

The South African Mohair Industry: Processes and role players – challenges and opportunities

By
National Agricultural Marketing Council

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**National Agricultural
Marketing Council**
Promoting market access for South African agriculture

INTRODUCTION

- ✖ The CEO of the National Agricultural Marketing Council (NAMC) met with the General Manager of Mohair SA and the trust early 2012.
- ✖ Concern from industry role players exists on the promotion and maintenance of the industry's market access after the outbreak of Rift Valley fever in production regions.
- ✖ To ensure that the NAMC has a grounded understanding of the mohair industry it was deemed necessary to conduct a study to provide the background and challenges of the industry to NAMC management. During the meeting all trustees and other role players agreed to such a study.
- ✖ The research was done through field visits to role players as well as a desktop study.

THE HISTORY OF MOHAIR

- ✘ In 1838, the Mosenthal family first imported angora goats from Turkey. The region in Turkey where the goats came from is called Ankara or Angora, hence the name 'angora goat'.
- ✘ These goats, twelve ewes and one ram arrived, accompanied by their Turkish handlers. On arrival in Port Elizabeth, it was discovered that the ram had been sterilised prior to leaving Turkey but one of the twelve ewes was later found to be pregnant and gave birth to a ram kid on route, which was the start of our South African Mohair clip.
- ✘ An interesting fact is that in 1988 there were 2.9 million angora goats which produced 12.2 million kilograms of mohair. There are now an estimated 668 000 angora goats producing almost 2.23 million kilograms of mohair.

UNIQUE QUALITIES OF MOHAIR

- × **Lustre:** The fibre's natural lustre gives garments a silky sheen. It's the ideal garment to wear day or night.
- × **Lightweight:** The fabric is luxuriously lightweight and renowned for its versatility - cool in summer and warm in winter.
- × **Dye-responsive:** Mohair responds magnificently to dyes, retaining even the most brilliant colours over time.
- × **Climate control:** Mohair breathes, absorbing and releasing atmospheric moisture and controlling its own 'climate' to ensure optimal comfort.
- × **Durability:** Because of its elasticity, mohair is rated one of the world's most durable natural fibres.
- × **Crease resistant:** Products made from mohair have a natural elasticity, which ensures they hold their shape.
- × **Non-flammable:** Mohair is virtually non-flammable, keeping you safe and chic all year round.

GOAT AND MOHAIR CLASSIFICATION

Goats are classed as follows:

- × Kid; up to 12 months
 - × Young goat; up to 18 months
 - × Adult goat; after 24 months.
-
- × Mohair is classed according to the thickness (micron), length, style and character, the absence of kemp fibre, coloured and contaminated fibres, clean yield and uniformity in general.

The final use of mohair determines the class of mohair used.

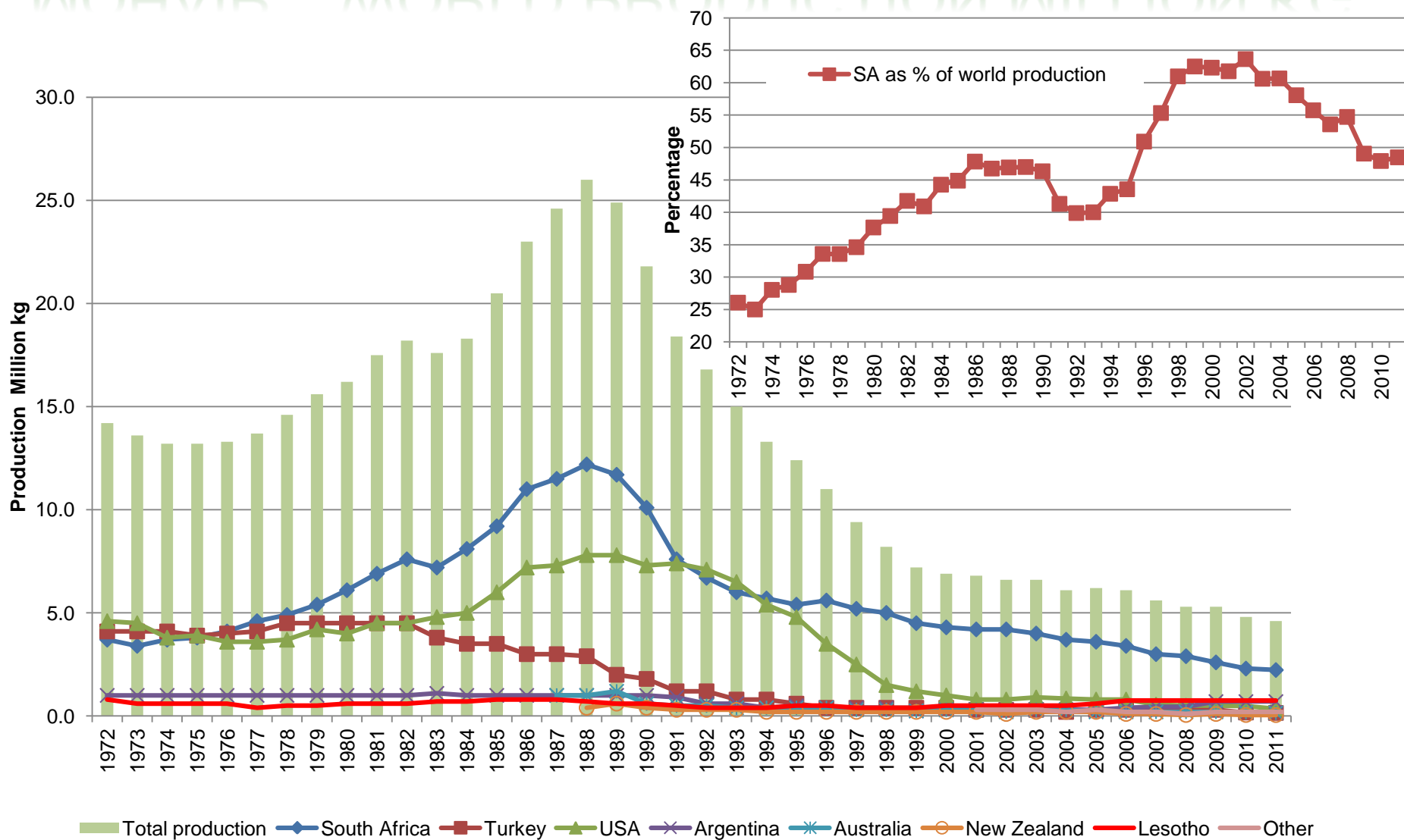
Grades of Mohair

- | | |
|------------------|------------------|
| × Super fine kid | under 26 microns |
| × Fine kid | 26-27 microns |
| × Kid | 28-30 microns |
| × Young goat | 27-34 microns |
| × Fine adult | 30-34 microns |
| × Adult | 35+ microns |

