

Diversity and Innovation

for Australian Wool

Report of the Wool Industry Future Directions Task Force

Volume 2: Main Report and Appendices

July 1999

Contents

List of Acronyms	v
1 Introduction	1
1.1 The Wool Task Force	1
1.2 Approach	2
1.3 Report Outline	4
1.4 Acknowledgments	5
2 Confronting Realities: Where Are We Now?	6
2.1 What is the Problem?	6
2.2 Factors Affecting the Demand for Australian Wool	10
2.3 The Supply Chain from Woolgrower to Consumer	19
2.4 On-Farm Productivity and Profitability	23
2.5 Time for a Reality Check	27
3 Liberating Woolgrowing Businesses	28
3.1 Stop Referring to “The Wool Industry”	28
3.2 Competitive Woolgrowing Businesses	29
3.3 Benchmarking Analysis	30
3.4 Scale and Leasing	31
3.5 Pasture Management	33
3.6 Genetic Improvement in Sheep	34
3.7 On-Farm Sampling and In-Shed Testing	38
3.8 Bringing Competition into Wool Harvesting and In-Shed Operations	40
3.9 Quality Assurance and Contamination	43
3.10 Adjustment Consequences	46
4 Marketing of Wool	49
4.1 Reserve Price Schemes	49
4.2 Risk Management — Futures Hedging	49
4.3 Auction Selling — Traditional and Electronic	51
4.4 Direct Selling and Forward Selling	56
4.5 Woolgrower Marketing Groups and Supply Contracting	59

4.6 Conclusion	63
5 Wool Processing and the Wool Fibre	65
5.1 Truth in Labelling for Australian Wool	65
5.2 Wool Testing and the Role of AWTA	67
5.3 Vertical Integration	69
5.4 Value Adding in Australia	71
5.5 The Retail Sector	73
5.6 Fashions and Markets	75
5.7 Technical Wool Assistance in China	78
5.8 The Role of Innovation	79
6 The Conduct of Research and Promotion	82
6.1 Why Intervene with Compulsory Levies?	82
6.2 The Export Levy Proposal	84
6.3 Wool R&D	85
6.4 AWRAP's R&D Performance	87
6.5 CSIRO	90
6.6 Wool CRC	92
6.7 Conclusions on R&D	93
6.8 What is Promotion?	94
6.9 The Woolmark Symbol	95
6.10 The Benefits of Promotion for Woolgrowers	96
6.11 Conclusions on Promotion	102
7 Organisational Structure and Governance	104
7.1 Principles and Options	104
7.2 Australian Wool Services	105
7.3 Making It Happen	108

Boxes

Box 1: Why Do Commodity Prices Fall?	8
Box 2: Shingosen: A New Threat to Natural Fibres?	13
Box 3: What Are Wool's Attributes – and Deficiencies?	15
Box 4: Recycling Wool to Create New Demand and Boost Wool's Image	16
Box 5: The Chinese Wool Quota System	18
Box 6: Extending the Technology/Productivity Frontier in Pastoral Zone Management	29
Box 7: Edge Management – An Innovation in Woolgrower Access to Technology and Business Services	30
Box 8: Focusing on Achievement and Excellence	31

Box 9: Leasing: A Benefit to Lessor and Lessee	32
Box 10: The On-Farm Dairy Productivity Success Story	34
Box 11: Merino Benchmark – Aiming at “World’s Best Practice in Merino Breeding”	35
Box 12: Adoption of Breeding Technology to Achieve Profitability – Nerstane Merino Stud	35
Box 13: DNA Finger Printing – Collaboration in Basic Research for Commercial Outcomes	36
Box 14: Premium Prices at the Top End of the Market	37
Box 15: In-Shed Sampling and Testing – Recent Trials	38
Box 16: Innovative Wool Testing – OFDA	40
Box 17: Bioclip – Alternate Wool Harvesting Technology	41
Box 18: “Going Grange”	44
Box 19: Contamination in Wool	45
Box 20: Brokers Reassessing Their Role	52
Box 21: The Australian Wool Exchange Ltd (AWEX)	53
Box 22: The e-wool System	55
Box 23: Selling by Tender	56
Box 24: Taking Responsibility for Performance	57
Box 25: Regional Warehousing	58
Box 26: Fibre Direct: A Marketing Strategy Whose Time Has Arrived?	58
Box 27: Manufacturing Supply Chain Relationships	60
Box 28: Regional Woolgrower Group – Traprock Wool Association	61
Box 29: Bloodline Woolgrower Group – Pooginook Wool Initiative Inc.	61
Box 30: Vale View: Integration from Woolgrower to Retailer	62
Box 31: Wool Certification: the New Zealand Experience	66
Box 32: Linking Woolgrowers and Wool Customers – Australian Wool Network	70
Box 33 Marzotto: a Global Textile and Clothing Business	70
Box 34: Wool and the 2000 Olympic Games	73
Box 35: Hedrena Textiles	74
Box 36: Rivers Supports Wool	75
Box 37: Who is the Most Important Decision Maker in the Wool Processing Chain?	77
Box 38: Optim – A New Product Derived from Wool	80
Box 39: The Impact of an Export Wool Levy	85
Box 40: The Benefits of Past R&D Projects to Woolgrowers	87
Box 41: AWRAP’s Administrative Overheads	89
Box 42: The Involvement of French Topmakers in Wool Promotion	95
Box 43: Sceptical Economists on Wool Promotion	97
Box 44: AWRAP Estimates of the Benefits of Promotion in 1997-98	98
Box 45: Grass Roots Promotional Initiative: Wool Link Australia-USA	101

Charts

Chart 1: Authors of Submissions to the Task Force, by Category and Location	2
Chart 2: Long Term Real Prices of Wool	6
Chart 3: Real Prices for 19 and 23 Micron Wool	7
Chart 4: Recent Commodity Price Movements	8

Chart 5: Australian Sheep Numbers	9
Chart 6: Restoring or Increasing the Profitability of Woolgrowing Businesses	10
Chart 7: GDP Growth and the Price of Wool	11
Chart 8: Recent Wool Demand in Major Consuming Regions	12
Chart 9: Wool's Share of the Textile Market	14
Chart 10: Major End Use Categories for Wool	14
Chart 11: Import Barriers for Wool and Wool Textile Products	18
Chart 12: Comparative Supply Chain Costs	21
Chart 13: Woolgrower Profits	24
Chart 14: Wool Prices and Costs of Production	26
Chart 15: Wool Cuts Per Head and Clip Proportion 19.5 Micron and Finer	37
Chart 16: Wool Price Variation Since 1990	50
Chart 17: The Wool Textile-Chain "Wineglass"	59
Chart 18: Australian Wool Services	107

Appendices

Appendix 1:	Terms of Reference
Appendix 2:	Summary of Major Issues
Appendix 3:	Submissions to the Wool Task Force: Summary of Main Points
Appendix 4:	List of Individuals and Groups with whom the Task Force Consulted in Australia
Appendix 5:	Task Force Meetings Overseas
Appendix 6:	Previous Major Reports into the Wool Industry
Appendix 7:	Woolgrower Levies for R&D, Promotion and Marketing – and Government Contributions – since 1936-37
Appendix 8:	Review of Supply Chain Benchmarks for Competing Fibres
Appendix 9:	Problems Associated With Small Woolgrowing Business
Appendix 10:	Benchmarking for Woolgrowers
Appendix 11:	On-Farm Wool R&D – A Distillation

List of Acronyms

ABARE	Australian Bureau of Agricultural and Resource Economics (formerly BAE, Bureau of Agricultural Economics)
ACCC	Australian Competition and Consumer Commission
ACWE	Australian Council of Wool Exporters
ADC	Asian Development Centre
AFFA	Agriculture, Fisheries and Forestry — Australia (formerly DPIE, Department of Primary Industries and Energy)
AMIRA	Australian Minerals Industry Research Association
AMLC	Australian Meat and Livestock Corporation
AQIS	Australian Quarantine and Inspection Service
ASIC	Australian Securities and Investment Commission
ASWGA	Australian Superfine Wool Growers Association
ASX	Australian Stock Exchange
AWC	Australian Wool Corporation
AWEX	Australian Wool Exchange
AWGA	Australian Wool Growers Association
AWH	Australian Wool Handlers
AWRAP	Australian Wool Research and Promotion Organisation
AWS	Australian Wool Services
AWTA	Australian Wool Testing Authority
BLUP	Best Linear Unbiased Predictor
BOT	Board of Trade
BWK	Bremer Woll-Kämmerei (Germany)
CALM	Computer Aided Livestock Marketing
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CV	Coefficient of Variation
CWTA	China Wool Textile Association
DSE	Dry Sheep Equivalent
EBV	Estimated Breeding Value
EDC	European Development Centre

EDI	Electronic Data Interchange
EMI	Eastern Market Indicator
EU	European Union
FAQ	Fair Average Quality
FD	Fibre Diameter
FOB	Free on Board
GATT	General Agreement on Tariffs and Trade
GIS	Geographic Information System
GRDC	Grains R&D Corporation
HDPE	High Density Polyethylene
IP	Intellectual Property
IWS	International Wool Secretariat
IWTO	International Wool Textile Organisation
JV	Joint Venture
KPI	Key Performance Indicator
LC	Letter of Credit
MI	Market Identification
MITI	Ministry of International Trade and Industry (Japan)
MLA	Meat and Livestock Australia
MOFTEC	Ministry of Foreign Trade and Economic Cooperation (China)
MRC	Meat Research Corporation
NAFTA	North American Free Trade Agreement
NPV	Net Present Value
OFDA	Optical-based Fibre Diameter Analyser
OJD	Ovine Johne's Disease
PAG	Program Advisory Group
PIRD	Producer Initiated R&D
PTWMA	Private Treaty Wool Merchants of Australia
QA	Quality Assurance
R&D	Research and Development
RAS	Rural Adjustment Scheme
RPS	Reserve Price Scheme

SAFE	State Administration for Foreign Exchange (China)
SDPC	State Development Planning Commission (China)
SFE	Sydney Futures Exchange
SIP	Strategic Investment Program (part of TCF assistance package)
SLAMP	Simplified Loading and Manipulation Platform
SOCOG	Sydney Organising Committee for the Olympic Games
SRS	Soft Rolling Skins
STIB	State Textile Industry Bureau (China)
SxD	Sale by Description
SxS	Sale by Sample
TCF	Textile, Clothing and Footwear
TEAM	Trials Evaluating Additional Measurement
TF	Task Force
TFGA	Tasmanian Farmers and Graziers Association
TWC	The Woolmark Company
VAT	Value Added Tax
VFF	Victorian Farmers Federation
VM	Vegetable Matter
WAFF	WA Farmers Federation
WCA	Wool Council of Australia
WI	Wool International (now WoolStock Australia Ltd)
WML	Wool Market Link
WRONZ	Wool Research Organisation of New Zealand
WTO	World Trade Organisation
ZAC	Zone Advisory Committee

1 Introduction

1.1 The Wool Task Force

On 30 November 1998, woolgrowers carried a vote of no confidence in the board of the Australian Wool Research and Promotion Organisation (AWRAP) at its annual general meeting. Although only a relatively small proportion of woolgrower votes were represented at the meeting or by proxy, the magnitude of the vote (nearly 75 percent in favour) and the mood within woolgrower circles more generally were clearly supportive of significant change. Just what the change might comprise was less clear, although woolgrowers were obviously reacting to a prolonged period of unprofitability in their businesses and the perceived inadequate performance of an organisation which existed for their benefit. The no confidence vote was the only effective sanction available under the legislation for woolgrowers to express dissatisfaction with the performance of the organisation.

As he was required to do under the legislation, the Commonwealth Minister for Agriculture, Fisheries and Forestry (Hon Mark Vaile, MP) then terminated the appointment of the Chairman and all board members of AWRAP apart from the Managing Director. He also announced the formation of a Wool Industry Future Directions Task Force.

The terms of reference for the Task Force are reproduced in Appendix 1. In essence, the Task Force was required to address the following questions:

- what affects the competitiveness of wool as a textile fibre?;
- how can the performance and profitability of wool businesses be improved, both at home and overseas?;
- how can the performance of Australian wool and wool products in international textile markets be improved?;
- are there better ways to fund and administer wool research and promotion?; and
- how appropriate are the existing institutional and statutory arrangements?

The Task Force saw its fundamental objective as ensuring that wool businesses are given the best opportunity possible to be profitable on a sustainable basis.

Equally, the Task Force determined that it should describe the situation as it saw it, honestly and with no gilding of lilies or fudging of hard issues.

The members of the Task Force were:

- Mr Ian McLachlan AO (Chairman), a woolgrower, former president of the National Farmers' Federation and the Wool Council of Australia, and former Minister for Defence;
- Mr Harold Clough AO, OBE, Chairman of Clough Ltd, a Western Australian based publicly listed engineering firm, and former president of the Australian Chamber of Commerce and Industry;

- Mr Perry Gunner, Chairman of Orlando Wyndham Group, a major Australian wine company, and former Chairman of the South Australian Wool Industry Development Board;
- Mr Mark Johnson, Co-Chairman Corporate Finance Group and Director Macquarie Bank Limited;
- Ms Julia King, Chief Executive, Louis Vuitton Oceania; and
- Professor Danny Samson, Professor of Management at the University of Melbourne.

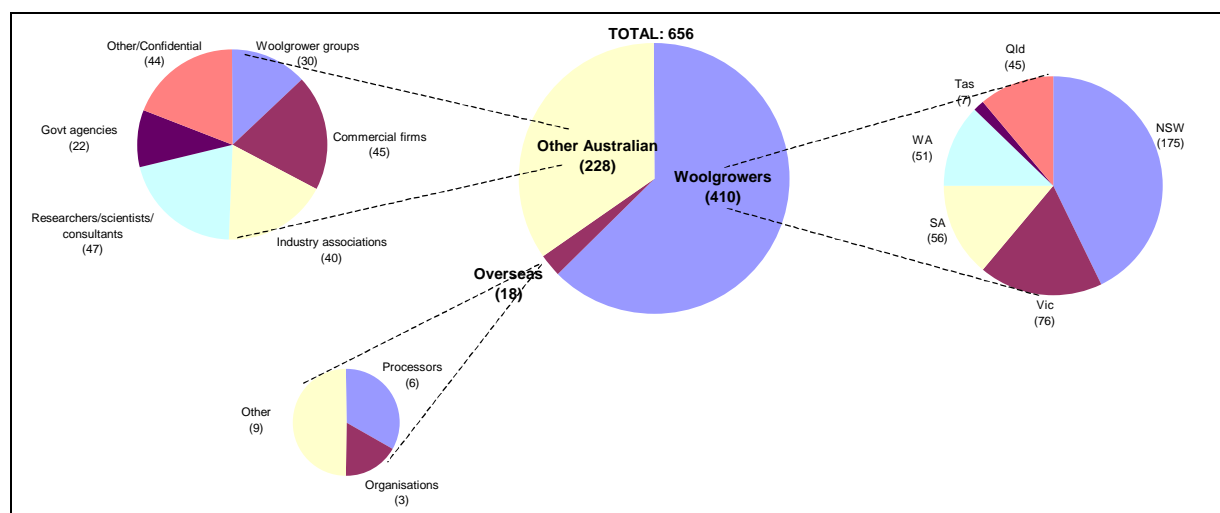
The Task Force was assisted in its work by ACIL Consulting Pty Ltd and Hassall and Associates Pty Ltd.

1.2 Approach

The Task Force was appointed in early 1999 and commenced its work in late January. In early February it prepared an Issues Paper, distributing it to a wide range of interested parties in Australia and overseas, and posting a copy on its web page. The Issues Paper is reproduced at Appendix 2. During this early period, meetings were held with a number of institutional groups and individuals to help the Task Force develop its understanding of key issues confronting wool.

The Issues Paper invited those interested in wool’s future to make submissions to the Task Force, addressing any or all of the terms of reference. Over 650 submissions were received; Chart 1 provides a breakdown.

Chart 1: Authors of Submissions to the Task Force, by Category and Location



As indicated in Chart 1, about two-thirds of submissions were from individual woolgrowers and woolgrowing businesses. A point of interest is that over 70 of them — or in excess of 10 percent of the total — were received electronically.

All submissions were studied by the Task Force and their main points summarised. This summary appears as Appendix 3 — apart from those authors who requested confidentiality. While some authors may quibble that the summary does not do full justice to their arguments — and the Task Force apologises to them if this is the case — Appendix 3 is a powerful and valuable component of the overall report. In part, it demonstrates the enormous variation in views put forward — quite literally, from all points of the compass. More importantly, Appendix 3, although highly summarised, provides a wealth of information, especially in regard to the thinking of those who are determined to secure a profitable future for themselves and their businesses in woolgrowing and other wool-related activities. It provides valuable ideas for others to ponder or pursue.

The Task Force would like to thank all those who took the trouble to make submissions, for the thought and effort which went into them, and the goodwill which was expressed towards the Task Force and the challenge it faced.

From late March to mid June, the Task Force held consultative meetings with a selected range of individuals and groups who had made submissions. A list of these meetings — which totalled 100 and involved over 260 people — is at Appendix 4. Meetings were held in the mainland State capitals, as well as Dubbo, Wagga, Kojonup, Geelong, Launceston and Young. Unfortunately, time did not allow the Task Force to meet with all those it would like to have met, nor to visit a full range of regional centres. Nevertheless, the Task Force believes that, through reading the submissions, via face-to-face discussions, and via telephone contact with a large number of other submission authors, it obtained an excellent grasp of the breadth of opinion which exists and the many constructive proposals for change and improvement.

In late April and the first half of May, members of the Task Force travelled overseas to meet with key customers of Australian wool in its major markets, and others who had been identified as having relevant perspectives to offer. Meetings were held in Japan, China, France, Italy, Germany, the United Kingdom and the United States. A full list of those who met with the Task Force is contained in Appendix 5. There were 50 individual meetings, involving around 120 people. Once again, the Task Force is appreciative of the considerable effort taken by so many people at short notice, a number of whom travelled considerable distances to attend the meetings.

As with the domestic consultations, the Task Force was aware that its tight schedule meant it was not possible to meet personally with all those who had constructive views to offer. However, the Task Force considered that the overseas visit program enabled it to gain a comprehensive and up-to-date assessment of conditions and prospects in the wool textile chain, the competitiveness of wool as a textile fibre, and various proposals for reform.

In late May/early June, at the request of the President of the International Wool Textile Organisation (IWTO), the Chairman of the Task Force attended the annual conference of IWTO in Florence. He held formal meetings with the German, Indian and South African

delegations, two meetings with the IWTO Executive Committee, as well as a wide range of informal discussions with many delegates.

Throughout this period, the Task Force was continuing the research and analytical tasks which formed part of its terms of reference. This enabled the report to be written, and recommendations finalised, within the timetable prescribed by the Minister.

There have been many previous inquiries and major reports on facets of the wool industry. One estimate was that, starting with the Philp Report of 1962, there had been 31 such reports — a number which attracted some media comment. No one seemed to have a complete list of these 31 reports, so the Task Force compiled its own. This is shown at Appendix 6 — it comprises 55 reports and major research documents.

If the Task Force's recommendations are implemented, the Task Force considers that this will be the last wool report of its type.

1.3 Report Outline

The next chapter provides a stocktake of the present situation confronting wool. It examines the movement of wool prices, factors affecting demand, the cost structure and competitiveness of the supply chain, and on-farm productivity and profitability. The conclusion is that unless dramatic changes occur quickly, woolgrowing will retreat to a relatively small rural activity. Conversely, if major improvements do occur, there is no reason why the competitiveness of wool and the profitability of wool businesses cannot increase.

The focus of Chapter 4 is on woolgrowing businesses. After recommending an end to reference to “the wool industry”, it outlines a number of areas where performance can improve: scale and leasing, pasture management, superior genetics, on-farm and in-shed testing, wool harvesting, quality assurance and the elimination of contamination. A final section discusses adjustment consequences for those unable to make sufficiently rapid changes and improvements.

Chapter 4 discusses wool marketing issues. It unambiguously rejects any future reserve price scheme and discusses risk management, auction and electronic selling, the Australian Wool Exchange (AWEX), direct and forward selling, marketing groups and supply contracting. It concludes that wool marketing is poised for rapid change, with many alternatives now available.

In Chapter 5 a number of matters relevant to wool processing and the wool fibre are discussed. These include Truth in Labelling, wool testing and the Australian Wool Testing Authority (AWTA), vertical integration, value adding in Australia, the retail sector, fashions and markets, technical assistance in China, and wool fibre innovation.

Chapter 6 is concerned with the conduct of research and development (R&D) and promotion. The market failure case for compulsory levies is described and there is analysis on an alternative export levy proposal, AWRAP's wool R&D performance, CSIRO, the Cooperative Research Centre (CRC) for Premium Quality Wool, promotion and the Woolmark symbol, and the benefits of promotion for woolgrowers.

The final Chapter 7 describes organisational structure and governance changes recommended by the Task Force, principally the creation of a woolgrower shareholder-owned Australian Wool Services (AWS) to replace AWRAP and The Woolmark Company. Its initial operation is outlined, especially in the lead up to its first annual meeting, to be held not later than 31 March 2001, at which shareholders would vote on its future.

1.4 Acknowledgments

The Task Force has been greatly assisted by many people. Apart from submission authors and those with whom it met in Australia and overseas, the Task Force would like to thank its consultants, David Trebeck, Denis Hussey, Greg Martin and Rob Campbell of ACIL Consulting and Graham Peart of Hassall and Associates, plus Kim Murray and Jan Coles who provided an efficient secretariat, Sally Gordon of ACIL who typed the report, Jonathon Bull of Design Print Solutions Pty Ltd and, overseas, Frank Kitamura and Tomi Hiraga, for arranging appointments and providing translation in Japan, Robert Wang of The Woolmark Company, Melbourne, for providing translation in China, and Federica Adami of Austrade in Milan, who arranged the Task Force's appointments in Italy. Specific inputs to the Task Force's research were made by David Michael, David Sackett and Anna Buduls, to whom the Task Force also extends its grateful appreciation.

Finally, the Task Force would like to record its particular appreciation of Mr Henry Grunzke, immediate past President of IWTO, who came to and arranged a number of meetings of the Task Force and for the Chairman of the Task Force at the IWTO conference in Florence. Sadly, Mr Grunzke passed away just before the report was completed.

2 Confronting Realities: Where Are We Now?

2.1 What is the Problem?

The starting point for assessing the competitiveness of wool as a textile fibre and the financial performance of woolgrowing and wool textile businesses, is to be clear about the nature of the current problem. In turn, this depends on the perspective being taken.

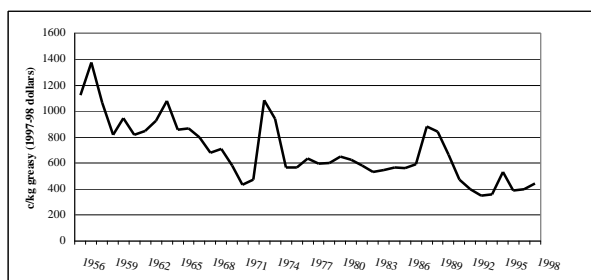
Woolgrowers see poor demand and a costly, cumbersome wool marketing and processing pipeline, which translate into inadequate prices and a lack of profitability. In addition, judging by their submissions to the Task Force, many woolgrowers are still inclined to blame someone else for their predicament (such as “cartels and industrialists” or “the trade” or “brokers and buyers” or “the Government”) and/or believe that there is a “they” out there — either an all powerful central organisation or hot-shot marketers — who can wave a magic wand and produce overnight prosperity for all.

In a sense this is not surprising, because for the past 30 years or so woolgrowers have delegated responsibility for the conduct of much of the research and development (R&D), promotion and at times marketing/market support to centralised agencies. In the process they levied themselves \$5.7 billion from their gross wool receipts (since 1936-37), \$2.3 billion of it on R&D and promotion (or \$4.7 billion if measured in today’s dollars, adjusted for inflation), and the balance (\$3.4 billion) for market support — as Appendix 7 summarises.¹

Old habits die hard — but die this habit must. The Task Force endorses the warning conveyed in a submission by a NSW woolgrower, to “be wary of charismatic Messiahs leading the industry purposefully out of its wilderness with an overwhelmingly firm hand”.

Woolgrowers need to recognise that the long term trend of real wool prices, like those of other commodities, is downwards. Chart 2 shows the price of wool in real terms since 1956 (that is, ignoring the impact of the Korean wool boom of the early 1950s).

Chart 2: Long Term Real Prices of Wool



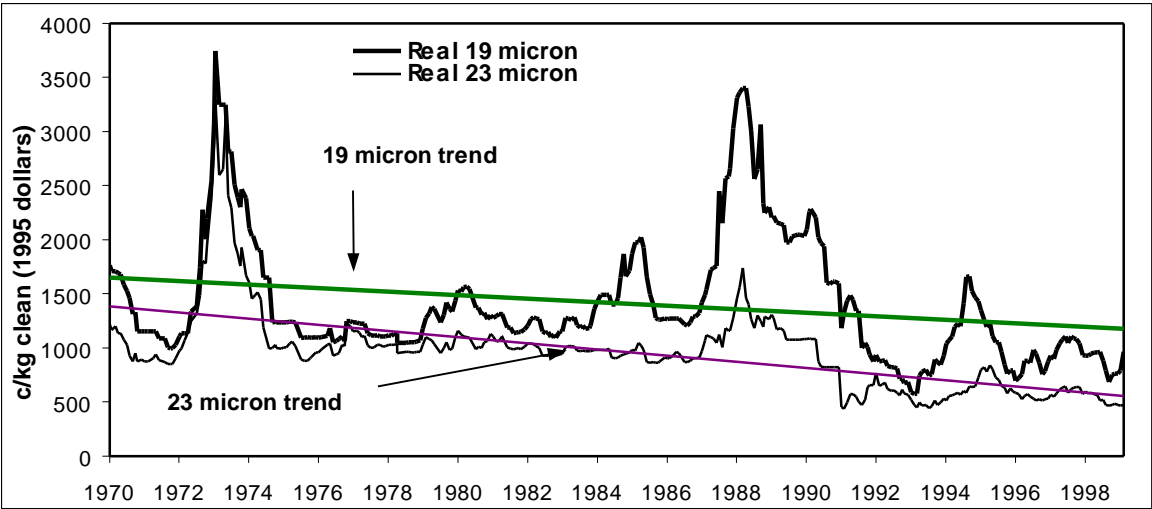
Source: AWRAP

¹ When the Government’s contributions are added, total payments for R&D, promotion and marketing amount to \$6.6 billion since 1936-37, or \$12.6 billion measured in today’s dollar values (less some revolvment of market support fund levies back to woolgrowers in the late 1980s).

While there have been a number of price spikes over the years, the downward trend has been clear. Present wool prices may be below trend, and periodic price spikes may occur in future, but this does not mean that long term trends have been reversed.

Moreover, the average wool price trend of Chart 2 conceals some important messages. Chart 3 shows real prices for 19 and 23 micron wool since 1970, together with a trend line for each. As David Sackett has noted: “the real price of both 19 micron and 23 micron wool are declining but the 23 micron price is declining at nearly twice the rate of 19 micron wool”.²

Chart 3: Real Prices for 19 and 23 Micron Wool

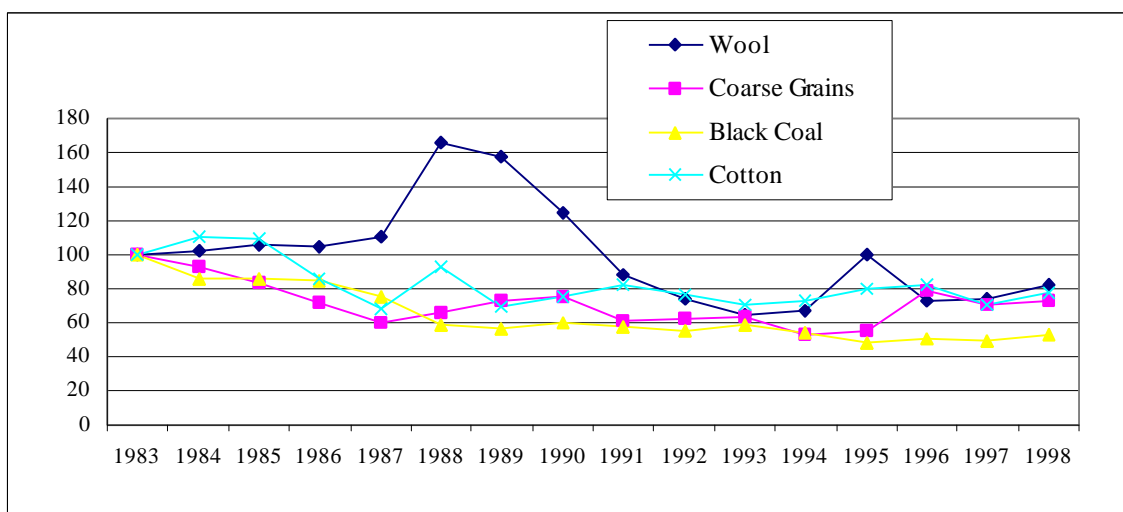


Source: Holmes Sackett and Associates

Indeed, in recent years, the price of wool has actually fared better than a number of other commodities, including cotton — as Chart 4 illustrates — yet cotton growers are not facing the same profitability challenges as woolgrowers.

² David Sackett (1999), “Is Wool in Terminal Decline?”, *Holmes and Sackett On Farm*, Issue 59, April/May 1999, p.2.

Chart 4: Recent Commodity Price Movements



Source: ABARE

The reasons why commodity prices tend to fall in real terms over time are briefly summarised in Box 1.

Box 1: Why Do Commodity Prices Fall?

Most commodity markets are characterised by long term declines in real prices, a trend which has been evident for more than a century. Much of the decline can be attributed to technical change and innovation. For example, steady increases in food production during the 19th century were followed by spectacular growth during the 20th century. The so-called 'green revolution' during the 1960s and 1970s was made possible by the introduction of high-yielding hybrid varieties of wheat and maize, dwarf varieties of rice, pesticides and chemical fertilisers. These trends have also been observed in wool, one woolgrower telling the Task Force that he now produced as much wool on 3000 ha as his property once produced on 30000 ha. Continued technological progress on the supply side is likely to reinforce a continuation of downward trends in the price of some commodities.

Also driving long term trends have been developments on the demand side. In the case of wool, a major development was the emergence of artificial fibres. Similarly, changes in taste over time (for example a shift to entertainment and outdoor activities) can also influence the long term demand and price trends for particular commodities, products and services. Agricultural products, especially food, now represent a lower proportion of consumer spending than a century ago. As societies become more wealthy, shifts in taste and spending patterns can be expected to continue.

The post World War II period introduced a further important factor for the long term behaviour of agricultural markets – significant government intervention in some countries to try and raise prices and incomes received by domestic farmers. This contributed to huge surpluses of some agricultural products as farmers lifted output to gain maximum benefit from various subsidies and price support schemes. The European Union is a classic example.

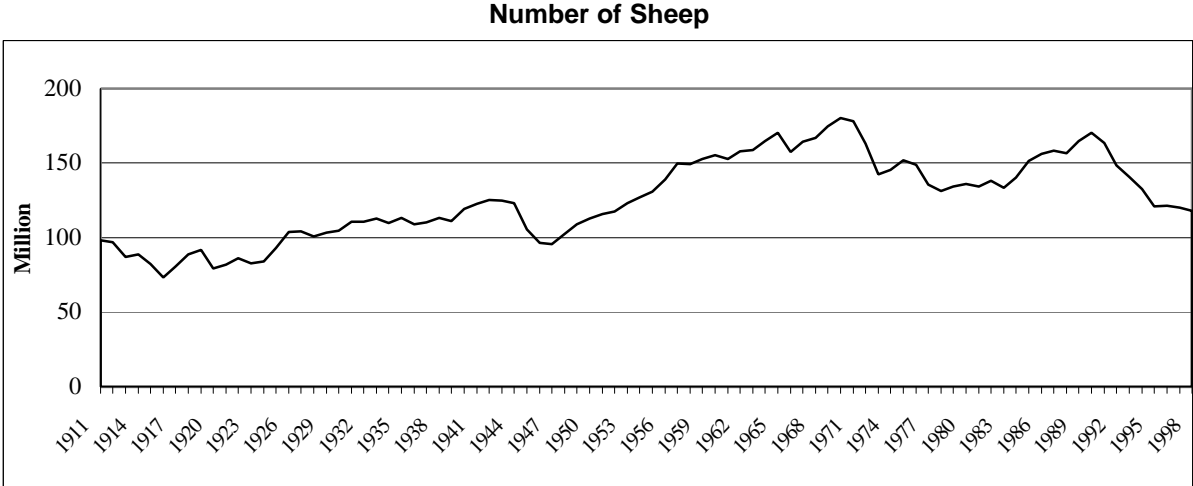
Wool and other agricultural and resource commodities are not the only products to experience long term declines in real prices. Some notable non-commodity examples are personal computers, mobile telephones and air travel.

The key point is that output prices say little about how profitable a business is. There are many profitable computer manufacturers and airline companies, just as there are profitable woolgrowers, farmers and mining companies.

Many woolgrowers are already voting with their feet in response to inadequate profitability arising from a fall in wool prices. Since 1990 sheep numbers have fallen by 30 percent and the number of woolgrowers by about 20 percent — reversing trends which were evident in the

late 1980s — see Chart 5. Whether these trends will continue depends on whether profitability can be restored to a sufficient number of woolgrowers.

Chart 5: Australian Sheep Numbers



Source: AWRAP

The nature of the problem as perceived by businesses in the wool textile chain is slightly different. Certainly, they also observe poor demand, and many of them are also unprofitable. In this context, it is important that woolgrowers understand that their early stage processing customers, as well as brokers, exporters and the like, have substantial capital investments which are totally dedicated to wool. The future of those investments depends equally on wool’s success. Recent closures by some topmaking plants overseas and long established wool buying firms in Australia illustrates this point.

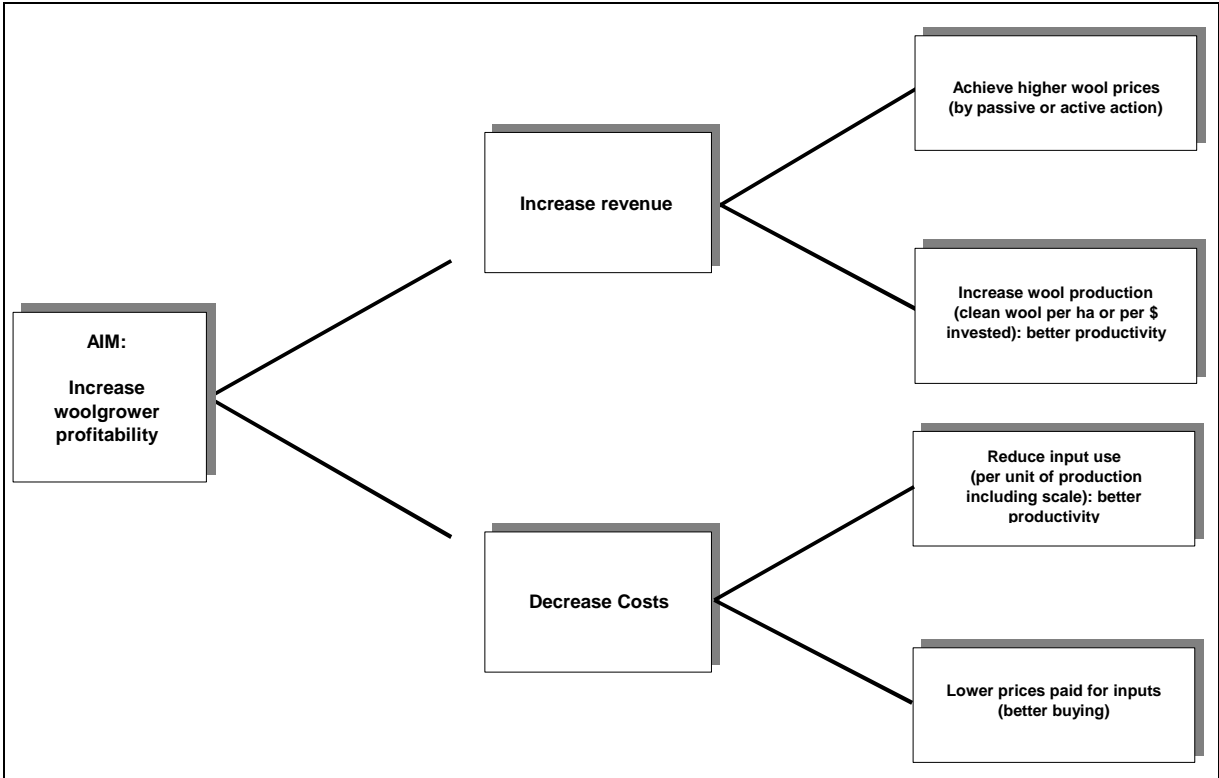
Indeed, all stages in the wool textile chain are more profitable when wool prices are higher (meaning demand is stronger) than when prices are lower (and demand is weak). Woolgrowers do not always recognise this fact. Many perceive their customers as “the enemy” rather than as their partners in a global textile market where wool has a declining 4 percent share.

Businesses in the wool textile chain are aware that part of the present weak demand is attributable to cyclical factors (such as the Asian crisis or the earlier and more prolonged slump of the former Soviet Union economy), while part is attributable to structural factors, which are longer term in nature. These include shifts in retail consumption patterns, changes in the relative attractiveness of competing fibres and quality or reliability deficiencies in raw wool supply.

As part of the process of diagnosis it is important to analyse and understand these factors in some detail, starting with the consumer end of the pipeline. In doing so, woolgrowers should bear in mind that the profitability of their wool businesses can only be restored or increased if

their revenue received increases, or their costs of production fall. Apart from a cyclical price recovery, higher revenue from higher prices is unlikely unless wool can be transformed from something akin to a commodity, to an industrial raw material whose intrinsic value can shift to a different plane. Lower costs can be achieved by a combination of efficiency improvement, development of new technology, productivity enhancement and/or expansion of scale. This is depicted schematically in Chart 6.

