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27 August 2007

## The meatier side to wool growing

Wool growing isn't as simple as just growing wool. To the mind of Nuffield scholar Andrew Bouffler, if attention was given to both wool and meat production traits in Australia's sheep flock there would be increased profit for producers.

Mr Bouffler has recently returned from his global tour with Nuffield Australia, undertaken as part of his Australian Wool Innovation-sponsored scholarship. He focussed his scholarship studies on how to best use and rapidly improve the Australian maternal ewe base, including Merinos, to ensure continued supply of product into our valuable wool and meat markets. Australian sheep producers are well placed to capture predicted market growth for both meat and wool, he says. He will discuss what he learnt at the Nuffield Australia Spring Tour, being held in Fremantle, Western Australia, from 4-7 October.

Running 3000 hectares at Lockhart in southern NSW with his wife, Mandi, and brother, Phillip, Mr Bouffler is the principal of Trigger Vale Bond and White Suffolk studs. He left Australia for his tour of South Africa, Argentina, Chile, USA, Mexico, Brazil, New Zealand and the Falkland Islands concerned with the longevity of a production system based on joining Merino ewes to terminal sires.

"This production system is not sustainable long-term as it doesn't allow for replacements. An improvement in wool prices, such as those recently witnessed, would result in a switch back to Merino joinings," he says. "This would leave the lamb industry with serious supply issues in our export and domestic markets."

Mr Bouffler believes that, given Australia's low sheep numbers, the answer is to breed dual purpose animals that can supply quality product into both markets while supplying replacement ewes to grow the national flock.

"Sheep are Australian agriculture's good news story. Already we are the dominant world players and set the agenda. If we take full advantage of modern breeding technologies we'll be able to retain that domination to take full advantage of growth in the sheep meat and wool markets."

The first step has nothing to do with changing breeding programs, but relies on sheep producers better understanding their business, he says.

Generally, Australian sheep breeders classify themselves as wool producers or lamb producers. The reality is that in most cases they are already producing both, Mr Bouffler says.

In South Africa, he found every sheep breeder he visited could quickly rattle off their income ratio

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from sheep. If they spoke of 60:40 – 60 per cent of income was from meat and 40 per cent wool. “The adoption of this simple procedure in Australia would instantly change how sheep producers view their flock and breeding programs,” he says.

The next step in maintaining market share would be to recognise that the past 150 years of sheep breeding in Australia has reflected the market conditions of the times. Red meat global forecasts illustrate a different approach will be needed if Australian woolgrowers are going to enjoy the rewards of growing consumer red meat demand.

## GENETICS LEAD THE WAY

Mr Bouffler, who is also on the advisory committee of Sheep Genetics, says his Nuffield tour showed Australia was world-leading in its genetic innovation and poised to quickly take advantage of market changes using genetics, but producers needed to understand the capabilities and limits of genetics.

In Holland, he visited New Holland Genetics to look at what was going on in the dairy industry. Unintentionally but fortuitously, his visit coincided with an animal genetics seminar.

“There were around 150 animal geneticists, PhD students and university professors sitting in one room and if I had stood up and said that in Australia many livestock producers still say performance testing and BLUP (best linear unbiased prediction) is not a proven science I would have been laughed out of the room,” Mr Bouffler says. “It is laughable that we still debate the accuracy and value of these breeding tools.

“We have one of the most varied sheep genetic populations in the world which provides great opportunities for Australia to make genetic gain in the national flock quickly. I witnessed the results of breeding programs on other species such as chicken, dairy, pigs and even oranges in Brazil which confirmed the argument that high selection pressure on one production trait can lead to a decrease in total enterprise profitability with regards to an animal’s fitness, survival and hardiness.”

This was highlighted most clearly by New Holland Genetics’ dairy program. Performance testing and BLUP resulted in unprecedented genetic gains in milk protein levels and per head milk production. This had significant impact on breeders’ profitability until all of a sudden they couldn’t get their heifers pregnant. This illustrated without doubt, says Mr Bouffler, that heavy selection pressure on single production traits often has a negative relationship with other fitness-type traits.

“In the case of the Australian sheep industry a similar relationship exists between wool cut per head and fitness traits such as fertility, hardiness and growth. We have spent a lot of time chasing the genetics to improve micron or fleece weight, but often haven’t realised the impact this has on other factors that have an impact on profitability, such as fertility and weight gain,” he says.

Although the exact correlation between clean fleece weight and number of lambs weaned varies between different research and data sets, Mr Bouffler suggests it is a constantly negative correlation. This is not a major problem over a few years of breeding, he says, however 150 years worth of selecting for wool production goes a long way to explaining the generally low lambing percentages in Merino flocks.

Mr Bouffler says producers wanting to increase the overall profitability of their flock should focus on retaining the wool attributes and place future selection pressure on the meat producing genetics.

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“You can do the figures but even if your fleece weight dropped by half a kilogram, the extra dollars in the meat and lambs would be worth chasing,” he says. “Imagine if the Australian Merino ewe flock had genetics which would result in their progeny weighing two kilograms heavier at 250 days. This is achievable without changing the quality of the wool they produce. This modest gain spread over the whole industry would supply around an extra 15-20 million carcass weight of lamb which would ensure the growth of our lamb industry and at \$3/kg put an extra \$45-60 million into sheep producers’ pockets.

## HOME-GROWN EVIDENCE

The Boufflers have graphs that illustrate the impact of performance testing on their production since they started using Lamplan 10 years ago. From 2001 to 2006 the 250 day bodyweight of their pure Bond lambs increased by 1.5kg and flock fertility increased by five per cent

“Even the sheep you keep as replacements reach maturity earlier which means they are in lamb faster, so your production cycle moves forward. The answer is not always in being able to run more sheep per hectare but from running better sheep,” Mr Bouffler says.

As for export demand, he found plenty of evidence that red meat would be the flavour of the century.

“While much of the demand is going to come from Asia and China, in particular, in the US they still eat more garlic per capita than they do lamb. There is a huge percentage of Americans who have never even tried lamb.

“The wool story is still good but I now see red meat as being the means for wool producers to significantly improve their overall bottom line.”

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