

# Wool and Sheep Production in the Global Market

A report for



by James Walker

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• **australian wool**  
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# Foreword

This project and following report examines the wool industry from the sheep's back to the consumer's back.

Wool is becoming secondary to prime lamb production and cropping in extensive agriculture whereas traditionally wool was a mainstream industry. In years gone by Australia rode on the sheep's back. I consider that this emphasis will change due to the consumer wanting natural, sustainable products which is becoming an increasing trend.

My interest is in wool production and as such I wanted to investigate firsthand the wool industry past my farmgate. This included visiting wool buyers, mills, designers, marketers and even producers from other countries.

I wanted to see if there was the opportunity or need for Australia to co-operatively work with other sheep producing countries for the benefit of all sheep producers worldwide.

For a strong industry to survive good marketing and research needs to be continually undertaken, developed and instigated. I aimed to investigate how other countries undertake this work to ensure that Australia can stay at the forefront of the global market.

This research was sponsored by Australian Wool Innovation Limited.



# Acknowledgments

I would like to thank Nuffield Australia, especially Jim Geltch, and my sponsor Australian Wool Innovation Limited for providing the opportunity for study overseas. AWI were extremely helpful in providing industry information and contacts to assist in my study.

While I was away several people played an important role in running our farm including my wife Anna, Stephen {my son}, father Don, Michael Blackberry, Annie Bailey and Jamie Anderson. Their work and dedication over and above what is normally expected is greatly appreciated with everything running smoothly while I was away. Many thanks also to:

- Woolmark
- Elders Limited
- Pablo & Monica Minelli
- Jim Sama
- John & Christine Anderson
- Jane & Rob Dent

Finally, to all those people I stayed with and to everyone I visited who shared information I am sincerely grateful. You made this a fantastic experience.

# Abbreviations

AWI Limited – Australian Wool Innovation Limited

GDP – Gross Domestic Product

USA – United States of America

US – United States

GM – genetically modified

SUL - Secretariado Uruguay de la Lana

AI – Artificial Insemination

DMF – dark medullated fibres

## Executive Summary

My study included travel to twelve countries to study future trends and opportunities available to Australian wool and sheep, looking at the manufacturing of woollen products and consumer sentiment towards wool to the sheep production in the country side.

China is a country which is literally exploding and bursting at the seams with its expansion, both economic and population, which generates opportunities both now and in the future.

Uruguay is a country which is typical of South America, it has gone through boom and bust times and now is expanding. This is happening throughout South America. There is potential for Uruguay to produce high quality wool which is compared to our.

- Marketing and promoting of Australian wool is essential to keep at the forefront of the minds of the consumers.
- Traceability and quality assurance are becoming important marketing tools. The ability to document this process is essential to gaining market access.
- South America is looking towards Europe as being its major customer, this allows Australia to focus on markets closer to home.
- With an increase in the middle-class Asian population there is an increasing market for fine woollen products and a customer who has different requirements to traditional customers.
- With the development of new products using high quality fine wool this has opened a new opportunity for new markets for fine knitwear, suiting and sportswear.
- There has been an increased demand in natural fibres which originate from organic, sustainable production systems.
- There is a need for Australian wool producers to become smarter in their production methods to meet the ever-changing market requirements and production conditions.
- Australian wool is seen as a quality product and is much sought after by textile manufacturers in China and Italy.

- A number of 3countries are producing quality wool. This is not to Australia's disadvantage as it provides continuity of supply in an expanding market. These countries are not necessarily competitors and we should be working co-operatively with them to expand the overall market. Other fibres, eg cotton and synthetics, are our competitors not other wool producing countries.

Recommendations to farm, industry and government and conclusions were drawn for the Australian wool industry. Some of the main recommendations are:

- Marketing and promotion in co-operation with other countries involved in the wool industry.
- Continued emphasis on research and development and delivery of results to all stakeholders.
- Continued quality assurance.
- Animal welfare and food safety should be given high priority.
- Sustainable farm practices are essential.
- High priority needs to be given to bio-security.

## Introduction

The topic of my study was wool and sheep production in the global market. I wanted to broaden my knowledge and understanding of the industry from the paddock to the final product and consumer.

On a global level we have a shrinking rural population and a decline in land available for rural production. With this it is necessary to look at ways we can increase wool and sheep production with a shrinking rural workforce and land. It is necessary to look at new and innovative ideas and concepts to increase and improve our production.

My study allowed me to gain a better understanding of the wool textile industry and the perception of wool as a product by the consumer. From this I have been able to evaluate likely short, medium and long term trends.

# Objectives

- Look at short and long term market trends for the wool industry
- Look at various production systems in the wool and sheep industry
- Look at new opportunities for growth in the wool industry



Countryside in New Zealand



Fine wool merino



# Countries Studied

- United Kingdom: sheep and wool production.
- Italy: to visit the AWI office with particular interest in wool marketing and manufacturing.
- New York: to visit the AWI office with particular interest in marketing and fashion trends.
- Uruguay: agriculture and sheep/wool production.
- Southern Argentina and southern Chile: agriculture and sheep/wool production.
- New Zealand: sheep/wool production, prime lamb production and cropping.
- China: potential markets for Australian wool.