Chart 6: Restoring or Increasing the Profitability of Woolgrowing Businesses

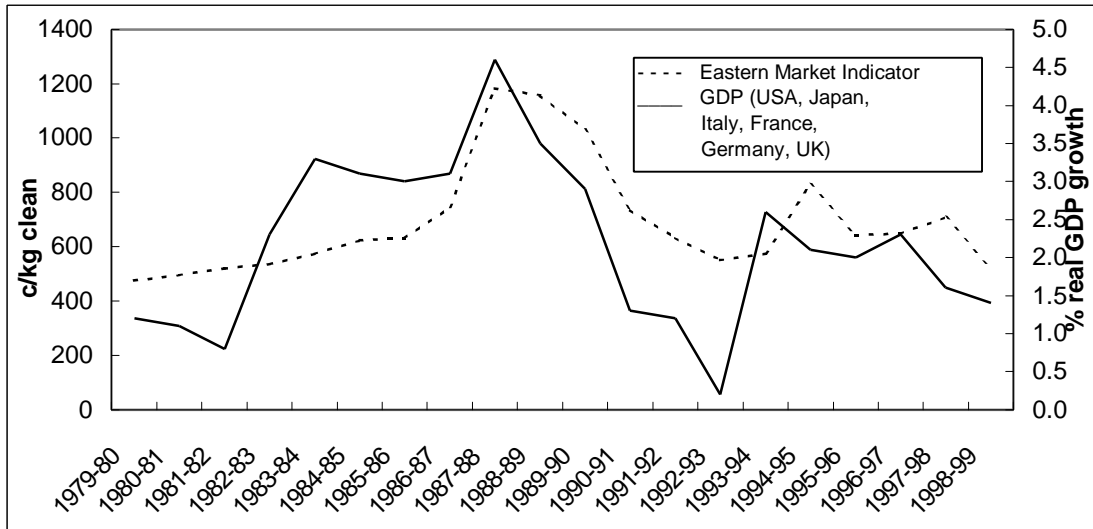


2.2 Factors Affecting the Demand for Australian Wool

Most Australian wool — particularly wool of less than 25 microns — is used for the manufacture of apparel. Other end uses include interior textiles, such as furnishings, curtains, blankets and carpets.

The dominant influence on wool demand remains the level of economic growth. When economies are growing at above about 2 percent per annum, wool demand tends to increase, as Chart 7 indicates (using price as a rough proxy for the strength of demand). Consumers then have the confidence to purchase apparel. When economies are contracting, apparel purchases tend to be deferred.

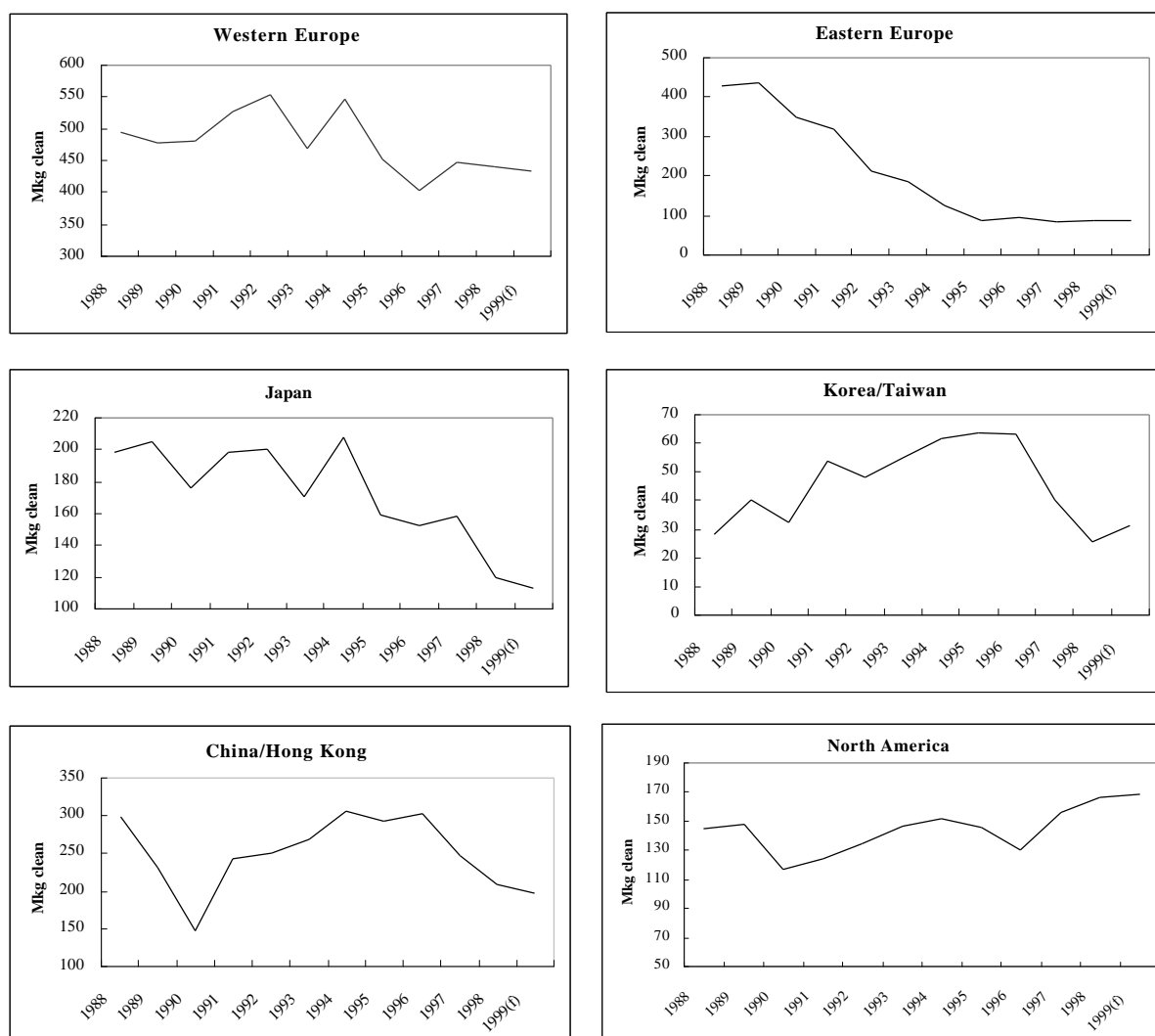
Chart 7: GDP Growth and the Price of Wool



Source: AWRAP

Also, as incomes rise more spending power is available for clothing, and better quality clothing, rather than pure essentials. Thus Chart 8 shows that, during the 1980s and 1990s, wool demand in the United States rose steadily, whereas demand in other regions was more fragile. In this sense, the single most important influence on wool demand is probably the policies pursued by the Chairman of the United States Federal Reserve, and his counterparts in other countries.

Chart 8: Recent Wool Demand in Major Consuming Regions



Source: AWRAP

This strong relationship may be sufficient for some people to conclude that any research or promotional activity by anyone is futile, as it would be swamped by the larger forces at work. In the Task Force's opinion, this would be a simplistic conclusion to draw, and a dangerous one. Nevertheless, it is important to understand the larger forces at work.

Apart from trends in economic growth, there have also been important shifts in consumption patterns which, over a longer time period, have not been helpful to wool demand:

- the increasing availability of air conditioning — in homes, offices and transport — has dramatically changed many of the traditional uses of wool and wool products: overcoats, heavy sweaters, blankets, heavy formal men's suits etc;
- the progressive improvement in the quality and price reductions of artificial fibres — such as polyester, nylon and acrylic — has resulted in the substitution of wool

in important end use categories; the development of new, better performing, micro fibres is a more recent development and a disconcerting one — as Box 2 explains;

- the significant military factor in wool consumption (such as during the Korean War in the early 1950s or the Soviet Union in the 1970s and 1980s) is no longer relevant;
- in recent times there has been a pronounced shift to more casual clothing in many developed countries (for example, “casual Friday” dressing in some work places); and
- the proportion of disposable income spent on clothing has tended to fall over the past decade, whereas expenditure on such things as home computers, mobile phones, overseas holidays or trips to the beach, sporting activities, other forms of entertainment, and restaurant eating has increased.

Box 2: Shingosen: A New Threat to Natural Fibres?

Shingosen (or “new synthetic fibre”) refers to a group of fabric products that have been developed over the past decade from ultra fine polyester fibres with a fibre diameter in the range 7-12 microns, well below any natural fibres, such as the finest wool, silk or cashmere. The first commercial application emerged in the form of suede-like leather. Sillook (a silk look-alike) was developed by Toray Industries (Japan). Micromattique (a dacron group fibre) was developed by DuPont and claims “styling possibilities unmatched by other fibres – extreme softness, comfort and aesthetics.”

The research behind Shingosen took place over many years, and attempted to replicate the properties of natural fibres, especially silk. Sophisticated electron microscopy was used to analyse natural fibre characteristics, from which new fabrics could be created which emulated the best that natural fibres could offer, apart from natural moisture management.

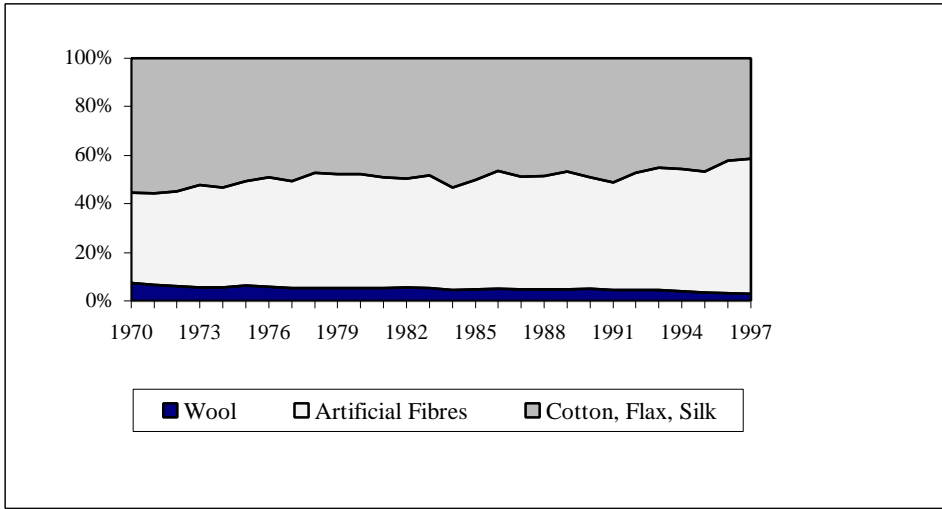
At present, Shingosen material has some remaining weaknesses in the dyeing and finishing processes. However, it has come a long way since the late 1960s when the first such fibres appeared as a technological curiosity. Complacency about its further development would be dangerous, since the manufacturers are addressing remaining shortcomings.

Obviously, the success already achieved by Shingosen carries significant messages for wool, and its on- and off-farm research. The scale, vertically integrated and closely coordinated structure of the polyester business allows the research to be funded and facilitates the capture of benefits. Quality control throughout the processing chain is a particular feature. The specific way in which the attributes of natural fibres have been targeted is almost chilling. Perhaps one way in which woolgrowers will need to respond is by using genetic engineering to tailor the properties of wool more precisely and so enhance its market potential. Another implication is to underscore the importance of an innovation like Optim, discussed later.

Source: Task Force research; Dr Brett Bateup, CSIRO, personal communication.

As a result of these trends, wool’s share of the total textile market has fallen to even lower levels over the past 30 years — as depicted in Chart 9. It is interesting to note that cotton’s market share has also fallen.

Chart 9: Wool's Share of the Textile Market



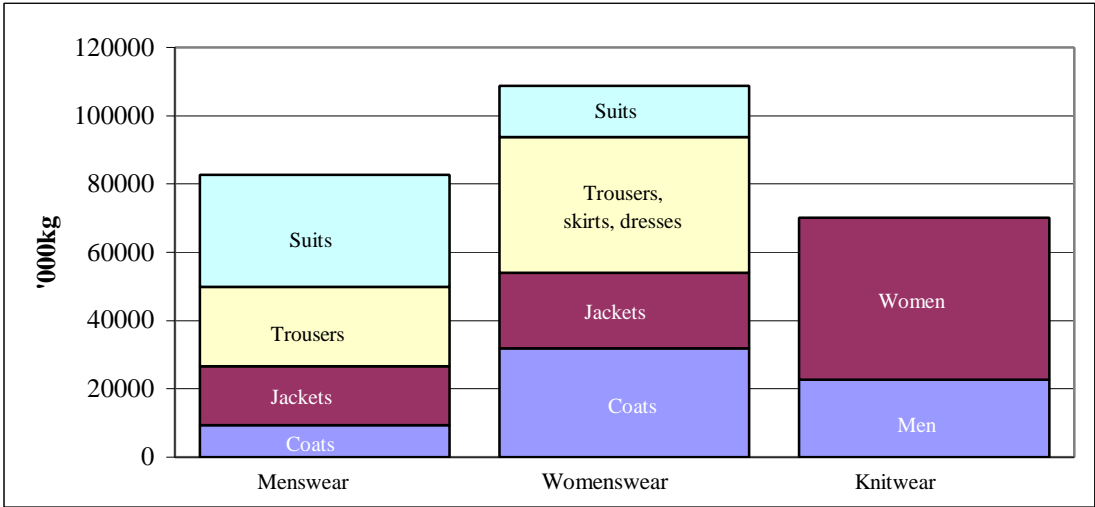
Source: International Rayon and Synthetic Fibres Committee, FAO, Japan Chemical Fibres Association, The Woolmark Company.

The conclusion is unambiguous: wool is no longer an essential item for consumers — civilisation would not come to an end if suddenly wool were no longer available.

But the same could be said for many other products and activities — such as the non-essential alternatives to clothing noted above. The challenge is to make wool relevant and preferred in today's highly congested and competitive market place.

Wool's main apparel end uses are men's wear, womenswear and knitwear. The extent to which wool is represented in these sectors varies between countries, by consumer type and over time — but the main data are summarised in Chart 10.

Chart 10: Major End Use Categories for Wool



Source: Estimated by The Woolmark Company from Consumer Purchase Research.

People who have lived or worked with wool all their lives, whether woolgrowers, wool processors, specialist wool product retailers, or loyal wool consumers, need no convincing about its virtues as a fibre. These virtues are listed in Box 3. However, it is equally important that woolgrowers recognise the negative perceptions which exist in the market place and the positive attributes which are perceived for artificial fibres. Both are also listed in Box 3. After all, if the only attributes which mattered were the positive ones, wool's predicament would hardly be as it is. As one industry commentator observed in his submission to the Task Force:

“Wool may be a wonderful ‘natural’ product but this alone is not enough to ensure its relevance and survival in the future. Whale oil was also a wonderful natural product and whaling was one of Australia's first primary industries, but the improved technology of its competitors saw both the product and the industry relegated to the historical scrapheap long before environmental concerns closed the industry down worldwide.”

Box 3: What Are Wool's Attributes – and Deficiencies?

A large number of woolgrower submissions to the Task Force listed the attributes which they considered the wool fibre and wool products possess. Often this was in the context of criticism that consumers (particularly younger consumers) were insufficiently aware of wool's positive attributes, or that the positives were inadequately stressed in promotional material. However, consumer research has consistently shown that the fibre itself is a relatively unimportant factor in a purchase decision, compared with style, colour, brand etc.

The following list of wool's attributes is drawn from various submissions:

- lightness
- softness
- naturalness
- breathability
- durability
- versatility
- drapes well
- elasticity
- non flammability
- dispersal of moisture
- hygroscopic
- warm when wet
- shape recovery
- easy to sew
- insulation
- creative
- sensuous
- beauty

A number of submissions highlighted wool's environmental credentials – such as “clean” (minimal chemicals), “green” (biodegradable), water efficient, minimal land cultivation, minimal methane emissions, etc. Some of these attributes – and their ability to be more heavily promoted – were also stressed to the Task Force overseas (particularly in Japan).

Among the negative perceptions of wool are:

- fibre weakness
- heavy
- prickly
- old fashioned
- formal
- conservative
- expensive
- non machine washable
- non easy care
- non wrinkle resistant
- pilling
- doesn't dye with bright colours
- not an everyday fabric

Claimed advantages for some of the most successful and competitive artificial fibres are:

- light
- machine washable
- easy care
- cheap
- fineness
- wrinkle resistant
- durable
- modern
- versatile
- consistency

If wool is to have a sound future, it obviously needs to build on its intrinsic attributes and rectify present deficiencies, whether real or perceived. The two main problems are those of coarse fibres (prickle) and lack of easy care in all applications.

One criterion on which wool is — or potentially should be — well placed is its status as a natural fibre. There is no doubt that the environmental awareness and sensitivity of today's consumers are greater than ever before. For example, hotel guests are frequently urged to “save the earth” by re-using their towels rather than seeking a fresh supply every day! During their overseas visit, members of the Task Force saw and heard numerous examples where the “natural” qualities of wool were regarded as a strong positive.

Over the past two decades there have been several fashion swings reflecting these attributes — such as following the oil price hikes in the 1970s and the Chernobyl nuclear accident in the 1980s. The International Wool Secretariat (IWS) capitalised on them at the time, with promotions such as “take a look at our factory”, showing sheep grazing contentedly on green pastures. A recent and innovative wool recycling/environmental initiative in Japan is described in Box 4.

Box 4: Recycling Wool to Create New Demand and Boost Wool's Image

Lateral thinking often produces ingenious but simple ideas. This one is the brainchild of Mr Frank Kitamura, former AWC and IWS manager in Japan.

About 6 years ago, Mr Kitamura noticed an industry survey which estimated the extent of “unused clothing” being stored in Japanese wardrobes. He made a rough estimate of the proportion of wool clothing and reckoned that, both physically and psychologically, it was probably acting as a blocker to new wool clothing purchases.

He spoke to leading wool spinner Toabo and leading retail chain Aoki, proposing a two part strategy: Aoki would offer a 5 percent discount on the price of a new wool garment if a customer brought in an existing item of wool clothing for recycling, which would be delivered, free of charge, to Toabo. Potential recycling uses included: building insulation, bedding interiors, oil slick absorbers, motor vehicle underfelt, horticultural mulch, and biodegradable garden pots. The recycled garments would be chopped into small pieces and the non wool contents (such as buttons, zippers and linings) removed by air being blown across the mix.

As well as the potential commercial benefits to the participating companies, a powerful and topical (if subliminal) message could be conveyed to consumers that wool is: ecologically friendly, safe, fire resistant, and sound proof. A poster was prepared showing wool originating in a paddock, passing through a mill, a house, back to a mill and finally being returned to the paddock. Consumers were reinforced in the view that what they were doing was “in a good cause”.

The project was developed with no financial support from IWS/The Woolmark Company.

In the first year of the scheme (1996), around 30,000 garments were recycled.

Two years later, this number had exploded to 500,000, and the number of participating retailers had grown. There are now 13 menswear retail chains involved, 3 uniform manufacturers and two industrial material firms. The members joined what was called the Wool Eco-cycle Club, a name designed to combine the sentiments of economic value, ecology and recycling. By 2003, it is expected that 3 million garments will be recycled annually.

For Aoki, the benefits have been substantial. Half the recyclers are new customers – many of whom had never previously visited an Aoki store. Its sales of men's suits rose 35 percent in the first year of operation. Toabo, apart from developing a commercially valuable product, received tangible recognition from the Government in the form of a ¥ 100 million (\$1.3 million) MITI grant. The recycled insulation product is seen to be superior than using new wool because it achieves the ultimate in price stabilisation (from the manufacturer viewpoint): a nil raw material outlay! However, in reality none of the recycled wool is displacing new wool.

Source: Mr Frank Kitamura, personal communication.

Nevertheless, consumers remain an enigma. If they are as environmentally caring as is often claimed, why are they apparently so unfazed about wearing “petroleum-derived clothes”?

Does this reflect ignorance, or double standards, or hypocrisy, or a triumph of marketing campaigns by wool's competitors? How should wool respond? Should it campaign more aggressively against artificial fibres — such as labelling them “unnatural”, rather than the less jarring “synthetic” or “man-made”? Should it seek to combine forces more strongly with other natural fibres such as cotton? What impact would such aggressive tactics have for those market segments where wool is blended beneficially with artificial fibres? Should wool seek to expose attempted repackaging campaigns — such as Tactel for nylon — or relaunch itself as “Australian Merino soft”, or “Merino microfibre”, or “Tasmania” — all suggestions conveyed in submissions to the Task Force?

These questions raise complex and important considerations, about which the Task Force has thought carefully. In the end, apart from concluding that wool's natural fibre status is undoubtedly an underexploited virtue, the Task Force does not come to an unequivocal conclusion on what should be done — consistent with its overall view that a diversity of approaches is appropriate for the diversity of situations in which wool needs to be marketed.

However, the Task Force would add one important caveat: to the extent that positive environmental attributes will help wool in the future, there must be no environmental negatives which can derail such efforts — such as undesirable residues in wool fabrics surviving from farm treatment of sheep or treatments during wool processing. Otherwise, any attempts to polish wool's environmental halo may backfire.

A further and important factor affecting wool demand is the persistence of trade barriers in various countries. Australian woolgrowers have long championed the cause of free trade — appropriately so, because of its impact on global wool textile trade flows and, in the case of unilateral trade liberalisation by Australia, its impact on the efficiency of domestic resource allocation.³ The position has improved somewhat in recent years due to GATT/WTO negotiations and microeconomic reform in Australia. However, there is still a long way to go, as Chart 11 demonstrates.

³ In essence, the argument is that, as a lightly protected, efficient export activity, woolgrowing is disadvantaged (on the cost but particularly the revenue side) by high levels of protection to other industries, especially at the time when there was a close nexus between manufacturing protection and high wage rate claims in a centralised wage fixing environment. The corollary is that, other things being equal, trade liberalisation in Australia increases the relative attractiveness of woolgrowing compared with many other resource uses.

Chart 11: Import Barriers for Wool and Wool Textile Products

Wool Products	Australia	China	Japan	Korea	United States	India	Europe
Greasy Wool	Free	1%-38%	Free	Free	Free-19.2 c/kg	21.2%	Free
Wool Top	Free	3%-38%	Free	Free	4.7% + 5.8 c/kg	53.3%	2%
Worsted Yarn	5%	20%	2.7%	8%	7.5%	61.2%	3.8%
Worsted Fabric (>85% wool)	22%	28%	6.6%	13%	30.6%	61.2%	10.5-12%
Men's Suits	31%	33%	10.9%	13%	19.2% + 26.4 c/kg	61.2%	13.2%
Men's Trousers	31%	33%	10.9%	13%	18.6% + 47.4 c/kg	61.2%	13.2%
Women's Jackets	31%	33%	10.9%	13%	19.2% + 23.2 c/kg	61.2%	13.2%
Women's Trousers	31%	33%	10.9%	13%	15.3%	61.2%	13.2%
Sweaters	31%	33%	10.9%	13%	16.5%	61.2%	10.5-13%

Notes:

1. With China's tariff quota system, the lower concessional tariff applies to wool within quota.
2. In India and China, imported raw wool and top which is subsequently exported receive a full tariff rebate.
3. Greasy wool in the case of China and India includes greasy, scoured and carbonised.

Source: The Woolmark Company 1999.

The Task Force encountered these issues on several occasions. First, in China the cumbersome process of wool quota determination and allocation to mills, and the associated — and equally cumbersome — process for mills to obtain foreign exchange approval before buying orders can be executed, unquestionably adds uncertainty in raw wool markets. Thus, it inhibits raw wool demand and, crucially, damages the interests of the Chinese wool textile industry itself. The processes are briefly outlined in Box 5. The Task Force discussed these issues and their effects in some detail with the Chairman of the State Textile Industry Bureau (STIB), Mr Du Yuzhou, and the President of the China Wool Textile Association (CWTA), Mme Mao Jinfeng. Given China's importance as a customer of Australian wool, the operation of its quota system is of fundamental importance. Several recommendations are contained in Box 5.

Box 5: The Chinese Wool Quota System

Imports of wool into China, like imports of many other products, are administered centrally and involve a complex quota regime with an internal split between product imported for domestic consumption and re-export. Despite China's desire to accede to the WTO, wool import arrangements are now more complex than previously, driven largely by a concerted attempt to crackdown on widespread illegal entry of product and to protect domestic wool producers by restricting imports for domestic consumption.

In 1998 the global quota for imported wool was set at 280,000 tonnes (clean) including 60,000 tonnes specifically allocated for tops. Introduction of a tariff quota followed completion of WTO accession negotiations with New Zealand. Australia has continued accession negotiations with agreement that, assuming accession in 2000, the tariff quotas will be 242200 tonnes for raw wool and 65000 tonnes for tops for WTO members, with annual growth rates of 4.5 percent and 5 percent compound respectively.

Although not acknowledged publicly, the 1998 split between imports for domestic consumption, and re-export is believed to have been 100,000 tonnes for domestic and 150,000 tonnes for re-export, with the balance of 30,000 tonnes allocated to the so-called "border trade", primarily with Russia and the Central Asian Republics.

Administration to date has been split between the State Development Planning Commission (SDPC) and the Ministry of Foreign Trade and Economic Cooperation (MOFTEC). SDPC has overall responsibility for setting and allocating the domestic quota and licensing domestic imports, with MOFTEC responsible for allocation of the re-export quota and licensing importers. Quota allocation is done with the assistance of provincial Ministries.

During 1998 STIB received for the first time a direct allocation of 15 percent of the total quota which it was able to channel to individual mills. This is an important development in enabling wool textile manufacturers direct access to raw material supplies which will help overcome quality problems experienced with many indirect deliveries. Further liberalisation is an important issue in WTO accession negotiations.

The present tariff quota system, however, remains bureaucratic and lacks transparency. This creates trade uncertainty and adds to the cost of imported product. This year there has been a significant delay in allocation of the 1999 domestic quota, disrupting wool demand in Australia and creating difficulties for individual mills, many of which had run out of wool.

Three other factors add to complexity, uncertainty and stifle demand. First, the Chinese Government has been cracking down on so-called "smuggling" of wool. Importers and others have used various devices in an attempt to avoid or reduce import duty and VAT payments, and more recently to overcome quota restrictions. These practices have their origin in the additional costs caused by the taxation and exchange rate changes which occurred in 1994. The current quota split between domestic and re-export wool has the potential to exacerbate these practices.

Second, the central authorities have embarked upon a major program of structural adjustment within the wool textile (and wider textile) industry, involving the scrapping of surplus and obsolete spindles and the privatisation of State Owned Enterprises (SOEs). While wool restructuring initially received little priority, the decision to provide a 2 billion Rmb assistance package, including the upgrading of 15 mills, is welcome. Third, there has been strong lobbying from domestic wool producers that Chinese wool should be given preference over imported wool – without recognising the quality and end-use differences involved.

Apart from the wool tariff quotas, considerable difficulties also arise through the need to obtain foreign currency approval for wool purchases from the State Administration for Foreign Exchange (SAFE). This approval process can cause further delays in wool purchases even after wool quota has been allocated.

These problems will only be finally resolved when the quota system is either scrapped or made less intrusive. While recognising that this will take time, the Task Force urges the Australian Government to encourage China down that path – in its own interests as much as Australia's – and, as a first step, to increase the proportion of quota being allocated directly to mills rather than traders, to abolish quota on re-export wools, to provide a full VAT rebate on wool product exports, and to accelerate the privatisation of SOEs.

Source: Task Force discussions in China; Mr Barry White, The Woolmark Company, personal communication.

Second, the Task Force received a number of complaints, in China and elsewhere, that remaining textile trade barriers in Australia penalise woolgrowers. The Task Force agrees. Third, the Task Force understands that an Italian wool processing firm, which has established an operation in the United States, is lobbying to have its trade barriers increased. This is a disturbing suggestion which hopefully the North American Free Trade Agreement (NAFTA) will prevent becoming a reality. And fourth, the Task Force was pleased to note in many submissions from woolgrowers and their organisations a reiteration of the need for continued Government efforts to reduce remaining trade barriers involving wool, in Australia and overseas, including criticism of the recent tariff pause for the textile, clothing and footwear (TCF) industries.

The Task Force strongly endorses these recommendations.

2.3 The Supply Chain from Woolgrower to Consumer

The supply chain from woolgrower to consumer is a lengthy and complex one. As most wool is ultimately consumed in the northern hemisphere, significant transport costs are involved. As final wool products bear little resemblance to greasy wool, considerable processing costs and value adding take place and numerous changes of ownership typically occur. As the seasonal pattern of southern hemisphere production differs from the pattern of northern hemisphere consumption, there is considerable elapsed time between the harvesting of greasy wool and the purchase of finished garments, implying a major financing task.

In addition to these intrinsic features, the supply chain is also influenced by:

- historical business structures and relationships, possibly less relevant today than they once were;

- differing degrees of labour intensity at different stages of the textile chain which, in a global market environment, result in changing optimal locations of processing activities over time; and
- additional inter-year stockholding requirements resulting from a mismatch between supply and demand, of which the Reserve Price Scheme (RPS) stockpile is the most obvious example.

The transport, handling and marketing system from farm to domestic scouring/topmaking mill or ship for export has been exhaustively analysed over the past 30 years. Indeed, the degree of scrutiny seems inversely proportional to the changes which have occurred. While it may be that the large claimed benefits in some of the theoretical studies could not be confirmed in practice by those whose capital investments were on the line, an industry-wide, consensus style decision making process added lead to the saddlebags of potential reformers.

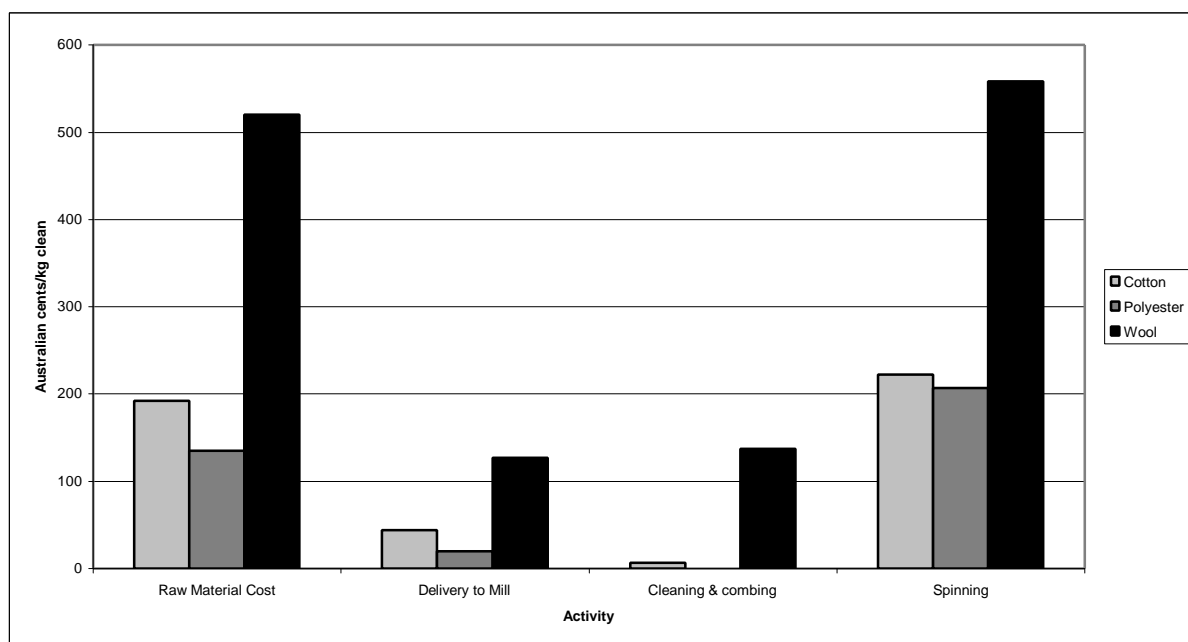
Once wool enters the scour, the number and complexity of steps depends on whether the wool moves through the worsted⁴ system (longer fibres) or the woollen system (shorter fibres). From the fabric stage, the remaining processes are garment making (in the case of apparel), wholesaling, and retailing.

A key part of the terms of reference for the Task Force was to analyse the wool fibre against its competitors, via a benchmarking study of the wool supply pipeline. The Task Force had neither the time nor the resources to conduct comprehensive primary research into fibre cost structures. However, sufficient analysis is available to enable the main issues and insights to be distilled. The Task Force's assessment is set out in Appendix 8 and summarised below.

Largely as a result of intrinsic fibre characteristics and existing industry/institutional structures, cotton and artificial fibres have significant competitive cost advantages over wool. This occurs at various stages: fibre delivery to mill, cleaning and combing, and spinning. In addition the purchase price of wool is much higher than cotton and polyester. This position is summarised in Chart 12. Chart 12 comprises average, not best practice, cost estimates and therefore does not capture some of the more innovative arrangements now on offer. However, it is probably typical of the majority of wool as currently delivered. It implies that, raw material prices excluded, the cost of producing wool yarn is roughly three times that of polyester and cotton yarn.

⁴ The name "worsted" derives from the 14th century and the town in England of that name.

Chart 12: Comparative Supply Chain Costs



Source: Derived by the Task Force, based on data from AWRAP, CSIRO, the Woolmark Company, and DJ and BA Collins.

At the fibre delivery to mill stage, the three main reasons that put wool at a disadvantage relative to cotton are:

- freight rates (accentuated by wool generally being shipped over longer distances, especially to Europe, compared with cotton, for example, to Indonesia);
- compulsory levy arrangements; and
- post sale charges.

These account for over 80 percent of the 83c/kg clean cost differential between wool and cotton. At least 20 percent (or 25c/kg) of total wool delivery costs are attributed to price discovery, whereas these costs are relatively small for cotton and artificial fibres.

At the scouring and topmaking stage, there is significant variation in costs for wool, depending on fibre diameter, yield, clip preparation practices and scouring location. Labour costs alone of removing contaminated fibres have been estimated by CSIRO at 14c/kg clean. The inconvenience of dealing with client complaints over contamination, and risks associated with purchasing non-guaranteed greasy wool, could add a further 1.5c/kg. The costs of treating and discharging effluent vary from over 20c/kg in Western Europe to less than 5c/kg in regional Australia.

Total woollscouring and topmaking costs range from \$1.35-\$1.80/kg. For other fibres, the costs of early stage processing are trivial — 7c/kg in the case of cotton and zero for polyester. Dyeing costs would add a further \$1.35/kg if undertaken at the top stage. While top dyeing is cheaper than yarn or fabric dyeing, the convenience of being able to select colours at the last moment in terms of fashion swings, often means the more expensive option is taken.

The largest absolute cost disparities between wool, cotton and polyester occur at the spinning stage, reflecting a combination of machine technology, fibre properties and yarn specifications. Long stapled wool uses ring spinning technology which has a relatively lower productivity than the rotor or roller jet spinning technologies employed for cotton and polyester. Moreover, the finer the yarn, the slower the spinning speed. A spinning mill producing polyester cotton blend yarns for knitwear, with the latest Murata roller jet technology, has a productivity rate of 400 metres/minute compared with just 20 metres/minute for ring spinning used on wool. Standard rotor spinning has an output of about 100 metres/minute.

These productivity differences also have a significant impact on total labour costs, hence the interest in spinning in low labour cost countries and regions.

Nevertheless, some spinners in both Japan and Italy told the Task Force they had recently stopped seeking ever increasing wool spinning speeds, recognising that speed (hence cost) and quality (hence value) were not synonymous.

From the fabric stage onwards, the cost differentials between wool and other fibres narrow significantly, because the tasks are similar. However, because of the impact of raw material cost differentials, relatively higher holding costs for woollen and worsted yarns continue up the chain. There are also further differences in labour costs, reflecting lower wool weaving and knitting speeds, and additional costs to remove contamination. Labour costs alone for removing contamination material from wool fabric are about 10c/kg (or 2.5c/m²).

By the time a complete garment has been produced, the cost component attributable to the raw wool is relatively small — typically, less than 5 percent, and even less in terms of the retail price.

Deriving estimates for the average processing costs of wool, cotton and polyester only forms part of a benchmarking analysis. Understanding the reasons for cost variances between average and best producers is usually more informative than just knowing the average figures. For instance, an observation that the average cost of wool warehousing is 30c/kg is less useful than knowing if the market leader's costs are 20c/kg or less — and why. Therefore, it is also important to be able to explain the reasons for performance gaps between fibres and between firms. Appendix 8 contains some discussion of these issues.

It needs to be emphasised that, as with the question of spinning speeds noted earlier, costs are not everything. Price premiums can be sustained in the face of costs disadvantages, provided the quality is sufficiently recognised by consumers. Most industries demonstrate this one way or another, the automotive industry being a good example. Nevertheless, maintaining excessive costs for no good reason makes no sense. More importantly, quality premiums may not be permanent if the competition improves, and the potential threat posed by Shingosen (Box 2) should serve as a sobering reminder.

Wool levy arrangements are more extensive than for cotton, and a relatively high proportion of the funds is allocated to off-farm programs. Whether this improves efficiency in the wool supply chain depends on the marginal rates of return for the levy investments compared with alternative uses for those funds, and whether or not those who pay can capture the benefits. The Task Force will return to these important issues of market failure in Chapter 6.

Transport, handling, testing, warehousing, dumping and selling should be normal commercial activities, where the best prospects for reducing costs lie with innovative commercial operators. Although there are just two major woolbrokers, each with large market shares, this part of the marketing chain is now exhibiting a high degree of rivalry and innovation, with recent changes to pricing structures for services, rationalisation of facilities and the imminent adoption of new selling systems. High concentration, coupled with the presence of a few small operators — as sources of innovation despite their annoyance to the large players — tends to facilitate the development and uptake of new technology. Large firms usually have the resources to develop and implement new technologies that often come from smaller firms.

As Appendix 8 describes, a useful proportion of the 83c/kg differential between wool and cotton in the fibre delivery to mill stage of the processing chain, could be reduced by a combination of:

- selling system reforms, especially the introduction of electronic selling, a general shift away from auction selling and towards direct selling to processors or vertically integrated contract arrangements;
- more early stage processing occurring in Australia or nearby Asian countries, thus reducing the impact of freight rates;
- improved warehousing cost efficiencies; and
- more direct consignments from the farm to the scour.

At the early processing stage, where the cost differential between wool and cotton is around \$1.30/kg, the following cost savings are achievable:

- up to 14c/kg through the elimination of fibre contamination, requiring an effective quality guarantee by woolgrowers;
- up to 20c/kg via further relocation of scouring and topmaking plants to regions of lower labour and effluent discharge costs; and
- up to 17c/kg via improving the capacity utilisation of larger new scours and 4c/kg via new carding machine technology.

In the past, potential to achieve a significant reduction in wool spinning costs has been claimed, for example, the Sirospun technology, but these estimates have not been realised. Now, Solospun is promising similar cost savings — in excess of 50 percent of existing spinning costs — which, if they could be delivered without offsetting disadvantages, would greatly enhance wool's competitiveness.

