WOOL SELLING SYSTEMS REVIEW (WSSR)

FINAL REPORT OF THE WSSR PANEL



CONTENTS

REPORT AT A GLANCE	3	SECTION 5: ISSUES RAISED IN THE REVIEW	30
EXECUTIVE SUMMARY	4	5.1 Prevalence of open cry auction	
Wool industry background	4	and sale by sample	30
The Wool Selling Systems Review	4	5.1.1 Why is change slow to occur?	31
Why is change slow to occur		5.2 Testing and appraisal	32
in the selling system?	5	5.2.1 Testing	32
Testing and appraisal	6	5.2.2 AWTA's tax status and tax neutrality	33
Brokers and charges	6	5.2.3 Appraisal	34
Commission buying	6	5.3 Role of brokers and broker charges	35
The role of AWTA and AWEX	7	5.3.1 The Post Sale Charge	36
Efficiencies though centralisation		5.4 Commission buying	36
and increased lot sizes	7	5.5 Role of AWTA and AWEX	38
Reliance on the Talman software	8	5.6 Efficiencies in the logistics chain	39
A Wool Exchange Portal (WEP)	8	5.6.1 Centralisation	39
SECTION 1: THE OBJECTIVES		5.6.2 Lot sizes	40
AND CONDUCT OF THE REVIEW	9	5.7 Reliance on the Talman software	41
SECTION 2: THE WOOL INDUSTRY	11	5.8 Other matters	42
2.1 Wool production	11	SECTION 6: WOOL EXCHANGE PORTAL (WEP)	43
2.2 Exports and imports of wool	13	6.1 Why does the wool industry	
2.3 The composition of the wool clip	15	need to develop a WEP?	43
2.4 Prices and price differentials	16	6.2 What is the WEP?	44
2.5 The decline in fine wool premiums	16	6.3 Functionality of the WEP	46
2.6 Average farm sales	17	6.4 Benefits of the WEP	46
2.7 The value determining		6.4.1 Efficiencies and cost savings	47
characteristics for wool	19	6.4.2 Competitive tension	49
2.8 Implications of change for		6.4.3 Transparency	49
the wool selling system	20	6.4.4 Broader benefits	49
SECTION 3: THE WOOL SELLING		6.5 Cost of the WEP	51
INSTITUTIONS	21	6.6 Who would develop,	
Australian Wool Innovation (AWI)	21	own and operate the WEP?	51
Australian Wool Exchange (AWEX)	21	6.6.1 Future WEP development,	
Australian Wool Testing Authority (AWTA)	22	ownership and operation	51
SECTION 4: THE WOOL SELLING SYSTEM	23	APPENDIX1: WEP SCREENSHOTS	
4.1 The process of preparing		(SOURCE NZX)	53
and selling wool	24	APPENDIX 2: OTHER WOOL MARKETS	60
4.1.1 Wool preparation	24	APPENDIX 3: ESTIMATED INDUSTRY	
4.1.2 Delivery and testing	24	AVERAGE COSTS: SHEARING SHED TO	C1
4.1.3 Wool appraisal	25	SHIP'S RAIL (CENTS/KG GREASY) 2013-14	61
4.1.4 Price realisation	25	APPENDIX 4: LIST OF STAKEHOLDER MEETINGS & CONSULTATIONS	62
4.1.5 Invoicing and payment	26	APPENDIX 5: SUBMISSIONS	63
4.1.6 The export process	27		
4.2 Selling alternatives	27	APPENDIX 6: GLOSSARY OF TERMS	66
1.7 Solling system costs	28	APPENDIX 7: REFERENCES	68



REPORT AT A GLANCE

- Australia's wool selling system is dominated by open cry auction which provides prompt and secure payment as well as managing sales of a highly diverse product. However, unlike selling systems serving other rural industries, the wool selling system has proved resistant to change, largely as a result of high transaction costs of moving to alternative systems as well as complexity and limited transparency of the current system.
- The Panel's focus on the selling system has been from the time wool leaves the farm until it passes the ship's rail for export. The estimated total cost of the selling system in 2014/15 based on this definition was around \$300 million, although the real cost may be higher to the extent that the current system inhibits take-up of alternative selling options.
- The Panel has identified a lack of competitive neutrality surrounding the operations of the Australian Wool Testing Authority (AWTA). The proposed remedy is for AWTA to make a tax equivalent payment to be used for R&D purposes. In the long term, the Panel expects this action to increase competition in the testing environment, including on-farm testing of wool.
- The appraisal of wool at auction looks to be 'gold plated', involving objective testing, sample display and multiple appraisal. The Panel sees scope for a differentiated approach not necessarily requiring sample display of all wool and making greater use, where appropriate, of sale by description.
- Brokers' charges (which account for more than 50% of total selling system costs) and related service offerings are not always transparent to growers. The Panel has developed an initiative for a wool selling portal (see below) which could go some way towards enhancing transparency and thereby assisting the efficiency of decision making.
- In regard to commission buying, the Panel sees potential problems with a buyer using the services of a potential competitor and the sharing of price and purchase information such behaviour implies. However, the issues raise complex legal and competition questions and the Panel recommends affected parties seek appropriate advice. AWEX may also need to review its arrangements designed to facilitate and promote competition in the wool market.
- A smaller wool clip has fuelled debate regarding further centralisation of selling centres from both a cost reduction and increased returns perspectives. The Panel recognises this is a priority issue for industry attention but has concluded that any action in this regard is largely a commercial matter.
- The large number of small lots sold and their related system-wide costs is of concern to the Panel. It recommends increased lot sizes which should improve the efficiency of the selling system and reduce costs accordingly.
- The Panel has concluded that most of the issues it has identified and analysed can be addressed in part by the development of a Wool Exchange Portal (WEP). The WEP would be an online tool to enable growers and other market participants to compare available options and to choose selling and buying strategies best suited to individual circumstances. The Panel expects a WEP would reduce selling costs and enhance competition in the selling system.
- The WEP could help achieve virtual centralisation; it could provide opportunities to reduce the large number of very small lots; it could overcome the need for physical attendance at auctions and thereby reduce the need for commission buying; and it could enhance the level of transparency while promoting competition.
- The Panel recommends the WEP be taken forward by a Steering Group. Further details of the work to be done in this regard as well as options concerning ownership and operation of the WEP are provided in the report.



EXECUTIVE SUMMARY

WOOL INDUSTRY BACKGROUND

Wool and sheep have been of historical importance to the Australian economy and have played a significant role in forging Australia's identity as a dominant supplier of premium quality products into international markets. However, Australia's wool industry has faced a period of significant decline and change over the past 25 years. Following the collapse of the reserve price scheme, the wool clip has fallen to around a third of its peak of around 1,000 mkg greasy in the early nineties. Real average prices, adjusted for CPI, have fluctuated over the past two decades but overall have remained relatively flat. The composition of the clip has also changed. It has seen a shift towards finer wool and also at the other end of the spectrum an increase in broader and cross-bred wool. While the clip has moved to finer wool, the premium for superfine wool has declined.

Australia's wool exports have also fallen both in absolute and relative terms, however it remains the major producer and the pre-eminent exporter of wool. The value of Australia's shorn wool clip is still significant at around \$2.5 billion annually.

On the buying side, the most significant development has been the rise of China as the major destination for Australia's greasy wool. It accounts for almost 80% of Australia's wool exports both by volume and value.

As a result of these changes the wool selling system has also experienced a good deal of rationalisation. There are now three selling centres, down from four in 2012/13 and 14 in 1994. There has also been increased concentration of brokers and buyers. The number of brokers has fallen from 49 selling at auctions in 2003/04 to 35 in 2013/14. The top 10 buyers now account for around 70% of the total sold.

The method of selling wool has, however, remained remarkably unchanged. The wool is sampled, tested by the Australian Wool Testing Authority (AWTA) for a number of objective characteristics and part of the sample is displayed in the showroom and appraised on three separate occasions for various quality attributes.

The vast majority of the clip is handled and sold by wool brokers and around 85% is sold via open cry auction. A small amount is sold by direct treaty. Computerised selling accounts for a very small proportion of the total and mostly caters for wool not sold at the open cry auction.

The total direct cost of the selling system for a shorn wool clip worth around \$2.5 billion in 2014/15 is estimated to be a little under \$300 million. The average cost is estimated to be around \$0.82/kg greasy or \$144.64 per bale. This represents just less than 12% of the value of the wool. This however only accounts for the direct costs. To the extent that the selling system is slow to adopt alternative selling options, the industry also incurs additional costs in terms of any benefits foregone or missed opportunities for better returns to some growers.

THE WOOL SELLING SYSTEMS REVIEW

The purpose of this review is to examine the selling system, to identify any barriers or market failure that may prevent the selling system to operate as efficiently as possible, and to make recommendations that the WSSR Panel believes may benefit woolgrowers and buyers as well as the overall industry.

The Panel has consulted widely in reaching its conclusions. A number of issues have been raised during this process and most of these are addressed in the Report.

The report has found that there are a number of factors which act to slow or restrict the pace of change in the industry. It recommends a number of changes to improve the efficiency of the system and to enable alternative selling approaches where and when preferred by buyers and sellers. The Panel is also of the view that the establishment of a Wool Exchange Portal, in combination with other changes, can bring about positive change and dynamism to the Australian wool selling system. It can assist to develop greater choice, greater flexibility and greater transparency in the selling system.



WHY IS CHANGE SLOW TO OCCUR IN THE SELLING SYSTEM?

Growers are able to make decisions on the quality of wool they grow based on market conditions. Buyers and sellers can reach agreement on how they sell and buy wool. Open cry auction is the dominant way of selling wool but there is a small amount of wool sold by alternative means and in theory nothing to stop growers from choosing alternative approaches for selling their wool.

Despite this, the Panel found that there are a number of market imperfections in the wool selling system. It faces transaction costs, complexity and, in some cases, a lack of transparency. These prevent the market from operating as effectively as it could.

The selling system, whilst effective, does seem to operate very conservatively and appears resistant to change. Almost all wool is sold by open cry auction; there is very little sold electronically. There is very little forward selling and there is no effective futures market. Almost all wool has samples physically displayed at selling centres and is appraised on multiple occasions despite the fact that it is also objectively tested for a number of characteristics. This is in contrast to other rural industries such as grains and beef where other forms of trading have been more actively embraced.

The availability of alternatives to the open cry auction could provide a range of possible benefits to growers. These could include the opportunity to lock in prices earlier, it could provide greater certainty in the price accepted by the grower rather than the uncertainty of the auction, it may enable a greater range of buyers to participate and this could affect both competition and returns, and it could result in potentially lower costs of selling. It could also assist in building new and beneficial buyer-seller relationships which in turn could lead to innovation in the way wool is grown and marketed.

On the other hand, the auction system is known and understood and it provides prompt and secure payment. It can also cope with a highly heterogeneous product comprising many different types and qualities of wool and can interact with a distribution system that delivers wool to mainly overseas processors.

In the Panel's view, there are a number of factors which hinder the take up of alternative selling systems. The selling arrangements give growers little effective choice. They face what are most likely significantly higher transaction costs to go outside the main selling system. A grower needs to be highly motivated and spend time and effort and incur related costs (e.g. travel, labour) to overcome the information deficiencies which exist to be properly informed and pursue some of these other options.

Growers rely on brokers' warehousing and storage facilities and usually send their wool there before testing is undertaken. There is a lack of opportunity to test wool before it enters the brokers' facilities. Growers tend to not test on-farm due to the costs involved and the need to maintain the integrity of the testing system. They generally make a decision before they know their test results. Hence, they are usually well down the path of the existing system before relevant decision making information is at hand.

Growers have difficulty in assessing what it costs them to sell within the existing system compared with the alternatives. There is a lack of visibility of some charges. They face a lack of visibility of the post-sale charge (PSC) and other charges such as trucking costs to the point of export (the dump) which are incurred by exporters but reflected in the sale price growers receive. There is also a wide variation in the way brokers set their charges. All this makes comparison of broker costs and offerings more difficult.

Complexity is added by the heterogeneity of wool where a number of factors, some of which are subjective, determine the value of the wool. The grower is in part dependent on the broker to determine what returns he/she is getting for the various quality attributes of his wool. This makes it more difficult for some growers to assess the value which they may be getting from their brokers and to be able to make effective assessment of alternative selling methods.

These factors, combined with the declining state of the industry and the small size of many growers, have tended to create a climate of inertia and resistance to change and go some way towards explaining retention of the status quo in the wool industry.



TESTING AND APPRAISAL

Independent testing is an important part of selling the wool clip. There is widespread acceptance of the current tests and the characteristics which they test are important explanators of price. Ideally growers should have the test results as early as possible so that they are available to help them make their selling decisions. It is for this reason that the issue of on-farm testing has been raised in this report.

Widespread on-farm sampling and testing is not likely to be financially viable for many growers given current testing technologies. It may be viable for some larger growers and it is possible that development in technologies may provide further options over time. However, this is more likely to be achieved if there is competition in the provision of testing services.

For these reasons, the Panel has proposed that AWTA, which enjoys tax free status, should be required to operate in a competitively neutral way. It should be required to earn a commercial return on its assets and it should account for taxes by retaining separately a tax equivalent payment. These funds should not be available for its operational expenses and could be made available for R&D, including R&D into testing technologies.

Almost all wool is appraised on three different occasions. This incurs cost for the broker, for AWEX and for the buyer. Costs arise from the provision of the floor space, storing and making the sample available and in the actual appraisals. Ultimately the grower bears much of this added cost.

Visual inspection of the wool sample is clearly important to some buyers as it provides an additional level of support for their quality guarantee to the processor. However, it appears that the system provides what might be described as a 'gold plated' or 'Rolls Royce system' involving objective testing, physical display of the sample and multiple appraisals including by the broker, by AWEX who audits the brokers accredited appraiser and then finally by the buyer.

The Panel questions whether this is necessary for all sales. The available evidence indicates that the objectively measured characteristics of micron, yield, length and strength, vegetable matter and other available statistics are most important for determining price. Some types of wool, such as fleece lots for which the objective characteristics are relatively more important, could in some cases be sold without appraisal or price penalty. Some encouragement for the utility of this alternative is provided by the historical experience of selling the wool stockpile which was built up in the eighties and was largely sold without physical appraisal at the time of sale.

The Panel's proposals are not aimed at replacing the current system but in generating greater transparency and choice.

BROKERS AND CHARGES

Brokers play a very important role in the wool selling system. They act as agents for growers, they are the auctioneers, they arrange transport, storage and handling of wool, they operate 35 warehouse locations and three selling centres in Australia. Their charges make up more than 50% of the selling system costs. Broker charges and offerings vary greatly. The Panel is encouraging greater visibility of charges, particularly via the Wool Exchange Portal (WEP) which is discussed below.

COMMISSION BUYING

Commission buyers are a feature of a range of Australian rural product markets, including the wool market.

Commission buying in the wool sector operates in one of two ways. In some cases, parties who wish to buy wool may commission an independent buyer to buy wool on their behalf. In other instances, exporters who do not have a buyer operating in a sale room may seek to utilise another exporter's in-house buyer.

The concern of wool producers is that commission buying may lessen the competitive tension at auctions since there are fewer buyers operating in the auction room and more specifically potentially fewer buyers operating on individual sale lots.

The fact that a commission buyer is acting for more than one bidder at a time does give rise to the possibility of conflict of interest. However, it also puts a buyer in a position to potentially influence the level of competition in the auction. This becomes a greater concern as we see increased concentration of buyers. Commission buying may have an impact on individual exporters' commercial decisions.



For example, where one exporter contracts commission buying from another competing exporter, the knowledge of that buying activity may prompt the exporter providing the service to defer buying where possible to reduce competition on wool of similar quality that they are also seeking.

The possibility that a buyer is using the services of a potential competitor in an auction to buy its wool and in the process may be providing information on the price it is prepared to bid and the quantities it is seeking to purchase may raise some concerns. It raises concerns as to whether such conduct could risk breaching the *Australian Competition and Consumer Act*.

Both the conflict of interest and the competition issue are complex and involve economic and legal considerations. Relevant parties would be advised to take advice on this. The Panel also recommends that AWEX reviews its activities with a view to any necessary amendments to governance arrangements designed to facilitate and promote competition in the wool auction market.

THE ROLE OF AWTA AND AWEX

AWEX and AWTA both play important respective roles in maintaining the integrity of the wool selling system. Their respective roles are to provide market governance and information and testing of the clip to ensure that buyers can have confidence in the quality of the wool they are buying. Both organisations recognise that their activities complement each other to some extent. There are synergies and some cost savings that could be achieved from a merger of these two bodies. While there are some challenges that would need to be overcome, the Panel recommends that the respective Boards reactivate talks on a possible merger of the two organisations.

EFFICIENCIES THOUGH CENTRALISATION AND INCREASED LOT SIZES

As the size of the clip is now around a third of what it was at its peak there is an ongoing need for further rationalisation of the selling system infrastructure.

A move to greater centralisation, possibly to a single selling centre eventually, would result in cost savings to the industry as was demonstrated by the Australian Farm Institute's 2009 review. The decline in production since that review was conducted is likely to mean that savings may be even greater today.

Centralisation would also incur some adjustment costs which would erode some of these benefits. For example, it would lead to some higher transportation costs for some samples and would most likely see change in some parts of the broking industry.

It is likely, however, that additional benefits will be generated from centralisation, particularly as a result of improved efficiency of the market. Bringing all buyers and sellers together in one arena is likely to enhance competition. It may also make it easier to achieve other efficiencies such as bringing small lots together and help to address any problems surrounding commissioned buying as outlined above. In the final analysis, however, centralisation is a commercial decision and can be readily pursued as demonstrated by the rationalisation in selling centres already seen in the industry.

Some 20% of all lots of wool sold are one or two bales only. Dealing with such a large number of small lots results in higher costs across the industry. Wool growers, brokers and exporters would benefit from improved productivity if lot size were to increase.

Generally growers, particularly smaller ones, are constrained by the size of their clip and therefore often have little choice other than to produce small lots. Wool brokers however do have several options that could facilitate an increase in lot size. The three approaches to put lots together are the objectively matched lot (OML), the interlot and bulk class. Bulk class is quite well used for one bale lots and under. However, growers and brokers alike have been reticent to make use of the first two tools mentioned. This is largely due to a concern of mixing different quality wool. In the interests of efficiency gains, the Panel believes that the industry should consider, where appropriate, larger lot sizes where this can be done without compromising the quality of the wool clip.



RELIANCE ON THE TALMAN SOFTWARE

The Talman system plays an important role in the selling system. It is central to recording and managing buyers' lot building and ordering out from brokers. The Panel concludes that reliance on a single provider for such an important piece of infrastructure leaves the industry vulnerable and it should take steps to manage this risk.

One of the objectives which should be made explicit in the development of the WEP, as discussed below, should be to ensure effective interfacing with existing systems such as Talman and other IT platforms.

A WOOL EXCHANGE PORTAL (WEP)

The Panel is proposing a Wool Exchange Portal (WEP). The proposed WEP would be an IT portal available to all. It would be a central point for industry participants to get information, to find alternative live selling and buying options and provide the tools to make meaningful comparisons of these alternatives. The WEP could also provide market reporting services for the diverse trading conducted through links to its platform as well as provide other services valued by the industry such as training options for market participation or anything else concerned with the broader industry.

A number of second round submissions commented that the Panel was focused on the WEP at the expense of the major issues relating to the existing selling system. It is important to note that the WEP grew out of the issues that were of most interest to industry. The Panel believes that a WEP that promotes greater transparency and choice to growers will assist with resolving many of the significant issues raised in submissions.

