

# Feedback

## Spot On

Hitting market specs  
with cattle and lambs

08// **Livestock  
Data Link**

Feedback at your fingertips

18// **Lifting northern  
pasture productivity  
with legumes**

20// **Parasite control**

A close up look at ewe and  
weaner management

30// **Nutritional  
knowledge**

The facts on meat consumption  
and health



## A note from the MD...

**T**his year our focus at MLA is on increasing efficiencies to get greater value from your levy investment. Following consultation and planning with our stakeholders we have shifted our focus and expenditure in a number of areas.

We are increasing investment in maintaining and improving market access, working to assist government and industry to remove trade barriers on a bilateral basis. There will be more marketing funds invested in collaborative brand building and less in generic marketing. There will also be increased investments in emerging growth export markets, as demonstrated with our recently established regional office in Indonesia.

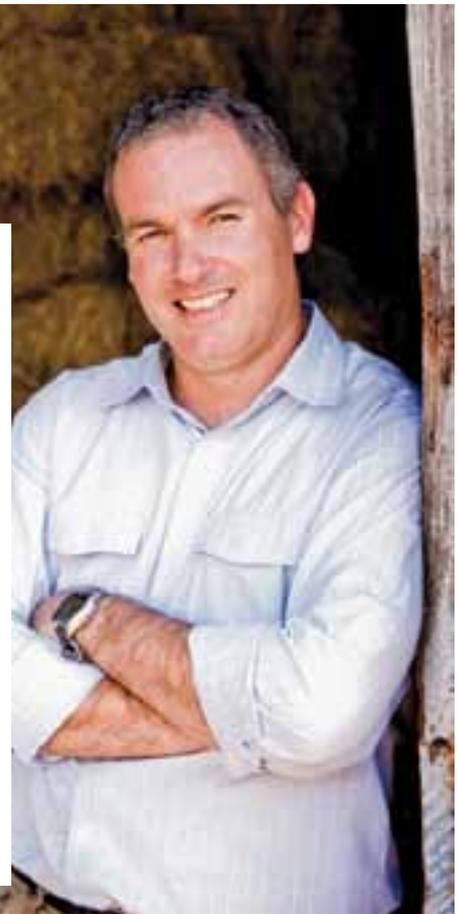
With R&D levy investments there will be an even greater focus on the programs which

deliver the greatest value to producers. Some examples outlined in this edition of *Feedback* include programs we are investing in to help improve pasture productivity, quality and persistence. There is also an overview of our programs aimed at helping producers meet the specifications of their target markets, including a preview of the carcass feedback system Livestock Data Link.

As always I welcome your comments at [managingdirector@mla.com.au](mailto:managingdirector@mla.com.au)



**Scott Hansen**  
MLA Managing Director



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## Market access



## Moving forward on Korean trade

An industry delegation visited Korea in early March to hold discussions with key business leaders about the impact of the delay in completing the Australia-Korea Free Trade Agreement (AKFTA).

### 34.67%

2013 tariff on US beef in Korea

### 40%

2013 tariff on Australian beef in Korea

### \$1.4 bn\*

Over 15 years the cumulative loss to Australian beef industry

Share of Australian beef of the imported market

### 49% (2012)

to

### 26% (2026)\*

\* Modelling results by the Centre for International Economics

**T**he delegation consisted of representatives from the National Farmers' Federation, the Cattle Council of Australia, the Australian Lot Feeders' Association and the Australian Meat Industry Council.

The urgency to expedite the AKFTA has heightened from a beef perspective as the United States (US) has already secured a free trade agreement with Korea, and from 1 January 2013, US beef exported to Korea has a 5.3% tariff advantage over Australian beef. The tariff differential widens by a further 2.66% on 1 January each year, with US beef entering Korea tariff free by 2026.

Continued delays in the AKFTA negotiations could see a significant decrease in Australian beef sales into Australia's third largest export market valued at \$645 million in 2012.