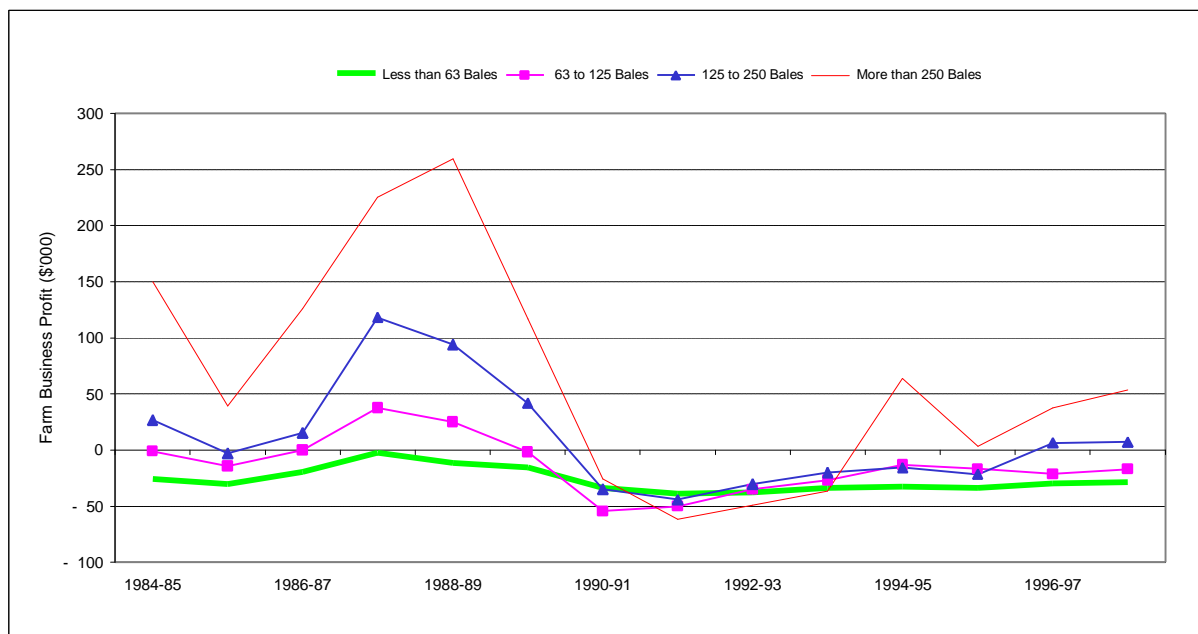
2.4 On-Farm Productivity and Profitability

As Appendix 9 shows, there were around 46,000 woolgrowers in Australia in 1996-97:

- 73 percent were mixed enterprises and 27 percent were specialist woolgrowers;
- 85 percent of woolgrowers produced less than 125 bales — equivalent to 4000-4500 sheep;

- only 2000 woolgrowers (or 4 percent) produced more than 250 bales but these woolgrowers produced 25 percent of the national clip; the largest 10 percent produced nearly 40 percent of all wool;
- most woolgrowers have incurred periods of unprofitability in recent years — see Chart 13 — for some, prolonged unprofitability has forced them to shift to other enterprises or cease farming altogether;
- economies of scale are important for profitable production — more larger growers are profitable than smaller growers; and
- enterprise diversification usually assists profitability — only a minority of smaller specialist woolgrowers were profitable in 1996-97, and all specialist woolgrower categories are expected to make losses of between \$34,000-\$42,000 in 1998-99.

Chart 13: Woolgrower Profits



Source: ABARE

Even these summary statistics highlight the diversity which exists among Australian woolgrowers — in terms of size, enterprise type and mix, geographic location, and overall objectives of the business. It can be quite misleading to focus on an average woolgrower situation, to assume that all woolgrowers are motivated in the same way, or to conclude that all woolgrowers are performing equally.

Appendix 10 presents the results of on-farm benchmarking analysis which the Task Force has drawn together from a range of farm management consulting firms and related groups around the country. The Task Force expresses its appreciation to those firms and groups for making their comprehensive data available. A number of clear messages emerge from the analysis reported in Appendix 10:

- in most seasons, a focus on the efficiency of the land, labour and overhead resources employed achieves far more in terms of performance than a focus on the gross margin, let alone the price of wool; land, labour and overheads explain well over half the difference in profits between the top 20 percent of woolgrowers and the group average;
- highly profitable woolgrowers are consistently associated with the following profile:
 - optimising the balance between cropping and livestock;
 - high conversion of rainfall to pasture;
 - high conversion of pasture to wool;
 - high labour productivity and overhead efficiencies;
 - development of a whole farm plan;
 - a continuing commitment to training; and
- productivity improvement among woolgrowers has been slow compared with other rural enterprises, principally because:
 - low profitability, lack of education and increasing age;
 - poor or misleading market signals from consumer to producer;
 - a lack of innovation with input technology and/or poor adoption; and
 - genetic myths and risk averse woolgrower attitudes.

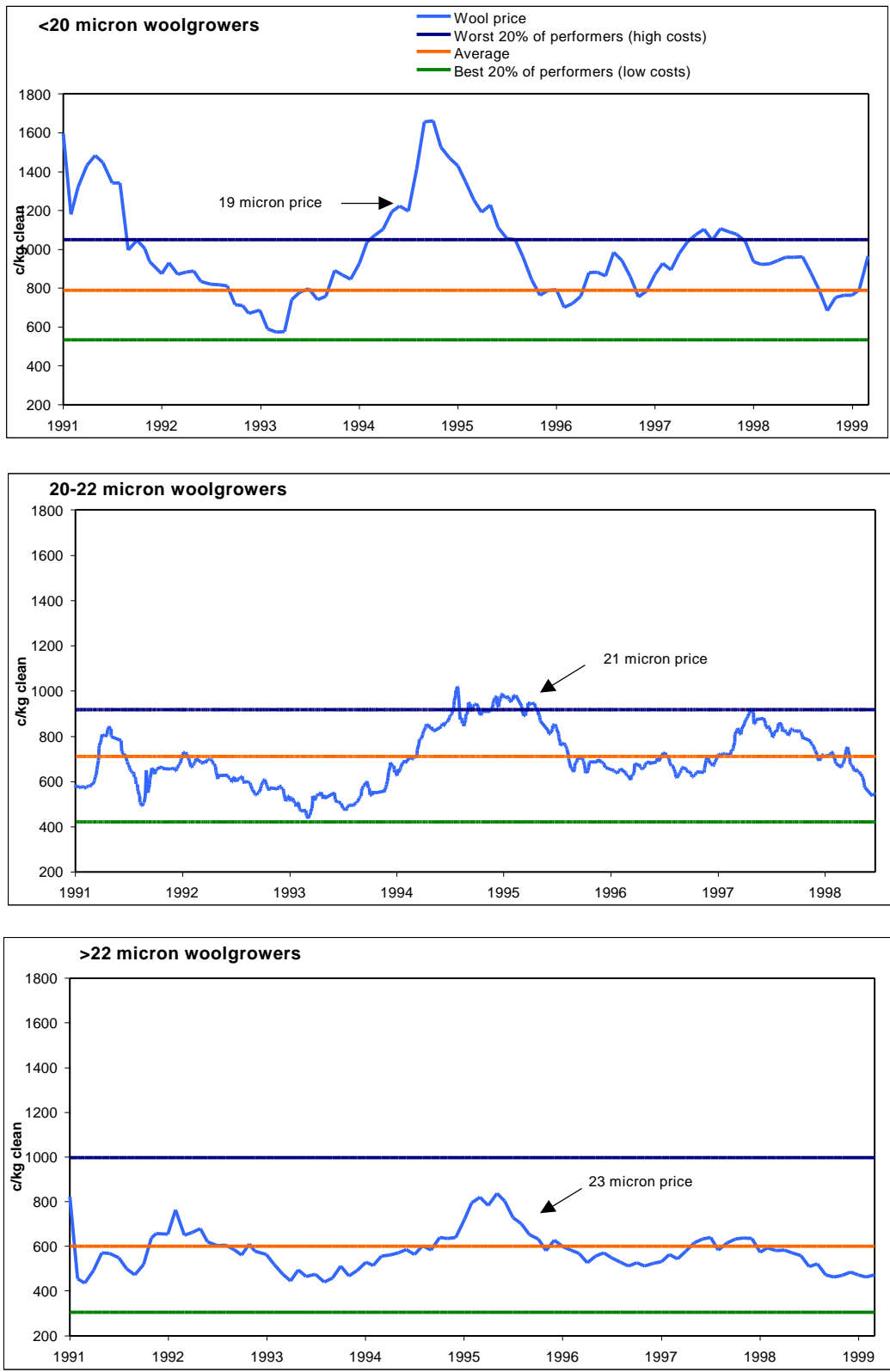
The principal conclusion from the benchmarking analysis is the superior level of profitability achieved by the best 20 percent of woolgrowers in terms of performance. Typically, the best 20 percent of woolgrowers achieve net returns which are three times the average. The comparison is highlighted in Chart 14 which shows different costs of production (the best 20 percent, average and worst 20 percent) for woolgrowers producing fine (less than 20 micron), medium (20-22 micron) and strong (over 22 micron) wool. Superimposed on these costs of production levels are the respective wool prices for 19, 21, and 23 micron wool since 1991.

The data from which Chart 14 was derived came from the client records of one consulting firm; if anything, they would be expected to be biased towards better performers than the entire population of woolgrowers. This underscores the key messages:

- the best 20 percent of woolgrower performers — that is, those with the lowest cost levels — have been profitable every year since 1991, at each micron level;
- the worst 20 percent of performers — high costs — have never been profitable (23 micron), rarely been profitable (21 micron) and struggled to be profitable (19 micron); and
- the cost range between the best and worst groups widens as the micron increases — the best 20 percent of 23 micron woolgrowers being particularly cost efficient.

In summary terms, the conclusion is stark: no matter if the enterprise is large or small, unless the costs of production are near or below the best 20 percent of woolgrowers, maintaining viability into the future will be extremely difficult.

Chart 14: Wool Prices and Costs of Production



Source: Holmes Sackett and Associates.

2.5 Time for a Reality Check

The Task Force's conclusions from this stocktake need to be expressed in blunt terms. They are as follows:

- wool now represents an insignificant part of the global textile market and, in many of its end uses, contains little which is special or unique; wool is no longer an essential fibre;
- the textile market has been moving in ways which are unhelpful to wool; indeed, existing deficiencies (principally prickly from coarse fibres and lack of easy care) are major turnoffs for today's consumers; the competitiveness of the wool fibre has declined and in many ways wool has lost the consumer; this was further exacerbated by the debacle of the RPS and its collapse;
- new developments with artificial fibres (ultra fineness and tailored to match the attributes of natural fibres) mean even greater competitive pressures for wool in future; and
- too many woolgrowers are way off the pace in terms of productivity and profitability — lacking a clear business focus, being too small, not using best practice for sheep genetics or pasture management, having little or no contact with their key customers, being captive to an outdated, costly and cumbersome transport, handling and selling system, and generally hoping that “something will turn up”.

In response to these realities, sheep numbers have already fallen by 30 percent over the past 7 years and the number of woolgrowers by a slightly lesser magnitude. Unless dramatic changes occur quickly, woolgrowing will retreat to being a much smaller rural activity over the next 5 to 10 years.

However, if major improvements do occur — in on-farm productivity and performance, in wool fibre innovation, and in the costs of the wool textile chain — there is no reason why the competitiveness of wool cannot be enhanced and, along with it, the future profitability of wool businesses. It is to a discussion of these opportunities that the Task Force now turns.

3 Liberating Woolgrowing Businesses

3.1 Stop Referring to “The Wool Industry”

If the Task Force’s assessment of the present predicament facing wool is a somewhat bleak one, how then might the situation be turned around? Indeed, is it possible for a turnaround to occur or will the 1970 prediction by a leading academic that “wool is going the way of the silkworm” finally come true? Ironically, since 1970 silk has had a spectacular recovery.

In the Task Force’s judgement the first requirement is to cease talking about “the wool industry” and what “it” should do. There is a tendency in general discussion to refer to the wool industry as though it were a single commercial entity. It is not. “The industry” is owned by no one in particular and has no bottom line in any conventional sense. It is merely the statistical aggregation of independent businesses. Those businesses are characterised by diversity, not homogeneity. They vary in size, geographic location, enterprise mix, wool types produced, cost structure, productivity, profitability, return on investment and overall objectives. The same is true of other wool businesses along the textile chain.

As was remarked at the beginning of the previous chapter, woolgrowers have traditionally delegated responsibility for research, promotion and at times marketing to centralised agencies, so it is not surprising that reference to “the industry” is common. But the centralised marketing foray ended in the disaster of the RPS collapse and a “one size fits all” mentality has inhibited success elsewhere. It has led to consensus style decision making, involving politically not commercially driven agendas, lowest common denominator outcomes, interminable delays in progressing reform, and generally an FAQ (fair average quality) culture and, much of the time, an FAQ product.

Although frequently advocated, “industries” cannot implement visions, strategic plans, blueprints or the like. Only individual businesses and the people who run them can do so. And so it should be in the case of wool.

The Task Force considers that the diversity in wool should not only be acknowledged but celebrated, rather than lamented. The issues of importance to a grower of coarse wool suitable for carpet making, for example, are totally different to those of a grower of superfine wool sought by leading fashion houses.

A corollary is that there needs to be a fundamental cultural and attitudinal shift among woolgrowers. For too long, too many woolgrowers have expected others to solve each and every problem and have often looked for someone else to blame when things have gone wrong. That approach still persists in many of the submissions received by the Task Force.

It must change. Woolgrowers must take individual responsibility for their fibre and ensure that it is presented to the wool textile chain in a way which guarantees consistency, quality and price competitiveness. The mind-set must change from “they or them” to “I/me” or “we/us”.

For much the same logic, this report is directed at business-oriented “professional” woolgrowers — businesses, whether specialist wool-only enterprises or mixed farming enterprises, that are serious about long term profitability from wool — rather than businesses

in which sheep perform a role largely unrelated to wool production — such as digesting grain stubbles or prime lamb production.

3.2 Competitive Woolgrowing Businesses

One of the key conclusions of the previous chapter was that many woolgrowers are way off the pace in terms of productivity and profitability and that unless their costs of production quickly approach those currently achieved by the best 20 percent of performers, their viability is jeopardised. This chapter discusses a number of options for enhancing competitiveness, illustrated by case studies demonstrating what is possible and is being done by a few people.

For at least two decades some woolgrowers have been lamenting that productivity-enhancing opportunities have all been adopted. The fact that computers, faxes, mobile telephones and the Internet, for example, have been developed during this period should be sufficient to suggest that the spirit of human ingenuity is not yet at an end. Of course, as the old saying goes, forecasting is difficult, especially about the future, and it is obviously not easy to comprehend what might be around the corner in areas that do not relate to current day-to-day experiences. To illustrate the point, Box 6 describes two examples, relevant to the pastoral zone, one already in operation, the other still at the testing stage.

Box 6: Extending the Technology/Productivity Frontier in Pastoral Zone Management

Simon and Christine Campbell operate a substantial woolgrowing enterprise at Blackall in western Queensland. The business is endeavouring to enhance pasture development and maintenance in semi arid areas, with profitability and sustainability objectives. It seeks to examine all sources of research innovation for business relevance, and Simon was the inaugural Pastoral ZAC Chairman.

Their most recently developed innovation involves annual feed assessment and property planning, using a basic geographic information system (GIS) computer programme and satellite image files developed specifically for the property, purchased annually. These data are used to develop annual feed budgets for the enterprise. Available feed at the end of the summer growing season can produce a reasonably accurate estimate of feed supplies for the coming 12 months, which in turn can enable early (and therefore advantageous) adjustments to stocking rates.

Fine tuning feed budgets in an area where the pasture yields vary from 500kg/ha to over 4000kg/ha ensures that economic options are maximised in the good years, with stocking pressure matched as closely as possible to feed supply in a highly variable environment. This has resulted in increased lambing percentages and survival, faster genetic improvement and larger turnoff of surplus sheep. The calculated feed surplus is often used to generate additional cash via cattle trading or agistment.

The second example has recently been the focus of a television advertisement by Telstra. Called the "satellite shepherd", it demonstrates a woolgrower at Meekatharra, WA monitoring and controlling watering points from his homestead office using satellite telephone technology. The woolgrower views the stock troughs (via video camera) and, as appropriate, activates a solenoid water valve using a satellite telephone and a computer as the communication system. In extensive pastoral conditions, the labour saving and management efficiency potential of this technology is considerable.

However, realising these gains on a widespread basis might be some way off yet. A key technological constraint is integration of telecommunications with the remote site videos, or control electronics. This applies to both satellite and mobile phone connections. It means that the system is not available off-the-shelf and could cost \$50,000 to set up. Relatively slow transmission speeds are likely to limit image quality and result in high usage costs, especially where reasonably frequent monitoring is required. An added complexity, especially with one-off systems, is back up support. That said, the "satellite shepherd" is indicative of the direction of technology and the existing limitations may be quickly overcome. It could be that woolgrowers are the spin-off beneficiaries of technology developed primarily for other interests, such as miners.

Source: Simon Campbell, personal communication; Telstra, personal communication

Data reviewed by the Task Force indicate that average annual productivity improvement in woolgrowing enterprises is only about 0.5-1 percent, compared with 1.6 percent for beef

cattle and 3-4 percent for cereal and cotton enterprises. These relativities must change and the Task Force recommends that woolgrowers should aim to achieve annual productivity improvements of 3-5 percent, even after they have reached “best 20 percent” cost levels.

3.3 Benchmarking Analysis

A threshold requirement is for woolgrowers to develop an accurate measurement of their costs of production. This should include the direct costs associated with the woolgrowing enterprise, as well as an appropriate allocation of overhead costs in the case of mixed farming enterprises — labour, capital, interest and so on. In addition, as most regions encounter droughts from time to time, a realistic annual drought provision should be included.

The next step is to participate in a benchmarking group so that individual performance can be compared with other woolgrowers. There are a number of these groups in various parts of the country and the data of some of them contributed to the analysis of Appendix 10. A number of grower marketing groups which have been formed in recent years include periodic discussions enabling members to compare their performance with peers. Other groups have been formed specifically for the purpose of “shooting the breeze” about the future or obtaining expertise not otherwise available. One such group, Edge Management, made a submission to the Task Force. Its operation and thinking are summarised in Box 7.

Box 7: Edge Management – An Innovation in Woolgrower Access to Technology and Business Services

Edge Management is the initiative of 18 NSW farming and woolgrowing families to break down their management isolation and gain cost effective access to professional services. (Edge stands for Education, Development, Growth, Empowerment). Members come from a wide area of NSW from the Monaro to the Western Plains. They meet three times per year – part of the time is devoted to small confidential review and planning sessions where members act as boards of directors for one another's businesses. They also obtain professional services such as benchmarking, accounting, commodity market analyses, and personal development and investment advice. These services may not be cost effectively available to them as individual family farmers.

Edge Management members have recognised that future viability of woolgrowing and other farm enterprises is dependent on achieving economies of scale in both the production and marketing aspects of their business. They have developed a business plan for an integrated beef production and marketing enterprise and similar initiatives in wool and other commodities are being considered.

The following comments from their submission to the Task Force relate to on-farm performance:

- the future high rainfall farm will have 25,000 sheep each cutting over 5kg of 19 micron wool, with all available tests including spinning quality; other types of wool will either be by-products or have very low costs of production;
- pasture productivity can be enhanced with genetic engineering and Total Catchment Management, Prograze, Holistic Resource Management, Grazing for Profit and Landcare;
- improved stocking rates are possible from rotational grazing systems and well fertilised pastures;
- a revolution in genetics is about to happen – especially the capacity to predict wool spinning ability on the sheep's back and breed large framed fine wool sheep, possibly involving cloning;
- biological wool harvesting and some “straight to the press” wool handling systems should reduce shearing costs; and
- labour productivity, while continuing to improve, can jump further with the aid of syndication/amalgamation and leasing.

Source: Edge Management, Submission to the Task Force; Tom Green, Nimmitabel.

The cotton industry has taken this further in the form of several annual competitions, designed to identify the cotton grower of the year, the cotton achiever of the year and the most important R&D breakthrough relevant to cotton. Similarly, the Beef Improvement Association conducts a Seedstock Producer of the year competition. Box 8 contains relevant

details of those innovative competitions which might well be emulated within the woolgrowing fraternity.

Box 8: Focusing on Achievement and Excellence

Across agriculture numerous regional and national competitions and clubs aim to promote improvement by recognising achievement and excellence. By contrast woolgrowers tend to highlight the top priced ram or highest value bale, rather than productivity or profitability. Shearers for their part have the golden shears competition.

Examples in other rural industries include the following:

- Cotton achiever of the year: awarded for adoption of best practice, forward planning and attention to detail; sponsored by Rural Press Limited.
- Australian Cottongrower of the Year: the award is given for the farming operation which displays the most outstanding commitment to sensible management; while the main criteria are related to environmental management, the agronomic management of the farm must also be well above average; the award is sponsored by *The Australian Cottongrower* magazine.
- the most important R&D breakthrough relevant to cotton – recognised across the industry as a great success in motivating researchers and capturing growers attention; and
- the Beef Improvement Association's Seedstock Producer of the Year competition (National, Queensland, NSW and Victoria) is awarded on the basis of the producer having set: a breeding objective and monitored performance; applied a high percentage of available breeding technologies to achieve genetic progress; focused on the needs of the commercial industry and provided a range of client services; operates functional efficient cattle with high market acceptance; demonstrated commitment, innovation and willingness to contribute to education in the beef industry; it is sponsored by commercial input suppliers and State Agriculture agencies.

Source: Cotton Australia; Beef Improvement Association, personal communication.

3.4 Scale and Leasing

Although the expression “get big or get out” has not won its advocates many plaudits with farmers over the years, that has not stopped the advice being taken by farmers everywhere. Whether it is large sophisticated cereal machinery, substantial industrialised dairy farms, or massive plantings of cotton or grapes, the scale of individual agricultural enterprises continues to increase. Where a few years ago 5000-6000 DSEs per full-time person was seen as leading edge for woolgrowers, now it is 8000, 10,000 or more in some cases.

Data in the Appendices indicate that the largest 10 percent of woolgrowers produce 40 percent of the national clip. This represents a fairly low level of concentration by most industry standards (including cotton, grape growing and most agriprocessing activities) and it is likely that the larger woolgrowers, provided they remain profitable, will expand their scale and relative share of the total clip in the years ahead.

This likelihood should be borne in mind by those concerned that “adjustment” in woolgrowing is synonymous with reducing sheep numbers. To illustrate the point, the impact of ten woolgrowers each owning 2000 sheep ceasing woolgrowing would be offset by just one 20,000 sheep woolgrower doubling his or her sheep numbers. This has been the dairy experience, as Box 10 indicates.

One option for woolgrowers wishing to expand, but facing capital restraints, is to lease additional country. This has not traditionally been a popular option in Australia and the Task Force devoted some time to investigating it.

Most Australian agriculture was based on the concept of owner occupier family farms. There is a limited and somewhat chequered history of corporate agriculture, although successful examples exist among northern cattle enterprises and, more recently, cotton and grape growing. Scattered examples are found elsewhere, including woolgrowing, although large scale land ownership by traditional pastoral companies of yesteryear has now all but disappeared. Of course, closer settlement policies (Appendix 9) have not helped.

When it comes to the separation of land ownership from management, Australian experience (setting aside leasehold land where ownership remains with the Crown) is mainly limited to cereal sharefarming, share milking and short term stock agistment, the latter usually for reasons of drought. The widespread separation of land ownership (including by pension funds that take a long term investment view) and tenant farming in overseas countries is alien to Australia.

Indeed, when past attempts were made by landowners to lease additional land, there was often an emotionally negative local reaction that the practice was somehow “un-Australian”.

The Task Force considers that these reactions are unfortunate. To the contrary, the Task Force’s judgement is that leasing can play a valuable role, both in assisting the adjustment process for woolgrowers who are unable to reduce their costs of production sufficiently, but who do not wish to sell their farms, and in enabling other woolgrowers to achieve better economies of scale with superior management.

The Task Force was encouraged to find that there are, in fact, many leasing structures already in place, especially in Western Australia. Box 9 describes eight distinct case studies and shows the variety of circumstances which have been developed via commercial contracting. The Task Force recommends that more woolgrowers and their advisers should examine the feasibility of leasing, from either a lessor or lessee perspective.

Box 9: Leasing: A Benefit to Lessor and Lessee

Case 1: Syndicated leasing (WA). A group of 11 woolgrowers was offered the lease of a 3100ha farm from early 1998. Ten accepted and formed a unit trust to run 30,000 wethers. Most participants now keep more ewes on their farms and send wether lambs to grow out on the leased farm. The wethers are eventually exported live. The syndicate has allowed 10 farmers to do what would have been too large for any one of them to undertake. Current low wool prices have not been a detraction.

Case 2: Three farmers in NSW decided in 1979 to pool their cropping enterprises, allowing them to buy one modern large scale set of farming equipment. Many such ventures have started and failed because they have unfairly rewarded either land, labour or risk capital. To overcome this, professional advice was sought to establish the structure. Landholders lease all their land to a central management company. It is classified by type (cropping, grazing etc) and receives a rental of between 2 and 4 percent of market value. The lease agreement stipulates how repairs and maintenance are to be carried out. The structure now also incorporates the merino sheep enterprises of the three farms. All employees of the management company (from managing director to part time employees) are paid at commercial rates; bonuses are paid depending on profitability. The management company owns all stock and plant. Profits are distributed on a shareholding basis. Its success reflects economies of scale, the uptake of new technology, sound legal and accounting structures, a good management team, quarterly board meetings and good communications.

Case 3: Lessor perspective. A farmer in WA recently had the opportunity to lease the farm next door. It would have doubled his size, but with little spare labour and a young family, he allowed another neighbour to take up the opportunity and instead leased his own farm to that neighbour, becoming the manager of both. This has given him less risk, less stress, more time with his family, a higher net return and a much better perceived lifestyle.

Case 4: A family woolgrowing and mixed farming business in southern NSW faced a common problem: it could support the family and one full-time employee, but not two sons given that the parents were not ready for retirement. At first, a relatively small parcel of land was leased, which provided the sons with scope for independent decision making without a large capital investment. Over time the leased area has been expanded, and profits have been used to purchase adjoining land. Leasing has forced the family to focus hard on production

costs, but has also allowed more livestock to be managed per person. One lessor was a widow who did not want the responsibility of managing the land but wanted to be able to visit the farm and stay in her house. In another, ownership had been transferred to a number of descendants, each of whom has a non farming career; leasing creates steady income for them while allowing the ultimate ownership decision to be made over time. In a third, land has been purchased by urban professionals who have been happy to lease it to professional managers, retaining the house to live in.

Case 5: A Victorian farmer decided to lease his farm while he pursued an alternative occupation. The two lessees were known to be competent farmers and the lessor contributed his existing livestock to the new structure, earning a return on them plus an agreement that he would obtain the same number (and age profile) at the end of the 9 year lease period, which is now in its fourth year. Both parties are committed to longer term outcomes. The land owner has contributed considerable additional capital in the form of fencing supplies, yards and improved water supplies, while the lessees have contributed the labour to erect the fences etc. The lease quantum contains an escalation clause, with the lessor realising that the lessees need to make a profit if the outcome is to be mutually satisfactory.

Case 6: A woolgrower in NSW recently advertised in the rural press for additional land to lease. He reckoned that as his costs of production were already in the bottom 20 percent of all woolgrowers, he could afford to expand more readily than others. The further away from his existing property the leased land was, the larger it would need to be – at least 16,000 DSEs if more than two hours away. Otherwise he was flexible as to length of lease and other conditions which he felt could be resolved by negotiation. So far, he has been somewhat disappointed in the response, in that the farms offered were in the 4000-6000 DSE range, but he is continuing the search process.

Case 7: West Arthur Shire (WA). Over 30 percent of the cleared land in the shire is currently under some form of landlord and tenant structure – such as leasing, lease back, or share farming. Leasing is profitable for many existing farmers provided they have spare labour and plant capacity. Almost half the 80 members of the Darkan Farm Management Advisory Service lease at least one property.

Case 8: A woolgrower wished to crop a number of paddocks which had previously run sheep. He loaned his young sheep to another woolgrower free of charge for 12 months, on the basis that they be returned off shears. The lessee thus ran the sheep and obtained the wool proceeds; the lessor was able to crop the land while getting back the sheep fully grown a year later.

Source: Bob Hall, Darkan WA; Hassall and Associates; other farmers — personal communication.

The Task Force contacted the NSW Western Lands Commissioner and ascertained that leasing of leasehold title land in the western division does require his formal approval, but this is rarely withheld if the proposal is sensible. Nevertheless, even this formal process constitutes a form of intervention in the commercial operations of woolgrowing, the merits of which are questionable. The Task Force recommends that it, and any equivalent restrictions in other States, should be terminated.

Similarly, the Task Force recommends the freeholding of much of the pastoral leasehold land in Australia, subject to appropriate land use covenants, for example maximum stocking rate limits.

3.5 Pasture Management

The benchmarking analysis of Appendix 10 concludes that two of the key ingredients to woolgrower success are the efficient conversion of rainfall into pasture and the efficient conversion of pasture into wool. Circumstances vary widely here and what matters for a high rainfall zone woolgrower will be quite different to what suits a pastoral zone woolgrower.

Over the past 40 years, by far the greatest productivity gain for woolgrowers has been pasture improvement, in particular the application of superphosphate and sub clover. Combined with the correction of trace element deficiencies and permanent perennial pastures, a 5 to 10 fold increase in pasture production has been achieved in many situations. The flow-on effect to overall woolgrowing productivity has been substantial, recognising that animal production can roughly be said to reflect 75 per cent of what sheep eat, 15 per cent management (for example, disease control) and 10 per cent genetics. There is further room for improvement

for many woolgrowers: for example, optimising fertilizer application can give a 50 percent increase in profit per hectare.

More recently, the emphasis in research and management has shifted to efficient pasture utilisation. Improved grazing management can increase pasture utilisation (as well as overall production and quality), reduce weed levels, preserve and increase perennial species with resulting productivity gains, as well as helping to rectify soil acidity. Equally, drought preparedness remains an integral part of feed production planning.

Pasture productivity and pasture management have been the keys to the revolution in Australia's dairy industry over the past 20 years, as Box 10 describes.

Box 10: The On-Farm Dairy Productivity Success Story

In a comparatively short timespan, the dairy industry has gone from being the poor relation of Australian agriculture to one of its star performers. Why and how has this turnaround occurred?

According to well known dairy leader, Mr Bill Pyle, the reason is simple: the diligent and persistent efforts of dairy farmers, continually lifting on-farm productivity. In his regular column for the *Weekly Times* newspaper recently, he quoted an impressive list of statistics:

- in the early 1970s, Victoria's 14,300 dairy farms produced an average of around 160,000 litres of milk each; currently, about 8000 farms produce in excess of 700,000 litres each – an increase of 350 percent per farm;
- today's dairy cows produce nearly double the milk per head than they did in the early 1970s – a result of genetic improvement, better nutrition, superior pasture management, clearer pricing signals and adjustment out of dairying by the poorer farmers (5000 litres per Victorian cow in 1998, 2400 litres in 1975);
- as a result, the Victorian dairy industry now produces more milk far more efficiently than it did 25 years ago when there were nearly double the number of farmers; and
- in the rest of the country, the percentage of dairy farmers has declined even more sharply, from around 41,000 to less than 5500 – or by 87 percent – yet the production is higher now than it was in the 1970s.

As Bill Pyle says: "the sooner others take up the challenge to lift productivity by similar levels, the better off all Australians will be".

Nor is there any reason to think that this productivity story has come to an end. A few very large dairy farms – up to 10 times larger than today's average – and organised along capital intensive industrial lines, are beginning to emerge. They will increasingly set the pace for dairying in future. Already there are 2000 farms milking 500 or more cows, compared with the State average of 200.

At the same time, dairy product marketing has been revolutionised. Who can remember when margarine was seen as the enemy – held back by quotas which inevitably failed – or when Australia exported bulk butter to the UK at giveaway prices, supported by a highly interventionist regulatory regime? As this system broke down, new product development emerged – focusing on higher value added speciality cheese or short shelf-life products for both domestic and export markets – and clearer pricing signals were posted by manufacturers to dairy farmers.

These changes were hard fought, the benefits did not emerge overnight and, of course, economic realities forced many dairy farmers to leave the industry. But no one in the dairy industry would propose returning to "the old days". To Bill Pyle, the single biggest factor has been pasture productivity and pasture management.

Can woolgrowers emulate this success?

Source: Weekly Times, 3 March 1999, and Bill Pyle, personal communication.

3.6 Genetic Improvement in Sheep

It is generally accepted that there was comparatively little improvement in sheep productivity in the bulk of Merino flocks from the mid 1960s until around 10 years ago. This contrasts with the intensive livestock sector where productivity gains for chickens and pigs from improved selection have averaged about 3 percent per year with no signs of a plateau yet being reached.

However, in more recent years clear signs of genetic improvement have been demonstrated via wether trials and elsewhere. A leader in this field has been Advanced Breeding Services, a commercial business unit within the NSW Department of Agriculture. This unit sells genetic advice and analysis to woolgrowers throughout Australia and employs top geneticists and respected extension officers. One of the activities it services is Merino Benchmark, described in Box 11.

Box 11: Merino Benchmark – Aiming at “World’s Best Practice in Merino Breeding”

In 1996, eight of Australia’s most innovative Merino studs (Hazeldean, Nerstane, Corroboree, Bullamon Plains, GRASS, Blackford, Geelong Park and Billandri) recognised the extra value that can be gained from performance recording by extending it to across-stud genetic evaluation. They established a breeder owned and managed group, Merino Benchmark, to provide this evaluation system to ram breeders throughout Australia. Under this system, now used routinely with dairy and to some extent in beef and lamb enterprises, rams bred in member studs can be compared directly for breeding merit with rams bred in other studs. This can be achieved using genetic linkages created by the same progeny tested sires being used in several flocks, and by member studs participating in independent, public sire evaluation schemes.

The capacity to identify the very best rams, to use them through artificial insemination to improve rates of genetic gain in the parent studs (achieving over 5 times the current rate of genetic gain across all woolgrowers) and to provide their ram buying clients with the opportunity to increase profitability through faster genetic improvement, are the goals of Merino Benchmark members.

Membership expanded to 16 studs in 1998 and is now open to any stud that can satisfy the QA procedures the group has developed, based on world’s best practice. Data analysis and technical services are provided on a commercial basis by Advanced Breeding Services.

Source: Allan Casey, Advanced Breeding Services, Orange, NSW, submission to and discussions with the Task Force.

One of the leading studs involved in the Merino Benchmark project is Nerstane, a consistent winner of recent Central Test Sire Evaluation trials and show exhibitions alike. Box 12 outlines the approach of the stud and its principal, Mr John McLaren.

Box 12: Adoption of Breeding Technology to Achieve Profitability – Nerstane Merino Stud

Mr Jack McLaren formed the Nerstane stud at Walcha, NSW 34 years ago. He came from a non-agricultural background; however, Nerstane is a glowing example of a wool business achieving profitability – for itself and its commercial clients – through adoption of modern breeding technology.

Since the stud was formed Jack McLaren, and later with his son John, selected sheep based on their ability to improve wool returns. Sheep were measured for wool production and quality performance, and selection was based on the results. A balanced breeding objective was maintained with structural soundness and fleece rot resistance, for example, remaining as important criteria.

Progressively, new breeding technology – such as progeny testing, two stage selection, more accurate genetic evaluation, central test sire evaluation, additional traits such as fibre diameter variation and worm resistance, embryo transfer, and Merino Benchmark across-stud evaluation – have been incorporated. Sire processing performance evaluation and fibre curvature are currently being evaluated.

Although initially based on average medium wool sheep, Nerstane is now recognised as one of the very highest performing, highest quality, fine-medium studs. Two examples of its success are the dominant performance of Nerstane rams in the Fine Wool New England Central Test Sire Evaluation, and success at the highest level in the Sydney show ring.

Nerstane’s success is not a chance event; it is living proof that a so-called ‘performance breeder’ can put all the critical features together and come up with a high quality result. Performance breeding is much more than ‘being keen on measurements’ and it certainly does not mean that more traditional traits are neglected.

Nerstane’s breeding program is designed to achieve a balance. High commercial wool value (essential to profitability), a high standard of soundness (essential to productivity) and wool quality excellence (essential to meet consumer requirements) have all been achieved.

Nerstane’s involvement with Merino Benchmark is another demonstration of continuous improvement and a willingness to demonstrate

flock performance. Nerstane is not alone in these attitudes and attributes, but it is one of the superior practitioners of Merino sheep breeding.

Source: Merino Benchmark submission to the Task Force

Perhaps the next step in the adoption of new productivity-enhancing technology is DNA finger printing. The technology is briefly described in Box 13.

Box 13: DNA Finger Printing – Collaboration in Basic Research for Commercial Outcomes

Present methods for determining pedigrees in Merino stud flocks are expensive because they are labour intensive (on-stud mothering up, single sire mating and lambing systems) and often inaccurate. DNA parentage testing is available, but is not commercially feasible for most Merino studs.

Pedigree information can be a valuable supplement to performance records when breeders want to identify accurately their top animals on genetic merit – particularly when expensive artificial insemination and embryo transfer programs are being considered. Rates of genetic gain can increase by 20 percent if pedigree records are available to augment performance records such as fleece weight, fibre diameter, body weight and other wool quality or disease resistance traits.

Recent advances in molecular DNA technologies can reduce the cost of pedigree determination, through automation and miniaturisation of sample collection and laboratory processing. In human genetic testing it is now possible to evaluate a large number of genetic mutations simultaneously on high capacity, semi-automatic DNA micro arrays (DNA chips).

Sydney University, in collaboration with Adelaide University, Collinsville Merino Stud, the South Australian Research and Development Institute and Genescreen USA, is adapting these methodologies to develop low-cost parentage testing in sheep. Once perfected, the technique can be extended to DNA-based detection of genetic disorders or deleterious features, such as pigmented wool, and selection for disease resistance genes.

Source: Herman Raadsma — University of Sydney, personal communication.

