts for preservation treatment.
- Koppers and other producers of treated material continue to face a supply shortage of quality logs, however, they face a major problem in the high cost of collecting small quantities of logs from dispersed private growers.
- In supplying this market growers should consider two factors:
  - i. they should try to work together cooperatively so as to produce sufficient volumes of poles to make up full truck loads for cartage, and
  - ii. private growers should consider the harvesting and production of poles and posts as a year-around activity, and not generate supply only when there is a lull in other farming activities.
- The treated timber processors will often pay better prices for a constant supply (which better suits their processing schedules), than for intermittent supplies.

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# MARKET ANALYSIS

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## HARDWOOD SAWLOGS

- In the hardwood log market, private forest growers in Tasmania have an opportunity to negotiate higher log prices, even though processing mills consistently use Forestry Tasmania's stumpage rates as market standards.
- From discussion with sawmillers around Tasmania it is apparent that many of them would be prepared to pay higher stumpage rates, up to 15% above FT's standard rates, if the logs from the private forests were of a consistently high quality.
- Achieving consistently high quality logs means planning the optimum log production for any given property, and using computer packages such as Farm Forestry Toolbox can be of considerable assistance. High quality logs don't grow by chance.
- The selection of timber species and the types of logs to be grown should be influenced by the location of the property in relation to appropriate processing mill(s) as well as the suitability of the land for forest production.
- Private growers should be aware that many mills in Tasmania reduce their demand for logs leading up to the Christmas to January period. This is especially true for mills cutting Category 2, or below, quality logs.
- Private growers can expect lower prices for logs if they harvest when demand for logs is generally falling.

## HARDWOOD PULPWOOD

- Private growers relying on long term income from the supply of hardwood woodchips should be cautious.
- There is a prediction by some hardwood plantation prospectus companies that there will be a strong Japanese demand for woodchips in the long term. Not all analysts that study the hardwood woodchip export market support this prediction.
- The demand for export pulpwood from private growers may be limited by the output of tax-driven hardwood pulpwood plantations and by production from plantations owned by the Japanese pulp and paper producers themselves.
- An alternative market capable of paying Japanese prices has yet to be identified.
- A difficulty a private forest grower may experience with the sale of pulpwood is the limited number of buyers.
- In Tasmania, the two main companies purchasing pulpwood are Gunns and North Forest Products. The price both companies offer for pulpwood is influenced by the price they receive for woodchips from Japan or other, mostly Asian, destinations.
- Downward pressure on the export price of woodchips will flow through to the forest growers.

## MARKET INFORMATION REPORT

- While some of these factors create issues for private forest growers, none of them are insurmountable.
- Private Forests Tasmania is working with other government agencies and the forest industry in Tasmania to clear the path for private growers to have better access to prevailing markets and to maximise economic returns from sustainable private forestry.
- This market information report is one of the initiatives that has been established by PFT to provide farm foresters with on going and regular information on forest product pricing and production issues.
- It is hoped that, over time, it will enable farm foresters to plan and manage the growth of the most profitable forest products, best suited for their property and local market circumstances.

# GLOSSARY

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<b>AUD</b>	Australian Dollar.	<b>RAM</b>	random access memory.
<b>bbf</b>	board feet (USA).	<b>Royalty</b>	royalty was the term used for the price of logs standing on the stump on crown land when the state forestry agency was known as the Tasmanian Forestry Commission. From 1st July 1994, the Forestry Commission became a corporation known as Forestry Tasmania and the term royalty was replaced by the term stumpage.
<b>BDU</b>	Bone Dry Unit. Common unit by which wood chips are sold, and equals 2,400 pounds, 1.0886 Bone Dry Metric Tonnes or 1.20 Bone Dry Short Tonnes	<b>sed</b>	small end diameter.
<b>CD ROM</b>	compact disk read only memory.	<b>Special species</b>	non eucalypt species of Tasmania including, but not limited to, <i>Atherosperma moschatum</i> (sassafras), <i>Nothofagus cunninghamii</i> (myrtle), <i>Acacia melanoxylon</i> (blackwood) and <i>Phyllocladus aspleniifolius</i> (Celery Top Pine).
<b>cif (cost including freight)</b>	the price of logs delivered to the port of destination prior to unloading. (In Australia the term cif often refers to Cost Insurance Freight. While both terms may be considered to be the same, care must be taken to determine the exact meaning in every contract.)	<b>Stumpage</b>	price of the merchantable volume of wood in the standing tree, usually specified in terms of \$/m <sup>3</sup> for each log grade.
<b>fas (free along side)</b>	the price of logs delivered to a port and ready for loading onto a ship.	<b>t</b>	tonne (metric) equals 2,204.6 pounds. (By contrast the Ton (imperial) equals 2,240 pounds, and the Short Ton equals 2,000 pounds.)
<b>fob (free on board)</b>	the price for logs delivered to a port and loaded on a ship.	<b>USD</b>	United States Dollar
<b>ha</b>	hectares.	<b>ZAR</b>	South African Rand.
<b>k</b>	thousands.		
<b>M</b>	millions.		
<b>Mbf</b>	thousand board feet (USA).		
<b>MDF</b>	Medium-Density Fiberboard, a composite non-structural panel of mechanically refined wood fibres bonded with resin under high pressure.		
<b>Mill door/mill gate</b>	price for logs (\$/m <sup>3</sup> or \$/tonne) delivered to the processing plant and unloaded in log yard.		
<b>On-truck</b>	price of logs (\$/m <sup>3</sup> ) which have been harvested and loaded on truck at landing dump.		
<b>OSB</b>	Oriented Strandboard – a composite structural panel product of wood flakes oriented in a cross- aligned fashion and bonded under heat and pressure.		
<b>Particleboard</b>	a generic term for non- structural panels manufactured from wood particles bonded with resins and binders through heat and pressure.		
<b>Plywood</b>	a structural material made of layers of wood glued tightly together, usually with the grains of adjoining layers at right angles to each other.		

