

Cabinet timbers

The focus of this report is the profitability of cabinet timber plantations in farm forestry settings. The report also presents price trends and outlook for cabinet timbers, and case studies of stumpage received by small-scale growers.

A contentious subject

Relatively little research has been carried out on the so-called higher-value cabinet timbers in Australia. Hence, in the absence of objective information, contrary views thrive on cabinet timbers, rendering cabinet timbers a contentious subject.

What is or what is not a cabinet timber can be a subject of an argument. Hence, it is useful at the outset to clarify the concept of cabinet timber.

According to Matthews (2002), cabinet timber is a product of a sawlog or veneer log of a quality suitable for fabricating objects such as cabinets and other furniture. Regardless of the species, the end use of a tree can range from firewood to kitchen cabinet. Thus, conceptually, cabinet timbers are not confined to the higher-value species only.

Figure A shows that, by volume, radiata pine is the dominant species used by furniture/ cabinet manufacturers in Australia, with other species playing a minor role (Sexton 2002). Thus, not only in concept but also in practice, radiata pine and other species are or can be cabinet timber species.

Because of the need to keep this report short, its focus is on the higher-value cabinet species, to which the term 'cabinet timber' has traditionally been applied. Such species are also referred to as 'appearance grade', 'decorative', 'diamond', 'elite', 'luxury', or 'speciality' timbers. Four examples of these species—out of the many—are Tasmanian blackwood (*Acacia melanoxylon*), Australian red cedar (*Toona ciliata*), teak (*Tectona grandis*), and African mahogany (*Khaya senegalensis*).

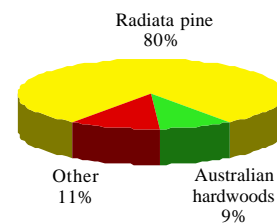
Relative profitability

From an economic perspective, farm forest growers are likely to invest in cabinet timber plantations if the change over to the plantation yields a risk-adjusted total net return that is at least equal to the return from the next best alternative use of farm resources in enterprises such as wheat, wool, beef cattle, dairying, apples, bananas, sugarcane, etc. The risk-adjusted relative profitability of cabinet timber plantations is therefore a key issue. Consequently, several studies were reviewed for this report.

The review revealed existence of a few studies that have analysed profitability under probable risks. But studies on the risk-adjusted profitability of

cabinet timber plantations relative to the alternative farm enterprises could not be found.

Figure A: Timber species used by furniture/ cabinet manufacturers, by volume: Australia



The apparent absence of studies on relative profitability of cabinet timber species may be due to lack of reliable information on their silviculture, site requirements, yields, costs, product prices, and other important variables. However, a few independent researchers and advisers have contributed their informed opinions on the subject of profitability. Some of these are:

- 'Current stumpages on their own do not provide sufficient incentive for substantial investment in blackwood plantation' (Warner 2001).
- 'With reduced prices [of timber] and a comparatively long rotation [40 to 70 over years], plantations of many [tropical] rainforest species may not be as attractive as once thought' (Bristow and others 2001).
- '...any farm forester evaluating whether it is a commercially viable proposition to improve the silvicultural management of their native forest blackwood, or to establish plantations of this species, would quickly discover that based on current stumpages, returns may be greater from alternative land uses' (an unpublished study by Private Forests Tasmania 2002).
- In New Zealand, unlike Australia, blackwood is an exotic species where it has fewer pests and diseases. A review of economic analyses on blackwood plantations in New Zealand concluded: 'Economic analyses are difficult because of uncertain data; economic evaluations have returned positive values, ranging from internal rate of return of 5–11%; in New Zealand, blackwood returns appear less than radiata pine's; silvicultural costs are difficult to determine; recoverable yields are relatively unknown; [and] log sales have insufficient history to give consistent pricing' (Nicholas and Brown 2002).

- Smorfitt and others (2002) have commented that farm forestry based on Queensland native cabinet timber species was a potentially profitable enterprise. However, they have cautioned that the yield and price and thus profit uncertainties were high in such an enterprise.