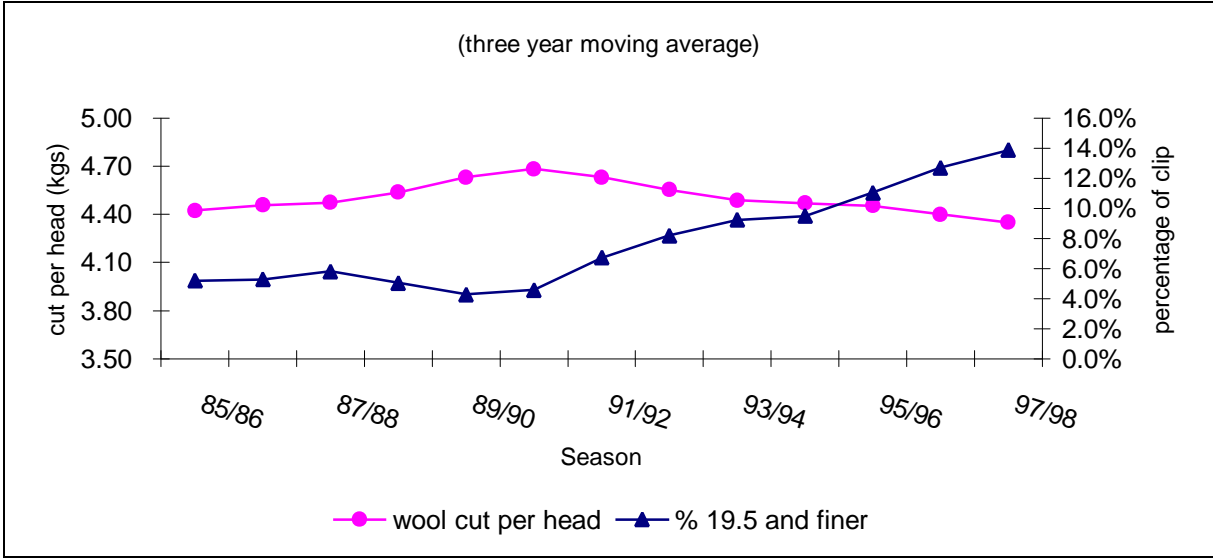
Following the comments made on competitions in Section 3.3, the Task Force recommends a competition to identify the “Australian Merino Progeny Tested Sire of the Year”. The aim would be to encourage across-flock evaluation and identify excellence in terms of current market conditions. Evaluation might involve respected schemes like Central Test Sire Evaluation or Merino Benchmark, and would include combined wool and meat market values. The winner would be asked to present a paper to a suitable national forum, so that knowledge, information and experience could be more widely disseminated. There should be an appropriate prize as an incentive to participate. The competition should be developed on a completely commercial basis, with sponsors determining whether they saw merit in the concept. There might also be competitions for the best commercial woolgrowing flock or the most important R&D breakthrough each year.

The Task Force’s assessment of demand and supply patterns for wool shows there is an increasing premium for finer wool over coarser wool. Between 1950 and 1981 there was an average premium of 12 percent for 19 micron wool over 23 micron wool. Between 1981 and 1999 that premium had widened to 36 percent.

The challenge is to breed finer without suffering a loss in wool cuts per head or per hectare.

This was the subject of a recent article by Dr Lionel Ward, Director of the Wool Cooperative Research Centre (CRC)⁵. He showed that while the proportion of the Australian wool clip 19.5 microns and finer has indeed increased sharply in the 1990s in response to relative price premiums — from around 5 percent to 14 percent — this has been accompanied by a reduction in average wool cuts per head — by nearly 0.4kg — thus negating much of the potential additional revenue. Chart 15 reproduces the data.

Chart 15: Wool Cuts Per Head and Clip Proportion 19.5 Micron and Finer



Source: Lionel Ward, CRC.

As Dr Ward commented: “that reality from the past (reducing fleece weight with increasing fineness) has been the major force behind one of the Wool CRC’s research programs: development of a breeding program that enables producers to lower the fibre diameter and raise fleece weights in their flock”. Even if part of the explanation for Chart 15 is that most of the reduction in sheep numbers in recent years has occurred in the 21-23 micron range, the objective of producing heavy cutting fine wool sheep is a desirable one.

At the extreme fine end of the fibre diameter spectrum, premium prices can be substantial. Box 14 documents the background to one of the highest priced bales of wool sold during the 1998-99 season.

Box 14: Premium Prices at the Top End of the Market

While wool prices overall may have been severely depressed in recent years, some woolgrowers are able to command significant price premiums in well defined market niches. This particularly applies in the case of ultra fine wool produced by shedded Sharlea sheep.

⁵ Lionel Ward (1998), “Adoption of Our Genetic Technologies — A Matter of Urgency”, *Wool Press*, December 1998.

One of the highest priced and finest wool sold in the 1998-99 season was a 101kg bale of 13.6 micron wool produced by Carolyn and Wayne Krause of Trungley Hall near Temora in NSW. It realised \$760 per kg and was purchased by Loro Piana of Italy.

The Krauses have a relatively small flock of 400 shedded wethers which are fed a daily ration of oats, vitamin pre-mix and straw. They have been shedding sheep for the past eight years.

The record bale was part of a consignment of wool sold at a special sale organised in Melbourne through the Sharlea Ultra Fine Society. The catalogue was put together by a speciality business, Morwood Sheep and Wool Services and the auction conducted by VPC.

For the first time the wool was removed by the Bioclip system (see Box 17), a relatively minor cost of \$5 per head covering the costs of the full process. This, according to the Krauses, improved wool quality in terms of no second cuts, no skin pieces and a more even staple length.

Apart from the price obtained, there are a number of important implications from this example; these include:

- the fact that, in this market segment, and even allowing for some promotional value involved, a wool/cotton, wool/polyester – or even wool/cashmere – price ratio appears to be of little concern;
- the sale was conducted by a series of voluntary, specialist groups outside the mainstream organisations;
- the compulsory R&D and promotion activities are of little direct relevance to the enterprise;
- the Bioclip costs are relatively small in the Krause's total cost structure; and
- Loro Piana has been prominent in purchases of superfine and ultrafine wools in recent times, following the success enjoyed by Fujii Corporation over many years in purchasing superfine Tasmanian wools – and giving "Tasmania" almost brand name status in Japan as a result.

Source: The Land, 3 March 1999; Wayne Krause, personal communication.

3.7 On-Farm Sampling and In-Shed Testing

One of the impediments to improved woolgrower performance has been an inability to conduct quick, cheap and reliable on-farm testing of wool — either on the sheep's back or in the wool shed. This has slowed down the progress of sheep classing — and hence rate of genetic improvement — inhibited clip preparation procedures, and prevented fully informed marketing decisions before clips have been committed for transport, or before expenditure is incurred on them. This deficiency has thus had both cost and revenue implications for woolgrowers.

Some woolgrowers have been able to minimise the problems via side sampling of sheep, using the test results for sheep and wool classing decisions; however, this has been quite costly and time consuming. Others have sent wool samples to AWTA and received a guidance report (not a full test certificate), on which they have been able to market their wool, receiving an indicative price, plus a grid of premiums and discounts, to be confirmed by later formal testing. Others have put their clips up for sale by tender, providing details of previous clip history, again receiving an indicative price, to be confirmed or varied in line with subsequent test results (see Box 23).

Now it appears that new technology is about to help woolgrowers rectify these deficiencies. A number of research experiments have been undertaken in several States endeavouring to establish the practicality and reliability of in-shed testing. They are summarised in Box 15.

Box 15: In-Shed Sampling and Testing – Recent Trials

Sampling – One mechanical system (Seymour) and two manual systems (Esperance and NSW Farmers Association) have been trialled, and a hybrid system combining mechanical core and manual grab is being used in Queensland (Michael Clark). The Seymour and Esperance groups received assistance from The Woolmark Company while NSW Farmers were assisted by AWTA. In July 1998 AWTA

released an in-shed sampling kit which identifies the principles to be followed and outlines practices based on the procedures conducted by the three groups during their feasibility trials. Early feedback has indicated that 1 in 5 growers had difficulty in applying the sampling systems; this is the biggest single factor likely to influence wool buyer confidence.

Testing – In-shed testing using Laserscan or OFDA is being explored; CSIRO has trialled Laserscan while Agriculture WA has been trialling OFDA in conjunction with grower groups.

Commercial systems – The issue of sampling and testing has been addressed by commercial operators like Fibre Direct which use a hand core sample of the bale taken at shearing plus mid side samples (see Box 26). Private buyers use a hand corer and provide a subjective appraisal of staple measurements which are updated with the certification results when the wool arrives in their store.

Benefits:

- reduced pack contamination if samples are taken before the bale flaps are pinned;
- knowledge of wool specifications prior to committing to any particular selling system;
- reduced pre-sale preparation costs;
- possible on-farm lot building in a group or cooperative situation; and
- transport cost savings by consigning wool direct to the point of sale or processor.

Costs:

- hire or purchase of sampling and/or testing equipment;
- labour to operate the equipment; and
- increased QA costs with additional technology for compliance.

The Future – At present approximately 15-20 percent of the Australian woolclip is traded outside the auction system. If in-shed sampling and testing are to make a significant contribution to lowering the cost of ownership transfer, the following issues will need to be addressed:

- availability of accepted, accurate and robust technology and accurate on-farm weighing systems;
- overseas acceptance of documentation;
- appropriate sampling systems that can easily be applied by woolgrowers;
- tendering of services to minimise costs and generate innovation; and
- supply contracts that are QA based.

Source: Task Force research, and Andrew Grace (The Woolmark Company), Peter Morgan (AWTA), and Charles Armstrong (Chairman of the In-Shed Sampling Committee), personal communication.

Essentially, the technical problems of in-shed sampling have been solved. The key issue that will determine its success is the tangible cost reductions and price premiums for customer-specified quality assured (QA) wool. Part of this is allowing the technology's development and use to be commercially driven, rather than forcing it into a committee structure seeking to produce one single system that tries to meet the needs of everyone and ends up fully satisfying very few. This has been the typical wool approach of the past and it has led to delay and vested interest capture. Already one company is processing tops based only on pre-shearing and in-shed sampling. The Task Force sees no reason why the use of miniature cameras (for example, similar to those embedded in cricket stumps) cannot provide remote authentication of the sampling process, sufficient to enable full test certificates to be issued. The options should be assessed by AWTA as a matter of urgency.

The concept of the OFDA 2000 machine is seen by the Task Force as a major breakthrough, particularly as, when fully developed, it will enable test results to be produced from a portable machine while sheep are in the classing race. An earlier version of the OFDA machine has been applied as a static wool testing machine. The Task Force shares the enthusiasm for the new OFDA machine, and welcomes the explicit technical cooperation which has now been extended to it by AWTA. The background to its development is described in Box 16.

Box 16: Innovative Wool Testing – OFDA

The OFDA machine – Optical-based Fibre Diameter Analyser – was developed by BSC Electronics Pty Ltd, a WA based company founded by Mark Brims, a former AWTA physicist. The OFDA 100 machine was first released to the market in 1991, where it was immediately tested and recognised by IWTO. Over 130 of these machines have been sold world-wide, of which approximately 20 are used for fleece testing, 10 for research and over 100 by wool processors in more than 22 countries. The machine measures fibre diameter distribution, and fibre opacity or ability to transmit light, which is important in determining how fibres dye, including the impact of medullated (or hollow) fibres. It also measures fibre curvature (related to crimp and important in determining spinning performance).

This has been followed by the development of the OFDA 2000 machine, which is described as “a robust, self-contained, portable greasy wool testing system designed for on-farm use and electronic data interchange”. Its development has been financially assisted by Agriculture WA. While it is still in the development stage, the Task Force considers it has major potential.

The OFDA 2000 fits into a small briefcase-sized container, enabling it to be set up adjacent to a sheep classing race or in the woolshed. It uses a small video camera to measure wool characteristics along the length of greasy wool staples – in real time and on-farm. Particular measures include: staple length, profile, fibre diameter and CV of FD, finest and strongest point, percentage of fibres over 30 micron, and curvature. The test takes about 25 seconds to conduct, results are immediately available (and, via an in-built modem and communications software, can also be downloaded and used for electronic data interchange), and samples are retained by the woolgrower. Unlike previous machines where the samples had to be scoured and then chopped into 2mm lengths before testing, OFDA uses greasy wool and whole fibres.

A particular benefit of the OFDA machine has been in highlighting the seasonal variation of fibre diameter – as much as 8 microns in young sheep and 5 microns in adult sheep along the same individual fibre over a year. This reflects nutritional status, the point of break in the fibre occurring where the fibre is finest and weakest. In most Mediterranean climates (southern Australia), the weakest point occurs around the time of the autumn seasonal break, implying the desirability of shearing at that time. The point of break is important in determining the processing performance of wool. Importantly, this also reduces the “prickle” problem associated with coarse fibres (over 30 micron): prickle is less likely to be a problem if shearing coincides with the finest part of the fibre.

Source: Messrs Mark Brims and Bill Johnston (Wool Technologies Pty Ltd), discussions with the Task Force.

The OFDA 2000’s main on-farm application appears likely to be in: selecting the most productive/profitable sheep, flock micron reduction or control, testing for coarse fibres, selecting breeding groups, staple profiling allowing stocking rate/nutritional adjustments, preparation of lines of wool to meet customer requirements and maximise returns, formation of regional or bloodline groups, and supply contracting.

3.8 Bringing Competition into Wool Harvesting and In-Shed Operations

The costs of shearing and crutching constitute one of the major annual outlays of a woolgrowing enterprise. The shearing team’s pay rates are governed by the provisions of the pastoral industry award which, apart from additions to accommodate suburban shearing and wide combs, and innovations such as mobile crutching trailers, has remained intact for decades. The actual cost paid by the woolgrower to the shearing contractor can vary because of the configuration of the team and the way the woolgrower wants the shearing conducted.

Woolgrower concerns with the costs of wool harvesting in the 1970s led to a substantial research program into robotic shearing, and other methods of fibre severance. This research was terminated several years ago, although a company is endeavouring to commercialise the

SLAMP machine,⁶ which draws on some of the robotic shearing research, and Bioclip Pty Ltd is now developing a biological harvesting system, as Box 17 describes.

Box 17: Bioclip – Alternate Wool Harvesting Technology

For years, woolgrower levy contributions were used to research cost effective alternatives to conventional shearing. This work included robotic shearing and the use of biological agents. A CSIRO breakthrough in 1981 saw the discovery of a naturally occurring short-chain protein that could mimic the self-shedding of wool – as occurs in primitive breeds of sheep. By 1990, a suitable formulation for enabling a single sub-cutaneous vaccination of the protein to achieve a clean fibre break had been developed. Also, systems for retaining wool on the sheep prior to “harvest” had been trialled and shown to be effective. Bioclip Pty Ltd was formed in 1992 and in 1998 the company began offering Bioclip as a service to woolgrowers. Over 100,000 sheep have now been commercially shorn with average micron of all wool harvested close to 19 micron – but ranging from less than 14 to over 22. The company reports that assistance and support from woolgrowers to date has been supportive and encouraging.

AWRAP ceased funding this project in 1994-95. Bioclip paid an upfront licence fee to AWRAP and CSIRO, and is also paying a throughput royalty.

Particular advantages of Bioclip are cited as:

- elimination of second cuts, leading to increased average staple length, reduction of locks, and reduced CV of length;
- elimination of skin contamination with the wool;
- reduced skirtings;
- no mechanical damage to fibre ends;
- increased value of skins post slaughter; and
- improved dermatitis and lice control.

There are three main processes:

- Donning – sheep preparation (wiggling, crutching, ringing and shank wool removal), vaccination and application of fleece retention net;
- Doffing – day 14-18; removal of net, removal of wool – followed by normal classing and baling – application of Biocoat; and
- Removal of Biocoat – usually around day 28, when wool regrowth is sufficient to protect sheep from climatic extremes.

Current harvest costs using Bioclip are \$4.50 per head – which includes \$0.90 per head for pre-shearing crutching. Additional farm labour costs may be involved in harvesting using Bioclip, depending upon the timing of other flock management practices.

The Task Force found considerable interest among woolgrowers and others in the Bioclip process. The issues of reduced variations in staple length, elimination of skin contamination in the wool and skin damage were raised. But of particular interest to the Task Force was the potential for reduction of “prickle” in Bioclip harvested wool, as it appears the fibre ends are more rounded, and therefore softer, than with conventional shearing.

Bioclip is certainly now on the agenda. As evidence of this, the company is currently running a \$50,000 reward for the design of a more effective fleece retention net.

Source: Bioclip Pty Ltd, personal communication; Hon John Moore (1998) “Revolutionary Wool Harvesting Takes Off”, media release, 26 June 1998

The Task Force received submissions from National Grazing Services Pty Ltd, Australia’s largest shearing contractor, and SLAMP Pty Ltd. When in Dubbo it visited the premises of Bioclip Pty Ltd and also met NGS representatives.

A reduction of, say, \$1 per head in the costs of wool harvesting would, if applied across the entire wool clip, make a major contribution to woolgrower profitability. While the woolgrower funded wool harvesting research program did not lead to any quick

⁶ SLAMP stands for Simplified Loading and Manipulation Platform. The technology has been licensed exclusively to SLAMP Ltd, which will pay a throughput royalty on sales or machines manufactured for rent.

breakthroughs, despite the substantial investment made — and indeed has been widely criticised — there are some grounds for optimism:

- if the SLAMP machine is able to be applied in a commercial setting it should be possible to implement a different workplace agreement reflecting different skill levels (even though skill with the use of a handpiece would still be required), a reduction in the arduous nature of the work (less back bending and dragging of sheep) and the possibility of a 24 hour a day operation; one of its main protagonists, well-known wool innovator Alistair Mackenzie of Ararat, told the Task Force he believes a \$1 per head saving is achievable;
- similarly, the labour required with the Bioclip system should be able to be engaged quite separately from the pastoral award (also, as Box 17 explains, Bioclip harvested wool may generate enhanced wool revenue);
- the different wool classing required for the Fibre Direct system may enable savings of \$1 per head, according to the company (see Box 26); and
- NGS highlighted the need for more labour market flexibility, and drew attention to the significant additional costs built into the pastoral award especially from workers compensation costs, the rates of which vary widely between States and preclude the opportunity for sub-contractors to make their own arrangements.

The rigidity of the award is reflected most clearly in the way the working day is structured. The award specifies ordinary time, the length of each run, time and duration of breaks etc, with no recognition of the differing circumstances involved, for example, day of the week, time of the year/climatic conditions, location, size, quality of the facilities provided and so on. There are very few certified agreements operating as yet, and a recent Industrial Relations Commission hearing considered union claims for further restrictions. In practice, of course, there is considerable departure from the strict provisions of the award, in terms of working hours and times, because it suits both the woolgrower and the shearing team. Such mutually beneficial arrangements should be encouraged, not frowned upon.

The piece-work rate for shearers (so much per head) derives from a complex formula which incorporates a range of factors. Very few of those involved know or understand the formula or how its component parts interrelate. The reasons and the relativities are steeped in history and may no longer all be relevant. Other payment methods or options should be possible.

More importantly, the Task Force cannot envisage the next generation of wool harvesters being comfortable with the prospect of having to drag 15 tonnes of sheep (say, 200 x 80 kg sheep) across the board each day, and bending over to undertake shearing.

For all these reasons, the Task Force recommends that any constraints on new forms of competition or different wool harvesting options should be removed, whether they affect new harvesting technology, new approaches to arranging the work, or new ways of remunerating the harvesting workforce. In each case the objective should be the same: greater efficiency and productivity in wool harvesting as a means of producing greater efficiency and productivity of woolgrowing businesses.

Finally, a number of submissions drew the Task Force's attention to the current maximum bale weight limit of 204 kg. This restriction dates back to the time when wool bales were

moved by hand-held trollies in wool brokers' stores (it was originally 450 lbs), and had an occupational health and safety justification. Bales are now mechanically handled in brokers' stores and elsewhere. In fact, in a Gilbertian commentary on past industrial relations practices, the only bales handled manually these days are overweight bales! The time for this anachronistic limit to be abolished has long since past. The Task Force recommends accordingly, largely because it is opposed to potential innovation being stifled by regulation. In making this recommendation, the Task Force recognises that other practical considerations (such as the type of wool, axle weight limits on trucks, the strength of tri-pack steel bands, the capacity of tri-pack dumps, and farm wool presses) may prevent major savings from higher bale weights (lower transport costs and fewer woolpacks) being realised in every situation (for example, with resistant wools). But these factors do not justify maintaining the limit.

3.9 Quality Assurance and Contamination

QA or quality guarantees are a normal part of commercial life in most areas of business. The same is true of the wool processing chain, where claims for misdescription or contamination are made when problems arise.

At the woolgrower level, a QA ethos does not generally exist, but it must develop quickly. In the Task Force's judgement, its absence reflects part of the "they" cultural mind-set to which reference has already been made. For a number of years the major woolbrokers have operated QA schemes (Dalcare and Clipcare) but their acceptance has remained low. In fact, the Task Force heard numerous accounts, whether true or not, of woolgrowers threatening to change brokers if they were not accredited — and suggestions that brokers had sometimes responded to such threats.

As one NSW woolgrower said in his submission to the Task Force: "these programs have fallen short of expectations because both woolgrowers and buyers doubt the capacity of the proponents to exercise discipline because of the risk of offending clients".

Some woolgrowers express the view: "why should I go to the trouble and expense of being quality accredited when I do not receive a price premium as a result". A contrary view expressed to the Task Force by a topmaker was "why should woolgrowers expect a premium for producing merely what they should produce: a quality, non contaminated product; does McDonalds charge more for a Big Mac if it has a guarantee that it is defect free?"

The Task Force disagrees with both views. First, unless woolgrowers adopt a quality oriented ethos in everything they do, the competitiveness of their fibre will be progressively eroded and prices will weaken further — from consumer reaction, fibre choice decision maker reaction, and so on. Woolgrowers may not detect a specific cause and effect price change on a particular day but it will be embedded in the overall price structure nevertheless. Similarly, woolgrowers may not immediately benefit financially from QA outlays (just as they do not benefit financially the day they apply fertilizer to pastures), but over time they will unquestionably do so, both directly and indirectly. This has invariably been the experience in non-agricultural businesses, and it is increasingly being demonstrated elsewhere in agriculture as well. For example, Box 18 describes the process of producing grapes suitable for Grange Hermitage wine and, later, Box 24 gives a wool example.

Box 18: "Going Grange"

Historically, Australian grapegrowers grew grapes and all received the same price. Today, there are specific brand growers, for example, growers of Penfolds Grange quality, whose vineyards – or even certain blocks in their vineyards – are specified as being suitable for Penfolds Grange.

On delivery, eligible grapes are subject to rigorous testing to ensure they match the Penfolds Grange standard. Only if they do are substantial premiums paid.

It is in the interest of the wine companies that more growers achieve the standard as this will result in more product to sell. For this reason, wine companies devote considerable time and effort to ensuring that each grower can meet the standard and achieve viable yields. Needless to say, this is also in the grapegrower's interest, so it can be said that there is a strong and mutual interest:

- more grapes, including higher yields, for the brand sales;
- higher grape prices for the grower; and
- higher profitability for both.

Source: Perry Gumer, personal communication.

Second, while the Task Force understands the topmaker comment quoted above, McDonalds does command a price premium for the superior quality of its product and service, relative to many other hamburger suppliers. More importantly, the comment rings somewhat hollow against the fact that most topmakers do little or nothing to prevent contamination entering the scour, or to identify its cause and provide explicit feedback. Topmakers have bemoaned the fact of contamination for years — and every mill visit by woolgrowers is replete with a display of bale hooks, lunch boxes, jumpers and other nasties retrieved from scouring or combing lines. The Task Force obviously does not condone these quality failures, but where is the evidence of topmakers stating they will only purchase wool from QA clips? And why does wool not enter the scour on a conveyor system where major contaminants can be easily identified before they contaminate a whole mill batch, and the source of the contamination pinpointed?

The new Fletcher topmaking plant at Dubbo does this, and while additional labour costs are involved, the principal, Mr Roger Fletcher, told the Task Force that they were easily outweighed by enhanced returns and reduced customer claims later. Many topmakers say that the capital intensity of their business means they cannot afford to check all wool before it enters the scour — but Fibre Direct does not have this problem and claims that it can and does identify any offender who slips through its QA net, enabling appropriate action to be taken.

The off-farm benchmarking analysis reported in Appendix 8 contains estimates that:

- the labour costs of removing contaminated fibres at the topmaking stage were 14c/kg clean, with a further 1.5c/kg clean for dealing with client complaints; and
- an additional 10c/kg clean (or 2.5c/m²) of labour costs were incurred in removing contaminated material at the fabric stage.

If these costs were incurred across the entire wool clip (which is probably an exaggeration), they would amount to nearly \$100 million per year. For a woolgrower producing 200 bales per year, they are equivalent to well over \$5000. These are staggering costs and an unnecessary penalty on wool fibre competitiveness.

The Task Force finds it impossible to conclude that costs of this magnitude are meekly absorbed by topmakers or later stage processors. Rather, it is inevitable that processors factor

a risk allowance — in the form of discounted prices for all wool — into the prices they pay for their greasy wool or yarn. In other words, woolgrowers are already paying for the contamination which occurs and, in particular, “non contaminating” woolgrowers are subsidising their colleagues who are actually the cause of the problem. Woolgrowers should carefully think through this line of logic and what it means.

It should be sufficient incentive for professional woolgrowers to want to join a QA scheme that works, or provide an explicit quality guarantee. The Task Force strongly recommends that they should do so. There are a range of possibilities — the schemes operated by woolbrokers, the Fibre Direct system, various locally developed QA or ISO initiatives, branding by woolgrower marketing groups and so on. All should be allowed to flourish in the market place, so that their commercial worth can be determined. The Task Force is not in favour of a mandatory scheme: a carrot will always work better than a stick. Above all else, a mind-set change is required by woolgrowers, so that they deliver quality performance all the time.

As to the source of contamination, Box 19 summarises recent CSIRO research on the subject. CSIRO has established that up to 75 percent of non-wool contamination comes from fertilizer bags, hay baling twine and the like, and the remaining 25 percent from HDPE (high density polyethylene) pack material. Thus a major potential problem will still remain after the phasing out of HDPE packs.

Box 19: Contamination in Wool

CSIRO's Division of Textile and Fibre Technology has conducted three detailed surveys to determine the sources of contamination in wool. Two were conducted on Australian carbonised wool over 18 months and showed that about 75 percent of contaminants came from within the pack – mainly polypropylene fertilizer bags, polypropylene hay baling twine and other assorted artificial fibres. These fibres originated on the farm and entered the wool prior to and during shearing. The remaining 25 percent came from the HDPE pack itself – fibres shed from the pack during side pinning of bales in farm wool presses, core and grab sampling at brokers' stores, and pack damage during dumping or transport.

The third survey was a year long survey of mills at later stages of processing, where over 40,000 individual pieces of contamination were identified. Weavers found that one-third of the contaminants came from the pack and two-thirds from within pack plastic materials. However, CSIRO noted that sometimes mills blamed artificial fibre contamination when the problem was actually dark coloured vegetable matter, and sometimes blamed woolpack material when the culprit was polypropylene twine.

The problem of contamination from wool pack material will change with the substitution of nylon woolpacks for HDPE packs. While nylon also fibrillates on being cut, it does absorb most dyes similar to wool whereas HDPE fibres do not absorb dyestuffs and are easily visible in dark coloured fabrics.

Source: Gillian Heintze, CSIRO, personal communication.

In addition, contamination can arise from dark fibres in the wool — either a breeding fault or poor classing or pre-shearing preparation in respect of stained fibres. Both these problems have been known for years and their complete removal should be part of normal professional sheep and wool management.

Leading sheepmeat processor and topmaker Mr Roger Fletcher told the Task Force that meat had a much worse reputation than wool 15 years ago. However, with AUSMEAT, all export meat is now described, checked, every packer has its own brand name, there is an effective trace-back mechanism, and most of the problems have disappeared. There is no reason why wool cannot achieve the same performance. Nevertheless, he is critical of the existing system

whereby contamination sources, if found, are drawn to the attention of AWEX, which writes to the relevant woolgrower and wool classer and notifies the broker. Mr Fletcher considers the vigour of the follow-up is inadequate — suggesting, for example, that names of offenders should be published — which is why he is moving to increase reliance on direct purchases from QA wool clips and phase out auction purchases. This issue should be debated more widely.

The Task Force received a submission from a Queensland based firm, Polygon Pty Ltd, which has developed a simple, low cost — and seemingly highly effective — scheme for removing many plastic fibres, especially polyethylene, at the topmaking stage. The Task Force met representatives of Polygon and was impressed with what they have achieved. The concept has been tested by CSIRO and has been found to be virtually 100 percent effective, although further testing is needed to establish whether there are any adverse effects on the subsequent processing performance of the top. This further development should be conducted as a matter of urgency.

Any topmaker seriously concerned about plastic fibre contamination should be very keen to trial the Polygon technology and assess its practical application, even with the phasing out of HDPE wool packs. In addition, Polygon itself might appropriately link with one of the major topmaking machinery manufacturers, such as Schlumberger in France, with whom the Task Force also met.

Another possible solution to the problem of contamination was raised with the Task Force by United Kingdom topmaker, Mr Brian Wittaker, who reported that a researcher at Leeds University had developed a camera method of detecting and removing white polypropylene fibres and dark fibres. Mr Wittaker has offered to trial the system at the end of the carding process. In addition, CSIRO has developed the Loptex sorter, a unit for detecting and rejecting contaminated fibres in the spinning mill, and a Dark Fibre Detector/Classifier. Both were recently demonstrated at the International Textile Machinery Association exhibition in Paris.

3.10 Adjustment Consequences

The Task Force hopes that most woolgrowers will be able to enhance their productivity and efficiency sufficiently to restore profitable production, even if prices remain at or near current levels. However, it is inevitable that a significant number will not be able to do so.

From every perspective — from a business and economic point of view, from a landcare and animal welfare point of view, but above all from a family point of view — it is desirable that realistic assessments be made promptly by these woolgrowers and their families. Their options are:

- shifting into alternative enterprises — such as other grazing enterprises, cropping, horticulture or growing trees;
- leasing the farm — with alternative employment either on or off the farm, or retirement; or
- selling the farm.

Selling up involves family structures and questions of location, pride, self-esteem, fear of not finding alternative employment, and the loss of a livelihood and assets which may have been in the family for generations. But delaying the inevitable usually makes the final outcome even more painful.

The Task Force urges those woolgrowers who face major adjustment decisions to assess their costs of production closely and realistically against the recent trend of wool prices, as per Chart 14. In making what are obviously difficult decisions, these woolgrowers should seek professional advice or the help of local support groups promptly.

The Task Force was impressed, for example, with the role played by Bestwool 2010 in Victoria. This is an initiative which arose from the Victorian Wool Industry Task Force Report.⁷ It is a collaborative effort of the Victorian Government and its Department of National Resources and the Environment, the Victorian Farmers Federation Pastoral Group and a range of private sector organisations and local groups. It aims “to deliver an industry owned and driven extension program, to assist the adoption of innovative new farm practices and improved profitability, on-farm productivity and advanced risk management practices”. Local Bestwool groups set their own agendas and may engage professional facilitators, conduct stress management courses, and generally provide peer group help and advice to those contemplating ceasing wool production or selling their farm.

Similarly, the farm debt mediation legislation in NSW has proved valuable in bringing parties (mainly woolgrowers and bankers) to the negotiating table, from which mutually acceptable outcomes have often resulted. Also, rural counsellors throughout Australia have performed a valuable role in helping farmers to review their personal and financial options and reach better informed decisions.

For many years rural adjustment assistance has been provided by Commonwealth and State Governments. The objectives are commendable, in helping to facilitate the adjustment process. Specific welfare measures, such as the Farm Family Restart Scheme, have been added to the basic adjustment measures from time to time. There have been periodic reviews of the Rural Adjustment Scheme (RAS), most of which recognise the nature of the problems and that assistance can help at the margin. These reviews usually recommend fine tuning of one sort or another.

The Task Force studied much of the available literature and also met with members of the Rural Adjustment Scheme Advisory Council. As a result, it has drawn the following conclusions:

- there is a significant small farm/low income problem among woolgrowers (as confirmed by Appendix 9) which is getting worse; on the basis of assistance applications, there is a clear interaction between falling wool prices and increasing despair; however, woolgrowers are not the only group experiencing problems, as every industry has a proportion of poor performers and families in difficulty;

⁷ Victorian Wool Industry Taskforce (1996), “Woolgrowing in Victoria: Pathways to Profitability”, report to the Minister for Agriculture and Resources, November 1996.

- most adjustment occurs autonomously, without the involvement of government assistance; this is especially the case where “better” enterprises are available or there are alternative non agricultural land uses;
- government assistance only scratches the surface of the problem and may — and certainly has in the past — give false hopes that farming families can tough it out and recover;
- the areas of major concern are those where no real alternatives to woolgrowing exist — such as in the western division of NSW or other pastoral zone regions; here the process of adjustment may require falling land values to re-establish appropriate rates of return on capital, but this obviously accelerates the loss of equity for existing landholders, and may be exacerbated by resource degradation as woolgrowers try and hold on without the available funds to carry out essential maintenance;
- rural financial counselling, which is provided one-on-one and often helps people to pull through or exit with dignity and some money, is seen to work quite well; exit grants have been less successful and have had a low take up rate because they are small in amount and are only available when net worth has become very low;
- while there has been considerable debate about culture and attitudes being important, political pressures usually result in more money being allocated in the expectation that non viable businesses will depart; there is a view among some of those involved that RAS may be getting in the way rather than helping, because the important emotional and cultural dimensions are poorly understood; and
- although it might not be politically correct to say so, every woolgrowing business encouraged to remain a little longer when its ultimate viability prospects are bleak, represents an expansion opportunity blocked for another business.

The Task Force recommends that RAS agencies should concentrate on those woolgrowing problem areas where there are few or no alternative enterprises, helping woolgrowing families who need to leave agriculture do so as quickly and painlessly as possible. In the process the following should be borne in mind:

- is it (and, strictly speaking, can it and should it be) possible to provide adjustment and welfare assistance to farm businesses without subsidising profits, increasing land values and/or advantaging the recipient businesses relative to other farm businesses?;
- how should assistance be best allocated when the available funds are always small relative to the size of the problem?;
- should scarce resources be provided to help people stay in business when their prospects are probably never going to be very good; who really has the capacity to make the correct assessment?; and
- what can or should be done to help farm family businesses avoid financial distress, when people often do not take preventative action or seek help until the situation has become hopeless or close to it?

4 Marketing of Wool

Wool marketing has been easily the most controversial policy issue among woolgrowers over the past 50 years. Many of the reports cited in Appendix 6 analyse wool marketing arrangements, especially the pros and cons of a buffer stock scheme which, despite its rejection by a woolgrower referendum some years before, was introduced as the RPS in the early 1970s. There is no need to retrace that unhappy history in detail here and reference has already been made to the continuing legacy, among woolgrowers and wool processors alike, of the RPS collapse. However, before a number of market-oriented mechanisms are discussed, the Task Force needs to make its position on interventionist marketing abundantly clear.

4.1 Reserve Price Schemes

One of the main reasons for the RPS as far as both woolgrowers and wool processors were concerned was its capacity to deliver relative price stability. Whatever stability may have been delivered during most of its existence paled into insignificance with the instability leading up to and since its collapse. Adding insult to injury, research conducted in the early 1980s, well before the collapse, suggested that average wool prices were lower during the RPS period than before, implying a high premium was being paid for the supposed benefits of stability.⁸

The Task Force was surprised that a number of woolgrower submissions — though a small minority overall — advocated the return of some form of RPS. To most of these woolgrowers, the concept was not wrong, merely its execution during the late 1980s. With clearer safeguards, they felt a revised RPS could work effectively in future.

To the extent that woolgrowers — or wool processors — want to pursue price stability, they should do so through normal market mechanisms, principally the use of risk management tools or long term supply contracting. Similarly, woolgrowers should examine the relevance of the recently amended Farm Management Bonds scheme as a means of achieving greater income stability.

In case there is any doubt on the matter, the Task Force wishes to be absolutely clear: under no circumstances whatsoever should any form of RPS for wool ever be reintroduced in Australia. There should be no institution in place which has the capacity to make such a catastrophic mistake affecting every wool business in the country.

4.2 Risk Management — Futures Hedging

Woolgrowers traditionally generated most of their wool revenue on the one day of the year when their woolclips were sold at auction. When times were easier, it may have been

⁸ Campbell, R, B Gardiner and H Haszler (1980), "On the Hidden Revenue Effects of Wool Price Stabilisation in Australia: Initial Results," *Australian Journal of Agricultural Economics*, 24(1), pp 1-15.

excusable to say that the vagaries of the auction market evened out over time, but not any more. A hedging instrument, in the form of the greasy wool futures contract, has existed since the formation of the Sydney Greasy Wool Futures Exchange (now the Sydney Futures Exchange, SFE) in 1960. It was routinely used in the 1960s by wool exporters and processors but to many woolgrowers it was “the Sydney gambling casino” — an ironic confusion of roles if ever there was one.

Woolgrowers’ use of futures hedging was limited by lack of familiarity (and sometimes hostility) on the part of their woolbroker or banking advisers, yet by 1973 — just prior to the impact of the RPS — 186,000 wool contracts were traded on the exchange, the equivalent of over 3 million bales of wool. Admittedly, relatively few of them involved hedging by woolgrowers.

Then, during the RPS era, the use of the wool futures contract fell away, almost completely, as one of the intended purposes of the scheme was to absorb a collective woolgrower-funded risk management role on behalf of the entire wool textile chain. More recently, the level of trading on the SFE has begun to increase again and a new generation of woolgrowers is looking on futures hedging in a less jaundiced manner than its predecessor. There are now 19, 21 and 23 micron SFE contracts, plus the cash settled Macquarie Wool Futures, operated by Macquarie Bank. The calibre of risk management advice available to woolgrowers is also far better than it was in the late 1960s/early 1970s. Moreover, hedging in other commodities by farmers has removed much of the scepticism which previously existed.

Nevertheless, the fact remains that only a small part of the national wool clip is presently hedged and only a small proportion of woolgrowers routinely use the futures market. As one Victorian woolgrower tellingly reminded the Task Force:

“Price risk influences profitability by 80 percent and production risk by only 20 percent. Woolgrowers cannot afford to ignore the importance of marketing and price risk management. The range of price risk tools available for woolgrowers is excellent. Macquarie Wool Futures are probably one of the best and most simple tools available to farmers in the world. If most growers had hedged say \$2 of the \$4 per kg fall in 21 micron futures prices from June 1997 to November 1998, this would have produced an extra \$1.2 billion in revenue”.

Some woolgrowers have argued that the use of futures for hedging will not become widespread until and unless wool prices recover to “more satisfactory levels”. The Task Force’s response is to invite those woolgrowers to inspect Chart 16. Chart 16 shows high and low 21 micron wool prices for each calendar year since 1990 — since the collapse of the RPS — and the extent of price variation for 21 micron futures trading over the past five years. It demonstrates conclusively that woolgrowers have had ample opportunities in every year to “lock in” prices at quite acceptable levels relative to efficient costs of production.

Chart 16: Wool Price Variation Since 1990

Year	Auction Wool Prices (21 micron, c/kg clean)				Wool Futures Prices (21 micron, October contract)*			
	low	high	difference	high as % of low	low	high	difference	high as % of low
1991	492	884	392	180				
1992	541	729	188	135				

1993	437	601	164	138				
1994	553	1019	466	184				
1995	637	988	351	155	640	970	330	152
1996	607	727	120	120	643	786	143	122
1997	641	921	280	144	748	953	205	127
1998	537	779	242	145	486	1015	529	209
1999					546	758	212	139

* 21 micron contract only recommenced trading during 1995; the high and low prices quoted are for the October contract of that year throughout its trading life; figures for October 1999 are up to 30 June 1999.