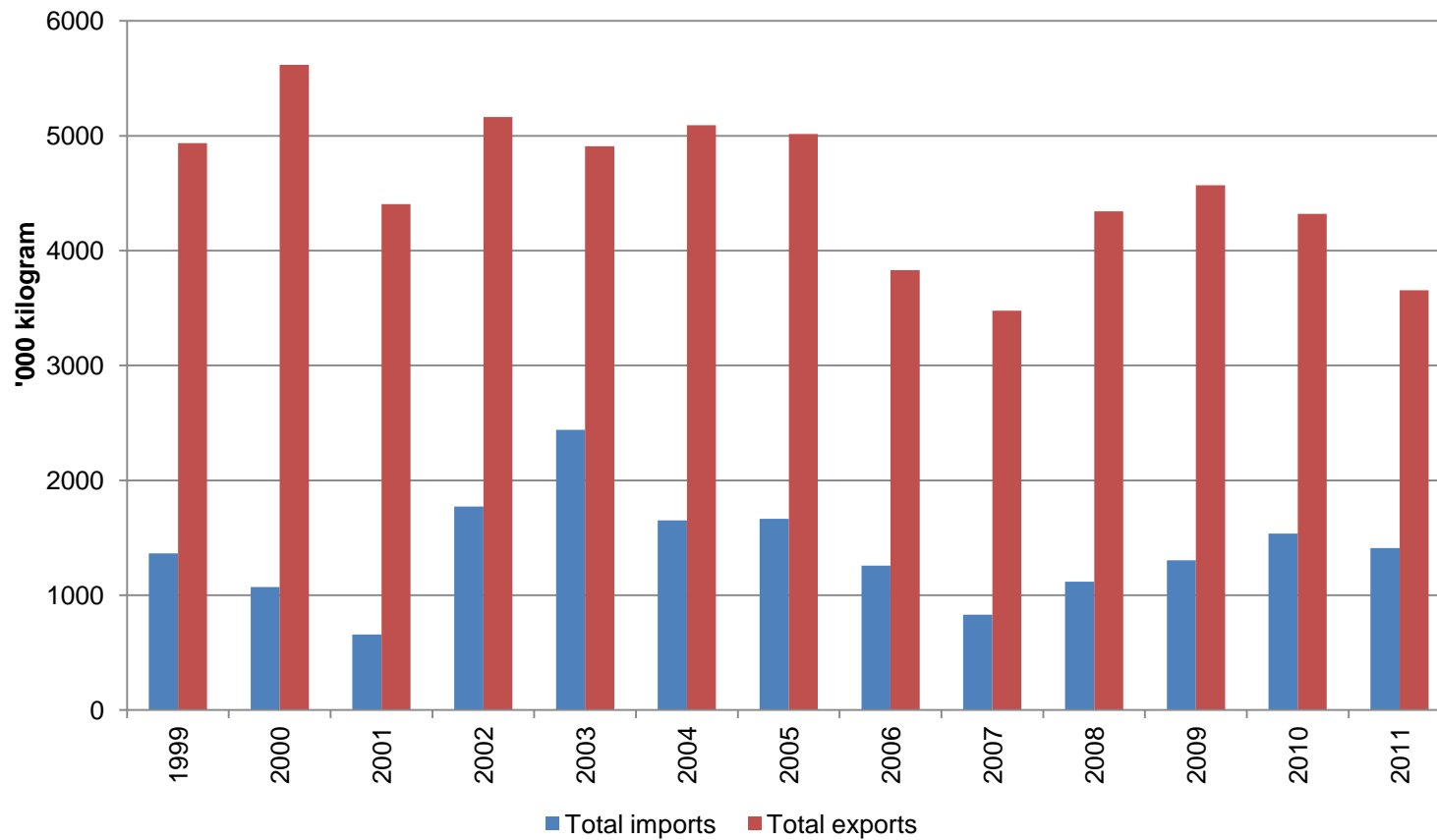


PRODUCTION AND TRADE SITUATION

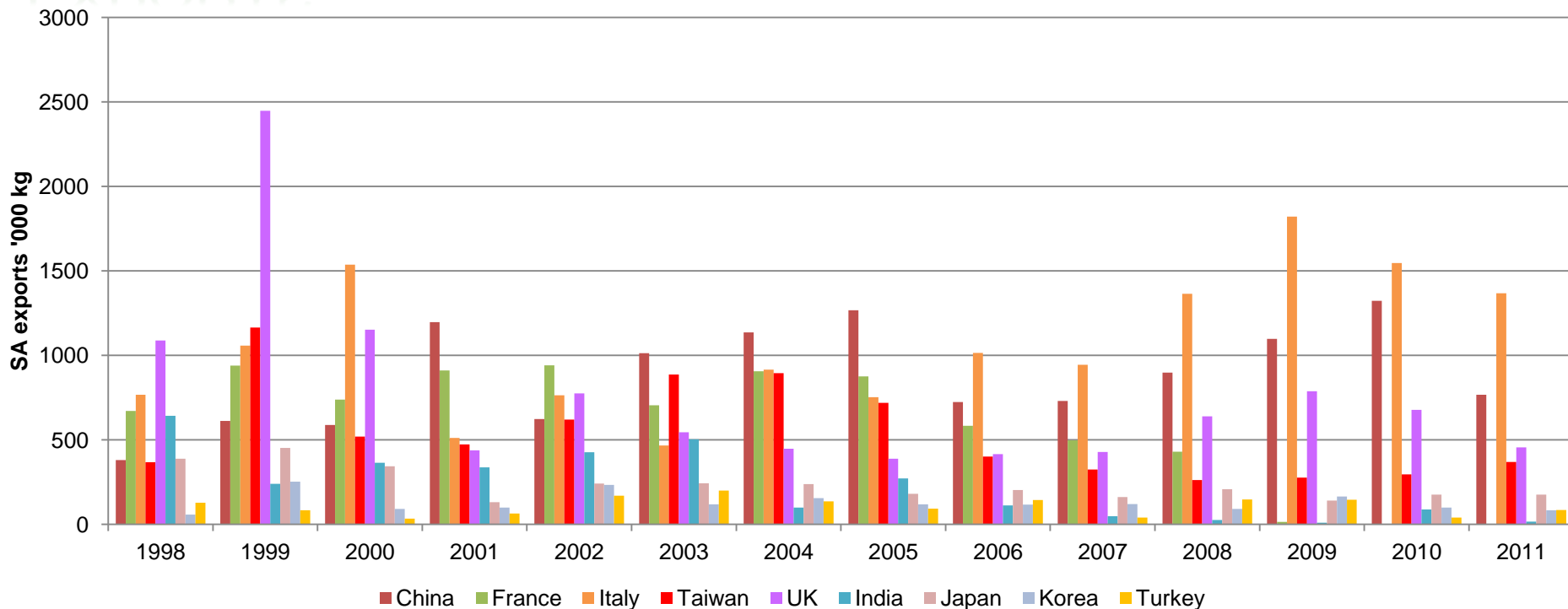
MOHAIR – WORLD PRODUCTION MILLION KG



SOUTH AFRICA TOTAL IMPORTS AND EXPORTS OF MOHAIR



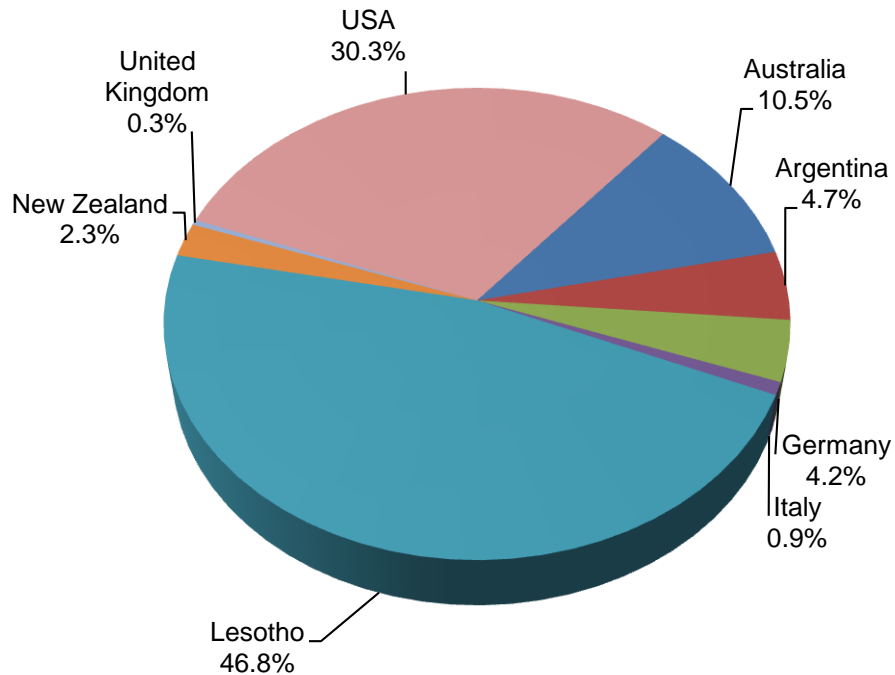
DESTINATIONS OF SOUTH AFRICA MOHAIR EXPORTS



