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MOHAIR BEYOND 2000:
MOHAIR QUALITY THE GATEWAY TO VALUE ADDING

The Proceedings of the 6th National Conference of the Angora Mohair Breeders of Australia Ltd

Saturday October 23rd, 1993
Station Pier Condominiums
Port Melbourne

Compiled by
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B.A. McGregor
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Abstract. Proceedings of the 6th National Mohair Conference

Papers presented at the Conference addressed the issues of production of quality mohair, changes in the world textile scene and product development. Options for mohair growers in altering production systems and use of new genetic material were discussed. The role of research and development for value adding and marketing of natural fibres and mohair were detailed. The changing role of international agencies and the selling system were outlined. Speakers included very experienced wool and cashmere marketers, leading textile and animal scientists, development and industry specialists.
INTRODUCTION

Ladies and gentlemen, I have great pleasure in welcoming you to the 6th. National Conference and AGM on behalf of the Victorian Division of the Angora Mohair Breeders of Australia.

I extend a special welcome to our distinguished guest speakers, many of whom have travelled long distances to share their expertise with us today.

One of my top priorities is to thank the Rural Industries and Research Development Corporation for their very generous sponsorship of our National Conference and to welcome Mr Keith Hyde and Professor Alan Trounson from the Corporation.

Some 12 months ago, when the Victorian division was planning this meeting, we were struck by two major factors that were affecting our industry in 1992. The first was the dramatic impact of Texan genetics on the Australian flocks - many of these flocks had never produced such high quality kemp free mohair before, and we knew that South African genetics were on the horizon to further upgrade quality. However, although our clip was improving at a dramatic rate, mohair prices seemed to be going backwards!

Hence the theme for this Conference "Mohair Towards 2000". Our goal is to produce the best mohair in the world - we have the right pastoral areas and the goats will integrate with other farming enterprises. Our major problems lie in mohair marketing and the role of product development for our fibre.

We are indeed fortunate to have so many distinguished speakers with first hand experience in solving these problems and I am sure you will find their contributions not only fascinating, but also totally realistic when it comes to grappling with these issues.

Hilary M. Day.

ACKNOWLEDGEMENTS

The Victorian Division of the Angora Mohair Breeders of Australia thank the following brokers for their support in hosting the 1993 National Conference:

Ian Laycock Pty. Ltd.,
Fairlie Wools Pty. Ltd.
MOHAIR BEYOND 2000

OPENING ADDRESS - THE FACTS OF LIFE.

R. J. Browne, Managing Director, Arjae Cashmere Pty. Ltd.

If
I always do what
I have always done
I will always get
What I have always got.

Such a simple statement, yet how many of you give much thought to the message. Mohair Growers seek a consumer market that gives a fair and consistent reward for their labours, yet there is an inertia amongst many that resists change. Progress is not possible without change.

Agriculture in Australia is changing at a staggering rate. Mohair Growers, like so many other Australian Agricultural Industries, are another piece of flotsam caught up in the flood of change and carried along with the flow. In a flood the ultimate fate of flotsam is decided by the interaction of many unrelated things, currents, obstacles, other flotsam. Left unguided, flotsam may with luck find a safe resting place, it may end its life buried under a pile of other debris, or it may flow on with the flood to oblivion.

As in any flood a careful assessment of the situation and a little guidance can steer even the most errant flotsam to a safe and fertile resting place.

The roll of this Conference is to get Mohair Growers to stand up, look around and observe the big picture. Look for a safe and fertile haven and do a little steering.

Periods of change in the progress of mankind, like a flood, are inevitable. They are natures way of cleaning out the system, of destroying the established and resorting the order.

Remember every flood subsides and leaves in its wake a deposit of fertile soil. Floods are always followed by periods of prolific growth.

A few thoughts from my experience to start the day....

1) People do not NEED Mohair.
They have so many other textile fibres, wool, silk, cashmere, cotton, acrylics, rayon, microfibre, to name a few.

They must be given a reason to WANT Mohair for its perceived properties.

THIS IS FUNDAMENTAL!

Promotion can be used to develop customer "WANT". Developing WANT in a mediocre product can be expensive.

The correct product generates its own WANT.

I see the future of the Mohair Industry tied to the creation of products people WANT.
A mistake of past times has been to create a FASHION DRIVEN WANT. When the FASHION dies the WANT dies.

By all means use FASHION to enhance the WANT but, the underlying product must be a perennial capable of emerging again and again enhanced by FASHION after FASHION.

2) Eliminate the image of Mohair as a commodity.
By definition a commodity is a product of tradeable quality, that is only differentiated on its price. Historically commodity prices in real terms have a downward trend until they hover either side of the cost of production.

The solution is to differentiate Australian Mohair Products in the market place. Brand them and promote the advantages of the brand.

3) Do not expect the Government to fix the problems of the Mohair Industry.
To propel Mohair to a position of demand in the market place requires, creativity, dedication, drive and persistence.
When applied to individual Industries, none of these characteristics are the province of Government.

4) Communication is the key to success in any business.
Continual communication with your ultimate consumer markets is vital.
Communication and feedback between all segments of the processing chain is vital.

5) Eliminate Industry divisions.
Divisions stifle communication.

6) DO IT! Don't just talk about it.
Committees are great for collecting ideas, but no ships sail under the control of a committee.

7) Session 1 is about Quality Mohair. Remember quality applied to Mohair has two meanings:
a) Quality - a distinctive character.
b) Quality - a degree of excellence, imparting a suggestion of enhanced value.

I WOULD SUGGEST IT IS TIME TO OVERHAUL THE INDUSTRY FROM GOAT TO COAT.
Shorten the production chain.
Instil in each link of the chain the knowledge that their prosperity is dependant on the prosperity of the chain as a whole.
Make sure each link in the chain is committed and not just involved.
An example of this is your bacon and eggs in the morning - the hen is involved but, the pig is really committed.

It is with great pleasure I introduce to you the conference program MOHAIR BEYOND 2000
I believe it will be the beginning of a new era.
WHAT IS QUALITY MOHAIR?

Prof. John D. Leeder, Textile Research Laboratories, School of Agriculture, La Trobe University, Bundoora, 3083.

Mohair has traditionally been regarded as a "specialty" or "luxury" fibre, together with cashmere, cashgora, alpaca, llama, vicuna, guanaco, camel hair, angora, yak and musk ox. As a group, they are regarded as being special because of perceived qualities such as superior softness, brightness and lustre. Their scarcity in relation to comparable natural fibres, for example, wool, adds to their appeal and gives them status as an exclusive and "high-quality" textile material. The high quality image of these specialty fibres is also enhanced by their (sometimes !) high or extremely high price. However, like all other textile fibres, they are subject to the ups-and-downs of the international textile industry, and to the vagaries of the fashion industry.

Mohair, along with wool, is going through hard times at present, but hopefully, the pendulum has swung as far as it can go in the wrong direction. I firmly believe that current (RIRDC) initiatives and plans for process and product development, objective measurement of fibre and fabric properties and promotion of the good qualities of (Australian) mohair fibre, will provide a good foundation for a prosperous Australian mohair industry.

What is quality mohair? There is no simple answer. It depends ..............! There are several possible benchmarks -

(i) Comparison with the established properties of other fibres, especially wool and "copy-cat" synthetics;
(ii) Measurement and definition of special features of mohair;
(iii) Identification of special features of Australian mohair;
(iv) Ease of processing - into the most appropriate end-products;
(v) Consumer expectations, i.e. quality control and promotion of a mohair image, e.g. an Australian "Mohairmark".
(i) **Comparison of Mohair With Other Fibres**

Enormous amounts of money have been spent on R & D and promotion to build up the "quality" image of (Australian) wool. Wool is considered to have six primary properties that set it apart from all other textile fibres of non-animal origin -

- complex physical structure,
- versatile chemical structure,
- water repellent surface, yet -
- water-sorbing interior,
- scaly surface structure,
- natural fibre crimp.

Mohair possesses the first four primary properties listed above, conferring resilience, ease of dyeing and chemical finishing, water-repellency, comfort, non-flammability, durability, odour-absorption and the many other secondary properties that have been promoted to enhance the quality image of wool. That's a good start!

The less-definitive, flatter scale structure of mohair is assumed to confer desirable lustre to mohair fibres, and is probably responsible for the (supposedly) lower propensity of mohair to felt or shrink.

Lack of natural fibre crimp means that mohair will not compete with crimped Merino wool for bulky knitted end-products, but will spin into leaner yarns ideal, for example, in light-weight woven products.

(ii) **Special Features Of Mohair**

I have always believed that mohair was superior to wool, but the current market does not seem to support this. The finest wool commands a higher price than the finest mohair, despite some additional "good features" of the mohair fibre. For example, fine mohair feels softer than wool, has a distinctive lustre (presumably because of the flatter surface scale structure) which makes it ideal for blends with wool for apparel use (see later) and probably results in brighter, more vivid dyed products. There is some suggestion that mohair is stronger and more durable, but the evidence for this is not definitive. Recent work at La Trobe University has indicated that the wrinkle recovery of wool/mohair blended light-weight worsted fabrics is superior to that of pure wool. If Bob Steadman's current work on product development at our laboratories confirms that there is a significant improvement in wrinkle recovery by blending mohair and wool, the sky's the limit! Dimensional stability of mohair/wool blends especially in knitwear, is also being studied at La Trobe University. There is some inconclusive evidence from South African research that pure mohair fabrics
expand in the washing machine and pure wool, of course, shrinks. We are hoping to find a blend ratio which gives a substantial degree of resistance to dimensional change during washing and wearing.