# Global Agricultural Issues

The following issues are affecting all of agriculture and hence directly affect wool and sheep production.

## 1. The Demand for Animal Proteins/Food

An increase in the world's population has created an increasing demand for animal proteins from a decreasing area of available land for the production of food and fibre due to the ever encroaching urban sprawl. A more affluent customer base demands higher quality food.

There is strong competition for the decreasing land available between traditional food and fibre production and the swing towards producing wood and bio-fuel.

Another demand on rural land is environmental concerns, such as set-aside and greenhouse gas emission trade-offs.

## 2. Water – the lack of

Water is a precious resource. There is high demand for the resource from cities and increasing industry requirements and also from agriculture.

Keeping the resource sustainable and usable is difficult given the problems of nutrient run off from agriculture, industry and cities.

Above all, changing climate and the restrictions which will be placed on individuals and industry will keep this issue of too much or too little water at the forefront.

### **3. The use of bio-fuel**

Globally there is a big swing away from producing food and fibre to producing crops for the bio-fuel industry. The flow-on effect is that commodity prices have risen for both food and bio-fuel.

### **4. Food safety issues**

Outbreaks of BSE in Canada and Foot and Mouth in South America and Europe have increased consumer awareness of where their food is coming from. This has had an impact on the economies of these countries and the way people view food.

While Australia remains free of these diseases, and many other diseases, we have a competitive edge in selling produce into consumer sensitive markets such as Japan.

### **5. The use of Genetically Modified crops**

There is wide spread use of genetically modified crops around the world with potential for increased yields and disease resistance. There is potential for genetically modified crops to improve health of those in third world countries, eg vitamins into rice.

However, people still view genetically modified crops as “the great unknown” and information available to consumers is distorted.

To improve production and knowledge there is still much to learn about the genotypes and the effect on plants and animals and the end results.

## **World Commodities**

Recent years have seen a significant change in the world’s commodity stock piles. We have gone from an oversupply to “just in time”.

To illustrate this, world wheat stocks in 2001 had a 300 day stock pile which reduced in 2007 to only 75 days (and falling).

This has increased commodity prices where now wheat prices have increased by 50% and maize by 75% which has sent a ripple effect throughout all food commodities.

Historically we have been concerned about having low prices due to our overseas competitors enjoying low costs and/or subsidies. Australian farmers could soon expect to be rewarded for their continual innovation and quality, sustainable production systems.

The increase in bio-fuel demand is one that is partly responsible for the higher commodity prices. This effect will increase if an alternative source of energy is not developed. Other major effects are bigger demands from Asia, drought in Australia and the very wet season in the United Kingdom.

Another major effect from the higher food/grain prices is the ability of the poor countries of the world to be able to buy food to feed their people, because they wont be able to afford to buy it. So there will be more poor starving people in the world.



Harvesting wheat in France

# Growing World Economies

Country	Population Size	Growth in GDP
China	1.3 billion	9.9%
India	1.1 billion	8.4%
Vietnam	85 million	7.6%

Table 1: Growing world economies

Source: Presentation by Jim McCarthy, Nuffield Scholar, Ireland

The world's economy is growing by 4.75% (2006)

The biggest economical growth, as well as the biggest population, is coming from the Asian countries. This means there will be an increase in demand for food and fibre. These countries are on our doorstep so we are in a strong position to take advantage of these consumers before our trading competitors do, eg USA.

South America is developing into the food bowl for Europe and, to a lesser extent, for North America together with feeding their own people. To date South American countries have not focussed on supplying food to Asia.

What will be the final effect of the slow down in the USA economy? There have been some effects on the weakening US dollar, which is making the Australian dollar stronger, as well as our strong economy riding on the mineral boom. Some of our major buyers of agricultural (wool) currency are linked to the US dollar, eg China. That is, our exports are dearer and our imports should be cheaper.

Our cost of production is increasing due to the cost of inputs and labour, which is making it difficult to compete on the world market against the lower cost of production in South America, Eastern Europe, Asia and the Middle East. In Australia we still have some big advantages, such as the health and bio security of our food and fibre and our on-going use of sustainable farming systems.

Wool consumption is rising in line with increasing wealth and westernisation. There is a big swing towards natural products and wool is a unique natural product.

# China

China is a diverse and dynamic business environment with many opportunities for Australian agricultural products. The Chinese are passionate about wool, and in particular Australian wool, which is synonymous with high quality standards. The textile industry is very large in China and wool is only one component in the textile industry. Wool is both a luxury fibre and a fibre used to blend with other natural and man-made fibres to create different fabric properties and cost efficiencies.

The population of China is 1.3 billion and growing, with an annual economic growth rate 7-8% per year. This is a country which is exploding and it will continue to do so due to the large population and very low cost of production. China covers 3.7 million square miles, which equates to 348 people per square mile. Current projections depict a population close on 1.5 billion by the year 2010.

The management of power and water is having a significant impact on the future of Chinese mills and their environmental status.

