

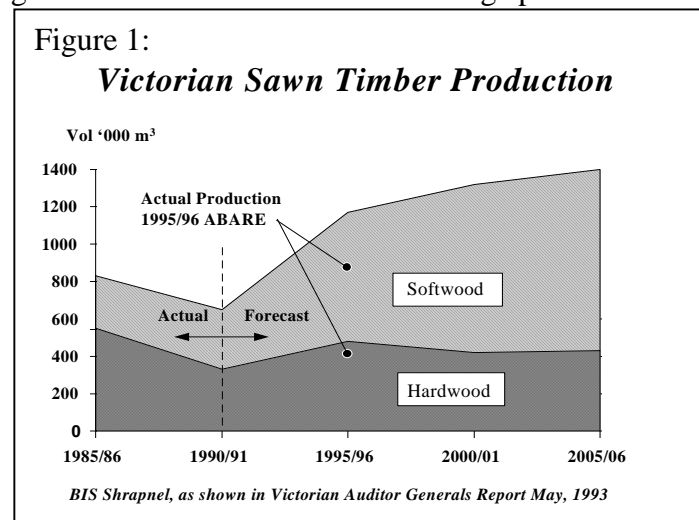
## Market movements and opportunities for hardwood products

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The Australian timber industry is going through unprecedented change. There are significant opportunities for growth in the production and sales of high value timber products in all Australian species groups whether it is radiata, hoop pine, eucalypts or the small volume specialty species such as myrtle and blackwood. This paper concentrates on the experiences of the Victorian hardwood native forest sector (eucalypt) to review past developments and future opportunities.

The changes underway are in large part being driven by changing Australian and world timber supply. The significant growth in Australian timber supplies of pine plantations and the maintenance of sustainable native eucalypt regrowth supplies provides an opportunity for this country to move from a net importer of sawn products (now under 20%) to become a net exporter shortly after the year 2000.

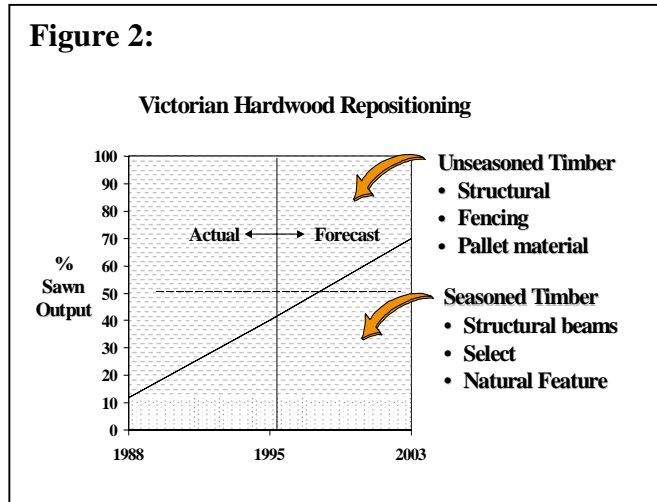
However Australia's production is only 1% of world sawn timber production and predicted significant declines in world supply from traditional sources such as South East Asia will dwarf the Australian increases. However, it is difficult to predict the impact of these changes on world appearance grade products as improved utilisation through veneers, glue-lamination and production of composite products will have a major influence. Furthermore it has already been demonstrated that species and grades of timber not previously widely used in applications such as furniture can become major sources of supply through product and market development. One example is rubberwood from plantations, which had previously been burnt as waste after their rubber production value had ceased. Today 85% of Malaysia's large furniture industry utilises this timber. An excellent Australian illustration of this type of development is the growth of Natural Feature (NF) Australian Hardwood in the furniture industry. The acceptance of NF as a legitimate and popular grade has radically changed the potential for our eucalypts as previously over 70% of our sawn output would not have made traditional appearance grades due to the 'character' markings prevalent in the species. Companies have also had



considerable success in marketing natural features in their hardwood flooring where it has become just as popular as the traditional grades. The winner of the prestigious 1997 RAI Victoria Architectural Medal was won with a house that uses NF Vic. Ash flooring and NF hardwood flooring has been used extensively in the Olympic Village in Sydney.

