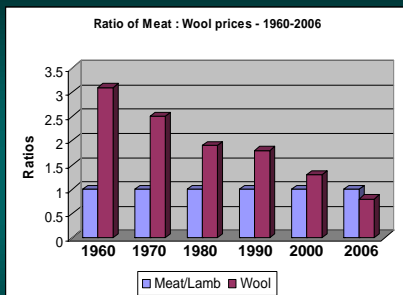


Make More Money More Easily

Cameron McMaster



The single most important factor to influence the evolution of the South African Merino has been The changing wool/meat price ratio



Meat : Wool price ratio

1960 1 : 3.2

2000 1 : 1.3

2006 1 : 0.9

Currently in South Africa
Lamb is worth more per kg than wool!

Lamb = \$6.00 per kg
Average greasy wool price = \$5.00 per kg



Reproduction and Lamb Growth rate are the main drivers of increased profitability today.

At current price levels meat can generate up to 80% of Total Flock Income

Out of Africa

Meat : wool price ratio determines emphasis on traits that contribute to meat production:

- Prolificacy
- Lamb growth rate
- Conformation
- Carcass quality

There is no conflict between fine wool and meat production in the same enterprise

Each has a stabilising effect on the other

Out of Africa

Consequently:
Through the whole spectrum of woolled breeds in SA
Emphasis has shifted to traits that contribute to Lamb and Meat production

To accommodate changing economic circumstances -



SA Merino 30 years ago*



even the conventional Merino has undergone a revolutionary change in type

SA Merino today*

*Merino SA Focus 2002, page 79

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Out of Africa

If less than 70% of income is from meat, the flock is under-performing and there is a high potential to improve profitability

Crossbreeding with Meat Sires not an option

Achieve maximum profitability by raising meat production to at least **70%** of flock income in a **Self-replacing flock** with full control of a long-term Breeding and Selection Programme, while the volume and quality of wool production is fully maintained

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We use simple, logical common sense to achieve this



Weight of lamb marketed per hectare is the single most important factor that influences profitability

Fundamental factors to increase meat production:

1. **Optimum flock composition**
(maximum number of ewes rearing lambs)
2. **Rapid lamb growth rates**
3. **Optimum Stocking Density**
4. **Type of Sheep**
(Plain, Hardy and Fit – these traits have the greatest influence on lamb production)

Fast growth means early marketability of lambs -

- More room to run more ewes
- More ewes run will get more lambs
- More lambs—more profit



Snowball effect to higher profitability

Optimum Stocking Density

The Breeding Goal is:

Maximum Profit per hectare

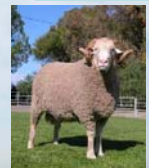
Which does **NOT** =
Maximum production per ewe

Max. profit per hectare = Stocking density to optimise
production per unit of feed

At this stocking density ewes face competition for feed
Ewes must be **genetically adapted** to these conditions

The Type of Sheep is crucial for success -

The Flock must be **genetically adapted** to perform in a high output, low cost, commercial situation



An optimum relationship between Wool and Body Mass is vital

- * WPP% 5% - 7%
- * Plain bodied
- * Fertile, Easy care, Hardy and Fit

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The Type of Sheep is crucial for success

An optimum relationship between Body Size and Fleece Weight is an essential attribute of the Type to deliver this level of production = WPP%

High fibre production impedes reproduction and growth rate
(Wentzel, 1991; Adams, 2006)

Striking the correct balance is vital
WPP of 5% to 7% is ideal




Make More Money More Easily Out of Africa

If lamb production is so important for maximum profitability - Why not go for Meat Sheep?

Because Wool is a vital component in the profitability equation!

You would have to produce **20% more lambs** to make up the difference in income without the wool clip



Outcomes Out of Africa

Overberg Sheep Enterprises 2003 and 2004*

Stocking rates, Production and Gross Margins

	Average	Top Third	Lowest Third	Top Flock
Stocking rate per Ha, (SSU)	4.56	6.15	4.07	9.00
Wool Production				
KG per SSU	4.2	3.8	4.1	3.0
KG per Hectare	18.9	22.8	16.6	27.0
Wool income per Ewe	190	182	186	136
Meat Production				
Weaning % / Ewes mated	111%	115%	108%	127%
Income per Head	382	536	303	517
Income ratio - Wool : Meat	33 : 67	25 : 75	38 : 62	21 : 79
Gross Margin per Ewe ZAR	490	551	420	441
Gross Margin per Ha. ZAR	1146	1599	890	1933

* Anker Agric Consultants, Bredasdorp

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Outcomes

Features of the Flocks with highest Gross Margins:
They have the:

1. Highest ratio of Meat to Wool Income
2. Highest stocking density and weaning %
3. Lowest wool production per head BUT ALSO
4. Highest wool production per hectare!

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Out of Africa

A New Philosophy

Wool production is no longer the most important component of Flock Income

Fleece weight is no longer the major selection objective

A new philosophy in terms of breeding goals and selection strategy for Merino Sheep is necessary to increase profitability in both current and future markets



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Selection strategy and Technology to accelerate progress:

Performance Recording Schemes operated by Breed Societies in collaboration with the ARC provide National cross-flock EBVs for:

- Body Weight (BW)
- Total Weight of lambs Weaned (TWW)
- Clean Fleece Weight (CFW)
- Fibre Diameter (FD)

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Rams are ranked on their Relative Economic Value (REV) according to Selection Indices designed to:

- Increase Body Weight
- Increase Weight of Lambs Weaned
- Maintain Fleece Weight
- Reduce Fibre Diameter

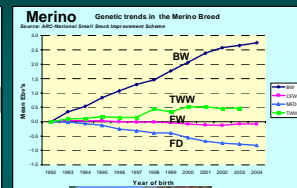
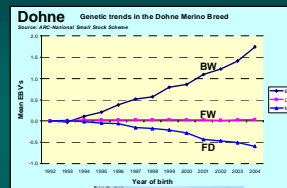
Future Challenge:

To incorporate EBVs for Reproduction and Fitness Traits in a routine evaluation scheme

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Outcomes – Genetic trends 1992 - 2004



Picture: Henri Londt

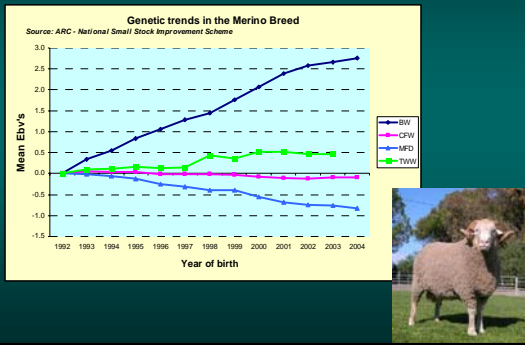


The Modern Merino

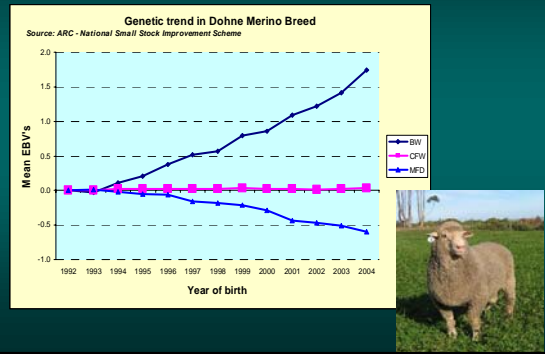


Picture: Chris Jooste

Genetic trends in the Merino -- 1992- 2004



Genetic Trends in the Dohne Merino – 1992 - 2004



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Stocking density in relation to production per animal and production per ha.