Initial studies of retail markets suggest that mohair along with other specialty fibres attracts a premium in knitted garments and allows a greater margin and hence expanded demand for both wool and mohair. Definitive studies to separate out the effects on retail prices of a mohair-wool mix are currently being carried out at La Trobe.

Because the surface of mohair is different to wool, this offer possibilities for utilising this feature as a "quality" property. In RIRDC project ULA-12A at La Trobe, we are measuring fibre/fibre friction and surface tension of chemically-modified mohair. The combined effects of surface modification and processing lubricants are being studied in an attempt to enhance processability without detracting from the aesthetic benefits of surface structure.

(iii) Special Features Of Australian Mohair:

Special qualities in Australian mohair are more difficult to find. There is some indication that future generations of goats from breeding of the recently-introduced Texas stock will produce finer fibres with less coarse or kempy fibres - this will be an advantage in all apparel end-uses. UV degradation in the field can cause processing problems and aesthetically inferior fibre. Leo Holt is currently looking at application of UV absorbers to newly-shorn sheep, and this works. We believe that this would have greater economic benefit to the other specialty fibres - particularly young goats, which produce the finest and most valuable mohair fibre.

Again, in our work at La Trobe, we are developing an instrument for measuring the lustre of fibres. The identification of the lustre characteristics of Australian mohair compared to other mohair samples and other fibres, may allow differentiation of the Australian product and define another "quality" property.
(iv) **Processability of Mohair To Most Appropriate End-Products:**
In common with other fibres such as wool, mohair comes in a wide variety of fibre diameters and hence has gravitated into a wide variety of end-uses.
A very rough approximation of end-use/diameter relationships is:

- 20 - 23 micron - light-weight worsteds, especially in blends with wool,
- 23 - 25 micron - machine-knitting yarns,
- 26 - 29 micron - hand-knitting yarns,
- 29 micron plus - upholstery, carpets (?),
- "the rubbish" - interior textiles,
- non-woven applications,

Mohair is generally regarded as relatively easy to process, using the conventional wool worsted or semi-worsted systems. The only problem we have found is that "spin finishing" chemicals are needed to increase cohesion of the more-slippery mohair fibres, particularly with pure mohair or blends with a high mohair content. Compared with wool, the longer length of the average mohair fleece is a potential advantage for producing fine yarns for, e.g., light-weight worsted fabrics. I am particularly excited about blending the new Texan kid mohair (approx. 22 micron and around 100 mm) with wool for "Cool Wool" type applications. Poor wrinkle recovery is the worst feature of pure wool "Cool Wool". Mohair/wool blends (or even pure mohair?) offers exciting possibilities, if backed by appropriate objective measurement. Incidentally, Cape kid mohair is preferred to Texas kid mohair by some U.K. processors. Our current process/product development work should, hopefully, redress this situation.

(v) **Consumer Expectations - Australian "Mohairmark":**
It was stated earlier that mohair has traditionally been regarded as a specialty or luxury fibre. The International Wool Secretariat has done wonders for the wool industry by promoting "Woolmark" as a quality image for wool. The important aspect is to achieve scientifically accurate **objective measurement** of a range of properties - dimensional stability, colour fastness, strength, abrasion-resistance, insect-resistance, content of pure new fibre, etc. The consumer then has what amounts to a guarantee that the product is Pure new Wool and that it will perform satisfactorily in its designated end-use.
However, I do not believe that we have yet identified the most appropriate end-uses for mohair, and certainly objective measurements of the properties of potential products have not been made to my satisfaction. The South Africans have dabbled in this area in an ad hoc manner (see the report to RIRDC by Leeder, McGregor and Steadman, May 1992), but we need measurements of the good qualities of Australian mohair products to be able to promote these products to the processor and the consumer. Our current work at La Trobe is only scratching the surface in this area. Furthermore, it may be that the most appropriate "quality" feature of mohair is as a minority blend with wool in light-weight worsted fabrics - how does one apply a "Mohairmark" to such a product? The establishment of performance standards is, I believe, important in generating consumer awareness. In the words of Leeder's 9th Law - "Quality is in the eye of the beholder" - or consumer!

Conclusions:

I have been asked to define mohair quality, but have probably raised more questions than answers. Hopefully, this paper will form a basis for future discussions. In our review "Fibre to End-Product Properties and Performance of Goat Fibres" (Leeder, McGregor and Steadman, May 1992) we recommend that more R & D be devoted to all aspects of goat fibres - fundamental fibre properties, process development, product development and testing. In particular, may I emphasis our statement - "A very important need is to objectively measure end-use and aesthetic properties of products made from (mohair) fibres, e.g. wrinkle recovery, abrasion resistance, brightness and fastness of dyeing, pilling propensity, comfort and shrink-resistance. While there are indications that (mohair) differs from wool in these particular properties, definitive studies have not yet been reported". These studies need to be done on the new Texan-bred range of Australian mohair fibres.

A policy of blending mohair with other fibres, particularly wool, will need to be considered. Leeder's 11th Law states - "49% of something is infinitely better than 51% of nothing".

By clearly identifying the "quality" properties of Australian mohair, we can create a value-adding mohair/specialty fibre industry in Australia that will complement, rather than compete, with the long-established wool industry.
PRODUCING QUALITY MOHAIR
- options for growers

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Department of Agriculture
Werribee Victoria 3030

Summary. The paper briefly defines the major quality attributes of mohair. It discusses trends in the wool and cashmere industries and fashion directions for comfortable clothing. The influence of liveweight, nutritional and genetic manipulation and the role of flock structure and type on mohair quality are detailed. Possible management options for mohair producers to alter mohair quality are outlined.
PRODUCING QUALITY MOHAIR

What is quality mohair? What are the methods of altering production and management of Angora goats to maintain the production of quality mohair? How should mohair producing flocks be structured? These and many more questions can be asked about producing quality mohair. This paper briefly discusses the main issues by which producers can influence the quality of their mohair. But first we need to define mohair quality.

QUALITY MOHAIR AND MARKET EVOLUTION

The major quality attributes of mohair have been defined by processors and markets for many years. They include, in order of importance:

- mohair fibre diameter,
- length of mohair,
- freedom from impurity fibres (kemp and medullated fibres),
- freedom from contamination (vegetable fault, coloured fibres, man made fibres)

Each of these quality attributes affects directly the speed of processing, processing yield and yarn quality.

Mohair fibre diameter. Maximum prices are paid for fine mohair up to 26 µm in mean fibre diameter. The price declines about 5% for each 1 µm increase in fibre diameter between 26 and 34 µm. Prices decline slowly above 34 µm. (Fig 1)

Mohair fibre length. Mohair of 15 cm length commands a premium but this fibre represents only a small fraction of the market (=2%). Mohair ranging in length from 7.5 to 15 cm (about 57% of the market) receives about 92% of maximum price. Mixed length and 5 to 7.4 cm long mohair receives about 80% of maximum price or about 90% of the price of 7.5 to 15 cm mohair. Markets discriminate against length to a lesser degree than against fibre diameter (Fig 2).

Australian mohair is regarded as having a greater variability in length than South African mohair but it is not clear if this is related to environmental conditions (nutritional changes) or genetics. There is evidence that good style and character is related to more uniform fibre length within the staple. However in South Africa, price premiums for good style mohair compared to poor style mohair at the same fibre diameter, rarely exceed 2.5%. Recently, a Bradford processor told me that Australian mohair receives about 15% lower prices because of the great variability in fibre length. This statement requires examination. Fibre length affects spinning speed and yarn construction.

Kemp and medullated fibres. Kemp reduces the value of kid and adult mohair. Discounts of 16 to 20% have been reported for increases in kemp content as small as 1.6 to 2.0%. Kemp increases processing costs and reduces the yield of the tops. Kemp also restricts the use of the top.
Figure 1 - The relationship between average prices received for mohair and the mohair fibre diameter of South African mohair (averaged over 10 seasons, Van der Westhuysen (1982)).

Figure 2 - The relative average price of various classes of the South African mohair clip over 10 seasons. The width of each length class represents the proportion of that class in the South African mohair clip (Van der Westhuysen 1986).
Contamination and grease. Vegetable (grass seed and burrs), urine and dung stains, and colour stains in mohair incur serious price penalties of 50% or greater. These faults require carbonising which reduces the lustre, or heavy scouring producing creamy coloured mohair (not white), both treatments restrict such fibre to lower priced end uses. Heavy grease content requires longer scouring and increases costs per unit of clean mohair.

A recent member of the South African Mohair Board said that only fine mohair (25 to 32 µm) of a minimum length 75 to 100 mm is suitable for producing men's and women's fabrics and fancy yarns (Van der Westhuysen 1982) but this mohair represents only about 20% of the clip.

The IMA. The International Mohair Association rules for trade mark use include the following definitions which define some aspects of mohair quality. Knitting yarns and garments can be described as:

- SUPERKID if mohair diameter does not exceed 27 µm,
- KID if mohair diameter does not exceed 32 µm,
- MOHAIR for mohair of 32 µm and higher.

The definitions appear to be very generous in the use of words such as superkid and kid. Much of Australia's current production could be defined as kid mohair! The definitions appear to have been designed to allow South African mohair to be classified as SUPERKID for the first shearing and KID at the second shearing.

Fibre diameter variability and prickly clothing. The wool and cashmere industries are very "sensitive" about production of prickly garments. The trade definition for cashmere, having a mean diameter of less than 20 µm, is to ensure no fibres in the fibre diameter histogram, exceed 30µm. Indeed, in Australia, cashmere classification generally ends at 18.5µm as Australian goats appear to have a greater variability and spread of fibre diameters. Definition of both fibre diameter and fibrediameter variability are essential to ensure cashmere retains its soft luxurious handle.