Australian hardwood sawmillers face major market challenges as expanding softwood supplies rapidly take market share

away from hardwood in traditional structural markets. Victoria's sawn hardwood production is constrained by legislated sustained yield requirements and, as shown in Figure 1, it should remain at around 400,000 – 500,000 m<sup>3</sup>/yr<sup>1</sup>. In contrast softwood is predicted to grow significantly as plantation resources comes on stream. An almost identical situation is anticipated nationally.



The Victorian hardwood sector already has demonstrated its acceptance of the need to change and has shown commitment to rising to the challenge through individual company investments and support for market development programs. As shown in Figure 2, the last 10 years has seen a major shift into kiln dried products such as high strength seasoned structural beams and appearance grade products. The hardwood timber that built most Australian homes prior to the 90's is

increasingly being 'repositioned' into appearance grade uses and carefully targeted structural applications where the high strength gives it a competitive advantage. The higher world prices for hardwood and technology improvements have made it viable to season a wider range of Australian hardwoods and to use short length/small sizes for glue-laminated products and other short length products such as end matched flooring. Workshops within the Victorian industry identified the future directions in sawn timber production to include:

- Further development of traditional select/standard markets including species previously not generally commercially dried.
- Development of processes to remove and fill lineal 'kino' vein. This allows the wood to be upgraded to a finished clear grade product.
- Natural feature grade in furniture, flooring both domestic and export.
- Further development of small clear/select grade markets - including gluelaminated and finger jointed products, parquetry, components, end matched flooring. The extent to which this can be achieved in Australia at competitive prices is yet to be determined. Alternatively – or in addition – the industry should develop an export remanufacturing grade which would include wide kiln dried boards/slabs quartersawn (so gum vein is linear along the boards) for export to Asia for ripping, docking and gluing into a clear grade product.
- Development of regional component and furniture manufacturing centres in rural timber supply areas, hopefully based on successful export markets.
- Better targeting and use of structural properties to capitalise on high strength.

Already the Victorian industry has made significant advances in moving into further processed products. A 1997 study of eight small to medium sawmilling companies from the Central Highlands of Victoria illustrates these changes<sup>2</sup>. This survey shows these companies have invested over \$60 million since long term sawlog supply licences were issued in 1987 with a further \$25 million planned over the next 3 years resulting in their

volume of seasoned timber being tripled, employment increasing by 85% and turnover to be more than tripled (table 1).

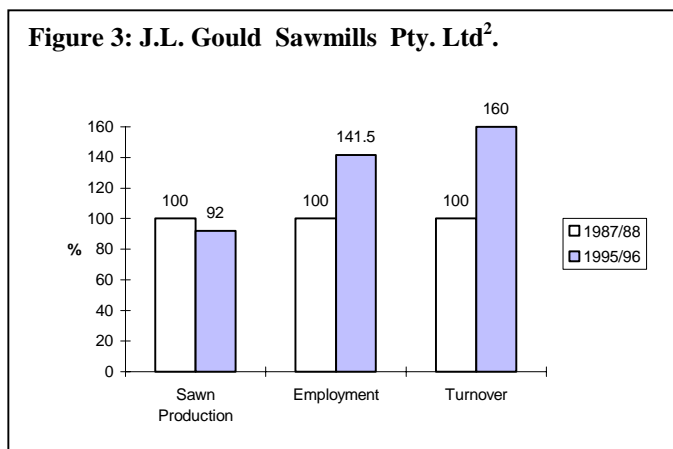
**Table 1: Investment in value adding processing from eight companies – Central Highlands Victoria<sup>2</sup>**

	1987/88	1995/96	2005/06 (forecast)
Proportion of timber value added/seasoned	25%	70%	85%
Direct employment	235	394	484
Revenue from sales	\$22.5 m	\$45.0 m	\$82.0 m

J. L. Gould Sawmills Pty Ltd was one of the companies surveyed. They are an excellent example of the changes that are occurring. The company has been operating for over 50 years. In the last ten years after investing \$15

million they have moved from essentially a green structural mill to over 70% dry product. The company has combined two sawmills to process its 41,000 m<sup>3</sup>/yr ash regrowth sawlog

