Should we be growing Merino wool?

A report for



by Sarah Barrington (nee Ackland)

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Foreword

Merino wool production in Australia is in decline. The cause for this decline varies however, many farmers state that the continuing low wool price is the major reason for reducing their Merino sheep numbers or exiting the industry altogether. As a farm manager of a 100% Merino enterprise I understand the financial status of our business on-farm. However, I wanted to establish a picture of consumer sentiment about Merino products with the hope that this would give me confidence about assessing the future of the Merino fibre. My secondary aim was to investigate options for selling wool, to establish if it was possible to make the transition from being a price taker to a price maker.

This report will share a snap shot of what consumers and supply chain members from ten different countries had to say about Merino wool. I believe this report is of interest to all sectors of the Merino industry, but possibly of the greatest benefit to growers who are continually making decisions about the future of their Merino enterprise.

Acknowledgments

One of the most valuable aspects of travelling was the people I met. On arrival at New Delhi airport, among a sea of placards, I found my name held patiently by the pre-ordered taxi driver. We made it outside and he told me to wait while he retrieved the taxi from the car park. I felt proud of my travelling prowess by noting that he was wearing a white turban, because in the dark I was afraid I would not recognise him on his return. About forty minutes later and about twenty propositions for very cheap and luxurious rides yet another driver approached me. "Please quickly get into the car as I will be given a ticket if I park here", he said. I started to move and then noticed that this man was wearing a yellow turban. I stood my ground and said, "What is my name?". He looked at me strangely and ran back to the taxi. I felt quite smug thinking I nearly fell for that one. Next thing, the driver comes running back with a scrunched up bit of paper with my name on it. He smiled at me, helped me with my bags as I sheepishly got into the taxi apologising as best I could – I had either developed colour blindness or he had changed his turban! It is amazing how a smile can fix so many situations and thank you to all those who smiled when things did not go to plan.

So many people were wonderful to me on my travels. The selfless giving and sharing of knowledge, ideas and culture by people is a gift that I will never forget and will always appreciate. I will not list people by name as there are simply too many but I would like thank

the following businesses and organisations; Australian Wool Innovation Ltd, Canterbury Woolscourers Ltd, Chargeurs Wool (NZ) Ltd, Cleardale, EscorialTM, Forest Range Merinos, Glenthorne Station Ltd, Goldentex Group Co, JOHA, Merino Country, Michell, National Institute of Fashion Technology (India), New Zealand Merino Inc, Ningbo Youngor Worsted Spinning Weaving and Dyeing Co. Ltd, Pearl Academy of Fashion, Reward Wool, Roberts Ltd, South Canterbury Textiles, TekoTM, The Heilan Group, The Merino Company, The New Zealand Merino Company, The Shawl and Wool Clubs (India), The Woolmark Company, Weft Knitting Co and '8x5 Wool Profit Program'.

I especially would like to thank Nuffield Australia and Impact Fertilisers. Like any good supply chain, all members are integral and this is definitely true for my Nuffield Farming Scholarship, one providing the structure and the other the money. I hope the end product will meet consumer expectations.

Lastly, Steve Barrington, Cate and David Ackland and Phil and Meg Nichols were instrumental in allowing me to spend so much time away from the farm. Considering the extremely dry season, many challenges were met and dealt with superbly. Thank you to my two sisters, Jane and Anna, Samir (Egypt) and Sue Leake (Qantas) for being so helpful assisting with my travel arrangements. Also, to all of the other 2005 Australian and New Zealand Nuffield scholars, thank you for the friendship and fun and I hope we will all continue to debate agricultural issues until we are old and grey (mmmm, some are already grey!).

Abbreviations

AWI dse EU	Australian Wool Innovation dry sheep equivalent European Union	MNZ Ltd NZWB SGC	Merino New Zealand Limited New Zealand Wool Board Swiss Garment Company
ha	Hectare	t	tonne
IWTO	International Wool Textile	TNZMC	The New Zealand Merino
	Organisation		Company
Kg	kilogram	TQW	Tasmanian Quality Wool
NZ	New Zealand	UK	United Kingdom
MNZ Inc	Merino New Zealand	US	United States of America
	Incorporated		

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Executive Summary

Introduction

If you like the adrenalin rush of a roller coaster then perhaps you should be a wool producer as it is nothing compared to experiencing the highs and lows of the wool price received by Australian woolgrowers over the past 60 years.

Those of us that are tired of the ups and downs should be relieved that the previous five years have resulted in fairly stable wool prices. I am happy prices are stable but am not happy with the dollars per kilogram we receive. Many Australian Merino woolgrowers must feel the same as they have reduced production or left the industry. Since 1990, sheep numbers have reduced and wool production in Australia has declined by 57% and is now at 470 million kg (Acil Tasman, 2006).

Is this trend firstly logical and secondly short term, or is there a viable future in growing Merino wool both now and in the future?

My aim was to use the Nuffield Scholarship opportunity to assess the viability of growing Merino wool on the farm I co-manage. The two major aspects I chose to explore were:

- What do consumers think about wool and are brands and other members of the supply chain investing in Merino wool?
- 2) How are other wool growing countries, particularly New Zealand, selling wool and what are the positive and negative aspects of their approach?

I visited Canada, China, Denmark, Egypt, England, India, New Zealand and the US.

Consumers

"Warm in winter", "itchy" and "expensive" are probably the three most common responses I received when randomly asking consumers about Merino wool. Many said they recognised the Woolmark logo, particularly in India, and that it gave them confidence in knowing they were buying wool. Many were not aware that some woollen garments could be machine washed and dried or there are non-prickly, next-to-skin garments available on the market. New Zealand and Alaska were the exceptions. In these two countries most consumers with whom I spoke were aware of many beneficial properties of Merino wool including: its ability to keep you warm even when wet; it is non flammable; it does not make you smell; and it can be machine washed.

Brands

A number of brands are heavily investing in Merino apparel mainly in the outdoor retail sector. Brands such as IcebreakerTM, Ibex, Smartwool and TekoTM are advancing quickly in the North American outdoor retail market and in my opinion larger established brands are noticing their success. This is an expanding market for Merino wool that has exciting potential.

Market opportunities

The Indian Shawl market has potential due to the increasing wealth of the Indian middle class and their cultural belief in the value of wool.

Recently, some high profile Australian fashion designers, such as Josh Goot and Akira Isogawa, have used Merino wool in their international collections highlighting wool as a modern, chic and sexy fibre. Current fabric technologies have enabled Merino wool to rate in the collections.

In Egypt, New Zealand and Denmark, I visited businesses that have specifically moved to 100% wool processing and clothing manufacture as they see this as a way of product differentiation and value adding. Conversely, in China and India the businesses I visited were using cotton, synthetics and wool.

Buying wool?

The New Zealand Merino Company in particular, has been vocal about supply contracts it offers its growers. These contracts, which are up to seven years in duration, provide: price certainty to growers; feedback about what wool is in demand; and producer pride in seeing their production effort manufactured into a product demanded by the customer. Some growers have questioned whether the contract prices are high enough to ensure wool growing to be satisfactorily profitable. Others suggested the contracts have indirectly put a ceiling in the auction system in New Zealand. Yet, some growers have said they would not continue to grow Merino wool without a contract.

Roberts Ltd, a Tasmanian wool broker, has recently established the Roberts Wool Link program. It aims to market wool on behalf of Tasmanian wool producers on a pooled basis by

"developing consistent demand and increased value for Tasmanian wool through unique and innovative marketing, along with product and processing solutions".

Conclusion

Yes, we will continue to grow Merino wool on our farm. My optimism stems from the opening of markets that are allowing the positive attributes of Merino wool to be realised (including next-to-skin and high end fashion) and the associated level of technology that is allowing such advances. In addition, the increasing attraction by consumers towards natural fibres was apparent in all of the countries I visited. Although a number of technical synthetic fabrics and new alternative natural fibres have been developed, I have not yet seen or been informed of one that mimics all the properties of Merino wool (it breathes, wicks moisture, doesn't retain odours, allows the wearer to stay warm even when wet, is fire proof, is a natural fibre that is annually renewable and biodegradable, offers excellent UV protection and can now be machine washed and not prickle). However, we cannot be complacent.

I believe the clean, green, and minimal environmental footprint of growing Merino wool in Tasmania is a big marketing opportunity. However, the Tasmanian Industry must be astute and learn from what has been achieved in New Zealand and clearly establish its point of difference and market this effectively.

As a Merino woolgrower, I do have two concerns about the industry that need to be addressed. Firstly, many consumers have negative perceptions about wool. Through education, this can be reversed but it is a big task. Secondly, that growers assume an increase in demand for wool will automatically result in higher prices per kilogram. Without some alignment or direct link with specific supply chains it is unclear how growers can capture and maintain their share of the value.

Introduction

Apsley Park, situated in the Central Highlands region of Tasmania, is co-managed by my husband, Steve and myself. We have managed the farm since 2001 when my parents, who own the farm, moved to Hobart. Apsley Park is 1400 hectares and runs a self-replacing Merino flock of about 9000 sheep. The average micron of the wool clip is 18. All of the wool produced on Apsley Park meets European Union eco-label requirements for chemical use. For the majority of the years our wool has been chemical free and is declared as such allowing access to specific markets and at times market premiums. Apsley Park has Tasmanian Quality Wool (TQW) status, although the TQW quality assurance program is currently on hold in Tasmania. Merino wool production and the meat derived from these sheep are the only enterprises on Apsley Park. Consequently, the sale of our wool is very important and requires careful consideration.

Picture 1. Merino wool production is the major enterprise on Apsley Park, therefore the price we receive for our wool is extremely important. The Tasmanian Merino industry needs to establish, from a marketing perspective, how they are going to capture the value of the natural and clean environment in which Merinos live their life in this State.



Historically wool produced on Apsley Park is sold either through the auction system or on Wool Trade (a computer based selling system). Although, in 2006/07, a considerable proportion of the clip is being sold through Roberts Wool Link (see Chapter Six). The auction system and Wool Trade are selling wool as a commodity. Commodities are produced in large quantities, and are available from many sources. The key factor driving the commodity purchase decision is price.