The delegation shared results of recent modelling by the Centre for International Economics which indicates the Australian beef industry will incur a cumulative loss of around \$1.4 billion over the 15 years the tariff on US beef is reduced to zero (assuming no similar tariff treatment for Australian beef).

The analysis also indicated that Australia's share of the imported beef market in Korea could fall from the current 49% to just 26% by 2026.

Andrew McCallum, MLA's Manager of International Markets and Trade Services said the AKFTA negotiations have stalled due primarily to an issue totally unrelated to beef.

"The main impasse surrounds incorporating an Investor State Dispute Settlement mechanism in the agreement - the Australian Government is seeking to exclude this mechanism while the Korean Government is supportive of its inclusion," Andrew said.

"MLA is providing support to industry and government as they work to secure a swift conclusion to the free trade agreement with Korea."



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[www.mla.com.au/marketaccess](http://www.mla.com.au/marketaccess)

Barber's pole worm (*Haemonchus contortus*) is a blood-sucking round worm that can cause rapid and dramatic deaths among sheep flocks in Australia's summer rainfall dominant areas.

## Barber's pole vaccine breakthrough

**MLA is funding trials of a potentially ground-breaking vaccine to protect against the deadly sheep gut parasite, barber's pole worm.**

Scientists at Scotland's Moredun Research Institute discovered a hidden antigen that they used to create a vaccine with an 80-90% success rate against the parasite.

The institute applied to MLA to fund Australian trials, which started in November 2011 and are scheduled to run until January 2014.

MLA Animal Health and Welfare Project Manager Dr Johann Schroder said early results from trials in Western Australia and NSW's New England were "encouraging", although there was one hurdle to overcome.

"For the vaccine to be effective, five injections are required over a 150-day period," Johann said.

"In a practical, commercial sense that will be a downside. However, the parasite has a rapid lifecycle, which means that in a heavy *Haemonchus* season it's not beyond the realms of possibility that animals need drenching every 3-4 weeks anyway.

"We also face massive resistance problems with *Haemonchus* to the existing drench, so the vaccine will help overcome that."

Johann said a commercial vaccine could be on the market by as early as 2014. Research is focused on reducing the number of injections required for the vaccine to be effective.

**Barber's pole worm causes:**

**30%** reduction in weight gains

**10%** reduction in wool growth

**30%** reduction in milk production in a ewe with a subclinical (no visible signs of worms) infestation



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## Japan alters US protocols

**Australia's share of Japanese beef imports could be challenged with the easing of restrictions on US beef.**

For the first time since 2003, when BSE was discovered in the US, Japan has allowed US beef imports from cattle up to 30 months of age. Restrictions were previously relaxed in 2005, when imports from cattle up to 20 months were permitted. Pre-BSE, Japan was the largest beef export customer for the US.

Following the 2003 BSE crisis, Australia's market share grew and Japan became the largest international destination for Australian beef. However, last year Australia shipped 308,540 tonnes to Japan, the lowest volume since 2003.

MLA's Economist Tim McRae said forecasts from US research body Cattlefax suggested the lifting of the restriction would boost US beef exports to Japan by 25% on last year's 135,000 tonnes.

"About 90% of US beef is now eligible to enter Japan, whereas the previous restriction meant only about 25% met the criteria. It's not good news for Australia's beef export sector," he said.

However, Tim said the cheaper Australian grassfed product could still be in demand, whereas the chilled, high quality sector could continue its recent decline.

MLA has forecast that the Japanese share of Australia's global beef trade will fall to 31% this year, down 1% on last year and 5% on 2011. MLA's *Australian cattle industry projections* have forecasted Australian beef exports to Japan in 2013 will be similar to levels in 2012.



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Read MLA's *Australian cattle industry projections* at [www.mla.com.au/industryprojections](http://www.mla.com.au/industryprojections)

## Waste not, want not

**This year's Sydney Festival hosted an event that examined the journey of food from producer to retailer to consumer, and then delved into what gets left behind.**

In association with the Australian cattle and sheep industries' Target 100 program (which is coordinated by MLA) and NSW Environment Protection Authority's Love Food Hate Waste initiative, a free panel discussion and forum invited the public to pay more attention to the issue of food waste. More than 700 people attended.