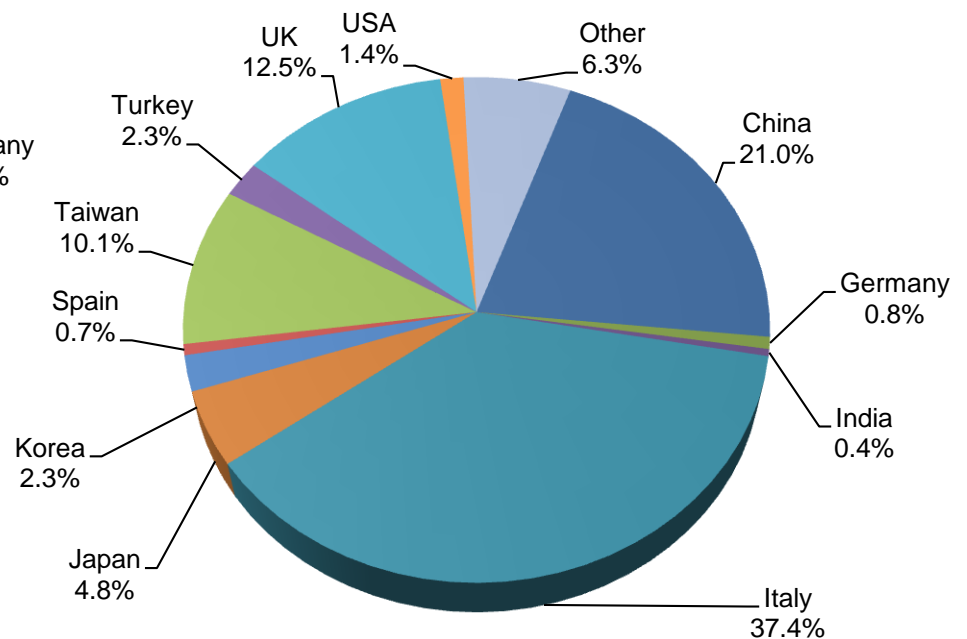
- ✕ The nine countries represent on average 95% of the SA exports market.
- ✕ During 2011 other countries that were destinations for SA mohair were: Australia, Belgium, Bulgaria, Canada, Denmark, Germany, Macau, Malaysia, Mauritius and Spain.