Since 2001, low prices for raw wool have stimulated various discussions about developing demand driven, product based, market supply chains. Brokers are talking to their clients about chains they are trying to develop. The rural media is very willing to report about wool supply chain success stories particularly from New Zealand.

Becoming aware of alternatives to the auction system was enough provocation to spark my interest in exploring other wool selling options. In addition, I was becoming cynical about information supplied by our broker regarding new and exciting high value markets that were developing in Japan and the US, as wool prices did not seem to be increasing in response to these potential markets. With my level of frustration increasing, I needed to divert my energy into researching exactly where Merino wool was heading on the world stage. A Nuffield Scholarship would provide me with a unique opportunity to study other agricultural industries as part of the Global Focus Program while allowing time to look specifically at wool. I thought the structure of the scholarship would ensure open mindedness and objectivity for this type of research.

Objectives

In order to gauge the level of optimism regarding Merino wool both now and into the future I posed the following questions:

- 1) How do Merino enterprises rate on-farm?
- 2) What is happening in New Zealand regarding wool supply chains?
- 3) What do consumers think of Merino wool?
- 4) What is the level of investment in wool processing?
- 5) Are there new alternative natural fibres?
- 6) How is Merino wool being sold to the consumer?

I visited New Zealand (to address questions 1,2,3,4 and 6), Denmark (to address question 3), Egypt (to address question 3 and 4), the US including Alaska (to address question 3,5 and 6), China (to address question 3,4,5 and 6) and India (to address questions 3, 4 and 6).

Chapter 1: On-farm

The focus of my study was not based at an on-farm level, but I believe it is worth briefly discussing the profitability of Merino wool enterprises in comparison with other on-farm enterprises. Most of the figures I have used to make such comparisons have been extracted from AgInsights (2005), produced by Holmes Sackett & Associates. This book summarises the results from 144 benchmarked farms across Australia in 2005, and is one of the best current farm enterprise comparative analysis references available.

Before looking specifically at Merino enterprises, let us put our minds to rest about how sensible it has been to invest money into farming in recent years. AgInsights (2005) reports for the last eight years

"the total returns achieved from agriculture are higher than shares and only slightly below those of commercial property. Therefore, the returns achieved by agriculture, including capital growth, are comparable to those made from capital invested elsewhere" (Holmes Sackett & Associates, 2006).

I must remember to show this information to my parents, the owners of the farm I co-manage!

So, how do wool growing enterprises financially rate against other farming enterprises? I rather like the following statement as the first sentence summarises exactly how I felt after attending meetings with woolgrowers prior to my Nuffield Scholarship.

"The main issue that warrants discussion for wool producing enterprises seems to be whether or not one should continue with it at all. At least that is the impression one has from listening to the majority of industry commentary over that last year or so. However, the results from wool flocks for last financial year do not support the extremely bleak outlook that has pervaded the industry in recent times" (Holmes Sackett & Associates, 2006).

In 2004/05 of the 144 farms benchmarked by Holmes Sackett & Associates, wool had the lowest gross margin (\$/DSE) compared to other livestock enterprises (dual purpose flocks, prime lamb flocks, beef breeding, trading cattle and agistment). While one may think the best option is to change enterprises and move out of wool it is worth considering the price deciles with which these enterprises were operating.

In 2004/05 seventeen and a half and nineteen micron clean wool was trading in the 30% decile (in the past 10 years, 70% of the time prices have been higher), lambs and sheep meat in the 80% decile and steers and cows in the 90% decile. If one thinks they can change enterprises quickly enough to respond to price trends then it may be sensible to swap enterprises. However, AgInsights (2006) also reports

"two years accounted for 50% of the total profit over the eight years for sheep, three years accounted for two thirds of the total profit over the eight years for beef, and two years generated 50% of the total profit over the eight years for cropping enterprises" (Holmes Sackett & Associates, 2006).

Good luck to those who can pick the right years in advance! Also the report states:

"The first and most important factor to have right is to ensure your current enterprises are run extremely well. It is much easier and quicker to improve returns by improving an ordinary enterprise than it is to change enterprises and expect it to perform well if the management is still below average" (Holmes Sackett & Associates, 2006).

In 2001, Apsley Park became a monitor farm with the '8x5 Wool Profit Program' (an Australian Wool Innovation and Tasmanian Institute of Agricultural Research funded project aiming to achieve 8% annual return on assets managed in 5 years on Tasmanian wool farms). Firstly, the farm was benchmarked in order to establish areas that needed improvement, then various projects were established to facilitate the required improvements; examples being internal parasite, weaner and biodiversity management. An associated grower group shared the journey with us by contributing suggestions, learning from our mistakes and adopting practises that worked well. We made significant improvements in reducing the cost of producing a kilogram of wool while increasing the total kilograms produced on the farm. However, at the same time the average gross wool price per kilogram was dropping making it very difficult to achieve our financial goals. While we knew we had plenty more room for improvement on-farm, it became clear that we increasingly needed to understand more about what was happening off-farm. This was the start of my Nuffield adventure.

Chapter 2: What is happening in New Zealand?

In 2005, at the International Wool Textile Organisation (IWTO) Congress in Hobart, Dr Scott Champion (who then worked for The New Zealand Merino Company) and Chip Coe from SmartWool, described an example of the supply chain model they used.

"A collaborative partnership has ensured Smartwool's future supply of New Zealand Merino fibre, while offering price security over an extended period of time for both SmartWool and its dedicated network of Merino growers".

Around this time I had witnessed a major change at the Hobart Snow Gum store (an outdoor equipment retail shop). The front section of the store was filling-up with a brand called, Icebreaker[™], which was made from 100% New Zealand Merino wool. Until this time, outdoor retail shops were basically filled with synthetic apparel so, I felt this change was particularly significant. This significance was amplified after looking at the price of the Icebreaker[™] products. I felt that AU\$130.00 for a T-shirt was expensive and was surprised that the Hobart market was sustaining the sale of such products. In discussions with the store manager he told me that firstly people come into the shop and like the products. Secondly, they look at the price and gasp. Finally, they buy the cheapest Icebreaker[™] product that they like, which is often a singlet. The next time they visit the store, price is no longer a big issue. The store manager told me that the reason he believes this to be the case is because the product does what the label states it will do (... the fabric breaths to keep you cool in summer, insulates when its cold in winter. Other properties - silk soft, light weight, strong, does not hold odour, stays warm when wet, dries quickly, does not itch, annually renewable and biodegradable, UV protection minimum UPF =25 and it's machine washable). Therefore consumer expectations are met so they are happy to spend the money for this outcome.

With a touch of jealousy and a hint of annoyance as to why a Tasmanian shop was not selling products made from Tasmanian wool I headed to New Zealand to find out what was going on.

Background to the New Zealand Merino industry

When in discussion with New Zealand growers and representatives from industry bodies I discovered New Zealand Merino industry's history has been dynamic. A thesis by Mark Stevenson (2002) titled "Stakeholder responses to institutional change in the New Zealand Merino Industry" provides a comprehensive review of this history and is well worth reading. The following information has been derived from this thesis.

- From the late 1960's until the early 1980's price support schemes were common in New Zealand agriculture including the sheep industry;
- In 1984 the New Zealand economy was deregulated and many woolgrowers recognised that they could generate more income from meat than wool. Consequently there was a swing away from wool;
- In 1994, Merino growers lobbied the New Zealand Wool Board (NZWB, established in 1944), "...for control of Merino growers levies to use in Merino-specific activities". Consequently Merino New Zealand Incorporated (MNZ Inc) was established and by 1995 basically received all fine wool levies;
- In 1996 the 'New Zealand Merino[™], brand was launched. This brand is used on garments that contain 100% New Zealand Merino wool;
- In 1998, a new Merino specific organization Merino New Zealand Ltd (MNZ Ltd) was established and was designed to be responsible for the worldwide marketing of New Zealand Merino wool and the management of the New Zealand Merino[™] brand. At this time New Zealand Merino[™] brand partners began to enter into long term supply contracts. Problems arose as MNZ Ltd could not buy and sell wool and MNZ Ltd put considerable effort into initiation and securing the contract, but was unable to capture the commercial value of the activity in its current structure;
- In 2001, Wrightson (a wool broker) and MNZ Ltd formed a joint venture called 'The New Zealand Merino Company' (TNZMC), 35% owned by Wrightson and 65% by New Zealand Merino growers (whose interest in the company was held by another new organization called, 'Merino Grower Investments Limited'). In addition to traditional handling and broking fees, TNZMC charges its growers an innovation fee of 4% of the value of Merino wool sold. TNZMC also has an exclusionist clause, which restricts growers to selling all or none of their Merino clip through TNZMC. This restricts the amount of free riding that can happen, preventing growers from marketing the rest of their clip through a lower cost alternative broker.

There are approximately 2.8 million Merino sheep in New Zealand, contributing 7% by volume of all wool produced and 15% by value (Stevenson, 2002). In comparison, Tasmania has just under 3 million Merino sheep, whose wool is worth about AU\$70 million (E. Hutchinson *pers. comm.*). Tasmania's Merino flock is about 3% of Australia's sheep population.

Most Merino sheep in New Zealand are farmed on the South Island, where they spend summer in the rugged high country and winter at lower altitudes within the high country. This is a significant feature of the New Zealand Merino industry as the high country is very rugged and steep, as well as hot and dry in summer and cold and bleak in winter. This environment is considered too harsh for nearly all other domesticated grazing animals in New Zealand. Therefore, other animal production systems are not really an option on this land. While the lack of alternative livestock enterprises may be considered a negative, the reality that Merinos are suited to the high country may have cemented the desire for growers to discover better ways to market and add value to their Merino wool.

Picture 2. In June 2006, whilst staying at Forest Range Station, I experienced first hand the tough environment that Merinos can experience in the High Country of New Zealand. These Merinos were being moved down a graded track to lower country where the snow was not as deep. This photo is a shinning endorsement for Merino wool and its ability to perform in extremely cold conditions. Interestingly, most consumers with whom I spoke in Alaska (a place that experiences extremely harsh winters) were well aware of the benefits of wearing merino wool in winter.