It would assist in achieving greater efficiencies sought in the selling system through greater centralisation as it could help achieve virtual centralisation. It could provide greater opportunities to reduce the very large number of very small lots which the existing system has to handle. It would obviate the potential problems of sharing buyers, as exporters would be able to participate without the cost of always having to be physically present at an auction. It may help industry manage its heavy reliance on, and inherent risks of, a single software wool management system. It could also provide alternatives to some of the concerns expressed by some to the limiting way in which the system currently operates in some circumstances, for example in the way it sells unskirted wool.

As discussed in Section 5 of this Report, there are constraints in the selling system caused by the high transaction costs involved for growers to seek to sell outside the open cry auction system. The WEP would assist by providing growers with a tool to make meaningful comparisons on their available options and to pursue those strategies which best suit them and their buyers. The introduction of a WEP as envisaged by the Panel can be a useful tool to help reduce selling costs and to enhance competition in the selling system. At the same time, a WEP may assist exporters, brokers and other intermediaries to assemble quantities of wool required by the market and thereby enhance the efficiency of market delivery and logistics.

The Panel has sought advice on the possible establishment of the WEP. It has attempted to provide as much detail as possible at this stage. For it to be progressed further, the industry institutions will need to take leadership to develop a full business case.

The Panel proposes that a Steering Committee consisting of AWI, AWTA and AWEX take responsibility for guiding the development of the WEP assisted by R&D backing from AWI. The intellectual capital generated would be owned by AWI on behalf of growers. The Panel proposes that once developed it would be operated by AWEX/AWTA, although that would be a matter for AWI on behalf of growers. AWI as the owner of the property rights would have the option of selling those rights to defray some of the costs which growers funded from AWI's budget.

More information on the functions, the benefits and costs of a WEP are included in Section 6 of this Report.



SECTION 1: THE OBJECTIVES AND CONDUCT OF THE REVIEW

The Wool Selling Systems Review (WSSR) has been commissioned by Australian Wool Innovation (AWI). The purposes of this review are to examine the selling system, to identify any barriers or market failure that may prevent the selling system from operating as efficiently as possible, and to make recommendations that may benefit woolgrowers and buyers as well as the industry overall.

Three avenues of inquiry stand out for their relevance to the Review:

- 1. Evaluating whether greater efficiencies and cost savings within the exchange of ownership between the seller and the first buyer are attainable
- 2. Understanding the potential for increased competitive tension throughout the wool selling process and how it can be achieved, and
- 3. Determining whether there is sufficient transparency within the exchange of ownership to allow woolgrowers to make the most informed commercial decisions about their wool growing enterprise.

A Panel has been established to conduct the review.

The membership of the Panel is:

REVIEW PANEL

James Lillie Fox & Lillie Pty Ltd

Graeme Samuel AC Monash University

William Wilson Australian Investor Relation Services

Bernard Wonder PSM Consultant

EXECUTIVE OFFICER/SECRETARIAT

John Roberts Eubindal Pty Ltd

The Panel also acknowledges the contribution of Mr Joe Dimasi from Monash University who provided consultancy services in the preparation of the final report and Mr Greg Martin who provided consultancy services in the preparation of the Issues and Discussion papers. While grateful for their respective contributions, the Panel accepts full responsibility for the content of this report.

Mr Colin Bell from Bell Financial Group was available as a woolgrower expert resource.

The Panel has consulted widely with stakeholders in the industry. The following steps have been followed in the consultative process to attain the views of various stakeholders:

- Release of an Issues Paper in December 2014
- Receipt of 68 submissions in response to a public invitation
- Release of a Discussion Paper in July 2015 giving an indication of some of the Panel's preliminary views
- An Industry Workshop held on 21 July in Melbourne
- Receipt of a further 28 submissions following a second general invitation following the July Workshop.

In addition, members of the Panel met and presented to various industry members, including at Wool Week held in Melbourne in August 2015.

A list of other meetings held with stakeholders is included in Appendix 4.



The Panel would like to acknowledge the considerable contribution from industry participants through their submissions and consultation.

This Report comprises six sections:

Section 1 deals with the objectives and conduct of the Review.

Section 2 provides data and information on the wool industry.

Section 3 describes the wool selling institutions.

Section 4 describes the wool selling system.

Section 5 deals with issues covered by the Review.

Section 6 deals with the Wool Exchange Portal.



SECTION 2: THE WOOL INDUSTRY

Wool and sheep have been of historical importance to the Australian economy and have played a significant role in forging Australia's identity as a dominant supplier of premium quality products into international markets. However, Australia's wool industry has faced a period of significant decline and change over the past 25 years. The wool clip has fallen from around 1,000 mkg greasy in the early nineties to around 365 mkg greasy today. Real average prices, adjusted for CPI, have fluctuated over that period but overall have remained relatively flat. The composition of the clip has also changed. There has been a shift towards finer wool and also at the other end of the spectrum an increase in broader and cross-bred wool. While the clip has moved to finer wool, the premium for superfine wool has declined.

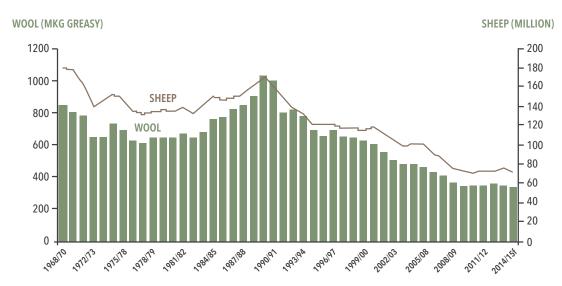
Along with a decline in production, the size of Australia's wool exports have also fallen both in absolute and relative terms. Despite these changes, Australia remains the major producer and the pre-eminent exporter of wool. The value of Australia's shorn wool clip is still significant at around \$2.5 billion annually (source: ABARES shorn wool 2014/15).

On the buying side, the rise of China as the major destination of Australia's greasy wool has been the main market development. It accounts for almost 80% of Australia's wool exports both by volume and value.

2.1 WOOL PRODUCTION

As seen in Figure 1, since 1998 Australian sheep numbers and wool production have fallen. Whilst production has fallen across all wool-growing states and regions, the decline has been greatest in Queensland. NSW has become a relatively more important source of supply.

FIGURE 1. AUSTRALIAN SHEEP NUMBERS AND WOOL PRODUCTION



Source: AWI analysis.

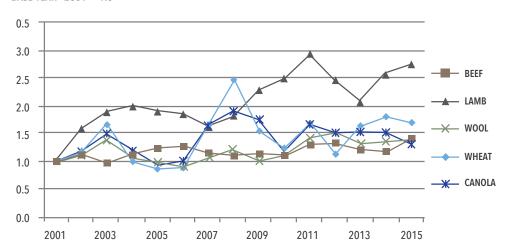
The principal driver of the decline in production has been lower relative farm profitability from wool production (especially Merino wool production). Over the past seven years it has been on average less profitable to produce wool than other sheep enterprises and cropping.

This is due to a number of factors including changes in relative commodity prices as can be seen in Figure 2.



FIGURE 2. CHANGE IN AUSTRALIA'S COMMODITY PRICES

BASE YEAR - 2001 = 1.0



Source: NLRS, AWEX, AWF, The Rural Press, Profarmer.

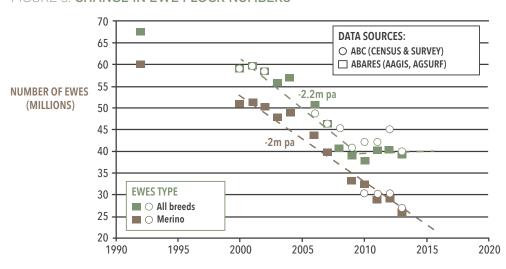
The near term outlook is for a continuation of the lower wool production levels of the past five years.

"The Australian Wool Production Forecasting Committee forecasts that shorn wool production for 2015/16 will decline by 4.3% to 332 mkg. This reflects a 3.7% fall in shorn sheep numbers, a result of the continued high turn-off of sheep and lambs in 2014/15, while average fleece weights are expected to be 0.7% lower than in 2014/15."

Figure 3 shows changes in the flock. The underlying structure of the ewe flock suggests that the decline in Merino wool production is likely to continue, at least in the near term.

"If present trends continue, the Merino ewe will decline to around 50% of joined ewes by 2017/18, with less than 30% of ewe lambs born that year being pure Merino" ²

FIGURE 3. CHANGE IN EWE FLOCK NUMBERS



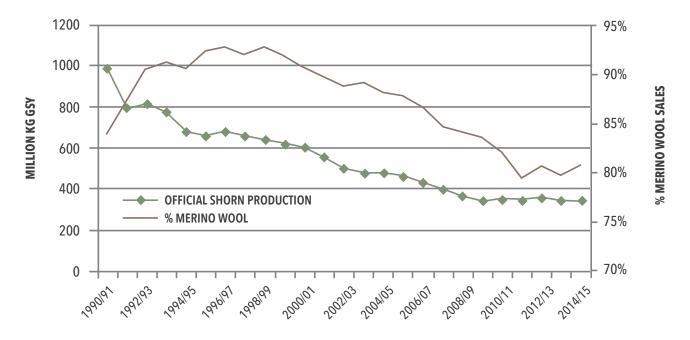
Source: AWI analysis.

Until 2008/09, 85% of all breeding ewes were Merino. Since then, the Merino share has declined rapidly, as seen in Figure 3. The decrease in production can be seen in Figure 4 which also shows the declining proportion of Merino wool in the Australian clip.

- 1. Australian Wool Production Forecasting Committee, Australian Wool Production Forecast Report, August 2015.
- 2. Dr. P. Swan, Australian sheep flock demographic trends, Presentation to AWTA Board Meeting, April 2015.



FIGURE 4. WOOL AND MERINO WOOL PRODUCTION

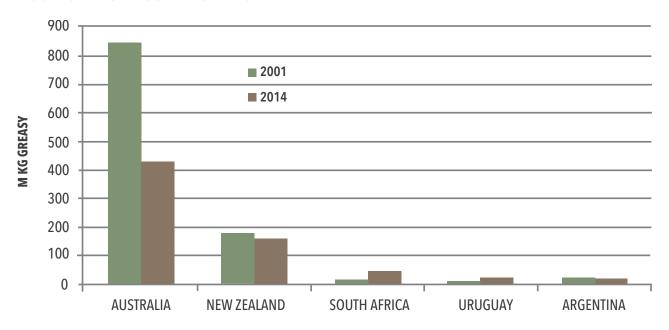


Source: AWPFC, AWC, WI, AWEX

2.2 EXPORTS AND IMPORTS OF WOOL

As shown in Figure 5, Australian exports of wool have declined and are now approximately half of the level recorded in 2001. The fall in Australian exports has been greater than that experienced by other exporters in both absolute and percentage terms. However, Australia remains the world's pre-eminent exporter of raw wool.

FIGURE 5. MAJOR WOOL EXPORTERS

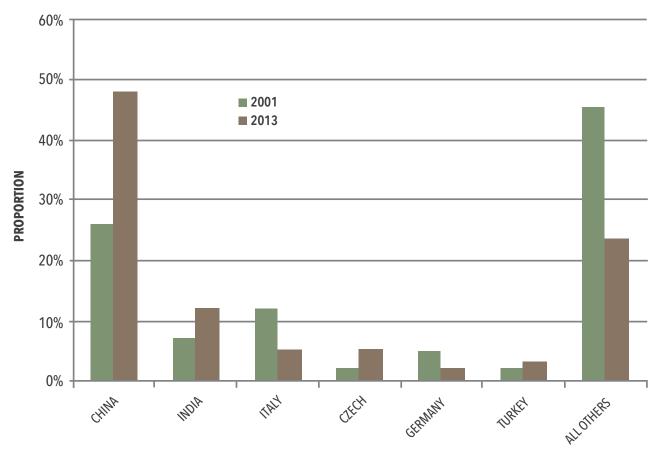


Source: IWTO Market Information 2014, ABARES



On the buying side, China has become the world's major importer of wool (see Figure 6). It now accounts for almost 50% of all imports and for almost 80% of Australia's wool clip. This includes imports from Chinese-based European companies producing woollen products for a number of markets.

FIGURE 6. WOOL IMPORTS BY COUNTRY



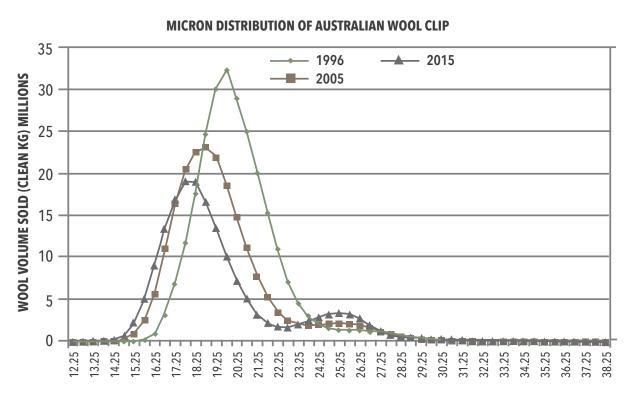
Source: IWTO Market Information 2014



2.3 THE COMPOSITION OF THE WOOL CLIP

However, while the total volume of wool produced has fallen, some segments have increased in supply (fine wool - less than 19 micron) while others have decreased substantially. As Figures 7 and 8 below show, the distribution of the clip has moved towards finer wools.

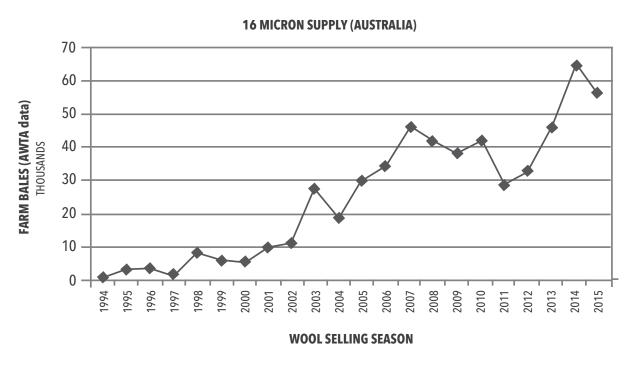
FIGURE 7. THE CHANGING NATURE OF AUSTRALIA'S WOOL CLIP



HALF MICRON

Source: AWEX

FIGURE 8. THE GROWTH OF SUPERFINE WOOL



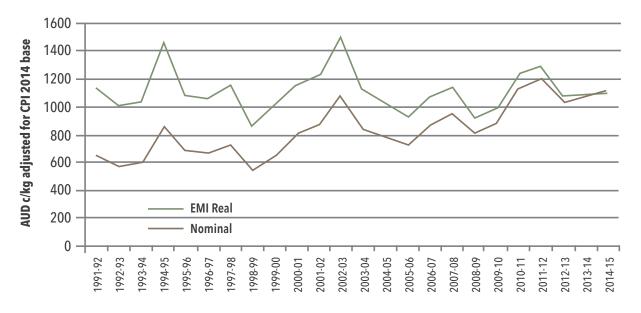
Source: Independent Commodity Services (ICS), AWEX



2.4 PRICES AND PRICE DIFFERENTIALS

Over the past two and a half decades, nominal prices as measured by the Eastern Market Indicator (EMI), whist volatile, have been increasing (see Figure 9). When adjusted for inflation it can be seen that real prices, whilst they have fluctuated, have remained relatively flat.

FIGURE 9. REAL AND NOMINAL AVERAGE PRICES

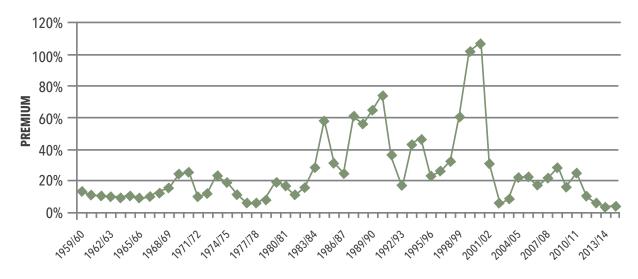


Source: AWEX, RBA

2.5 THE DECLINE IN FINE WOOL PREMIUMS

With the increased supply of finer wool, the industry has seen the premium for fine wool largely disappear. As the two charts below indicate, there was a significant premium for producing finer wool which peaked around the turn of the century. That premium is now at very low levels.

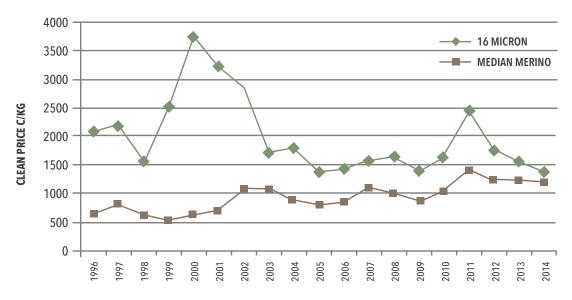
FIGURE 10. THE DIFFERENTIAL FOR 19 TO 21 MICRON WOOL



Source: AWC, AWI, AWEX



FIGURE 11. PRICES FOR 16 MICRON WOOL COMPARED TO AVERAGE (MEDIAN) MERINO PRICES

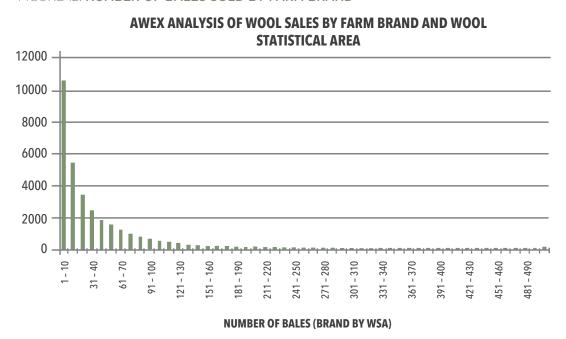


Source: ICS, AWI, AWEX

2.6 AVERAGE FARM SALES

As shown in Figure 12 below, Australia's wool industry has many small wool growers. AWEX data³ shows that about a third of growers produce between 1 and 10 bales of wool. However, as can be seen in Figure 13, a much smaller number of larger growers produce the bulk of the clip. The largest 20% of growers produce 64% of the clip while the smallest 20% produce only 2%. The number of growers whose output exceeds 500 bales is quite small. AWEX data for sales in 2014/15 indicates approximately 130 growers who sold in excess of 500 bales.

FIGURE 12. NUMBER OF BALES SOLD BY FARM BRAND



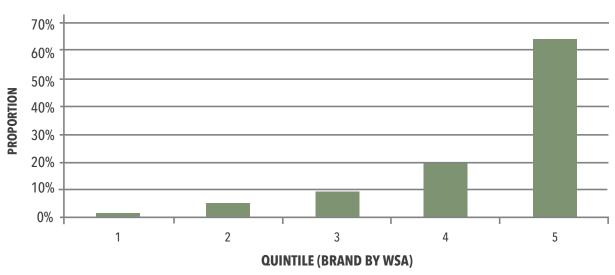
Source: ICS, AWEX

3. This data does not include wool sold through broker bulk class, interlots or wool sold privately.



FIGURE 13. PROPORTION OF CLIP BY QUINTILES

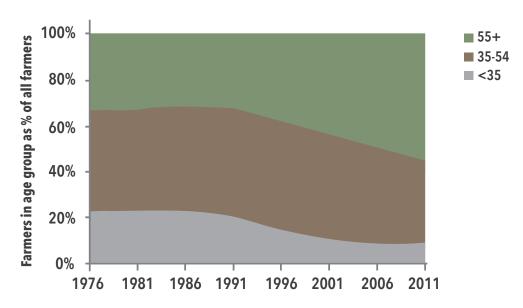
SALES VOLUME BY BRAND* WSA QUINTILES



Source: ICS, AWEX

Sheep farmers are also ageing, a trend shown in Figure 14 and which is characteristic of the entire farming sector. The shrinking proportion of younger farmers is likely to impact in a number of ways including the speed of take-up of technology.