Source: Task Force research; Holmes Sackett and Associates; Wool Unlimited Company.

The Task Force recommends that all professional woolgrowers should become familiar with futures trading, taking the opportunity to hedge their clips when opportunities to lock in profitable prices arise. In gaining this expertise they should avail themselves of the array of professional advisory services on offer.

4.3 Auction Selling — Traditional and Electronic

Despite its many critics, the traditional auction system continues to be used by the majority of woolgrowers and wool buyers. It has the obvious advantage of assembling buyers and sellers in one place and at one time to establish the values of quite different quality offerings. It arguably produces the best price on the day. The price, of course, constitutes the single most important purchaser feedback — even if the messages conveyed are not always palatable. However, the auction system is impersonal and costly, and has been supplanted in many other markets (for example, cotton). The benchmarking analysis of Appendix 8 highlighted the costs of auction selling compared with other methods of price discovery.

A significant number of submissions to the Task Force were critical of the current auction system. For example, one Queensland woolgrower said:

“I believe that the traditional auction system’s greatest disservice is to keep growers and their customers apart so that the grower never gets any feedback on how his wool actually performs”.

A NSW woolgrower told the Task Force:

“the current auction system is the biggest impediment to the restructuring of the wool industry. It promotes grower apathy in marketing and effectively blocks the flow of information between manufacturer and grower. Once the auction has been phased out, agents would move to a role of facilitating the movement of wool and information”.

Another NSW woolgrower observed:

“dominance by the auction systems inhibits innovation, perpetuates an FAQ culture towards aggregation of sale lots and encourages a climate of opposition to technological advance”.

It is clear to the Task Force that the major woolbroking companies are reassessing their roles. Not only are they saddled with significant overhead costs and fixed assets at a time when wool production is falling, but they are also vulnerable to woolgrowers choosing alternative marketing channels which are more cost effective or lead to higher value outcomes. Box 20 describes some of the recent changes implemented by Elders.

Box 20: Brokers Reassessing Their Role

The relationship between woolgrowers and woolbrokers has been a lengthy and mainly valuable one. Brokers have traditionally provided the mechanisms to aggregate wool for sale by open cry auction – no mean feat when it is realised that 45000 growers offer about 3.6 million bales in 550000 lots each year for purchase by several thousand mills around the world. Brokers have also facilitated livestock and real estate transactions and provided financial and merchandise services for farmers.

However, in more recent times wool brokers have been criticised by some woolgrowers for being conservative, and defending historical and physical assets against innovation. The Task Force received many such criticisms in woolgrower submissions.

The Task Force is less interested in judging whether these criticisms may be valid, than in ensuring the future commercial environment is as conducive as possible for the provision of competitive, relevant and effective services between woolgrowers and their customers.

Accordingly, the Task Force is encouraged that woolbrokers are actively reassessing their traditional roles and introducing a wide range of new initiatives.

For example, Elders Ltd has:

- initiated (with Wesfarmers Dalgety) the Australian Wool Handlers joint venture which will significantly reduce handling costs; a cost saving of \$5-6 million per annum to woolgrowers has been indicated;
- unbundled its wool selling charges, *inter alia* increasing the incentive for larger lots;
- developed mechanisms for forward selling (before shearing), including a strategic alliance with G H Michell and Sons;
- introduced Supermark, an electronic wool catalogue operating 24 hours a day for tested wools in store;
- developed Portfolio Management, a specialised wool marketing tool giving accurate advice on when and how to sell wool, relative to established costs of production and profit targets;
- taken a 35 percent investment in Austop, partly to encourage individual (or groups of) woolgrowers to have their wool combed on their own account; and
- participated in Textiles Developments Pty Ltd, the initiator of wool denim.

Elders' chief executive, Mr David Hills, told the Task Force that his company was more passionate and committed to the wool industry than ever in its 160 year history. "Elders wants to employ top quality staff with excellent relations with woolgrowers who can help deliver effective and relevant services to woolgrowers. Elders will continue as a seller of wool and be a broker to spinners and weavers. It has already initiated these programs to help growers get closer to spinners, weavers and garment makers, who (with designers) are the key participants in ensuring expanding demand for wool. It wants to participate, through research, in new product development in the industry".

Source: Elders Ltd, submission; consultation between the Task Force and representatives of Elders; The National Council of Wool Selling Brokers of Australia Ltd, submission.

The Task Force sees a role for brokers and new merchants in putting together contractual supply arrangements for woolgrowers — arranging handling, financing, storing, selling and guaranteeing *del credere* risk cover — rather than being the principal in transaction, and charging appropriately for the services. However, one problem brokers have is a perception that they are acting both as a commission agent and a buyer for some types of product. In the case of the latter role (as principals), they would have an incentive in minimising the price, which would conflict with their former role. The Task Force considers that brokers will need to be very clear about what role they are playing if this confusion is not to arise.

Many woolgrower submissions to the Task Force advocated the early introduction of electronic wool selling and were critical of the delays which have occurred to date. This matter has been managed by AWEX and the Task Force notes AWEX's 29 June 1999 announcement of its preferred supplier — Talman — and that a trial of an electronic bidding system (not as full-blown electronic auction system), operating in the auction room, will commence in the relatively near future.

Electronic selling has been technically feasible for nearly 20 years but until recently had met strong resistance from various sectors. In 1998, a number of major wool exporters threw their

weight behind the concept and assisted in the research being conducted by one of the contenders, the AWTA Woolink system.

The Task Force is critical of the lengthy delays which have occurred in the introduction of electronic selling and concludes they have been accentuated by limitations in AWEX's structure.

AWEX was established after the demise of the AWC to supervise the orderly operation of auctions, as well as provision of market information and development of QA standards. In the Task Force's judgement, it has come to see itself as a "business" in its own right, rather than just as a facilitator. AWEX derives its income partly from a levy on auction sales and became concerned that if it did not control electronic selling, its revenue base may be eroded.

This is a clear case where the wider interest and that of one participant diverges. It is also an example where a propensity for consensus-style decision making inhibits commercial innovation and slows change. Both are unacceptable. Additional details on AWEX are contained in Box 21. This style of wool decision making was summed up by one NSW woolgrower in the following terms:

"In Australian cotton marketing, if someone has a bright idea they try it. If it works, competitors quickly follow and it soon becomes the norm. In raw wool marketing, if someone has a bright idea, they form an industry committee, fail to reach agreement and nothing happens!"

Box 21: The Australian Wool Exchange Ltd (AWEX)

AWEX is a corporate organisation, a company limited by guarantee. There are five classes of AWEX membership: exporter, broker, grower, processor, and private treaty merchant. Currently there are 137 trading members. The mission of AWEX is to:

"enhance the global demand for Australian wool for the benefit of buyers and sellers by providing and facilitating efficient, innovative and informed trading systems in an environment which fosters competition and self regulation."

AWEX's core activities are: management and support of the auction trading system; provision of information technology systems and market information; and provision of QA services and support.

AWEX has gained authorisation from the ACCC (in December 1998) for activities likely to breach the Trade Practices Act. However, several interests have applied to the Australian Competition Tribunal for a review; hearings will be held shortly.

Businesses along the wool value chain have supported a role for "an AWEX" structure at least within the current marketing structure, particularly developing and implementing 'operating rules' for the auction system as it stands. However, there is much less unanimity as far as AWEX's capacity to foster improvements to that system and in its other operational areas. Particular issues raised with the Task Force include whether:

- the business rules, especially the trading fee, discourage the development of other marketing options;
- AWEX's commercial interests conflict with its facilitative role in the development of possible improved marketing systems, such as electronic selling;
- AWEX's provision of market information will remain as relevant in the future, given the prospect of an alternative electronic selling system; and
- the future incentives for QA standards will be directly addressed by respective individual businesses.

In contrast to the open cry auction system, electronic selling has an entirely different means of bringing together (and of dispensing) information for efficient market outcomes. In its simplest terms, an open cry auction requires scheduling of sales in line with expected deliveries of wool in order to make the auction manageable for buyers and brokers alike. By contrast an electronic market need not require that level of centralised collection of information by the managing agency. The market itself generates information as product is offered for sale/purchase and as either spot or forward positions are taken. Management of a future electronic selling system would be more akin to that of the ASX or the Chicago BOT.

AWEX has developed and implemented industry-wide standards and procedures for quality improvement and accreditation, for example, wool classers and packs. At issue is this approach versus the relevant business interests establishing standards, of strategic alliances

between suppliers and purchasers along the value chain, and of individual businesses developing quality standards as a basis of product differentiation. While AWEX's role may well have been crucial in the transition from the heavily regulated AWC environment, there is a real risk that its future involvement will crowd out the development of alternatives. There is also the question of the cost of a specialist wool agency compared with relying on Standards Australia.

Central to the future role of AWEX is that of AWEX as a commercial operator in its own right, as against a facilitator in the delivery of services. AWEX told the Task Force its corporate strategy (established in 1997) determined that: "AWEX should operate as a business that responds to customer preferences that it can serve profitably." In follow-up correspondence to the Task Force, AWEX said that:

"AWEX's core business is the supply of an ownership exchange mechanism for the trading of wool. Currently this is the open cry auction trading floor which potentially is under threat and therefore, **if AWEX as a business is to have a sustainable future**, it shall need to introduce an electronic trading system" (emphasis added).

The Task Force's concern is that the business approach adopted by AWEX has stalled the transition to a dynamic and efficient marketing system characterised by the usual entrepreneurial flair and risk taking. The Task Force takes no view as to what that system should or will look like. Its concern is that the marketing system should evolve and change in response to technology, user requirements and investment commitment. It is too risky for wool businesses to be locked in to a single agency "managing" change.

This concern is highlighted by the "progress" in electronic selling. In early 1997, an *ad hoc* committee, managed by AWEX, was established to direct the Electronic Selling Project. The aim was to have live trials and a feasibility study completed by July 1997. The many delays since then appear to the Task Force to suit AWEX's own commercial development and not the wider interests of wool businesses.

Source: Task Force research

On another issue, the introduction of nylon wool packs, the Task Force heard a number of complaints about their initial performance — bursting and stretching of packs, problems in dumping especially tri-packing, stains through to the wool from branding ink, and variable performance from a multiplicity of pack manufacturers. These problems were not fully resolved before use of nylon packs was made mandatory. As far as the Task Force is concerned, AWEX's supervisory role has left a good deal to be desired.

The Task Force concludes that, instead of being a catalyst for reform, AWEX has become an inhibitor. Its centralised role is superfluous, especially with electronic trading. Accordingly, the Task Force recommends that AWEX should be disbanded and its functions assumed by whatever voluntary groupings of the market participants emerge.

If this does not happen quickly, the Australian Competition and Consumer Commission (ACCC) should rescind the authorisation which exempts AWEX from the normal provisions of the Trade Practices Act. Alternatively, the Australian Competition Tribunal should uphold the appeal to the ACCC decision which is pending.

The Task Force recommends that electronic selling should commence within the next 2-3 months, with or without AWEX's sanction. It should be available to be used by anyone, anywhere in the world, who is able to connect to the system.

Electronic selling means completely decentralised selling — and buying. Samples can be displayed and paid for by sellers, where they are judged necessary to enable a full assessment of the wool's attributes, for example, in the case of wools 19 microns or less, or heavily burred wools. However, many wools can now be adequately sold by description alone, as the disposal of the wool stockpile has demonstrated, and therefore do not need the expense of providing samples. These choices should be for individual woolgrowers to exercise.

Similarly, sellers should have the opportunity to display all available data on their wool — again at their cost — not just the data contained in traditional test results. In part this will help breakdown the FAQ mentality of the past.

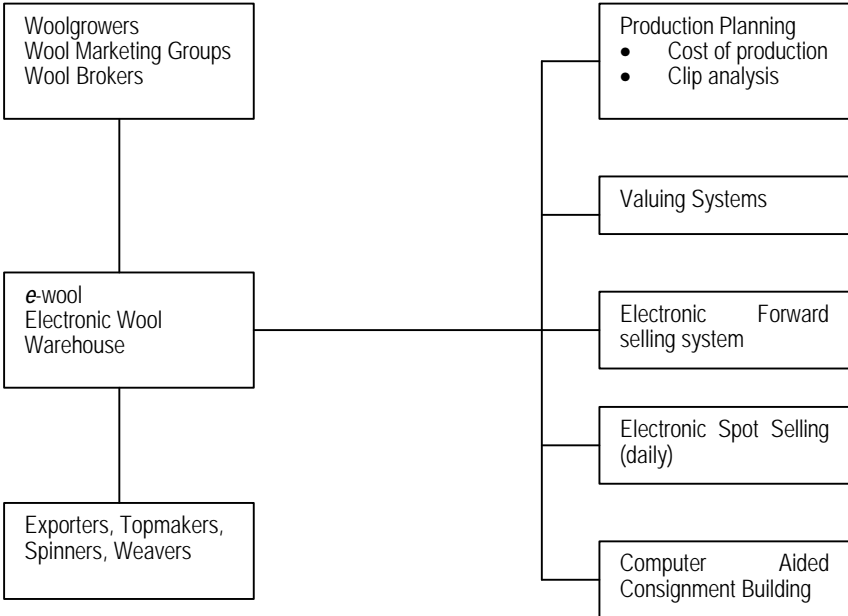
As well as electronic auction selling, there is a range of associated electronic selling systems which offer prospective benefits. One of the disadvantages of the auction system whether traditional or electronic — is that it only operates certain hours of the day, days of the week or weeks of the year. Many submissions urged that wool should be able to be sold 24 hours a day, 365 days a year. Already there are offer board systems available to do this, one being e-wool, which is described in Box 22.

Box 22: The e-wool System

The e-wool marketing system is an electronically based marketing and supply management system which has been developed by Bells Line Pty Ltd of Adelaide, whose chief executive is Mr Peter Vandeleur.

e-wool's marketing role provides specific services and information products to wool growers and enables electronic transactions to occur between growers and buyers on a mutually agreeable basis. Its supply management role identifies and matches the requirements of processors with the available supply of wool on both a spot and forward basis.

The system operates an electronic database – or virtual warehouse – containing full details of spot wool and forward wool of participating woolgrowers and wool brokers. Its operation can be depicted diagrammatically as follows:



The e-wool system enables woolgrowers to sell their wool on any business day, on a spot or forward basis. Woolgrowers are kept informed of the current value of their wool and can make better risk management decisions. The system encourages handling efficiencies, in shed or pre-shearing sampling, enhanced quality assurance, and better interaction with customers. The role of the broker becomes a value adding service provider. For processors, the e-wool systems enables forward contracting with greater confidence, wool purchasing on any business day, and a more direct link to suppliers.

Source: Submission from Mr Peter Vandeleur, Bell's Line Pty Ltd

The Task Force recommends that electronic offer boards — where tested wools are available for sale worldwide on a continuous basis, subject to woolgrower reserves — should be available for woolgrowers to decide their commercial value.

4.4 Direct Selling and Forward Selling

While the traditional spot auction market has continued to be the dominant form of price discovery for Australian wool, many woolgrowers have utilised alternative selling methods. The most common has been sale by private treaty, direct from the woolshed, a practice which was particularly popular in Western Australia prior to the introduction of the RPS.

Some woolgrowers have been reluctant to sell to private treaty merchants as they felt they may be “ripped off”, while others were concerned a single buyer would not match the full competition which is represented in the auction room. Conversely, some woolgrowers believed they did receive the equivalent of auction prices, as well as benefiting from reduced transport, warehousing and selling costs, while others claimed to have conducted “auctions” at their woolshed, with more than one private buyer in attendance at the same time!

Private treaty merchants continue to operate throughout the country and provide a service which well informed professional woolgrowers are able to evaluate relative to the alternatives. It is of interest to note that the largest Japanese wool exporting firm, Itochu, recently purchased a well-established private buying firm and intends to expand this business.

A number of Australian topmaking firms are seeking to purchase more wool directly from woolgrowers. The largest, G H Michell and Sons, is particularly active and will quote prices based on estimated measurements or the previous year’s results, with a grid of premiums and discounts covering variation in micron, yield, VM, tensile strength and so on, to be confirmed by actual test results when they become available. It also quotes spot and forward prices and has recently begun distributing an electronic newsletter to clients commenting on future market prospects. The issue of 28 June 1999 contained the following statement:

“Via Michell’s interactive Web page, suppliers can submit the necessary information and request a forward offer, on line, for prompt delivery and up to eighteen months ahead. Michell purchases a large percentage of its combing requirements by description; electronic marketing is now a reality”.

Some woolgrowers put their wool up for tender. Obviously, to attract sufficient buyer interest, a clip needs to be sufficiently large. Box 23 describes an actual example which occurred in March 1999.

Box 23: Selling by Tender

A number of woolgrowers are already achieving considerable cost savings by selling wool via tender. To be successful, a woolgrower needs to be clear about the intrinsic value of his or her wool, be able to describe it with sufficient accuracy to give tendering buyers confidence to bid full market value, and be large enough to make it worthwhile for potential buyers to submit a bid.

For example, in early March 1999 a woolgrower put up for tender 900 bales of his property’s estimated clip of 1200 bales. The consignment comprised fleeces, pieces and bellies from the property’s mature sheep (that is, oddments and weaners were excluded). The basis for quoting was specified in terms of micron, yield and VM, with tenderers asked to indicate premiums and discounts should the AWTA tests differ from the nominated basis.

Shearing was due to commence about one month later – in other words, the woolgrower was seeking to secure a price well before the wool was available for delivery. Delivery was specified as FOB at the woolshed (that is, the buyer was responsible for transport to a local mill or dump prior to export), and full details of the previous year’s clip results were provided. The only deductions allowable were for the wool tax and AWEX levy. A brief description of the seasonal conditions was provided and tenderers were encouraged to speak to the property manager for further information.

The tender was dispatched to nine firms on a Thursday afternoon, after auction sales for the week had been completed. Eight bids were received and the decision was conveyed to tenderers prior to the commencement of auction sales the following week. This minimised

uncertainties while still allowing time for tenderers to discuss the consignment with their potential overseas clients.

This form of selling provides a number of advantages to both parties. It is a relatively large consignment of even, good quality medium wool, of interest to a range of buyers. It enables the certainty of forward selling, with which other risk management tools such as futures hedging could be combined if required. It offers the prospect of useful savings in freight and auction selling charges; the extent to which these savings are shared between seller and buyer would be determined by the competition between tenderers. Given the conventional wisdom that auction buyers discount larger lot sizes, tendering does not appear to suffer from this drawback. The woolgrower is relieved of the necessity to arrange transport. The fact that 8 of 9 invited tenderers responded is an indication of buyer interest. And presumably there is a reasonable chance of obtaining processor feedback if all, or most, of the wool went to one mill lot at one mill.

Source: personal communication with the woolgrower.

A Victorian woolgrowing family has had a direct supply relationship with the large topmaking company BWK in Germany since 1990. This year, the family put its wool up for tender, and it was again purchased by BWK. Box 24 details the family's experience.

Box 24: Taking Responsibility for Performance

The Close family of Harrow in Victoria has had a direct relationship with German processor BWK since 1990. The family's three properties run a total of 21000 sheep of approximately 19 micron wool. In a recent paper delivered to the annual conference of the Grassland Society of Victoria, Robert Close said that "breaking away from the agent-auction-commodity system to a supply-value-contract market was a huge step". Moreover, dealing directly with BWK had put the pressure on genetics, wool management, contamination and clip preparation. His property, Kurra-Wirra, has developed breeding and management guidelines with the processor in mind.

"It certainly made us very conscious about clip care, because there was nowhere to hide if there was contamination in our clip".

"The feedback on the real worth of the wool has been invaluable. The results are more useful than the unqualified comments and opinions of neighbours, stock agents and wool travellers could ever be. It also makes us feel good, knowing that we were on the right path".

The experience showed that the Close family's wool yielded a higher percentage of tops and lower percentage of noils than predicted. "It has also been the brightest wool BWK has processed until just recently".

"This, together with other important attributes of alignment, length of fibres, and coefficient of variation of both length and micron, make a superior processing fabric and, more importantly, extra profits for both woolgrower and processor". Some of the wool has been followed through to fine suit material sold in the New York fashion market.

All bales are core tested and sampled in the shed and the samples sent to AWTA for testing and the issuing of a guidance report. The bales remain on the farm. They are purchased by BWK on the basis of a guidance report alone. "This trust and integrity we have earned is something we protect and value enormously".

This year, Robert Close tried something slightly different. Based on the test results and a detailed description of the sheep, wool and growing conditions, he prepared his own catalogue and invited tenders; 11 firms responded. BWK ended up being the successful tenderer, but in the process he obtained further useful feedback from other buyers, and a more satisfactory financial outcome. He puts success down to: "autumn shearing, spring lambing, good management of nutritional requirements and good genetics", and recommends marketing or locking in prices at any time of the year to take advantage of forward contracts or futures prices. "These factors will produce the best profit per hectare, wool that customers can make a margin on, and consumers will love to buy again and again".

Source: Weekly Times, 7 July 1999, and Robert Close, personal communication.

Many woolgrowers and others have been critical of the high costs associated with centralised wool handling facilities at places like Yennora in Sydney. While such centres enable brokers and buyers to assemble large numbers of small lots of heterogeneous wool from geographically dispersed production locations for sale and shipment, Sydney warehousing space is expensive. In addition, the Task Force was told of one estimate that 30 percent of wool sold at Yennora is now transported back over the Blue Mountains for processing, highlighting the extent of wasteful transport costs incurred.

Regional warehousing has long been championed as a sensible solution, possibly in conjunction with a number of regionally located scouring and topmaking facilities. The Task

Force received several suggestions along these lines in woolgrower submissions. However, the Task Force considers it is necessary to ask why these developments have not occurred if they are as commercially attractive as alleged. As is often the case it is worth observing that the proponents are rarely those who would have their risk capital on the line.

One proposal described to the Task Force involves construction of a regional warehousing facility at Cunnamulla in south-western Queensland. This proposal, which is outlined in Box 25, appears to have more going for it than most because it is well located relative to a large woolgrowing region, because Brisbane is declining as a wool selling centre, and because the intention is that large lines of wool would be assembled for sale and transport direct to mill or port, possibly outside the auction system.

Box 25: Regional Warehousing

Regional warehousing has been a popular concept within woolgrower circles for over two decades. Numerous feasibility studies have been conducted but, for various reasons, few have proceeded to commercial adoption.

One group, Outback Wool, has been assessing the concept of a regional warehouse at Cunnamulla in south-western Queensland. The organising committee comprises woolgrowers, other business people and local government representatives. Cunnamulla is seen as an ideal location in that the region contains many substantial woolgrowing enterprises and, perhaps more importantly, is the southern gateway for almost all Queensland's wool. With Brisbane declining as a wool selling and storage centre, it is logical that Queensland wool will increasingly move south. Cunnamulla is almost equi-distant from Brisbane, Sydney, Melbourne and Adelaide.

The concept is that wool would be AWTA tested and warehoused at Cunnamulla with growers retaining the decision to market their wool as they saw fit – by tender, auction, direct consignment, or forward sale; individually or collectively. Wool could be aggregated into container or mill lots, and a regional “brand” may in time be developed. Surveys of growers have shown strong support for the concept and an agreement has been reached with a major buyer/exporter to participate in the warehouse's construction and management.

The two guiding principles are a flat rate warehousing charge well below current levels as well as grower flexibility and control of marketing.

Substantial costs savings have been identified from: avoiding the traditional discount applying to Brisbane stored wool; the flat rate warehousing charge; and attractive backloading road freight rates to southern capital cities. Conservatively, these savings have been assessed at \$20 per bale.

As the submission states: “woolgrowers have been out of the loop for so long that their instincts have been a little blunted. (However) we are learning quickly and our natural instincts are well suited to this new way of doing business”.

Time will tell how the venture fares. It will be helped by there being no commercial, policy or institutional blockages to its development, but otherwise it should succeed or fail on its commercial merits.

Source: Submission from Outback Wool Inc, Cunnamulla; Mr Don Dunsdon and Ms Simone Tully

Fibre Direct is one of the more promising alternative wool marketing systems now available. Originally developed by NSW woolgrower and innovator, Mr Jim Maple-Brown, it is now owned by Wesfarmers Dalgety. The main elements are described in Box 26.

Box 26: Fibre Direct: A Marketing Strategy Whose Time Has Arrived?

The origins of the clip preparation and wool aggregation system now known as Fibre Direct go back to the early 1970s and research conducted by Dr Harold Carter, a former CSIRO scientist then at Leeds University. He established that the processing potential of wool could be determined while the wool was still on the sheep's back, with a small sample from just 4 percent of the flock. Indeed, he demonstrated that the major source (well over 80 %) of the fibre variability in a mob of sheep lies within one staple from one sheep. In addition, classing by traditional visual methods has little, if any, effect on this inherent source of fibre variability.

These science-based conclusions influenced leading woolgrower Mr Jim Maple-Brown of Goulburn to form Economic Wool Producers Limited, as a grower initiative with the purpose of implementing change in a truly competitive environment. However, the advent of the

RPS thwarted his efforts and it was not until 1992 that they re-emerged in the form of Australian Wool Enhancers Limited which developed Fibre Direct. More recently, Fibre Direct has been acquired by Wesfarmers Dalgety Ltd, with Mr Maple-Brown remaining a director.

The Fibre Direct system requires initial accreditation of the woolgrower and the woolshed. Sheep must have the stain removed within 3 months of shearing. A mid side sample is taken from 5 percent of each mob 6-9 weeks prior to shearing, based on which a price offer is made. Once accepted, all wool, including skirtings, bellies and locks, are placed in the bale, which is cored as it leaves the press. Woolgrowers are paid on the core results. The wool is consigned direct to a domestic mill or dump for export, where it forms part of an objectively specified mill lot of up to 100 tonnes (1,000 bales). Feedback is provided on the projected combing performance of both the farm lot and the combined combing lot. Each grower contributor also receives the results for the combined combing lot. If contamination is found in a combing lot then each grower contributor is informed and if the source of contamination is not corrected, the offender will, sooner or later, be identified.

The system generates significant savings for woolgrowers: reduced classing/clip preparation costs (up to \$1 per head); increased average farm lot size, and reduced transport/handling costs arising from direct consignment. The fact that quality is strictly controlled from the farm to the weaver/knitter should in time enable price premiums from greater processor confidence (or reduced risk discounts). Woolgrowers also benefit from, and can respond to, the processing feedback they receive.

Fibre Direct is not the only wool aggregation and marketing system available, but it does embody the elements of a competitive, quality oriented, customer driven system needed for future woolgrower viability. The fact that it is now owned, and is being heavily promoted, by one of the major brokers suggests that its time has arrived. All of which is an appropriate tribute to the foresight and persistence of Jim Maple-Brown. As he has said: "so far, research has not let Fibre Direct down."

Source: Mr Jim Maple-Brown submission to the Task Force, and personal communication; Wesfarmers Dalgety "Marketing your fibre through Wesfarmers Dalgety Fibre Direct."

The Task Force sees significance in Wesfarmers Dalgety's recent purchase of Fibre Direct. It appears that in doing so the company has "crossed the Rubicon" relative to its traditional wool handling and selling assets: if the Fibre Direct system renders some of those assets redundant, so be it. If this is Wesfarmers Dalgety's thinking, the Task Force is encouraged that a new era of competition and innovation is emerging among woolbrokers.

4.5 Woolgrower Marketing Groups and Supply Contracting

The Task Force has concluded that communication between woolgrowers and their customers is inadequate. While woolgrowers themselves have been slow to embrace the need for closer contact with processors, it is made more difficult by the "wineglass" structure of the processing chain, depicted in Chart 17.

Chart 17: The Wool Textile-Chain "Wineglass"

[insert the wineglass from Vol 1]

The diversity of raw wool production is negated at the point of sale and the early processing stages, especially topmaking and to an extent spinning. As noted earlier, the auction system inhibits direct contact between woolgrower and customer. The topmaking sector has now become so capital intensive that there are only about 30 major topmakers in the world, with the biggest 8 accounting for the bulk of production. In the process much of the intrinsic value of wool is lost, as some topmakers blend “down to a cost” rather than “up to a quality”. This is reinforced by the large size of mill lots — up to 1000 farm bales.

As a consequence, there is very little contact between woolgrowers and later stage processors where diversity reappears. If wool’s full potential value is to be realised, effective lines of communication will need to be established between woolgrowers or woolgrower groups and these later stage processors as depicted in Chart 17.

Most successful manufacturing industries have developed strong supply chain relationships and Box 27 contains quotations from four chief executives describing how they work and what the advantages are. Previous buyer/seller conflict and opportunistic trading have given way to mutually dependent long term partnerships.

Box 27: Manufacturing Supply Chain Relationships

Defence Manufacturer

“Success in defence contracting depends on the strength of your partnerships. We don’t think of ourselves anymore as prime contractors but as team leaders. The other members of the team will be large, international, high technology companies or, perhaps, smaller companies with desirable intellectual property or knowledge of particular markets or products. The successful team will be one that is open with each other and shares knowledge and experience as well as having a good understanding of how risk is shared.”

Construction

“The construction industry is very competitive. Contractors rely on subcontractors and suppliers to quote them the most competitive price. Contractors still call bids for work or supplies but more often they form long term relationships where prices are set by negotiation and both sides rely on the mutual dependency of the relationship to ensure that each is fair and reasonable. We believe that by this means the highest possible standards and quality are achieved.”

And Defence Again

“The selection criterion becomes best value, which takes not consideration not only product costs, but total costs and risks of acquisition, material handling supplier service levels and performance on all requirements. Value adding in a relationship with a supplier may include the passing on of productivity gains from improved processes. In the defence industry this approach to supply chain management will require an attitude change by the customer from one of black box comply/do not comply acceptance criteria to one of building long term, value adding, continuous improvement activities through the whole life of the supplies.”

Wine

“In 15 years the Australian wine industry has been transformed from a relatively unsophisticated raw material supply activity to one where nearly every grapegrower has a contract with a winemaker. The contract actually specifies which label of wine is produced from which batch of grapes. As part of the contract there is a free flow of information between grapegrower and winemaker, for their mutual commercial benefit. The focus is always on achieving greater predictability, quality and consistency, so that new markets can be captured.”

Source: Leading CEOs in the respective industries, personal communication.

Many woolgrowers are keen to develop similar partnerships — either individually or, given the realities of size, in groups. A number have already started. The Task Force received submissions from a number of them and Boxes 28 and 29 describe the activities of two — one a regional group and the other a bloodline group.

Box 28: Regional Woolgrower Group – Traprock Wool Association

Traprock Wool Association was formed in 1991 to enhance long term viability for woolgrowers and users of “Traprock Wool” through adoption of improved marketing skills and innovative practices. It currently has 70 members from the Traprock region – an area of 9000 sq km in SE Queensland and NE NSW – who produce in excess of 7000 bales of 20-21 micron high yield, low VM merino wool.

The group has developed its own quality management scheme, which is independently audited and has been discussed with European and Japanese customers. This scheme, which leads to the Traprock brand, aims to generate cost savings from elimination of contamination, continuing reliable supply, and efficient lot sizes of uniform quality wool.

Marketing trials and initiative have included the following:

- production of golfing jumpers and suiting fabric in Japan carrying the Traprock label;
- production of fabric via the Wooltech solvent scour in Trieste, spinning in Spain and weaving in Jordan;
- production of billiard cloth in the UK; and
- production of sweaters, vests and rugby tops for the domestic market, using a Tasmanian knitter.

These diverse activities indicate the group's determination to learn more about the potential end use markets for its wool, to obtain processor feedback, and bring on farm activities up to best practice. The group conducts benchmarking analysis, risk management workshops and visits to processing mills. Despite the difficult market environment of the past few years, the group's members are far better informed and customer focussed than they were previously.

A key issue is whether individual members, or the group overall, have sufficient critical mass to derive sustainable market premiums and long term profitability. Only the market place can deliver this verdict, and members can determine their own responses accordingly.

Source: Traprock Wool Association submission to the Task Force.

Box 29: Bloodline Woolgrower Group – Pooginook Wool Initiative Inc.

The Pooginook Wool Initiative group was started in 1995 following discussions with potential wool customers and a desire to differentiate Pooginook bred wool from the mainstream. Pooginook is a well known Riverina stud at Jerilderie and for some years has been breeding for deep crimping wools following the principles enunciated by Dr Jim Watts.

For wools to be eligible to carry the PGK bred brand, they must meet the following criteria:

- Pooginook merino clients of five years standing or more;
- Sheep crutched within four months of shearing;
- Prepared to the highest industry clip preparation standards;

At present about 14,000 bales are covered by the group, although the potential coverage is in excess of 40,000 bales, involving more than 200 stud client members. Surplus sheep are also sold under the Pooginook brand, and members come from all mainland States.

The group's statement of purpose is:

“to initiate wool marketing options for members and enhance their understanding of marketing and management of wool and merino sheep in an ecologically sustainable environment. To achieve maximum profitability to people and businesses involved in the group”.

Two initiatives have been developed so far. First, in conjunction with Itochu and Toa Boshoku of Japan, a range of Pooginook bred suiting materials has been manufactured, for sale in the US and Japan. Second, the group has prepared its own range of fashion garments for presentation in Europe. These garments have been produced in Australia via Austop, Macquarie Textiles and AB Knitting, with ownership remaining in the group throughout. A further initiative, involving interior designers, is planned.

The group has prepared a video and regularly conducts six workshops a year for members covering wool and sheep classing, risk management. The overall approach was summed up in one member's submission to the Task Force:

“as serious woolgrowers in 1999-2000, the ineffective marketing and promotion of our product is an important factor in the slack

demand for retail woollen apparel. We are much more conscious these days of the need to be pro-active in marketing our wool and building relationships with exporters, topmakers and even spinners in the future".

He added: "this cannot be done properly without funds and we are requesting that we be able to use our share of the promotion levy that we pay as growers to underpin our future".

Source: Pooginook Wool Initiative submission to the Task Force, and Ms Gillian Taylor, personal communication.

These two groups — and others like them — deserve strong encouragement. However, their experience shows the challenges involved, especially:

- relatively small average clip sizes, making a critical mass of wool on a year round basis difficult to assemble;
- costs involved in developing marketing contacts, especially when such costs are additional to the compulsory 4 percent levy; and
- the changing pattern of demand and difficulty of establishing repeat business; the variety of end-uses for essentially the same wool from the Traprock Wool Association illustrates this point and the difficulty of answering the simple questions: "who is your client?" or "what happens to your wool?"

Nevertheless, the Task Force is confident that the determination of these groups and their willingness to learn and experiment will be rewarded. A number of processing firms are showing greater interest in preserving the distinctive characteristics of bloodline or regional wools. For example, leading Japanese processor Toyobo has produced "Camden" Merino fabric and men's suitings, based on wool produced and marketed by members of the Egelabra Woolgrowers Association. Quality Soft Wools and the Snowy River brand of wool suiting fabrics are other examples of successful partnerships from the woolgrower level through to later stage processors.

In another successful example, Messrs David and Frank Hodgkinson of Yass have sold their wool for several years to Japanese retailer Aoyama which has even carried the property name, Vale View, as a brand for men's suits. Box 30 documents the history.

Box 30: Vale View: Integration from Woolgrower to Retailer

Vale View Merino Stud, a superfine woolgrowing property owned by David and Frank Hodgkinson of Yass, has had an association with the Japanese firm of Aoyama since 1995. Aoyama is the premier manufacturer/retailer of ready-made men's suitings in Japan.

According to the Hodgkinson brothers, the association has been highly successful in that it crystallised the goals they were seeking: the consistent commercial attraction for their 18 micron wools. It also gave them an insight into the highly interwoven structure of the Japanese industry.

To make the project work required the close cooperation of Primac (wool brokers), Itochu (wool buyers), Nippon Keori Kaisha Ltd (Japan's largest integrated topmaking and spinning mill), Fariani (a German fabric maker) and Aoyama itself. There was extensive negotiation at all levels.

Aoyama has since run a store-wide promotion in Japan featuring "Vale View" in posters and video as part of its marketing. It also has developed a Vale View label.

"It took some time", said David Hodgkinson, "and we learnt that the negotiations were not finished until the contract was signed, but we have been extremely happy at the integrity our joint venture partners have shown and which we hope we have reciprocated. It certainly has been commercially successful for us."

Mr Yoshio Keneki, a director of Aoyama, told the Task Force in Tokyo that the arrangement also worked well for Aoyama. The company saw a market niche for the wool products which could be traced back to the original raw material producer. Using the property name as a

brand reinforced those images in the minds of consumers.

Aoyama itself is a large retailing business. From its commencement in 1964, it now operates over 600 shops throughout Japan, plus a further 70 "casual" shops. All garments are made by contracted manufacturers for private brands according to tight specifications. The company conducts extensive advertising – by TV, direct mail and in newspapers, in conjunction with The Woolmark Company. Most weeks it distributes no fewer than 70 million "flyers" to households throughout Japan which utilise the Woolmark symbol. Not surprisingly, its total promotion budget is massive – over \$200 million annually, or more than the entire Woolmark Company expenditure.

Source: Mr Yoshio Keneki, director Aoyama, Tokyo, in discussions with the Task Force, and Mr David Hodgkinson, personal communication.

This experience is endorsed by the chairman of local topmaker Austop, Mr Nick Burton Taylor. In his submission to the Task Force, he said:

“As a topmaker, some of the best product we present to spinners is where we have worked in conjunction with wool groups and taken the wool through to a specialised top, thus guaranteeing spinner quality and predictability of performance. The final garment retailer then enjoys the branding opportunities of being associated with a committed producer group who are identified with the product.”

The Western Australian Wool Strategy Group is exploring the development of an alliance with large United Kingdom retailer Marks and Spencer. If that became a reality it could involve significant quantities of wool being sold directly through the wool processing pipeline. Representatives of Marks and Spencer confirmed to the Task Force that they were “very keen to cooperate with woolgrowers” and said if they did so they would obviously involve their key garment making, fabric and or yarn suppliers as well.

4.6 Conclusion

This brief review of wool marketing confirms that there are now many alternatives available for woolgrowers, apart from the traditional auction system. The market place should determine which systems should prosper. What is required is a fully competitive environment where new ideas can be trialled commercially — and promptly.

One NSW woolgrower summarised his experience to the Task Force as follows:

“There are plenty of alternative selling systems. Over the past six years we have sold wool as commissioned combed tops, off the sheep’s back, through Fibre Direct, forward sold to merchants, listed wool on an electronic exchange, used SFE and Macquarie Futures, and sold via the auction system. Without doubt, Fibre Direct plus futures is the best combination”.