The Australian wool industry also regards prickle discomfort as a major impediment to the use of wool, especially in the USA market. Wool lots with over 5% of fibres exceeding 30µm are classed as prickly. This includes about 35% of 21 µm wool and all wool lots of 24 µm and above. Considerable effort is now focussed on reducing the mean fibre diameter and diameter variability in flocks with mean wool fibre diameters of 21 to 23 µm (Dolling 1992).

Recent developments include the use of measured "spinning fineness" to indicate wool sale lots which have similar spinning and weaving performance and are similarly ranked for fabric prickliness (Dolling 1993). Effectively spinning fineness uses the coefficient of diameter variability (CV%) to "adjust" the mean fibre diameter to better reflect the processing performance of wools. Wools of greater CV% perform as though their mean fibre diameter is greater (Dolling 1993). At 22µm, for each increase in CV% of 5% spinning fineness increases approximately 1 µm (Table 1) but at 35 µm each increase in CV% of 5% increases spinning fineness 2µm.
Mohair, with mean fibre diameters ranging up to 46 µm also has a high CV% of fibre diameter. On average South African mohair averages about 27% CV with a range in values between 23 and 32%. Thus almost all mohair, except the very finest, has a considerable proportion of fibres greater than 30 µm. Much of our kid fibre has a CV% of 30 or greater (McGregor unpublished). Thus 22 µm "super kid" has 12 to 16% of fibres over 30 µm (Figure 3). As mean fibre diameter increases to 24 µm the % of fibres above 30 µm increases to 19 to 23% (Fig 3). Increasing CV% from about 30% to about 40% (Fig 3) increases % of fibres above 30 µm by about 4%. Mohair's greatest problem according to leading processors, is that it is a prickly fibre. Thus many mohair yarns are brushed so that the softer brushed yarns are less likely to prickle and the fibres more likely to bend. If we assume that the trends seen in Table 1 apply to mohair then it is not surprising that mohair garments are prickly, with or without medullation.

Table 1 Spinning fineness (µm) for various combinations of mean fibre diameter and co-efficient of variation (calculated from Butler and Dolling personal communication). The calculations assume the CV% of typical Australian mohair is 30%.

<table>
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<tr>
<th>Diameter (µm)</th>
<th>Co-efficient of variation (%)</th>
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<tr>
<td></td>
<td>18</td>
</tr>
<tr>
<td>22.0</td>
<td>19.7</td>
</tr>
<tr>
<td>25.0</td>
<td>22.4</td>
</tr>
<tr>
<td>28.0</td>
<td>25.1</td>
</tr>
<tr>
<td>30.0</td>
<td>26.9</td>
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<tr>
<td>33.0</td>
<td>29.5</td>
</tr>
<tr>
<td>35.0</td>
<td>31.3</td>
</tr>
<tr>
<td>38.0</td>
<td>34.0</td>
</tr>
<tr>
<td>40.0</td>
<td>35.8</td>
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Clothing Evolution 1950-2000. During the 1950's formal tailored clothing represented the main clothing market. By the 1990's casual and sports/active clothing were of similar importance to formal tailored clothes. Within 20 years it is expected that casual clothes will dominate with formal tailored clothes representing a smaller proportion of the market than sports active clothing.

New product development in the wool industry (IWS 1993) focuses on comfort, softness, lightness in weight, ease of care, retention of appearance and colour.

Growth markets are in the smart casual, semi formal, young casual and trans-seasonal markets. Cool wool suits have already displaced traditional mohair tropical suits. What role will mohair play in the new markets?
Mohair fibre diameter distribution histograms from kids with different mean fibre diameter and different co-efficients of variation. The mean diameter, CV% and % of fibres greater than 30µm are shown.
SOME OPTIONS FOR GROWERS

Mohair producers have five main methods of manipulating mohair quality and production. These are:

- Liveweight manipulation
- Nutritional manipulation
- Flock type
- Flock structure
- Genetic selection

Liveweight Manipulation

As goats grow and become heavier they generally grow coarser mohair. In experiments at Werribee using Australian mohair goats, for every 10 kg increase in mean liveweight, mohair fibre diameter increased $3.48 \pm 0.28 \, \mu m$. Thus on average, with groups of goats, increasing liveweight from 15 to 45 kg would be expected to increase mean mohair diameter 10 µm.

If producers wish to produce fine mohair a production system needs to exclude heavy goats which produce coarse mohair. For example, a producer may wish to exclude all goats producing mohair 32 µm or stronger. This would require stringent examination of goats heavier than 38 kg and extensive culling of goats producing coarse mohair.

Liveweight, age and mohair fibre diameter. Many commentators have concluded that mohair fibre diameter increases as Angora goats age. This concept is not very reliable as has been demonstrated when Angora goats were grazed under a variety of conditions (McGregor 1990b). While age and mean live weight of Angora goats are reasonably correlated with each other, and mohair fibre diameter, under conditions of good nutrition (see Fig. 4) under poor nutritional conditions, such as high stocking rates, mean live weight accounted for four times more variation in fibre diameter than age. Over all stocking rates, mean live weight accounted for twice as much variation than age in predicting fibre diameter. As an example, close examination of Fig. 4 will show that fibre diameter of goats at 12.5 per ha similar at 1 and 3.5 years of age. Their mean live weight at 1 and 3.5 years of age was similar (~24 kg).

Mohair producers can assist fleece classing by drafting Angora goats into live weight classes prior to shearing. Fleeces from heavier goats can then be closely examined and coarser animals easily identified.

When purchasing bucks and comparing measurement of fleece diameter, account needs to be taken not only of the previous feeding management of the bucks but also of the liveweight of the bucks.

Nutritional Manipulation

The following nutritional and environmental factors are managed by mohair producers; stocking rate, supplementary feeding and doe nutrition (see McGregor 1990a&b).
Figure 4 - Mohair fibre diameter of Angora wethers grazed on annual temperate pastures at low (△), medium (□) or high (○) stocking rates and the changes with age and stocking rate.

Figure 5 - Percentage of mohair clip (—) and percentage of total mohair value (- - - ) from adults ■ □ and kids ● ○ in self replacing flocks of Angora's with different weaning %
Stocking rate influences quality and production of mohair. In experiments at Werribee using Australian mohair goats, differences of up to 5 µm in mohair diameter were detected between low and high stocking rate treatments (Fig 4). A summary of the main stocking rate effects is given below.

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<th>Effects of stocking rate</th>
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<td>Fibre diameter</td>
<td>Changes up to 5 µm</td>
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<td>High stocking rate gives lower liveweights and finer mohair</td>
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<tr>
<td>Kemp incidence</td>
<td>Grazing goats at high stocking rates increased kemp.</td>
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<tr>
<td>Clean Yield</td>
<td>Reduced by up to 5% at high stocking rate.</td>
</tr>
<tr>
<td>Weight of mohair</td>
<td>High stocking rate reduced production by up to 20% but per hectare production increases at higher stocking rate.</td>
</tr>
<tr>
<td>Mohair length</td>
<td>Reduced at high stocking rate.</td>
</tr>
</tbody>
</table>

Mohair producers need to graze Angora’s at relatively low stocking rates in order to minimise internal parasitism. Such goats will grow relatively rapidly, grow more mohair which will be longer and coarser than heavily stocked goats but the greasy mohair is likely to have lower levels of medullation and higher yields. High stocking rates usually lead to severe health and welfare problems.

Supplementary feeding of energy is usually provided in droughts, dry summers, at weaning and during late pregnancy and lactation. Energy supplementation directly affects liveweight change and therefore mohair fibre diameter. Goats which lose liveweight grow less mohair and the mohair is commonly 2 to 3 µm finer than mohair from goats which maintain their liveweight. Goats fed to gain liveweight grow more mohair with increased fibre diameter (often 2-3 µm coarser) compared to goats fed to maintain their liveweight.

Supplementary feeding during spring has also reduced the incidence of medullated fibres in Australian mohair compared to feeding goats to maintain liveweight (3.7% compared to 6.7% McGregor 1984).

Feeding of supplements to pregnant and lactating does and their kids is currently being investigated at Werribee. Results of our 1991 experiment showed:

<table>
<thead>
<tr>
<th>Mohair Character</th>
<th>Effect of supplements with does</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mohair production</td>
<td>Significant increases of 14%</td>
</tr>
<tr>
<td>Washing yield</td>
<td>Increases of 1%</td>
</tr>
<tr>
<td>Fibre diameter</td>
<td>No change</td>
</tr>
<tr>
<td>Medullation</td>
<td>Increased from 1.44 to 2.19%</td>
</tr>
</tbody>
</table>
Similar trends have been reported for South African does. The main benefits for supplementary feeding energy to does is to obtain high survival rates for kids, increase kid liveweights and increase mohair growth rates. Potential increases in doe liveweight are also important particularly during the following mating season as liveweight has a large influence on ovulation rates.

Preliminary results from my 1992 experiments at Werribee indicate the following potential benefits for kid production.

<table>
<thead>
<tr>
<th>Production trait</th>
<th>Effect of supplementary feeding does</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kid liveweight</td>
<td>Increase of 12% at weaning</td>
</tr>
<tr>
<td>Kid mohair weight</td>
<td>Increase of 15% at first shearing</td>
</tr>
<tr>
<td>Kid fibre diameter</td>
<td>Increase 0.5µm</td>
</tr>
<tr>
<td>Kid medullated fibre</td>
<td>No change</td>
</tr>
<tr>
<td>Doe liveweight</td>
<td>Increase of 12% at weaning (4.8 kg)</td>
</tr>
</tbody>
</table>

Generally the costs of feeding energy supplements far outweigh the direct benefits of increased mohair production. Supplementary energy usually increases mohair fibre diameter of non breeding goats and consequently reduces the value of the entire fleece. Supplementary energy is indicated only when the welfare of the goats is at risk (droughts, pregnancy) and large benefits arise when energy is fed to lactating does.