FIGURE 14. THE AGING PROFILE OF AUSTRALIA'S SHEEP FARMERS



Source: N. Barr, New Entrants to Australian Agricultural Industries, RIRDC, 2014

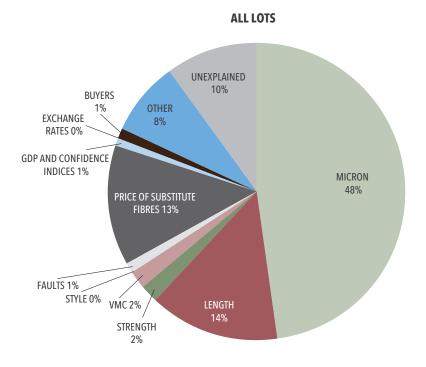


2.7 THE VALUE DETERMINING CHARACTERISTICS FOR WOOL

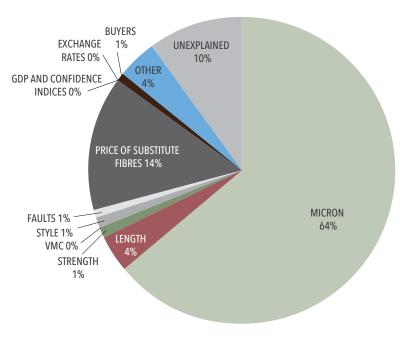
It is widely recognised in the industry that the value of wool reflects a number of its characteristics. Several of these are objectively tested by AWTA. There are also quality attributes which are assessed visually. The price of wool is reported by fibre diameter (micron) but it varies also due to differences in other characteristics.

Modelling work by Nolan (2014) indicates that micron, length and strength explain the majority of the value of the wool. This can be seen in Figure 15 below where the value of all wool lots and fleece lots are split up into their component contributions. The non-objectively measured attributes seem to account for a relatively small percentage of the value of the wool on average although they can be more significant for particular kinds of wool.

FIGURE 15. THE VALUE CHARACTERISTICS OF WOOL - ALL LOTS AND FLEECE LOTS 2008/09 - 2012/13



FLEECE LOTS



Source: E. Nolan, The Economic Value of Wool Attributes Phase 2, 2014.



2.8 IMPLICATIONS OF CHANGE FOR THE WOOL SELLING SYSTEM

These production and demand changes have had significant implications for businesses in the wool selling system. All activities along the Australian wool selling or value chain are facing adjustment issues in response to production and structural changes in Australian wool-growing.

As a result of these changes, the wool selling system has also experienced a good deal of rationalisation. There has been consolidation around the sector. There are now three selling centres, down from four in 2012/13 and from 14 in 1994 (AWEX Submission).

There have also been changes in the concentration of brokers and buyers. The number of wool exporters is said to have fallen dramatically over the past 20 years. In the past five years the industry has witnessed the exit of the last four 'corporate' or publically listed exporters. Private companies now dominate wool buying and exporting. As well as fewer buyers, the smaller volume of greasy wool has led to a greater concentration of buyers. The AWEX national buyers list for 2014/15 shows that 58 buyers operated at Australian wool auctions. Of these, the top ten buyers (on bales) purchased around 70% of the bales sold. This high proportion of purchases by the top 10 buyers indicates that wool buying is becoming more concentrated.

The number of brokers has also fallen from 49 selling at auctions in 2003/4 to 35 in 2013/14.

The demand for specific services such as AWTA Ltd testing has also been affected. AWTA Ltd fixed costs are a significant proportion of total average costs, and a volume decline impacts on average costs, and the cost plus price of testing services. The increase in the relative share of crossbred wools has also seen a decline in the demand for additional testing (for example, for length and strength).

A number of submissions commented that the infrastructure for the selling system is still geared for a much bigger clip. Several submissions noted that further rationalisation could occur, e.g. WoolProducers Australia, W. Freeman (second submission), R. Bell, D. Ritchie (first submission).



SECTION 3: THE WOOL SELLING INSTITUTIONS

Australian Wool Innovation (AWI)

AWI is a not for profit company established in 2001. It invests in R&D and marketing. AWI's goal is to enhance the profitability, international competitiveness, sustainability and demand for Australian wool. It also owns The Woolmark Company. AWI is funded through woolgrower levies determined by a poll of woolgrowers and matching Australian Government funds for eligible research, development and extension (Source: AWI website).

AWI has commissioned this review of the wool selling system.

Australian Wool Exchange (AWEX)

AWEX is responsible for establishing the auction procedures, although individual brokers are responsible for the conduct of their individual auctions. AWEX is responsible for delivering services associated with quality assurance and auction sales. These include selling systems, market information, auction selling business rules, wool preparation and wool pack standards as well as wool classer registration and education.

AWEX is an independent not-for-profit organisation. It was set up to facilitate self-regulation in the industry by providing the services required to support the trading of wool. It is funded by its members.

AWEX identifies its key service areas as:

- Developing recognised and trusted programs for wool quality and preparation that underpin wool trading including wool classer education and training, wool preparation standards, appraisal accreditation, wool pack standards and the National Wool Declaration Integrity Program (NWD-IP)
- Maintaining open and transparent systems for buyers, sellers and wool classers on wool quality issues including wool preparation and the NWD-IP
- Providing independent, credible and timely market information, market analysis and wool clearing (logistic) services
- Maintaining auction support services (rosters, selling arrangements) and auction sale infrastructure services.

AWEX notes that in addition to its quality assurance and market information activities it also undertakes key projects in collaboration with members and industry stakeholders that offer potential benefits to the wool industry (AWEX Submission).



Australian Wool Testing Authority (AWTA)

The AWTA was established in 1957 by the Australian Government. Its role is to provide accurate and impartial wool test results. AWTA was privatised in 1982 and established as a Company Limited by Guarantee to enable the functions of the statutory AWTA to be transferred to the private sector.

AWTA Ltd is structured as a Company Limited by Guarantee, without shareholding. A Board of Directors, representing all sectors of the wool industry, governs the operations of AWTA Ltd. The AWTA Board comprises independent directors as well as nominees of buyers, brokers, woolgrowers and AWI. The Members of AWTA Ltd are:

- Australian Council of Wool Exporters Inc (ACWE Inc)
- Australian Wool Processors Council Inc (AWPC Inc)
- Wool Scourers & Carbonisers Group of Australia (WSCA Group)
- Wool Textile Manufacturers of Australia Group (WTMA Group)
- Australian Wool Innovation Ltd (AWI Ltd)
- Private Treaty Wool Merchants of Australia Inc (PTWMA Inc)
- The National Council of Wool Selling Brokers of Australia Ltd (NCWSBA Inc)
- WoolProducers Australia.

AWTA's Articles prevent it from distributing any profits to its members. Instead, AWTA aims to minimise fee increases to the advantage of all stakeholders and to provide or fund other industry good activities (Source: AWTA submission February 2015).

AWTA has over recent years diversified into the testing of other agricultural products such as grains, hay, fruit, vegetable and processed foods.

AWTA is currently the sole supplier of testing services for wool destined for auction. Historically other agencies (SGS/Melton) have sought to enter the field but were unable to secure sufficient market share for a continuing and viable business. As well as having a well-established commercial position including operating scale, AWTA operates with an advantage over new entrants. AWTA's 'not for profit' status and thus its company income tax exemption give it a competitive advantage over any new rival. The wool testing market place is thus not competitively neutral.

The AWTA objectives are focused on ensuring minimised testing costs for woolgrowers. AWTA notes that it has been able to hold its fee rate increases at below the rate of inflation, at least until recent years.

However, the key issue is not whether fees have fallen or risen in real terms, rather it is whether the fees are efficient and whether AWTA has adequate incentives to develop new and innovative ways of doing things which meet the changing circumstances of the market and the needs of buyers and sellers. This issue is addressed further in Section 5.



SECTION 4: THE WOOL SELLING SYSTEM

The wool selling system extends from wool on the sheep's back on Australian farms through to finished garments on shelves in global retails outlets. The scope of the WSSR extends from the farm gate to the ship's rail at the Australian port of export.

The review does not look beyond the export process and does not look to investigate matters of processing, marketing or demand creation in off shore markets. The primary focus is to review the exchange of ownership between the woolgrower and the principal buyer, which, in most cases is the wool exporter or wool processor, but conceivably could be buyers later in the chain, including integrated processors and retailers, choosing to directly purchase their wool requirements.

FIGURE 16. WOOL SUPPLY CHAIN FROM AUSTRALIAN GROWERS TO OVERSEAS PROCESSOR

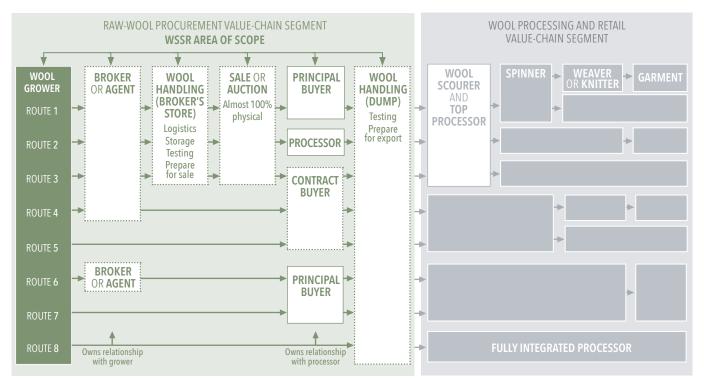


Figure 16 identifies the various steps in the selling system and the alternative routes that the grower can in theory take to sell the wool.

The vast majority of Australian wool flows from the grower to the market via the broker/auction route to market (as per Route 1 above) and accounts for more than 90% of wool sold. Routes 4 to 8 above represent alternatives to the traditional auction route to market, including private buying, mill direct and so on.

The scope of the WSSR sits within the "raw-wool procurement value chain segment". The Review Panel acknowledges that the scope above may not encompass every process, relevant cost and marketing option included in the area of review.



4.1 THE PROCESS OF PREPARING AND SELLING WOOL

4.1.1 Wool preparation

Wool is generally grown over a 10 to 12 month period depending on seasonal conditions. The bulk of Australian wool is shorn in the spring months although in the last decade a growing number of woolgrowers are choosing to shear in autumn.

Usually the regional wool selling broker or District Wool Manager (DWM) will pay a woolgrower a farm visit at least one month prior to shearing to discuss seasonal conditions and the current wool market. In addition, the broker may provide selling and risk management strategies as well as discuss marketing alternatives and selling charges. The focus of the broker's visit is to either service an existing relationship or ensure the woolgrower will utilise their services again, or to canvass a woolgrower who does not currently sell wool via that broker in an attempt to win new business.

At the time of shearing a woolgrower will employ the services of a shearing team, including a classer (unless the grower is an 'owner classer'), at least one shed hand and a presser. The size of the team and the amount of shearers will vary depending on the size of the woolgrower's flock.

Bales need to be marked and stencilled for identification purposes before leaving the farm to ensure they are lotted in the correct manner before sale. Each different line of wool will constitute a 'lot' which is a grouping of wool with similar characteristics such as fleece lines, pieces lines etc.

The average lot size in Australia is approximately five bales. Each new lot will incur specific charges, including sampling and testing by the Australian Wool Testing Authority (AWTA), industry levies and selling charges from the broker.

It is often the case that the DWM will also visit the woolgrower at the time of shearing. The DWM can provide feedback and direction with respect to classing depending on his/her experience and qualifications as well as an update on market information and selling recommendations. In many cases the woolgrower has already agreed to sell their wool with their chosen broker. In the event that the grower has not chosen a wool selling broker, the shearing visit can also be regarded as a canvassing call for new business.

During the shearing and classing process the woolgrower and/or classer will fill out the relevant paperwork including the classers report, the National Wool Declaration (NWD) and Dark and Medullated Fibre Risk (DMFR) Declaration where required.

4.1.2 Delivery and testing

At the completion of shearing, bales are pressed and marked (or branded). The wool is then trucked to the agreed broker's receival warehouse point. This can vary from the nearest regional location with a delivery point, to a major wool auction selling centre (Sydney, Melbourne or Fremantle) depending on which broker the farmer has chosen to sell through. Brokers can either charge the farmer for the local cartage or include this in the account sale invoice after the wool is sold, or the farmer can arrange their own cartage at their own expense.

Once in store the wool is subject to insurance costs and storage and handling costs that are invoiced by the broker to the woolgrower in the account sale invoice after the wool is sold.

The bales are core and grab sampled in store under the supervision of an AWTA operator to ensure the sanctity of the sample and preserve the identity of the wool from which it was drawn. The grab sample is sent to the tufting machine to draw staple samples that are sent to AWTA for testing of length and strength. The remainder of the grab sample is retained by the broker for display on the wool selling show-floor in one of the three major wool auction selling centres (Sydney, Melbourne and Fremantle).

The core sample is also sent to the AWTA laboratory for measurement of micron and yield as well as vegetable matter (VM). Test results are then transmitted back to the woolgrower (via their chosen wool broker) and the data is collated and inputted into the broker's wool selling catalogue (assuming the woolgrower is wishing to sell straight away).



4.1.3 Wool appraisal

Assuming a woolgrower chooses to take the wool directly to auction after shearing, the standard turnaround is approximately 3 to 4 weeks to get the wool from farm gate to auction show-floor.

The woolgrower's wool bales generally remain in the original broker warehouse receival point and only the indicative grab samples of each selling lot are required for display to allow the lots to be appraised and subsequently sold at auction in one of the three wool selling centres.

The wool-selling broker will lease an area of show floor space on which to display the woolgrower's lots in the form of a box sample. The broker will also prepare a sales catalogue (hard copy and/or electronic) which details the complete information about the woolgrower's wool lots including bales, micron, yield, VM, length and strength, position of break and other relevant characteristics.

The wool is then inspected on the show floor prior to sale by up to three parties:

- a. The wool-selling broker
- b. Australian Wool Exchange (AWEX); and
- c. The wool exporter or wool processor.

Each of the interested parties appraises the wool for a different purpose.

The wool selling broker will prepare the box samples for sale and inspect the wool at the same time to ensure the wool described in the catalogue is consistent with the physical box sample. In most cases the wool broker will have an AWEX accredited appraiser who will apply a subjective industry standard type valuation, known as an AWEX type, to the lot.

AWEX also inspects each box sample. They subjectively categorise each lot of wool by placing an AWEX type on each lot that describes the type of wool (fleece, pieces, bellies etc.), the style of the wool and makes mention of any abnormalities. The focus is to have a consistent typing system that allows them to feed auction prices into their market reporting system, which is one of the key functions of AWEX. Given that the wool broker's appraiser has already inspected each lot and applied an AWEX type, the AWEX appraiser will often be auditing the wool-broker's assessment rather than undertaking a full assessment of each lot.

The other area of focus for the AWEX wool appraiser is to ensure the wool presented conforms to the standard industry code of practice. The appraiser checks that the wool has been classed and prepared in accordance with the AWEX industry standards. Any lot that is deemed to have not met industry standards can be pulled from sale by the grower in consultation with their selling agent or branded a 'non-conforming lot' which in most cases will attract a discount at auction.

The wool buyer will appraise each lot to assess its suitability to the requirements of their overseas customer. In the case of a processor inspecting the wool they will appraise the wool to determine how it will perform throughout the scouring, top making and carbonising processes. These findings will help determine how much each exporter or processor is prepared to pay for the wool.

4.1.4 Price realisation

Wool auctions are generally held each week for at least 40 weeks of the year. There are selling recesses over Christmas, Easter and the 3-week 'off season' that generally falls in July. Auctions are held concurrently each week in the three major selling centres of Sydney, Melbourne and Fremantle and generally run over a two day period of Wednesday and Thursday.

Each wool selling broker will hold their own auction in the relevant selling centre and will arrange their own auctioneering staff. There are two auction rooms in each selling centre. 'Room 1' is generally the fleece wool saleroom and 'Room 2' is generally where pieces, bellies, crossbreds and oddments are sold.

Prior to the commencement of the wool auction the wool exporter's or wool processor's buyer will have prepared their catalogue which contains their wool appraisal, comments and valuation and their purchase price 'limit' to bid up to. There are more than 20 registered exporters with the Australian Council of Wool Exporters and Processors (ACWEP) and a lesser number of other non-members, all of whom can participate in the auction room.



Whilst the AWEX auction buying list shows that 59 companies bought wool at auction in 2013/14, it is important to note there is not the same amount of bidders present in the auction room. A growing number of exporters have chosen to use a commission buyer to value and bid for them and in some cases that buyer may hold limits and bid on behalf of multiple registered exporters or processors.

Table 1 indicates the 10 largest buyers now account for 70% of wool sold.

TABLE 1. THE CONCENTRATION OF BUYERS

		BALES	% OF TOTAL	CUMULATIVE %	
1	TECHWOOLTRADING	248,371	13.80%	13.80%	
2	FOX AND LILLIE	173,816	9.65%	23.45%	
3	CHINATEX	167,211	9.30%	32.75%	
4	AUSTRALIAN MERINO EXPORTS	122,220	6.80%	39.55%	
5	LEMPRIERE AUSTRALIA	117,172	6.50%	46.05%	
6	TIANYU	113,797	6.30%	52.35%	
7	P J MORRIS	96,998	5.40%	57.75%	
8	MODIANO	84,256	4.65%	62.40%	
9	KATHAYTEX (VIC)	74,875	4.15%	66.55%	
10	G SCHNEIDER	64,436	3.60%	70.15%	
	OTHERS	537,397	29.85%	100%	
	TOTAL SOLD	1,800,549	100%		

Source: AWEX, National Buyers list by Region, Week 52, 25 June 2015.

The wool broker's auctioneer will put up each lot for sale in the auction room and allow the various buyers to bid in an open cry system. The bidding process takes place with the auctioneer eventually selling the lot to the highest bidder. The sale is signified by the fall of the auctioneer's hammer. Normally an auctioneer will sell approximately 280 to 300 lots per hour. AWEX operatives attend the wool auction and record all sale prices in order to generate their daily market report.

4.1.5 Invoicing and payment

The terms and conditions of the wool auction system state that following the fall of hammer in the auction room the buyer (exporter or processor) generally agrees to pay for the grower's wool seven days from the Friday of the week of sale. This payment is made to the woolgrower's wool broker. The wool broker generally agrees to pay the woolgrower seven days after receiving payment from the buyer.

At the completion of the wool auction the broker will invoice the buyer for the lots they purchased from that broker's selling catalogue. In addition to the actual cost of the wool the buyer is invoiced the 'Post Sale Charge' (PSC) from the broker in the post-sale invoice. The PSC cost varies between brokers and will generally range from \$20 to \$40 per bale.

When the wool broker pays the woolgrower they issue an 'account sale' which incorporates the receivable for the value of the wool less a number of service costs including the 'broker service charge' (BSC), which is also known as 'brokerage', testing charges, insurance, industry charges (including the 2% wool levy), storage, local cartage (where applicable), lotting and other fees.



4.1.6 The export process

Once an exporter or processor has completed the buying of a contracted order and paid for the wool they can commence the export process, which is a key part of their service offering. Around 6% of Australian wool is processed at the scouring and carbonising plants located in Geelong, Melbourne and Adelaide. The majority (the remaining 94%) of wool is exported in greasy form.

In the case of greasy export the wool is ordered out of the brokers store directly into the dumper/packer located at the main ports of Melbourne, Sydney or Fremantle. At the dumper/packer the wool is generally dumped (or pressed) into high density units, in order to optimise the space within the container, and then packed into the container ready for shipment. Some greasy wool is packed into containers part dumped and some wool is packed without dumping (pack only). After the wool is containerised it is sent to the wharf. If the wool is to be processed locally the exporter will order the wool out of the broker's store for delivery to the processor. After processing the wool bales are generally sent to a dumper/packer to be dumped and packed as required by the exporter in a similar manner to greasy wool. The exporter is charged a fee by the dumper/packer for this service.

