

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

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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:

- 1) 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 Icebreaker<sup>TM</sup>, Ibex, Smartwool and Teko<sup>TM</sup> 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 shining 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 [www.nzmerino.co.nz/partners/int\\_partners.asp](http://www.nzmerino.co.nz/partners/int_partners.asp)).

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.

Positive comments	Negative comments
<ul style="list-style-type: none"> <li>• “I wouldn’t have Merinos any more if I didn’t have access to these contracts”.</li> <li>• “I can’t believe that they are not pushing marketing harder – why is there only one Icebreaker?”</li> <li>• “While TNZMC may be criticised they were instrumental in keeping the Icebreaker momentum going and gave that company good backing”.</li> <li>• “Farmers are better off than if they had not had access to the contracts”.</li> <li>• “The contracts give security for the banks to lend farmers money”.</li> <li>• “Contracts increase the standard of wool for top makers and also guarantee supply”.</li> <li>• “It’s hard to compete against Icebreaker”.</li> <li>• “The contracts aren’t all about high grade wools. Some contracts are for locks and oddments”.</li> <li>• “Growers do get feedback about their wool but usually only if there is something wrong”.</li> <li>• “Brand partners do a road show every 2-3 years where growers get to ask questions”.</li> <li>• “The defaults on contracts is very low (&lt;5%) and the major problem is staple strength”.</li> <li>• “The major brands train their shop managers by flying them to NZ. They take them to a high country farm and tell them about the product. The cost to benefit ratio of this would be positive because if shop assistants are poor the whole pipeline can fall down”.</li> </ul>	<ul style="list-style-type: none"> <li>• “I think that Icebreaker contracts are putting a ceiling in the NZ auction price”.</li> <li>• “The contract prices are not that good and give little room for up side”.</li> <li>• “Icebreaker contracts could have been great if the price delivered back to growers was far higher. Instead you have people locked into long term contracts that are barely covering their cost of production. It is almost inevitable that little or no capital will be going back into the land”.</li> <li>• “TNZMC was more interested in signing up growers rather than giving value back to growers”.</li> </ul>

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 75<sup>th</sup> 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 receive 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™ 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 British 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 Aarhus 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](http://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-to-skin 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 T-shirts (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](http://www.arcteryx.com)) and Patagonia® ([www.patagonia.com](http://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, Icebreaker™ 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](http://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-to-skin 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](http://www.niftindia.com)) and the Pearl Academy of Fashion ([www.pearlacademy.com](http://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 – [www.merinoinnovation.com](http://www.merinoinnovation.com)). 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 is 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

	<b>NZ TopMaker</b>	<b>The Latest Available Machinery</b>
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*



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

Company Name	Year Started	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

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.









