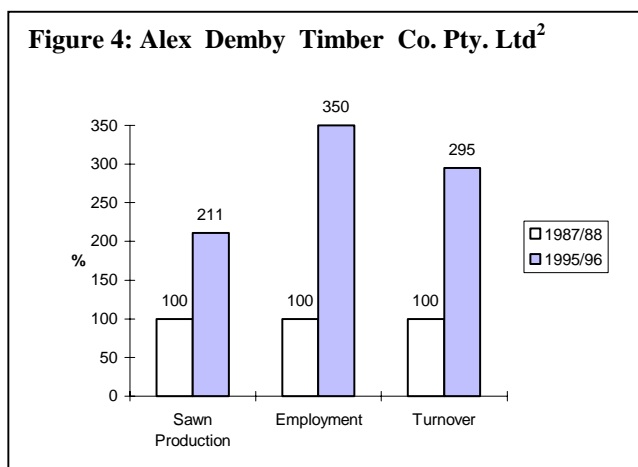
quotas at one site reducing its 'green mill' labour force by around half. However in total, their employment has increased by 141.5% due to the 'drymill' investments (Figure 3).



This investment has been made possible by the security provided by 15-year sawlog supply licences that have made investment in value-adding processes 'bankable.' In 1993, in view of the company's investment program, the company's

15 year supply licence was renewed by the Victorian Government. A further \$3 million is expected to be invested in further processing facilities over the next three years. In 1987/88 over 95% of Gould's timber was sold within Victoria – it is now about 60%. They expect that exports, which commenced in 1995 to Japan and have now reached 7%, will grow rapidly and could account for over one-third of total sales in the future.

Another company included in the 1997 study was Alex Demby Timber Company, a small family company that currently employs 30 people. The Company has experienced

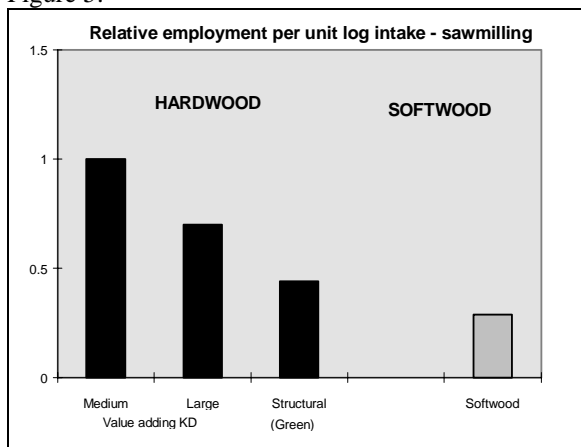


approximately a threefold increase in employment and turnover over the last decade (Figure 4). One of the most impressive aspects of their performance was their success in processing additional lower quality (D grade) sawlogs which at the time of the study made up 44% of their quota compared to 17% supplied to the region. The above developments are to varying degrees occurring in mills across Victoria, indicating that value adding is possible in small and large

mills.

The value adding changes have important economic and employment growth implications for rural Victoria and Australia. Figure 5 shows that these value adding hardwood mills

Figure 5:



need two to three times as many employees to process the same volume of wood as commodity focussed softwood mills. These added costs can be justified by the higher value of the niche marketed products. While some people have presented the growing softwood plantations as a substitute for the native timber industry, the above developments illustrates the potential for growth in both sectors - growth through hardwood repositioning of a relatively static volume and growth

from volume increases from softwood plantation.

As discussed above, value adding is not just confined to the higher quality logs. Dormit Pty. Ltd. in Dandenong have invested some \$6 million in plant and equipment since 1990, including \$2 million over the last three years. The company has a licence for 80,000 tonne of residual (below D grade) logs, which it processes into pallet material. They have a turnover of \$8 million and employ 40 people.<sup>2</sup>

The Timber Promotion Council (TPC) has surveyed the Victorian hardwood industry to determine the change in products over the last 10 years and have identified targets for beyond 2000 for planning purposes to assist in the development of industry assistance programs<sup>3</sup>. The target seeks to achieve a Statewide level of 70% seasoned (which has already been achieved by the eight ash millers surveyed above) and a substantial portion exported in the long term. The proportions related to the 'traditional' sawlogs. In addition to the above, low grade logs previously not considered viable as sawlogs, as discussed in the Dormit example, increasingly are being used for sawn timber products such as pallet material.