Another NSW woolgrower felt that, ultimately, wool should be traded as tops:

“With a product like apparel wool, where supply and demand can’t be bought into balance quickly, it is important to have a continuous and responsive method of discovering world prices. In the past the greasy wool auction was the accepted method of doing this. However, if a marketing strategy with more chance of success is to be implemented, this will inevitably mean the best wool will be marketed under a quality assured system and thus can’t be sold in the traditional manner. Thus an alternative method of establishing world prices must be developed. The logical alternative would seem to be a worthwhile market in wool futures. Ideally, such a market should trade wool tops because this is the product spinners, weavers and knitters really want to buy. Also, in top form, wool fibre is relatively easy to specify”.

Wool is different from cotton, for example, in the extent of its reliance on spot rather than forward sales. The Task Force agrees with the following observation of a NSW woolgrower:

“Wool’s single most important (marketing) disadvantage is the lack of risk management along the pipeline. Carrying wool inventory is most commonly a high-risk option with values dictated by the spot greasy auction market. Anything to encourage forward physical transactions up and down the pipeline should be done. Woolgrowers need to be far less dependent on the spot auction market. They can encourage such a development by offering wool forward either individually or through pools particularly at times when they would like to lock in a ‘good’ price, fear the market may fall and/or would like to lower their marketing costs. Brokers should be merchants, locking out their price risks, focussing on logistical efficiencies and offering processors forward prices”.

Finally, perhaps the most scathing assessment received by the Task Force was contained in the following comments of a NSW woolgrower:

“Twenty eight years of statutory management, political, agripolitical and bureaucratic interference, aligned with the entrenchment of an FAQ commodity culture, has allowed non-accountable, non risk-taking people to set the agenda for a global value chain, instead of the commercial world doing so. The result has been the degradation of complexity, initiative, creativity and innovation. Conversely, the wool fibre and Australia have extraordinary potential and numerous comparative advantages. The challenge is to change the commodity culture and move the focus away from generic mediocrity to one of high quality and differentiation.”

The Task Force concludes that the related activities of direct selling to processors, supply contracting and obtaining more effective customer feedback are poised for great change and dynamism in the immediate period ahead. Woolgrowers will need carefully to weigh up their options and determine which system or systems suit them best. While it is not the Task Force’s role to anoint or condemn any particular system — apart from ruling out any future RPS — the Task Force does recommend that woolgrowers should:

- understand their costs of production and have a price in mind which, in any year, would be deemed “acceptable”;
- be prepared to sell forward or lock in a price via futures hedging when opportunities arise to secure that price;
- investigate combining with other woolgrowers in a marketing group;
- obtain greater processor feedback on the spinning performance of their wool; and
- always produce a product which is quality assured or contains a quality guarantee.

5 Wool Processing and the Wool Fibre

In this chapter attention turns to a number of important issues along the wool textile chain. The discussion focuses on areas where the Task Force makes specific recommendations or takes up significant issues raised in submissions.

5.1 Truth in Labelling for Australian Wool

It became clear to the Task Force during its consultations that some Australian exporters of greasy wool or tops do not always deliver what the buying order stipulates. Some overseas trading houses do the same. This practice, while obviously not widespread, damages trust and potentially the reputation of all Australian wool. Problems have mainly involved India and China but have also arisen elsewhere. The delivery of non specified wool has sometimes been linked to the non payment of earlier consignments, although in such circumstances it can be difficult to distinguish between cause and effect.

A new China “model wool contract” governing commercial wool transactions between Australian and Chinese firms has recently been concluded after several years of negotiations. It should assist to restore trade confidence and trust — although, on its own, it is unlikely to solve every problem.

The Task Force is sufficiently concerned with the current state of affairs that it concludes an explicit provision for ensuring Truth in Labelling is required. The question is how best to achieve that objective.

Wool sold at auction is tested and certified for yield and micron, with a certificate issued by a licensed IWTO laboratory (in effect, AWTA) being made available to the buyer after purchase. Wool sold by private treaty is also generally tested, so it would be rare for greasy wool to be exported without a certificate. Contracts between overseas merchants and processors and Australian exporters range from basic specifications to highly specified requirements which can be difficult to meet. They usually require at least an AWTA yield and micron certificate as part of the documentation — the yield to decide the clean weight basis for pricing and invoicing, and the micron to satisfy the fineness criteria of the contract. If a combined certificate is provided for a consignment consisting of several auction lots, the mean values are shown, together with the values of each tested component.

In the recently concluded China model wool contract, specification remains a matter between buyer and seller. The more specification is required, the higher the price the Chinese importer will be expected to pay. When trading conditions are tight, a contract with a lower price and less specified wool is frequently successful.

At present, if an importer has concerns with the specifications provided, that importer can seek verification from the test house, by providing the test certificate for checking. However, no further information is provided by the test house because it is not privy to the contract details.

The *Export Control Act (1982)* is a legislative umbrella under which the export of a number of food and related primary products are regulated. It is administered by the Australian Quarantine and Inspection Service (AQIS). The Act is currently being reviewed as part of the

Competition Policy Agreement. In a background paper to the review⁹, a number of possible regulatory methods were canvassed:

- no specific action — relying solely on market mechanisms;
- information and education campaigns;
- market-based instruments — taxes, subsidies or charges;
- standards — principle, performance or prescription based;
- self-regulation — industry develops the rules and enforces them;
- quasi-regulation — mainly industry developed, but some government or court involvement; and
- co-regulation — mutually acceptable regulations developed between industry and government.

In the case of wine, an effective “Label Integrity Program” has been developed under the auspices of the Wine and Brandy Corporation (and its Act) ensuring truth in labelling, especially in regard to grape varieties. The scheme provides an associated audit trail. Prosecutions for fraud have been extremely effective.

For a number of years there was a mandatory certification scheme for wool in New Zealand, but it recently became voluntary, as Box 31 summarises.

Box 31: Wool Certification: the New Zealand Experience

From July 1 1994 the New Zealand Wool Board, using its statutory powers, directed that no test certificates would be supplied or displayed in connection with the offering of raw wool for sale in New Zealand or for export overseas unless they were a test authorised by the Board and performed by a wool testing laboratory also authorised by the Board.

The stated intention was “to further enhance the integrity of the New Zealand wool testing industry and to enhance the utilisation of objective measurement of wool”. This action had been prompted by overseas customer complaints that deliveries were often not adequately specified, or were accompanied by test reports on submitted samples as opposed to certificates.

At first, exporters reacted negatively and proposed overcoming the direction by setting up offshore businesses for on-selling wool. However, after this initial settling down period the exporters complied.

In 1997 the New Zealand Government started the process of deregulating producer boards. The Wool Board relinquished most of its powers, including those relating to quality. In dropping these powers the strongest objections came, ironically, from the exporters: they believed that statutory export certification had helped them and New Zealand woolgrowers in product differentiation. As a result the scheme has continued on a voluntary basis. Apparently almost every delivery of scoured and greasy wool still has the same level of certification as was the case under the Board’s direction notice.

Source: New Zealand Wool Testing Authority: correspondence to the Pastoralists and Graziers Association of WA Inc, May 1999, subsequently provided to the Task Force.

Having considered the options and relevant experience elsewhere, the Task Force recommends that a Truth in Labelling scheme should immediately be established through

⁹ Export Control Act Review Committee (1999), “National Competition Policy Review of the Export Control Act 1982, Background Paper”, March 1999, p5.

Commonwealth legislation for all Australian wool, up to and including combed and carbonised wool, requiring that:

- all wool be accurately described as to its known content at the point of export;
- relevant test certificates be held by the test house concerned;
- a truth in labelling unit within the test house to handle complaints; and
- the confidentiality of processors intellectual property be safeguarded.

Under this scheme, the export certificate would show the number of bales and lots, each originally certified for yield, micron, staple length and strength, colour and any additional IWTO certified result, regardless of what may be specified in a contract. In addition, education campaigns, by responsible exporters, AWTA and/or other organisations, should continue, to reinforce the usefulness of the specification and to enable mills to predict the processing performance of wool. Ultimately, this should lead to better and more consistent products, generating better prices for processors and woolgrowers alike.

5.2 Wool Testing and the Role of AWTA

AWTA has been a valuable organisation serving woolgrowers and wool processors in Australia and overseas. Its professionalism and the consistency of its test results enjoy a wide international reputation. It has done a commendable job in promoting testing of length and strength and developing a practical, workable electronic selling system.

However, its status as a tax exempt, non profit company, limited by guarantee and without permanent share capital, has helped it see off several would-be competitors. In practice, if not in theory, it is a monopoly service provider.

The Task Force received positive and negative commentaries on AWTA from a wide variety of sources. The negative comments focused on what were seen to be tendencies common to a monopolist — namely, a belief that only its view was correct, and that it was capable of assessing what was desirable and in the interests of all wool participants. For example, one NSW woolgrower’s submission to the Task Force said:

“the commercial policies of AWTA management engendered conditions that were not conducive to the AWTA maximising innovation on behalf of woolgrowers (the originally designed beneficiaries of AWTA’s existence), particularly in areas of specification and metrology technology, methodology and handling practice. For an organisation with such a pivotal role, the quasi monopoly status of AWTA, and its position as a company limited by guarantee and thus enjoying the unique competitive advantage of not paying tax, is surely worthy of serious examination.”

There has also been a strongly held perception that AWTA has been less than cooperative towards the developer of the OFDA technology, because it was a potential competitor to the Laserscan for which AWTA held exclusive marketing rights. AWTA has now reiterated explicit technical support to OFDA following a meeting between the two parties which the Task Force facilitated. Some people gave the Task Force examples where they believed AWTA had been wrong or its test results inaccurate. Others were critical of AWTA’s slowness or reluctance to provide test data on the coefficient of variation of fibre diameter —

which in turn enabled FAQ mill lots to be assembled which nominally met the specification sought but did so with wools of inferior processing performance.

The Task Force has drawn the following conclusions:

- AWTA has been reliant on the Airflow fibre diameter testing technology for too long;
- AWTA has been slow in encouraging new testing machines (such as Laserscan) or the testing of new fibre characteristics (such as percentage of fibres over 30 microns, or curvature); and
- AWTA has built up excessive reserves which ensures that competitors will be defeated and which the Task Force considers could be better used for the benefit of woolgrowers.

In drawing these conclusions, the Task Force reiterates its support for many of AWTA's achievements over the years. It also recognises that AWTA has encountered strong opposition from time to time within IWTO (for example, by those who believe that Laserscan technology is less suited than Airflow to non-Australian wools) and AWEX (for example, resistance to the display in auction catalogues of both Airflow and Laserscan data, and delays to the commercial introduction of electronic selling). To this extent, the first two conclusions do not perhaps apply to AWTA alone.

As to AWTA's financial position, its published balance sheet for 1997-98 shows net assets of \$61.6 million and, of its current assets, \$36.9 million comprise "cash and 11am deposits" and "short term deposits". AWTA has stated that its actual "surplus" at 30 June 1998 was about \$15 million, including \$11.8 million of unappropriated profits. The \$15 million figure does not appear explicitly as a "surplus" in the published accounts, the presentation of which could usefully be made more user friendly. However, if the \$36.9 million portion of current assets are not "reserves", it is hard to know what they are. Moreover, the Task Force's conclusion is corroborated by AWTA's own decision to budget for a loss every year since 1995-96, including for 1999-2000, and the establishment of a Wool Education Trust using \$3 million of reserves.

The Task Force is more interested in what AWTA is going to do in the future. The Task Force recommends that AWTA should play an even more explicit catalytic role than it has done already, encouraging the adoption of new technology in testing and related areas. This may include electronic selling and the introduction of on-farm testing, first via the issuing of guidance reports and ultimately an effective and practical on-farm certification scheme. The latter should facilitate the electronic sale of wool while it is still in the shed, a logical and desirable development which would enhance woolgrowers' marketing flexibility and enable more efficient wool transport at the buyer's direction. As noted in the previous section, AWTA should also be involved in operating the Truth in Labelling scheme.

The Task Force considered the continuing relevance of AWTA's structure. While it recognises that AWTA regards its company limited by guarantee status as a major advantage, and while it may have been appropriate in the early 1980s to engender buyer and processor trust, the Task Force considers it has contributed to the monopolistic tendencies described above. The circumstances which surrounded its creation have changed. The Task Force

assessed a number of alternatives, from leaving AWTA as it is, converting it to a stand alone tax paying company, to providing it with a woolgrower shareholding, given that woolgrowers paid most of the charges which led to the reserves, surpluses and balance sheet.

Having done so, the Task Force has decided on balance to recommend that AWTA should become a conventional company with its shares owned by woolgrowers through the new organisation to be established, Australian Wool Services (see Chapter 7).

This may be achieved in one of two ways. The directors of AWTA, or the members in the case of directors representing members, could approve the transfer of the assets and undertaking of the business to Australian Wool Services for a nominal consideration, subject to appropriate legal and taxation advice. Alternatively, AWTA could be demutualised by the issue of permanent share capital to members. Following demutualisation, there would be a placement of (a much larger number of) ordinary shares to Australian Wool Services for a nominal consideration, the purpose of which would be to transfer the ownership of the restructured AWTA to Australian Wool Services. These changes should take effect from 1 July 2000. The Task Force understands that a similar demutualisation approach has recently been followed in the case of South Australian Cooperative Bulk Handling.

It may be felt that having AWTA as a company owned, albeit indirectly, by woolgrowers could compromise its independence in the eyes of wool buyers and processors. The Task Force rejects any such suggestion. Not only is it impossible to see how 46,000 woolgrowers could seek to influence AWTA's independence over the head of its directors and senior professional management, it would patently not be in woolgrowers' interest to do so.

On the positive side, the Task Force can see considerable advantages in having AWTA as part of a dynamic new organisation, where it can accelerate the implementation of innovation and new ideas. This, the Task Force considers, would definitely be in woolgrowers' interests.

Finally, the Task Force notes that in AWTA's memorandum and articles of association (now its constitution), there is provision (Clause 17) that on "significant policy issues" — which this presumably would be — the combined vote of the Wool Council and AWRAP "shall be deemed to aggregate 51 percent of the total votes cast".

Overall, the Task Force sees a continuing, if not increasingly important, role for AWTA.

5.3 Vertical Integration

Chapter 4 noted a number of instances where individual or groups of woolgrowers had established effective links with wool processors, up to and including the retail sector. It also urged woolgrowers to examine the feasibility of supply contracting for at least part of their clips — mainly as a means of learning more about the processing performance of their wool.

One new firm with a similar objective has recently been established — Australian Wool Network. It is described in Box 32. An encouraging aspect of the concept is that it signals interest by important wool customers — a group of Italian topmakers, spinners, weavers and knitters — in moving closer to their suppliers and, in time, achieving greater supply certainty. This is consistent with what the Task Force thinks should happen on a wider basis.

Box 32: Linking Woolgrowers and Wool Customers – Australian Wool Network

Australian Wool Network (AWN) was formed in May 1999 with the aim of providing woolgrowers with better marketing avenues, in particular developing closer links between woolgrowers and end users. Its specific though not exclusive focus is the fine and super fine end of the market. The concept is to link high quality wool users with woolgrowers and to introduce innovation to both in terms of wool marketing and the transfer of information.

AWN lists the benefits of its approach as the vertical association from farm to retailer with an information flow reflecting:

- a two-way communication channel between woolgrower and customer;
- improved wool performance (including batch performance of wool supplied by individual woolgrowers, especially for superfine wools where processing batches are smaller);
- implications for management, handling and marketing; and
- scientific issues and new measurement possibilities.

Currently AWN operates as a broker conducting auctions in the traditional manner. It is promoting forward contracting and will evaluate and utilise alternative selling systems as they develop.

The key emphasis of the company in facilitating closer links between woolgrowers and their customers is reflected in the ownership structure, with eight Italian topmakers, spinners, weavers, cloth manufacturers and retailers owning 55 percent of AWN through Woolstreet Pty Ltd. Network Investments Pty Ltd, a woolgrower company owned by 20 independent woolgrower shareholders, owns the remaining 45 percent.

Already AWN reports an 'overwhelming' interest from woolgrowers as well as considerable interest from other sectors of the trade.

Source: John Colley, personal communication.

Within the processing chain itself, there is a range of structures, from single stage specialists through to vertically integrated conglomerates. The well-known Benetton Group is one of the few examples of vertical integration right back to the raw wool supply. It owns a breeding flock of 350,000 ewes — though unfortunately located in Argentina, not Australia.

One of the world's largest and most successful wool textile groups is the Italian firm Marzotto. As outlined in Box 33, it has been growing strongly in recent years, for example acquiring the German clothing company Hugo Boss in 1991.

Box 33 Marzotto: a Global Textile and Clothing Business

In 1836 Luigi Marzotto established a small wool weaving mill at Valdagno, near Venice, in Italy. Today, Marzotto is a leading player in the world textile and apparel industry, from the manufacture of yarns and fabrics to finished clothing. Marzotto describes itself not as a vertically integrated group, rather "a network enterprise structure, a loose association of companies that is unparalleled in the world textile business."

By 1866, when the Third War of Italian Independence freed the Venice region from the Austrian Hapsburgs, Marzotto employed 200 people and operated 80 pieces of machine or hand-operated weaving, spinning and dyeing equipment. In 1880, a new spinning mill was constructed, producing worsted yarns rather than the carded wool favoured throughout the rest of the country. This was a successful move and the company's workforce expanded from 600 in 1889, to 1200 in 1895 and 2000 in 1910. The company survived the depression and Lanificio Marzotto, as it had become, was one of the first companies to diversify into ready-to-wear apparel in the early 1950s.

Change has been a continuous feature of the Marzotto Group, so much so that most of the products and markets that provide its current earnings did not exist in 1975. A series of major acquisitions started in the 1980s – such as Lanerossi in 1987, the Germany company Hugo Boss in 1991 and the Czech woollen mill Nova Mosilana in 1994.

In 1997, 27 per cent of Marzotto's sales came from wool textiles, 46 per cent from Hugo Boss clothing and 22 per cent from Marzotto clothing. The Group now boasts:

- world leadership in pure wool yarns and fabrics, classic menswear and a major presence in sportswear and womenswear;
- a turnover of 2,400 billion Lira in 1997 (\$2 billion), three quarters of it outside Italy, and a profit of 69 billion Lira;
- 9,300 employees; and

- sales in over 90 countries.

The company is publicly listed although members of the Marzotto family still own the majority of shares and have senior board and management positions. The current Chairman is Mr Jean de Jaegher, a Belgian with a strong family background in wool, who was appointed in June 1998. The Task Force spoke with Mr de Jaegher during its visit to Italy.

Source: Marzotto, Group Profile, 1998.

The development of stronger linkages is occurring in the wool textile supply chain, although judging by comments made at the IWTO conference in Florence in June 1999, some processors are more inclined to look further up the pipeline towards retailers, rather than down the pipeline towards woolgrowers. However, the Task Force is optimistic that there will be significant rewards to both processors and woolgrowers from more effective supply contracting, with the largest rewards going to those who are quickest to put them in place. The reason is obvious: both parties will be able to produce better products from the knowledge they gain from each other.

Among woolgrowers themselves, there are a number of examples of vertical integration, albeit on a relatively small scale, such as the NSW Litchfield family's involvement with Tourallie, the Tasmanian McShane family's involvement with Casaveen, or the Victorian Gill family's involvement with Jema. They lead to the production of high quality products and the Task Force sees no reason why other similar examples and further expansion should not be possible.

5.4 Value Adding in Australia

Despite its wool production advantages, Australia has not developed a competitive wool processing tradition beyond the topmaking stage. The proportion of greasy wool scoured and combed in Australia has risen steadily to over 30 percent. However, in the spinning, weaving and knitting sectors, there has been a decline in domestic activity.

The Task Force considers that these later stage processing trends may be about to change:

- Australia's recent low inflation, strong growth performance, and a more cooperative and flexible industrial relations environment, have improved Australia's attractiveness as an investment location;
- Australia's political and financial stability relative to much of Asia and Eastern Europe, for example;
- Australian business flair is being demonstrated in a growing range of activities — such as software, film making, advertising, wine making, the diversity of dairy processing, and so on;
- there have been a number of niche investments in wool garment making, some of which are now exporting successfully; several leading Australian fashion designers are winning growing international reputations;
- new machinery and technology have enabled further automation in knitting and garment-making;
- CSIRO has concentrated all its wool processing research facilities in Geelong; and

- the recently opened International Fibre Centre in Geelong is seeking to build on an established cluster of expertise in the region, and enhance a commitment to education and training.

The Task Force has been made aware of new commercial interest in value adding investments, including joint ventures between Australian firms and established overseas wool processing expertise. The Task Force is encouraged by this renewed interest because its judgement is that unless a reasonable proportion of wool can be processed through to the fabric stage in Australia, it will be difficult for woolgrowers to learn enough about their product to be other than raw material price takers. The quality of the greasy wool produced can hardly improve unless constructive feedback is coming from processors and retailers.

While not drawing too close a parallel, it is worth highlighting the enormous strides taken by winemakers over the past decade or so, reflecting not only Australia's suitable climate for growing grapes, but the application of superior viticultural and wine making technology and flair, compared with some of the traditional overseas centres.

If there is to be a resurgence of commercial wool processing investment in Australia, it will need innovative wool fibre technology, probably developed by Australian researchers, and the same type of commercial flair exhibited in wine making.

Accordingly, the Task Force recommends that international and domestic investors in wool processing should carefully assess the potential for new value adding investment in Australia which would capitalise on both more commercially focused wool fibre innovation, and Australia's improved overall investment, political and financial climate.

Last year, the Commonwealth Government succumbed to sectional pressures when it opted for a five year tariff pause for local textile, clothing and footwear (TCF) manufacturers instead of a continuation of previous tariff reductions. However, it also announced a five year \$772 million assistance package to help prepare manufacturers for a resumption of declining tariffs after 2005.

This package includes \$700 million for a Strategic Investment Program which, according to its draft guidelines, is "designed to encourage new investment, R&D, innovative product development and value adding in Australia's TCF manufacturing industries, particularly in those sectors utilising Australia's wool, cotton and leather where we have a significant natural advantage over many of our international competitors". These objectives are precisely the focus of this report on wool.

However, the Task Force is concerned that excessively detailed rules for the expenditure of the funds might prevent the effective commercialisation of new innovative wool products and development of clusters of wool processing businesses. Therefore the Task Force recommends that, to ensure the Government's TCF assistance objectives (of encouraging new investment, innovation and value adding of wool-based processing in Australia) are met, a significant portion of funds from the Strategic Investment Program should be allocated to the new organisation, Australian Wool Services, which the Task Force is recommending should take over from AWRAP and The Woolmark Company.

Subject to appropriate safeguards, the board of the new organisation should be responsible for investing these funds. The Task Force considers that no other group of people will have

superior expertise in determining where and how such funds should be spent for the optimal development of innovation and competitive wool processing capacity in Australia. In making this recommendation, the Task Force recognises that it will require some amendment to the procedures approved by Cabinet in regard to the way the Strategic Investment Program funds are to be allocated. The appropriate amendment should be made.

5.5 The Retail Sector

One of the most frequently advocated suggestions to the Task Force was the desirability of opening a chain of retail wool shops around the country, and possibly around the world. A number of woolgrowers pointed to The Cotton Shop at Darling Harbour in Sydney as an example of what could be done, with several suggesting wool should combine forces with it. Others strongly urged the opening of retail shops in the Olympic Games context — for example, near the Olympic village or at airports — as a way of increasing sales of wool products and, perhaps more importantly, showcasing wool to a captive world audience.

The Task Force has a number of observations on these suggestions.

First, The Woolmark Company has been developing a comprehensive Olympics package, details of which are summarised in Box 34. In addition, it is intended that a joint venture retail wool product outlet will be opened at Sydney International Airport in May 2000, with a full-scale downtown Sydney site also under negotiation.

Box 34: Wool and the 2000 Olympic Games

The Woolmark Company provided the Task Force with a briefing of a range of initiatives planned for the 2000 Olympic Games in Sydney. The Task Force sought this information because of the very strong desire among woolgrowers to know what is planned – and considerable criticism that because there have been few announcements so far, little may occur and thus a valuable promotional opportunity would be lost. The Task Force agrees that the Olympic Games represents a unique opportunity to showcase the quality of Australian wool and wool products to the world.

The Woolmark Company first approached SOCOG in 1995 to investigate promotional opportunities. Initially it appeared that the sponsorship cash investment involved might be prohibitive and alternative options were explored to gain marketing rights through the supply of wool product. By way of preparation, AWRAP undertook a significant involvement with the Australian Commonwealth Games Team participating at the 1998 Kuala Lumpur Games, including team uniform supply and the use of Sportwool in 10 sports.

A team uniform supply agreement, involving The Woolmark Company and up to 10 commercial partners was negotiated during 1998 with the Australian Olympic Committee. This was deemed preferable to a full contract with SOCOG. It effectively makes Australian Olympians “wool ambassadors” and extends through to the 2004 games. Three different uniforms are involved – opening ceremony, formal, and village casual.

A separate supplier relationship with SOCOG has since been negotiated that will see Australian wool products used by all 30,000 visiting athletes and the international media.

Other initiatives include:

- a multi-faceted consumer advertising and PR campaign – focusing on Australian consumers, international visitors, the media, athletes, Woolmark licensees and woolgrowers;
- wool focussed event participation during the Olympics – such as wool fashion parades, shearing demonstrations, sheep dog trials, wool history, product displays, and wool sample bags;
- news stories aimed at the domestic and international media, including an hour long documentary on the Australian Merino (“McArthur’s Dream” presented by Jack Thompson) which will be sold to the international media and used on airlines; and
- a mini wool pipeline – a sheep’s back to finished garment TV event, being developed with CSIRO and the Melbourne School of Textiles and involving an attempt on the Guinness Record.

Two important and imaginative initiatives are that the ribbons for all Olympic medals will be made from superfine wool and that each

athlete and visiting media representative will sleep under a wool-filled doona, which will become a gift to that person at the conclusion of the Olympics. These initiatives will help demonstrate the versatility of wool and are certain to be major talking points.

The contract for Australian athletes' competition clothing is with Reebok International (not Reebok Australia). Negotiations are continuing with Reebok and a number of the sports' administrators to have Sportwool used by Australian athletes. It is probable that the use of Sportwool will be limited, but will focus on high performance sports such as cycling.

Source: David Conners, The Woolmark Company, personal communication.

Second, there are already many retail businesses in metropolitan and regional centres, specialist or otherwise, which sell products made from Australian wool. Woolgrowers are often inclined to grizzle, expecting "they" to do something, rather than searching out and supporting what does exist. Indeed, a constructive activity for woolgrowing organisations would be to maintain an up-to-date list of all wool product stockists in Australia, urge members to support them with regular purchases, and spread the word to friends and acquaintances.¹⁰ If woolgrowers themselves do not take the lead in promoting quality wool products, who will?

One example of a new specialist retail wool business is described in Box 35.

Box 35: Hedrena Textiles

Hedrena Textiles is a Geelong-based manufacturing business, with retail shops in Geelong, Melbourne and Adelaide. Members of the Task Force visited the Adelaide shop – boosting its sales figures in the process! Hedrena was started by Hedley and Irena Earl, former art dealers and stud cattle producers, who commenced growing super fine wool merino sheep in the 1980s. They tested individual fleeces before shearing and, with CSIRO assistance, developed a high quality fabric. Their first garments were sold through major department stores in 1994.

All Hedrena's branded products are made at its Geelong premises using superfine merino wool to produce a knitted jersey fabric. The resulting garments are for all season's wear and include women's wear, men's wear, babywear, underwear, casual knitwear, T-shirts, dresses, sheets etc. They are guaranteed machine washable, non-itch and can be tumble dried. Hedrena also stocks other Australian made brands of wool or wool blend garments such as bulky jumpers, rugby tops, socks, wool denim jeans, wool moleskins and dressing gowns.

The visitors' book provides an encouraging array of comments – such as "at last", "I've been waiting for years for a shop like this" etc.

Woolgrowers and their organisations have a clear interest in helping commercial initiatives like Hedrena become and remain successful. If they do, and the businesses extend to other locations in Australia and overseas, they will increase demand for Australian wool – for everyday use, in all seasons and at affordable prices, messages which were constantly being drummed into the Task Force by woolgrower submissions.

Source: Hedrena Textiles, personal communication.

Third, the Task Force would be opposed to compulsory woolgrowing levies being used for direct retail investment. One suggestion made to the Task Force was that woolgrowers should acquire a business like Nike or Reebok, to ensure wool usage increases in the sport and active leisure part of the market. Individually of course, woolgrowers are free to make whatever investments they choose, retail investments among them.

¹⁰ A document of this type is currently produced — "Wool Pages", compiled by the Australian Wool Showcase.

Fourth, direct mail and internet shopping provide a growing opportunity for wool product sales which should be assessed. Again, woolgrower organisations might be able to develop positive initiatives in this area.

Finally, woolgrowers sometimes complain that retailers are indifferent or do not argue wool’s case with sufficient vigour. Box 36, which is drawn from the current product directory published by the Ballarat-based, retail clothing chain Rivers, shows a contrary example of a retailer providing strong endorsement for, and useful information about, wool. Woolgrowers and their organisations should be more active in disseminating this helpful material.

Box 36: Rivers Supports Wool

The current Rivers catalogue contains the following textile fibre rating information:

Appearance Attributes	Wool	Cotton	Nylon	Acrylic	Polyester
Drape	1	3	3	2	3
Texture	1-2	1-2	3	2	2
Colour	1-2	2	2	1	3
Wrinkle recovery	2	4	2	3	1-2

Comfort Attributes	Wool	Cotton	Nylon	Acrylic	Polyester
Moisture absorption	1	2	4	5	5
Elasticity	1-2	3-4	2	3	4
Breathability	1-2	1-2	4	4	4
Permeability	1-2	1-2	4	4	4

Rating: 1 excellent; 2: very good; 3: good; 4: moderate; 5: poor

It also provides the following information on wool:

“What is the big deal about wool? Wool is one of the oldest textiles known to man. The natural properties it had in the stone age era are still valuable today.

- **Insulation.** By absorbing moisture vapour, wool clothing provides superior comfort in both hot and cold weather. In cold weather, even a little moisture on the skin becomes cold. By absorbing body moisture, a dry layer of air is left next to the skin which helps to hold in body heat. The natural crimp in the wool fibres make them stand apart from each other. As a result, little pockets of air are trapped between the fibres, provided excellent insulation. Wool is also:
- **Water repellent.** Try mopping up spills with an old woollen jumper. It won’t soak in.
- **Fire resistant.** Firemen wear wool uniforms.
- **Dirt resistant.** Scales on the fibres keep dirt from penetrating the fibres.”

Source: Rivers, Product Directory Catalogue, No 3/99, pp 43 and 16.

5.6 Fashions and Markets

Chapter 2 contained a brief description of how the textile market has been evolving in recent years and Box 3 listed various wool attributes and deficiencies. In summary, wool apparel end-uses are becoming finer, lighter and more casual, and existing wool deficiencies such as prickle, non easy care, and pilling must be removed as a matter of urgency.

The Task Force’s program of overseas visits was not designed to produce a comprehensive up-to-date market assessment for wool. That role has resided with The Woolmark Company. However, the Task Force did form some clear impressions which it considers are worth recording:

- the centre for international fashion is Italy, and Milan in particular; wool is fortunate in having a major processing and expertise presence in northern Italy — at Biella, Prato and near Venice — which enables it to participate in and benefit from these developments;
- consumers require continual innovation in products and styles, and therefore processors endeavour to provide new angles on products, processing technologies and fibres;
- the timeline between orders being placed and deliveries being required is continuing to shorten; what was once 16 weeks can now be as low as four weeks;
- there are tentative signs of a recovery in consumer wool demand in Japan which might gradually strengthen over the next 2-3 years; however, portion of Japan's processing capacity has shifted to other Asian countries and is unlikely to return;
- the Korean economy, which plunged during the Asian financial crisis, is now showing clear signs of recovery from a low base; wool processors in Korea are more optimistic than they have been;
- there is massive restructuring occurring within the Chinese textile industry, and wool textiles as part of it, involving the scrapping of obsolete spindles and the conversion of former State Owned Enterprises to a more business-like structure; many Chinese wool mills are well behind the pace in terms of technology and quality and often produce just for stock, not in response to market demand;
 - however, the encouraging side is that the more progressive managers and senior officials accept the deficiencies, know what has to be done to improve performance, and are keenly embracing change; there is considerable potential for new wool processing investment in China, especially involving overseas joint ventures, and it would be a mistake to view the future potential only in terms of today's encumbents;
 - Chinese consumers are partial towards wool; 100 percent wool garments are something of a status symbol in many parts of the country; the climate in China is more conducive to wool demand than tropical Asian countries;
- there has been a contraction in wool textile capacity in several western European countries — such as the United Kingdom, France, Belgium and Germany — due to a range of factors over a number of years, including the fall in Russian wool demand which affected Western European processors as well as Australian woolgrowers, labour costs, exchange rate levels, environmental regulation and the effects of the RPS; there is expected to be a continuing migration of textile capacity from Western to Eastern Europe; however, this need not affect final consumer demand in these countries;
- European processors are often critical of the support given by The Woolmark Company to mills in China and India, arguing that it has involved an inappropriate transfer of proprietary knowledge and has lowered the quality of wool products in world markets;
- wool consumption is growing steadily in the United States and, unlike the strong consumption which occurred in the late 1980s, is more focused on higher quality

garments and therefore likely to be more durable; in many ways wool remains a novelty fibre in much of the United States; however, many consumers retain negative perceptions of heavy “prickly” clothes worn by the military at the time of the Korean war, or are only interested in total easy care garments; and

- Proctor and Gamble’s home dry cleaning product Dryel, which was demonstrated to woolgrowers at the 1997 AWRAP annual general meeting, and is about to be launched commercially on a worldwide basis (starting in Columbus, Ohio), could well create a significant resurgence of wool demand in developed countries, especially the United States, if consumers appreciate the enhanced product easy care it will enable.

An important and much debated question is exactly who is the fibre decision maker in the textile chain — that is, the person who actually decides whether wool will be used in a product range or not. In one sense, it is the consumer, but market research has consistently established that the fibre is well down the list of factors determining garment choice — with style and colour much more important. Box 37 contains a discussion of the issue from the 1973 wool marketing report of the Australian Wool Corporation which, in this respect, remains valid. It obviously has implications for product marketing efforts and priorities performed on behalf of woolgrowers.

Box 37: Who is the Most Important Decision Maker in the Wool Processing Chain?

The question of who is or are the most important stages in the wool textile chain in terms of creating and sustaining demand for wool, is obviously crucial. It is an issue which is continually debated – and was raised in many of the submissions received by the Task Force.

One of the most useful discussions of the issue was contained in the AWC’s 1973 report on wool marketing. While that report recommended an acquisition scheme which was ultimately rejected by woolgrowers and is no longer a relevant option, its discussion remains of interest. The following are extracts:

“The greatest proportion of the Australian wool clip is consumed by the apparel sectors of the textile industry. The end-uses into which it is sold are highly fashion sensitive. There are varying degrees of fashion sensitivity – eg women’s outer wear is more volatile than menswear. Garments retailing in the mid to upper price brackets as a general rule conform much more rapidly to changing fashion than do lower priced merchandise.

“Because of the relative complexity and hence higher cost structure of the wool yarn conversion route, wool (unless heavily diluted with cheaper fibres) can only be marketed in the mid-to-upper price levels of the garment industry if the wool producer is to maintain reasonable profitability.

“The two areas at which the most critical decisions affecting fibre choice are made are:

- the interface between makers-up and retailers; and
- the interface between makers-up and weavers.

“More specifically, it is in the creation of and selection from the sample ranges of both weavers and makers-up that most fibre selection takes place. Spinners have very little freedom of choice. They hold small yarn stocks and produce to order; they specialise in particular types of yarn and depend on traditional customers. Retailers’ choices are less fibre related than any of the preceding sections. While the consumer obviously has some say in establishing fibre demand patterns, should the products from a particular fibre not be stocked, the consumer in most cases accepts an alternative with little hesitation. The major criteria for purchase motivation are style and colour”.

The Task Force considers that this situation continues to prevail for the most part, although there is more vertical integration and partnerships in the wool textile chain than was the case 25 years ago and delivery times are much more stringent. The designer is the key person at the garment making stage.

Moreover, in the woollen sector, spinners today are more innovative in fibre blending and in marketing yarns to knitters and weavers. They exert an influence on fibre choice. Similarly, some of the larger retail chain stores (eg Aoyama in Japan) take substantial purchase risks by ordering particular product lines. In this respect, the retailer can also be an influential fibre decision maker in the processing chain.

Source: Australian Wool Corporation (1973) "Marketing Australian Wool", December 1973, Chapter 4, pp46-49.

5.7 Technical Wool Assistance in China

Notwithstanding the comments noted in the previous section by some European processors towards technical assistance provided by The Woolmark Company in China, this issue remains important. China is Australia's single largest wool market and any major contraction there would have serious implications for all woolgrowers.

A joint Australian-Chinese study conducted during 1998 recommended that Australia should take a more pro-active role in assisting the Chinese wool textile sector during its current transition process.¹¹ Its recommendations have since been under consideration by The Woolmark Company and the Commonwealth Government. During his visit to China in May 1999, when he launched the model wool contract, the then Minister for Trade, Mr Tim Fischer, indicated that he had requested the Task Force to consider the impact of restructuring in the Chinese wool textile sector.

The Task Force has already drawn attention to China's tariff/quota arrangements for wool imports (Section 2.2 and Box 5). Not only do they distort demand and supply relationships, they also conflict with the Chinese Government's objective of making the textile sector more efficient, market responsive and viable. China is a major market for Australian wool — responsible for up to 30 percent of Australia's raw and semi-processed wool exports — but the wool textile sector is relatively insignificant in China's restructuring priorities, representing less than 10 percent of its total textile manufacturing capacity. The restructuring program is focussed primarily on manufacturing capacity, giving little attention to the needs of textile manufacturers operating effectively in a new "free market" environment, and consequently needing to improve their product quality, innovation, manufacturing competitiveness and marketing.

The joint Australian-Chinese report recommended that a five year assistance program be implemented to enable Chinese users of Australian wool to improve quality and performance through technical and marketing assistance, environmental management, education and training. It argued that, not only would this improve prospects for the longer-term viability and competitiveness of the Chinese wool textile sector, but there would be benefits to Australia in building long-term customer-supplier relationships based on Australian wool. This could also create a more positive opportunity for Australian firms to participate in downstream value-adding joint ventures with Chinese partners.

¹¹ "Support for China's Wool Textile Enterprises; Development Strategy, Main Report", December 1998, prepared for AusAID, The Woolmark Company and China Wool Textile Association/State Textile Industry Bureau.