SOUTH AFRICA MOHAIR IMPORTS AND EXPORTS 2011 COUNTRY OF ORIGIN AND DESTINATION

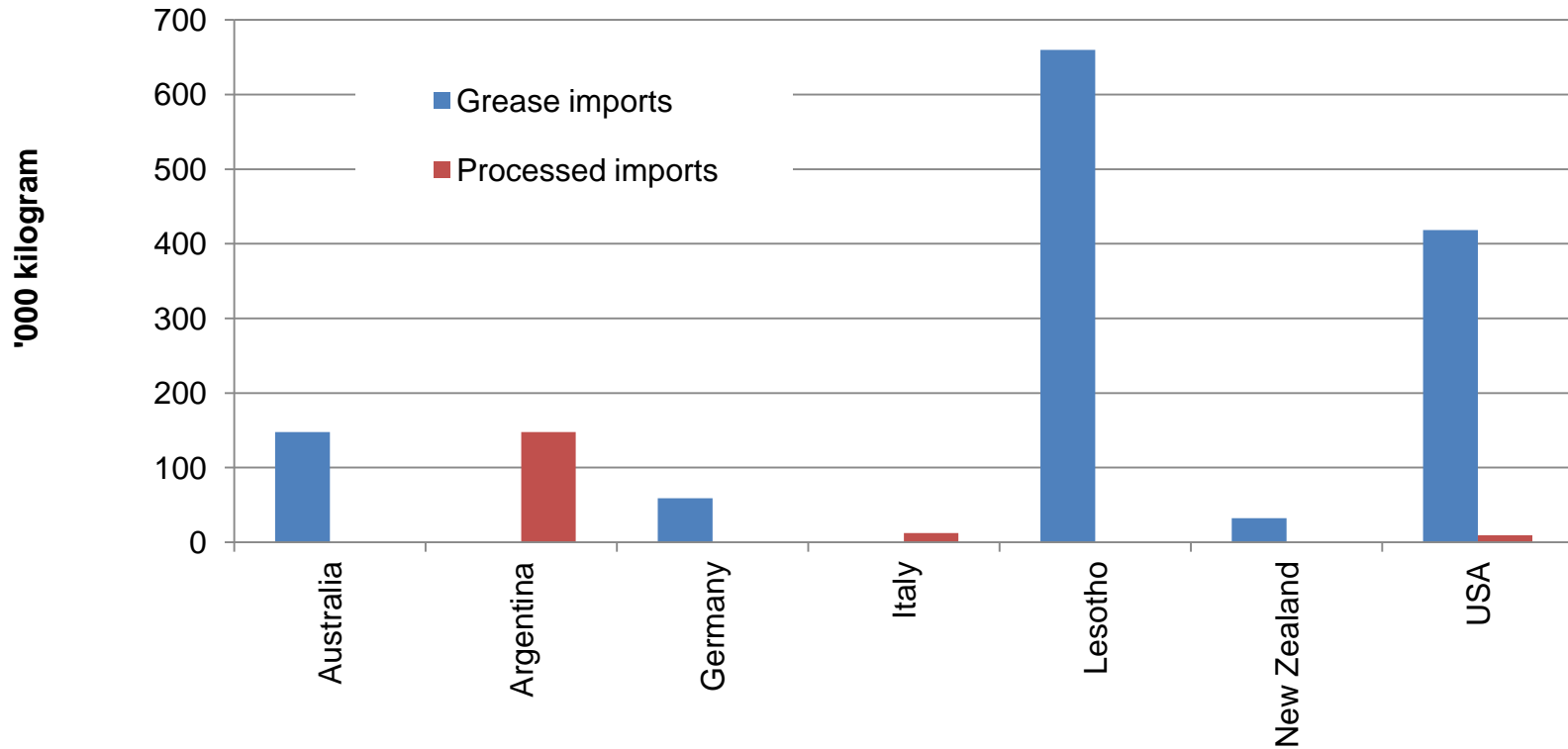
SA Imports - 2011



SA Exports - 2011



2011 IMPORTS OF GREASE OR RAW AND PROCESSED MOHAIR

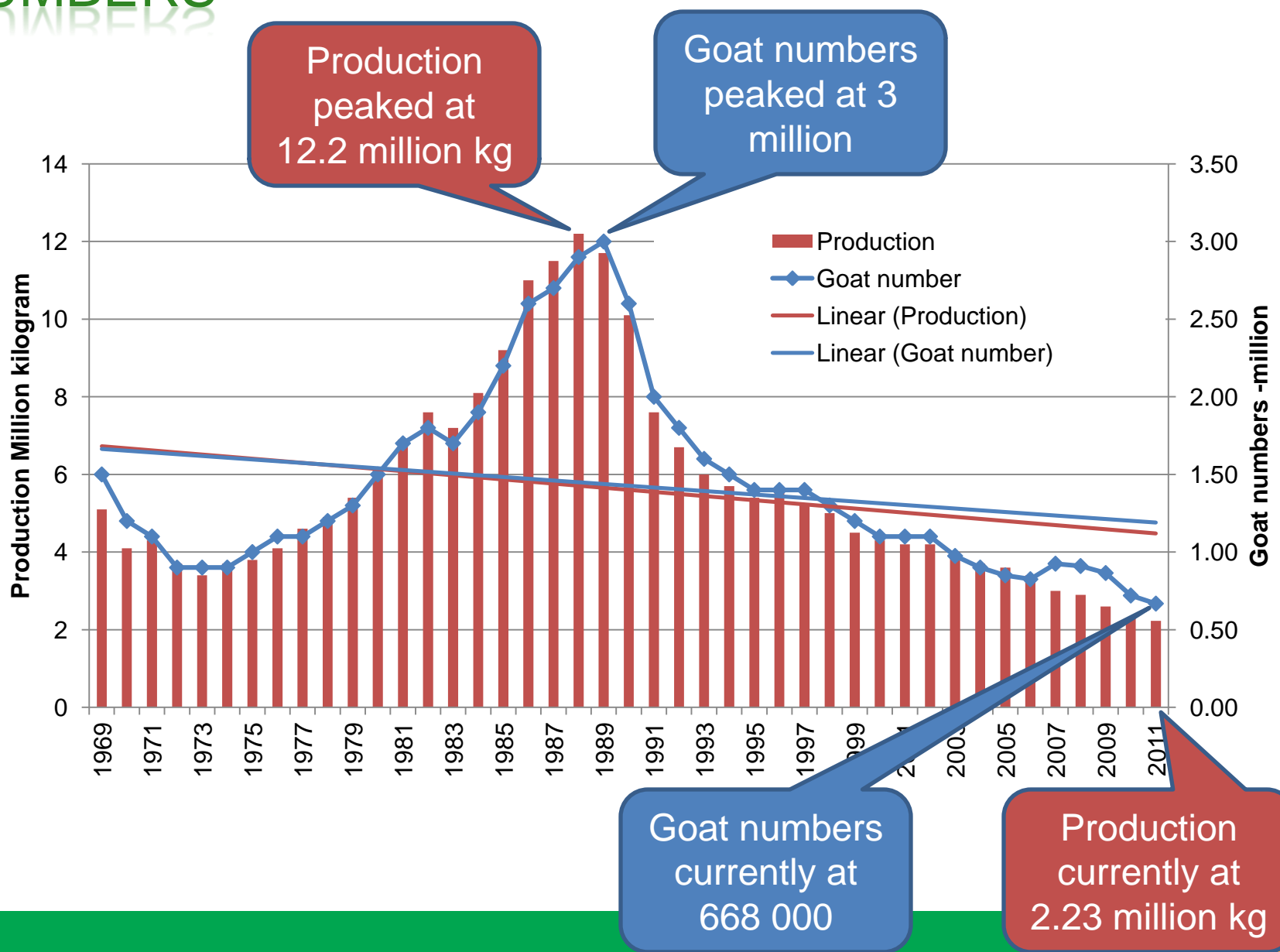


- ✘ More than 90 % of the SA imports is greasy or raw mohair.
- ✘ In 2011, 4 858 kg raw/greasy mohair was imported from the United Kingdom.
- ✘ All of Lesotho's mohair production is sold on SA auctions.