Some points of interest:

- In 1984 their economy was one-fourteenth the size of the US economy.
- In 2005 their economy was one-sixth the size of a much bigger US economy.
- It is predicted that by 2030 the Chinese economy will be larger than the US's.
- To do this, it has to build 2 and a half London's every year.
- It is building the equivalent of the UK's Power Grid each year.
- In 2006 Shanghai extended by the total square footage of Manhattan during the year.
- Only 8 people per 1000 are eligible to hold a license and own a car.
- In 2005 China used 54% of world cement.
- China has to relocate 25 million rural poor to cities to keep the economy growing at 8%.
- Every 5 years it loses 3% of its farmland to urbanisation.
- The Chinese harvest has already contracted by 70 million tonnes which is equal to the entire Canadian harvest.
- China is the biggest grain producer in the world with 400 million acres of grains.
- In 2007 there are more millionaires in China than the total population of Australia.
- In 2010 it is predicted that there will be 250 million middle class Chinese.
- The average Chinese person consumes 2400 calories per day like the average Taiwanese; difference being the Taiwanese diet has 9 times more animal protein.
- China feeds 22% of the world's population with only 7% of the world's arable land.
- It takes 1,000 tonnes of water to produce a ton of grain, valued at 200 dollars.
- 1,000 tonnes of water can be worth up to 10,000 dollars to industry and create a lot more jobs.

- China will import grain and use its water more in industry.
- The US national intelligence services predict that by 2030, China will import 200 million tonnes of grain. This is equal to the total world grain exports now. Where will the grain be produced to fill this huge demand as well as already filling major importers?
- China has a large number of livestock but inefficient production at the paddock and processing levels.

### **Market Trends in China**

- Increasing in consumption of meat, seafood, dairy products, vegetable oils, fruit, and vegetables away from traditional grain staples including rice.
- Natural and organic/sustainable farming is getting popular with the increasing awareness of the health and environment protection.
- China is changing from a net exporter of agricultural products to a net importer. This market is the most promising one for our agricultural products.
- It is the home of the world's largest textile industry, importing up to 62% of Australian wool clip and increasing.

The market trends above are for China but there are similar trends in other Asian countries.



Village and rice crop in China

### **Chinese domestic sheep/wool industry**

- 130 million sheep and 185 million goats
- 280m/kg wool (36% fine, 34% med, 30% x-bred)
- Most sheep production is in Northern China and Mongolia in a very arid environment
- Low yielding wools (15-60%)
- Average flock size 200-500 sheep where shepherds are used
- Large flocks (1000 sheep) are owned and managed by the military
- 30 main sheep breeds, with global genetic influence
- 85% of shearing still occurs by blade
- Very limited preparation standards
- 10% clip must be skirtings (Govt. regulation)
- Most wool sold privately
- Limited wool testing conducted by farmers
- Nanjing Wool Market conducts 1-2 small auctions annually
- Government pushing farmers to dual purpose sheep – meat/protein for food
- Chinese wool does not compete with Australian wool.

## **Chinese Textile Industry**

- Wool comprised 6% of the Chinese textile industry in 2003.
- China imports 62% of Australia's wool.
- It also sources wool from New Zealand, Uruguay and neighbouring lands.
- Traditional focus - medium and broad wools but now moving to finer types.
- Based on Russian types/blends and formerly controlled by the government.

The Jiangsu Sunshine Group operates the largest fully integrated textile enterprise in China, the mill is also the third largest woollen mill in the world. It operates almost as a small town providing amenities such as staff accommodation, a 5 star hotel and a coal fired power station. The Group is the largest single Chinese purchaser of Australian wool and all fabric manufactured is from Australian merino wool, mainly < 20 micron. 50-60% of its products are exported to Japan, Korea and Italy. The Group maintains its own brands, and supplies other 'top' brands.

## **Chinese wool types**

- Leading Chinese mills are changing their purchasing patterns
- Australia is their #1 destination for fine wool
- Increasingly affluent consumers are demanding finer softer, lightweight garments
- There is a general trend towards finer, more specified and precise inputs
- Working with Chinese to buy more of our wool through:
  - local presence and relationships in the past and into the future

- education of Chinese buyers
- exposure to Australian growers and Australian greasy wool samples

## **Developing wool markets in China**

AWI continues to work towards reducing trade barriers which improves market access for Australian wool. It works closer with the woollen mills to help develop new products and liaises with top retailers in China to gain access to approx. 2000 stores.

These direct and personal relationships facilitate information exchange and trade efficiencies.

China is, and will continue to be, a powerful trading partner. We need to become astute and identify demand drivers for opportunities in China, both consumer driven and processor driven. The next stage is to match our products with those demands and form information exchange and trade links. This may also influence changing wool types (or the type of wool they buy) and adjusting marketing options to meet demand and long term relationships. Personal contact with Chinese importers is most important for long term contacts.



High rise living (in background) and a power station in China

## **United States of America**



The use of corn for the production of bio-fuel is having a major effect on world grain prices and the production of animal proteins, eg pig and poultry.

The government subsidises bio-fuel to enable it to compete with petroleum products. The government also subsidises grain under the Direct Payment Programs.

The use of GM is an issue of yesterday!

The USA currently produces 11 billion bushels of corn as a grain product and exports 20% of this. There is a mandate to produce 45 billion gallons of ethanol which will require 15 billion bushels of corn. That is more than the current annual corn crop.

There is only one way for grain prices to go in the world and that's up.

Opportunity exists for animal protein in US market for sheep meat that doesn't rely on grain.