The returns from Merino production in the high country do vary between growers. Benchmarking figures from the New Zealand Ibbotson Cooney Farm Survey, 2005, states

"average farm surplus per hectare (total gross income/hectare minus total farm working expenses/hectare) for high country enterprises (Merino and cattle) was NZ\$30/ha and the average of the top 20% was NZ\$108/ha. Average farm size for all farms was 6068 ha and the top 20% was 7223 ha. The gap between the top 20% result and average result is widening each year".

The difference in total gross income between the average and top 20% was \$147 and \$269/ha respectively while the difference in total farm working expenses was \$117 and \$160/ha. In other words, the top 20% do have more costs per hectare but have proportionately much higher incomes than the average. The top 20% on average had sheep that cut more wool/head, received a similar net average price/kg for their wool, received higher net average prices for their lamb and ewe sales, had a lower mortality percentage and a higher lambing percentage. It is important to keep in mind that this is data from one year. However, I wanted to highlight the fact that some New Zealand growers are making good money from their high country grazing enterprises while others are not.

Two examples of Merino wool selling options in New Zealand

1. The New Zealand Merino Company (TNZMC)

TNZMC sells approximately 85% of New Zealand's Merino wool and about 50% of this wool is under contract. It was the development of a model to "...align participants of the Merino supply chain" (Dr S. Champion and Mr C Coe, 2005) that sets TNZMC apart from traditional wool brokers in New Zealand. Dr Champion summarises the benefits of the model in a paper presented to the IWTO Conference in Hobart in 2005. He is using the brand SmartWool as an example.

- Customising Merino offerings for particular market segments and retail brands involves responding to market demands; hence the 'supply chain' is regarded in the model as the 'demand chain';
- Links to retail brands allow market information to flow up the demand chain to processors and down the chain to growers;
- Auction prices are volatile. Contracts are mutually beneficial and guarantee supply, quality and price;
- SmartWool has formed close links with growers. This relationship provides an authentic sourcing story, which can be leveraged in the company's marketing;
- SmartWool's growers (directly and through TNZMC) help educate SmartWool about Merino fibre, enabling the company to improve product design and function.

TNZMC has contracts with many brand partners, examples being Icebreaker[™], Ibex and SmartWool. (For a comprehensive list see <u>www.nzmerino.co.nz/partners/int_partners.asp</u>).

My major goal, whilst in New Zealand, was to obtain industry perspectives about these contracts. I spoke with growers that have contracts with TNZMC and those that did not. Table 1 summarises the comments into positive and negative aspects and includes comments from growers, processors and TNZMC.

Table 1. A summary of comments from NZ wool growers and early stage processors about TNZMC wool contracts.

I concluded from these comments that the major criticism about these contracts is that the prices growers receive for wool is not high enough. This begs the question – what price is high enough? A good starting point to answer this question would be to know the cost of production and establish the breakeven price. I was surprised to learn that some growers who had contracts did not know their cost of production.

TNZMC did attempt to address this lack of knowledge by developing a cost of production model. It cost growers NZ\$150 to use this service, yet only about ten growers had used it to mid 2006 (Mark Stevenson *pers. comm.*). One explanation I was given for this lack of interest was if growers were happy to grow Merino wool for the past ten years then they were likely to be happy with a contract price aiming at the 75th percentile.

Interestingly, the same lack of interest in financial benchmarking was shown a few years ago in Tasmania. The '8x5 Wool Profit Program' had a benchmarking component; this was available at no direct cost to growers yet only attracted 24 participants in 2001-02 and 28 in 2002-03 (Reid, 2004). If growers want to negotiate higher prices for their wool then their bargaining platform will be much stronger if they can demonstrate why they need higher prices. Wool growing is a business and needs to be treated as such.

One of the criticisms of the auction system, in both New Zealand and Australia, is that growers are not able to obtain feedback and often do not know the destined market for their wool. Instead, they have to rely on retrospective premium and discount sheets to try and predict what the market may demand in the future. One of the described benefits of direct contracts with brands is that information can readily flow both up and down the chain. This allows growers to make on-farm decisions that will enhance their ability to supply a product that is in demand. In practise, growers who have contracts in New Zealand reported mixed results in the level of information flow that occurred. Much of this was facilitated by TNZMC who arranged farm visits for brand partners and their sales staff. In addition, an annual conference provides growers with an opportunity to ask questions of guest speakers (who are usually brand partners). This type of communication did seem to be giving growers general information about the companies for whom they were supplying wool. It also provided a social platform for growers to mingle and have fun. These aspects are important in maintaining morale and enthusiasm towards growing wool.

With regards to on-farm feedback for individual growers, the contract system has not really been able to provide specifics. The reason for this is that wool from different farms is still batched, thereby eliminating the ability to attribute processing success or otherwise to one specific farm. However, the actual contract requirements do give growers information about what the supply chain is demanding. For example, Icebreaker[™] contracts specify micron and staple strength ranges and that they only want wool from farms that do not 'mules' their sheep. While not perfect, the contract system is providing more information to growers regarding their wool enterprises than the auction system.

One of the most outstanding success stories associated with the New Zealand contracts is how well informed sales assistants are about the Merino products that they are selling. I believe it is the close link the TNZMC has with brand partners, and its commitment to communication, that allows the supply chain to be well informed. I visited outdoor equipment retail shops in Australia, New Zealand, US (including Alaska) and Canada and was extremely impressed about the depth of knowledge regarding Merino products that was spontaneously given to me. These people did not know my background in wool therefore, I assume I was treated like any customer.

During the past 10-20 years, customers of outdoor equipment retail stores have been sold the benefits of synthetic clothing; it is so important that well informed staff now tell them why Merino wool performs so much better than even the smartest synthetics. Shop staff in a store in Vancouver told me if they wore a specific brand of Merino top for 30 days straight without washing it they would recieve a free top. This is clever marketing as firstly it proves to the staff the Merino garment does not smell even after multiple use; secondly, the staff are wearing Merino so customers can see the product in use; thirdly, the staff member can legitimately tell customers what the garment is like to wear. What a cheap and effective way to put Merino products in front of consumers.

Picture 3. An employee in an outdoor retail shop wearing an Icebreaker T-shirt (100% Merino), Vancouver, Canada. If this chap wears this shirt for 30 days in a row, Icebreaker T will give him another one for free. This is a great way to demonstrate to potential customers that merino wool doesn't get smelly.



Brand partners who have contracts to source wool from New Zealand growers are gaining great mileage from using the 'New Zealand High Country' story in their marketing.

The following is an extract from an Icebreaker[™] catalogue.

"If it didn't work, the animal would die. Put yourself in the Merino's position. It lives high in the Southern Alps of New Zealand's South Island, often grazing up to 7000 feet. This is a place of both intense beauty and harsh extremes. In winter the temperature can plummet to minus 20 degrees Celsius. Ordinary sheep would die up here. But the Merino's miracle fibre completely insulates it and keeps it warm and alive" (Icebreaker, Winter 05/06 brochure).

In conclusion, while some Merino growers in New Zealand continue to sell their Merino clip through other means, mainly the auction, many are embracing the alternative offered by TNZMC.

2. Escorial[™]

Escorial[™] is the brand name for fabric derived from the fibre of sheep that are descendants of the royal flock of Saxon Merino sheep brought to Tasmania in 1820 by Eliza Furlonge. Three flocks (one in each New Zealand, Tasmania, and Victoria) supply ultra-fine fleece that is used to make Escorial[™] fabric. The name Escorial[™] was chosen because

"... in 1340 pure mahgreb flocks fell into the hands of the Spanish royalty, who took them to the Christian monastery of El Escorial, located Northwest of Madrid. It was there they were to become known as the Escorial flock" (Escorial[™] Company of New Zealand, 2004).

Escorial[™] fibre is targeting the absolute elite and exclusive suiting market. Their point of differentiation is that the high curvature fibre from these Saxon sheep creates an extremely soft and light weight fabric that has high elasticity ensuring the consumer complete comfort. Also, the small volume of fleece available to make Escorial[™] fabric ensures the rarity and exclusive factor associated with the brand as is documented in the following statement.

"Today, a small group of Escorial[™] breeders is still committed to the purity of the breed and the uncompromised integrity of the fibre. Their limited numbers, size and the delicate time consuming processes from harvesting the fleece to the finished fabric makes Escorial[™] the most exceptional and rarest of naturally grown fibres in the world. Then only through the Bristish Escorial[™] Guild, a select group of seven weavers, a spinner and a high quality fabric merchant, does Escorial[™] find its way to the world's finest clothing houses and their elite clientele" (Escorial[™] Company of New Zealand, 2004). This supply chain is a good example of how a small group of people have attempted to value add to a fibre. They have recognised that commodity trading of wool was never going to result in satisfactory returns. Eight years from the start of the project, it is obvious that a huge amount of work and passion has been required to develop the Escorial[™] brand. Looking back, this is not the sort of project to embark on lightly. When talking to an Escorial[™] employee he said, "The level of expectation in the wool industry is so low". This observation is worth thinking about.

Concerns of the current New Zealand Merino industry

I attended the South Island High Country Annual Conference in Dunedin in June 2006. This was a great opportunity to hear about issues faced by farmers from this area. Although this is not directly related to my study topic, I feel it important to report on some of these issues.

The high country of New Zealand is facing increasing pressure from recreation users who want access to this country. About 45% of the high country is in pastoral leases, 27% in Crown-owned conservation lands, administered by the Department of Conservation, and 28% is freehold land in private ownership totalling about 3.5 million hectares in all (Tussock Grasslands, 2001). Currently the public is able to access marginal strips (marginal strips are 20 metres wide strips either side of a water way that averages three metres in width at high flow). One of the problems with marginal strips is they are not marked on a topographic map so, there is great ambiguity about their location. This can lead to conflict between farmers and recreation users. In addition, if farms are located on the way to a significant recreational area the number of people passing through the farm per year can be high. One farming couple I met have about 1500 vehicles passing through their farm every year. They now charge NZ\$20/car to cover the cost of maintaining roads. Many growers realise that recreational land users are not going to disappear and that they need to create opportunities from the situation. Some have done this by setting up eco-tourist ventures, and I was pleased to see that one business was selling Merino garments to their eco-tourists.