Photo 1: Natural feature log



Around 40% of the sawn wood from traditional sawmills (excluding the pallet recovery mills) is currently being kiln dried. It is estimated that over two thirds of the kiln dried product is ash and ash represents around half of the total sawn production. With the emergence of 'natural feature', kiln dried markets are now expanding for mixed species which generally has much less clear grade material than the ash species (photos 1 – 3). One of the most immediate challenges for the

mixed species mills is the investment required to shift into seasoned products as it takes 8 to 12 months to air-dry the products. Thus there will be no cash flow over this period. Photo 2 shows in excess of \$3 million in dry stock at TJ Andrews Group's East Gippsland mill.

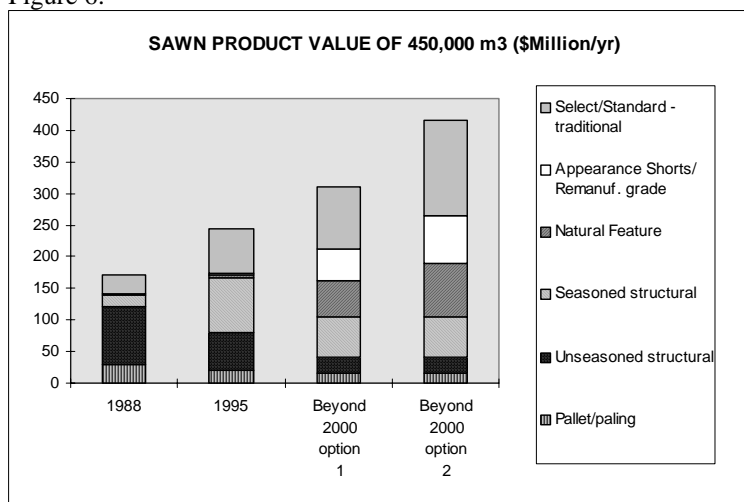
Photo 2: Airdry stock – Orbost East Gippsland.



The challenge for ash mills, given the bulk of the wood is now already dried, is to move into further processing of the seasoned slab material. Some of these 'third stage' developments have already occurred at a small scale with exports of glue laminated components to Japan. If significant developments are to proceed, a major investment will be required in 'third stage' processing plants.

The potential can be illustrated in Figure 6 which shows the value of the current annual sawn output of 450,000 m<sup>3</sup> based on the TPC surveyed product mix for 1988, which was primarily unseasoned hardwood framing timber, the product mix in 1995 and the targets beyond 2000<sup>3</sup>. Based on current pricing, this shows that Victoria has already added \$70 million

Figure 6:



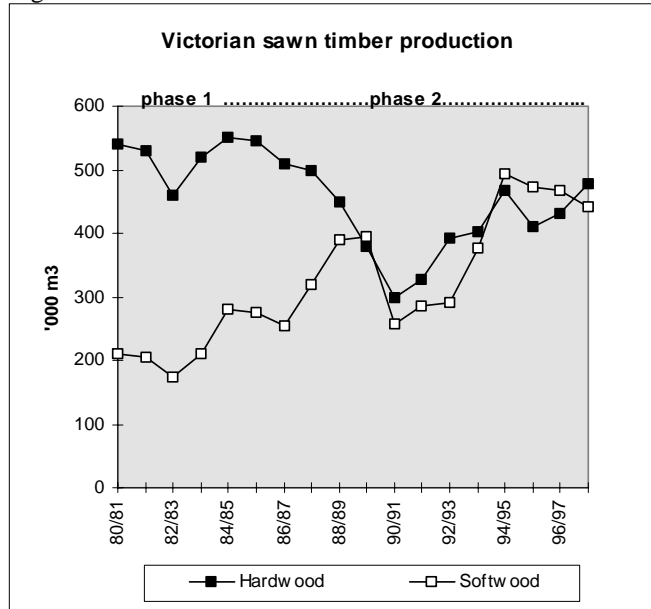
in value to the sawn production that can be processed from the same volume of sawlogs. The options beyond 2000 are based on the following:

- **Option 1:** minimal further processing at sawmills beyond kiln dried lumber would add a further \$70 million.
- **Option 2:** same volume of KD lumber but with significant additional componentry, glue laminating and 'third stage' further processing for export and import replacement. In this option a nominal 50% increase in value has been applied to the appearance prices to allow for this additional processing, adding \$170 million in annual product value. However, this could be significantly more if taken through to finished furniture

for export. For example a cubic metre of kiln dried timber worth \$1000 could produce furniture worth \$5000 to \$10,000.