The beef industry isn't affected as much as the pig and poultry industry because of the use of the residues from bio-fuel in the feed lots.



Corn crop in USA

# Europe

European agriculture is very regulated and is controlled from the centre. There are requirements placed on farmers as to how they can operate their business including when you can plough, how they can spread cattle slurry, stocking rates and fertiliser rates.

Farmers are becoming countryside keepers. They receive Environmental Stewardship payments as distinct from a subsidy and in some instances these equal half their annual income. The environment is deemed far more important than food security.

With a concentrated population and a demand for urban land the value of agricultural land is very high.

Western Europe has a high cost of production and also a high value of agricultural land. There has been a movement for Western European farmers to move to Eastern Europe to farm with a lower cost of production and lower land values. The downsides of this trend have been major security issues, both in personal safety and business practices.

With the change towards stewardship there has been a reduction in agricultural production for food. Europe is becoming less reliant on supplying its own food. This is where South America has seen an opportunity and is placing itself as Europe's first port of call for food.

There is concern amongst European consumers as to where their food is sourced. With various disease outbreaks consumers are wanting to know where their food came from. On the environmental side there is an increasing awareness by consumers as to the distance their food has travelled, ie food miles.



Countryside in England

# South America

South America has potential for huge agricultural development possibilities and could be the major food and fibre supplies of the world! Their farming technology is progressing rapidly and in some areas is very advanced, eg AI use and technology.

There have been substantial increases in:

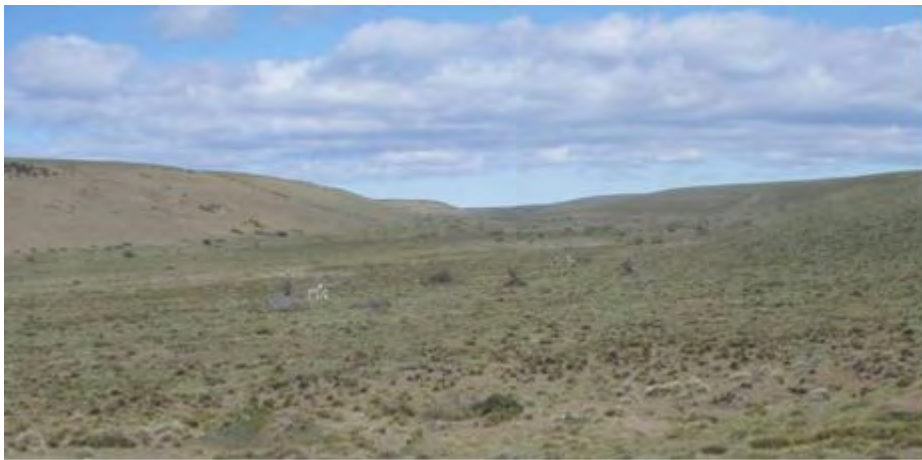
- Grain production, eg soya bean and wheat
- Dairy production
- Tree plantation
- Beef production

However, wool production and sheep meat have either decreased or remained stable.

The cost of production in South America is more than competitive with developed countries and, at this stage, in large areas water is not a limiting factor. To full realise its potential South America requires major infrastructure development.

## South America Wool and Sheep Production

- The production of high quality Corriedale and Merino wool is being achieved.
- Standard of clip preparation and marketing can be improved to meet the standard being required by textile industry.
- A sustainable proportion of their production is processed into wool tops in their own country.
- These countries will be our major competitors on the world market in the future.



Corriedale sheep Southern Argentina

### Case study: Uruguayan sheep and Wool production



Uruguay is located in South America. Is the second smallest country on the continent, bounded on the north by Brazil, on the east by Brazil and the Atlantic Ocean, on the south by the Atlantic Ocean and the estuary of the Río de la Plata, and on the west by Argentina. The Uruguay River forms the entire western boundary. Montevideo is the country's capital, chief port, and economic centre. The climate is temperate, with average temperatures of 12°C in winter and 24°C in summer and rainfall values of 1,000 to 1,200 mm per year. This has permitted the development of native grasses, which constitute the forage basis for the production of wool and meat in Uruguay.

Sheep production, and particularly wool production, is one of the most important productive activities in the country since the last century. The wool industry in Uruguay is mainly oriented to export markets. Eighty per cent of the wool produced is exported as wool tops. A remaining 10% is processed by the local manufacturing textile industry to produce fabrics and garments both for exporting and home consumption.

Wool and wool products have constituted for many years the main source of export revenue in the country. Between 1990 and 1998 wool exports averaged \$US 334 million per year, representing between 8% and 21% of total export income in the country.

Uruguay has a total area of 17.6 million hectares, of which approximately 14.5 million (90%) can be considered as productive and suitable for agricultural production. The agricultural area comprises 84% native pastures, 10% improved pastures and 6% crops and horticulture.

Uruguay is a country which is typical of South America, it has gone through boom and bust times and now is expanding. This is happening throughout South America. There is potential for Uruguay to produce high quality wool which is compared to ours and the ability to secure continuity of supply to meet the demand for woollen products.