The report proposed a funding package of \$27 million over the five year period, targeted at around 30 major mills. It was expected that this might be funded jointly through Government and woolgrower contributions. The Australian aid agency, AusAID, currently supports a limited but successful Australian wool program focussed on wool buyers and early stage processors. Some components of the new proposal might also meet AusAID funding guidelines. However, it is unlikely that by themselves they would generate the sector-wide improvements necessary. Government funding is also unlikely unless woolgrowers are prepared to contribute.

The subject arose in several of the Task Force's meetings in China. The Task Force considers that a smaller scale program of around \$10 million over 5 years, targeted at 8 to 10 of the more influential mills, would be justified. A necessary pre-condition would be that participating mills must have direct access to quota for their Australian wool supplies, provision of full VAT rebate on re-exports, acceleration of SOE privatisation, lower tariffs and removal of any adverse relativities between wool and other fibres, and no taxation being imposed on Woolmark Company operations in China. These measures will help demonstrate to the Chinese Government the efficiency improvements from a less intrusive quota system. Given that The Woolmark Company already spends around \$10 million per annum in China, the Task Force recommends that the woolgrower component of any additional technical assistance funding should be met by reallocating existing priorities.

In addition, involvement in this program should be used to press for China joining the WTO, and abiding by its trading disciplines, the abolition of quotas on re-export wools, and the eventual abolition of the entire quota system.

5.8 The Role of Innovation

The Task Force encountered numerous examples of innovation involving the wool fibre, some already in commercial operation, others still at the research stage. A consistently strong message received by the Task Force throughout its consultations, both in Australia and overseas, was the need for continual innovation — innovation to provide new angles for consumers, innovation every six months, innovation to correct existing wool fibre deficiencies, innovation to improve wool processor efficiency, and so on.

Along with the need for woolgrowers to improve their efficiency and productivity, the Task Force concludes that the future for wool businesses, wherever they are located in the textile chain, depends on innovation. By innovation, the Task Force means doing something creative which will help to enhance the attractiveness of wool, or products made from wool, in the eyes of consumers.¹² By implementation, it means ensuring that innovations are taken to the market place in a commercial and timely manner.

Achieving a genuine innovation mind-set will require considerable cultural and attitudinal changes by most people. It will require businesses to be more pro-active and constantly

¹² The Task Force understands that innovation may have a slightly more specific and narrower meaning in the literature, but is comfortable with its broader definition.

curious, not waiting for solutions to be handed to them. It will require greater co-operation between businesses in various parts of the textile chain, not viewing customers or suppliers with suspicion, or worse. It will require closer and more regular interaction between commercial operators and researchers, so that the contributions of both can be harnessed to greatest effect. These changes may not come easily, and the Task Force recognises that saying them and bringing them about are two quite different things.

In an environment where it is easy to focus on the negative aspects of what has happened to wool businesses over the past decade, it is possible to lose sight of the very considerable innovation achievements which have already been made. Greatest among them perhaps is the work done by the early pioneers in adapting the Merino to the harsh Australian landscape. Or the fertilizer/sub-clover research which has revolutionised pasture productivity and sheep nutrition, and which underpins sheep carrying capacity throughout the high rainfall and wheat/sheep zones.

Now the emphasis is shifting towards the wool fibre and how it can be made to perform even better in processing. The need for greater innovation in this area is imperative. It will depend crucially on the creativity of the major research institutions, including CSIRO. A number of specific current examples could be cited but the Task Force wishes to highlight the case of Optim, which is now poised for commercialisation. It is described in Box 38.

Box 38: Optim – A New Product Derived from Wool

Optim is the name given to wool which has been “stretched” during processing, resulting in a uniform reduction in fibre diameter of nearly 20 percent. The stretching technology:

- changes the entire molecular structure of the wool;
- does so uniformly and in a way which, if anything, increases its tensile strength and fibre length;
- results in the wool fibres taking on a more hexagonal rather than circular shape, the flat sides of which impart enhanced lustre to the wool; and
- cause dyes to appear brighter and the wool softer than non-Optim wool of similar fibre diameter.

Optim is, in effect, a totally new product derived from wool.

The Optim process, which was discovered within CSIRO during the early 1980s, involves wool top being immersed in a mild chemical, twisted slightly, stretched continuously and then steamed and set so that the stretch is retained. The top is then untwisted, washed to remove the chemical, and re-combed.

Under the leadership of Dr David Phillips, CSIRO conducted the early research, but within parts of the then IWS the view was that there was no strategic need for the technology because wool prices were high (late 1980s) and all wool could be readily sold. CSIRO selected silk and cashmere products as the target market. In the early 1990s, IWS staff were concerned about technical limitations, although financial support continued. CSIRO commissioned a detailed business plan and approached Japanese companies for product development trials, recognising the benefit of working with Japan because of its silk-based culture and innovation-focused businesses.

The Optim trademark was secured in 1997 with the intellectual property being jointly owned by CSIRO and The Woolmark Company. A prototype plant was commissioned, enabling an annual production of 200 tonnes, and an exclusive arrangement, lasting until November 2000, was signed with Itochu and Nikke (Nippon Keori Kaisha), Japan's largest wool processing company. The Task Force inspected suits made from Optim fibre when it visited Nikke's showroom centre in Japan.

Source: Dr Brett Bateup, Chief CSIRO Textile and Fibre Technology, personal communication.

The Task Force is excited about the potential which Optim appears to have. As Box 38 states, it is, in effect, a totally new product derived from wool. What its commercial potential proves to be is impossible to say, but a process which reduces the fibre diameter by 20 percent, increases tensile strength, fibre length and adds new lustre, would appear to have substantial

value adding capacity. While costs are obviously involved in passing the wool through the Optim process, they will presumably decline with experience and the availability of commercial scale machinery. This may mean that Optim is economic not only for taking fine wool finer, but treating medium and stronger wools as well. If so, the implications are indeed far-reaching.

The experience with Optim's development thus far also demonstrates some of the problems which have arisen elsewhere — tension or differing perspectives between the woolgrower organisation (IWS/The Woolmark Company) and research supplier (CSIRO), and a lack of urgency in pushing to the commercialisation stage.

The need now is for the full commercial potential of the Optim technology to be assessed as a matter of urgency. It may be, for example, that this is an appropriate application for some of the TCF Strategic Industry Program funds, described in section 5.4. Or it may be that the Task Force's proposed new organisation, Australian Wool Services, will decide that it should invest in the commercialisation process itself. These important decisions will need to be made well before the conclusion of the existing Itochu/Nikke agreement in November 2000. In the Task Force's view, the commercialisation of Optim should be accorded the highest priority.

6 The Conduct of Research and Promotion

6.1 Why Intervene with Compulsory Levies?

Compulsory levies are a form of tax. They can be a significant proportion of a woolgrower's net returns — indeed, exceeding 100 percent if the woolgrower's taxable income is low enough. Of course, levy investments are made in the expectation that they will deliver more than offsetting benefits, if not immediately then over time.

The central questions in deciding whether compulsory levies should be imposed, how they should be imposed and how the funds should be invested, require assessments of the chances of these expectations being met, at what cost, and how the benefits compare with alternative uses of the funds were they to be left with the woolgrower.

This means a focus on matters of investment risk. Elsewhere, woolgrowers assess investment returns, risks and costs, and judge whether they can fund a particular investment. Decisions on compulsory levies should be the same, especially as they are one of the more risky investments available to woolgrowers. Several important considerations must be addressed:

- there is no point in incurring the costs of compulsory arrangements if the benefits could be obtained by leaving it to investors in the market; there is a need to establish the existence of a “market failure”, as well as avoiding replacing market failure with even worse government or intervention failure;
- compulsory levies mean every woolgrowing business makes an identical investment decision; when an investment fails everyone loses; in a competitive market it would be rare for everyone to make the same decision and the same mistake;
- compulsory levies necessitate organisations with statutory underpinnings and Parliamentary accountability; hence “political risk” can arise if the Government changes the rules, as it did on several occasions with the RPS and stockpile disposal;
- statutory organisations lack commercial performance indicators (profit and loss accounts and a market-determined share price); other means of measuring performance are therefore required, especially benefit/cost analysis which can be complex, costly, judgemental, prone to assumption errors and vulnerable to the temptation of self-justification; and
- inability to opt out (as an equivalent of selling shares) means levy payers do not have a quick, low cost means of signalling dissatisfaction or sanctioning unsatisfactory performance; more costly, bureaucratic and blunt processes, such as last year's no confidence resolution at the AWRAP annual general meeting, are inevitable.

These considerations highlight some of the risks and costs which need to be taken into account when assessing compulsory levies relative to the alternatives.

Market failure is the primary justification for compulsory levies. The Commonwealth Government has published 12 principles for new or changed rural levies. The first one states:

“the proposed levy must relate to a function for which there is a significant market failure.” The market failure logic was recognised in the submissions of both AWRAP and the Wool Council to the Task Force. It is widely accepted in policy debate, even if it is often more imagined than real.

Markets can “fail” to deliver beneficial outcomes when commercial investors judge they cannot obtain **sufficient** of the returns potentially available. It is often said that markets fail when others can “free ride” the benefits without contributing to the costs. Free riding occurs frequently and is not, of itself, a cause of market failure. For example, woolgrowers may be about to free ride the benefits of research into bar coding of passenger luggage by major airlines, when it comes to bar code identification of wool bales. Australian woolgrowers have continued to invest in Woolmark promotion, even though woolgrowers in other countries free ride some of those benefits. The key issue is: can **sufficient** benefits be captured to make the investment worthwhile? If not, yet the benefits overall are significant, then market failure may exist. This commonly justifies a collective approach to R&D.

The other side of the coin is “crowding out”. Crowding out occurs when levies and collective investment remove or reduce commercial incentives. For example, compulsorily funded information and market intelligence services may crowd out private provision of those services, especially in an age where the usual problem is too much information not too little. A much more dramatic case — following a misjudgment of market failure in the first place — was the RPS. As its legacy is removed, new wool marketing innovations are emerging, as Chapter 4 describes. They were previously crowded out by the RPS.

There are also risks in concluding that market failure explains why apparently good ideas are not taken up by investors. The good ideas may simply not be commercial. In these circumstances, compulsory funding could be costly for woolgrowers. For example, an Australian-specific innovation which could improve woolgrowing productivity may be shunned by investors because the market is too small. This is market reality, not market failure. Filling the “gap” with a levy funded investment merely subsidises the delivery of the innovation. It would be preferable (though still costly) to subsidise directly the most efficient commercial supplier.

In summary, woolgrowers risk missing out on benefits when genuine market failure occurs. However, they risk being worse off if levy funded investments are in areas where there is no market failure. Determining whether market failure is a problem requiring a response, and determining the best response, requires considerable judgement and experience. There is a need to consider:

- whether market failure is really occurring;
- the size of the problem (it may not be worth worrying about);
- the best response if one is needed and justified (fix causes or treat symptoms); and
- whether a devised response actually makes things better (avoid replacing market failure with even worse intervention failure).

The scope for differing judgements in answering these questions is not to be under-estimated. There are high risks of making mistakes. It is in the interests of woolgrowers only to have compulsory levies for investments where the market failure assessment is clear-cut.

Even when a decision has been made in principle that compulsory levies are justified, further important questions arise, in particular:

- where to impose the levy?;
- what rate of levy should be imposed?; and
- where to invest the levy funds?

In regard to the first of these questions, the IWTO put forward a proposal for an export levy. This is discussed in the next section. The other questions are addressed later.

6.2 The Export Levy Proposal

In its submission to the Task Force the IWTO proposed replacing the existing greasy wool levy with a levy “collected at the point of export of greasy wool, scoured and carbonised wool and wool tops and noils.” As it pointed out, this suggestion has been made a number of times in the past. The IWTO submission said:

“The advantage of such a system is that by passing on the levy to their customers downstream, growers, processors, spinners and weavers will place the cost of promotion where they should properly lie: with the final consumer; moreover it also offers an opportunity to growers, should they so desire, to move from a direct tax on their revenue from wool to an alternative system of funding promotion whereby their share would initially be borne by themselves together with the processing chain as a whole, and subsequently by the final consumer”.

The Task Force welcomes this proposal by IWTO because it is a clear recognition that wool processors understand and are sensitive to the financial difficulties facing woolgrowers. It is also a signal that processors want to contribute to the total funding task which they see as being necessary. The Task Force discussed the proposal on a number of occasions during its consultations, including at the IWTO conference.

Eventually, and having given careful consideration to the proposal, the Task Force has decided against it on two grounds. First, the Task Force is not convinced that changing the point at which the levy is imposed would change the final point at which the cost would be borne. Second, the Task Force is aware that the Commonwealth Government has been endeavouring wherever possible to remove export taxes. Convincing the Government to introduce a new export tax or levy for wool, even if considerable support existed, would be a very difficult task.

The Task Force’s research on who would ultimately bear the cost of an export levy is summarised in Box 39. Ironically enough, the logic behind this thinking is endorsed by three leading processing company chief executives — of Marzotto, Chargeurs and BWK — in terms of comments they made to the Task Force to the effect that “we already pay the 4 percent levy; it is built into the wool price”. The Task Force does not accept that they pay anywhere near all the levy — as the analysis of Box 39 explains — but it does accept that they pay a small portion. In making this point, of course, they contradict the basis of the export levy proposal. Moreover, the Task Force would be delighted if the costs (not only of the levy but other items as well) could be passed on to the final consumer “where they should properly lie” as the quotation above puts it. But doing so seems to be difficult in today’s market

environment and many processors explained (with quite vivid language) how retailers were imposing “quite unreasonable” pressures on them to accept ever lower prices.

The Task Force concludes that the overwhelming cost of an export levy would be passed back to woolgrowers most of the time, just as most of the cost of the present levy is borne by woolgrowers now.

Box 39: The Impact of an Export Wool Levy

Who actually ends up bearing the cost of a levy is not influenced by where it is imposed, but is influenced by the full raft of market circumstances faced by businesses up and down the wool textile chain.

How easy this is to observe in the market place will depend on its size. When an impost is large, such as the current slump in demand largely caused by a downturn in consumer disposable income (and which could be viewed, in terms of its effects, as equivalent to imposing a large tax on consumers), the negative consequences are highly visible, being felt by everyone from retailer to woolgrower.

The consequences of smaller changes, like a 4 percent wool levy, or a slight increase in shipping freight rates, may be harder to observe because their effects may be swamped by other factors. But this does not mean they are unimportant. Marginal changes are important and, especially when viewed as a proportion of profit, can render a business non-viable, and vice versa.

The simplest way to consider who ends up bearing the cost of a levy is to think of it as what it is – an extra cost that, in the first instance, has to be paid by the business at the point of taxation. This is currently the woolgrower and it would be the exporter under the IWTO proposal.

The reaction of any business faced with any cost increase is to try and pass it to someone else (higher or lower in the chain) or, failing that, to absorb it while trying to offset it with improved productivity. The business will obviously pass it on if it can. In most situations some “passing on” and some “absorbing” occur. The question is: what are the relative proportions?

The success of passing a business cost on to someone else depends on market circumstances – that is, the characteristics of supply and demand – which can vary over time, particularly in markets like wool.

The proportion borne by woolgrowers will be influenced by how the cost of the levy affects wool production (supply response). That is, to what extent will the levy influence how much wool is produced. This will differ between woolgrowers and their individual circumstances. The recent reduction in Australian wool production illustrates the consequences of a large fall in price.

If woolgrowers fully absorbed the levy, that is, it did not affect wool production at all, then buyers would not have to offer higher prices to encourage the same quantity of wool to be produced. If the levy did affect production (that is, if some growers decided to produce less wool) then others in the chain would have to pay more to obtain the wool they wanted, or consider shifting to other fibres.

Research conducted in Australia and summarised in AWRAP’s submission to the Task Force has concluded that regardless of where the tax is imposed, woolgrowers bear at least 80 percent of its cost. The Task Force is aware of the economic analysis behind this figure and agrees with it.

The above discussion produces two important conclusions. First, there is no point in changing where the levy is imposed because that will not change the proportion borne by woolgrowers. Second, since woolgrowers bear a high proportion of the levy cost, levy investments should be made where woolgrowers will receive a high proportion of their benefits.

Source: Task Force research; AWRAP submission to the Task Force.

6.3 Wool R&D

Since 1936-37, when R&D levies commenced, woolgrowers have contributed \$309 million for R&D (Appendix 7). The Commonwealth Government has contributed a further \$342 million, justified by a desire to reap a general community benefit from research. In more recent years, successive Commonwealth Governments have contributed a matching R&D contribution to rural R&D corporations, of up to 0.5 percent of the gross value of production. In other areas of business, a 125 percent tax deduction is allowed for approved R&D expenditure.

In 1997-98, AWRAP spent \$22.6 million on R&D, 39 percent of it for on-farm projects and 61 percent for off-farm projects¹³.

Appendix 11 summarises a major review of on-farm R&D, commissioned in 1995 by AWRAP and undertaken by the Centre for International Economics. The CIE review confirmed the principal problems facing wool, woolgrowers and the wool market, were:

- entrenched views and slow innovation among woolgrowers, with best management and breeding practices adopted by perhaps only 10 percent of woolgrowers;
- lack of response to the market, exacerbated by the nature of existing marketing systems;
- decreasing competitiveness of wool as a fibre; and
- a number of possible threats confronting wool businesses.

It then recommended six key R&D programs to address the identified problems:

- innovation and competition overview;
- innovation through cultural change;
- meeting the market;
- speeding up product innovation;
- speeding up input innovation; and
- dealing with threats.

Most of these recommendations were accepted by the board of AWRAP in the form of a Technical Strategy Report. In a submission to the Task Force, AWRAP reported that implementation of the report commenced in 1996-97 and the allocation of funds in 1998-99 was closely aligned to its recommendations.¹⁴ The Task Force's update assessment of some of the major on-farm R&D categories is contained in Appendix 11.

The allocation of R&D funds between on- and off-farm projects is a difficult but important issue. Following the discussion in section 6.1, any R&D project should have a clear market failure justification, should represent a prospective investment more attractive than woolgrowers could earn themselves by not paying the levy, and there should be confidence that woolgrowers will derive a high proportion of the benefits relative to other market participants. Answers to these questions need to be determined almost on a case-by-case basis, but there is now a well established benefit cost methodology by which this can be done in advance, recognising the obvious uncertainties involved.

The Task Force received a wide range of views about the relative importance of on- and off-farm R&D. In support of on-farm projects, the following considerations are relevant:

¹³ AWRAP (1998), "R&D Project List, 1997-98".

¹⁴ AWRAP (1999), "On-farm Innovation and Business Intelligence", submission to the Task Force, 21 April 1999.

- on-farm research breakthroughs are more likely to improve individual woolgrower profitability, whereas the further along the processing chain, the more diluted the benefits are likely to be;
- to cut back on-farm research which may benefit most woolgrowers is taking a very short term view, especially when compared with the need to produce an annual rate of productivity improvement at least equal to the likely rate of decline in real commodity prices; and
- R&D breakthroughs in traditional soil-plant-animal systems have not been exhausted, while the problems of acid soils and dryland salinity are looming as new and increasing challenges to productivity performance.

In support of off-farm R&D projects, the following considerations are relevant:

- the urgent need to eliminate wool fibre deficiencies, with the biggest incentive residing with woolgrowers;
- the need to maintain a continual steam of wool fibre innovation, as discussed earlier; and
- the difficulty of Australian businesses being able to free ride the benefits of research into these issues by other countries — an advantage enjoyed by Australian cotton growers, for example.

The Task Force considers that both areas of R&D are important, although it would like to see a very strong emphasis given to wool fibre innovation.

6.4 AWRAP's R&D Performance

The Task Force came across a major internal evaluation of R&D projects¹⁵ during the course of its investigations, which is summarised in Box 40. The disturbing feature of this report, apart from its results which are disturbing enough, is that it has never been published. Nor were the results or their implications referred to in any of AWRAP's submissions to the Task Force. It bears out the obverse of the point made in section 6.1 about benefit cost analysis being vulnerable to the temptation of self-justification: when the results are not favourable, they are not released.

Box 40: The Benefits of Past R&D Projects to Woolgrowers

In 1997, a major project was undertaken to evaluate a cross-section of completed R&D projects jointly funded and administered by the IWS during the period 1991-92 to 1995-96. During this period \$171 million was invested by IWS in R&D projects. For all completed projects (or projects classed as terminated) – which represented expenditure of \$72 million – an assessment was made of the outcomes. A number were then selected for more detailed assessment. Finally, 10 technologies that have been successfully adopted commercially were analysed as to the estimated woolgrower benefits. The purpose of the project was “to assess the return to woolgrowers' R&D investment and demonstrate how R&D investments are managed by the IWS”. It was conducted in the lead up to the IWS Annual General Meeting in November 1997.

¹⁵ Collins, DJ, BA Collins, Ashley Vail and Chris Vlastuin (1997), “Research and Development Performance Audit, 1991-92 to 1995-96”, October 1997, unpublished.

The project showed that only 5 percent of total R&D expenditure delivered a return. In commenting on this extremely low result, the report observed that:

- IWS acts more like a research organisation than an investor in the development of new technologies; it seeks to leverage inputs rather than outcomes, allocating most of its funds to Australia's main public research organisations where they often form part of a greater but more diverse research program;
- most research projects are funded on their individual merit rather than their contribution to a wider R&D portfolio;
- research projects typically run longer than 5 years, with 10 year lags from commencement to termination being common;
- it was difficult to identify the cost of developing a new technology; most projects were integrated with others and the strategic importance of any one project was often unclear;
- very few projects represent new ideas, more likely a continuation of previous research endeavours;
- investment decisions are often made on the basis of historical involvement rather than value from continuing funding; it is difficult to stop projects and cut losses;
- few projects terminated over the audit period received a comprehensive assessment of the commercial value of potential outcomes;
- commercial interest was typically sought very late in the development of technologies; and
- too many projects delivered incremental gains within small target markets.

As to the 10 technologies selected for benefit cost analysis (Basolan AS, Sirofast, High Speed Card, ASCALIP, Grasslands, Lucitrap, Wormplan, Drenchrite, self-mustering and Rampower), their total estimated benefits were estimated to be \$170 million, but when timing considerations were taken into account, the return became \$82 million, compared with a cost of \$196 million, or just 40 cents for each dollar invested.

To achieve an acceptable rate of return, the success rate on IWS's investment would need to be 30 percent rather than the 5 percent actually recorded.

Source: DJ and BA Collins, Ashley Vail and Chris Vlastuin, op.cit.

The report concluded by saying that since the end of the five year period, IWS (now AWRAP) has changed its approach to investing in R&D in ways which address the areas of weakness identified. Specific changes include:

- adoption of a portfolio approach where the merit of an investment is assessed against the value it brings to the total portfolio;
- implementation of the wool innovation model, designed to increase the success rate of investments;
- commissioning more feasibility studies before substantial funds are invested, and investing in fewer and bigger projects;
- shifting decision making to the generation of value rather than scientific achievement;
- the use of more robust benefit cost evaluation;
- seeking to involve more commercial partners and at an earlier stage in projects; and
- better project management.

It noted that CSIRO had made parallel changes, but some other research institutions had yet to do so.

The Task Force accepts that considerable changes have been made in recent years, and so they should have been. But the Task Force remains deeply concerned at the culture within AWRAP that prevented such a critical internal report being published. There is no doubt that woolgrowers, had they known, would have felt the same. In addition, the very poor return obtained from this research expenditure raises major questions in relation to the discussion of

section 6.1: put simply, woolgrowers would have been much better off had the relevant levies not been collected.

On a related matter, the Task Force spent some time analysing AWRAP's administration costs, comparing them with the equivalent costs of other R&D corporations. Having done so, the Task Force invited AWRAP to comment on what appeared to be a less than flattering comparison. Box 41 contains the relevant information.

Box 41: AWRAP's Administrative Overheads

The Task Force's examination of AWRAP's 1997-98 accounts indicated what appeared to be very high administrative costs. According to the Annual Report (p10), AWRAP spent \$6.4 million on R&D administration out of total revenue of \$27.4 million – or 23 percent.

Perusal of other R&D corporations accounts showed the following:

	Total R&D Revenue (\$m)	R&D Expenditure (\$m)	Exp as % Revenue	Admin Costs (\$m)	Admin as % Revenue
Sugar	12.3	12.0	97	0.76	6.2
Cotton	11.1	8.7	78	0.65	5.8
Grains	94.9	67.5	71	6.7	7.1
Wool	27.4	22.6	82	6.4	23.1

After confirming from the relevant chief executive officers or finance officers that these were correct figures in each case, the Task Force invited AWRAP's response. AWRAP's attention was also drawn to the administrative cost for The Woolmark Company shown in the 1997-98 Annual Report (p10) as being \$30 million, of a total expenditure of \$119 million – or 25 percent.

In reply, AWRAP explained that the R&D expenditure should also include \$1 million for grower advice (ZACs and PAGs), project related travel and external coordinators, which are normally included as R&D project expenditure by other R&D corporations. It also said that administration costs should exclude \$1.2 million of depreciation, reducing the administrative costs (staff salaries and on costs, corporate costs, communications to woolgrowers, corporate affairs, legal services, finance, rents and services) to 15 percent of revenue. [Note: the GRDC administration cost includes: \$3.94 million for program support and non cash depreciation].

By way of explanation, the following observations were made by AWRAP:

"Our R&D management strategy has changed over the last three years to put much more emphasis on understanding customer needs and defining the projects up front to address these needs, while the other RDCs listed use the more traditional grants submission, science push approach to developing solutions.

The new Woolmark approach adds more value to the R&D and total innovation process. Our approach uses proactive project management disciplines, whole of project business planning and a portfolio management approach, which ensures that projects are managed and continuously reviewed to maximise chance of success at each stage in the project development life cycle. It also ensures that we are investing in a balance portfolio of projects across the dimensions of risk, return to woolgrowers, strategic fit, time to market and the impact in the marketplace. The overall results for woolgrowers is that those projects with maximum impact are resourced and are driven by customer needs rather than science, leading to a higher probability that they will address real market needs and hence be adopted to lift woolgrower profitability.

Additionally, our operating costs will be higher than the other RDCs who have their major customer base in Australia, because the majority of Woolmark's operations are located overseas close to the major textile markets who are the primary customers for the post-farm part of the R&D portfolio. Costs associated with integrating the innovation process across the continuum of R&D and Promotion in a global international environment are also unique to wool.

The reasons outlined above mean that wool R&D will be more resource intensive hence accounting for some of our higher operating costs. However, these costs have not been allocated back to the projects as a number of the other RDCs do in their financial reporting.

There is a threshold level of resource required to manage any R&D fund, and the operating percentages will change depending upon the volatility in the income stream from year to year, so it is not necessarily valid to look at a snap shot of one year.

Finally, given all these factors, it is not possible to do a meaningful direct comparison of costs and overhead percentages and it is in fact misleading as (it is) not comparing like with like. (The) analysis has also not taken into account an allocation for additional operating costs associated with our new and improved approach to R&D management and the fact that we operate in an international environment with a very strong objective to ensure linkages between our R&D and Promotion functions."

In regard to the \$30 million administrative cost for promotion, AWRAP explained that it comprises a large range of costs globally for items which are not directly allocated to other categories of advertising, marketing projects, Woolmark QC/technical and market information.

Source: AWRAP, GRDC, Cotton R&D Corporation and Sugar R&D Corporation — 1997-98 Annual Reports and personal communication.

The Task Force will let woolgrowers and others form their own judgements of this explanation. For its part, the Task Force finds it unconvincing.

The Task Force notes that for a number of years AWRAP has provided financial support to the Wool Council for “industry consultation”. In 1997-98 the level of this support was \$290,000. The same practice has prevailed with a number of other R&D corporations and farm organisations but is being increasingly questioned as an inappropriate use of statutory funds. In any case, the Task Force agrees that it would be inappropriate for a new shareholder-owned organisation (Australian Wool Services) to make these payments. It recommends they be terminated.

The reference in Box 41 to AWRAP’s shift from a submission-based R&D administrator to a commission-based R&D manager is consistent with the concluding comments of the 1997 R&D audit report. It is an important issue and, in many respects, the Task Force is sympathetic to the more pro-active role implied. However, it is doubtful whether the ideal approach is either at one extreme of this spectrum or the other. For example, being wholly reliant on commissioning research may mean that good ideas among research agencies are missed or some flexibility in conducting research is lost. Second, it may be difficult for a research manager to terminate a project whose prospects of success look poor, if that manager had been responsible for commissioning it in the first place. Third, although benefit cost analysis can help bring a more systematic approach to research project selection, there will inevitably be a continuing role for subjective judgements. Fourth, the Task Force does not accept that a commission-based approach need be more costly to administer than a submission-based approach, as AWRAP maintains.

Those responsible for overseeing research and innovation expenditure in future need to be much harder-nosed and ensure that the selection of projects is market failure-based and with a clear commercial focus in terms of implementation. Research management must be more astute than it has been in the past.

6.5 CSIRO

Over the years, CSIRO has been one of Australia’s most important institutions. It has been well resourced, mainly by direct taxpayer funding, enabling it to attract and hold research staff of outstanding ability. Woolgrowers and processors have been significant beneficiaries of this expertise.

In recent years, there has been considerable change within CSIRO, both generally and with respect to wool. Government policy has encouraged more external funding because of higher priority spending obligations elsewhere and a desire to see more commercial outcomes from CSIRO’s research endeavours. Available woolgrower (and matched Government) levy funds have declined, because the value of wool sold has fallen. The shift to commission funding means that every R&D dollar is now contestable, so there is no longer any CSIRO

“entitlement” to levy funding which some people (if not CSIRO) believe was the case in the past.

Nevertheless, CSIRO remains a vitally important wool research institution in both the animal production and textile disciplines. Many woolgrowers would not be aware that, through its taxpayer appropriation funds, CSIRO spends more each year on wool research than the combined grower levy and matching government funds. It has done so for many years and will do so again for at least the next three years. This financial relativity needs more emphasis.

CSIRO’s role in the development of Optim is just one example of the excellence of its research. Indeed, with the Task Force’s focus on greater innovation, it would be expected that CSIRO would have more not less opportunities in future to contribute to vibrant and profitable wool businesses.

For this reason, the Task Force has been extremely disappointed to learn that the relationship between AWRAP/The Woolmark Company and CSIRO has deteriorated significantly over the past two years or so. The crux of the problem has been money — or the lack of it — and these problems are rarely one-sided. CSIRO, for example, must take a share of the responsibility for the matters reported in Box 40 and the focus of its staff has not always been sufficiently commercial. But the Task Force understands, and has some sympathy for, the frustrations which CSIRO feels at the way it is being treated by AWRAP. CSIRO contrasts this treatment with the positive relationship it enjoys with the Cotton R&D Corporation, for example.

Certainly, the relationship is not presently consistent with the wording of a recent press statement which made reference to “the world’s leading wool R&D strategic alliance” and “a productive relationship between Woolmark and CSIRO that has spanned half a century of technological development”.¹⁶ There needs to be some old-fashioned knocking of heads so that the commendable rhetoric of the spin doctor who wrote it can become an accurate reflection of reality. The new board should act on this urgently.

At an operational level, CSIRO’s animal production expertise has tended to be concentrated at Prospect in outer Sydney, while its wool textile expertise has been fully located to Geelong.

The Task Force supports the Geelong move, noting that there is now an important and valuable cluster of wool textile research and commercial facilities in that region. It also notes that beef cattle support facilities (such as the National Beef Recording Scheme, breed societies, and the beef Cooperative Research Centre) have been increasingly concentrated at Armidale in northern NSW, along with several units at the University of New England (the Animal Genetics and Production Faculty, Agricultural Business Research Institute, and Animal Genetics and Breeding Unit), CSIRO facilities and the NSW Department of Agriculture. The successful integration of these facilities appears to be an important factor in the increasing rate of productivity improvement within beef cattle enterprises — now two to three times that of woolgrowing enterprises.

¹⁶ CSIRO/The Woolmark Company (1999), “Innovative alliance triumphs at world fair”, News release, 8 July 1999.

The Task Force concludes that a similar integration of wool genetic and animal production facilities at Armidale would be desirable. This would see possibly the re-establishment of the Wool CRC at Armidale (where it was initially located), the closure of CSIRO's Division of Animal Production at Prospect and its relocation to CSIRO's Chiswick research station, the relocation of the Department of Agriculture's Advanced Breeding Services Unit from Orange, and the location of stud breeder association secretariats. As far as CSIRO is concerned, the Prospect facilities are being increasingly hemmed in by residential development — which means that the land value, owned by woolgrowers via AWRAP, is escalating — and researchers are remote from woolgrowers. The Task Force recommends that the Armidale proposal be implemented as a matter of urgency.

6.6 Wool CRC

The CRC for Premium Quality Wool was one of a number of CRCs established as part of a policy initiative by the Commonwealth Government. The Wool CRC completes its first seven year term on 30 June 2000. In April 1999 it was notified that its application for a second seven year funding period was unsuccessful. The fact that AWRAP, because of its own funding uncertainty, was unable to make an explicit funding commitment for a second term undoubtedly weakened the application.

The CRC has received an average funding commitment from the Commonwealth Government of \$2.6 million per annum, plus approximately \$1 million per annum from AWRAP (more in earlier years), and \$6.5 million of in-kind assistance from its other partners — Agriculture Western Australia, the Universities of New England, NSW, Western Australia and Adelaide, and CSIRO.¹⁷

The CRC considers that its main achievements, unquestionably facilitated by the Commonwealth's financial support, have been in engendering an ethos of cooperation — between research institutions, between scientific disciplines, and between researchers and woolgrowers. Without this financial “glue”, it may be difficult to maintain the cooperation.

In addition, many of the wools produced as a result of State Department or University projects have been forwarded to CSIRO Geelong to enable their processing performance to be established and assessed. Moreover, the CRC has funded broad programs of research rather than individual projects and has sought to ensure that programs are “outcomes oriented”. Thus, for example, it has supported research which has as its ultimate objective the production of wool fibres with higher tensile strength, enabling spindles to spin faster with fewer breakages, and which would in turn reduce the cost of wool spinning compared with alternative fibres. This may be achieved by several routes, such as a specific project influencing the sulphur content of the wool fibre (for example, rumen flora which produce a high proportion of sulphur-containing amino acids, the precursors of wool protein).

¹⁷ Dr Lionel Ward, personal communication. Interestingly, its overhead costs are approximately \$450,000 per annum, which equates to less than 5 percent of total cash and in-kind support. This figure might be compared with the data of Box 41.

The Task Force considers it is unfortunate that the CRC's second term funding application has been unsuccessful as the CRC has made a constructive contribution, the full benefits of which are only now becoming apparent. It considers that a further application for CRC funding should be made in the next funding round, if possible with the involvement of a wider number of partners including commercial firms. As discussed in the previous section, its re-establishment in Armidale would be desirable.

6.7 Conclusions on R&D

A number of clear messages arise from the earlier sections of this chapter. First and foremost, innovation into the wool fibre and its processing is essential if wool businesses are to catch up and then keep pace with innovation in other textile chains.

Second, wool processors conduct considerable research and product development on their own account, often far more than is appreciated by woolgrowers. For example, one of the major Japanese processors told the Task Force that it spent \$12 on research for every \$1 spent by woolgrowers on the greasy wool it purchased. Research managers need to be mindful of the risks of crowding out that private sector endeavour. Even so, some activities, especially those relating to fundamental characteristics of the fibre, are beyond the scope of individual firms.

Third, Australian woolgrowers are generally not able to “free-ride” on research conducted in other countries — as Australian cotton growers, for example, can free-ride on United States cotton research.

Fourth, on-farm research is also crucial in ensuring productivity-enhancing opportunities for woolgrowers, and a far more effective level of research performance and management is required than has been the case in the past if woolgrowers are to be convinced that research levies represent a good value-for-money investment.

The Task Force has reached the following conclusions:

- collective R&D continues to be of vital importance, for which a market failure justification remains valid in many, but not all, circumstances;
- it is more likely that the benefits of on-farm R&D can be captured by woolgrowers; the further away from the farm, the more likely it is that the benefits will be shared between other market participants, with obvious implications for funding responsibility;
- on-farm R&D should be focused in areas which have whole of industry benefits rather than being regionally based;
- a range of off-farm R&D activities, especially those directed at correcting existing deficiencies and enhancing the properties of the wool fibre, is absolutely essential if wool's competitiveness in the textile market is to be enhanced;
- it is not realistic for such projects to be funded only by wool processors, given historical relationships and the current state of wool demand;
- in the past, many collectively-funded R&D projects have been poorly conceived and conducted; some have continued well after the prospects for success have been

recognised as low; the ownership of intellectual property resulting from the research has not always been clearly established — it should reside with the research funder;

- the implementation/commercialisation of research results has in most cases been poor, lacking commercial acumen, and thus taking far too long;
- the administration costs of AWRAP/The Woolmark Company are excessive; and
- it will be inappropriate for a new shareholder-owned wool organisation to part fund industry bodies.

The Task Force recommends that the primary focus of Australian Wool Services should be on innovation and its implementation.

6.8 What is Promotion?

Since 1936-37, woolgrowers have contributed over \$2 billion for promotion, or around double this if measured in today's dollar values. In addition, the Commonwealth Government has contributed \$618 million; it ceased making contributions in 1993-94 (see Appendix 7).

Promotion was considered essential to ensure consumer awareness of wool products and their attributes, encourage key processors and decision makers to choose wool in their product ranges, convey the results of wool fibre research to potential users, and combat the activities of huge corporate manufacturers of artificial fibres. The Government's contributions were made in recognition of woolgrowers' disadvantages resulting from manufacturing industry protection (the so-called "tariff compensation" argument) and simply as an outcome of the political process.

At present, woolgrowers contribute 3.5 percent of their gross proceeds for promotion — in other words, \$7 is contributed to promotion for every \$1 contributed to research.

In 1997-98, the compulsory woolgrower levy generated \$90 million. Other contributions came from South Africa (which withdrew at the end of the year) (\$5 million), Woolmark licence fees (\$18 million), and other (interest, foreign exchange gains etc) (\$17 million). Excluding expenditure within Australia, The Woolmark Company's 1997-98 expenditure totalled \$119 million, as follows:

- advertising \$36 million;
- marketing projects \$37 million;
- Woolmark quality control/technical \$12 million;
- market information and research \$4 million; and
- administration, overheads, depreciation etc \$30 million.

As with R&D, the very high administrative component in this expenditure is evident — 25 percent.