Hieracium is an invasive weed that is having a devastating effect in the South Island High Country. About half a million hectares are dominated by this weed and there is a 90% loss of production from grazing on this land (Dr P Espie, 2006 *pers. comm*). The reason I am reporting this problem is I was told this weed has recently been found in Tasmania and Victoria. Some advice from the New Zealand farmers is "Do not let this weed grow out of control and if you can eradicate it now, it is money well spent".

Chapter 3: What do consumers think of Merino wool?

In order to obtain information about 'what do consumers think of wool?' I observed conversations between shop assistants and consumers, spoke directly with shop staff and consumers in-store and chatted with people I met on my travels particularly on public transport. I randomly questioned people on the street and had meetings with people who are involved within the wool supply chain, such as processors, fashion institutes and industry organizations such as The Woolmark Company and Australian Wool Innovation.

Please note that the majority of my travels occurred from July to September, which is winter/spring in New Zealand but summer/autumn in all other countries visited. This factor has a strong influence on the woollen products available in shops and potentially the types of comments I received from consumers.

Denmark

The main reason I visited Denmark was to try to gauge the affection everyday Danes have towards Princess Mary. Was her Tasmanian heritage well known and would this provide a marketing opportunity for Tasmanian products? I specifically was interested in assessing the potential opportunity to market baby clothes made from Tasmanian Merino wool.

After randomly asking a number of people on the streets of Aahus and Copenhagen, I concluded that yes, Princess Mary was very popular and highly regarded; it was known that she was born in Tasmania and all knew where Tasmania was located. However, with further investigation about Danish life I had to conclude that it would not be cheap or easy to convince Danes to buy Tasmanian Merino children's clothing. The reasons for this conclusion are as follows

• The top income tax rate in Denmark is 59% (includes state tax, county tax and local tax) and it also has a goods and services tax of 20% (www.skat.dk). Consequently, although Danish standard of living is very high due to government services, their disposable income is proportionately less than some other developed economies due to these tax rates. I felt that non-tangible values would need to be very strong to convince Danes to pay more money for children's clothes. For example, I think they would be interested in buying garments with the Tasmanian story if the garments were good value for money, fashionable and functional. Only then would the Tasmanian factor be considered.

- Real estate prices in Denmark have soared in recent years. Due to this capital gain, banks have been willing to lend money as these houses are considered very safe assets. While these loans have helped sustain a more luxurious lifestyle for some; rising interest rates could cause the bubble to burst. When this happens, savings will become a priority and therefore, less money will be spent on luxury goods.
- Danes believe that wool is a winter fibre and it was very hard to find it in shops in summer. One manufacturer of woollen garments in Denmark told me that the Norwegians are culturally much more accepting of wool than the Danes because of their extremely cold climate. In addition, I found that shop assistants did not know the attributes of Merino wool except that it was warm. They certainly did not look too excited when I told them that next-to-skin Merino apparel exists, which does not feel prickly. I felt that they still rated wool in the jumper/coat category.

I did ask a cotton garment importer what he thought of the Tasmanian woollen children's clothing idea. His response was "Danes would pay good money for a brand but you would have to spend a considerable amount of money developing the brand." He believes you do not see many Tasmanian brand products in Denmark because no one has really tried. The opportunity still exists however, I would recommend significant homework to be completed before expanding this idea. Also, I acknowledge my visit to Denmark was only five days so my assessment was rather preliminary.

Egypt

I chose to visit Egypt for a few reasons. Firstly, it is a very hot and dry country and I wanted to see what fibres are worn in such an environment. Secondly, I wanted to gain an understanding of what clothing is worn by Muslims.

Culturally, Egyptians do not expose much flesh and I understand there are two reasons for this. Firstly, there are religious reasons whereby Muslims choose to cover up their bodies in public. Secondly, in such a hot environment you need to cover up to protect yourself from the sunrays and extreme temperature.

On the streets of Cairo, most men wear either cotton galabiyya (an ankle length robe-like garment worn over loose fitting trousers) or a loose fitting long sleeved cotton shirt along with trousers or jeans. Cotton is definitely the fibre of choice although it is cheaper to buy a cotton/synthetic blend shirt.

The women wear either cotton or synthetic abeyya (the feminine equivalent of a galabiyya) including a headscarf. The most expensive headscarves are made from silk. Both men and women wear slip on sandals with no socks. However, those wearing western suits do wear shoes and socks.

The only wool that I saw being used in clothing for Egyptians was in men's suiting. There are a number of fabric shops specialising in wool, and wool blends; at these a man can purchase the fabric and be fitted for the suit. This process is reserved for those with money and a fine woollen suit symbolises wealth and exclusivity. It is also possible to buy ready made wool suits from retail shops.

Picture 4. An employee in a suiting shop showing some 100% Merino wool fabric, Cairo, Egypt.



I showed some Egyptian men an 18 micron, 100% Merino sample T-shirt. Firstly, their reaction was one of surprise, as they do not associate wool with next-to-skin wear; secondly, they generally wear cotton shirts and the T-shirt was more casual than the button-up shirts they are used to wearing.

It is difficult to see the expansion of woollen garments in Egypt outside of suiting. One possibility is abeyya made from lightweight and well draped Merino fabric. Due to the amount of fabric required, such a garment would be very expensive and would need to be targeted at the top end of the market.

USA/Canada

The outdoor retail apparel market was the major focus of my study in North America. Generally, there were two types of people I spoke with: those who were unaware of next-toskin Merino garments, and those who were aware and, in most cases had worn such a garment.

For those who were not aware of next-to-skin products their views on wool were not surprising:

- a prickly garment such as a sweater (jumper) that you wear in winter to keep warm;
- it can be fashionable;
- it is often difficult to maintain as it cannot be machine washed and must be dried flat.

After asking individuals what they thought of wool I showed them two 100% Merino wool Tshirts (16 micron and 18 micron) and asked them what they thought they were made from. Not one person said 100% wool despite the fact I felt the question was loaded. Some thought they were made of cotton others simply could not say and were not prepared to guess. When I told them they were 100% Merino wool some tried to argue that they must contain a percentage of lycra *®*. On further inspection many commented how soft they were, particularly the 16 micron shirt. I still think some did not believe me when I told them they were machine washable. The experience I had with these T-shirts was so exciting, however, it quickly became apparent that an enormous level of education is required to convince consumers about modern Merino wool garments.

At the Outdoor Retail Show in Salt Lake City, I was pleased at the number of retailers who were showing Merino wool products. Some were brands whose business is based solely on Merino products such as Icebreaker[™] and Smartwool (both companies source Merino wool from New Zealand). Others were outdoor retail brands that sell Merino products as part of their range such as Arcteryx (www.arcteryx.com) and Patagonia® (www.patagonia.com).

There were also about five organic cotton stands mainly selling organic T-shirts. When mentioning that I was a woolgrower from Australia a few of them asked me if you could buy organic wool. I told them I was not familiar with the availability of organic wool but mentioned that we, along with a number of other Tasmanian growers, produce chemical free wool that meets EU Eco label requirements. They were interested in this, which led me to ask

"What exactly are the attributes of organic products that your customers are demanding? Do they not want chemicals to be used in the environment at all or are they more concerned with their own health in demanding products that do not contain chemicals?"

The responses I received were vague and it quickly became apparent that organic seems to be such a 'blanket word' that means different things to different people. I wondered whether many of the consumers demanding organic wool would actually be happy with chemical free wool. The reason this is so important is that, as a woolgrower, I can easily produce chemical free wool but to produce organic wool would require major changes in our production system. There is demand for organic wool; however, I think it is very important to inform retailers about the availability of chemical free wool so, they can provide an appropriate product range, whether it be made from chemical free or organic wool, to meet their customers needs. For readers who are interested in this topic, a Google Internet search for organic wool provides some interesting reading.

In Canada and Alaska I randomly visited five outdoor retail stores. In every store next-to-skin Merino products were available. The brands that I saw were Smartwool, IcebreakerTM and Ibex – interestingly, all use New Zealand Merino wool! Generally, although the product range available was not large, the garments displayed were in a prominent part of the store. As I mentioned earlier in this report I was extremely impressed at the level of knowledge the sales staff had about the products.

In Alaska I visited the Department of Fish and Game (www.adfg.state.ak.us). The people that work here are often out in the field in extreme climatic conditions. All the staff I spoke with were particularly aware of two qualities that wool possesses. Firstly, that it keeps you warm even when it is wet and secondly, that it is not flammable. The Fish and Game Department run educational programs about survival and they teach "cotton kills". The reason being, that if you are outdoors in winter wearing cotton, and it gets wet, it will not dry and will not keep you warm, ultimately resulting in death in extreme cases. However, they are well aware that when wool gets wet, it still has the ability to keep you warm, thereby greatly enhancing your chance of survival. Secondly, I was told that there is one light aircraft per every four cars in Alaska. One disadvantage associated with air travel in Alaska is there are a number of aeroplane crashes. Often with crashes, there is an associated fire that can cause horrific burns particularly if the occupants are dressed in synthetics. The staff members I spoke with at the Department of Fish and Game know people that have been burnt in aeroplane crashes and say you only need to look at these people once to never wear synthetics in an aeroplane again.

Another positive feature of their Merino apparel that they liked was the fact it didn't smell even after long stints in the outdoors. The biggest complaint they had against next-to-skin Merino apparel was its price. They felt that it is expensive but were prepared to outlay the money for the reasons already discussed. Also, they felt that some of the products were marginal in regards to softness and prickle, but were really impressed with the 16 micron T-shirt.

Also in Alaska, I spoke with some staff from the Northern Warfare Training Centre – part of the US army. In my first phone call, I had just started to explain the qualities of the next-toskin Merino garments when the Commander stopped me mid sentence. He told me he was well aware of the qualities because he wore the garments on the weekend during his personal sporting pursuits. The significance of this moment was important because for the first time someone was telling me why he chose to wear wool rather than me explaining why he should be! The Commander said they were interested in Merino garments for their soldiers however, it was a complex procedure to make changes to the uniform. Also he did have some reservations about how well the products would cope with military laundering facilities and also men who were very rough on clothing.