The exporter or processor will normally have pre-booked shipping space on a vessel and will instruct the wool dump to transport the packed container to the chosen wharf in order to meet the nominated vessel. In most cases, exporters or processors have pre-negotiated freight rates to global destinations with shipping companies. These rates are usually reviewed on a 6 or 12 monthly basis.

The exporter's shipping team will have generated all the necessary export documentation including the bill of lading, health certificate, certificate of origin and AWTA testing certification. In the case of a letter of credit (LC) before shipment payment term (which is most common in trade with China), the documentation will need to comply exactly with the LC.

4.2 SELLING ALTERNATIVES

There are a number of selling alternatives to traditional auction that are available to woolgrowers. These can generally be grouped into five categories: direct selling, private buying, physical forwards, forward basis contracts (cash settled against micron indicators) and online selling (currently performed by Auctions-Plus).

For reasons explored in Section 5 of this report, these alternatives appear to be underutilised.

The figure overleaf illustrates the process flow and relevant costs or each selling avenue. This raises the question to what extent do the reduced number of steps in some possible routes through the selling system represent cost savings that can be passed on to the wool producer.



FIGURE 17. SELLING METHODS IN WOOL SUPPLY CHAIN FROM AUSTRALIAN GROWERS TO FIRST BUYER

	RAW-WOOL PROCUREMENT VALUE-CHAIN SEGMENT													
	PHASE 1 PHASE 2 WOOL DELIVERY PREPARATION AND TESTING		PHASE 3 WOOL APPRAISAL		PHASE 4 PRICE REALISATION	PHASE 5 INVOICING AND PAYMENT		PHASE 6 EXPORT PROCESS						
	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7	STEP 8	STEP 9	STEP 10	STEP 11	STEP 12	STEP 13	STEP 14
WOOL SELLING PROCESS	Broker canvassing call	Shearing and wool preparation	Broker shearing visit	Delivery to broker store	Core and grab sample – AWTA testing	Wool presented on show floor	Wool inspected by AWEX and broker	Wool inspected by exporter	Wool auctioned	Exporter pays for wool within 7 days	Broker pays grower within 7 days	Wool dumped/ containerised	Wool railed to wharf	Wool shipped
RELEVANT COSTS	Travel cost	Shearing and classing	Travel cost	Wool transport costs	Wool sampling and storage fees	Show floor rental	Show floor staff and wool valuer costs	Wool buyer costs	AWEX & industry costs, broker man hours, BSC, PSC	7 days from fall of hammer	7 days prompt date	Per bale fee	Per bale fee	Exporters cost
SELLING Method														
TRADITIONAL AUCTION 14 steps														
DIRECT SELLING 8 steps								Optional			Scope to extend prompt			
PRIVATE BUYING 10 steps		Minimal skirting					Private buyer inspects				Scope to extend prompt			
PHYSICAL FORWARD 8 steps		Minimal skirting						Optional			Scope to extend prompt			
FORWARD BASIS CONTRACT 10 steps											Scope to extend prompt			

4.3 SELLING SYSTEM COSTS

In 2013/14, selling costs for wool – from the shearing shed to ship's rail at the Australian wharf (given that most wool is exported) – inclusive of levy, is estimated to total around \$0.95/kg greasy or \$167.00 per bale.

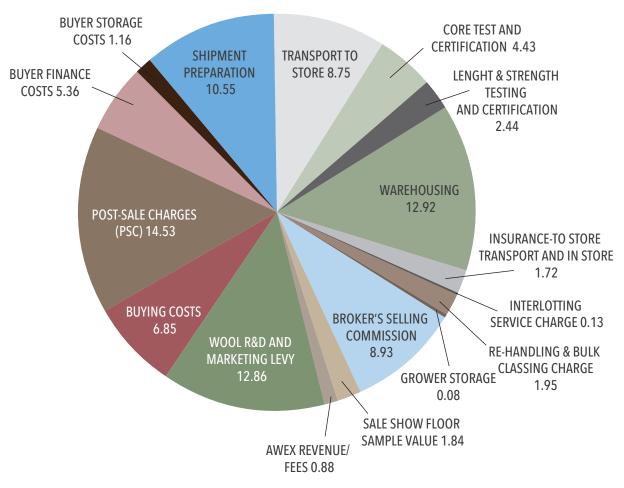
Figure 18 below provides a breakdown of estimated costs. It is also provided in table form in Appendix 3.

The wool levy is excluded (on the basis that it does not, of itself, reflect a selling activity. Rather, it is a levy to fund broad industry R&D and marketing). The average selling cost is estimated at \$0.82/kg greasy or \$144.64 per bale.

This represents just less than 12% of the value of the wool. In 2014/15 for a shorn wool clip valued around \$2.5 billion, the system selling costs can be expected to be a little under \$300 million. This reflects the direct costs and does not include the costs of opportunities foregone or reduction in competition as a result of limitations of the selling system.



SHEARING SHED TO SHIP'S RAIL COSTS 2013-14 (CENTS PER KILO GREASY)



Source: Derived from AWI interim analysis Sheep's Back to Mill.



SECTION 5: ISSUES RAISED IN THE REVIEW

Following a process of extensive consultation during the course of this review a number of issues have been raised with the Panel. These include:

- The prevalence of the open cry method of sale
- Reliance on sale by sample and whether there is scope for increased use of alternative approaches including sale by description and electronic selling
- Testing and appraisal of the clip and the role of the AWTA. The scope for on-farm testing as well as the lack of competition in testing services due in part to the tax status of the AWTA
- The need for multiple appraisals in the selling system
- The role of brokers and broker charges including the lack of visibility of the post-sale charge to growers before they select a broker
- The role of commission buying. In particular whether there may be a lessening of competition or a conflict of interest when a buyer acts for more than one client
- The need to further improve the efficiency of the system including by rationalisation of the selling centres and by increasing lot sizes
- The lack of liquidity in forward markets.

Each of these issues is addressed in the following subsections.

5.1 PREVALENCE OF OPEN CRY AUCTION AND SALE BY SAMPLE

The Panel examined the selling system to establish whether in its view there were failings or improvements that could be made. It approached its task primarily by looking for any barriers, constraints or market failure, which in any way might prevent the wool selling system from continuing to develop and improve to meet the needs of sellers and buyers.

There are essentially two views put forward in the submissions. One view put largely by brokers and exporters (e.g. NCWSBA, submission February 2015, New England Wool Pty Ltd submission, March 2015, PJ Morris, submission September 2015) is that while there may be room for some change, the current selling system is generally efficient, competitive and is the best way to sell wool. According to this view, the heterogeneous nature of wool and in particular its subjective quality characteristics require physical inspection of the product. The first buyer guarantees the wool and so display on the showroom floor with open cry auction provides the greatest certainty and the most efficient way to sell.

The low usage of forward selling and futures markets was raised in several submissions. In particular, the ACWEP submission made the point that forward selling several months in advance was a normal part of wool export trading in the past. This form of business lessened as China's share of wool exports grew. Most contracts for delivery to China do not include long term forward contracts.

An alternative view of the selling system, supported or suggested by submissions largely put forward by growers and grower organisations (e.g. NSW Farmers submission, WC Freeman, supplementary submission, D Pratley submission) is that the current system needs to take advantage of the development of new technology. There was also concern expressed by growers that the system remains geared for a much bigger clip and has not adjusted sufficiently to reflect a smaller industry. As a result, there is concern regarding excessive costs and inefficiencies in the selling system.

Growers are able to make decisions on the quality of wool they grow based on market conditions. Buyers and sellers can reach agreement on how they sell and buy wool. Open cry auction is the dominant way of selling wool but there is a small amount of wool sold by alternative means and in theory nothing to stop growers from choosing alternative approaches for selling their wool.



Despite this, the Panel found that there a number of market imperfections in the wool selling system. It faces transaction costs, complexity and a lack of transparency in some cases. These prevent the market from operating as effectively as it could.

The report has found that these factors act to slow or restrict the pace of change in the industry. It recommends a number of changes to improve the efficiency of the system and to enable alternative selling approaches where and when preferred by buyers and sellers.

The selling system, whilst effective, does seem to operate very conservatively and appears resistant to change. Almost all wool is sold by open cry auction; there is very little sold electronically. There is very little forward selling and there is no effective futures market. Almost all wool has samples physically displayed at selling centres and is appraised on multiple occasions, even though it is objectively tested for a number of characteristics. This is in contrast to other rural industries such as grains and beef where other forms of trading have been more actively embraced.

The Panel's view is that the structure, nature and history of the industry, including the institutional arrangements, have created some rigidities. These rigidities make the industry slow to adapt to change.

5.1.1 Why is change slow to occur?

Alternatives to the open cry auction could provide a range of possible benefits to growers. These could include the opportunity to lock in prices earlier, greater certainty in the price accepted by the grower rather than the uncertainty of the auction, the potential for a greater range of buyers to participate in the market with possibly increased returns and lower costs of selling. Alternative selling systems might also promote new and beneficial buyer-seller relationships which in turn could lead to innovation in the way wool is grown and marketed.

In the Panel's view there are a number of factors which go some way towards explaining the lack of take-up of alternative selling systems. Of particular importance is that the current selling arrangements give growers little effective choice as they face high transaction costs to go outside the main selling system. A grower needs to be highly motivated and be prepared to incur costs including time, effort and related costs to overcome the information deficiencies he/she may have concerning other selling options.

Growers usually rely on brokers' warehousing and storage facilities and send their wool there before testing is undertaken. There is a lack of opportunity to test wool before it enters the broker's facilities. Growers find it difficult to test on-farm due to the costs involved and the need to maintain the integrity of the testing system.

A grower can undertake sampling and send it for testing by AWTA. The savings from doing this are likely to be minimal and the grower will not receive the same level of certification from AWTA for the wool tested. That means that the grower is bearing increased risk and may confront a price penalty in the market for a lower level of certification. On-farm testing may be feasible for a very large grower who has an ongoing relationship with a processor but is not likely to be feasible for the bulk of growers.

Having chosen the traditional broker-auction pathway, many growers tend to have made their marketing decision before they know their test results. At this point, they are less likely to adjust their strategy and instead will most likely remain with their existing marketing strategy.

Growers also have difficulty in assessing what it costs them to sell within the existing system compared with the alternatives. There is a lack of visibility of some charges, particularly the PSC and other charges such as trucking costs to the point of export (the dump) which are reflected in the sale price which the grower receives. There is also a wide variation in the way brokers set their charges. All this makes comparison of broker costs and offerings more difficult.

Complexity is added by the heterogeneity of wool where a number of factors, some of which are subjective, determine the value of the wool. The grower is in part dependent on the broker to determine what returns he/she is getting for the various quality attributes of the wool. This makes it more difficult for some growers to assess the value which they may be getting from their brokers and to be able to make effective assessment about the alternatives.

This is likely to be particularly problematic for the large number of small growers presenting small lot sizes. For them the transaction costs of going outside the open cry system can be quite high and can have a high level of uncertainty. They can sell by private treaty but usually they will need to make that decision before choosing a broker and testing their clip. On the other hand, the auction system is known and understood and it provides prompt and secure payment.



As one submission (J. Coughlan) put it:

"The reasons why "Route 1" accounts for ninety percent of wool sold in Australia is because it is the quickest way to get paid, is a very secure way of receiving payment, requires less time input from the grower, it does not take long to get test results back on your wool and logistics are normally handled by our broker. Growers are never actively encouraged to go outside this route and are never given networks to operate in to set up these pathways so it is very difficult to embark on such a journey."

The transaction costs of pursuing alternatives combined with the decline in the industry (now around a third of what it was at its peak), the large number of small growers for which wool only forms a part of their farm output all make the impetus for change slow and patchy. The past two and a half decades has been a period of contraction and consolidation. This has not been conducive to innovation in testing and selling.

As a result the method of selling wool appears to have changed little over the decades. While other sectors have embraced new technology, the take up by the wool sector is patchy and slow. Despite various attempts over the years, electronic selling, sale by description, and the development of forward and futures markets operate very much at the fringes of the selling system.

Electronic selling, whilst available, is still very small and usually involves wool which has been passed in at auction and has already incurred all the costs of the open cry system.

This does not mean that change won't occur. Indeed, some point out that changes are occurring. However, the factors which have made change difficult will mean that without industry leadership, change will continue to be too slow.

The question for the industry is whether there is a case to act to accelerate the process of change. In addressing the question, the Panel is acutely aware that it should not try to specify the ideal selling system. However, the Panel believes that some industry action that helps to provide growers with better information and choice on their selling options is necessary.

The view of the Panel is not that industry should attempt to replace the current system with an electronic alternative. Nor is it making judgements about the efficiency of one selling system over another. Rather, it is that the system should provide genuine choice and allow for flexibility so that the changing needs of sellers and buyers can be met. New and innovative approaches should be able to benefit growers and buyers. It is for these reasons that the Panel believes that its proposal for a Wool Exchange Portal can be of real value in promoting choice in the selling system.

The Panel recognises that any change to the selling system cannot and should not be imposed and requires cooperation by a number of industry bodies and institutions as well as demonstration of industry net benefits.

5.2 TESTING AND APPRAISAL

The value of the wool clip reflects a range of characteristics which are valued by the buyer and embrace its quality and performance. These include fibre diameter (micron), length, strength, breaks and vegetable matter content in the wool. The wool is independently tested by the AWTA and the results are made available to buyers.

5.2.1 Testing

The Panel is conscious that the selling system should provide as much certainty as is cost effective to the buyers of the wool on the characteristics that matter to them. Uncertainty concerning the quality of the wool is likely to result in a discount in the price achieved.

Independent testing will continue to be an important part of future wool selling systems. It is important that testing is responsive to the needs of buyers. The Panel received no evidence that suggests that the current tests are not appropriate. There seems to be widespread acceptance of them in the market and the modelling work done (Nolan 2014) suggests that the characteristics which are tested are important explanators of price variation.

AWTA noted that it alone is involved in R&D of wool metrology. The decline in the clip, together with AWTA's position in the market, has meant that others who were involved have vacated the field.

The Panel's Discussion Paper raised the question of on-farm testing and concern that the lack of competition to AWTA due to its tax status may be hindering the development of lower cost, alternative measuring equipment.



The ability to test on-farm would enable growers to make choices about their selling arrangements before they sent their wool to a broker. It would provide growers with additional information earlier which would help them in deciding how they market their wool.

When the Panel initially canvassed this assessment, AWTA made the point that it can conduct on-farm sampling activities whenever and according to whatever method its customers require. This includes certification testing, guidance report testing for private treaty, individual fleece testing for wool growers and on-farm testing for growers/cooperatives. However, on-farm testing which produces test results for all parameters equivalent to those in a laboratory may be possible in limited circumstances but costs may exceed the benefits (AWTA September Submission). AWTA noted the need to cater for the integrity of tests.

It is important that testing is done as efficiently and as cost effectively as possible. The testing regime should reflect the characteristics which buyers value and which may change over time. The testing system should enable the selling system to match the needs of buyers and sellers in the way which best meets their needs.

Ideally the grower should have the results of the tests as early as possible within the selling process so he/she can then be in position early to make the decision on how and when to sell. The ability to test on-farm would enable growers to make choices about their selling arrangements before they send their wool to a broker. It would provide growers with additional information earlier which would help them in deciding how they should market their wool.

The Panel understands that widespread testing is not likely to be financially viable for a large number of growers given the current testing technologies. On-farm sampling which is then tested by AWTA is not likely to be attractive to the large majority of growers. Any small amount saved is offset by the change in the status of the certificate which can be expected to result in a discount if selling by auction.

The Panel also accepts that AWTA aims to provide an objective and effective testing regime for the wool industry. However, for the larger producers of wool, on-farm sampling and even testing may be commercially viable. As was indicated earlier, the largest 20% of wool producers produce around 64% of the clip. Larger growers may be inclined to examine these options as long as they are not discouraged by pricing options offered. It is also possible that developments in technologies may over time provide further options. It is important that the structure of the testing sector and in particular the competitive environment should not hinder innovation and the possible development of alternative options.

5.2.2 AWTA's tax status and tax neutrality

AWTA does not have any legislated monopoly over the testing of the wool clip. However, AWTA's tax free status and its incumbency within the industry mean that it does not face effective competition. Despite the best intentions of AWTA, it is not clear that incentives are aligned to deliver efficient innovation for growers and buyers.

AWTA has argued that it aims to keep costs to growers as low as possible. It indicated in its first submission (AWTA February Submission) that its charges have grown much more slowly than inflation. It also notes that its Board represents the various industry stakeholders and so it has the objective to keep fees low.

The Panel recognises that AWTA has sought to restrain increases in its charges. However, as AWTA does not face effective competition, it is difficult to know just how efficient its operations are and whether growers derive good value for their wool testing outlays.

More importantly, the lack of competition has a detrimental effect on innovation. This is not to question AWTA's commitment to its objectives. Competitive pressure often provides the incentive and the urgency to find alternative ways of doing things.

The Panel therefore considers that AWTA should face a competitively neutral position to that of any potential competitor.

There are two ways by which this could be done. The first option is to structure AWTA as a tax paying company. The alternative is for AWTA to retain its current tax free status but it should be required to operate in an economically neutral way. It would be required to earn a commercial return on capital invested and account for a tax equivalent payment.

The return on capital and the tax equivalent payment should be accounted for separately by AWTA and should not be used to cover its operational expenses. It should be used in research and development which aim to reduce the cost and continue to improve the testing regime.



The implication of such a change might be some upward pressure on AWTA charges in the short term. In the first instance AWTA should continue to seek operational efficiencies to achieve such returns. It should also ensure that the structure of its charges reflect its costs. Over the longer term this will provide greater potential for competition to emerge and to provide some growers with alternative approaches. For some larger growers increased on-farm testing may become more viable.

Of the two options, the Panel prefers the second one as it would be administratively simpler. The Panel understands it could be implemented without legislative change. It also has the advantage that it would be easier to pursue another recommendation further in the report which proposes the merger of AWTA and AWEX as they both have not-for-profit status. This option would also retain the tax equivalent payment to be used for the benefit of the industry.

Conclusion and recommendation

The Panel recommends that AWTA be required to operate in a competitively neutral way. This should be done by requiring AWTA to earn a commercial rate of return on its investment and a tax equivalent payment which should be accounted for separately and not used for operational expenditure.

5.2.3 Appraisal

Wool is also appraised for more subjective quality attributes. The wool sample is usually appraised on three different occasions. First, by the broker who makes an appraisal using an accredited appraiser. Second, AWEX appraises for reporting purposes and also to audit the wool broker's valuation. Finally, the sample is appraised by the first buyer to assess its suitability for their overseas customer.

The grower receives a price for the wool which reflects among other things the quality characteristics of that wool. However, the price is not disaggregated. While price differences for different micron measures are reported, the grower can only infer the returns which accrue from the various attributes of the wool.

Modelling work done on the returns to different attributes (Nolan 2014) shows that, on average, the subjective quality attributes appear to account for a relatively small proportion of the price of wool. The proportion may be higher for particular kinds of wool such as superfine wool at one end of the spectrum and non-fleece bales at the other end. By contrast, micron measurement plays a very significant role in the value of the wool especially for fleece lots as was shown in Figure 15.

The Australian Council of Wool Exporters and Processors and a number of end users have emphasised the importance of access to the sample. Exporters stress that as they guarantee the wool, they need to appraise the sample. In their submissions, Sistema Moda Italia and the Italian Wool Trade Association state that without a real and tangible guarantee the Italian market needs to value the sample in order to meet the requirements of the class of products that they manufacture. Similarly end users Motohiro and Co Ltd from Japan, the Ming Ho Wool Company from Taiwan, G. Schneider Australia and Modiano Australia all expressed concern over changes that may reduce the quality of the preparation of Australian wool or which removes the guarantee provided by the exporters.