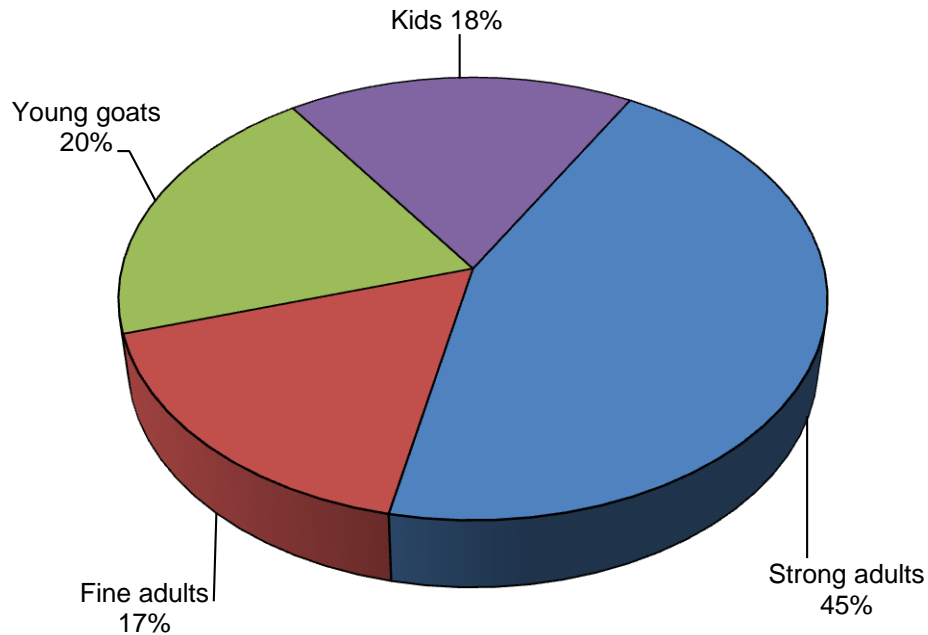
The South African clip

SOUTH AFRICA PRODUCTION AND ANIMAL NUMBERS

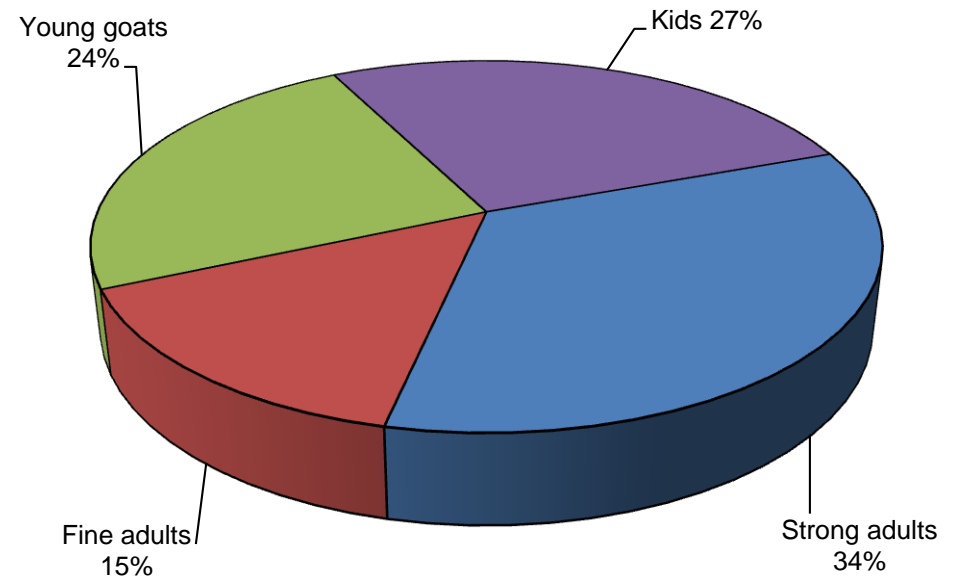


CLIP COMPOSITION AND VALUE

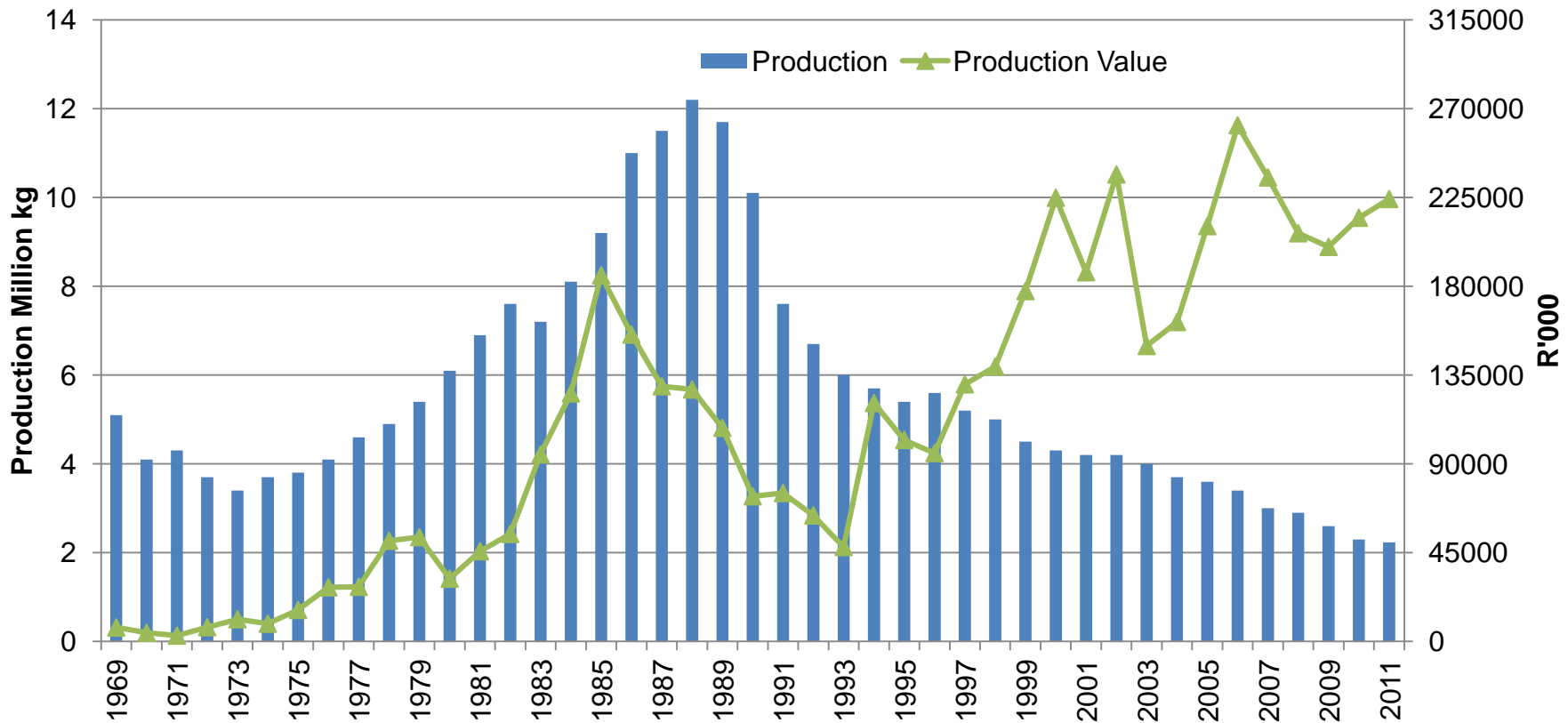
Clip composition 2011



Clip income 2011



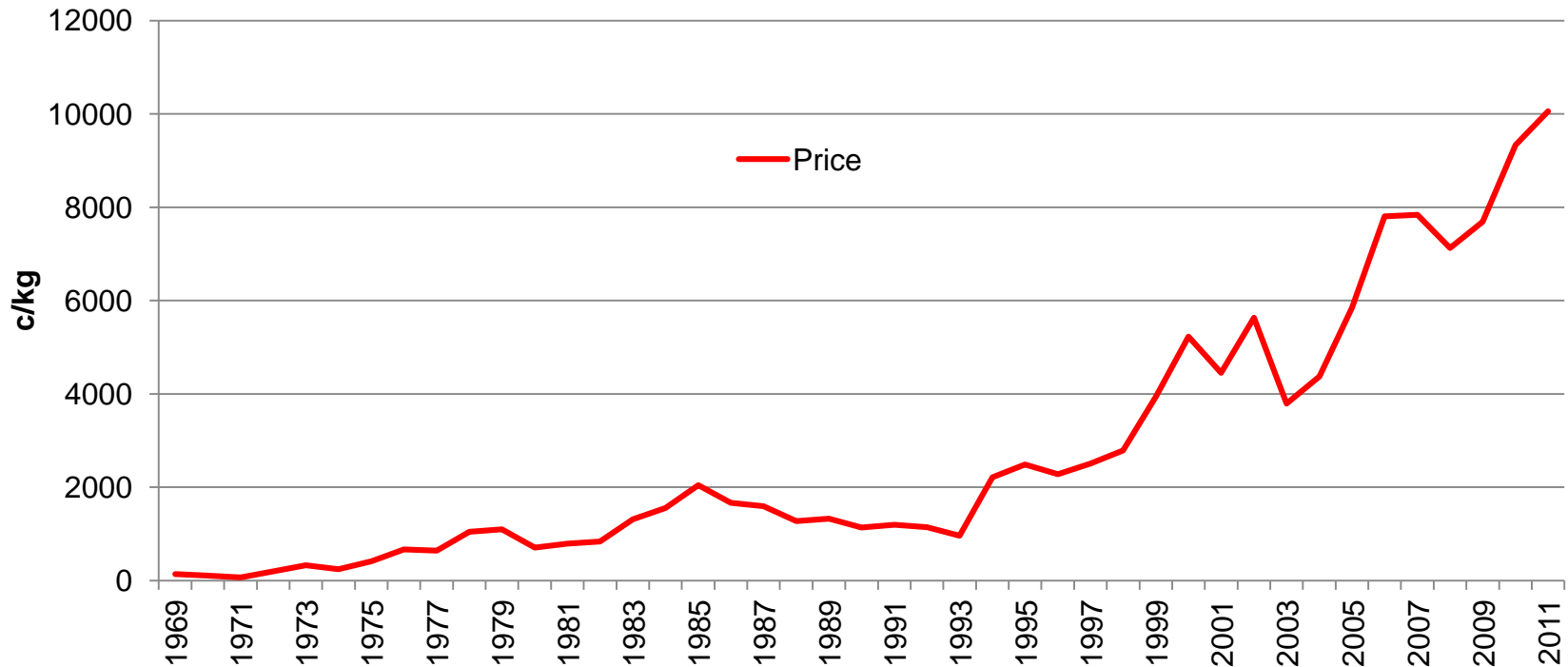
PRODUCTION AND VALUE OF RAW MOHAIR



Production
decreased with 56.3
% from 1969 to 2011

Value increased with
3036.9 % from 1969
to 2011

AVERAGE AUCTION PRICE OF MOHAIR

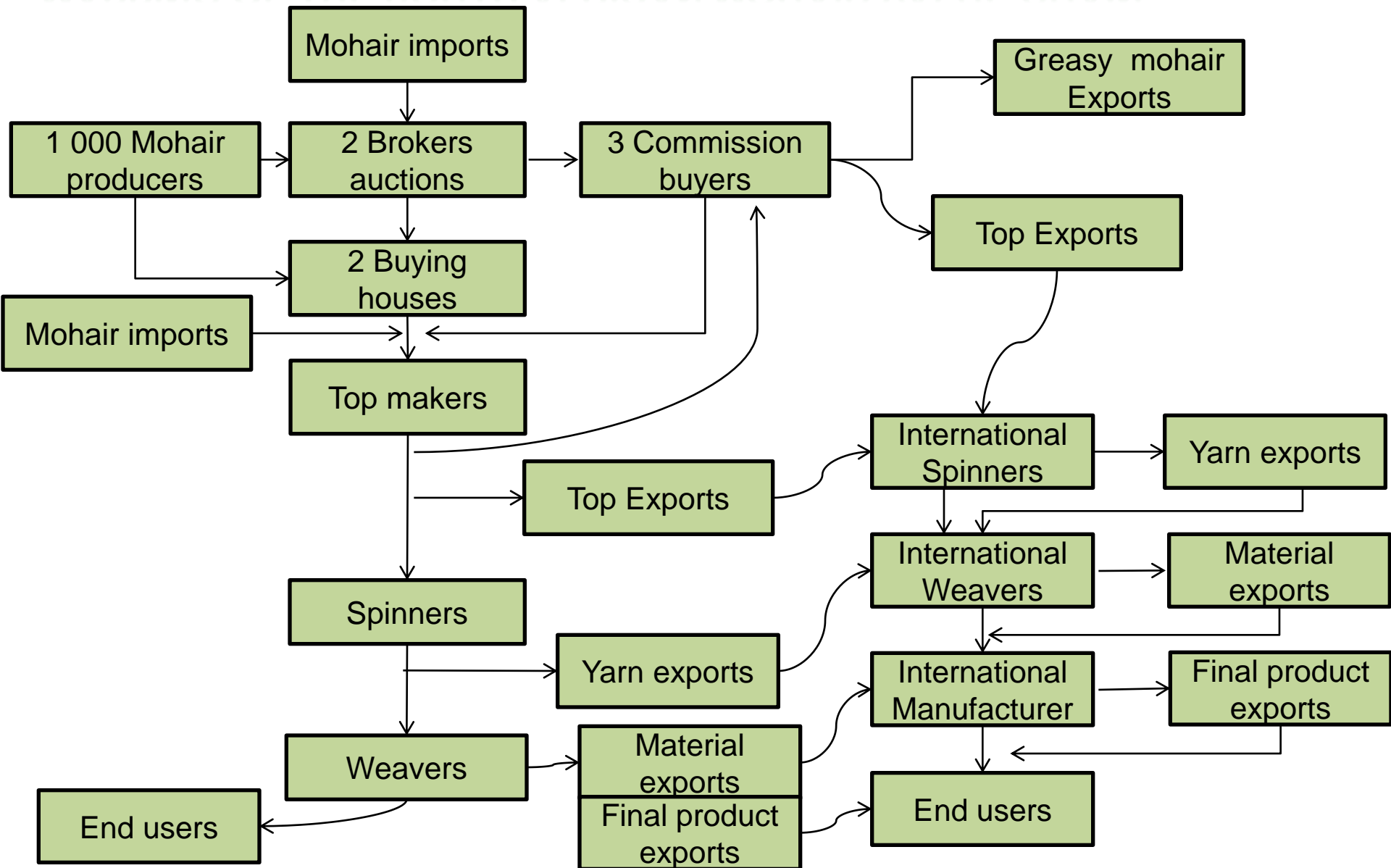


Price increased with
7108 % from 1969 to
2011

The background of the slide is a collage of images related to mohair. It includes several adult goats with thick, curly, light-colored mohair standing in a green field. There is also a close-up of a goat's head and another close-up of a goat's legs and lower body. A large, white, oval-shaped graphic with a green border is centered on the slide, containing the title text.

Mapping of The South African mohair Value Chain

MAPPING OF THE SOUTH AFRICAN MOHAIR VALUE CHAIN



The background of the slide is a collage of images related to the wool industry. It includes several sheep in a green field, some looking towards the camera. There are also close-up shots of thick, curly wool. A large, white, oval-shaped graphic with a green border is centered on the slide, containing the title text.

PROCESSES AND ROLE PLAYERS IN THE CHAIN

The background of the slide is a collage of images related to sheep and wool. At the top left, there are several skeins of raw, light-colored wool. On the right side, there is a group of brown, curly-haired sheep standing in a green field. Below that, there is a close-up of curly wool. At the bottom right, there is a white lamb grazing in a field. The entire slide is framed by a dark green border at the top and bottom, and a large white oval with a green border in the center.

BROKERS

BROKERS

- ✘ In South Africa producers shear twice a year and deliver their mohair to the brokers. The summer clip is sheared during March/April and the winter clip during August/September.