My time in Alaska proved one very important point regarding outdoor retail Merino apparel and that was *that it works*. Alaska has one of the most extreme climates in the world and this was the place where people seemed to know the most about the qualities of wool that make it invaluable in a cold climate. Synthetics may have bumped out wool in many markets over the past decades but my time in Alaska proved to me that there is not a synthetic that exists today that can match all the traits of wool. My level of optimism towards the wool industry rose significantly after visiting Alaska.

China

Due to language difficulties, I was not able to speak randomly with consumers in China. However, I did look in stores in Shanghai and observed consumers on the street. Probably the most unexpected feature of Shanghai, was how westernised it is. Consumers dress in western style, hotels have typical western signage in the rooms and the English version of the safety spiel on the aeroplane was exactly what you would hear on an Australian aeroplane. There appeared to be a huge desire to match it with The West. At times I felt it seemed more western than The West! The following statistics put into perspective the rate of change, in consumer behaviour, in China. In 1980, fibre consumption per capita was 4.1 kg and increased to 14 kg in 2005. A Chinese Wool Textile Industry report states that

"Nowadays, China's annual wool consumption has exceeded 200 thousand tonnes of scoured wool which comprised 18% of world consumption. Over 75% of the wool textile products sell domestically, thus the domestic demand is the key motivity of the Chinese wool textile industry" (Shuyuan, 2006).

The Chinese wool textile industry recognises the importance of

"Regaining the appreciation of the consumers by the fashion style they re-establish" and "the need to add value to their products and form alliances with well-known international brands" (Shuyuan, 2006).

The good news for Merino wool in cities such as Shanghai, is that if western fashion incorporates new and innovative uses for Merino wool, I feel that the Chinese will happily take this on. The market is huge and growing daily and for the Australian wool industry it is an important time for designers to be using Merino wool. This should encourage Chinese consumers to associate Merino wool as an integral part of fashion.

Home textiles, including bedding, is another expanding market in China. With the assistance of Alistair Carr from Michell, I attended The Home Textiles Show in Shanghai. It was interesting to note that a common thread in many of the marketing brochures at this event were how a product can be good for your health. For example, in the Kasan Home Textile brochure, the following was written

"Absorbing China and the West cultural and art ethos, the design of the company products is in pursuit of health, happiness and pleasure...Our 1,000 Kaisheng workers are doing our best to make first-class green ecology products to fit the life and health requests" (Kasen Home Textile brochure).

In another brochure

"The several amino acids it contains can also stimulate metabolism. Silk is the only one natural fibre which is mildew proof. Using for a long time is beneficial to health" (product brochure, company unknown). One company was promoting 'vitamin textiles', where the fabric has been microencapsulated with vitamins and during wear the vitamins were reported to be absorbed through the skin. A Japanese futon company called LISA reports

"Good sleep helps with good brain condition, skin beauty, controls body weight and makes you healthy and prolongs life".

Wool is the major fibre used in these futons. By indirect association this brochure implies that to have a good sleep and gain the benefits mentioned above, a woollen futon is your best choice. They have also referenced the research that supports their claims about sleep.

Wool was well represented at The Home Textile Show including in quilts, futons, pillows and carpets. I was told that one of the reasons for the increasing demand in woollen bedding is due to a shortage of feathers as a result of bird flu. Consequently, feather quilts are being replaced with woollen quilts.

India

In contrast to Shanghai, I was surprised in Delhi at the number of women (both young and old) wearing the traditional Indian dupatta (scarf), kameeze (long top) and salwar (loose cotton pants). Certainly some women were wearing western attire but they were the minority.

Picture 5. Indian women wearing the traditional Indian dupatta (scarf), kameeze (long top) and salwar (loose cotton pants), Agra, India



Culturally, Indians identify with natural fibres – including silk, cotton and wool. I was told that all Indian brides wear silk, the more wealthy you are the higher the grade of silk. The following extract is from a Masters study by Jyoti Aggarwal (1997)

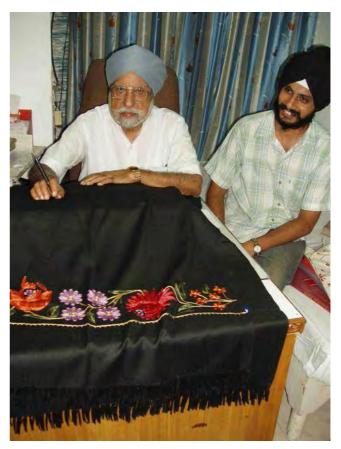
"Woollen fabric had always been a sign of cultivation of sensitivity and the stirring and mellowing of humanism. It stood for man's endeavour to bring elegance and grace into an otherwise harsh and drab human life. The wool fibre has acquired a significant place in culture and traditions of India, since times immemorial. Hindu scriptures tell us that woollen fabric had a religious significance even during epic ages. Ancient texts, like *Rig veda* and *Parayana Sara Sangraha* sanctify the ceremonial purity of wool".

Traditionally, for Indian women, the major garment made from wool is the shawl. The shawl industry in India started in Kashmir between 1420-70AD. In 1753, the Afghans invaded Kashmir and under conditions of heavy taxation and poverty the shawl weavers left Kashmir and moved to the Punjab area, where they remain today (Aggarwal, 1997).

The shawl is worn in winter from December to February. Certainly the shawl is changing from being just an item of warmth to one of both fashion and warmth. There are concerns that younger women are buying viscose and acrylic shawls because they deem them more

fashionable and cheaper than the woollen alternatives. The industry must quickly meet this challenge by ensuring its shawls are fashion items. There are plenty of wealthy Indian women who would prefer to buy woollen shawls but they must be fashionable. There are 27 billionaires and 70 000 millionaires in India (Shastri, 2006).

Picture 6. Mr Madan and his son (Madan Textiles) showing a woollen shawl, Amritsar, India. I was pleased to have met some young men within these textile family businesses who are choosing to work in the business as opposed to seeking an alternative profession.



In 1991, one company started to export shawls to Europe and the US. Interestingly, women from these continents did not know how to wear big shawls so, in response, their size was greatly reduced. Indian shawls weigh about 300 grams while those for the European market weigh 60 grams. This made the shawls cheaper to buy but the disadvantage for woolgrowers is they contain far less wool.

A number of the shawl manufacturers that I met highlighted the need to educate younger Indian consumers about the attributes of wool prior to the winter season. One area of growth for the shawl market is the gift market. Shawls make a nice gift that is not too expensive, they are ready to wear and one size can fit all.

Suiting fabric is the largest user of wool in men's apparel in India today. Traditionally, a man would have a suit or pair of trousers made from fabric chosen at a tailoring store. Suiting fabrics are mainly wool blends and this market is being helped by increasingly formal attire being worn in winter. There has also been a big increase in off-the-rack worsted fabric companies in India, for example *Reid and Taylor*. The major problem with this retail market has been sizing problems. I was told that very little research has been done regarding the sizes of typical Indian men and women. Consequently, Indians were having problems buying off-the-rack suits that fit. Retailers have finally addressed this problem and improvements have been made (Dr Gupta *pers. comm.*).

I did visit two fashion institutes in Delhi, The National Institute of Fashion Technology (www.niftindia.com) and the Pearl Academy of Fashion (www.pearlacademy.com). I was disappointed to be told that many of the students perceive wool to be old fashioned and boring and that some of the guest speakers invited to speak about wool added to that perception. The reason for my disappointment is that on my travels I have seen so many exciting developments in wool and how they are being used in high-end fashion (for example, the work by designers Akira Isogawa and Josh Goot - <u>www.merinoinnovation.com</u>). Innovative use of Merino wool is what these students should be exposed to in order to inspire and excite them. Due to the sheer number of annual applicants for these institutes (recently 30,000 students applied and 1500 were accepted at the National Institute of Fashion Technology) one may assume the level of talent of these students to be high. It would provide a great niche opportunity for a few of these students to specialize in wool and base their career on this fibre. However, they need to feel motivated and excited with the fibre in order to want to follow this direction. In addition, major retail outlets in India are now employing sales staff, whom have training in fashion and some of their employees are recruited directly from these fashion institutes. If these graduates have a positive affinity towards wool then this is likely to result in good vibes to the consumer. Some urgent work in required to market 'modern' wool in these institutes.

Chapter 4: What is the level of investment in wool processing?

In addition to gauging the level of optimism of consumers I thought another aspect to judge the health of the wool industry was to look at the investment in capital within the supply chain. The variation of investment was considerably between countries and this highlights the level of globalisation that exists in the wool industry today.

New Zealand

Timaru, on the eastern side of the South Island, is home to a number of wool processing operations. I visited three of these operations and also two businesses in Christchurch.

1) Top Maker

The biggest threat to this business, as reported by its manager, is off-shore processing. Consequently this business does not intend to invest in new machinery although it does have superwash facilities. To put this in perspective see Table 1.

Table 1: Speed of in-house top making machinery verses the latest available technology

	NZ TopMaker	The Latest Available Machinery
Carding speed	520 metres/minute	1000 metres/minute
Gilling speed	160 metres/minute	500 metres/minute
Combing speed	190 cycles/minute	260 cycles/minute

Source: The Floor Manager, Chargeurs

Management of this plant believes its niche will be small batch processing and the guarantee that the wool entering the plant is the same wool that is delivered to the customer; that is, New Zealand wool in equals New Zealand wool out. Regulation and difficulties in recruiting and maintaining staff is another issue for this business.

2) Scourer

This business has made significant investments in new machinery in recent years. One of their scourers uses the latest technology available and they have recently built a new bale storage area. In order to enhance viability they invested in another scour business to increase scale. The reason for their optimism is that shipping of raw wool is expensive and therefore, it is more logical to scour close to place of origin.

The manager says that any wool greater than 30 micron would not be scoured in China due to shipping costs. The plant operates 24 hours a day and due to highly mechanised equipment the labour requirements are reduced. Every product that is extracted from the wool is sold including lanolin, dag and dirt. The plant can scour all types of wool but Merino wool must be scoured more slowly and carefully. Higher lanolin extraction from Merino wool helps offset this cost.