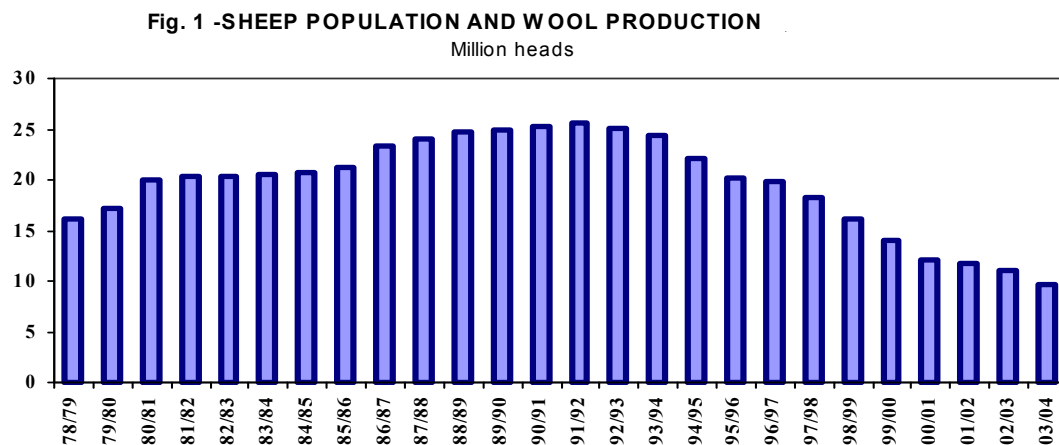
## Sheep Production

Sheep production must be considered in the context of mixed livestock production systems since there are virtually no farms engaged exclusively in the production of sheep. Total number of farms running more than 200 sheep is 14,000, and production systems in which sheep production takes place can be described as semi extensive to extensive.

This situation is quite similar throughout the country and basically there is no specialization of farms to particular production such as fat lambs, or the production of cross-bred ewes, to be used in cross-breeding systems for the production of meat.

The main objective of the sheep industry is the production of wool, with sheep meat being a by-product. In an average mixed farm, gross income from wool represents 70% of total sheep income. The present breed distribution and the stock structure clearly reflect this situation.

Sheep numbers, are at their lowest numbers since 1974 when sheep numbered 14.7 million. They was a steady increase thereafter, reaching a peak in 1991 with 25.9 million. Since then, total sheep numbers have decreased, reaching 10 million in 2004. (see Figure 1)



There have been marked changes in the proportion of breeds with the years. An initial period of grading up to Merino-type breeds imported from Europe, USA and Australia, was followed by a strong predominance of Lincoln and Romney crosses at the beginning of this century when there was an important demand for mutton meat in Europe. In 1930, after a period of alternated cross-breeding systems using Lincoln and Merino rams it started a process of grading-up to imported Merino related breeds from Australia and New Zealand, mainly Corriedale and Polwarth.

The present distribution of breeds shows a clear predominance of “dual-purpose” breeds, producing fine to medium crossbred type wool.

**Table 2: Distribution of breeds**

Breed	Micron Range	%
Australian Merino	19.0 - 23.0	19
Polwarth	22.0 - 24.5	10
Merilin	22.5 - 25.0	3
Fine crossbreeds	23.5 - 26.0	3
Corriedale	26.0 - 29.5	63
Romney	30.0 - 32.5	2

Most of the sheep farms are based on the direct utilisation of native pastures. Therefore, wool production and reproductive rates are closely dependent on weather conditions throughout the year. In general, on a national level, nutrition is the main factor limiting increases in production per head and stocking rates.

Uruguay places great emphasis on the implementation of sheep breeding programs. Subjective selection systems, implemented in 1935, were complemented in 1969 by the development of the Flock-Testing Service which included objective measurements of wool traits. They have ensured that the genetic level of their flocks is not a limiting factor for the increase in production. The Flock-Testing Service is a centralised ram performance recording scheme which is run by SUL and includes most of the more important studs, with a total of 16,000 rams being tested each year.

Average national production figures of greasy wool weight/head range from 3.7 to 4.1 kilograms, 90% of which corresponds to fleece wool and the rest to belly wool.

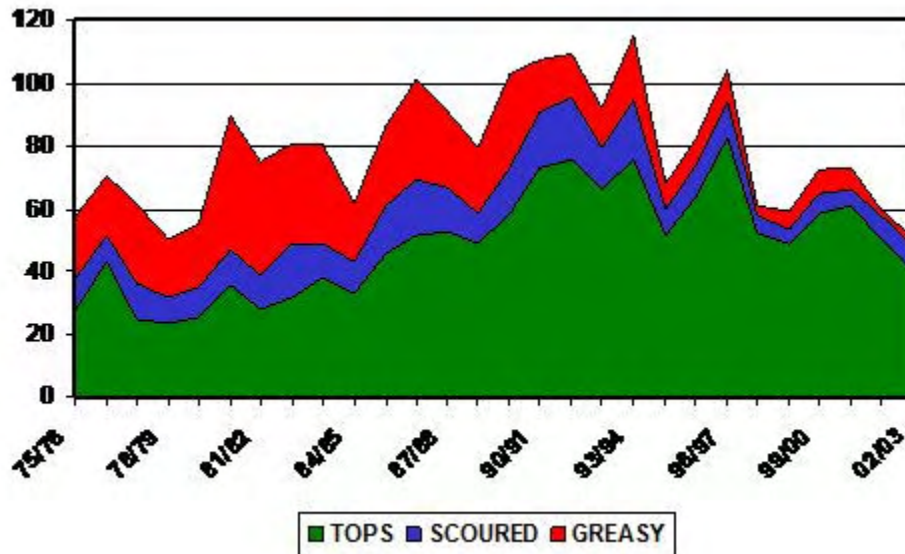
### **Wool Production**

Wool is mainly exported in the form of tops. This is the result of a large investment process in the country, even though the amount of labour employed is significantly high. Other textile products with larger added value are also exported, such as yarns, fabrics, garments, bedcovers, and rugs (see Figure 2).