- ✘ Most of the clip is delivered in bales of approved material. Minimum and maximum bale weights should be adhered to and are as follows: Kids, 80 – 180 kg; Young goats, 90 – 180 kg; Adults, 100 – 180 kg. It is recommended to farmers that the maximum volume of mohair is pack into a bale in order to save on packing, transport and handling costs.
- ✘ Transport of the mohair is for the producer's account and stays the property of the producer until sold on auction. One of the brokers does offer some subsidising of the transport.
- ✘ Once the bale arrives at the brokers it is weighed and each bale of mohair is identified in a lot with a unique number and captured on a tracking system for continuous identification.

BROKERS

- ✗ Samples are randomly taken from the bales and tested to ensure that the classification is correct.
- ✗ The brokers prepare a catalogue of the lots on offer for the following auction which contains all the technical specifications obtained from the tests.
- ✗ The brokers calculate a valuation price based on test results as well as other factors.
- ✗ The brokers communicate this valuation price to the producers before the auction as an indication of expected prices. The producers then have the option of instructing the broker to sell or not.
- ✗ The broker auctions are “open cry” auctions on the highest bidder.
- ✗ All approved buyers receive a catalogue before the auction with the specifications and amount of lots to be auctioned and also do sample inspections before the auction.
- ✗ The brokers store the sold bales until shipment according to buyers’ specification.
- ✗ Buyer pays the brokers within five working days after the auction and the broker pays the producers.

BROKERS

- ✖ There are currently five companies that are approved to buy greasy (raw) mohair on the auctions of which two are from buying houses (vertically integrated companies) that do processing.
- ✖ The other three buyers are commission buyers directly for their clients.
- ✖ Only one buyer exports greasy mohair directly and the other uses the buying houses' facilities to wash or wash and comb the hair and export the tops.
- ✖ The brokers work on a commission of 4 to 4.5 percent as well as a handling fee per bale.
- ✖ The handling fee also includes the cost of repacking the bales if they are under or over weight.

BROKERS

- ✖ Imported greasy mohair directly from overseas producers is classed in SA for a fee and sold on the auctions.