3) Weaver

Local investors had recently rescued machinery from this business from a probable trip to China. One of the investors, who are also woolgrowers, believes that investment in value adding of wool is their best chance of capturing value in the supply chain. While the machinery is not new, it suits smaller scale output that is looking at value as opposed to volume.

4) Knitter

Both businesses visited were small scale, targeting the local New Zealand market only. One company specialised in work wear and the other mid-price range leisure wear. Machinery was not modern but was automated.

Egypt

The A-Arafa Group is an impressive group of vertically integrated companies operating in textiles and apparel. To appreciate their level of investment in wool supply chains (and other fibres) it is worth briefly listing the expansion of the Group (Table 2). Today, the Group

employs 5500 people and has an annual turnover of US\$100 million.

Picture 7. Mr ElAziz, Regional Manager, Swiss Garment Company, Egypt



Company Name	Year Starte d	Main Business	Umbrella Name
Goldentex Wool Co	1984	Weaving, finishing and dyeing	Goldentex Group Co.
Goldentex Spinning Co	1989	Blending 17-23 micron Australian wool with silk, linen, viscose, mohair and lycra	Goldentex Group Co.
Silk Wool House Co	1994	Spinning and weaving special designs	Goldentex Group Co.
Swiss Garment Company – formal sector	1995	Producing men's jackets, trousers and waistcoats	Swiss Garment Company
Swiss Garment Company – casual sector	1989	Casual trousers	Swiss Garment Company
Middle East Tailoring Company	2000	Dedicated supplier for men's suits to Marks and Spencers	Middle East Tailoring Company
Egypt Tailoring Company		Top quality full canvas men's suits (traditional suit)	Egypt Tailoring Company
Concrete Shops		Network of retail shops in Egypt	Concrete Shops
Signiore Trading Company		Network of Retail shops in Egypt based on a European style and look	Signiore Trading Company

Table 2: History of development of the A-Arafa Group

Source: A-Arafa Group Brochure

I had an interesting visit to the Goldentex Wool Co and the Swiss Garment Company (SGC). Most of the machinery used by these two companies was not state of the art. However, they acknowledged that this is an advantage for wool processing, as slower machinery is less damaging to the wool fibre.

In the cutting room at the SGC, there were some latest technology cutting and fusing machines.

Picture 8. Employees of the Swiss Garment Company working in the cutting room, Cairo, Egypt.



When I enquired about the reasons for the very quick rate of expansion of the A-Arafa Group I was told:

- Egypt is cheap with respect to water, electricity and labour;
- It is close to Europe (delivery to Italy is three to four days and maximum delivery to the UK is two weeks);
- Their high quality assurance standards have ensured continued and expanding business with a number of high profile brands;
- The availability of political schemes such as the Qualified Industrial Zones (QIZ) agreement. (H Elaziz *pers comm*.)

Qualified Industrial Zones are geographically designated areas in Egypt determined by the Egyptian government and approved by the US government. In QIZ, industrial products originating in Egypt and satisfying agreed-upon Israeli content are granted free entry into the US customs territories. QIZ was first introduced in 1996, when the US Congress, aiming at reinforcing peace in the Middle East, issued decree 6955. This authorised duty-free entry into the US for the industrial products manufactured jointly with Israel and originating in Egypt. The latest QIZ agreement (2005) between the US and Egypt states

"35% of the commodity's value must be manufactured locally and it must contain 11.7% Israeli inputs".

The government website (<u>www.qizeqypt.gov.eg</u>) reports that some of the benefits that apply specifically to textiles businesses are;

"... increasing textiles and clothing exports to the US market, with the possibility of reaching 4 billion dollars within the next five years and providing 250,000 job opportunities in the industry".

China

The level of investment in wool processing in China is both impressive for its scale and the speed of its development. From the mid 1980's to the mid 1990's the wool industry in China experienced rapid growth. In 1985 there were 1,390,000 spindles and in 1995 there were 4,080,000 (Shuyuan, 2006). However, by 1997 state-owned enterprises were not coping well with the increased output and the government pulled back.

By 1998, the proportion of state-owned wool textile capital had decreased. Since that time technical progress has been enhanced by significant input of foreign investment, through both technology and management.

With the assistance of Australian Wool Innovation (AWI) I visited three major wool textile mills, the Younger Group, Reward (Ningbo) Wool Industry Co and the Heilan Group.

Reward (Ningbo) Wool Industry Co. Ltd, was established in 1992, and is now the largest topmaker in China. On 230 000m² of factory area, it can annually supply 16,800 tonnes of first-grade wool top , 9000 tonne of carbonised top and 4000 tonne of super wash, soft lustre and basolan treated wool. The company brochure reports:

"All raw materials are imported from Australia for refining, cleaning and processing. Reward Ningbo uses the most advanced production technology and equipment such as Fufeng scouring machines from Taiwan, Temafa blending-bin systems from Germany, Thibeau carding machines and NSC combing/gilling machines from France, Gualchierani packing machines from Italy and shrink-proof machines by Fleissner of Germany". (www.china-ningbo.com/reward)

Youngor Worsted Spinning Weaving and Dyeing Co Ltd, produces 4.5 million metres of worsted wool fabric each year. They use more than 200 sets of the most advanced dyeing, spinning weaving and finishing equipment from Italy and Germany. This company is part owned by the Younger Group that forms a vertically integrated garment manufacturing company mainly focusing on suits and shirts. The company was started in 1979 by 20 people who established the Youth Garment Factory. The Company currently has exports valued at US\$520 million plus has the largest market share in China for both shirts and suits. (www.youngor.com.cn)

Picture 9. The Youngor Complex, Ningbo, China. The scale and architecture of this building makes you feel like you are about to enter a large public building such as an art gallery rather than a wool processing plant.



The Heilan Group is one of China's biggest wool textile mills that produces 15 million metres of medium and high grade worsted fabrics and 35,000,000 suits. The Group has a network of 250 retail shops around China and 60% of its products target the domestic market (AWI, Industry Leaders Tour Document, 2006 www.heilan.com.cn).

India

My main area of focus in India was the consumer however I did visit some shawl manufacturers. Generally, these businesses had some antiquated machinery and some modern weaving looms. Many had expansion plans with the aim to purchase an increasing number of modern looms. The Ministry of Textiles in India runs a scheme called The Technological Upgrade Fund (TUF), which gives a 5% subsidy on interest rates to buy new machinery. Generally the businesses I visited were family owned. So, although the scheme is attractive, the returns from the new machinery must be the first consideration as the financial outlay is large.

Picture 10. A modern weaving loom, Ludhiana, India – machinery ranged from antiquated to modern.



Chapter 5: Are there new alternative natural fibres?

Bamboo

My first encounter with bamboo in textiles was in a high value men's suiting shop in Winnipeg, Canada. The jacket was 50% bamboo and 50% cotton and was retailing for AU\$735 (converted from Canadian dollars). The fabric was lightweight and stylish. The store manager informed me that the bamboo jackets were new and the buyers were businessmen who went to California for their holidays. The jackets were considered to be a cooler alternative than wool. Feedback from consumers was not available from the store manager due to the short time the garments had been available.

Picture 11. A 50% bamboo and 50% cotton jacket, Winnipeg, Canada

The next place I saw bamboo was in Christchurch, New Zealand, in a shop selling outdoor wear. The women's Tshirts were 95% bamboo and 5% elastane. They cost about AU\$40 and according to the store manager, the main consumer of this garment were women golfers. Similarly to my experience in Canada, the product was too new to obtain any feedback. The washing instructions on this garment are: "Cold hand or machine wash, do not spin dry, drip dry, warm iron and do not dry clean".



Although a natural fibre, I do not feel that bamboo is a big competitor for Merino wool garments with the exception of wool suits in summer. It may compete with cheaper wool blend T-shirts but I think the price and look of the fibre will enable it to compete well with cotton.

On a US website (www.bambooapparel.com) it states:

"Bamboo fibre T-shirts are naturally antibacterial, biodegradable and extremely soft. Once you wear one of our bamboo T-shirts you will never want to wear another 100% cotton T-shirt".

Although it is still early days, the wool industry needs to keep an eye on this fibre. There may be complementary marketing opportunities aligned with sustainable fibre production common to both wool and bamboo in opposition to synthetics. Another website (<u>www.ecodesignz.com</u>) states:

"When it's harvested, it need not be replanted, because it will grow a new shoot from its extensive root system. So, bamboo renews itself readily, unlike hardwood trees, which once cut, are gone forever. Bamboo is an endlessly renewable resource".

Corn Starch

I was amazed to see two prototype garments made from 100% corn starch at the Paris Show in March 2006. NaturesWorks LLC (owned by Cargill) released the fibre in 2003 and they market the product under NatureWorks®PLA and Ingeo® fibre brand names. At the Outdoor Retail Show in Salt Lake City, five months later, I saw this fibre commercially available in the form of socks. IngeoTM is used by Teko and they strongly highlight its environmental credibility. This is evident on their wesite as the following is written:

"Teko, a maker of high performance outdoor, sports and everyday socks with a commitment to minimal ecological impact, is proud to add Ingeo[™]PLA to its line of performance socks. Ingeo is a sustainable, corn based fibre that is right in keeping with Teko's beliefs. This biodegradable fibre has all the qualities Teko is excited about: great moisture transfer, durability, soft handle and breathability...The

manufacturing of the resin for Ingeo fibre can require up to 50% less fossil resources than resins from traditional synthetic fibres" (www.tekosocks.com).

Picture 12. The transformation of corn from grain to filament, Paris, France.



Ingeo is having interesting uses. An Italian company, W.I.P, has created a nappy made largely from Ingeo

"...with 80% of its components being biodegradable" (www.ingeofibres.com).

I do not want to make a judgement about how corn starch derived fibre will compete with wool as I don't have enough information. However, it does highlight the fact that fibre development is continuing to occur and wool must be careful not to be nudged out further from markets due to these new fibres. In the past, synthetics grabbed a large share of the traditional market share of wool. I'm not sure the wool industry could stand losing any more of its 2% world fibre share. Therefore the industry needs to think about how we can position wool so that new fibres can take share from cotton and synthetics, and not wool.