Hosted by journalist, TV presenter, blogger and health coach Sarah Wilson, the forum provided an insight into the time, effort and resources that go into our food, and identified some of the key concerns surrounding what we eat... and what we don't.



Sarah Wilson was joined by panellists:

- Georgie Somerset, a Queensland beef producer
- Natalie Isaacs, founder and CEO of 1 Million Women, an environmental campaign
- Jane Fullerton Smith, general manager of Greenshoot Pacific, sustainability consultants
- Professor John Crawford, Chair of Sustainability and Complex Systems in Agriculture at the University of Sydney.



[www.target100.com.au](http://www.target100.com.au)  
[www.sarahwilson.com.au](http://www.sarahwilson.com.au) or  
[www.sydneyfestival.org.au](http://www.sydneyfestival.org.au)



## Oats online

The *Forage Oats Guide 2013* can help producers plan their fodder needs.

This guide discusses the recommended management practices to grow oats for forage and strategies to minimise leaf rust infection. It also provides a table of forage oat varieties that are available for commercial sale in Queensland and northern NSW.

The guide was produced by the Queensland Department of Agriculture, Forestry and Fisheries with support from MLA.

Tips on growing oats for forage include:

- Intermediate and late-maturing varieties remain vegetative until late in the season and provide grazing over a longer period.
- Mid-March to June is considered the optimum planting time for forage oats in southern Queensland and early April to June in central Queensland. Planting too early or too late can reduce forage yield.
- The recommended planting rates are 40–60kg/ha in southern Queensland 25–40kg/ha in central and western Queensland. Planting rates should be adjusted for germination, seed size and percentage establishment in the field. There are about 50,000 seeds per kilogram, but always check the seed container for correct size and germination rate.

The guide can be downloaded at [www.daff.qld.gov.au/26\\_5120.htm](http://www.daff.qld.gov.au/26_5120.htm)

**Correction** In the January/February 2013 edition of *Feedback* the 'Climate savvy solutions' article (page 12) implied that a fully flexible stocking rate strategy (where animals are traded on and off property to closely match feed conditions) was recommended for responding to more pessimistic climate scenarios in the Alice Springs region. Although the modelling showed that a fully flexible approach increased average profits under a range of climate scenarios, it was considered to be impractical to implement, financially risky (with 50% of years making a loss) and detrimental to land condition. Rather, the research concluded that a strategy of stocking close to long term carrying capacity, with modest levels of annual adjustment, is an appropriate recommendation for the Alice Springs region.



One of the rediscovered stylo lines that has excited agronomists and the Queensland cattle industry.

## The discovery of legumes that have persisted for up to 30 years on light soils (loams and sands) in southern inland Queensland has excited agronomists and the cattle industry.

The find was made when 36 pasture evaluation trial sites from projects conducted in the 1970s, 1980s and 1990s were revisited as part of a research project.

Queensland Department of Agriculture, Fisheries and Forestry senior pasture agronomist, Gavin Peck, said *Stylosanthes* species were not just persisting but were spreading on the light textured soils at five of the sites.

"This was further south than conventional wisdom or previous evaluation trials had concluded stylos were adapted," Gavin said.

MLA is now funding a project to assess the suitability of the rediscovered stylo lines for commercialisation.

"In southern inland Queensland and northern NSW, sown tropical grasses are a proven technology, but their productivity declines over time due to reduced nitrogen availability," Gavin said.

"We need more available forms of nitrogen in the soil and economic modelling shows

the best return comes from introducing a well-adapted, productive legume into your grass pastures.

"Until now, we have not had a good legume option for lighter soils for sub tropical inland environments with summer dominant rainfall."