The investment in repositioning has also contributed to a rebirth of an industry which, on the face of it, was in a terminal state of decline in 1990. Figure 7 shows Victoria has been through two phases<sup>4</sup>:

Figure 7<sup>4</sup>:



**Phase 1 – The 80’s: Hardwood stagnation and decline:** During this period hardwood supply was reduced to match sustained yield following resource withdrawals. In East Gippsland parks were doubled and quotas were halved. Negligible investment was occurring due to resource insecurity. Industry supply was based on 1-year supply licences pending land use decisions and the development of a Timber Strategy. Hardwood was losing market share to softwood. Hardwood market in house wall frames fell from 72% to under 10%. This was further exacerbated by one of the worst housing downturns on record in 90/91.

**Phase 2 – The 90’s Hardwood renaissance through investment in repositioning:** After firm land use decisions resulting in one of the most extensive and representative reserve systems in the world, 15 year sawlog licences were granted. A Government Industry Strategy was implemented to encourage value adding. Investments were undertaken and new markets developed in kiln dried products. Victoria became by far the largest sawn hardwood producing State (36% of national production).

## Furniture

Probably the ultimate in high value timber products is furniture. Currently it is estimated that around 10% of Australian timber consumption is for furniture manufacture<sup>5</sup>. Exports of furniture are limited, but are increasing rapidly. At the 1998 opening of the Furnishing Industry Association of Australia’s (FIAA) export showrooms, the Victorian Minister for Industry, the Hon. Mark Birrell, noted that “*the Australian furniture industry is developing an impressive reputation in overseas markets with exports rising from \$34 million in 1991/92 to \$101 million in 1996/97*”.

As noted above, there is potential to develop regional component & furniture manufacturing centres in rural timber supply areas. In the USA, furniture manufacturers and the dimensioned component producers are located in rural areas to take advantage of the closeness to the timber resource and the available employees. Whole rural towns are made up of furniture manufacturing companies. The dimensioned component manufacturers process logs into sawn timber, which is sorted, dried, processed, laminated

into blanks and components for supply to furniture manufacturers<sup>6</sup>. In contrast Australia's furniture industry has developed largely in Sydney and Melbourne. There is an opportunity to expand and develop a structure in Australia similar to the US, particularly if the furniture industry can further develop export markets.

We could also take a lead from the rapidly growing Malaysian furniture industry. During the last decade furniture export has increased from RM120 million in 1988 to more than RM2 billion in 1996. The Malaysian Government has developed incentives including tax alleviation, export financing support and special industrial programs to support the furniture industry. One example is the development of furniture industry centres which offer access to kiln drying, machinery and materials supplies and ancillary services, testing and quality control, certain tax-free imports of products used for production, exhibition rooms and marketing support. The idea is that these service centres will contribute to technology transfer, decrease costs and stimulate export efforts, primarily among the small and medium-sized companies.<sup>7</sup>

### **Natural feature hardwood**

Most of the Australian hardwoods are heavily 'featured' with natural decorations. There is a radical shift currently underway in the way we view the 'character marks' in these native hardwoods and this should have major implications for the supplies of furniture timbers. Natural 'decorations' such as fire streaks (kino vein) and worm holes are now being seen as interesting features caused by natural past occurrences during the life of the tree - such as fire, drought and flood. This change has in part been due to the popularity of the 'distressed' look (where furniture is marked to look well worn), the use of recycled Australian hardwood beams from warehouses, the 'naturalism' trend of the nineties and the considerable 'oiling of the wheels' through the TPC's development program in conjunction with the FIAA. Furthermore

acceptance of these natural features makes good conservation sense and it is supported by various environmental groups. The FIAA Vic/Tas branch has already identified this look as uniquely Australian, and have been developing designs for international markets. Furniture made from this timber has won the award for excellence at the FIAA New Product Parade

Photo 3: Natural Feature furniture



every year since it first appeared at the show in 1995 and this furniture has created significant interest. Sales have commenced into a number of international markets. Given that under 30% of our current sawn timber is 'clear grade' in wide boards/long lengths, this change has now made a large portion of Australia's sawn wood suitable for furniture markets.