Visual inspection of the wool sample is clearly important to some buyers due to the risks they face should the wool processor reject or have difficulty with the product they receive. Not surprisingly, these buyers insist that a complete system must cater for sample inspection, although it is unclear if these attitudes prevail for all wool purchased.

The issue in question is not about removing appraisals for those who value and need it. The issue which the Panel sees is twofold. First, the selling system should provide effective alternatives for those who do not need physical appraisals to buy and sell. Benefits to growers and others are foregone if the selling system effectively excludes alternatives which might be better suit their needs. Second, the selling system, by effectively leading almost all sellers down the full appraisal path, may incur unnecessary costs for some.

Almost all the wool sold is physically appraised several times. There are costs involved in this for brokers, AWEX, and for buyers. Costs are involved in the provision of the floor space, storing and making the samples available and from the actual appraisal.

While the selling system should be able to cater for those who need the added certainty of a visual inspection, it appears that the system provides what might be described as a 'gold plated' or 'Rolls Royce' system. This involves objective testing, physical display of the sample and multiple appraisals including by the broker, by AWEX who audits the broker's accredited appraiser and then ultimately by the buyer.



The Panel questions whether this is necessary for all sales. Examination of the data indicates that the objectively measured characteristics (micron, yield, length and strength, vegetable matter etc) are significantly more important for determining price. Some types of wool, such as fleece lots for which the objective characteristics are relatively more important, could be sold without appraisal. Indeed, the wool stockpile which was built up in the eighties and disposed of following the collapse of the Reserve Price Scheme was largely sold without physical appraisal at the time of sale.

For those who may want to explore selling without sample it seems clear that this could be done by open cry auctions, through electronic auctions or offer boards or by private treaty. The development of digital camera technology is now bringing images of wool online. The Panel is aware that at least one broker is using this technology (Bryton Wool submission). This may still be regarded as an imperfect substitute for a physical appraisal at this time but the capacity for technological change to bring continued improvement should not be ruled out.

The Panel does not consider that it should in any way adjudicate over the alternatives. Rather, growers need to be aware of the alternatives and their implications and the options should be genuinely available to them.

The Panel questions the need for multiple appraisals. While appraisals by the buyer is a matter for them and should continue to be available as required by buyers, it is not clear that appraisals by both the broker and AWEX are necessary. AWEX could undertake the task of confirming that what is in the sample box is what is described in the catalogue. This may be a matter of increasing grower awareness of the possibilities and may increasingly come about as alternative selling approaches are tried.

Conclusions and recommendations

The Panel concludes that the selling system should encourage greater diversity in the selling of wool. The available evidence is that the characteristics of wool that determine its price can be largely objectively measured. Buyers may want the assurance of an appraisal due to the uncertainty of the characteristics that cannot be tested. As long as there is demand with the market willing to bear related costs, the selling system should continue to provide this service. However, it is not clear why that should be the default position for all wool, particularly if technological progress brings improved digital photographic data and/ or there is no need for subjective sample data for the wool of interest.

While, in principle, there is nothing to stop buyers and sellers making changes to these arrangements, the rigidities within the system discussed above make it hard for many growers to pursue alternative selling approaches.

The Panel recognises that change in this area cannot be imposed. Rather the way forward is to try to provide better information and more choice to growers as well as buyers.

The development of a Wool Exchange Portal, as discussed further in this report, aims to help overcome some of these barriers. It could assist growers by providing a one-stop-shop for their selling options. It could provide greater transparency and better information on their options and allow them to more easily pursue other selling options that may better suit them.

5.3 ROLE OF BROKERS AND BROKER CHARGES

Brokers play a very important role in the wool selling system. Some 90-95% of Australian wool is handled and sold by wool brokers. Around 85% is sold at open cry auctions (NCWSBA submission). Brokers act as agents for growers; they are the auctioneers; they arrange for the transport, handling and storage of wool; they operate 35 wool warehouse locations around Australia and the three selling centres. Brokers' handling and selling charges plus the post-sale charge make up more than 50% of the selling system costs.

Australia's wool growers have a very high level of reliance on brokers.

The National Council of Wool Selling Brokers of Australia (NCWSBA) has made the point that the Australian wool broking industry is fiercely competitive in an environment of low wool production volumes. It notes that brokers act on the instructions of growers and that broking companies offer a variety of different service levels to growers.

Brokers have seen rationalisation including amalgamations and acquisitions. There has been a decline in all three selling regions from 49 in 2003/4 to 35 in 2013/14. (NCSWBA submission).

There was relatively little comment in submissions from growers on the role of brokers and their services other than concern about the post service charge. Submissions from the NSW and Victorian Farmer Federations and



some growers expressed concern that the charge which ultimately falls on growers is not visible.

The Panel nevertheless looked closely at the various stages in the selling chain. It reached the view that the combination of the requirements of the testing system; the extensive role of brokers including the array of charges which make like for like comparison difficult; and the heterogeneity of wool where price can vary due to a number of characteristics make it difficult for growers to compare the costs and benefits of various broker services and the potential benefits of alternative selling systems.

Under the current system growers will usually select a broker and take the wool to the broker's facility where testing can take place. There is a wide variation of broker's charges. The PSC is deducted from the bid price on each wool grower lot as are the trucking costs to relocate the wool to a shipping port is also subtracted from the bid price and can vary greatly. This can lead to diverse outcomes and make it difficult for the grower to assess the costs and benefits on offer from different brokers and indeed from alternative approaches.

For the large number of small buyers, the transaction costs make it difficult to assess all the relevant alternatives. For this reason the Panel believes that a central electronic portal that provides the range of alternatives and helps to makes comparisons easier will be a significant aid to growers.

The Panel is also aware that there are a small number of large growers who account for the majority of the clip. As figure 12 shows, the largest 20% of growers account for 64% of the clip. This group of growers is more likely to have the resources to pursue the various alternatives. However, even for this group the average revenue from their clip is estimated to be around \$250,000, although it can be substantially more at the top end of the distribution of farmer wool returns.

5.3.1 The Post Sale Charge

The concern that the grower does not see the PSC charge upfront was raised in a number of submissions including by the NSW and Victorian Farmers Federations and by some growers.

In its submission the NCWSBA argues that the wool broking industry is not unique in charging both seller and buyer. It notes that this also occurs in auctions in other sectors and that there is no legal or economic reason why charges should be imposed only on one side of the market.

The Panel understands that in some markets charges can be efficiently imposed on both sides of the market (these are referred to as two sided markets), and the wool auction system does appear to be such a market. However, the Panel does have some reservations. The wide variation in the way brokers apply their charges combined with the heterogeneity of wool makes price comparisons more difficult. Prices of wool vary due to many factors while broker charges also vary greatly. This makes it much more difficult for a grower to assess the balance of charges, including the balance of the upfront and post-sale charges.

Conclusions and recommendation

The Panel recommends that the post-sale charge should be transparent and should be made available to the grower before he makes a decision on his broker. In addition, the Panel believes that a broader solution is also required to make comparisons easier for growers to assess the charges that they face and the services they receive. It recommends that this should be an important function of the proposed WEP.

5.4 COMMISSION BUYING

Commission buyers are a feature of a range of Australian rural product markets, including the wool market. Commission buyers can be described as individuals or businesses bidding on behalf of one or more principals at the same time. They might purchase through auctions or private (direct from producer) transactions.

Commission buyers operate because of the transaction costs for principals (e.g. wool processors, sheep/ cattle producers purchasing stock, meat processors) attending an auction are too high or the knowledge required to participate is too demanding for the principal of a business to participate themselves. Hence, the principal may use traders or commission buyers.

Aspects of the market (auctions in particular) where commission buyers are likely to operate include the following:

Auctions are held at some physical site where it costs a principal time and expenses to participate



- The sale items (some or all) are not able to be fully described and hence some degree of visual inspection is required
- The requirements of individual principals are sufficiently different to enable a commission buyer to adequately represent the cross section of interests and thus avoid clashing.

Commission buying in the wool sector operates in one of two ways. In some cases, parties who wish to buy wool may commission an independent buyer to buy wool on their behalf. In other instances exporters who do not have a buyer operating in a sale room may seek to utilise another exporter's in-house buyer.

The concern of wool producers is that commission buying may lessen the competitive tension at auctions since there are fewer buyers operating in the auction room and more specifically potentially fewer buyers operating on individual sale lots.

In addition, commission buying may have an impact on individual exporters' commercial decisions. For example, where one exporter contracts commission buying from another competing exporter, the knowledge of that buying activity may prompt the exporter providing the service to defer buying where possible to reduce competition on wools of similar quality that they are also interested in.

Concern over Commission buying was also raised by AWEX and the wool brokers (NCWSBA). AWEX in its submission said:

"AWEX is aware of expressed concerns over potential conflicts of interests with buyers holding multiple buying limits. This issue has been raised by broker members with AWEX on several occasions. However, AWEX has no evidence to suggest that is reducing prices of wool" (AWEX Submission).

The NCWSBA noted that

"It and its member companies considered that there is strong competition between buyers in each auction room. ...

Nevertheless NCWSBA has some concerns about individual buyers holding orders for too many processors clients" (NCWSBA Submission)

The number of buyers operating at Australian wool auctions has declined substantially in the past 25 years. This reflects the contraction in the demand for and supply of Australia wool, coupled with the concentration of buying to a smaller number of processing interests.

There are economic factors driving the use of commission buying, namely the higher transaction costs of direct participation of downstream principals (processors). In some cases it can increase competition if it enables buyers who might not otherwise be able to participate in an auction to take part.

The Panel recognises this, however aspects of commission buying as it appears to be occurring does give it some concern.

The fact that a commission buyer is acting for more than one bidder at a time does give rise to the possibility of conflict of interest. Furthermore, it also puts a buyer in a position to potentially influence the level of competition in the auction. This becomes a greater concern with increased concentration of buyers.

The possibility that a buyer is using the services of a potential competitor in an auction to buy its wool and in the process may be providing information on the price it is prepared to bid and the quantities and quality it is seeking to purchase raises additional concerns. It raises concerns as to whether such conduct could risk breaching the *Australian Competition and Consumer Act*.

Conclusions and recommendations

Both the conflict of interest and the competition issue are complex and involve economic and legal considerations. The Panel considers that relevant parties would be advised to take appropriate advice over these arrangements. It also recommends that AWEX reviews its arrangements to ensure that amendments to governance arrangements promoting competition are not required.

In any case the Panel is of the view that to avoid the concentration of buyers affecting the level of competition and prices received by woolgrowers, further change should be introduced to the selling system. In particular, changes that reduce participation costs should be pursued through the development of the Wool Exchange Portal which can facilitate the development of electronic selling systems and alternate selling options.



5.5 ROLE OF AWTA AND AWEX

The respective roles of AWTA and AWEX were raised in a number of submissions. The argument was made that given the decline in the clip and the kind of services that they provide, it makes sense to combine the two organisations. For example the submission from the Private Treaty Wool Merchants of Australia stated that "... serious consideration needs to be given to a merging of AWEX and AWTA activities to create a single Australia wool standards and technical organisation..." (PTWMA submission).

It noted that:

'Both organisations provide standards/regulatory services that are an integral part of the exchange of ownership of Australian wool.

AWTA has a strong technically trained R&D group whose services would be available to AWEX.

....AWTA has a presence in all sampling services that AWEX could draw on.

Savings should arise from merging corporate services and IT development functions.'

Similar arguments are made in the ACWEP submission. The NCWSBA also believes that there would be cost savings and synergies from the merger of the two organisations. It also recognises that there would be some practical difficulties to overcome in achieving a merger of the two organisations such as the need to achieve the minimum 75% agreement from each AWEX member category.

WA Farmers recommended that AWTA should take over the functions of AWEX together with other sectors of the industry to eliminate duplication and reduce cost to wool producers (WA Farmers Submission).

Others noted the issue but did not express a view (e.g. Australian Superfine Woolgrowers Association submission), while some had a preference for keeping the functions separate (e.g. submissions by A. and J. Farran). Another was concerned that AWTA may have less commitment to transparency (Independent Commodity Services).

In their respective submissions both organisations addressed the issue. AWTA was open to the possibility of combining the operations of AWTA and AWEX and referred to a previous attempt to do so in 2007. It noted that if such a proposal had gone ahead "... it may have provided the industry a significant reduction in the costs of overheads, the ability to easily integrate activities, and a broader based platform for potential industry based innovation" (AWTA submission).'

AWEX also noted that there would be cost savings but was concerned that "...these savings might be eroded by relocation costs, losses of key staff, loss of skills and loss of corporate knowledge" (AWEX Submission).

The Panel's view is that given the complementary roles that the two organisations play there is the potential to gain synergies and cost savings, especially given the decline in the clip, from a merger of the two organisations. The industry should reactivate the process to try to achieve a merger of these two bodies.

Both organisations recognise the possible savings that such a merger would bring. Both organisations and some of the submissions above recognise that the activities of the two organisations complement each other. It is notable that AWEX is a relatively small organisation with a staff of less than 20 and an annual income of around \$3.5 million. The Panel is of the view that the economies achieved by a merger would assist in improving the provision of services required to support the trading of wool.

The Panel recognises that there are difficulties that need to be overcome in achieving a merger. It also recognises that such a merger might potentially further entrench AWTA's effective monopoly in the testing of wool. However, such issues are better dealt with through the specific proposals it recommends by requiring that AWTA operate in a competitively neutral environment and through the development of the WEP which aims to facilitate alternative approaches to selling wool.

AWTA is also involved in providing services outside of the wool industry. These activities are still relatively small compared with its wool testing activities. If a merger with AWEX was to go ahead, it would be desirable for these activities to be kept separate. This could be done by keeping these operations in a separate holding company.



Conclusions and recommendations

The Panel believes that there are synergies and some cost savings available from the merger of AWEX and AWTA. It recommends that the AWTA and AWEX Boards reactivate talks on a possible merger of the two organisations.

5.6 EFFICIENCIES IN THE LOGISTICS CHAIN

A number of submissions received by the Review made the argument that the infrastructure involved in the selling chain is geared for a much bigger clip and needs further rationalisation. In particular, further centralisation of selling centres was identified as a desirable means to realise additional cost savings. The need to increase lot sizes was also raised by many as a significant issue.

5.6.1 Centralisation

Centralisation can be a means of achieving cost savings and other benefits such as greater competitive tension in the auction, and better opportunities for training and development. Centralisation was seen as providing possible benefits by a number of submissions eg WoolProducers Australia, VFF,WA Farmers, R. Bell, Australian Merino Exports and United Wool Company Pty Ltd). Some submissions, however, such as the NSWFA and New England Wool Pty Ltd were more circumspect or did not support such a move. WA Farmers qualified its support in a later submission.

There has been significant centralisation of auction sales in recent years. The ACWEP submission provided a historical perspective which showed that there were significant cost savings from earlier centralisation efforts. The adoption of pre-sale testing, sale-by-sample and the ability to move samples at a relatively low cost to central areas for valuing meant that buyers (and brokers) no longer had to travel to regional centres to value the wool samples. Wool bales could be stored in cheaper regional locations until called for delivery.

This led to progressive centralisation of wool selling centres from 13 to the current three, in Sydney, Melbourne and Fremantle.

Of the total 1.64 million bales sold in east coast auctions in 2013/14, 36% and 64% were sold in Sydney and Melbourne respectively. On a lots sold basis, the distribution was 41% and 59% respectively.

The ACWEP submission also noted that "Centralisation is the issue on which there is the greatest variation among buyers' views" and that the 2009 Australian Farm Institute analysis⁴ found that "the distribution of support for greater centralisation was strongly bimodal, with most responses either strongly for or strongly against. Relatively few responses were neutral".

Further the ACWEP submission reported "the principal outcomes of the concluding meeting of interested parties in 2010 in Sydney were that there should be no industry led move towards further centralisation. Rather, any such move should be initiated by commercial operators".

The Australian Farm Institute review of further centralisation estimated the cost savings (2009 dollars, based on 2007/08 sale volumes) as follows:

\$2.4 million for the 3-centre model (from the then 5-centre model to the now (2015) 3-centre model), \$6.1 million for the 2-centre model, and \$7.2 million for the 1-centre model (suggesting a saving of \$4.8 million in moving from the current 3-centre model to a 1-centre model).

Transitional (one-off) costs were also identified for alternative wool selling models.

Over ten years, the net present value was estimated to be \$15.5 million (3-centre model), \$37.4 million (2-centre model) and \$43.0 million (1-centre model); suggesting a saving of \$27.5 million in moving from the current 3-centre model to a 1-centre model).

In 2015 terms (that is, adjusted for inflation using the CPI) the savings in moving to a 1-centre model would be around \$5.4 million per annum or \$32 million over 10 years.

4. Australian Farm Institute, The Costs and Benefits of Alternative Selling Arrangements for Australian Wool, 2009.



Significantly, the AFI analysis focussed on only the cost savings from centralisation. They made no assessment of the potential for increased returns due to the increased competition in moving to one selling centre. However, in the Foreword, it noted that:

"The Australian wool selling industry is complex, and composed of many different organisations that both cooperate and compete with each other, which generally means that consensus is required before substantial industry change can occur.

The profit and investment-killing inertia this imposes on the wool industry is never more evident than at the present time, when there is widespread industry recognition of a need for change, but little agreement on the nature of that change.

Some argue that changes to wool selling arrangements are unnecessary, because in total the costs of the wool selling system represent only a relatively minor component of the total value of the industry. This argument ignores the crucial role the wool selling system plays in transferring information between buyers and sellers, and the catalysing impact of the requirements of the wool selling system on long-term investment decisions by wool producers, and the international wool processing, textile and garment manufacturing businesses which play such an important role in transforming wool and placing it into the hands of consumers."

Since 2007/08, there has been a continuing fall in wool production, suggesting that the gains (from cost savings) may be greater today than when they were estimated in 2007/08.

Centralisation would also generate additional costs such as greater transportation costs for some samples and adjustment costs associated with changes in brokerage businesses and these could be expected to erode at least some of the benefits on offer. However, it is also likely to have substantial other benefits.

Bringing all buyers and sellers together in one arena is likely to enhance competition and may result in higher prices for growers in some cases. It may also make it easier to achieve other efficiencies such as bringing small lots together. It would also help address the problem of bidders using rival's buyers in some selling centres when it is uneconomical to have their own.

Conclusion and recommendations

The Panel believes that further centralisation may benefit the industry by reducing costs. It is also likely to be beneficial in strengthening competition at auctions, and could address the potential problems of commission buying as well as assist in creating greater opportunity to increase the size of small lots without diminishing quality.

The Panel recognises that it is up to commercial interests to determine where and when it organises its selling. However, it recommends that AWI encourage discussion on this matter by industry participants. It is also of the view that the establishment of a WEP will provide a significant impetus towards centralised selling.

5.6.2 Lot sizes

The problem of small lot sizes and the costs they impose on the selling system was raised by many submissions. ACWEP commented that in 2013/14, 21.4% of all lots include only one or two bales (ACWEP Submission, March 2015). NCWSPA commented that there has been a small increase in lot size in the 2014/15 season but this is below the target that industry should aim to achieve. (NCWSPA Submission, February 2015).

One submission made the point that on any week, one third of lots are equal to or less than three bales. This means that 30% of wool appraisals represent only 10% of the wool offered in a week (Tianyu Wool submission).

Part of the problem may be a natural concern by growers that their wool is not combined with lower quality wool. Interlotting should be of similar quality wool. It is possible that the classing system may contribute to the difficulty in achieving bigger lot sizes. The point was made by the ACWEP submission that analysis conducted by them and PTWMA identified 5,763 different wool descriptions used in 2013/14. Of these, 3,940 descriptions accounted for the last 1% of all lots.

The Panel understands that these issues are being considered by the current Review of the Classing Code of Practice.