Fig. 2: EVOLUTION OF WOOL EXPORTS

(Greasy basis)



## Wool Properties

Wool is still seen as having unique properties, because of its natural origins. It is sustainable, biodegradable and has unique physical properties. Visits to retailers in New York and Paris gave the impression that wool garments are in the upper end of the customers' garment purchases.

As a textile fibre, wool has some highly desirable attributes and benefits that can be utilised in traditional markets such as suiting, and in the new and emerging markets such as active outdoors. These attributes include:

- High moisture absorption capability
- Excellent next-to-skin comfort when appropriate fibre types are used;
- Durability
- Wrinkle resistance
- Excellent maintenance of colour
- Naturalness

However, as a textile fibre it also has some comparative disadvantages in terms of its ease of processing. These disadvantages include:

- Variable quality from season to season due to changes in the growing conditions
- Inherent biological variability: within a fleece, between sheep and from property to property
- Poor strength compared to other fibres
- Inherent contamination due to dirt and vegetable matter
- Higher price compared to most other textile fibres

Most importantly, however, many of these disadvantages can be managed, in part through the actions of the wool classer. As a result, the classer plays a vital role in determining the ease with which a particular batch of wool fibre processes and hence the value attached to that batch. Other customer specific mechanisms such as contract specification also play an important role in managing these disadvantages.

## **Global Wool and Sheep Production**

### **To the Farm Gate**

#### **Breeding**

- Pure high quality Merino for wool production.
- Keep exotic breeds out of pure merino flocks, to minimise wool contribution of dark and medullated fibres.
- Prime lamb production be developed as a stand-alone industry.
- Cross flock evaluation and the greater use of genetics between the sheep producing countries.
- Corriedale Trans Tasman cross flock evaluation program with has been set up and running last year.
- The Flock-Testing Service is a centralized ram performance recording scheme which is run by SUL in Uruguay and includes most of the more important studs, with a total of 16,000 rams being tested each year. Since 1994 there are six Central Progeny Testing schemes operating in the country in order to have more precise genetic evaluations of the rams being used.

#### **Production**

- Increasing the lambing and calving percentages. This is the driver of all production.
- Increased numbers gives the driver for greater genetic gain and the use of higher quality genetics for around the world.
- Increase nutrition is the key to the above production drivers.





Stud Corriedale sheep in New Zealand

### **Harvesting and marketing**

- High standard of clip preparation is essential.
- Traceability along the wool pipe line to give feedback to the producer.
- Further development of the structured selling system.
- Distinct separation between the wool from the merino clip and the prime lamb wool clip.
- Some mills are resorting all greasy wool manually to confirm classing and eliminate contamination
- Marked increase in dark and medullated fibres from Australia in last five years
- Exotic breeds noted as contributing to problem
- The woolclasser must take on a quality assurance role in managing clip preparation. Quality assurance is aimed at ensuring that the clip is prepared and documented to give all confidence at each point along the wool handling or processing pipeline.

### **Mixed Sheep Breeds – Pigmented and Medullated Fibre Risk in Crossbreeding**

In recent years we have seen higher levels of cross breeding within the Merino industry, and this mixed genetic base is visible in the Merino clip. These fleeces should be in a separate line and this will help to eliminate black/coloured fibres throughout the main lines.

Several exotic breeds of sheep have been introduced into the Australian flock to produce lambs for domestic and export markets. These breeds and their crosses pose a contamination risk for the white wool industry. The only effective method of protecting the reputation of Australian wool is by adopting an industry-wide quality assurance approach to identify mobs at risk, documentation of this risk for downstream users, as well as the clear identification and segregation of effected wool, including re-handled wool.



Shearing sheep in Scotland



Re-sorting of wool in Chinese woollen mill

## Beyond the Farm Gate

The wool supply chain is highly complex and often time consuming – it takes a long time for a fleece to be converted into a garment, sometimes up to 18 months!

### Wool Processing Trends

- The Chinese wool industry will continue to grow and become even more important to Australian wool industry, and now 62% of Australian wool is processed in China.
- There is only very few high quality mills left in Italy, most of them have moved to China and Eastern Europe, because of the cost of production and environmental issues.
- When wool prices are too high to keep production costs down, Chinese processors substitute wool with manmade fibres, cheaper inferior wool and increase product blends.
- Research and development is playing a greater role in the industry with many textile mills undertaking innovative projects. In the past there has been more industry and international support but now it is up to the mills to develop this.

### Italian wool textile industry

The Italian textile industry includes wool, cotton, linen, silk and knitted fabrics is giving a fundamental contribution to the recovery of textile – fashion sectors and the “**Made in Italy**”- “**Italy Merino**” brand and image.