In the light of these opinions from independent experts, and the fact that the cabinet timber plantation industry is still in its infancy (Britton 2001), it would be advisable for farm forest growers to be particularly careful before investing in cabinet timber plantations. Parsons (2000) also has an excellent advice, which is worth quoting. ‘Residual price analysis suggests that we cannot assume that a seemingly attractive value [price] for appearance grade timber will translate automatically into a healthy profit margin for the grower. Careful attention by growers to a number of factors will be essential, including:

- species selection – selecting species with good market acceptance, and therefore higher likelihood of high product value;
- silviculture – tending, pruning and spacing to maximise production of higher value logs; and
- marketing – probably including developing arrangements to bring together products from a number of growers to ensure professional marketing (perhaps including some form of certification), quality control and continuity of supply.’

Findings from research conducted in Queensland, Tasmania and elsewhere have the potential to lift relative profitability of cabinet timbers. Industry would benefit by tapping into the latest research-based knowledge and by ensuring research and extension activities have a sustained support.

Price trends

Australia’s domestic market for cabinet timbers—a relatively small market in the world context—is open to import competition from all over the world. Consequently, import prices tend to set the benchmark for prices for similar products in Australia (Herbohn and others 2001). It is therefore informative to look at price trends in the world market.

Figures B to D present free-on-board (FOB) fortnightly prices of selected tropical logs, sawnwood, and furniture in the world market. The prices are in US dollars in real terms, that is, adjusted for price inflation in the world economy. Selection of species, product grades, and the exporting countries for the figures was partly based on the criterion that they competed directly or indirectly with Australian cabinet timbers and products. The source of the data is the International Tropical Timber Organisation.

The figures show rising trends in the prices for some products, declining trends for others, and almost unchanging, flat, trends for the remainder. Evidently, not all trends had gone in the same direction; overall, it is a mixed picture.

Australia has very sparse time series price data, and those data too present a mixed picture on price trends, as explained below.

The above-mentioned Private Forests Tasmania study showed that royalty (stumpage) was \$60 a

cubic metre in 2001 for the highest grade, category 4, blackwood sawlogs from Tasmania’s public native forests. It also presented a graph, showing rising trend in royalties for blackwood sawlogs and pointed out that, during 1982–2001, the royalties increased at an average rate of 8 per cent a year. Over the same period, general price inflation in Tasmania, as measured by the consumer price index for Hobart (State’s capital city) averaged 4.3 per cent a year. Thus, blackwood sawlog royalties not only had a rising trend, but overall the rise was also real.

Figure B: International FOB prices of tropical logs, in constant 1990 US dollars

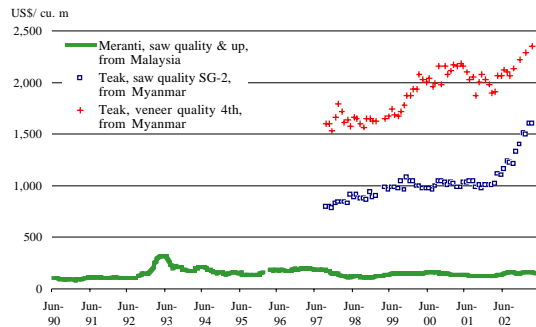


Figure C: International FOB prices of tropical sawnwood, in constant 1990 US dollars

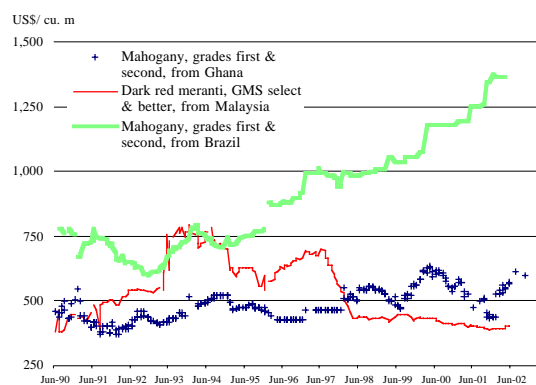
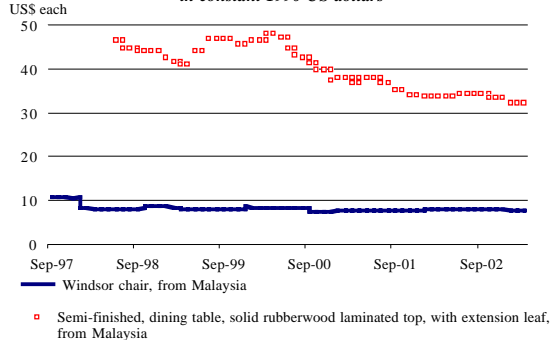


Figure D: International FOB prices of chair and table, in constant 1990 US dollars



Time series price data on other cabinet timbers in Australia are unavailable. However, it is worth quoting Bristow and others (2001) on the situation in Queensland: ‘With the closure of rainforest logging [in north Queensland public native forests] it was predicted that the reduction in the availability of high quality cabinet timbers would lead to higher prices. However, over the last decade cabinet timber prices have declined.’ Recent supplementary information, however, suggests that the prices might have

remained unchanged. In either case, it is certain the prices have fallen over time in real terms.