Supplementary feeding of protein and non-protein nitrogen to Angora goats is not usually warranted in Australia. Results in Australia and the USA have shown that the costs of feeding protein supplements far outweigh the benefits (McGregor 1990b).

**Flock Type**

Many wool producers maintain specialist flocks of wethers and some wool growers only have wether flocks. Why is this so? The main reasons are related to management and labour. Breeding flocks are subject to major nutritional stresses in autumn and winter which results in reduced wool quality and tender low strength wool. Wether flocks are less susceptible to such stresses. Wether flocks also require no labour at lambing!

With Angora goats, the stresses of pregnancy and lactation often result in reduced fibre growth and fibre shedding. The resulted cotted fleece is less valuable and mohair may be lost prior to shearing.

At the moment most unwanted Angora males are slaughtered prior to their first shearing and so their potential to produce fine mohair is wasted. It is surprising that so few Angora wethers are retained to produce top quality mohair.

Running wether flocks is a cheap and easy way to be introduced to mohair production, it requires less labour and if managed correctly, wether flocks could always be producing mohair less than 30 µm by instituting rigorous culling and replacement.
Flock Structure

With a breeding flock the proportion of adult does to kids can be altered by management. These changes can have large effects on the type, quantity and value of mohair produced.

An example is described as follows:

Take a property which can run only 500 Angoras. Should the does be managed to have a weaning % of 70 or at more intensive levels up to 160%? The flocks are to be managed to achieve a culling rate of 33% of adult does to enable

(a) older, coarse mohair producing does to be culled
(b) the most rapid genetic selection possible by selecting fine high producing kid does
(c) an increase in the number of kids kept up to 1 year of age to optimise the production of finer mohair.

I have assumed typical production levels and fibre diameters for Australian mohair goats. The relative values have been derived from Figure 1 (eg. 34 µm mohair has a relative value of 0.55 and this value is multiplied by the weight of mohair produced). No death rates are included and selling costs have also been excluded. Below 70% weaning is unviable as not enough doe kids are born for 33% replacement of adult does. The following flock structure are possible (Table 2).

Table 2 - Flock Structure at Different Weaning Rates

<table>
<thead>
<tr>
<th>Weaning Rate</th>
<th>70%</th>
<th>160%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>adult does</td>
<td>244</td>
<td>170</td>
</tr>
<tr>
<td>yearling maiden does</td>
<td>82</td>
<td>57</td>
</tr>
<tr>
<td>mix sex kids</td>
<td>171</td>
<td>272</td>
</tr>
<tr>
<td>bucks at 1.5%</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL GOATS</td>
<td>501</td>
<td>502</td>
</tr>
<tr>
<td>Sales of mohair kg</td>
<td>1226</td>
<td>1029</td>
</tr>
<tr>
<td>TOTAL Relative Value</td>
<td>911</td>
<td>878</td>
</tr>
<tr>
<td>Sales of goats:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>adult does</td>
<td>82</td>
<td>57</td>
</tr>
<tr>
<td>yearling does</td>
<td>3</td>
<td>79</td>
</tr>
<tr>
<td>yearling wethers</td>
<td>85</td>
<td>136</td>
</tr>
</tbody>
</table>
There are three major outcomes.

1. Our objective to increase the proportion of kid mohair produced is achieved. At 70% weaning, kid mohair represent only 21% of the weight and 28% of the value of the clip. But at 160% weaning kid mohair represents 40% by weight and 47% by value of the clip. Figure 5 shows the changes in mohair production and relative value as weaning % changes.

2. At high weaning rates, producers have the ability to cull up to 60% of their weaner kids. Rapid improvement in mohair attributes of breeding does is possible. Sales of mohair on a weight basis actually fall 16% but total relative value falls only 4%. If selling costs were included, the net relative value at 160% weaning would be higher as selling changes are made on a per kg basis or a per bale basis and so costs at 70% weaning would be greater than actual costs at 160% weaning.

3. Producers' have more goats to sell as weaning rate increases. The importance of a viable meat and wether market become very clear as weaning rate increases. If we assumed the relative values of yearling goats and adult does as being equal and of the same order as a kg of mohair, then at 160% weaning 100 extra units will be sold. If kids are worth two units of value then at the higher weaning rate 229 extra units of value will be sold.

There are many other options including selling wether kids following their first shearing (pre Christmas) or following their second shearing (pre Easter).

**Genetic Selection**

It is clearly possible to change mohair characteristics by genetic selection and/or changing mohair strains. This topic is covered in more detail elsewhere in this proceedings and by Bigham (1990).

*Genetic Selection.* It is possible to select for finer mohair, reduced CV%, less kemp and heavier clean fleece weight as these traits are all heritable. Breeders need to be aware that these traits are correlated which means that changes in one trait will affect another trait. Breeding indexes and progeny testing are required to fully evaluate potential bucks and to provide weighing of various traits prior to selection to ensure that your objectives can be reached.

On-farm selection using visual methods has been the only form of selection used to reduce kemp in Texas and South Africa. Stapleton (1984) has described the techniques which can be used on farm to reduce kemp incidence.

*Strain Selection.* Australian breeders can now keep Australian, Texan, South African, AxT, AxSA, and TxSA strains of Angora goats. There is no doubt that the recently imported strains produce on average more mohair but at increased fibre diameters. Kemp incidence should also be significantly reduced. However there is also variation within strains (Table 3) and opportunities exist before and during crossbreeding programs to select for high producing fine mohair goats. There is also great scope to incorporate strain selection with flock structure manipulation to increase production of fine kemp free mohair.
Table 3 - Variation in performance of Texan 1 year old Angora bucks under test conditions in Sonora Texas (Pen feeding for 112 days).

<table>
<thead>
<tr>
<th>Trait</th>
<th>Range</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial liveweight kg</td>
<td>19-64</td>
<td>39.4</td>
</tr>
<tr>
<td>Final liveweight kg</td>
<td>38-92</td>
<td>61.2</td>
</tr>
<tr>
<td>Fleece yield %</td>
<td>57-85</td>
<td>74</td>
</tr>
<tr>
<td>Clean mohair kg</td>
<td>2.5-8.3</td>
<td>5.0</td>
</tr>
<tr>
<td>(six month basis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mohair diameter µm</td>
<td>25-57</td>
<td>38.7</td>
</tr>
<tr>
<td>Medullation %</td>
<td>0-38</td>
<td>2.4</td>
</tr>
<tr>
<td>Kemp %</td>
<td>0-4.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>

(Source Bigham and Baker 1990)

Bigham and Baker (1990) attempted to explain the difference in mean mohair production under performance test conditions of Texan bucks producing 5.0 kg of mohair at 38.7 µm and Australasian bucks growing 1.4 kg at 29.5 µm (Table 3). They concluded that the differences in performance of Texan and Australasian Angora bucks under performance test conditions was related to:

- genetic differences = 1.3 kg mohair
- increased fibre diameter in Texans = 1.5 kg mohair
- nutrition and other effects = 0.8 kg mohair

CONCLUSION

Australian mohair producers can influence the quality of their mohair by altering the mean liveweight of their flock, manipulating nutritional provision and limiting supplementary feeding, changing flock type and structure and by genetic selection and altering strains of mohair goats. Changing flock structure can have large affects on the proportion of fine mohair produced. Use of imported genotypes requires care as while mohair production should increase it is possible that mohair diameter will also increase significantly.

Irrespective of environmental and genetic conditions, mohair producers will need to be increasingly concerned about the quality of their mohair as rapid changes in the clothing and textile industries and consumer preferences are occurring. Consumer preferences are for easy care, comfortable and casual clothing. Increasing emphasis on the production of mohair with spinning fineness less than 30 µm will lead to mohair which will be more marketable, which will produce more comfortable clothing and be less subject to fashion.
References

A ROLE FOR NEW GENETICS

Tony Maw
International Mohair Genetics
Kanangra Hillrose Pty. Ltd.
RMB 327, Marulan NSW 2579
A ROLE FOR NEW GENETICS

The speakers preceding me today are far more qualified than I to handle the numerics of 'what goes with what' and the likely outcome of such breeding decisions. I propose to deal with the available genetics in a much broader sense and in the process to pass on some of the practical things we have learnt... some by bitter experience... over the past eight years. Let's begin by defining the topic... New Genetics. After all, in this context, the owner of a Glenroy based Australian angora herd would view the use of say Osory blood as an infusion of new genetics. The thrust of this paper centres round

1. Texan Genetics... now widely in use
2. Sth African Genetics... which soon will be

The Attributes of Imported Genotypes

It is generally acknowledged that our Australian bloodlines were becoming uncomfortably close, with line breeding looking more and more like in-breeding with each passing year. The 'cross-out' potential was in fact, one of the major reasons for the push to introduce off-shore lines.

Texan imports Whilst the spectrum may now look unlimited to the breeder with an Australian herd and a couple of Texan bucks to play with, this is somewhat removed from the true picture in the field. Some 70 original Texan imports were airlifted in. About half were selected personally by Australian breeders in the US... employing Australian selection criteria. The balance were selected by American breeders on behalf of Australian buyers... using American selection criteria. The 70 imports therefore, fell largely into two distinctly differing types (Table 1). Which meant that, depending on your breeding preference, the selection pressure offered by the import group was halved - from an already small base.