- ✖ Imports are from various world countries and all the mohair produced in Lesotho is also sold in South Africa on the auctions.
- ✖ Brokers also offer technical support services to producers on stock selection, a shearing service, financing (advance payments against clip delivery) and classing services.

The background of the slide is a collage of images related to sheep and wool. In the top left, there are several skeins of raw, light-colored wool. In the top right, a group of brown, curly-haired sheep are standing in a green field. In the bottom right, a white lamb is grazing on grass. In the bottom left, there is a close-up of dark, wavy wool. A large white oval with a green border is centered on the slide, containing the text.

PROCESSORS/TOP MAKERS

PROCESSORS – THE PROCESSING STEPS

- ✘ Currently there are 2 mohair processors in South Africa. They are companies that function as commission processors but are also part of a mother company. Their joined capacity is enough to process almost all of the world's mohair production.
- ✘ One of the processors only procures mohair for processing while the other one also processes wool.
- ✘ The processor that is only involved in mohair is also backwards integrated into farming, gene development and BEE projects.
- ✘ The BEE projects are on the basis that the processor guarantees the buy back of their clips.

PROCESSORS – THE PROCESSING STEPS

- ✘ The processing starts with the washing or scouring of the raw mohair to remove the natural grease (lanolin) and soil.
- ✘ This is done with hot water and soap in big tubs that are fitted with rakes that gently move the mohair. Between the tubs the hair passes through rollers that squeeze excess water out before it moves to the next tub. The washing is done three times with a final rinse.
- ✘ After passing through a final set of rollers the mohair is conveyed into driers. There is about a 20% lost in the weight of the mohair during the scouring process.



PROCESSORS – THE PROCESSING STEPS

- ✖ Carding is the second step where the various types of mohair blend, vegetable matter is removed and the fibres are straightened for the first time so they start to lie in the same direction.