It is clear: the trends in real prices of blackwood in Tasmania (rising) and of rainforest cabinet species in north Queensland (declining) have not gone in the same direction. Evidently the trends in both the world market and Australia (Tasmania and Queensland) present a mixed picture.

Price outlook

The lead article in the September 2002 issue of ANU Forestry Market Report investigated the price outlook at some length. Since then no significantly new information has come in the public domain, except an update from World Bank.

The latest World Bank (2002) projections show that during 2002–2015, real prices of ‘timber’ (tropical logs and sawnwood) in the world market are projected to rise at an average annual rate of 2 per cent. And, the projections for Malaysian maranti logs show their real prices rising at an average annual rate of 3 per cent and of sawnwood at 1.8 per cent.

The September 2002 ANU Forestry Market Report also outlined a study by Morell (2001), which represented the views of a group of FAO staff on changes in world forestry over the period to 2050. The study concluded that during the period, ‘Solid wood will be at a premium, especially rare, high-quality hardwood grown in tropical natural forests. Prices of these timbers will be very high...’

Main summary points

- The World Bank projections and the views of FAO staff imply a positive outlook for Australian cabinet timber prices.
- However, the mixed picture of historical price trends in the domestic and world markets clearly suggests that not every cabinet timber species, log grade, or processed product might experience the same positive price outlook.
- Any positive change in product price will help profitability. However, opinions of independent experts have cast a shadow of doubt on the relative profitability of cabinet timber plantations. Hence, before investing in these potentially profitable but highly risky plantations, it is advisable for farm forest growers to give very careful attention at the outset to key factors such as species selection, silviculture and marketing.

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Stumpage for small-scale growers

The ANU Forestry Market Report project has collected information on actual stumpage prices recently received by five Australian small-scale forest growers. As the collected information was insufficient for deriving averages and trends, it is

presented in case study format in table 1. Users should exercise due care in using this information for assessing stumpage for a particular situation, and should not take stumpage as the sole indicator of current or future profitability.

Table 1: Stumpage case studies

Region/ State	Period	Type of log	Stumpage	Comments
Otways, Victoria	Early 2002– March 2003	Blackwood sawlogs, generally good quality; up to 1 m diameter at base (age 80), some slightly larger; average diameter 700+ mm; logs in round	\$130–\$160/cu. m, loaded on truck at farm; price ranged according to quality	From private native forest. Back-loading available for truck, so the effective distance to mill 150-180 km. Milling done on band saw. Furniture grade board, 40 mm thick, 52 mm from bigger logs, both 'feature' and 'select'. The mill sells, with continuity, to furniture manufacturers in Melbourne.
Atherton Tableland, Queensland	December 2001–June 2002	Pine: <i>P. caribaea</i> , grade K1 Rainforest species and <i>Acacia</i> <i>aulacocarpa</i>	\$10–\$20/cu. m \$50/cu. m	Overseas offer 200 cu. m, portable sawmill on spot
Queensland	July 2002	Native forest poles: <i>E. crebra</i> , <i>E.</i> <i>corymbia/ citriodora</i>	\$70.20/cu. m	310 poles; thinnings; 69 km to mill
N-E, Tasmania	January 2003	Native forest: <i>E. obliqua</i> and <i>E.</i> <i>regnans</i> Planted forest: <i>E. nitens</i> , assorted	\$13/t \$20/t	900 t; thinnings, age 25; 90 km to mill 800 t; thinnings, age 10; 90 km to mill
Tasmania	February 2003	Pine: <i>P. radiata</i> Sawlogs Pulpwood	 \$83/t + GST \$8/t + GST	300 trees; age 28; wide row agroforestry; harvesting and loading costs \$17/t: Pruned to 5.5 m; 160 t; 280 km to mill 330 t; 60 km to mill

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