Table 1 Different Selection Criteria used by Australian buyers and Texan sellers

<table>
<thead>
<tr>
<th>Fine</th>
<th>Coarser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dense Fleece</td>
<td>Greasy</td>
</tr>
<tr>
<td>High Yielding</td>
<td>Lower Yielding</td>
</tr>
<tr>
<td>Well (Over?)</td>
<td>Open Faced</td>
</tr>
<tr>
<td>Covered</td>
<td>American Selection</td>
</tr>
<tr>
<td>Aust Selection</td>
<td></td>
</tr>
</tbody>
</table>

Beyond this, if we divide the import group into 'original herds' we find that only 9 or 10 names were involved and some of these were the result of interbreed programs in the US. eg. Approx 20% of the import group came from Mike Pember and the same name appears in the pedigrees of many of the other imports.
Torrens, Kirra and NZ experiences have shown us that the breeding and surveillance requirements of our long term SFAP quarantine programs conspire to produce an amalgam of all of the lines involved. They also generally ensure an overall decreasing level of herd quality (compared to the imports) at least through year three of a five year program. To offset this situation it is essential that access to the original import sire genetics be maintained for renewed use when breeding decisions are no longer dictated by quarantine requirements. Whilst this genetic access is possible with the Texans, it has been lost in the Sth African groups.

The points I am making are...

1. The genetic outcross pool represented by the Texans is no where as broad as one might like to assume.

2. That the Texans we have fall broadly into two differing types and that very few have regained the quality standards of the original imports.

South African imports The Sth African situation is perhaps even more intensive.

1. No one has been able to access 'the very best' from Sth Africa. When the Texan selection was made it was from the absolute cream of that years drop.

2. Some 9 bucks and 90 pure Sth African does produced all offspring comprising the Embryotech, Diamond Fibre and African Goat Flock herds. Of these, 3 sires had a greatly reduced impact on breed numbers.

3. Whilst it is not so obvious at first glance the African spread of type is just as diverse as that within the Texan group.

4. On an original herd basis we are dealing with possibly as few as 4 distinct African lines.

5. The Sth Africans are subject to the same restrictive breeding/surveillance protocols whilst in quarantine.

6. Terraweena can offer some scope for outcross, but collectively no more than the total of the other groups.

The points I am making here are

1. That as a pure line, the Sth African genetics available to us are theoretically of a lesser quality, relative to the best the origin country has to offer, than the Texans were.

2. That the out cross opportunity presented by the Sth African is as limited as the Texan group is.
Using new genetics in Australia

Now let's look at some of the results of using these new genetics. The hybrid vigour expressed in the Texan/Aust and African/Aust 50% cross is spectacular - double the fleece weight and vastly reduced kemp is not an exaggerated claim. But... that vigour diminishes rapidly at the 75% and 87.5% levels.

If you are a hobby farmer this will not mean much to you... goat meals at the Hilton tend to be pretty good.

But in a commercial sense, unless these animals are fed extremely well and supplemented with minerals, you can quickly be left with a miserable Australian frame struggling to support import fleece characteristics.

The kemp factor appears strongly recessive at these levels and must be selected against.

_Five crosses (from Aust) do not a true pure make... not in constitution or repeatability terms anyway... and ten crosses do not an import make._

The important question, which I can not yet answer, is... _What is the hybrid vigour factor and its persistence up the Tex/African pure intercross tree?_ I suspect that it will not be as strong as that displayed by the Australian cross with either pure line.

Those breeders who champion Texan would be well advised to consider seriously those traits offered by the African. And the breeders sitting back patiently out there expecting the Africans to solve all of their problems are in for a shock.

Here is a profile of the various traits which may be used to evaluate the frame and fleece of an Angora goat. I have used it to build up a picture of the comparative strengths and weaknesses of the Texan and African animals. As such it may be a useful guide for breeding selection. It is based purely on our experience and relates directly to those animals which will be available to us.
### TEXAN

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>STH AFRICAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double fleece weights</td>
<td></td>
</tr>
<tr>
<td>Kemp</td>
<td></td>
</tr>
<tr>
<td>Medullation</td>
<td></td>
</tr>
<tr>
<td>Finer fibre</td>
<td></td>
</tr>
<tr>
<td>Yield</td>
<td></td>
</tr>
<tr>
<td>Lustre</td>
<td></td>
</tr>
<tr>
<td>Handle</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td></td>
</tr>
<tr>
<td>Balance of C/S</td>
<td></td>
</tr>
<tr>
<td>[Easy Open]</td>
<td></td>
</tr>
<tr>
<td>Even</td>
<td></td>
</tr>
<tr>
<td>Open front</td>
<td></td>
</tr>
<tr>
<td>CV and SD</td>
<td></td>
</tr>
<tr>
<td>Constitution</td>
<td></td>
</tr>
<tr>
<td>Horn shape</td>
<td></td>
</tr>
<tr>
<td>Foot fault</td>
<td></td>
</tr>
<tr>
<td>Sway back</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristic</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Double fleece weights</td>
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<tr>
<td>Kemp</td>
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<td>Medullation</td>
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<tr>
<td>Finer Fibre</td>
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<tr>
<td>Handle</td>
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<td>Density</td>
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<tr>
<td>Balance of C/S</td>
<td></td>
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<tr>
<td>[Easy Open]</td>
<td></td>
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<tr>
<td>Even</td>
<td></td>
</tr>
<tr>
<td>Open Front</td>
<td></td>
</tr>
<tr>
<td>CV and SD</td>
<td></td>
</tr>
<tr>
<td>Constitution</td>
<td></td>
</tr>
<tr>
<td>Horn shape</td>
<td></td>
</tr>
<tr>
<td>Foot fault</td>
<td></td>
</tr>
<tr>
<td>Sway back</td>
<td></td>
</tr>
</tbody>
</table>

Shade boxes suggest a bias to that line.

*When do we get the Africans?* The New Zealand based stock must complete the SFAP for Australia and then undergo pre embarkation health tests, as per the import protocol. Testing will now commence early Jan '94 and uplift will be early Feb - assuming health clearance. As all of the New Zealand owned stock has already been tested for scrapie and released... we feel secure in this regard.

The remaining concerns centre round certification for freedom from footrot and Johne's - both of which are a problem in New Zealand. For Johne's, the stock must test negative within 30 days of uplift AND come from a herd which has been certified by MAF as free from the disease for the past five years. We are also comfortable with the first part of this as we recently took the precaution of pretesting all our stock for Johne's and came up clean.
It was the second part which was problematical - given the large numbers of recipients which have passed through the quarantine centre, MAF is not able to give a 5 year certification. After consultation with the Australian States, AQIS advised us some time ago, that both the Embryotech and Diamond Fibre herd; will be cleared for import subject to

... Negative testing as per the import protocol

... and replacement of the 5 year certification with a further 12 months of secondary quarantine, conducted on farm in Australia.

i.e. For Kanangra-Hillrose this means under our control at Boorowa. The animals imported will again be tested for Johne’s at the end of this period and released if clear. We are relaxed with this aspect.

* Embryos/Semen collected to protocol in NZ quarantine may be imported with the herd and released.

* Embryos/Semen collected under protocol from the herd whilst in secondary quarantine in Australia may be released.

* Progeny born from embryos collected in secondary quarantine, but placed outside may be sold immediately.

Therefore, your first possible open access to African genetics will involve some form of artificial breeding. Just to complicate matters, WA, TAS and Queensland will not approve secondary quarantine stations in those States and presumably will not accept semen or embryos derived from them in other States. This also means that the original imports will not be eligible to go to those States... at least initially. I do expect these States to relax when the import animals finally test clear.

So the answer to the question is...

We are confident we will be able to deliver...

<table>
<thead>
<tr>
<th>Produce</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen embryos</td>
<td>Feb '94</td>
</tr>
<tr>
<td>Frozen Semen</td>
<td>April '94</td>
</tr>
<tr>
<td>Preg tested recips carrying pure embryos</td>
<td>April '94</td>
</tr>
<tr>
<td>Kids</td>
<td>from Aug '94</td>
</tr>
<tr>
<td>Mature stock</td>
<td>from Feb '95 or there abouts</td>
</tr>
</tbody>
</table>

Some thoughts about the future... our future!

Whilst we may have access to excellent genetics, it will be a long time before we have sufficient numbers to provide a meaningful clip of high quality, kemp free mohair. The quality profile of the Australian herd is improving rapidly, unfortunately as much as a result of culling as enthusiastic breeding with new genetics. Outright animal numbers are still declining rapidly and 50% Texan female stock is now finding its way to the abattoirs from disillusioned goat owners.
Historically the mohair business has been a boom or bust industry - basically because its major sales volume depends on a very fickle usage base... fashion. Until we develop new uses for mohair which break this dependence and provide continuity of DEMAND - nothing will change at the farm gate.

In terms of getting our product into the hands of the final consumer, we must stop trying to do it all ourselves... and usually on the cheap... and employ professional technical, marketing and promotional people to sort out the problems they are uniquely qualified to handle. Yet another home grown knitting yarn is simply not going to solve our problems.

On the immediate home front, out guiding body appears confused and in turmoil... if not inoperative. In the ordinary business world, if a Company board loses the franchise of its constituents and gives up its methods and ability to communicate effectively with its members and its public, one of two things will happen. It will be taken over by someone who can communicate, or the whole enterprise will collapse from lack of support.

Sound familiar?