There appears to be widespread acceptance in the industry that increasing the average size of smaller lots is desirable and would result in reduced handling costs. The concern that was raised by NCWSBA is that in aiming for larger lots the industry should avoid having mixed types of wool in the larger lots. That would bring complaints from Australia's mill customers.



The need to increase the size of smaller lots appears to be widely recognised within the industry. There is in principle nothing to stop that from happening now. The concerns appear to be practical ones, in particular the need to avoid mixing of varying quality wools and the associated price penalties and reputational damage for doing so. The very large number of wool descriptions used may also add to the challenges to be addressed in this regard.

An increase in the size of small lots of similar quality is likely to be of benefit to the industry. It would reduce a range of costs. It would reduce testing, display, appraisal and auction costs.

Conclusion and recommendations

The Panel encourages steps to increase the size of small lots of similar quality. It notes the current review of the Classing Code of Practice which may assist. Moves towards greater centralisation and the establishment of the WEP should also provide greater opportunities for increasing lot sizes. It also recommends that pending the outcome of the current Review of the Classing Code of Practice, AWEX should establish a working party involving industry participants to develop guidelines for increasing lot sizes.

5.7 RELIANCE ON THE TALMAN SOFTWARE

The Talman software is central to recording and managing most buyers' lot building and ordering out from brokers. As Talman outlines on its website:

"More than 75% of the wool industry in Australia and New Zealand uses Talman software solutions. These wool-management solutions span public and private auctions, private sales, delivery, dumping and local or overseas processing." ⁵

The Panel understands from both consultations as well as submissions that while users were generally satisfied that the Talman Solutions' product met their current requirements there were some concerns. The software has been described as 'antiquated and inflexible' (New England Wool submission) while the ACWEP submission noted that some exporters have expressed concerns about the quality of Talman's services and the time taken to respond to requests for change.

The Panel is of the view that the wool industry's heavy reliance on a single provider of this crucial piece of infrastructure represents a significant risk for the future.

In response to the Discussion Paper, Talman's submission indicated that it was committed to the wool industry and to reducing costs.

The Panel notes Talman's response but given its importance to both wool exporters and wool brokers, further examination of this matter with an eye to risk management would be prudent.

An online Wool Exchange Portal (WEP) should usefully provide connectivity options to crucial industry software products such as Talman and other services.

Conclusions and recommendations

The Panel concludes that the industry should manage risks associated with its heavy reliance on the Talman software. The development of WEP should utilise open architecture and be able to interface with the Talman software as well as other systems.

5. Talman Solutions, website, www.talmansolutions.com.au



5.8 OTHER MATTERS

Some submissions commented on other matters which the Panel considered to be outside the scope of the review. Others addressed matters of detail such as the treatment of unskirted wool in the selling process (e.g. R. Bell, C. Agar, G. Burbidge, and M. Field), or the preference for variations in the payment period.

The Panel accepts that there is a range of matters where alternative arrangements could be tried and may be preferable for at least some participants in the selling system. The Panel's approach is not to take a position on what might constitute best practice in each of these matters. Rather, its view is that there needs to be flexibility in the selling system to allow different approaches to be tried. For example, sellers could list unskirted wool while buyers of unskirted wool could list their interest to buy at a discount.

It believes that the proposed way forward and the development of a WEP will allow for new approaches and related terms suitable for buyers and sellers.



SECTION 6: WOOL EXCHANGE PORTAL (WEP)

6.1 WHY DOES THE WOOL INDUSTRY NEED TO DEVELOP A WEP?

The Panel has concluded that while the current system operates effectively, it is in need of modernisation. The method of selling wool appears to have changed little over the decades. While other sectors have embraced new technology, the take up by the wool sector is low. Despite various attempts over the years, electronic selling, sale by description, and the development of forward and futures markets operate very much at the fringes of the selling system.

Several submissions particularly from grower organisations as well as growers themselves (e.g. NSW Farmers, A. and J. Farran) commented on the lack of use of modern technology, the need for greater competitive tension in selling centres and the need to further reduce costs.

A number of submissions following the release of the Panel's Discussion Paper commented on the proposal for a WEP. Some could see the potential benefits, others wanted to see more detail, while a third grouping did not see how it related to the issues faced by the industry.

There are several reasons why the Panel is proposing a WEP.

It believes, as discussed earlier, that there are rigidities in the selling system caused by high transaction costs for growers seeking to sell outside the open cry auction system.

The purpose of the WEP is to provide growers with a tool to make meaningful comparisons of their available options and to be able to pursue the selling options which best suits them and their buyers as well as intermediaries such as brokers and exporters participating in the market.

The WEP is also a mechanism to help resolve a number of other issues raised during the course of the review. Many of these are quite difficult to resolve in their own right and the WEP can assist in addressing them.

A number of the second round submissions commented that the Panel was focused on the WEP at the expense of the major issues relating to the existing selling system. It is important to note that the WEP grew out of the issues that were of most interest to industry and believes that a WEP that promotes greater transparency and choice to growers will address many of the significant issues raised in submissions.

For example, commission buying exists mainly due to the costs involved in gaining access to the existing dominant selling system. The advent of a WEP is likely to substantially reduce the costs of access to the market, thereby reducing the need for commission buying. The Panel believes the WEP is the most effective way of speeding up the pace of progress in an industry that has been slow to change in the face of a changing market environment.

The overall purpose of a WEP is to introduce a mechanism that can assist in developing and introducing increased choice and greater flexibility in the selling system. The Panel has sought advice on the possible establishment of the WEP. In doing so it has consulted with a number of existing providers of electronic platforms from within and outside industry, including Auctions Plus, I-Trade Wool, Chi X and others. In addition the Panel has commissioned the services of NZX Limited to assist in demonstrating what the WEP might look like. NZX has extensive experience in building and operating online platforms in a number of markets including energy, dairy, and grains.

The following sections attempt to provide as much detail as possible at this stage. For the WEP to be taken forward, the industry institutions will need to take leadership to develop a full business case addressing in detail the design, functionalities, construction and implementation of a WEP in a timetable acceptable to industry participants and seeking their input into relevant decision making.

The Panel has tried to address the following questions:

- Functionality of the WEP What should the WEP be able to do? What services could it provide?
- Who could use it?
- What would it cost to set up and operate?
- What benefits could it provide to growers and to others?
- Who should develop it? Own it? Operate it?

The following sections provide the Panel's views on these issues and set out some examples of the possible functions and what some aspects of the WEP might look like.



6.2 WHAT IS THE WEP?

The Panel is of the view that the WEP would be a central point for industry participants to get information, to find alternative live selling and buying options and provide the tools to make meaningful comparisons of these alternatives. The WEP could also provide market reporting services for the diverse trading conducted through links to its platform as well as provide other services valued by the industry such as training options for market participation or anything else concerned with the broader industry.

NZX captured what the WEP might look like in the following extract from their report to the Panel (visit www. wool.com/wssr to access the NZX report).

"At a minimum the WEP should provide price transparency at the "wool grower level" across all selling avenues to market. This is the first step in enabling growers to make better decisions in selling their wool and is a first critical step in creating a more "efficient market place" and the associated advantages. Wool growers should be able to differentiate between selling alternatives based on the price they receive. In the Australian grain space NZX achieved this with Profarmer Australia offering a price discovery service at the grower site level. This transparency encourages competitive behaviour as wool growers become more astute to supply chain costs, competitive forces at selling points, and make better decisions as a result. In an ideal world price transparency would include prices and volumes of transactions, but also the bid and offer depth and volumes (for example, what one sees on Commsec when looking at share prices)."

Source: NZX limited.

The Panel envisages that the WEP would have the following functions:

- a. It would provide growers with a list of brokers and their services and listed charges so that they could compare what is on offer. It could provide a link to each broker so that they could interact and proceed further with electronic conduct of trade.
- b. It would provide growers with a list of live selling options. Selling avenues can be expected to be diverse and could include:
 - open cry auction
 - electronic offerboards
 - electronic auctions
 - sale by tender
 - private treaty
 - direct to mill
 - Forward orders (physical and cash settled opportunities)
 - unskirted or minimal skirting buying orders
 - Good till cancelled (GTC) direct purchase orders

Options would not be limited to the above examples and operators on both the buying and selling sides of the market would have the opportunity to put up new initiatives.

c. It would include information on the different options and a ready reckoner so that growers could see differences in costs and their bottom line returns after all costs and levies are deducted. Figure 19 below provides a conceptual view of how the various selling options available for a grower's wool may be presented after a grower has entered their wool lot test results. The figures included in Figure 19 are for illustrative purposes only and are not meant to demonstrate the actual margins from particular selling options. Also, it is expected that the information available for such a ready reckoner would vary with respect to whether it is real time or the last available observation. In the example below the auction option represents the last closing auction price and therefore is not a 'live' price that can be accepted on screen in real time. There would be no guarantee that the auction price would be at the listed price by the time the grower's wool goes to auction. On this basis the auction option could only be regarded as an indicative level when considering selling options.



FIGURE 19. CONCEPTUAL VIEW OF WEP READY RECKONER

AVAILABLE SELLING OPTIONS ON WEP (EXAMPLES ONLY)	AUCTION (INCLUDING REMOTE ONLINE BIDDING)		WOOLTRADE (AUCTIONS PLUS)		GTC MILL DIRECT – DELIVERED AWH (SYD, MELB, FREM)		UNSKIRTED GTC DIRECT - DELIVERED AWH (SYD, MELB, FREM)		PHYSICAL FORWARD (2 MONTHS) – DELIVERED BROKERS STORE	
BID PRICE IN GREASY CENTS/KG	800		800		814		765		780	
TIMING TO CAPTURE PRICE	2-3 WEEKS TO SELL WOOL AT AUCTION		IMMEDIATE		IMMEDIATE		IMMEDIATE		IMMEDIATE (FINAL PRICE BASED ON TEST RESULTS AND P&D'S)	
	CENTS PER GREASY/KG	PER BALE	CENTS PER GREASY/KG	PER BALE	CENTS PER GREASY/KG	PER BALE	CENTS PER GREASY/KG	PER BALE	CENTS PER GREASY/KG	PER BALE
COMBINED BSC & PSC	23	\$41.62	23	\$41.62	18	\$32.11	18	\$32.11	18	\$32.11
BOTTOM LINE PRICE	PER GREASY / KG		PER GREASY / KG		PER GREASY / KG		PER GREASY / KG		PER GREASY / KG	
TO WOOL GROWER - NET OF ALL COSTS			688		697		671		675	
PAYMENTTERM – EXAMPLE	7 DAYS FROM FALL OF HAMMER			S FROM OOKED	14 DAYS FROM RECEIVAL INTO STORE		14 DAYS FROM RECEIVAL INTO STORE		7 DAYS FROM SETTLEMENT AGAINST TEST RESULTS	
PRICE CONVERSION MAKE-UP	FULL AUCTION COST STRUCTURE		FULL AUCT STRUCTUR (WOOLTRADE		REDUCED F BASED ON P BY DESCR GROWER PAY TO DUMP TH BID PRICE IS I	URCHASE IPTION. S CARTAGE IEREFORE	REDUCED F BASED ON P BY DESCR GROWER PAY TO DUMP THE PRICE IS IN	PURCHASE IPTION. 'S CARTAGE REFORE BID		PSC & BSC PURCHASE RIPTION.
POTENTIAL BENEFITS	*HEIGH COMPE THROUGH	PAYMENT HTENED ETITION H REMOTE E BIDS	* ABILITY TO CAPTURE PRICE IMMEDIATELY *PROMPT PAYMENT		* 14 DAY P TERM FR WORKING FOR BI * COSTTO	* ABILITY TO CAPTURE PRICE IMMEDIATELY * 14 DAY PAYMENT TERM FREES UP WORKING CAPITAL FOR BUYER * COSTTO VIEW SAMPLE IS OPTIONAL * ABILITY TO CAPTURE PRICE IMMEDIATELY * SAVINGS IN CLASSER AND WOOL ROLLER * WOOL IS TRUCKED ONCE TO AWH STORE (SYD, MELB & FREMANTLE) * PI		* SAVINGS IN CLASSER AND WOOL ROLLER * WOOL IS TRUCKED ONCE TO AWH STORE (SYD, MELB & FREMANTLE) * COSTTO VIEW SAMPLE		O CAPTURE MEDIATELY GROWER A FORWARD IANAGE RISK. XPORTER TO PURCHASE SELL INTO MARKETS FPAYMENT EW SAMPLE TONAL

Note: figures and examples provided are for illustrative purposes only.

- d. It would provide a link to electronic selling platforms, including electronic offer boards or electronic auctions. These could be either existing services currently available or new services developed by service providers for the WEP. The Panel does not envisage that the WEP would itself develop selling platforms in competition with other service providers.
- e. It would provide for buyers and growers to interact directly. This could occur in several ways. For example, larger wool growers or a regional group of growers could look to test, market and offer larger parcels of wool to buyers and processors via the WEP. It would also provide for buyers to put up their buying requirements on the WEP and registered sellers could seek to meet these requirements.
- f. It would provide a link to the open cry auctions so that interested parties can follow the auction online. It would also provide for bidders to bid online at the open cry auctions.

The Panel is of the view that the open cry auction should allow for registered bidders to bid electronically as well as physically. This will allow buyers to participate either in the auction room or

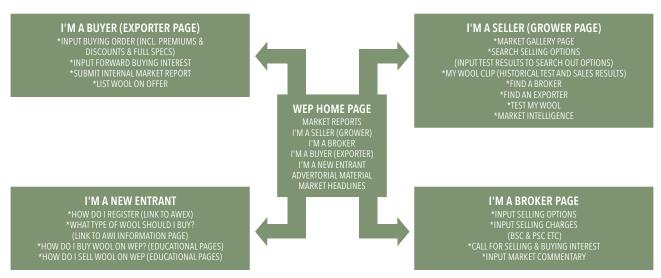


- remotely online. Bidders would continue to be certified as they are currently. This would open up participation at auctions, increase competition and would help address the issue of commission buying.
- **g.** It would provide a market reporting mechanism on the results of all auction sales as well as capturing and incorporating non auction sales data into the market quotes.
- h. It would provide market information on industry developments in Australia and overseas.
- i. It would provide a training capacity. Service providers could offer training on the use of their services such as on the operation of an electronic auction. Operators could also offer a range of training activities which growers and others might find useful.

6.3 FUNCTIONALITY OF THE WEP

The WEP would look to cater to varying stakeholder needs by providing an interactive homepage that directs users to the relevant screen page to pursue their business interest. For example an exporter (or buyer) looking to source wool would be directed to the "I'm a buyer" page in order to search out wools appropriate to their needs and actively place bids. Further examples would include brokers looking to distribute a mill or exporter buying order to their grower customer base. In this instance, growers would have the ability to list the order by entering the "I'm a broker" screen and progressing through to a listing screen. Alternatively, brokers can list growers' wool for sale by following a similar pathway.

FIGURE 20. CONCEPTUAL ARCHITECTURE OF THE WEP



Appendix 1 provides a number of screen shots that are designed to illustrate how various users might use the WEP and attempts to provide some optics around what various users might see when conducting business on the WEP. It is important to understand that these are merely illustrative diagrams designed to communicate potential features. The Panel acknowledges that there would be considerable additional detail required when developing the final WEP design. This would involve significant input from industry stakeholder expertise to ensure the best user experience and ease of access.

6.4 BENEFITS OF THE WEP

In order to best express the benefits of the WEP, the Panel found it useful to refer back to the original key objectives of the Review.

1. Efficiencies and Cost Savings

"Evaluating whether greater efficiencies and cost savings within the exchange of ownership between the seller and the first buyer are attainable"



2. Competitive Tension

"Understanding the potential for increased competitive tension throughout the wool selling process and how it can be achieved"

3. Transparency

"Determining whether there is sufficient transparency within the exchange of ownership to allow woolgrowers to make the most informed commercial decisions about their wool growing enterprise"

Through the review process the Panel has identified the following issues to be of the greatest interest to industry:

- Testing and appraisal
- Roles of AWTA and AWEX
- Buying and selling charges
- Centralisation
- Lot sizes
- Commission buying
- Sale by description
- Forward markets
- Talman

The Panel concluded that each of these issues fall into at least one of the above key objective categories of efficiencies and cost savings, competitive tension or transparency.

The WEP addresses each issue in the following way:

6.4.1 Efficiencies and cost savings

Testing and appraisal

Whilst the Panel acknowledges that there remains a legitimate need for the existing testing regime and sample inspection for certain sections of the wool clip, the WEP would provide an opportunity for trusted 'lighter touch' forms of testing and appraisal to be developed. For example, some brokers may look to develop an independent objective appraisal programme that satisfies the needs of specific mills or exporters and provides them with enough comfort to buy and guarantee the quality to their overseas customers. An opportunity may exist for independent and trusted appraisers to work with brokers or grower groups and provide accurate and commercial appraisals from which wool can be sold. This will assist in the facilitation of optional sample inspection in many cases and sale by description.

Roles of AWTA and AWEX

The Panel proposes close cooperation between AWTA and AWEX in the development and operation of the WEP (see section 5.5). Both organisations would bring critical information and functionality to the WEP. Ongoing cooperation between AWTA and AWEX in the development and running of the WEP would be assisted by merging the two organisations.

Buying and selling charges

In order to provide growers with bottom line prices, the WEP would require both BSC and PSC to be entered and visible to allow for accurate estimation of prices received by growers when looking at selling options. It would also take into account and make visible additional selling costs including industry levies, cartage and so on.

Centralisation

The WEP is effectively a virtual selling centre presenting a number of efficiencies. Buyers can participate in auctions and numerous other selling avenues without being physically present at an auction centre.

Lot sizes

As wool growers develop closer and more direct communication with exporters and processors via the WEP (i.e. direct to mill sales, physical forwards etc) the opportunity will exist to build a greater understanding of both buyer and seller requirements. For example, in the event that an exporter lists a buying order (spot or forward) on the WEP, they will have the ability to specify preferences including preferred lot size. Growers who commit wool to these orders will be able to prepare wool that best suits their customer's (exporter or processors) needs. This will include building the most effective lots sizes for their customers. In many cases



exporters and processors are looking to fill containers with consistent and uniform lines of wool where larger lots from single properties would be encouraged. Likewise brokers would be encouraged to utilise existing tools such as interlots, objectively matched lots and quality bulk class to increase lot sizes in order to reduce costs to the woolgrower.

Whilst it is important to acknowledge there could be savings by using a number of the above mentioned alternative channels, it is difficult to determine the full extent of such benefits. The level to which industry embraces and develops alternatives and the volumes that are traded via such channels will have a major impact on the costs savings. Should meaningful percentages of the Australian wool clip start to trade through one of the online options, the Panel would expect greater competition to develop between providers of such selling avenues, which may lead to lower cost and more efficient options for wool growers and wool buyers.

Table 2 estimates the extent to which costs within the value chain might be reduced through online selling alternatives.