This is done by passing the mohair through a system of rollers covered with wire teeth that form the fibres into a thin web. The web is gathered into narrow strips that are joined to form the roving or sliver and passed through the carding machine again if necessary.



2 oz. of un-dyed Carded Mohair

PROCESSORS – THE PROCESSING STEPS

- ✦ Combing is the next step where the mohair sliver is combed to remove the short fibres (noils) and to further straighten the long fibres. The result is a thick strand called a "top".



PROCESSORS – THE PROCESSING STEPS

- ✖ The woolen system, where the rove or sliver after carding is spun, enables the processing of shorter fibres into bulkier or heavier yarn. This yarn is suitable for the knitting and weaving of blankets, coatings, scarves as well as hand knitting and carpet yarns.
- ✖ The worsted system, where the top after combing is spun, enables the processing of longer fibres for a sleeker and smoother yarn. This yarn is suitable for the knitting and weaving of suiting, soft apparel and knitwear.
- ✖ Mohair can be dyed at several stages in the processing. If dyed after scouring, it is called stock dyed mohair; if dyed after combing, it is referred to as top dyed; if dyed after spinning, it is referred to as yarn dyed; or if dyed after weaving or knitting, it is called piece dyed. Mohair fabric can also be printed by screen or roller methods.

The background of the slide is a collage of images related to sheep and wool. At the top left, there are several skeins of light-colored, curly wool. On the right side, there is a group of brown, curly-haired sheep standing in a green field. Below that, there is a close-up of curly wool. At the bottom right, there is a white lamb grazing in a field. The entire slide is framed by a dark green border at the top and bottom, and a large white oval with a green border in the center.

SPINNERS

SPINNERS

- ✖ Currently there are 2 major spinners in South Africa. They are companies that function independently but are also part of a mother company. They use local processed tops but also import tops or yarns if needed.
- ✖ Depending on the desired thickness of the yarn, the number of fibres in the top is reduced by a series of processes called drawing.
- ✖ The spinning process, which follows either carding or drawing, is the twisting of the sliver into singles yarn. When two or more of these yarns are twisted together, they form ply yarns, which are stronger than singles.
- ✖ Yarns vary in size, twist, ply and novelty effects and are a part of the plan of fabric designing.

SPINNERS

- ✖ Spinners will mix mohair with other fibres depending on the end product design. This mixing is done by combining the different tops through multiple repetition until completely mixed. This is done before drawing of the tops.
- ✖ Mohair can also be mixed after being spun into yarn by twisting different yarns together.
- ✖ Mohair is mixed with other fibres to enhance these fibres' attributes and is also helpful in managing the cost of the final product.
- ✖ When mohair is mixed, it is indicated on all labelling.
- ✖ The yarn is mostly exported.



The background of the slide is a collage of images related to sheep and wool. At the top, there are several long, wavy locks of light-colored wool. To the right, a group of brown, curly-haired sheep are standing in a green field. Below that, there is a close-up of thick, wavy wool. In the bottom right corner, a white lamb is grazing on green grass. The entire slide is framed by a dark green border at the top and bottom, and a large white oval with a green outline in the center.

WEAVERS

WEAVERS

- ✘ The two major buying houses in SA also include their own weaving companies. The weavers use yarns from the local spinners but also import yarns as needed.
- ✘ The weaving process - Woven fabrics are made on looms by interlacing at least two sets of yarn, either woolen or worsted, at right angles to each other. The lengthwise yarn is the warp. Threads running crosswise in the loom are called weft or filling. As warp thread passes through the loom, it is raised and lowered by a wire eyelet through which it is threaded. Filling thread is passed through the openings created in the warp to form the woven fabric.
- ✘ The weavers visited produce various products ranging from scarves, cloth for designer labels to carpets. These products are almost all destined for the export market but they also have direct local sales through agents.



The background of the slide is a collage of images related to sheep and wool. At the top, there's a green horizontal bar. Below it, on the left, are several skeins of light-colored wool. On the right, there's a group of brown, curly-haired sheep standing in a green field. Below that, on the right, is a close-up of curly wool. At the bottom right, there's a white lamb grazing in a field. The central text is overlaid on a large white oval with a green border.

CHALLENGES AND OPPORTUNITIES

CHALLENGES IN THE CHAIN

- ✖ For producers, labour for shearing is a challenge. The labour force currently consists of Lesotho citizens, which the government wants to change. Local citizens do not have the skills and the industry is spending a lot of money to train and retain labour.
- ✖ The farming of angora goats is very labour intensive and labour laws are a constraint for the industry.
- ✖ Predators are also a huge problem and are costing the industry money for fences and other methods to minimise the impact.
- ✖ Loss of farming capacity to game farming.

CHALLENGES IN THE CHAIN

- ✖ For processors, the decline in the size of the local clip is a challenge in that their factories need to be utilised to capacity. Therefore, raw imports are done for processing locally and then export the semi-processed tops, yarns or final products.
- ✖ The identification of new markets for their products are a continuous process because the market is ever changing due to the fashion trend changes and subsequent demand changes in the world.
- ✖ The processors need to buy large quantities of mohair on the auctions twice a year for a few weeks to ensure future requirements are met and factories are operational. The broker is paid within five working days but the final client only pays six to nine months later. This leads to very low stock turnover but very high risk and capital requirements.
- ✖ During the scouring process, the used water with soap needs to be disposed of in an effluent dam with a sprinkler system, and is not allowed to be put into the drain system. This leads to additional cost to adhere to the environmental requirements.

CHALLENGES IN THE CHAIN

- ✗ For the spinners, the quality of the water is a problem and they needed to install purifiers because the water stained the yarn.
- ✗ For all role players, replacement and maintenance costs on machinery is very high. Machinery is old and parts and technical skills not readily available. The nature of mohair does not necessarily allow faster and newer machinery.
- ✗ The volatility of the exchange rate is also a challenge, seeing that products are exported on contracts.

OPPORTUNITIES FOR THE INDUSTRY

- ✘ Goats are sheared twice a year, thus an attractive farming practice to generate income twice a year is created.
- ✘ A growing skills shortage exists in the shearing and farm labourer trade, which creates opportunities at ground level for employment.
- ✘ Goat meat becomes more attractive because of low fat content.
- ✘ Less than 10% of semi-processed mohair is currently utilised for final products. As mohair is a natural fibre, there are countless opportunities for small manufacturers to utilise mohair when manufacturing for the craft industry. There is a world-wide demand for natural fibre products.

THE SOUTH AFRICAN MOHAIR INDUSTRY

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 - + Staff and representatives of mohair industry associations;
 - + Processors and staff of companies in the mohair value chain
 - + Brokers and their staff

Research Team

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