## ABARE OUTLOOK 2000 CONFERENCE

Funding assistance has been provided under various State and Federal Government programs along with the Forest and Forest Products Research and Development Corporation, TPC and FIAA. However the major impetus for these developments is now coming from individual sawmilling companies and furniture manufacturers. The major elements of the TPC managed program have been<sup>7</sup>:

- Raise awareness in the domestic market of the potential to utilise Natural feature (NF) hardwood and through this program, identify a group of manufacturers interested in developing products using NF.
- Define NF (standard and specifications) and increase the effectiveness of processing NF (sawing, sorting, drying, machining, gluing, filling, finishing) in concert with timber producers, furniture manufactures and other end users.
- Provide technical and 'promotional' support material and advice for producers/furniture manufacturers/specifiers etc including material for seminars domestically and in overseas markets.
- Research key international markets.
- Research consumer attitudes to NF and the different finishes and designs.
- Develop NF sales into overseas markets.
- Jointly with the FIAA (Vic/Tas), develop new Australian designs specifically for NF hardwood – a key point to ensure success.

Already NF hardwood has become a legitimate accepted grade in the domestic market so much so that the top selling bedroom suite in Australia is made from Natural Feature messmate (*E. obliqua*) from Victoria's East Gippsland suppliers. While there has been considerable success, given the relatively small domestic furniture market, this could become oversupplied as sawmillers 'jump on the bandwagon' of NF hardwood. The signs are already around of this occurring. Accordingly export development must be the next step.

### **Get bigger, get together or get out**

The hardwood sector in Victoria is largely made up of small to medium family companies while other states are largely dominated by a few large companies. On the one hand experts see the Victorian structure as an impediment to overcoming the challenges ahead for hardwood and most agree with the need to rationalise the number of companies. However on the other hand Victoria's small to medium producers in many ways lead the way by innovatively and cooperatively tackling the issues at hand.

In 1990 at the Perth Timber Congress, David Mayer of Simons Strategic Services from Canada discussed export opportunities advising that "*Australia's Pacific Rim export opportunities will be in a determined focussed effort on specialty products, not commodities, and within specialty products it will be hardwoods – eucalypts and exotics where Australia is strategically best suited.*" He went on to discuss why large commodity focussed companies such as the softwood mills in the US were not suited to these markets. "*The corporate culture is wrong, the machinery is wrong, the narrow focus product range is wrong, the product specifications and sizing are wrong, the methods of selling and distribution are wrong. At the other extreme a small scale producer is ideally positioned to be able to be flexible enough to satisfy these niche market needs in areas*

*such as small scale orders, unique species, special sizing, tight moisture content etc. However the small scale producer lacks the critical mass to be able to afford to understand, to develop and to respond to those Pacific Rim markets". He recommended the critical mass issue could best be addressed via "collective association".<sup>8</sup>*

In 1993 Victorian producers responded to this call and formed an export network called Australwood under the auspices of the VAFI and TPC. The Network offered members combined research, promotion, quality programs and marketing activities, a lower cost market entry strategy for export marketing, a single point of contact through a secretariat to enable them to trade individually, yet operate as a collective force. It would offer standard specifications and the ability to provide more confidence to buyers regarding continuity of supply through greater overall network capacity. The network has had a successful entry in the Japanese market and has expanded into other markets, more recently with Natural Feature furniture hardwood. Other Networks are forming adopting a similar approach such as the Golden Forest Group of Messmate producers in Victoria's Midlands who are developing a single desk and single brand approach to marketing their quality products. Their approach could be equated to regional winery marketing. Another example is the Hoop Pine producer's in Queensland. Annual sawn production for export markets has risen steadily, but it is still a small proportion of total production – currently some 60,000 cubic metres, 55% hardwood and 45% softwood, some 2% of the total production.

It should also be recognised that many small to medium producers have proven over the years that they are efficient and competitive 'green' product producers. Another way of 'getting together' which would allow these mills to continue to do what they know best, is to foster strategic alliances where they can sell green wood to other producers that specialise in drying and further processing as is the common practice in the USA.

### **Concluding statement**

There are exciting prospects in high value markets for Australian hardwood if the challenges can be successfully tackled by an innovative industry working in cooperation. To achieve these changes we will need a more skilled workforce, new plants using improved technology in sawing, kiln drying, machining, gluing and finishing products under improved quality controls to detailed specifications and standards for the new generation of value added products - and it is important that it is supported by market development programs such as those administered by the TPC. We have already made significant advances in rising to meet these demands and look forward to the challenges ahead.

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