TABLE 2. VALUE CHAIN COST SENSITIVITIES (Summarised Sheep's Back to Mill: cost analysis)

ACTIVITY IN VALUE CHAIN	EXPLANATION	ı	AWI SBM / AUCTION (COSTS	COST SENSITIV	VITY ANALYSIS
		GREASY CENT PER KG	PER BALE	% OF TOTAL COST	EXTENT TO WHICH COST CAN BE REDUCED THROUGH SELLING ALTER- NATIVES	COMMENTS
WOOL PREPARATION	1 CLASSER AND 1 SHED HAND	23.32	\$41.37	19.65%	HIGH	UNSKIRTED OR MINIMAL SKIRT ORDERS PRESENT SIGNIFICANT IN SHED SAVINGS
CARTAGE FROM FARM GATE TO BROKERS STORE	TRANSPORT COSTS	8.75	\$15.52	7.37%	LOW	EXTENSIVE CHOICE OF COMPETITIVE TRANSPORT COMPANIES EXISTS
TESTING COSTS	AWTA CORE TESTS AND ADDITIONAL MEASUREMENTS	6.87	\$12.19	5.79%	MEDIUM	MILL DIRECT ORDERS PROMOTING LARGER LOTS SIZES PRESENT SAVINGS. ON FARM TESTING POTEN- TIALLY MORE EXPENSIVE
BROKER HANDLING AND SELLING CHARGES	WOOL HANDLING, IN STORE INSURANCE, INTERLOTTING & BULK CLASSED, STORAGE, SHOWFLOOR SAMPLE	18.64	\$33.07	15.70%	LOW / MEDIUM	STRONG COMPETITION BETWEEN MULTIPLE BRO- KERS. POTENTIAL FOR SAVINGS FROM SELLING DIRECT.
BSC	BROKER SERVICE CHARGE	8.93	\$15.84	7.52%	MEDIUM / HIGH	SELLING ONLINE AND SALE BY DESCRIPTION CAN REMOVE STEPS WITHIN THIS COST.
FEES & LEVIES	AWEX AND AWI	13.74	\$24.37	11.58%	MEDIUM	WOOL GROWERS VOTE ON AWI LEVY
BUYING COSTS	BUYING COSTS, PSC, FINANCING, STORAGE.	13.37	\$23.72	11.26%	MEDIUM	EXPORTERS AND PRO- CESSORS RUN HIGHLY COMPETITIVE OPERATIONS. POTENCIAL SAVINGS EXIST IN ONLINE BUYING AND SALE BY DECRIPTION
PSC	POST SALE CHARGE FROM BROKER	14.53	\$25.78	12.24%	MEDIUM / HIGH	SELLING ONLINE AND SALE BY DESCRIPTION CAN REMOVE STEPS WITHIN THIS COST
SHIPPING & EXPORT COSTS	COUNTMARKING, SEA FREIGHT, INSURANCE, DOCUMENTATION	10.55	\$18.72	8.89%	LOW	EXPORTERS AND PROCESSORS NEGOTIATE HIGHLY COM- PETITIVE SHIPPING AND INSURANCE RATES
TOTAL COST SHEARING SHED TO SHIPS RAIL		118.70	\$210.57	100.00%		

Note: The total SBM figure in the table above includes wool preparation costs in the shearing shed. This differs to Figure 18 in section 4.3, which represents SBM costs from the farm gate onwards and does not include wool preparation costs.



6.4.2 Competitive tension

Commission buying

An online platform that allows participants to purchase wool remotely through a number of selling avenues (including auction) will work towards resolving concerns regarding commission buying and its effect on competition.

Ease of entry for new entrants wishing to buy wool directly would also add to competition and assist principals in using their own in-house buyers rather than commission buyers.

Sale by description

A number of the proposed selling alternatives on the WEP either remove the need for mandatory sample inspection (thus making the cost of show floors and inspection optional) or allow for independent appraisals that provide sufficient comfort for buyers to purchase and deliver to their customers and guarantee quality. An example is Bryton Wool who supply exporters and growers with a video of the sample appraisal in their regional store which has good industry support (Bryton Wool submission). Other selling avenues could include the option for sellers to supply samples to buyers on a user pays basis. Such offerings will enhance opportunities for sale by description and assist more buyers to purchase wool in their own right.

Centralisation

A centralised online portal (the WEP) will allow wool to be available for extended periods of time (not just auction days) and will lead to a greater concentration of buying and liquidity. It will also lead to greater competition between selling methods.

Forward markets

The WEP will allow for forward orders to be listed and transacted on the same platform as spot orders. Participants with interest in buying or selling forward will have the ability to list interest on the one site leading to greater liquidity in both physical and cash settled forwards. There are already a number of effective forward selling mechanism providers in the market place today including Riemann and Southern Aurora. It is expected that a central online platform (WEP) will enhance participant visibility of forward trading opportunities (both physical and cash settled) and promote greater liquidity.

6.4.3 Transparency

Buying and selling costs

The WEP will bring greater transparency to broker buying and selling charges (PSC and BSC) as well as levies and testing charges. The focus will be to provide wool growers with bottom line prices net of all costs prior to committing their wool to a selling broker or sales avenue.

The transparency of these costs on the WEP will improve the availability of information on selling and buying options and thereby promote greater competition amongst service providers.

6.4.4 Broader benefits

Better informed choices and cost savings

Transparency will help growers to make better informed choices as to which selling options are currently available.

Greater flexibility in selling and buying

Growers can expect easier access to a wider range of opportunities and therefore more flexibility in selling their wool. This should lead growers to find less expensive options or different value propositions.



FIGURE 21: ACTIVITIES LEADING UP TO WEP LISTING

DAY	1 & 2	DAY 3	DAY 4	DAY 5 & 6	DAY 7
PHYSICAL WOOL BALES LEAVE FARM	TRUCKED TO REGIONAL BROKERS STORE & OFFLOADED	CORE AND GRAB SAMPLES DRAWN & SENTTO AWTA	TESTING PERFORMED	CORETEST RESULTS AND APPRAISAL TRANSMITTED TO BROKER OR GROWER	GROWER CAN INPUT RESULTS INTO READY RECKONER TO DETERMINE BEST SELLING OPTION.
ON FARM GUIDANCE SAMPLES DRAWN (OPTIONAL)		WOOL APPRIASED, TYPED AND POSSIBLY FILMED		LENGTH & STRENGTH RESULTS TRANSMITTED TO BROKER OR GROWER	GROWER MAY ELECT TO TAKE AN OFFER OR LIST ON THE WEP VIA THEIR BROKER

The Panel acknowledges that at no point are growers 'locked in' to the auction system when their wool is trucked to a broker's store. However, this is a common concern amongst many growers who feel their access or understanding of alternatives once the wool leaves the farm is limited. Figure 21 illustrates the key activities in the lead up to growers listing wool on the WEP to best determine their selling options before choosing and committing to the preferred selling channel. Growers following this course of action should be better informed and positioned to make their selling decisions.

The WEP would also allow end users to become more directly involved in the buying of wool if they choose. It would allow buyers and growers to use other sale mechanisms that might better suit them. That might be sale by description if that addresses their needs or it might allow the tracing of wool back to the farm, which might be a valuable marketing tool for some grower and consumer groups.

The broader range of selling options including electronic selling could open up a range of possible benefits for growers and buyers. Benefits from electronic trading suggested from one submission (AuctionsPlus) include:

- An increase in liquidity and faster execution of buying or selling orders
- Greater control and better management of the buying process and decision making
- Easier entry for new players
- Greater competition
- Earlier and broader marketing of the wool product.

The Panel recognises that many of these benefits that would come from the online WEP alternative are not easily quantifiable but can, however, be potentially very significant over time. Depending on which channel was taken such benefits could include:

- Ability to capture prices in real time (rather than waiting to get wool to auction
- Ability for growers and buyers to negotiate prices
- Reduction in number of appraisals prior to sale, thereby reducing costs for buyers
- Less double handling of data (catalogue transmissions)
- Full transparency of selling costs and definitive understanding of 'final price' a grower will receive for their wool
- Greater exposure to a wider range of buyers for longer periods of time (not just in the lead up and during the auction)
- Increased competition
- Ability for buyers and sellers to develop direct trade relationships, provide meaningful feedback on grower wool and develop supply chain histories for future learning purposes.

An important potential benefit from the WEP is the impact that it could have for encouraging other currently unidentified issues to be addressed. The Panel is of the view that as wool production comes under continued pressure from competing land uses, the WEP will help the industry to remain efficient and cost competitive into the future. Such technology is likely to help the industry to remain nimble and equipped for change.



6.5 COST OF THE WEP

The Panel has sought advice on the cost of developing and maintaining such a platform with a number of technologists and online platform experts. For the purposes of the WSSR, the Panel engaged NZX limited to provide preliminary indications on what the development of such a system could be expected to cost.

Based on the structure and timing below NZX Limited have provided the following high level and indicative cost estimates.

- Build and develop Ready Reckoner/Price Discovery, around \$250,000-450,000 (2-3 months)
- Build and develop Connectivity Platform, around \$450,000-800,000 (3-4 months)
- Build and develop Interactive homepage, around \$200,000-500,000 (2-3 months)

A full breakdown and explanation of the NZX cost structure and estimate can be viewed in their consultancy paper provided to the Panel, available at www.wool.com/wssr.

The Panel recognises that to take the WEP forward a business case should be developed. This would include firm costing proposals and expressions of interest from potential service providers who might want to provide services via the WEP.

Some of these costs could be offset by using a fee for service for providers to be able to provide their services on the WEP. There will be options for what charging model might be most suitable and these may differ for different participants on the WEP (for example, buyers, sellers and intermediaries) according to the nature of their business. It could be a transaction based charge or alternatively a fixed payment made at the point of business listing or a combination of these and other variants. The business case phase of further developing the WEP will need to consider the pros and cons of alternative approaches to the charging related issues

6.6 WHO WOULD DEVELOP, OWN AND OPERATE THE WEP?

The Panel's view is that the WEP is a potentially important tool to better inform decision making in regard to alternative selling arrangements and thereby introduce greater choice to meet market requirements. It can also benefit market participants through a reporting service and other industry-wide activities such as training opportunities for growers and other stakeholders.

6.6.1 Future WEP development, ownership and operation

The Panel expects that following its Review, the WEP will undergo a detailed development phase. To this end, the Panel believes a Steering Committee consisting of industry stakeholders, including AWI, AWTA and AWEX, will be needed. Additional membership of the Steering Committee could be provided by others involved in the selling process such as ACWEP and the wool broking industry. This group would take responsibility for guiding the development of the WEP assisted by R&D backing from AWI.

The role of the Steering Group should be to complete a full business assessment of the WEP. This will require consultation with stakeholders concerning the design and functions of the WEP, quantitative estimation of the demand from potential users for WEP services and related benefits and a more detailed costing of capital and recurrent costs than what has been possible in the current Review, investigation of the options for future pricing and financing of the WEP and appointment of a developer, preferably through a tender process. Effectively, the Steering Group will have overseen a cost-benefit study which, assuming the results warrant doing so, leads to the WEP being passed to a developer to transform into a commercially viable product ready for the market place.

The Steering Group could also usefully consider options for future ownership of the WEP. There are numerous possibilities including growers who may seek ownership since it is their wool which would sustain the WEP's future and therefore provide growers with a long term interest in its continuing success. However, there may also be other private interests with particular expertise and resources attracted to own the WEP. Issues surrounding advantages and disadvantages of alternative courses of action regarding WEP ownership could be explored by the Steering Group.

At the conclusion of the research and development process, the intellectual capital generated would be owned by AWI on behalf of growers. At this point, AWI, armed with a WEP ready for the market and the advice of



the Steering Group concerning ownership, could initiate the search for a new owner of the WEP. The transfer of ownership may be via a direct sale, tender or some other method. Whatever strategy is finally chosen, it is important that the related processes are transparent with a clear and appropriate governance framework. The new owner of the WEP will determine who will be its operator. Without in any way pre-empting the final choice, the Panel sees merit in AWTA and AWEX jointly operating the WEP, either in partnership or by virtue of their merger recommended for consideration elsewhere in this report. As AWEX commented in its submission to the Review:

"The roles and functions of AWEX and AWTA complement each other. Both organizations are skilled in their respective fields, work cooperatively together and are committed to providing cost effective and transparent services to industry." (AWEX, Submission April 2015)

AWEX currently manages/regulates the existing auction system. Their other existing market responsibilities such as buyer registration and market reporting would be critical to the operation of the WEP. Moreover, their management and maintenance of wool industry standards such as classing and typing could well be operated/delivered via an automated platform. The existing AWTA sampling and testing regimes are of a globally recognised standard and would be imperative to the acceptance of an electronic sales platform. AWTA is also uniquely placed with respect to the data it holds to assist with the development and viability of the project.

Whoever is ultimately chosen to be the WEP operator, there will be an ongoing need to consult with industry stakeholders to assist its future development, functionality and overall relevance to market requirements. There are many diverse interests on both the buying and selling sides of the market who may be able to contribute in this regard. Certainly growers, wool brokers and exporters are three groups well positioned to assist but the Panel expects others such as buyers and forward/futures market interests to also be worthy inclusions on a stakeholder consultation group. Following its introduction, the Panel does not expect the WEP to be the sole web-based business entry point for the wool industry. Many, if not most, businesses engaged in wool selling and buying already have a web presence and will continue to do so for the foreseeable future. The process of wool buyers, sellers and intermediaries linking their business to the WEP is likely to be a gradual one as industry gains experience and comfort with the new mechanisms. If managed carefully, the establishment of the WEP need not be overly disruptive as existing businesses retain their web related business activities while, at the same time, supporting and subsequently linking into the WEP.

The Panel does not have the expertise to comment in detail on the technological underpinnings or features of the WEP. It does, however, note the rapid rate of progress in database and related technology as seen in recent years with the development of the BlockChain Distributed Ledger. This technology, for example, may provide opportunities to build robust data standards that assist transaction verification and enable secure review of critical information (such as wool test reports or other important sale related data).

Finally, the Panel has proposed the WEP as a tool to promote transparency and choice and the competitiveness of the wool industry. It is difficult, however, to anticipate the wide array of uses such a facility may have in the longer term, including as a channel for trusted and relevant marketing for industry service providers. Additional business from such sources will add to the stream of WEP business revenues but the Panel cautions against pursuit of such opportunities until the initial wool selling system opportunities canvassed in this report have been established. Nevertheless, the Panel anticipates that as the reputation and service capabilities of the WEP grow, further interest from more broadly related businesses advertising their services can be expected.



APPENDIX 1: WEP SCREENSHOTS (SOURCE NZX)

FIGURE 22: WEP BROKER REGISTRATION

WEP	Registration	View Market	Logout	
Broker Registration				
Brokerage firm				
Broker code				
AWEX registration number				
Name				
Email				
Address				
Phone				
Brokerage charges				
BSC charges				
PSC charges	-	autor are a They	nese charges will matically apply wh cting on behalf of will pre-fill when not behalf of a pr	en a c nat
Banking details		ar	nd/or creating an o	offe
Bank				
Account Name				
BSB				
Account number				
Register your account				

This screen details how a broker might register as a user on the WEP. It is anticpated that the process would be similar to the AWEX registration process for auction brokers today. In order to faciliate net price calculations for growers, brokers would be required to input all charges including BSC and PSC when registering.



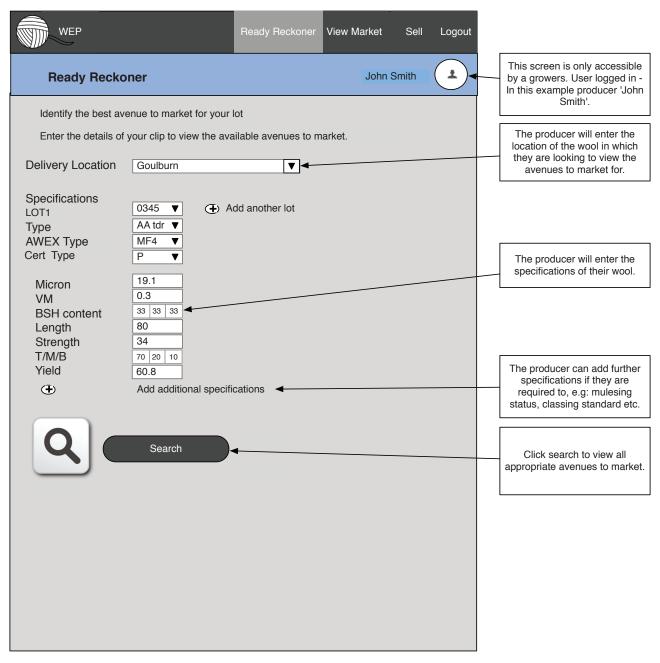
FIGURE 23: WEP BUYER REGISTRATION

WEP		Registration	View Market	Logout
Buyer Registration				
Buyer Code Company AWEX registration number Name Email Address Phone				
Register your accou	unt			

Buyers and exporters would also be required to register to participate on the WEP. This process would be along similar lines to that of the auction registration process that buyers and exporters currently complete via AWEX.



FIGURE 24: READY RECKONER / PRICE DISCOVERY TOOL - SEARCH SCREEN

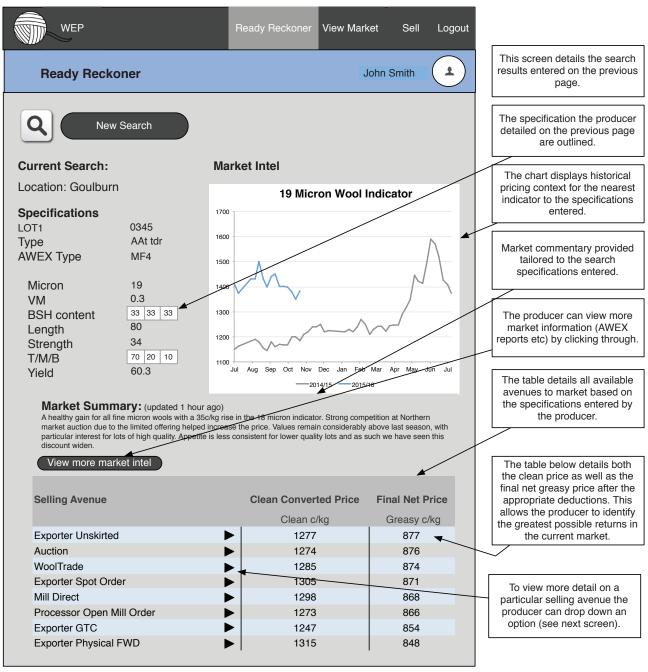


This screen details the input requirements a grower or broker would need to provide in order to search out available selling options for their specific wool lots. This price discovery tool would provide the grower with the market transparency to pursue the method of sale which best suits their individual circumstances and optimises potential returns. This would include selling avenues that are external to the WEP, such as Auctions Plus, Auction etc. It would provide direct access to any one of these platforms.

A producer would outline the specifications of their wool on the screen above and then 'search' for the available avenues to market their lot. The screen below illustrates what the search results may provide in the form of various selling options.



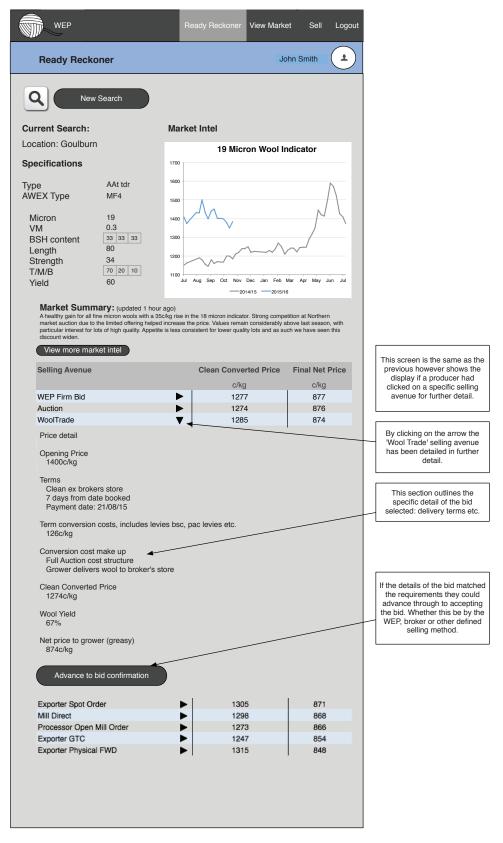
FIGURE 25: READY RECKONER / PRICE DISCOVERY TOOL - RESULTS SCREEN



In many cases the greatest value to the seller or grower may not come in the form of the highest price. Other determining factors could include more direct contact with a processor and meaningful feedback on their wool, forward hedging and opportunities to manage risk, or unskirted orders that represent costs savings in the preparation of the wool. Such benefits would be detailed in the search results screens.