Although it has been used for many years, the Task Force considers that the word "promotion" is confusing in that it covers too many activities and is misinterpreted, especially by woolgrowers. Many woolgrowers tend to equate "promotion" with advertising. The

publicity given to the “red dress” advertisement in the lead up to the 1998 annual general meeting of AWRAP undoubtedly accentuated the confusion. The terms “product marketing” (or industrial fibre marketing) and “consumer marketing” are preferable. Product marketing refers to activities involving businesses within the wool textile chain, and consumer marketing, as the name suggests, targets consumers, individually or collectively, with products, services and information.

6.9 The Woolmark Symbol

The centrepiece of wool promotion since the late 1960s has been the Woolmark symbol which, backed by extensive advertising, achieved widespread consumer recognition, especially in an era before the dominance of major corporate brands. The Woolmark symbol was devised and introduced by the International Wool Secretariat (IWS) in 1964 as a badge of quality and reliability. Its continuing importance as far as the organisation is concerned was reflected by the change of name from IWS to The Woolmark Company in June 1997.

Interestingly, the first development of a promotional symbol for wool was made not by IWS but by French topmakers, as Box 42 relates.

Box 42: The Involvement of French Topmakers in Wool Promotion

French topmakers have long been supporters of wool promotion and, unlike their counterparts elsewhere, can actually boast a lengthy track record contributing funds to its development.

Between 1959 and the mid 1980s topmaker members of the organisation GINTEL raised \$A11 million of voluntary funds for generic promotion. The following account was provided to a visiting group of Australian woolgrowers in 1984 by Mr Marc Dewavrin, former President of GINTEL and the chief proponent of promotion support by topmakers.

“It was in 1959 that French topmakers for the first time became involved in wool promotion. At that time we were of the opinion that woolgrower money for promotion was not wisely spent. We therefore decided on a voluntary subscription to a fund to be used for wool promotion and simultaneously to launch in association with IWS a label which would be attached to garments. The label represented a small sheep and carried the indication “Pure Worsted Wool”.

“This label met with great success and we sold many millions to hosiery and cloth manufacturers. It would be too pretentious to suggest that the little sheep was the parent of Woolmark, but this successful experience was followed very carefully by IWS headquarters in London. We stopped advertising in 1969 because the co-existence of the little sheep and the Woolmark was not longer possible.

“In 1974, we restarted a voluntary subscription because we considered that IWS France no longer received sufficient funds. For eight years in succession, our contribution substantially increased the budget of IWS France for advertising. We were hoping that other countries would follow our example, but only England for a short period did so.”

On the reverse side of the little sheep swing ticket was the following inscription (in French):

“Pure worsted wool is soft and light, supple and responsive, crush proof, clean, warm in winter and light in summer, soft to the touch, comfortable to wear, drapes perfectly, eternally young, with unequalled richness of colour”.



Source: Mr Marc Dewavrin, personal communication.

In its main submission to the Task Force, AWRAP made the following comments:

“The Woolmark is the international banner brand for quality assured pure new wool product. The brand is registered in its many markets as a certification or collective trademark and this

certification status has specific legal implications in terms of usage and control. The Woolmark functions as an ingredient brand that adds value to the final product through guaranteed content and quality specifications.

“Thirty years plus of grower funded promotion and support by the wool-based manufacturing industry in the northern hemisphere have achieved:

- high levels of global consumer awareness;
- a licensed industry that generates \$20 million per annum in fees towards promotion and brands its products with the Woolmark at its own expense; and
- high levels of leveraged promotional support by apparel retail brands and the home laundry industry; each year over 200 million wool products bear Woolmark branding, with a further 160 million laundry products also endorsed.

“The Woolmark’s strength as a generic brand became perceived as a weakness. It was seen to be unable to communicate the specific qualities of Australian wool and what was new and innovative in wool product.

“To move away from generic promotion, a Woolmark sub-brand strategy was developed and promoted over the past two years. This sub-brand strategy promotes differentiated products to specific market segments.

“Sub-branding provides the marketing channel to specifically promote Australian wool types (Pure Merino and Merino Extra-fine), product/technology innovation (Wool plus Lycra, Optim, Sportwool), performance enhancement (Total Easy Care, Natural Stretch) and new wool products (Lightweight Lambswool, The New Suit).”¹⁸

The Task Force finds it significant that the Woolmark symbol, on which so much has been spent over more than 30 years, does not appear in any tangible form on the balance sheet of AWRAP/The Woolmark Company. It was valued at zero when South Africa withdrew from IWS in 1997, but the Task Force considers that if it were put up for sale now, it would attract a positive price.

6.10 The Benefits of Promotion for Woolgrowers

For many years the benefits of wool promotion were accepted by woolgrowers as an article of faith. To be critical was akin to a lack of patriotism. The only ones to gain from publicly expressed dissent, it was argued, would be artificial fibre manufacturers.

Some economists were sceptical from the start, but their concerns were dismissed as academic, biased or unhelpful. However, with the passage of time, those criticisms are looking more believable. Two of the leading critics have been Emeritus Professor Jack Lewis and Mr Alistair Watson, both of whom had periods working with IWS in the 1970s. Some of their observations are summarised in Box 43.

The obvious response is that their comments are dated and no longer relevant. However, the recent experience of major reports being suppressed from publication (for example, the one described in Box 40), and the sudden departure of some senior staff, suggests not much may

¹⁸ AWRAP (1999), “Submission to the Wool Industry Future Directions Task Force”, March 1999, p23.

have changed in a cultural sense. This is hardly surprising given the nature of the organisation and its accountability mechanisms.

Box 43: Sceptical Economists on Wool Promotion

There is an extensive literature on the impact and effectiveness of the generic promotion of rural products and wool in particular. A number of the reports listed in Appendix 6 contain references to the subject. Two respected professional economists who have written about wool promotion are Emeritus Professor Jack Lewis, foundation professor of agricultural economics at the University of New England, and Mr Alistair Watson, now a freelance consulting economist.

In 1996, Professor Lewis gave an insightful, if highly disconcerting, retrospective account of his experiences.¹⁹ One example will suffice to indicate the climate of the time. In 1973, as Director of Corporate/Long Range Planning of IWS in London, he was asked to review critically the commercial exploitation of new products and processes. He chose the Harvard case study method and focused on the development of machine washable wool knitwear. Drawing merely on the minutes of management committee and board meetings and branch annual reports, he found that the facts spoke for themselves:

- a promising product development, shrink proofing wool, was deliberately held back for several years because IWS feared loss of face with manufacturers it had earlier persuaded to invest in a less effective process;
- IWS fudged the specifications to appease chemical companies whose dyes were less colour fast than desirable in machine-washable products;
- IWS paid for the installation of Chlorination-Hercosett processing trains by American topmakers, one of whom had previously damaged IWS equipment for artificial crimping New Zealand carpet wool by misusing it;
- the agreement with this processor was not referred to the IWS legal officer in charge of contracts for commercialisation; the machine was eventually dismantled, virtually unused, at IWS expense and sold at a nominal price to an Australian topmaker;
- the IWS United States branch did not allocate funds for the promotional back-up of the product's launch; and
- several individual regional or branch directors stood aside from committing resources for the promotion of Superwash products until others had ironed out the teething problems.

The then IWS managing director ordered all copies of the paper destroyed. In fact one copy survived and was circulated under the lap within IWS. Some years later Professor Lewis recovered a copy.

Alistair Watson presented a submission to the Task Force. He has written extensively on wool policy over many years and is a well-known critic of the IWS (where he worked between 1969 and 1972), the RPS and intervention generally. Reflecting the IWS's funding base and the need to maintain support among woolgrowers for continued levy payments, Watson observed:

"The IWS fell into the trap of being more interested in selling itself than selling wool. Spurious arguments were used to defend wool promotion and, from my own direct observation, economic data were fabricated to support already poor arguments when it was judged necessary. The IWS was also partly responsible for deficiencies in economic analysis and information that contributed to the collapse of the RPS. The relationship between the IWS and the Australian wool industry is a classic study in mutually destructive neurotic interaction."

Not just professional economists, but a significant number of woolgrower submissions to the Task Force were highly critical of the promotional effort (Appendix 3). It was one of the main themes behind last year's no confidence motion. One Victorian woolgrower said:

"What is to be promoted? The more that differentiation comes to characterise wool products, the less clear is the message being promoted. For that reason, promotion and marketing should stay with the private sector."

Another Victorian woolgrower observed, somewhat more generally:

"The work of AWRAP had many commendable features, but the question still remains whether it had any business doing it in the first place."

¹⁹ Lewis, JN (1996), "The Wool Industry Revisited — A Case of Self-Inflicted Injury", address to New England branch, Australian Agricultural and Resource Economics Society, 21 August 1996.

AWRAP's submission to the Task Force stated that:

“Saddled with a fundamental cost disadvantage the wool industry decided in the mid-1960s to build competitiveness for its fibre through product differentiation and ingredient branding to the consumer. The generic Woolmark strategy worked well and achieved remarkable global consumer awareness and trust in the ingredient brand. However, this strategy requires a continuous and significant investment in consumer advertising and joint promotion with leading retailers and apparel brands”.

There are two corollaries from this statement. First, once woolgrowers decided “in the 1960s to build competitiveness through differentiation and ingredient branding”, there was a temptation for woolgrowers to conclude that the problems had been delegated to someone else and that woolgrowers did not have to worry unduly. This is part of the “they” culture to which reference has been made throughout this report. Second, the statement makes it clear that continuing high levels of spending are required to maintain the benefits. The question is, can woolgrowers afford to make this continuing commitment even if they want to?

In assessing the benefits of wool promotion, one problem immediately arises. AWRAP is not a conventionally structured corporate entity. It cannot point to profitability or a share price as evidence that corporate strategy, including product development and promotion, are delivering the goods. Consequently, levy payers demand detailed evidence in other ways and AWRAP has little choice but to try and measure the returns from particular activities aimed at achieving its goals.

This places AWRAP in a difficult position — not measuring is unacceptable and trying to measure accurately is both difficult and expensive. As AWRAP points out in its first submission to the Task Force, measuring the marginal impact of its activities is difficult partly because the effects are swamped by other influences, especially changes in relative fibre prices and economic activity. Box 44 summarises the material contained in AWRAP's submission and the Task Force's assessment of it.

Box 44: AWRAP Estimates of the Benefits of Promotion in 1997-98

One of the few professional and published studies of the relative influence of promotion is the 1987 AWC/BAE study of wool promotion's effectiveness in North America. The key elasticities estimated in this study indicate that offsetting the effects on wool demand of a 1 percent decline in consumer disposable income (the measure of economic activity) would require a **six-fold** increase in promotion. The increase in promotion needed to offset an increase in wool's relative price (which could be caused by a decline in artificial fibre prices) is **even greater**.

The very small impact promotion has on wool demand compared to wool's relative price and economic activity is the reason why measuring promotion effectiveness is difficult and potentially misleading.

AWRAP has attempted a measurement exercise, based on its 1997-98 activities and wool demand. Its approach, which was referred to in its 1997/98 Annual Report, can be summarised as follows:

- first, AWRAP estimated that its product marketing activities added an additional 7.97 million kg to raw wool demand in 1997/98 – measuring the effect to two decimal places is somewhat heroic in terms of accuracy;
- AWRAP then had ABARE use its Textabare model of the textile chain to estimate the benefits to woolgrowers; ABARE concluded that the (estimated) 2 percent increase in wool demand due to AWRAP's activities (7.97million kg) was worth \$137 million to woolgrowers: approximately 95 percent of these benefits resulted from increases in raw wool prices across all wool (assumed and estimated at about 30 cents per kg clean);
- finally AWRAP linked the estimated benefits (\$137 million) to an advertising expenditure of \$36 million, producing the conclusion that for every \$1 of levies invested the grower return was \$4 – a benefit cost ratio of 4:1.

However, in 1997/98 The Woolmark Company had a total international budget of \$119 million (section 6.8). What is not clear from the published work is what benefits were delivered from the \$83 million not accounted for in these calculations.

The parameters in the Textabare model indicate the benefits delivered from an upward shift in wool demand (which is what AWRAP activity aims to do) and who receives them. They indicate that a 1 percent upward shift in demand for pure wool garments delivers benefits of \$1,123 million to consumers, \$68 million to Australian woolgrowers and \$45 million to non-Australian woolgrowers. This demonstrates how non-Australian woolgrowers can free-ride Australian woolgrowers' levy funded contribution to promotion. Indeed the free-rider benefits are nearly as large as those received by Australian woolgrowers. Compulsory levies can stop free-riding within Australian but not elsewhere!

These AWRAP estimates are, at the very least, tentative and subject to significant estimation errors. Given the methodology and the fact that the analysis has not been published or professionally reviewed, it follows that the figures should not be portrayed as being robust.

Source: Task Force research on AWRAP submission.

The above comments are not aimed at criticising AWRAP for attempting measurement. The difficulties associated with this type of analysis mean errors will always be involved and criticism always possible. A reasonable conclusion is that the AWRAP estimates are very much “back of the envelope” and incorporate a tendency towards optimism.

AWRAP's mission statement is “to improve the profitability of woolgrowers in Australia by building and sustaining demand for their wool along the entire wool pipeline to the final consumer”. Underneath that, it has five objectives, of which three relate to promotion:

- “stimulate consumer interest, knowledge, demand and access to wool products;
- deliver process and product innovation to improve wool's competitive position; and
- promote Australian wool to the processing industry”.

These words, of course, sound smooth enough but, in view of the difficulties described in Box 44, there is really no way of knowing how successfully or otherwise they have been achieved, are being achieved, or can ever be achieved. When wool demand slumps in the way it has in recent years, it is rightly said that this is hardly the fault of wool promotion *per se*. Yet when demand improves for equally external reasons, it is human nature for some of the credit to be claimed, however subliminally.

AWRAP's accountability processes, especially its Annual Report, rely heavily on statements of activity or inputs, as proxies for achievements or outcomes. Its submissions continue to point to impressive charts of consumer recognition for Woolmark, which are no necessary guarantee of purchasing behaviour. The Task Force understands why these inferior measures are used, but reiterates that they are inferior and do not on their own constitute a compelling case for continued levy funding. In its annual report and elsewhere, AWRAP puts forward its achievements with an assurance which is not warranted, bearing out Alistair Watson's observation about “selling itself” (Box 43).

Alternative assessment approaches are needed. One is to seek the professional opinions of experienced marketers regarding a product marketing and promotion strategy that remains centred on the Woolmark symbol. Another is to ask woolgrowers themselves to assess their expected return from a marginal dollar of on-farm investment. If that is greater than the returns being obtained from compulsory levies, woolgrowers would be better off not having the levies collected. Several agricultural consultants estimated for the Task Force that the marginal dollar return from on-farm investment — say, in pasture improvement, fertilizer or sheep genetics — was up to 20 percent, implying that the hurdle rate of return for promotion

expenditure is quite high. Woolgrowers will take these considerations into account when they are given the opportunity to vote on levies.

As for the generic appeal of the Woolmark symbol, a number of respected marketers consulted by the Task Force said it had passed its “use by” date. As one commented, “Woolmark conveys awareness of content but not of benefit”. The Task Force has concluded that in many market segments the Woolmark is tired. It has, more or less, stood still for thirty years while proprietary clothing brands and artificial fibres have made great strides.

However, in the Task Force’s judgement, this conclusion does not apply across the board. In some developing countries (such as China) the Woolmark denotes quality which is definitely valued in the market. In the United States, where the wool fibre is something of a novelty among many consumers, the Woolmark also has value, so much so that its endorsement of the new Proctor and Gamble home dry cleaning product, Dryel, is seen as central to Dryel winning consumer confidence. In parts of western Europe, major processors still have confidence in the Woolmark symbol. And in Japan the large Japanese retailer Aoyama applies the Woolmark symbol to 70 million advertising leaflets each week, as Box 30 describes.

The Woolmark Company has been proud of the success it has achieved in securing (and in the main retaining) Woolmark licensees and licensee revenue. The Task Force takes a somewhat different view. First, it considers that the existing system of a fixed licensee fee regardless of size is flawed. It is said that a sliding scale is impractical because this would require licensees to divulge confidential information, yet in some cases (for example, Japan) The Woolmark Company actually makes swing tickets for licensees, thereby being privy to sales volumes.

Second, the Task Force is concerned that the nature of the licensee contract is poorly specified or understood. There does not appear to be clarity about the services being offered for the fee being charged, a problem which has led to tension when additional charges have been sought for additional services, with the licensee arguing that it thought they were covered by the base fee.

Third, the Task Force is concerned that some licensees do not use the Woolmark symbol on their products — Ermenegildo Zegna is one — because their proprietary brands have a stronger market presence than the Woolmark itself. This is sending important signals about the contemporary value of the Woolmark symbol in specific market segments.

Fourth, the basic financial equation is heavily weighted in favour of licensees. The licensee income (\$18 million in 1997-98) supports expenditure of over \$80 million (see section 6.8), so paying the fee is a comparatively simple decision for many firms to make. Finally, two-thirds of the licensee fee income is required for direct technical support and quality control, leaving little for genuine value adding opportunities.

The Task Force would like to see more licensee fee income generated but, if this is to occur, a much clearer specification of the fee package in terms of benefits being offered to licensees, will need to be developed.

The Task Force was surprised to find that a number of large, mainly early stage processors in Europe were of the opinion that large amounts of traditional promotional expenditure were needed to “kick-start” demand. For example, it was suggested that any surpluses left after the

disposal of the wool stockpile might be used for this purpose. They also said that research and innovation should be left to them.

The Task Force has thought carefully about these views. It acknowledges that they reflect the acute financial difficulty being faced by many early stage processors, like woolgrowers, and a conviction that “demand is the problem, therefore a king-hit promotion must be the answer”. Even if funds of this magnitude could be found — which they cannot — and even if they induced a positive demand response — which is not certain — the Task Force fears a pick-up would only be temporary. Additionally and crucially, it would mask the need for longer term research and innovation focused on existing wool fibre deficiencies and new opportunities. Moreover, if these processors consider they are responsible for all fibre innovation, the inference can fairly be drawn that wool’s present predicament means they have failed in that task. For these reasons, the Task Force does not support the promotion-led strategy.

The Task Force received a novel submission from a group of women who are strongly committed to wool, proposing a grass roots promotional initiative in the United States. Its main features are described in Box 45. Approximately \$200,000 in funding is being sought and the group has undertaken extensive and careful planning already. The Task Force considers the initiative has considerable merit and is deserving of support, from commercial firms, woolgrower associations and so on. It demonstrates that there are different ways of promoting wool. Lateral thinking, combined with energy and enthusiasm, is a powerful mix.

Box 45: Grass Roots Promotional Initiative: Wool Link Australia-USA

Wool Link Australia-USA is the brainchild of a group of 12 women with close connections to woolgrowing or related businesses – “growers, breeders, classers, value adders, trainers, spinners, weavers, designers, manufacturers, retailers, marketers, speakers, presenters, networkers, demonstrators, and consumers of wool”.

It arose from the second International Conference on Women in Agriculture (June 1998), held in the United States, in which half the members of Wool Link Australia-USA participated.

The concept is to mount a wool trade mission to the United States in late 1999/early 2000, during which the participants would seek to raise awareness and sales of Australian wool and wool products. The members say they have “a professional passion for, and vested interest in, their product and are committed to raising awareness of the superb qualities of wool, in a unique and very real way. Wool Link Australia-USA is a positive and pro-active trade mission by Australian women who understand wool and are committed to telling Americans about its intrinsic values.”

They note that the vast North American textile market has comparatively low wool fibre knowledge, acceptance and penetration.

Accordingly, they intend to target a defined segment of the “middle American” market: the Generation X’ers: working Americans aged 20-40, smart young business, leisure and sports oriented people, well educated, computer literate, open minded, ethnically diverse, independent in their style, tastes and politics, and with considerable discretionary income.

During the 1998 conference, the United States delegates made comments like: “all wool is prickly”; “I didn’t know wool could be so soft”; “where can I buy woollen products?”; and “can wool really be washed and dried in machines?”.

The group intends to work collaboratively with other organisations (such as The Woolmark Company) while remaining independent of them. They are preparing product and information kits, videos, samples, brochures etc and hope to achieve opportunities such as an Oprah Winfrey interview, presentations at trade and fashion fairs, to business groups, the media, women’s and farmer groups and so on. They would visit selected major cities in the United States and Canada. For this, they are seeking around \$200,000 in financial assistance to cover the costs involved.

The concept is original, energetic and grass roots. It deserves to receive the financial support being sought and it deserves to achieve its objectives. It is a good example of what groups of woolgrowers can achieve from their own initiatives, outside traditional structures.

Source: Wool Link Australia-USA submission to the Task Force; Ms Karolee Wolcott, personal communication.

Members of the Task Force visited both the Asian Development Centre in Ichinomiya, Japan, and the European Development Centre in Biella, Italy. Both these centres are strategically located close to major wool processing regions and are supported by advisory boards of high calibre. Their role is to act as a technology bridge between scientists, especially in Australia, and the commercial sector in the northern hemisphere. Given the Task Force's strong emphasis on the need for implementation and commercialisation of innovation, these centres should play an increasingly important role in future. They should also be integrated with the work of Australian scientists and research organisation, especially CSIRO. The Task Force recommends accordingly.

6.11 Conclusions on Promotion

It will be clear from the previous sections that the Task Force has severe misgivings about much of the work being conducted by AWRAP/The Woolmark Company under the banner of promotion. Indeed, the Task Force has concluded that not only is "promotion" a confusing word in the woolgrower context, but the change from "IWS" to "The Woolmark Company" was also inappropriate. The future is not about Woolmark as a centre-stage generic symbol. The future is about research and innovation, and the implementation of innovation. The more the innovation, and the more the diversity in wool fibre use and end markets, the less appropriate is generic advertising.

None of this implies that promotion itself is unimportant. It is more a question of who should be responsible — retailers and brand owners, or woolgrowers via compulsory levies. The Task Force notes that iron ore producers do not levy themselves to promote motor vehicles, for example.

The Task Force has concluded that:

- consumer marketing, especially in mature developed markets, is principally the responsibility of retailers and brand owners; generic symbols like the Woolmark symbol have less relevance than they once had, and the identification of measurable benefits to woolgrowers is difficult to establish;
- in any case, Australian woolgrowers these days have nowhere near the financial resources to fund meaningful generic advertising programs throughout the developed textile markets of the world; the development of carefully tailored and commercially funded symbols may have applicability in some markets or market segments;
- commercial firms may leverage the existing recognition of the Woolmark symbol — in the manner of Proctor and Gamble, and Aoyama, discussed earlier;
- in some countries (such as China and the United States) the Woolmark symbol still makes a positive contribution in denoting quality products; restricting its usage to products made from Australian wool, now that other countries no longer contribute to its funding, should be considered; and

- product marketing — that is, among businesses within the wool textile chain — is vital, especially at the designer/garment maker level where fibre choice decisions are made.

The Task Force recommends that levy-funded generic advertising at woolgrower expense should cease forthwith in mature developed wool markets.

Product marketing is by far the most important marketing responsibility that a new collective organisation should have; its task is to influence decision makers to use wool, in other words, to commercialise and implement the innovation brought about by R&D.

The word “promotion” should disappear from the lexicon of the new organisation.

7 Organisational Structure and Governance

7.1 Principles and Options

The Task Force has made important recommendations about woolgrowers' responsibilities for the future of their businesses. It has also made recommendations in the areas of marketing, value adding, vertical integration and innovation.

However, as noted in Chapter 6, there are circumstances where compulsory collective action remains desirable and justifiable. This requires an organisation, but one with a totally different structure and mind-set to that which has operated in the past.

Many submissions addressed this issue. Some proposed only fine tuning to the current institutional arrangements. Others wanted no organisation or intervention at all. For example, one Western Australian woolgrower told the Task Force:

“Today it costs more to dryclean the average suit than the woolgrower receives for the raw wool in it. We don't need wool to keep warm. We don't need wool to look smart. And this country doesn't need a sheep's back to ride on. But we all know the wonderful natural qualities of wool. Let's find out if anyone else agrees with us. That means let the market bring back the message: no intervention, no regulation, no free loading. If there is a future it will surely be discovered”.

There is a clear desire on the part of woolgrowers and their organisations for major change to occur. The timing is undoubtedly right. This is encouraging and the challenge will be for the momentum which has led to the establishment of the Task Force to be carried through to the implementation of its recommendations.

Rather than describe in detail all the alternatives put forward and discuss their pros and cons, the Task Force lists the principles which it considers should underpin any future organisation structure. In doing so, the Task Force recognises the considerable efforts which have been put into these submissions and assures their authors that they have all been studied carefully.

If the Task Force has any general criticism, it is that many suggestions were unnecessarily complex — for example, in regard to supporting structures for consultation and policy inputs, and a range of conditional opt-out mechanisms whereby compulsory levies could be returned to their source under certain criteria. This latter concept, which exists now in the form of PIRDs (Producer Initiated R&D) and the Market Link program, is unwieldy and discretionary. If circumstances exist where some woolgrowers should have portion of their levies returned, why not all woolgrowers, and then why collect those levies in the first place?

The Task Force sets down eight principles which it considers should underpin the new structure:

- there should be a clear market-failure rationale for intervention, following the discussion in section 6.1;
- the structure should, as far as possible, accord with commercial norms — that is, involve woolgrowers as shareholders of a company, having the power to vote on important matters, especially its future direction;

- there should be a bias towards minimal intervention, including that the “default option” of a vote should be no intervention;
- while recognising that the existence of compulsory levies requires legislative underpinnings (and the involvement of matching government R&D funding or allocations from the TCF Strategic Investment Program requires Parliamentary accountability), there should be a minimal role for government; the Task Force considers that this principle would be supported by most woolgrowers and political parties of all persuasions;
- the involvement of people as board directors who are of the highest calibre, with broad business and international experience, including some with woolgrowing or wool textile expertise;
- the staffing structure should be as lean and efficient as possible, involving the outsourcing of functions where appropriate, with all staff fully accountable for their performance;
- there should be a focus on innovation and its implementation/commercialisation in a way which has never existed hitherto, funding of innovation should be fully contestable and the process of implementation developed on a commercial basis; and
- there should be urgency in all aspects of the organisation’s work, commensurate with the urgency of the challenges facing woolgrowers and the wool fibre in the global textile market.

7.2 Australian Wool Services

The Task Force has concluded that the Minister should appoint a new board of AWRAP, no later than 1 January 2000, which would have the responsibility of preparing a new organisation — a conventional company which the Task Force is calling “Australian Wool Services” (the actual name to be determined by the company itself) — and a business plan/prospectus on which woolgrower shareholders would vote, no later than 31 March 2001.

Australian Wool Services should be established to conduct activities appropriately performed by compulsory collective action. It should be structured as a conventional company limited by shares.

Members (shareholders) should receive shares reflecting their compulsory levy contributions, based on wool sales commencing from 1 July 1999. A mechanism, similar to that which was used to determine unitholding in Wool International, will need to be established to determine the shareholder register.

During the calendar year 2000, the board of Australian Wool Services should prepare a business plan or prospectus, to be put to a meeting of shareholders (based on shares allocated during the 1999-2000 financial year) no later than 31 March 2001.

At that meeting, shareholders will vote on whether to adopt the plan — and thus continue the company in its existing form — or not.

Chart 18 gives a schematic representation of how Australian Wool Services will be structured and operate.

While it will be up to the company itself to determine, the Task Force recommends that Australian Wool Services' mission statement should be as follows:

“To commission wool innovation and to commercialise the results, for the maximum benefit of members/shareholders.

“This will be achieved by:

- maximising the value of existing wool intellectual property (IP), including the Woolmark symbol;
- facilitating wool innovation, on a contestible basis, to meet the requirements of the market place; and
- commercialising the intellectual property and innovation via product marketing”.

Because of the innovation focus of Australian Wool Services, the Task Force has concluded that no formal distinction should be made in the levy between R&D and what was previously designated as “promotion” which this report describes as product marketing. However, the Task Force recommends that there be a significant increase in the allocation to innovation, to at least the equivalent of 1 percent and that matching 0.5 percent Government contribution must be designated entirely for R&D purposes.

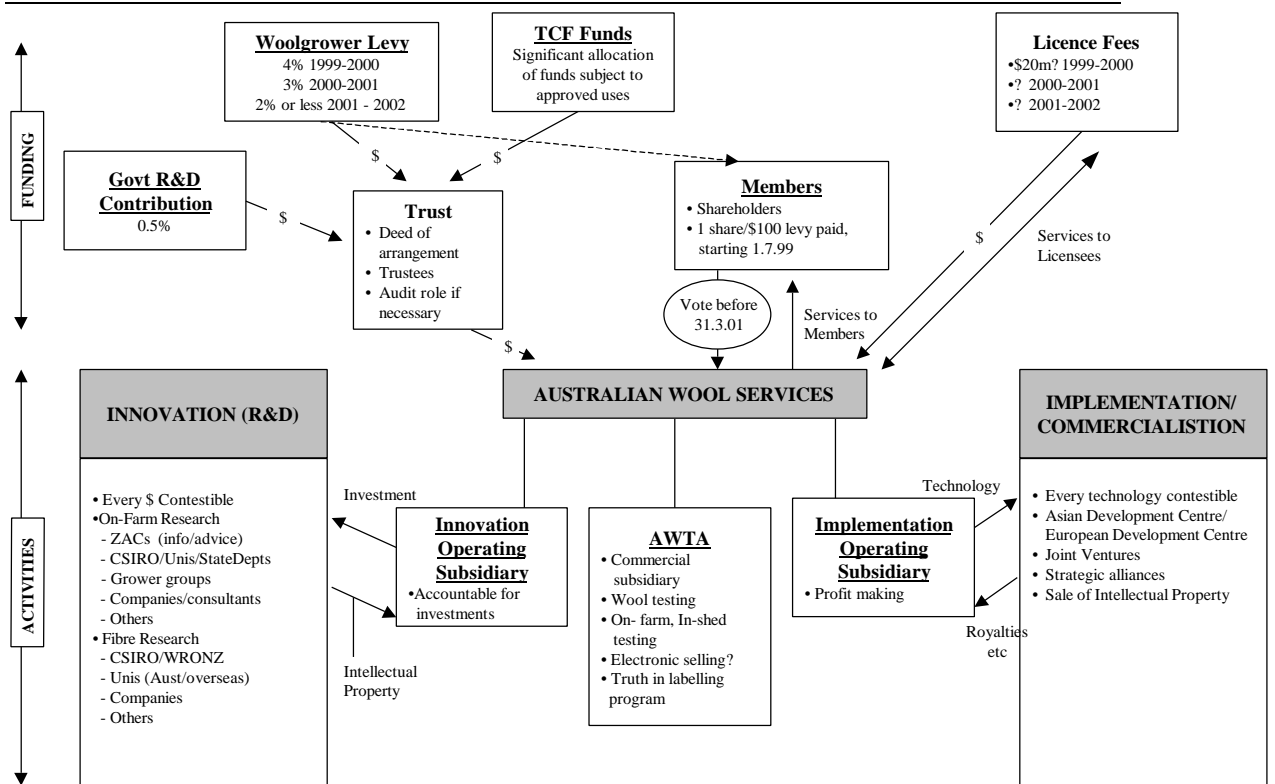
Shares in Australian Wool Services be allocated to woolgrowing businesses on the basis of one share per \$100 of levy paid. The compulsory levy should remain at 4 percent for 1999-2000 and should drop to 3 percent for 2000-01. The Task Force considers it could drop to 2 percent for 2001-2, but this will depend on the outcome of the shareholder vote.

In addition to the woolgrower levy and matching Government R&D levy, Australian Wool Services would derive capital or income from the following sources:

- a significant allocation from the TCF Strategic Industry Program, as set out in section 5.4;
- licence fee income, relating to the use of a revamped Woolmark and more clearly defined fee-based services (as described in section 6.10), possibly increasing in total amount;
- any assets of AWRAP/The Woolmark Company remaining after it meets contractual obligations, staff redundancy payments, and so on;
- investment income — royalty payments etc — from the implementation of research and innovation;
- other income (interest etc); and
- surplus assets of AWTA not currently in use (section 5.2).

In order to cover the situation of a conventional company receiving taxpayer funds and woolgrower levies collected under legislation, the Task Force recommends that a trust be interposed between the Government source of those funds and Australian Wool Services as the recipient. The trust will operate pursuant to a deed of arrangement with the Government, along similar lines to that of Meat and Livestock Australia Limited.

Chart 1: Australian Wool Services



Importantly, the Trustees of the Trust (who might comprise two or three people with suitable experience in woolgrowing and/or business) will be required to confirm that the funds are expended for approved purposes. Should they have any doubts, future levy or taxpayer funds could be withheld pending a formal audit.

The main tasks of the board will be to:

- establish the structure, operations and culture of Australian Wool Services as an innovation and implementation company; and
- prepare a prospectus or business plan to be put to a vote of shareholders/members not later than 31 March 2001 and on which the future operations of the company would depend.

The Task Force recommends that the board should comprise 10 members — including the Chairman — 3 of whom should be woolgrowers with appropriate board level/international experience, 3 having international experience of the wool textile industry, 3 with broad business experience, plus the chief executive.

The calibre of board members should be at the highest level, with remuneration recognising their expertise and time commitments. Board members should have a cross-section of experience, and a demonstrated track record of commercial success and sound judgement, in areas relating to the company's mission statement, in particular:

- an understanding of the corporate performance of R&D and innovation;
- industrial marketing;
- the ability to commercialise the results of innovation;
- the changes necessary to produce an appropriate commercial culture within the company; and
- international experience.

Board members would initially be appointed by the Minister, with the assistance of professional advice. Thereafter, election of board members would be a matter for shareholders — like any company — with a proportion coming up for re-election every 12 months in accordance with the Corporations Law. At the first annual meeting (March 2001) the confirmation of all board appointments would be an agenda item.

7.3 Making It Happen

Considerable changes will be required in the transition from AWRAP and The Woolmark Company to Australian Wool Services. Depending on a full assessment of relevant statutory and commercial obligations, together with legal and taxation issues, AWRAP and the Woolmark Company may become subsidiaries of Australian Wool Services, or have their activities and net assets transferred to it.

One vital requirement — to ensure the necessary cultural change occurs — is that there be a spill of all staff positions. A number of existing employees would be likely to be offered employment in Australian Wool Services — indeed, much of the value of the new company will reflect the human capital of key staff. However, nothing should be automatic or

guaranteed, and the terms and conditions of employment may be different. The Task Force emphasises that the spill is no mere formality. Australian Wool Services will be a quite different organisation to its predecessors and anyone unwilling or unable to make the cultural change should decide promptly to move on.

Australian Wool Services will be a considerably leaner organisation than AWRAP/The Woolmark Company. Where it is cost effective to do so, overhead functions (such as finance, human resources, legal etc) should be outsourced, although specific decisions would be made by the new board.

The board should choose the company's name. The Task Force puts forward two names for consideration: Australian Wool Services Ltd and Australian Wool International Ltd, although it has a leaning to the former.

The subsidiary company responsible for commissioning innovation projects would be accountable for the performance of its contractors. All funds would be fully contestible and information and advice obtained from groups such as Zone Advisory Committees (ZACs) — which the Task Force considers are a positive and valuable form of advice — would form a key input to the decision making process. A key requirement would be the need for clear contractual obligations, especially the ownership of intellectual property resulting from the innovation projects — it would be preferable for Australian Wool Services to own the intellectual property where possible — and the need for projects to be completed on contract and in a timely manner.

A second operating subsidiary company would be responsible for the commercialisation of intellectual property generated by innovation investments. It would be a profit oriented company and so its performance would be assessed in a conventional commercial manner. In commercialising innovations and technology, it may use intermediary organisations in particular countries or engage former Woolmark Company employees on a contract basis who had a particular knowledge of regional markets and wool processing businesses.

The company would also be responsible for licensee negotiations and servicing. As discussed in section 6.10, the Task Force sees considerable potential for increased licensee income, provided there is a clearer spelling out of the nature of the services being offered in return for the licence fee. In other words, the licence fee would more closely resemble a commercial fee-for-service activity, in which the Woolmark symbol (appropriately revamped to denote unique quality products derived from Australian wool) and employee or contracted professional expertise (as consultancy advice) would be the main services being provided.

As discussed in section 5.2, AWTA would be converted into a conventional company, with its shares being owned by woolgrowers via Australian Wool Services. As well as its traditional wool testing activities, AWTA would have a role in developing an effective system for on-farm or in-shed testing, possibly managing electronic wool selling and handling the Truth in Labelling program. However, it would not be a monopoly provider of these services.

The development of the prospectus or business plan would be the principal task to be performed by Australian Wool Services during 2000. It would set out a number of possible scenarios for the future development of the company and these would be voted on by shareholders at the first meeting, to be held no later than 31 March 2001. In particular, the

business plan would describe how Australian Wool Services would continue in operation along the lines of the structure set out in Chart 18. An important part of the business plan would be an assessment of the future role and value of the Woolmark symbol in various situations and its contribution to product marketing in general, and licensees in particular.

The Task Force recommends that there should be two sequential questions put to shareholders at the March 2001 meeting of Australian Wool Services. Proxies could and would be used by shareholders unable to attend the meeting:

1. Should a compulsory levy of 1 percent for the purpose of conducting market-failure R&D, innovation and product marketing?
 - only if greater than 50 percent of the total shareholding of Australian Wool Services voted in favour (yes), would the 1 percent R&D levy continue. Otherwise compulsory levies would cease on 30 June 2001; the matching Government 0.5 percent levy would also cease; and Australian Wool Services would either continue as a fully privatised company, with tradeable shares (and possible stock exchange listing), able to seek capital from existing or new shareholders as and when it saw fit (and eligible for the general 125 percent tax deduction for R&D), or it would be wound up, with any net assets returned to shareholders.
2. If the first question has been answered in the affirmative, then Australian Wool Services' shareholders would be asked whether there should be an additional compulsory levy of 1 percent (or such other amount as specified in the business plan) to provide funds for the commercialisation of R&D, innovation and product marketing.
3. In addition, other questions could be put forward by the board for debate and decision, including the ratification of board appointments.

It may be felt that the task of obtaining a 50 percent vote in favour of these resolutions is too onerous or impractical. The Task Force is very clear on this matter. Unless the votes can be obtained, the message from woolgrowers — either actively or as a result of apathy — is that they do not want collective activities supported by compulsory levies performed on their behalf. This is entirely as it should be, and is what commercial accountability means. The fact that the challenge of securing the votes is a major one — compared with the number of votes involved at the Goulburn no confidence motion, for example — should appropriately motivate those responsible or interested in a “yes” vote outcome. The Task Force's recommendations are not consistent with a “no” vote being obtained at the March 2001 meeting, but ultimately the decision is up to the shareholders.

Throughout this report and throughout the recommendations the Task Force's objective has been to hand control for major decisions back to the rightful owners: woolgrowing businesses. It will then be up to them as to whether wool prospers as a textile fibre into the future or not. The Task Force is confident that they will rise successfully to the challenge.