Picture 13. Bathers made from corn starch, Paris, France. The fabric felt very similar to lycra®.



Chapter 6: How is Merino wool marketed?

While travelling I saw snapshots of a number of different approaches for marketing Merino wool. I hope that this Chapter will inform readers about some of these approaches.

New Brands

One company that has effectively developed a new Merino apparel brand is Icebreaker[™]. Icebreaker[™], an outdoor wear Merino brand developed in New Zealand, was established in 1994. Only 12 years down the track its annual revenue is over eight figures and Icebreaker exports to over 17 countries. The initial development of the Icebreaker[™] brand cost \$100,000 (Hall, 2005). Jeremy Moon, who was a major driver in the establishment of the brand lists his five tips for business success as;

- Choose an area of business you're passionate about;
- Define your space, making it as unique as possible;
- Ensure that the space you've defined is as relevant and exciting to consumers as possible and not just yourself;
- Use design as a tool for making your product as engaging for your audience as possible;
- Continue to be open to new ideas to keep things fresh (Hall, 2005).

My interest in Icebreaker[™] products heightened when I visited my local SnowGum store in Hobart during 2004. The whole front of the shop basically stocked Icebreaker[™] products which was a huge turnaround from the largely synthetic fabrics I was used to seeing in outdoor retail shops. While discussing this with the manager of the store I asked him why the big turn around? The manager explained that he believed the major reason for Icebreaker's success was that the garment did what it said it would do on the label.

"Your superfine garment is made from a luxury lightweight fabric that will keep you cool in the heat, warm when it's cool. Worn against your skin or as a lightweight midlayer it feels like silk, won't hold odour, and is low bulk, so it's perfect for travel" (Icebreaker label, 2005).

I believe the marketing of Icebreaker[™] products is an important aspect that sets it apart from other Merino apparel companies. They have used creative imagery, combining New Zealand high country scenery, Merino sheep and fit young men and women. In addition to marketing, their garments are well styled and use modern colours and design. They have clearly acknowledged that garments do not sell simply because they are made from Merino wool.

I personally like to wear Icebreaker[™] garments and think that all woolgrowers should be proud of what this brand has achieved. However, it would be interesting to know how many New Zealand woolgrowers are direct shareholders in Icebreaker[™]. If growers in Australia are jealous of what Icebreaker[™] has achieved they should remember that the investors in the brand (whether wool growers or not) took a commercial risk by investing in the company in the first place and are now seeking the reward. If in future brand development woolgrowers wish to take the risk to hopefully reap the reward, they must position themselves strategically to allow this to happen.

Linking with established brands

My definition of 'linking with established brands' is to introduce either new products, new garment technology, new marketing slants or new supply chain systems to an existing brand which believes it will add value to the business.

Roberts Ltd, a public company with rural interests, currently brokers about 80% of Tasmania's wool clip. Recently, Roberts introduced a new wool selling option to its clients called "Roberts Wool Link". The main reason for the introduction of this system was to provide improved and more stable financial returns to Tasmanian woolgrowers. The way Robert Wool Link plans to achieve this is by linking directly with brand partners, mainly in Japan and the US, to establish how using Tasmania wool can add value to their products. This value may be either through more efficient supply chain operations, guaranteed supply of a specific type of Tasmanian wool, marketing opportunities including the 'Tasmanian Story' and the Tasmanian Merino[™] brand, environmental credibility of the product, and linking customers with other relevant networks such as AWI.

The advantage of this system is that retail networks, their associated brands and customer base are already established. These businesses are in the best position to know what their consumers are demanding and therefore, can provide good market signals to Roberts Wool Link suppliers. By engaging in a number of brands, this reduces the risk to the project. However, the benefit of not having to initiate and fund brands directly is coupled with the risk that brands have little obligation to be loyal to either Tasmanian wool or, indeed, to wool at all. This heightens the importance of Robert Wool Link to package Tasmanian wool in such a way that it would be a detrimental commercial decision for these brands to source from elsewhere or take wool out of their collections.

The New Zealand Merino Company has recently developed a brand called $Zque^{TM}$. Their philosophy is outlined as follows

"The ZqueTM programme has been developed to provide a high standard of verification that product quality, animal health and welfare, environmental, economic and social values are positively addressed. ZqueTM has a robust and transparent traceability scheme that allows for the identification and tracking of Zque fibre through the value chain from farm to brand. This ensures the desired wool quality is maintained and that product and system integrity are not compromised" (The New Zealand Merino Company, 2006).

This brand will provide a commercial link between existing brands and The New Zealand Merino Company. For example, if consumers want this level of integrity with their product and know that Zque[™] provides this, then the established brand is unlikely to source wool elsewhere if it means they will lose the option to use the Zque[™] brand.

Another company that is linking with established brands and also upcoming brands is Australian Wool Innovation (AWI). In January 2006, AWI changed its strategic focus offfarm from development of marketing themes to a business-to-business approach. In their words

"AWI does business directly with leading global textile manufacturers, fashion designers and retailers to get new Australian Merino wool products and innovations into the global marketplace. AWI will work with global businesses on everything from the development of innovative yarns and fabrics through to point-of-sale marketing materials for innovative products. This includes the application of the best existing technology and completely new innovations" (Australian Wool Innovation, 2006).

The way it proposes to service this strategic approach is by:

- Recruitment of staff with knowledge of global apparel retailing and technical production;
- Recruitment of a brand marketing manager;
- Establishment of an office/agent in Europe and additional capacity in the USA;
- Establishment of procedures and controls for the operation of a global network; and
- Changing the textile production portfolio to product development and the trade portfolio to market development" (ACIL Tasman, 2006).

While I am not in a position to comment generally on the success, or otherwise of this new strategic direction as my study did not focus specifically on this, I did spend time with AWI in China and wish to comment about my time there. Firstly, I wish to outline how I ended up spending time with AWI in China.

In December 2005, I completed the "Fibre to Fabric" course at CSIRO in Geelong. Also attending were two new staff from the AWI Shanghai office. We swapped details and prior to my travels in 2006 I contacted one of these staff members, Flora Wang. I outlined the dates I planned to visit China and explained that one of the aims of my trip included a request for AWI to help me organise visits to some large wool processing businesses around Shanghai. Promptly and politely a returned email stated that I was very welcome to visit the Shanghai AWI office. However, in order to obtain assistance for visits I would need to discuss this with Jimmy Jackson, the Asia Manager. Jimmy and I made contact at the Merino Innovation Day in Western Australia. He mentioned that there was a small grower and industry group from Australia visiting China at a similar time that I would be there and he would see if I could participate in this group. A day or so later, I received confirmation from Nigel Gosse (Manager, Industry and Government Relations) that I could participate in the Industry Leaders Group.

If you are wondering why I have included this paragraph, it is because I wanted to highlight the effective network that exists in this section of AWI. It would have been extremely easy for AWI to dismiss my request, and for Jimmy to not worry about linking me with the group yet the opposite occurred. If a relatively unknown manager of a moderately sized Merino enterprise is treated like this then it makes me think that the culture that exists in this section of AWI is one that will enable constructive relationships with clients. After visits to some extremely large wool processing companies in China, the Industry Leaders Group visited Spin Expo in Shanghai. Spin Expo is a biannual event occurring in March and September at the Shanghai International Convention Centre. About 150 participating spinners from more than 15 countries display their products of fibres, yarns, knitwear and knitting fabrics. The event is huge and every possible type of fibre you can think of is on display. For example, I was given a sample of stainless steel filament that can be blended with wool. I was surprised how well natural fibres were represented and was pleased with the interest that the AWI stand received.

Picture 14. The Australian Wool Innovation stand at Spin Expo, Shanghai, China. The photograph of the little girl holding the black woollen garment was one of 23 photographs that resulted from an AWI initiative that invited 23 of the world's best photographers to photograph, in whichever way they liked, the 100% merino garment designed by top fashion designer Josh Goot.



In my opinion, probably the most outstanding feature of the Expo was the hunger for information from participants. This Expo is a great opportunity for businesses to find out what is new, who can supply the fabric or yarn they require, and generally ideas for how they can obtain a competitive edge. This is one reason why I believe the AWI stand was well attended because it offered a range of potential services. I think it's important not to forget that fashion is an extremely fast moving and dynamic industry and decisions must be made quickly and deadlines met. People involved in this industry are very busy and the more easily they can obtain a good product to market the more likely it is to happen.

The Woolmark logo

I am sure most growers and many consumers recognise the Woolmark logo(s), Woolmark, Woolmark Blend and Wool Blend. However, they may not be familiar with what they actually represent. Woolmark is used for 100% pure new wool, Woolmark Blend for at least 50% pure new wool and wool blend between 30 and 50% pure new wool. In addition to specifications about the percentage of pure new wool used, products using the Woolmark logo must meet a number of other quality requirements. These include garment make-up quality, tensile strength, colour fastness to light, colour fastness to rubbing, plus many other quality parameters depending on whether the garment is 'machine wash', 'hand wash or dry clean', 'tumble dry' or 'minimum or non iron' (The Woolmark Company 2000, www.wool.com.au).

The most important aspect of the Woolmark logo is how consumers value it. Does it represent quality, does it enhance the sale of woollen garments or is it irrelevant to consumers? These are big questions that another Nuffield study may answer, however I can contribute in my own small way to answering these questions by reporting my experience in India.

I spent ten days in India and my program was put together with the assistance of Dr Chaudhuri from the Woolmark Office in New Delhi. My time in India proved to be extremely informative for two major reasons. Firstly, because I visited nearly all parts of the wool supply chain from consumers to manufacturers. Secondly, the structure and variety of my visits allowed me to cross check information, giving me confidence to believe what I was being told. For example, I was told by one of the Fashion Institutes that department stores were now employing floor staff trained in fashion and textiles. During a visit, by myself, to a department store I observed how knowledgeable the staff member assisting me was and enquired about her training. She told me she had recently graduated from the Pearl Academy of Fashion.