In terms of communication - and there is no success without it - the industry needs balanced and objective support, focused directly on its national and international marketing and promotional objectives. This can only come from unbiased and professional journalistic sources - preferably outside the industry. As John Williamson described it, 'the local rag' is not an alternative. Because it is industry based, it frequently suffers from tunnel vision, champions one sided causes and too often gazes fondly at the collective industry level.

There is no other reason for owning an angora goat other than to produce fibre. If it produces excellent fibre the goat may also provide useful seed stock... that is a bonus! The genetics are here... in time they will produce quality mohair.

Opportunities will no doubt open to us, born of the difficulties in Sth Africa and the inevitable removal of the American mohair subsidy. If we are to survive long enough to grasp these opportunities, we need to be more...

radical in our thinking
clever in our planning
professional in its implementation
ruthless in our objectives

We might then become an INDUSTRY.
Strategies for product development and value adding for natural fibres

Alec Morrison
Executive Director
F.S. Falkiner & Sons
Boonoke, Deniliquin, NSW
Today I would like to do four things:

- Draw some comparisons between your industry and mine.
- Tell you about our experiences along the value-added road.
- Suggest that you give yourselves a range of marketing options for your fibre.
- Share a vision of the opportunities ahead for Australian grown fibre.

There is little need for me to tell you that all fibre markets are in trouble - partly because of recession in the developed world, partly because of political upheaval in the former Eastern Block. Partly, in the wool industry, because of the fibre growers' own ineptitude.

I come from a mature fibre producing industry that is in trouble, you from a relatively young one (young in Australian terms that is).

But in many ways I am envious of where you stand in relation to the development of your industry. For two reasons.

First, you are adapting your breed to suit the Australian environment and, I am told, gaining access to exciting imported genetic material. This is exactly where the Boonoke Wanganella merino studs stood in 1861 when the Peppin family imported this Rambouillet ram, Emperor, from the US. Use of Emperor and other US imports, in tandem with rigorous classing and selection, transformed the face of the Australian wool industry, and ushered in a 40 year period of exciting experiment and change.

Secondly because, hopefully, you have not yet developed the wool industries rich and deep traditions. My advice to you is DON'T - because rich traditions lead to entrenched views, inflexibility, and the capacity to strangle innovation at birth.

I am also informed that Angora Mohair Breeders of Australia Ltd has a dual role - as a breed society and as a fibre marketer.

Breed societies make an interesting study in themselves. Looking round this room, and seeing the quality of the people in your Association, I'm sure you have avoided the temptation to build an industry structure that is too complicated, that has too many rules, that has too much to say about breed type. To ensure a long and secure future it is often a good idea to be tolerant of a few mavericks and stirrers - always provided they don't erode credibility of the fibre.

Exclusive clubs are in my view, the most dangerous thing for a breed society. They can get like the Australian Cricket Team who was 30 years ago - difficult to get into, but once in you had a comfortable berth irrespective of performance.
I am much taken by a representative structure suggested to the Rice Industry by McKinseys, and would like to see it adopted by the merino breed societies. It involves appointment of nine Directors in all - four appointed by vote of all members for a term of four years to represent the interests of the industry at large. Four appointed by vote of regional members for a period of two years to represent the interests of that region. One, appointed by the other nine, from outside the industry to give an external focus. This type of structure gives some assurance of accountability and performance.

And with the mention of performance, I would now like to share with you our various experiences along the value-added road, and hopefully those experiences will be of use to you.

To do so I need to take you back to when the Wool Reserve Price scheme collapsed.

When that happened, we at F.S.Falkiners were obligated to look closely at our operations and, as a result, to re-define our business.

The key realisation was that we are not simply stud breeders and wool growers, but producers and marketers of superior sheep genetics and quality apparel fibre ..... from this several realisations flowed:

- We had not properly defined out resource product, our wool;
- We had no relationships with our processor customers - most of the time We didn't even know who they were.
- We paid lots of attention to marketing our genetics, but very little attention to marketing the apparel fibre that generated up to half our gross income.
- We knew almost nothing about what happened twixt our woolshed and the retail purchaser.

To define our resource - volume, vm, yield, fibre diameter, staple length, tensile strength, fleece category and prices received - we set up a computer programme which gave us a detailed profile of our clip over many years and which lets us, taking the season into account, predict the likely specifications of our up-coming clip and signal it to our likely clients.

We realised the resource was much larger than our own 4,000 bales. The Boonoke/Wanganella bloodlines, line bred for 142 years and with unique genetics, extend over more than a thousand client flocks and daughter studs round Australia. Those clients represent a quarter of a million more bales!

To embrace all that resource, we floated the PEP concept - PEP standing for Peppin, our sheep .....
Under the PEP scheme, we ask our clients to send us regular updates on their clip specifications and shearing plans, and to stencil PEP on their bales - this year its PEP 93 of course.

To get close to processor customers we have, for the last two years, sent a large proportion of our clip direct to two Australian top makers - Prouvosts in Wagga Wagga and Michells in Adelaide. We are building partnerships which involve not only price considerations but information sharing.

To lift our knowledge of the wider industry, we put all our stud managers, overseers and sheep classifiers through an intensive study course covering the road between our shed and the consumers. As well as learning about processes and transactions, our boys saw some of the commercial pressures that fall on the players - they got a feel for the Business of Wool.

Having started defining the resource, studying the business, and establishing relationships with customers, we addressed two more questions:

- How can we move closer to the FINAL customer?
- Why not promote AUSTRALIAN wool?

Public comments I made about the promotion of Australian wool led to a meeting with Adele Weiss, the talented and trade-wise fashion designer. We found that we shared a vision about the marketing of Australian wool. And, we decided that the only way to turn vision into reality was to do it ourselves.

So we incorporated a joint venture: "The Great Australian Jumper Company" and licensed it to use our stud names as brand names, starting with Boonoke.

With the help of our top makers - Michells and Prouvosts - we found Australian spinners and knitters who could realise Adele's ideas in the way she wanted.

These fashion knit garments are now on sale by mail order from our warehouse and at selected retail outlets. I am pleased to say that sales are ahead of budget.....

And, as a keen marketer, I am happy to tell you that I will take orders today!

I'd like to make a few points about the Boonoke label and the Great Australian Jumper Company which have industry wide implications:

First, the stud sheep were the starting point. Adele spent much time listening to us and looking at the stock. She translated what she learned into garments which highlighted the unique qualities of the Boonoke/Wanganella bloodlines.....
Making the most of the soft, middle range 22-23 microns we and our clients produce, and capturing the class and style of the bloodline - robust but soft, adaptable but vigorous, long lasting, strong of constitution.

Secondly, the fashion element. Wool has lost favour with buyers below the age of 35, who don't know about its superior qualities.

Therefore, the designs not only have to appeal to the buyers of classic v-neck jumpers and twin sets, buy beyond them into the fashion-conscious consumer area.

Thirdly, appealing to today's customers. They want more casual, more relaxed, more individual clothes which make a lifestyle statement. They want, above all, value for money, and garments that will travel easily.

Fourthly, the use of other fibres. We use competitor fibres on our terms and to our advantage. Our core product will always be wool. But to be trans-seasonal we must use blends in the summer range.

We even use some pure cotton. That worries us not a jot - because, in the end, the stronger brand name we build, the more wool we will sell.

During our first years we are putting 80 per cent of our effort into building the brand and only 20 per cent into creating immediate sales. And brand development is also a long term strategy.

As sales volume increases, chances will open for our ram clients - who use the PEP stencil and prepare their clip properly - to enter the system. We will move into exports. And we will develop a unique branded yarn - always branded!

Let me move into my third theme for the morning - how to give fibre producers a range of competing marketing options for their product.

- Spot market
- Forward selling
- Voluntary Pools
- Direct to Mill
- Contract processing

There are some of those options on the screen, and the top one - Spot Market - probably means electronic screen trading rather than auction; I think auctions have had it. We must move towards the cotton model.
Such an open system allows growth of a futures/options market so that all players can hedge their risk; it increases liquidity in the market by letting in more people than just the purchaser/consumer. It also widens the price setting process, creating stability, and allowing forward price discovery.

Preparatory steps are required. We probably need to simplify market quotation by developing a base grade for the fibre, and a premium and discount schedule to cover variations. We need one accredited body to make the quality measurement.

The fibre should certainly be deliverable against a futures contract.

The important thing is to develop forward pricing right through the system. If a grower can price forward and commit product forward, it makes for a more efficient industry. A forward commitment as to price, volume and specification puts a lot of focus on management of the flock, and on production costs, as the producer strives to deliver against contract.

And here's a thing of importance to brokers and exporters: Such a free enterprise system encourages growth of marketing groups who compete for growers' clips by offering all these options. They would have strong links with local and overseas processors and competing apparel brand marketers.

A word about centralised industry functions that are funded by grower levies or taxes.

Clearly there is a case for continued tax-funded Research and Development - but heavily biased towards product development and processing research rather than production.

There is a need for a central body to maintain a watching brief to look after the interests of the industry at large and counter adverse public perceptions.

But, using the wool industry as an example, think long and hard before committing your hard earned funds to generic promotion of your fibre.

In our case generic promotion revolves around WOOLMARK. It is said that Woolmark is one of the most recognised symbols in the world. Well, that's terrific - so is the swastika.

Let's get right down to basics and have a look at the paddock we are in at the moment. Wool has lost its profile among consumers under 35. The biggest consumer market in the world, the good old USA, believes wool is uncomfortable to wear and difficult to look after. We have a full year's supply sitting in warehouses. And every wool grower in Australia is going broke. So I for one believe we should think very carefully before we pump more money into repeating what we have done in the past.