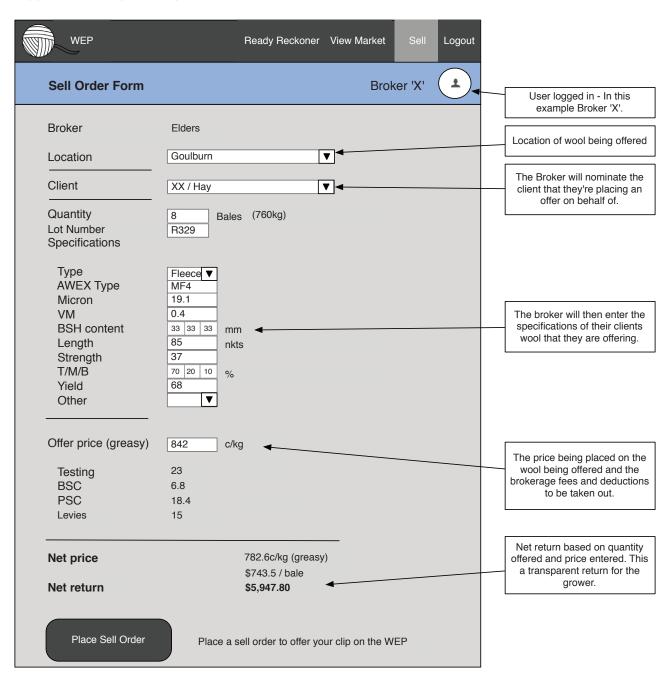
FIGURE 26: READY RECKONER / PRICE DISCOVERY TOOL - ADVANCED RESULTS SCREEN



The screen above illustrates how a producer would be able to view further detail of a selling avenue that was of particular interest. The shot provides an example of the detail that would be shown if one of the selling avenues was selected, in this case Wool Trade.



FIGURE 27: SELL ORDER FORM



This screen allows a 'seller' (in most cases a grower) to create an offer in the market which is then displayed on the WEP for all active users to view. Effectively the seller is nominating the specifications of the nominated lot they are placing an offer on, and the minimum price which they are prepared to sell at.

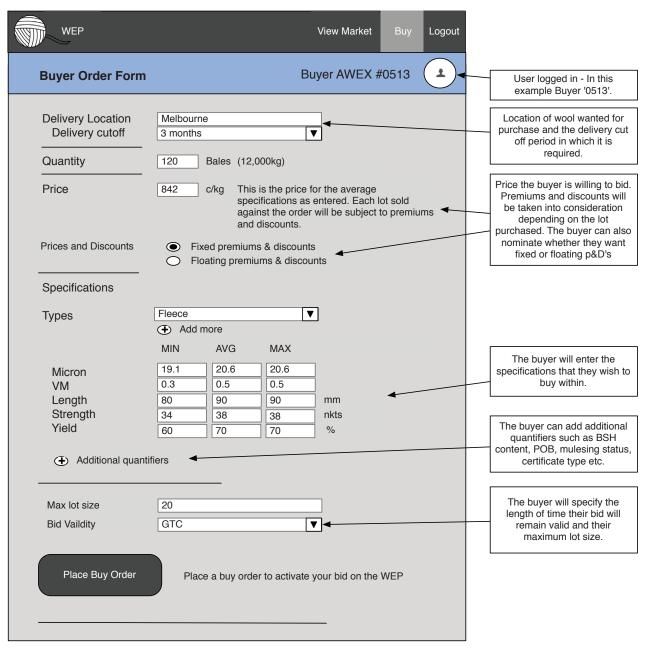
Buyers can then buy the specified wool at the price set by the seller if they so choose. Alternatively buyers could look to place a counter offer for the seller (or grower) to consider.

This page could be used by either a grower placing an offer on their wool /or a broker acting on behalf of a grower. The example pictured above details that of a broker (broker 'X') whereby the broker is required to nominate the location, client they are acting on behalf of, the quantity and specifications of the wool being placed on offer and the price that it is offered to the market for.

A similar format could also be used for traders and exporters who are looking to sell stock batches.



FIGURE 28: BUY ORDER FORM



Source: NZX Limited

This screen allows a 'buyer' to create a bid in the market which is then displayed in the WEP for all active users to view. The buyer/exporter nominates the range of specifications they are willing to buy within and the price they are prepared to pay for lots within these parameters.

Sellers can then match this bid if they specify their wool is within these parameters and choose to accept the price should they wish to do so. The appropriate premiums and discounts will then apply dependenting on the specifications of the wool that matches the bid.

Similar buy order forms could be used to enter forward orders from buyers and exporters. The opportunity would exist to develop tailored buy orders including unskirted or non mulesed orders. In addition, buyers would have the flexibility to specify additional parameters such as delivered dump (vs ex broker's store) or 30 day payment terms (vs. 7 day prompt). Orders could be placed or removed from the WEP as required.

There are a number of additional screen shots that further illustrate the WEP concept and how it may look. These can be accessed in the NZX consultancy report commissioned by the WSSR Panel (www.wool.com/wssr) and include screens such as buyer search results and market reporting.



APPENDIX 2: OTHER WOOL MARKETS

There is a wide range of wool selling systems that operate in offshore markets globally. The nature of these varying selling methods depends heavily on the type of wool produced and the relative importance of the wool clip to the farmer based on wool value versus cost of production.

South Africa

In the case of the South African wool clip, where a high percentage of the clip is Merino wool, the industry is structured in much the same way as its Australian counterpart. Analogous industry institutions operate and deliver services to woolgrowers in getting wool to market and, like Australia, South African wools are mainly sold via traditional open cry auction with a small percentage sold by private treaty.

Auctions have been centralised in one location in Port Elizabeth.

Prices paid for South African wools are determined by free market supply and demand forces and are closely linked to the international price for apparel wool, which is determined by the Australian market. Most of the clip is marketed overseas through members of SAWAMBA (the association of South African wool buyers). Only registered members of that organisation are allowed to bid at auctions held under the auspices of the South African Wool Exchange.

New Zealand

In New Zealand, the half bred (or crossbred) and carpet wools which account for the majority of their wool clip also predominantly sell by traditional auction in three main selling centres. One noticeable difference is that in New Zealand, in the absence of any centralised market reporting body, the industry relies on individual companies (exporters and brokers) to generate their own market reporting.

Whilst New Zealand Merino wools also sell by traditional auction (often in Australia), there exists a number of high-end Merino producers who elect to market their wool through to finished garments via The New Zealand Merino Company Limited (NZM), an organisation that focuses on developing and managing relationships between woolgrowers and high-end local and global apparel brands. The NZM selling option is substantially more expensive, but it is argued that woolgrowers traditionally receive better returns for their wool over the long run. Woolgrowers under contract supply wool to one or more brand partners according to clear specifications at a fixed price – generally, one to three years in advance.

Other

In other wool producing markets, such as South America and China, private buying and mill/merchant direct activities dominate. Sampling and testing are not always conducted in order to realise a price between a buyer and a seller. In many cases, only a guidance test for micron will be used. Certainly in the case of China (whose wool is predominantly used for insulation and carpet), wool is generally a by-product of their meat production. Prompt payment and minimal selling charges appear to be a priority over marketing.

In the United Kingdom, the British Wool Marketing Board (BWMB) collects, grades, sells and promotes wool. It is a farmer run, not-for-profit organisation focused on returning to woolgrowers the market price for their wool. Buyers purchase wool via the BWMB computerised auction system using test results and industry approved appraisals provided by the BWMB. Quality is guaranteed by BWMB.



APPENDIX 3: ESTIMATED INDUSTRY AVERAGE COSTS: SHEARING SHED TO SHIP'S RAIL (CENTS/KG GREASY) 2013-14

	CENTS/KG	G GREASY	% OF	TOTAL
DIRECT COST TO WOOLGROWER (EX SHED)				
TRANSPORT TO BROKERS' STORE COST		8.75		9.17%
Transport to store	8.75	0.73	9.17%	7.17/0
Turisport to store	0.70		7.1770	
AWTA TEST CHARGES		6.87		7.20%
Core test and certification	4.43		4.65%	
Length & strength testing and certification	2.44		2.56%	
BROKERS' HANDLING AND SELLING CHARGES		27.57		28.91%
Warehousing	12.92*	27.37	13.55%	20.71/0
Insurance-to store transport and in store	1.72*		1.80%	
Interlotting service charge	0.13*		0.14%	
Re-handling & bulk classing charge	1.95*		2.04%	
Grower storage	0.08*		0.08%	
Brokers' selling commission	8.93*		9.37%	
Sale show floor sample value	1.84		1.93%	
INDUSTRY FEES AND LEVIES		13.74		14.41%
AWEX revenue/fees	0.88*		0.92%	
Wool R&D and marketing levy	12.86		13.48%	
DIRECT COST TO MILL - BUYER				
PURCHASING COST		27.90		29.25%
Buying costs	6.85		7.18%	
Post-sale charges (PSC)	14.53		15.23%	
Buyer finance costs	5.36		5.62%	
Buyer storage costs	1.16		1.22%	
SHIPPING/EXPORT COSTS (TO SHIP'S RAIL OR FOB)		10.55		11.06%
Shipment preparation	10.55		11.06%	
TOTAL	95.38	95.38	100%	100%

Source: AWI interim Sheep's Back to Mill



APPENDIX 4: LIST OF STAKEHOLDER MEETINGS & CONSULTATIONS

- Australian Wool Testing Authority (AWTA)
- National Council of Wool Selling Brokers Australia (NCWSBA)
- Australian Wool Exchange (AWEX)
- Inland Woolbrokers Association
- Wool Grower Panel Selected wool growers from multiple growing regions
- Australian Council of Wool Exporters & Processors Inc (ACWEP)
- Auctions Plus
- AWI's Wool Broker Forum Sydney
- AWI's Wool Exporter Forum Sydney
- Nanjing Wool Market (NWM) WSSR Panel representatives met with NWM and committee made up of the major Chinese wool importers and processors Nanjing, China.
- International Wool Textile Organisation (IWTO) conference presentation WSSR review update provided by secretariat Zhangjiagang, China
- WSSR Stakeholder workshop More than 100 industry stakeholder attendees Melbourne
- Forward Market Expert Panel Meeting with wool risk management experts
- Wool Week Presentations National Council of Wool Selling Brokers of Australia (NCWSBA), Australian Council of Wool Exporters & Processors (ACWEP), Private Treaty Wool Merchants of Australia (PTWMA), Inland Woolbrokers Association.



APPENDIX 5: SUBMISSIONS

SUBMISSIONS RECEIVED ON THE ISSUES PAPER

The Review Panel released an Issues Paper on 10 December 2014. Below is a list of submissions that were received by the Panel following its release.

- A & J Farran (woolgrowers from Edenhope, Vic)
- Ag Concepts Unlimited Pty Ltd
- Alistair McDougall (woolgrower and Chairman of Slamp Pty Ltd)
- Alix Turner (woolgrower from Wayo, NSW)
- Allen F Sheridan (woolgrower from Bengworden, Vic)
- Andrew Dennis of Rosewood Wool Services
- AuctionsPlus
- Ausfine Pty Ltd
- Australian Council of Wool Exporters and Processors (ACWEP)
- Australian Merino Exports Pty Ltd and United Wool Company Pty Ltd
- Australian Superfine Wool Growers' Association (including appendices from Stanford Graduate School of Business and John Powell of Optimal ICM)
- Australian Wool Exchange Limited (AWEX)
- Australian Wool Network
- Australian Wool Testing Authority (AWTA)
- Business Council of Co-operatives and Mutuals
- Chris Lang
- Colin Agar (woolgrower from Penshurst, Vic)
- David Abbott (woolgrower from Armidale, NSW)
- David Ritchie
- David Upperton (woolclasser and woolgrower)
- Don Belgre Pty. Limited
- Don Pratley (woolgrower from Bathurst, NSW)
- Dr John Williams (Managing Director of the Food and Fibre Supply Chain Institute)
- Dynon Wools (Aust) Pty Ltd
- Edward. H. Wymer
- Edward. H. Wymer (supplementary submission)
- Elders
- Financial & Energy Exchange Ltd
- Fred Tuddenham (wool classer from Herne Hill, Vic)
- G Schneider Australia Pty Limited
- Gordon Litchfield of Gordon Litchfield Wool Pty Ltd



- Grant Burbidge (woolgrower from Tarcutta, NSW)
- i-Trade Wool
- ICS (Mr Andrew Woods)
- Jemalong Wool Pty Ltd
- Jock Munro (woolgrower from Rankin's Springs, NSW)
- John Buxton (woolgrower from East Gippsland, Vic)
- John Coughlan (woolgrower from Cudal, NSW)
- Kym Baty (wool classer)
- Michael Field (woolgrower and Managing Director of T.A. Field Estates Pty Limited of Jugiong, NSW)
- Modiano Australia
- Motohiro & Co., Ltd.
- Nekan Trading (Pty) Ltd
- New England Wool Pty Ltd
- NSW Farmers' Association
- Pastoralists & Graziers Association of WA
- Peter Small (woolgrower from Hamilton, Victoria; and Chairman of Quality Softwools Australia)
- Private Treaty Wool Merchants of Australia
- R B Crawford (woolgrower from Moulamein, NSW)
- Raymond Ltd, India
- Richard Bell (woolgrower from Taralga, NSW)
- Sistema Moda Italia and Italian Wool Trade Association
- Stephen Blair
- Steve Bryce of Bale Out Pty Ltd
- Symbotic Pty Ltd
- Techwool Trading Pty Ltd
- Ted O'Brien
- The National Council of Wool Selling Brokers of Australia Inc
- Tianyu Wool Pty Ltd
- Tom Silcock (woolgrower from Telangatuk East, Vic)
- Victorian Farmers Federation
- W C Freeman from Wingham, NSW.
- Wayne Beecher of Beecher Wool Services
- Westcoast Wools
- Western Australian Farmers Federation (WAFarmers)
- WoolConnect Ltd.
- WoolProducers Australia
- Yarra Wool



SUBMISSIONS RECEIVED ON THE DISCUSSION PAPER

The Review Panel released a Discussion Paper on 6 July 2015. Below is a list of submissions that were received by the Panel following its release.

- A & J Farran (woolgrowers from Edenhope, Vic)
- Australian Council of Wool Exporters and Processors
- Australian Council of Wool Exporters and Processors (ACWEP), Inland WoolBrokers Association (IWBA), The National Council of Wool Selling Brokers of Australia (NCWSBA).
- Australian Merino Exports Pty Ltd
- Australian Superfine Wool Growers' Association Inc
- Australian Wool Exchange Limited (AWEX)
- Australian Wool Testing Authority Ltd
- David Ritchie
- G Schneider
- Geoffrey Beath of Bryton Wool
- i-Trade Wool
- Ming Ho Wool Industry Company Ltd
- Modiano Australia Pty Ltd
- NSW Farmers' Association
- NZX Australian Agribusiness
- Peter Small
- PJ Morris
- Private Treaty Wool Merchants of Australia
- R B Crawford (woolgrower from Moulamein, NSW)
- Stephen Blair
- Talman Pty Ltd
- Techwool Trading Pty. Ltd
- The National Council of Wool Selling Brokers of Australia Inc
- United Wool Company Pty Ltd
- W C Freeman from Wingham, NSW
- WAFarmers Federation
- WoolProducers Australia
- Zhejiang Redsun Wool Textile Ltd



APPENDIX 6: GLOSSARY OF TERMS

TERM	EXPLANATION		
ACCOUNT SALE	Post sale document issued to the woolgrower from the wool broker outlining the gross proceeds received for their wool less selling costs including BSC, insurance, AWTA testing charges, wool levy and industry charges, local cartage and GST.		
ACWEP	Australian Council of Wool Exporters & Processors.		
AWEX	Australian Wool Exchange Limited.		
AWEX TYPE OR AWEX ID	Industry standard valuation code for expressing the appraised, non-measured characteristics of greasy wool.		
AWI	Australian Wool Innovation Limited.		
AWTA	Australian Wool Testing Authority Limited.		
BROKER	Wool selling broker acts as the agent representing the vendor (woolgrower).		
BROKER SERVICE CHARGE (BSC)	Selling fee for brokering services invoiced by the wool selling broker to the woolgrower following the sale of their wool in their "account sale".		
BUYER / EXPORTER	First buyer of woolgrower's wool. Buy, finance and export wool to over- seas wool users globally.		
CODE OF PRACTICE	Industry standard for in shed wool preparation.		
COMMISSION BUYER	An independent entity that appraises and buys wool on behalf of one or more exporters or processors. Also known as an "indent or contract buyer".		
CORE TEST	Sampling process overseen by AWTA where bales within an individual wool lot are cored (or speared). Samples are tested for micron and VM by AWTA.		
CVD	Coefficient of variation of diameter (or micron).		
CVH	Coefficient of variation of hauteur length.		
DMFR - DARK AND MEDULLATED FIBRE RISK SCHEME ADOPTION	A voluntary declaration made by woolgrowers in their classer's specification which evaluates the risk of dark or medullated fibre in their wool according to their farm practices.		
FORWARD SELLING	The practice of selling wool at a fixed price to be delivered to a buyer in the future. Adopted as a form of risk management.		
FREIGHT FORWARDER (WOOL)	A person or company that organises shipment and documentation of wool from broker's store to overseas processing plant on behalf of third parties.		
HAUTEUR LENGTH	Refers to the length of the wool after combing.		
GRAB SAMPLING	Sampling process overseen by AWTA where samples are drawn by mechanical claw from bales within an individual wool lot. Samples are AM tested for length and strength by AWTA.		
LENGTH AND STRENGTH TESTING FOR ADDITIONAL MEASUREMENT OR "AM TESTING"	Testing of individual wool staples from a grab sample for length and strength and position of break.		



Letter of Credit (or L/C)	Common industry payment term whereby the overseas purchaser's bank provides the exporter with a document (LC) outlining the buyer's intention to pay for the wool and the terms around that payment.
Micron (u)	Fibre diameter.
NKT	Newtons per kilotex. AWTA test result for the average strength of the wool in a lot.
NWD - NATIONAL WOOL DECLARATION	Declaration form filled out by woolgrowers outlining the animal welfare practices adopted by that woolgrower.
POST SALE CHARGE (PSC)	Selling fee charged by the wool selling broker to the wool purchaser (exporter or processor) after the sale of the wool.
PROCESSOR	Wool processor who machines the greasy wool from its raw state into a processed form. Can range from wool scourer and topmaker to fully vertically integrated garment manufacturer.
POB	Position of break. AWTA test result outlining where the wool breaks within the staple (tip, middle or base).
RESERVE PRICE SCHEME	Guaranteed minimum price scheme for woolgrowers.
SALE BY DESCRIPTION	Sale of wool using objective measurements and description without physically appraising the wool.
SHOWFLOOR	Display area within a wool selling centre where individual wool box samples are made available for appraisal.
TALMAN SOLUTIONS	IT service provider delivering inventory management systems to the wool industry.
VEGETABLE MATTER (VM)	Non-wool matter within a wool lot including burr, seed, shive and hardheads.
WOOL TYPING / VALUING	Visual appraisal and categorisation of wool to determine its monetary value.
YIELD	Yield determines how much "clean" wool fibre weight would be left after the removal of dust, grease and other impurities during processing.



APPENDIX 7: REFERENCES

- Australian Wool Production Forecasting Committee, Australian Wool Production Forecast Report, August 2015
- AWEX, National Buyers list by Region, Week 52, 25 June 2015
- Barr N, New Entrants to Australian Agricultural Industries, RIRDC, 2014
- IWTO Market Information 2014
- Nolan E, The Economic Value of Wool Attributes Phase 2, 2014
- NZX consultancy report Wool Selling Systems Consultancy Report, 2015
- Swan P, Australian sheep flock demographic trends, Presentation to AWTA Board Meeting, April 2015