Following the critical situation in the past 5 years where trends show a business fall and the final result in 2006 to now show the first recovery, with 1.5% lift of turnover which continued into 2007.

The result was possibly due to the positive reaction of domestic demand regarding medium to high end fabrics and to increases in export to emerging markets, which is granted by two-thirds of fabrics produced by Italian manufacturers. The Italian volume market of imported products continued to lift also in 2006. International trade of 2006 confirms that Italy is the only country to resist the Chinese invasion, maintaining the second place in the global ranking of major textile exporters with over 10% of the market. This is done by the image of high quality products and the Italian brand.

The first quarter of 2007 confirmed the tendency towards recovery started in 2006. As to trade, the results evidenced significant progress of export in the knitted fabrics (up 13%),

silky and wool fabrics lifted by 8.1% and 4.3% respectively, while cotton export continued with a drop of 5.5% as well as linen that dropped by 6.3%. Highlight the comeback in demand from France and Germany after some years of inactivity and the buoyant results from the Mediterranean countries.

### **Wool Processing Trends fully integrated woollen mills**







## **Wool Market**

There is an increasing demand by customers for finer high quality wool which is used in very fine knit wear and sportswear. With a new middleclass, new ranges of products have been developed to fit into this market, easy wear and easy care garments.

However, the demand for stronger wool is static.

The “feel good” “animal friendly” market is continuing to develop where customers are demanding products sourced from organic and sustainable production systems with animal welfare being a major concern.

## **Marketing and Promotion**

Promotion of Australian wool when placed against the background of wide, brown land for me is a powerful image which is recognised all over the world. Coupling this image with the merino we have got a unique marketing tool.

The marketing of the brand Australian Merino ensures that no confusion can be made in the marketplace of where the products have originated.

Wool has traditionally had the image of scratchy, saggy and difficult to care for. New woollen products have left this well behind. Using “Australian Merino” in place of “Australian Merino Wool” is a refreshing new look to a fantastic product.

### **“Australian Merino”**

The Woolmark logo is known by 60% of the world’s population and in the past it was the third most recognised logo in the world. However, lack of promotion and marketing has allowed recognition of this logo and image to decline. It is essential to re-invigorate this logo to have it once again recognised along with Australian Merino.

With so much work already done in the promotion of this logo and the awareness of quality controlled products already in place there is a need to capitalise on this existing image.

### **“Woolmark”**

In many top New York fashion houses the swing tags on woollen garments are “Italian Merino”. In fact, little of the wool in the garments are sourced from Italy, the product has been manufactured in Italy. The image being sold is “chic Italian” rather than just another garment.

Promotion and use of Australian Merino should be aimed at the very best fashion designers and the designers of the major department stores, because they set the fashion trend.

Already, top fashion designers have been targeted to promote Australian Merino in their collections. This is a positive example of working with the fashion industry in promoting the uptake and use of Australian Merino wool.

## Future prospects in wool

- Australian wool is preferred
- Global retail demand and price directly determine quantities, despite lower cost of production
- Eager for further technology, innovation and foreign intellect and investment
- Increasing incidence of DMF in Australian wool major concern
- Woolmark logo was still recognised by 80% of population in 2000 – but slipping
- Australian companies must have a physical presence in China to develop trade.

### Australian Merino Wool Celebrating 200 years

“Fast forward into the future, today’s designers including Viktor Rolt, Jayson Brunsdon, Alexander McQueen, Proenza Schouler, Martin Grant and many other top designers are taking **Australian Merino wool** into the future with new technology and innovative fabric finishes, alongside the world’s top knitters and weavers.

The constant demand for natural and sustainable fibres sees extremely innovative **Australian Merino** yarn and textiles available offering a variety of benefits to designers, retailers and manufacturers across the globe.

It is important that passionate renowned designers are all working with Australian Merino wool; taking it from the sheep’s back to the catwalks of the world and developing new trends and setting new influences with Australian Merino Wool.

**From farm, to fashion, to future** – Australian Merino wool is a yarn for all seasons and remains a fibre for our times and every generation.”

“Australian Merino Wool Celebrating 200 years” Promotion  
AWI Treviso, Italy

## **Merino O2**

“Imagine a fibre so smart it adapts to suit the wearer and the conditions they face. The secret lies in selection of the worlds softest and finest merino wool. At 20 microns or less, it enhances comfort and performance naturally.

### **Stretch:**

Merino fibre is natural and compression works in harmony with your body. Working with you, not against, allowing effortless movement and motion. Naturally enhancing performance.

### **Climate:**

Whether it's the climate next to skin or the climate outside, Merino climate works hard in all weather conditions, all year round. Summer or winter – stay dry and comfortable, whatever, whenever.

### **Protect:**

For harsh weather conditions – rain, wind or storm. Merino repels the elements and allows maximum breathability and comfort. Stay dry and protected while you perform to the max.”

“Merino O2” Promotion of many uses of wool. AWI Treviso, Italy



# Conclusions

## Major Trends in the Production and Markets Future prospects

- Diverse opportunities for Australian agriculture
- Wool, sheep meat, dairy, beef, horticulture, grain.
- Wool passionately seen as luxury fibre and demand increasing.