It may be that Woolmark has done its dash. Perhaps its yesterday's brand. And perhaps it helps our rivals in New Zealand and South Africa and South America to get a free ride at our expense.
But let's find out. Let's run some independently commissioned consumer research on its current effectiveness. If it is an important marketing tool, then perhaps we should take it over as a guarantee of Australian fibre content. But I suspect it is part of the old-fashioned image wool has in the eyes of the young.

Sell Australian Wool. I would rather promote AUSTRALIAN wool — better than that, AUSTRALIAN MERINO WOOL, because the Merino is what we are about.

I've heard the arguments against it but I remain unconvinced. It is said that the consumer is not interested in the source of fibre in a garment. Well, I guess neither are they interested in what goes into Coca-Cola, but they buy it in the millions of gallons because it is a well branded product. If we do continue with generic promotion, let's sell Australian. But ...

It is in my view that apparel fibre is best marketed through private enterprise and through brands. The cotton growers will tell you they spend very little on promoting their fibre generically, but take a lot of trouble in helping Mr Levi Strauss use it more efficiently.

Let me conclude with these positive thoughts about the future for Australian natural fibres:

1. Natural fibres are best. They are comfortable and they look great.

2. We have huge natural advantages:

   - The land & climate
   - Expert management
   - Motivated and committed people
   - Infrastructure
   - A relatively clean environment

3. Our traditional markets will come through this recession and their customers will buy quality gear once again.

4. And new markets will open. Much of the world population growth will be in cold climates. A middle class — the biggest natural fibre buyers — will emerge for the first time in China and possibly Russia.

From these positives we draw unbounded faith for the medium and long term — provided we use the present hiatus to get our act together as individual producers and as industries. We hold our faith in Australian natural fibres.

And please remember this: The BRAND is the message.
MARKET FOCUSED RESEARCH AND DEVELOPMENT -

A NEW ERA FOR AUSTRALIAN MOHAIR?

Keith Hyde
Managing Director
Rural Industries Research and Development Corporation

At this time with a depressed world market for natural fibres, record stocks of natural fibres remaining in store both in Australia and around the world and with few alternative uses for your animals other than for meat, it is very difficult indeed to be optimistic about the future.

However we Australians are noted for our ability to be innovative and persistent in the face of adversity, so that even in this time of great stress for many in the mohair industry there are the positive signs resulting from the import of Texan bloodlines, local processing interest in mohair and new cottage industries producing finished products for the domestic and international tourist market.

The question on all our minds is whether market focused research and development can help create a new era for Australian mohair?

RIRDC’s Interest in Mohair

RIRDC and its predecessor, the Australian Special Rural Research Council has actively supported fibre goat research in Australia since 1984. The research emphasis over much of that period has been on production issues and the results of that research is summarised in the Corporation's recently published research compendium.

In 1990 the mohair industry, along with other sectors of the goat fibre industry, agreed to introduce a research levy and to have that levy managed by RIRDC. Though raising only a relatively small sum of money in absolute terms for research your decision to levy yourself a relatively high level of your gross value of production for research has had an impact and has resulted in additional support for your research program through additional funding from RIRDC.
I must frankly advise you however, that the Corporation has reservations about the future prospects for an Australian goat fibre industry. The prospects do not look too good when a business investment ruler is put over the industry.

On a more positive note, the market focused approach to research and industry development proposed following the Skillecorn Report on the industry is strongly supported by RIRDC and the Corporation has already moved to implement the essential elements of that report.

**Skillecorn's Report**

As a baseline record it is worth restating some of the key elements of Skillecorn's report for this conference.

(a) **World Mohair Production**

World production of mohair has fallen some 10 million kg per annum from the 26 million kg per annum peak in the mid 1980's.

- South African production has been affected by prolonged drought,
- Turkish production appears to be in longer term decline,
- however production in the USA and Argentina has been relatively stable,
- world stockpiles of mohair at 7.7 million kg have been halved in 12 months.

![Figure 1. World production of mohair by major producing countries.](image-url)
(b) Australian Mohair Production

Australian production of mohair has followed the international trend and 1992/93 production is estimated to be less than half the peak levels of the late 1980's.

herds have been severely culled and some producers have left the industry, however, stocks of mohair in store have also been reduced by at least 50 percent, and most sales have been to export destinations and to more diverse markets.

![Mohair Production Chart](image)

Figure 2. Australian production of mohair

(c) International Mohair Processing

Though traditionally located in Britain the industry has centralised since the 1980's on two larger firms in Britain and about a dozen firms in Europe.

- Italy is now the main market for British tops,
- the Japanese market for Britain appears to be in longer term decline,
- mohair is relatively easier to replace with synthetic alternatives than other fine natural fibres, and
Australian mohair fibre has been discounted on international market because of higher kemp levels, but it is finer and has higher lustre than that of competitors.

![Figure 3. Destination of mohair exports from the United Kingdom for 1989](image)

(d) **Australian Mohair Processing**

Relatively small quantities of mohair is processed in Australia.

Most current scourers, top makers and spinners have had experience with mohair and do not see Australian production as a significant problem, three small scale processors are producing finished mohair and mohair/wool blend goods,

- but mohair products are not selling well in the current market,
- handknitted goods are expensive even for tourist market sales, and
- current high levels of kemp should be overcome with the introduction of Texan bloodlines.
Mohair faces international competition from cashmere, fine wools and synthetic yarns. However it does have a current and potential market for:

- knitwear and especially craft knitwear in Australian designs,
- mens worsted summer suits
- ladies wool blend and worsted suits
- velour and furnishing fabrics, and for
- carpets and rugs

Skillecorn concluded that Australia had both the technical expertise to process larger quantities of mohair and the design skills to develop a range of products, however his report was short on realistic evaluation of our economic capacity to do so at a profit.
The factors considered a limit to Australian capacity included:

- almost total reliance on overseas fibre processors and markets
- the downturn in world consumer demand for textiles
- poor demand for mohair products within world markets
- limited Australian production of mohair
- international processor concern about the high kemp levels of Australian mohair clips,
  limited Australian experience with mohair processing and a continuing decline in domestic processing capacity, and
- limited domestic markets for mohair products

On a more positive note the report also listed many strengths and opportunities including:

- current introduction of Texan bloodlines,
- the relatively small production levels which could facilitate smaller scale processing developments,
- Australian production, animal husbandry and quality control capacity,
- non reliance on mohair for mainstream income,
- current restructuring and reorientation of the Australian textile industries,
- proximity of a small New Zealand industry facing similar difficulties,
- the commitment and resourcefulness of people in the industry.

Skillecorn has prepared a draft plan which includes seven strategies for industry consideration and further development.

The principle objective proposed is:

To establish a viable Australian goat fibre industry through the development of an Australian goat fibre processing industry using appropriate systems that provide benefits to all participants.

The seven strategies include:

1. To establish, maintain and continuously improve information on the domestic and world markets for goat fibre and products
2. To collect and maintain current information on the textile processing industry in Australia, NZ and overseas

3. To communicate market and industry information between growers, processors and marketers

4. Develop markets for goat fibre products in Australia and overseas

5. Establish a centre of technical expertise for ensuring quality of goat fibre processing and marketing

6. Initiate product development of goat fibre products in Australia

7. Evaluate and overcome limitations in processing goat fibres in Australia

To implement the plan Skillecorn proposed the appointment of an industry market development officer at a cost which he estimated at $100,000 pa.

Where to from here?

Skillecorn's report represents an up to date stocktake of the industry to which he has added his recommendations for industry and RIRDC consideration.

Many aspects require further consideration and debate. There is bound to be differences of opinion within the industry about some of the interpretations and conclusions in the report. It is most appropriate that these be discussed and debated, but within a reasonable timeframe.

Following consultation with your executive and that of the Cashmere Growers Association, RIRDC's Goat Fibre R&D Advisory Committee has recommended that the Corporation support the appointment of an industry market development officer.

That recommendation has been accepted by the RIRDC Board and you will be aware that the Corporation recently advertised for such a person. Our interviews are next week.
The market development officer will be responsible to RIRDC but will be required to work very closely with the mohair and cashmere industries and the top makers, spinners and weavers to develop new products and markets. Coordination of effort and quality control between producers of fibre, processors, wholesalers and retailers is considered most important if we are to overcome the high labour cost structures of Australian industry and develop a new internationally competitive venture. It will require commitment and support from all of us to be successful.

The Corporation has also accepted the Committee's recommendations on R&D needs and priorities for 1994/95 and these were advertised recently.

- To evaluate and overcome limitations in processing goat fibres in Australia.
- To develop national classing and clip preparation procedures.
- To establish, maintain and continuously improve the quality and flow of information on the domestic and world markets for goat fibre products.
- To initiate product development of goat fibre products in Australia.
- To develop whole farm management systems including goats and other species with particular reference to weed control.
  To increase productivity of quality fibre as desired by the processing and textile industries.

A market focus to research and development figures highly in these priorities and this market focused, industry driven research strategy will be a firm direction to researchers on both the Corporation's and the mohair industry's expectation over the next few years. In this collaborative way I am hopeful that working together we can turn around the prospects for the Australian Mohair Industry and that we will be able to deliver a new era for Australian Mohair.

References:

Footnote:

The Rural Industries Research and Development Corporation provides support for a range of smaller rural industries including the Australian Goat Fibre Industry through the assessment of industry R&D needs and the organisation and financial support of R&D activities of benefit to the industry.

The Corporation has established a Goat Fibre R&D Committee to advise it on the needs of the goat fibre industry.