The major discussions I had specifically about the Woolmark logo in India were with shawl manufacturers from Ludhiana and Armritsar (both in the State of Punjab). All of these manufacturers were members of the Shawl Club, a group initiated by The Woolmark Company a number of years ago. This Club, now self-funded, reminded me of a farmer group. Basically they meet to keep up to date with industry developments and to create a larger single voice for their industry.

Members recognised the contribution the Woolmark logo has made to their business and acknowledge that the operation of the Woolmark office in Delhi is difficult due to lack of funding. While all are users of the Woolmark logo they are concerned about the cost benefit ratio. One man commented,

"Once we used Woolmark to sell our brand, now Woolmark needs our brand to sell theirs".

I believe these manufacturers will stop using the Woolmark logo if this brand is not reinvigorated in the minds of Indians. I was told,

"It has to be give and take and at the moment Woolmark is taking but not giving".

Picture 15. A 100% Indian wool shawl with hand embroidery showing the Woolmark logo. Indian shawl makers that use the Woolmark logo are concerned over its value for money.



At present, in India, there are three tiers of licence fees to use the Woolmark logo on apparel products:

- if a company has a turnover of >US5.75 million licence fee is US\$6000/yr (AU\$7278);
- if a company has a turnover of <US5.75 million licence fee is US\$2500/yr (AU\$3032);
- a group licence for small scale businesses licence fee is US\$2500/yr/group of two members and US\$6000/yr/group of five members, (The Woolmark Company, 2006).

It is worth appreciating the history of promotion of the Woolmark logo in India. Prior to 1990, generic promotion of the logo was widespread throughout India. Since 1990, basically no Woolmark logo specific promotion has occurred. If you relate this to India's population demographic, those that are now around the age of 26 or younger probably are not familiar with the Woolmark logo. This is just over 50% of the entire population or an estimate of 515 million people (Census of India, 2001). Conversely, a similar number of people over 26 are likely to be familiar with the Woolmark logo, a fact that I can believe after randomly asking people on the street and on public transport. So where does the future of the Woolmark logo lie in India? All industry participants whom I spoke with acknowledged that the money spent on marketing the Woolmark logo in the 1980's was excessive and they did not expect a repeat of this. However, in the Wool Club meeting I attended, there was plenty of discussion about the need for some promotion of the Woolmark logo if its use was to be continued in India. Interestingly, while the Woolmark logo seems to be waning in popularity with Indian shawl makers, silk producers have recently introduced a Silk Mark.

The Silk Mark of India

Silk Mark was introduced in 2004 by the Silk Mark Organisation of India. One of the main reasons for its introduction was to stop consumers from being duped into buying fake silk.

The goals of the Silk Mark Organisation of India are:

- a quality assurance label which is aimed at the protection of the interests of the consumers, traders and manufacturers of pure silk;
- the generic promotion of silk;
- building brand equity of Indian Silk;
- a cohesive campaign with all stakeholders in the silk value chain to promote silk (www.silkmarkindia.com).

Silk Mark ensures 100% natural silk in all products communicated via a label and a tamperproof high security hologram. In September 2006 there were 373 authorised members of Silk Mark of India. The cost for using the Silk Mark is low in comparison to the Woolmark. For example, if the company turnover is AU\$145,000 (50 Lakhs) or less then there is a one off fee of AU\$87 and an ongoing annual fee of \$29. If the turnover is over AU\$290,000 (1 Crore), the upfront fee is \$290 and the annual fee is \$87" (www.silkmarkindia.com).

Discussion

The Woolmark logo, in India, is at a crossroads. Some think it should be abandoned, whereas others do not because it is a symbol recognised by millions of consumers. In addition, with new developments in woollen apparel, that have led to the production of garments that look nothing like traditional woollen garments, it may be important that Indian consumers know a brand that signifies that the garment is in fact made from wool. It would be a seriously bad outcome for the wool industry if consumers wear a fantastic woollen garment and think it a new and innovative synthetic. I was told time and time again that Indians have a cultural affinity for wool, a fact that should be considered when deciding the future role of the Woolmark logo in India.

However, revamping the Woolmark logo in India should be carefully assessed and targeted. Some shawl makers believe the most logical move would be to try marketing the logo to northern Indian markets just prior to winter. Working with the Fashion Institutes is another important avenue. These young designers need to be exposed to the most innovative developments in woollen apparel in an exciting and motivating environment. If they understand the role of the Woolmark logo and use it on highly fashionable garments then this will help reposition the logo.

India, as a country, has some developing strengths that could be utilised by the wool industry. Bill Gates (2006) believes that

"Today, the strength of the Indian IT industry lies in its skill at providing affordable services that support the innovation of other companies".

Conclusion

When an industry is struggling commentary starts to say, "we need to adapt, we need to change, we need innovation"; one can feel quite overwhelmed when hearing this over and over again. I sometimes wonder what has happened to good old simple living. Some farmers would like me to give a simple, "yes" or "no", answer to the question, "Should we be growing Merino wool"? While we will continue to grow Merino wool on Apsley Park, this should not be interpreted as the answer for all wool growing operations. I hope this report stimulates some thought that may help woolgrowers to think about the question in ways not previously done. On an optimistic note, I am very happy to say that I am far more positive about opportunities that exist within the Merino wool industry at the end of my travels than I was at the beginning.

A pleasing aspect of my trip was that I saw plenty of innovation in the wool industry that is resulting in satisfied consumers. Machine-washable outdoor-retail Merino wool garments are satisfying consumers in a number of countries I visited including New Zealand, Canada and the US. Supply chain mechanisms (such as The New Zealand Merino Company and Roberts Wool Link) that link brands with woolgrowers, are providing a platform for market driven feedback to move between supply chain participants. This is allowing a higher probability that the needs of the consumer will be identified and met. Assisting fashion designers to develop new fabrics using Merino wool (as Australian Wool Innovation does), has allowed Merino wool to cement its place as a modern, fashionable and chic natural fibre on global catwalks. Providing relevant industry education about technology and innovation in Merino wool processing is enabling good research and development to make it to the commercial stage (such as the CSIRO's Wool Textile Training Centre Program).

However, a number of areas in the industry still have to make significant changes if they are to contribute to a modern and viable Merino industry.

1) Merino Woolgrowers

Growers need to calculate their cost of production in addition to considering what wool price levels need to be attained, to ensure viability in the long term. This will allow the focus to move from, "When are wool prices going to go up?" to "What do we need to do to receive these prices?" Part of this assessment needs to include establishing which steps in the supply chain are absolutely necessary and which steps are not providing value for money. There are many questions that growers can ask about their wool growing operations in relation to: what wool to grow, how to prepare it and how to sell it. However, even when questions are asked, it is often difficult to obtain informed answers. The reason is growers either do not have enough information to answer these questions or the people they seek answers from either do not have the knowledge or are obtaining their answers from parts of the supply chain that are greatly distanced from the consumer. Until growers are in a position where they are firstly, able to receive feedback through the supply chain and secondly, are confident that this feedback is conveying accurate market signals, then they will continue to make uninformed decisions about the way Merino wool is grown, prepared and sold. Let me highlight this issue using the following example.

On my travels I met a number of people involved with various sectors of the wool processing chain. I asked these people to explain the role of staple strength and wool style in their processing stage. I received a number of explanations about how staple strength affects wool processing. However with regards to wool style, all except one person responded by asking me "What is wool style?" Just think how many sheep in Australia are culled each year because their wool is not stylish. Yet from scouring to end product I only met one person who said their preference was for stylish wool. My point is not about whether style matters. Rather my point is, if style or other wool traits do matter for a particular processing stream, then lets hear it from those at the consumer end of the chain rather than from those who visit the shed at shearing or classing time.

2) Wool Brokers

It's pleasing that some wool brokers are implementing new strategies to bring brand partners and their associated consumers closer to the woolgrower. The Robert's Wool Link Program is an example of this. I am told that, financially, wool brokers are having a very difficult time. I assume they realise they can possibly go out of business by maintaining the status quo or they can see this time as an opportunity to change the way they do business. If they can add value to the supply chain then they need not feel threatened about their future.

3) All sectors of the industry

As an industry we need to think carefully how we, with a limited budget, are going to let the world know about Merino wool in the 21st Century. Work is already occurring in this area through marketing campaigns, fashion designers and brands. However, many consumers I met had no idea about modern Merino wool garments.

While some in the industry have suggested that all of AWI's budget should be spent on marketing, I think this opinion is very short sighted. Firstly, money spent does not necessarily equal marketing success. Secondly, the true cliché "a chain is only as good as its weakest link" applies here. While marketing may be a weak link at present, research and development is time consuming and still needs to occur if we are to consider an industry with a long-term future. After all, if technologies, such as making wool machine washable did not exist, then the position of Merino wool in the apparel market today would be far more limited.

Improvement with information transfer between Merino wool industry participants is another area that needs to be attended by the industry. While I did see some excellent examples of processors acquiring technical information from industry bodies such as AWI and Woolmark, at times I was asked technical questions by people involved with middle stage wool processing. For example, how to obtain really black yarn during dyeing as opposed to a dull black and how can one achieve a silk-like sheen on woollen fabric. These people really wanted some answers but did not seem to know where to seek assistance. Hopefully with AWI increasing its presence in the US and Asia they can help to link wool processing enquiries with people who have the appropriate expertise. Also, supply chains that have close links between brand partners and woolgrowers are benefiting from each other's network; which is providing a good mechanism for information sourcing.

4) The Last Word

I read an interesting article in the Alaska Airlines magazine (August, 2006) about changes in the organic food industry in the United States. In 2002, National Organic Standards went into effect in the US.

"While sales figures and consumer preferences give some idea of the success of the organic program, changes in the shift to organic farming reveal how extensive the impact may be. A researcher in California recently found that, in a two-year period following the implementation of the national standards, 40% of the state's organic farmers dropped out of organic production while the number of farmers using organic methods increased by 43%. So there is quite a bit of turnover of growers choosing to go organic".

The wool industry in Australia may be undergoing similar changes. Some will see the need to do things differently as a threat, while others will see this as an opportunity – and the industry will reposition itself accordingly.

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