Farmers have responded to new market opportunities, adopted new technology, improved livestock genetics, and increased the scale of their farming businesses. They have responded to market signals by adapting their land use to suit the relative profitabilities of different products - lamb, wool and beef - and where land is suitable, arable and horticulture and grain crops.

Productivity will continue to increase on the farm while producers and processors keep responding to increasing consumer demand for improved product quality.

Asia's share of world GDP will grow from 23% in 2000 to 31% in 2010 and demand for food and fibre is expected to double. An increase in consumer sophistication and a trend towards a diet based more on bread, meat, and dairy products will open up a whole range of opportunities for Australian agriculture. Australia has a logistics advantage in serving Asia due to its relative geographical proximity and counter-seasonal production.

A number of countries are producing quality wool. This is not to Australia's disadvantage as it provides continuity of supply in an expanding market. These countries are not necessarily competitors and we should be working co-operatively with them to expand the overall market. Other fibres, eg cotton and synthetics, are our competitors not other wool producing countries.

# Recommendations

## Recommendations to the farm gate

1. Improve total quality management in farm standards, clip preparation to minimise dark fibre and medullated fibre contamination and shed and handling facilities.
2. Work closer with other countries to sell primary products. Other countries producing wool and sheep meat are not competitors but other products are eg cotton, pork and chicken.
3. Adoption of the highest animal welfare, food safety and environmental standards to give us access to the widest possible markets.
4. Continue to organise tours and study tours to different wool-related destination. Firsthand knowledge is invaluable and encourages young wool producers to grasp the opportunities which abound.
5. Exchange programs with other countries, eg Uruguay, for training and experiences in different agricultural systems.
6. Growers still need to be more efficient in production and the cost of production because the international wool market will remain very price sensitive.
7. Research and development and the extension and delivery to other wool producers.
8. Continued world first animal welfare practices.

## Recommendations beyond farm gate

1. We need to increase domestic and international marketing and promotion of Australian wool.
  - Keep on developing the brands and images of Australian Merino and Woolmark.
  - AWI to increase their level of activity in Asia
2. The promotion of a limited number of brands would increase awareness of the Australian product and increase the money available for promotion on a limited number of labels, eg Australian Merino and Woolmark.
3. The selling of an image, then putting the product beside it

4. Development of a brand for Mid Micron Wool and then market and promote it to benefit prime lamb producers.
5. The need to be encouraged to conduct more research and development into countries such as China and Italy to increase trade efficiencies, wool usage and wool innovation.
6. Distribute regular information to wool producers about the international textile industry.
7. The wool supply chain needs to be quality assured from production through to processing.
8. High level of quality assurance for imports of wool products to prevent contamination in wool packs from the production of the packs to the delivery of the bale to the scouring plants.
9. We need to keep direct and personal relationships to facilitate information exchange and trade efficiencies with countries buying our agricultural products.

## **Recommendations to Government**

1. Increase funding for research and development.
2. Extension and delivery of research and development to all stakeholders.
3. Major capital expense on infrastructure
4. Increase funding on promotion and marketing of Australia and its products.
5. Maintain and improve protection of Australian animals and plant health standards.
6. Develop water infrastructure as this will be the key to the future expansion of production for primary industry.

# The Future of the Wool Industry

## Aim

We must keep focused on getting as many consumers buying as much product at the highest affordable price as possible.

## Our Mission

To create the right factors for wool growers to receive a fair return for their products, representing a return on capital invested which an investor would expect and for their labour input which a skilled professional would receive thus enabling them to focus on and produce the world's best wool.

## The Task

The tasks to achieve our vision are to:

- Market and promote Australian Merino and all types of Australian wool to the world.
- Study all facets of the market, and develop strategies to maintain and expand markets and product values.
- Seek, collate and study as much information as is necessary to aid the industry in understanding its markets, its strengths, weaknesses and threats.
- Assist in improving efficiencies on-farm and through all steps of the value chain.
- Keep wool growers well informed in respect of all aspects of their industry through the supply chain.
- Provide advocacy and leadership.
- Undertake research, development, innovation and education.
- Seek and attract buyers of wool and where possible put buyers and growers in contact with one another so that they may forge supply and information chains to their mutual benefit.

## **Quotes:**

**Life is a Journey of Lifelong Learning**

**There is no such thing as a level playing field in world trade!**

**Never say I cannot do it!**

**If you set your mind to do some thing don't let any thing get in the way to do it!**

**I had a go and achieved one of my goals - a *Nuffield Scholarship!***

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# Plain English Compendium Summary

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Email:	<a href="mailto:ajswalker@bigpond.com.au">ajswalker@bigpond.com.au</a>
<b>Objectives</b>	Wool and sheep production in the global market
<b>Background</b>	Looking at sheep production and production, processing, marketing and sales of wool. From the sheep's back all the way through to the consumer's back.
<b>Research</b>	Travel to 15 countries to investigate the world wool industry and its implication to Australia.
<b>Outcomes</b>	New market opportunities for Australian agricultural products.
<b>Implications</b>	Marketing and promotion of Australian products Emphasis on animal welfare and bio-security Increased research and development Closer co-operation with other sheep and wool producing nations
<b>Publications</b>	