This Committee was first established in 1990 and comprises nominees from the Goat Industry Council of Aust, the Angora Mohair Breeders of Australia, Australian Cashmere Growers' Association and the Cashgora Fibre Association of Australia, and a RIRDC director and RIRDC administrative support person. This committee meets on average three times per year, to assess project applications, R&D progress and to discuss and plan development of the industry.
The Role of the IMA in Product Development

Ken Slatter
President, Angora Mohair Breeders of Australia
Heathcote, Victoria
The role of the IMA in Product Development.

The IMA (International Mohair Association) was formed in 1974 and charged with the promotion of mohair.

The organisation consists of the following interest groups:

- Growers,
- Trades,
- Topmakers,
- Spinners,
- Knitwear-hand and machine yarns and garments,
- Ladies fabrics, blankets and stoles,
- Menswear fabrics,
- Velour furnishing fabrics and home textiles,
- Technical and research.

Each group looks at problems specific to their area and the best ways to promote mohair usage within their area.

The council of the IMA consists of a representative from each group plus a representative from each grower member country.

Funds are raised by membership of organisations or companies currently US$1000.

Grower countries pay US $6000 per 1 million kilo produced and a levy of .7 US cent for each kilo sold.

The IMA has a budget of around US $400,000. Texas and South Africa pay the bulk from grower countries and there are approximately 150 member companies. Australia's contribution has been approximately $10,000 plus AMBA pays a membership of US $1000.

The IMA is present at the major yarn fairs in Europe where they assist members with their promotion, gather trends in colour and design and pass this information to members.

The IMA also maintain a mohair "mark" or logo which is used to denote a quality product. A gold label product must have a mohair content in excess of 50% to 70% depending on the product.

The silver label product must have a mohair content of 40% to 60%. This "mark" can only be used by full members of the IMA.

It is my opinion that this type of labelling as a promotion tool is virtually worthless and IMA expenditure should be very limited in this area. A logo is of little value unless the general public recognise it whenever they see it on a label. The mohair industry does not have anywhere near enough money to publicise a logo to this degree.
The IMA can and should play a large role in product development. The office and staff are very well situated in relation to a large number of processors staff attend fashion shows and trade fairs so are able to select trends and take appropriate action.

The work of product development undertaken in various grower countries is on the increase and the IMA could facilitate the exchange of ideas. Anything which increases the use of and the demand for mohair is to be encouraged.

Product development ideas from one country could be developed and marketed under licence in other countries.

One of the major roles however, is to monitor demand for the various types of mohair and when demand for a particular type is exceeded by supply one has the major role opportunity to concentrate on product development that will turn the situation around.

This can be done by developing yarns that use the micron range in over supply or poor demand. The IMA is ideally suited to be able to work in this area being situated in the same area as many of the major processors and very close to the Leeds Textile University.

This year after several years talking product development the IMA executive asked me to present a submission as to how the IMA could best address this area.

Funds were provided for the trip to the IMA conference by Rural Industries Research and Development Corporation and Mr Fred Moylan. The IMA council accepted the concept put forward and I expect more work by the IMA in the product development area over the next few years. I was concerned to read reports from IMA council members that "we must wait until the brushed look returns, customers want smooth round yarns at present".

Surely when the market needs have been identified it is up to processors to supply that product not to wait for a return of a traditional type of product.

One of the keys in marketing is to give your customer what they want, not to tell them what they need.

Product development is a key both here and overseas and the IMA can and does have a very important role to play.
Present Selling System for Australian Mohair and Possible Strategies for the Future

Fred Moylan
Retired Textile Marketer
Fibre Producer and Author
Brighton, Victoria
PRESENT SELLING SYSTEM FOR AUSTRALIAN MOHAIR
&
POSSIBLE STRATEGIES FOR THE FUTURE

1. INTRODUCTION – A SHORT SUMMARY:

Australian mohair is usually sold at the present time by a group of brokers, who assemble lines of fibre from growers, measure them, describe them and offer them for sale.

They hope that someone will buy them!

In the event demand has been erratic. Over recent years it has been very weak, causing disastrous consequences. Very poor prices, lower production and growers quitting the industry.

We can either accept this PASSIVE selling system and farm a few Angora Goats for a pasture-management diversification, by adopting a suitable financial strategy to suit booms and busts, or we can become POSITIVE – do a "U-Turn" and accept the responsibility to actively market our mohair by creating textile demands for our fibre.

I will argue for the positive approach.

2. HOW THE PRESENT SYSTEM WORKS

At the present time Australian mohair moves down it's pipeline from the Broker via the Buyer Exporter, to the Merchant-Top Maker and onto the specialist mohair spinner to process it into the Yarn form. Our Mohair is then available to the world's Knitters and Weavers.

However, the Spinners, the Weavers & Knitters have got other alternatives which they can process.

When the Knitters and Weavers do not choose mohair, we have a problem, because our supply is fixed in the short-term. The Buyer/Exporter reacts by dropping the price he offers to the Broker. This is his main marketing tool. Make it cheap!

The system delivers this message to the growers as a fait accompli. There is no direct linkage between the grower and the spinner, who creates the product and thereby the demand. The grower cannot say "Hey – What about me?!"

The present system is a cop-out!
The I.M.A. was formed by British Mohair Spinners and the South African Mohair Board to tackle the problem. Sadly they followed the I.W.S. with advertising and publicity instead of product development to create demand.

3. THE PROBLEM

We can now identify our problem.

It is that our marketing system has no mechanism, or the responsibility, to make sure that demand is created to match the fixed supplies of mohair as they come forward.

It is a very crude system but it can be improved.

4. THE ANSWER

We now know that textile demand can be created--based on fibre supply. A myriad of products can be made from mohair.

Sandra Bunce has done it with Mohair Socks in Australia. John Woodward has led the way in New Zealand, where more than half the clip is processed locally. It is happening in South Africa with Cape Mohair Ltd and in the U.S.A. with the Mohair Council of America. They all add to the demand for Mohair by doing a U-Turn and start, not with demand, but with supply.

THE OBVIOUS ANSWER IS TO INITIATE PRODUCT DEVELOPMENT FOR THOSE MOHAIR TYPES WHERE DEMAND IS FALLING AWAY OR NEGLECTED. OUR MOHAIR MUST BE SOLD BY MARKETERS WHO HAVE THE RESPONSIBILITY AND THE ABILITY TO MONITOR FORTHCOMING DEMAND FOR SPECIFIC TYPES.

We need a marketing arrangement which accepts the responsibility to sell directly to processors from brokers at negotiated prices and to employ product development techniques to create demand. We need a partnership with end users.

At the present time, one single exporter sells most of the Australian Mohair Clip. Our first option is to give him the responsibility for marketing the total clip in return for accountability to growers and his involvement in product development.

A second option is for the existing brokers to take on the role of marketing direct to processors and using product development. This may require some amalgamation to achieve greater throughput and financial muscle and would certainly mean employing staff with textile skills. Textile demand is a created demand. Created by product development.

The Rural Industries R. & D. Corporation has taken on the financial responsibility for such a new type of marketing over the next few years. The operator who is selected should immediately consult with Brokers, Exporters and Processors to provide the Product Development required for our new positive marketing. This development has the potential to transform our marketing and create prosperity.
THE I.M.A.

A third option involves the International Mohair Association – I.M.A. – which after all was set up to promote the sale of mohair. They have a very important role to play, which complements Options 1 & 2.

In 1990 & 1991 I attended the I.M.A. Conferences in Japan and Britain to press for a change to promoting demand by product development, rather than by publicity. To change from waiting for demand to develop, to actually creating demand. We needed a U-Turn in attitude. It was not easy.

However later on during a private visit to the Executive Officer of the I.M.A., I achieved a breakthrough by constructing a Marketing Plan with this person. Here it is;

**I.M.A. MARKETING PLAN – SEASON 1992**

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**Projected Sales**

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This plan revealed the types which were neglected and needed Product Development. It pin pointed and quantified our problem. The Executive Officer made plans to work with I.M.A. Spinners and Leeds University to develop Yarns and Bouclé Loops – also Yarns for worsted Suits as well as Woollen Spun Yarns for knitting and weaving- to create demand for these two types.

A.M.B.A. should continue to strive and see that the I.M.A. makes such plans and works actively on Product Development with it's members. Also that the Executive Officer gives fashion and trend guidance from Europe to the various mohair growing nations and acts as a technology transfer medium for mohair products successfully developed by the grower countries.
Although the I.M.A. role will be very important, I believe it will be the Brokers who actually HOLD stocks of mohair themselves who will do the actual marketing in future. They have the responsibility to the grower. He is not greatly interested and he leaves it to them. Brokers have producers clips actually COMING into their stores and they live in the real world. They must do better than just DROP THE PRICE! They must become active constructive marketers.

These are the ACTIVE OPTIONS.

The last option is to be PASSIVE. To leave the free market open Auction System to chance and accept the present 'boom and bust" fashion cycle. To live with this, some sort of Financial Strategy needs to be developed by growers. Mohair Production would then be regarded as a minor diversification or a pasture management tool.

5. CONCLUSION

In conclusion I would like to ask –

Have we got the will to seize the present opportunity offered by the R.I.R.D.C. appointment and create a demand building marketing system through Product Development and POSITIVE Marketing through a direct linkage with processors and the appointment of one firm to market our clip?

We have already influenced the I.M.A. to move in this new direction and also R.I.R.D.C. to appoint a Market Development Officer – we may be quite close to success but we must persist and finish the job. I believe we will succeed and transform our industry. As a smaller model we may also be able to show the wool industry the way.