**In the inland subtropics, there are 7.6 million hectares of lighter soils and Gavin said a suitable forage legume could mean at least an extra 30kg live weight gain per head.**

"If half that area was sown to a stylo and stocked at a conservative rate of one in 10 hectares, then the result would be an extra 11.5 million kilograms of live weight gain per year," he said.

The project will grow the rediscovered stylos lines side-by-side with commercially available legumes at six locations across southern, inland Queensland to test their commercial potential.



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## Meeting market specifications



# On target

**Meeting market specifications: there isn't much margin for error but the rewards make it worthwhile. Every lamb outside specification can mean a \$4 loss in revenue; for cattle it is \$50-70/head.**

**U**p to 25% of cattle in southern Australia miss the market bulls eye, while around 30-65% of lambs are off target. Given the potential financial rewards for meeting market specifications, one of MLA's 15 key focus areas for the next three years is creating opportunities to improve market specification compliance.

MLA's Program Manager Eating Quality R&D, Dr Alex Ball, said there were a range of reasons why livestock failed to hit market specifications, but they could be brought under control.

"Livestock miss market specifications on the basis of weight, rib fat depth, carcass pH (meat colour), ossification, eye muscle area, intramuscular fat (marbling) and retail beef yield," Alex said.

There are also accreditation and other eligibility requirements of certain markets (such as the EU, organic, Meat Standards Australia, supermarkets) that affect compliance.

"All these factors can be better managed to varying degrees through breed selection, genetics within breed, nutrition, management and handling practices," Alex said.

### Aiming straight

There are tools and information to help producers target the bulls eye, including the National Livestock Identification System, BREEDPLAN EBVs and Indexes, Breed Object, genomics, BeefSpecs, More Beef from Pastures and Meat Standards Australia producer feedback.

"Though these tools are useful, there is a lot of scope to enhance them and create new tools to help producers meet market specifications. For instance, MLA has commissioned work with NSW Department of Primary Industries to improve BeefSpecs and roll out Livestock Data Link," Alex said (see article on page 8).

There are information gaps that MLA plans to fill, such as identifying the percentages and costs around the current level of compliance across different southern production systems, the associated costs and benefits, and the impact of management practices in southern beef systems.

From this, more accurate measures and prediction tools will be developed with refined breeding programs, genomic research into difficult to measure traits and 3D image analysis for fat and muscle assessment. MLA also wants an enhanced understanding of information exchange throughout the supply chain and is looking at ways to improve it.

"At the end of the day - or should I say in three years' time - MLA wants to create the opportunities so producers can increase their compliance to market specifications by 3%. If producers grab these opportunities, they should be able to more consistently hit the bulls eye and in doing so, improve their bottom line and reduce costs," Alex said.



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## Improve your aim with these tools

National Livestock Identification System:  
T: 1800 654 743

[www.nlis.mla.com.au](http://www.nlis.mla.com.au)

Breedplan:

T: 02 6773 3555

<http://breedplan.une.edu.au>

More Beef from Pastures  
Module 8 Meeting Market Specifications:

[www.mla.com.au/morebeef](http://www.mla.com.au/morebeef)

BeefSpecs calculator:

[www.mla.com.au/beefspecs](http://www.mla.com.au/beefspecs)

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[www.mla.com.au/msa](http://www.mla.com.au/msa)

In profile JBS Australia

**Mark Inglis** // *Farm Assurance Manager***Mark Inglis**

**J**BS Australia's Farm Assurance Manager Mark Inglis says the company has been working on developing more detailed market-driven grids which will mean clearer directions for producers on required specifications.

Focusing on the lamb side of the business, the program began with an internal benchmarking exercise aimed at making the processor, and ultimately the industry, more competitive.

Mark said the company, with assistance from MLA and the Sheep CRC, was committed to establishing the impact and cost of missing market specifications. The processing sector sees benefits for all links in the meat supply chain from improved information.

**How will market-driven grids for lamb improve on the present system?**

We think value-based grids, similar to beef industry grids, will better inform producers of market requirements and reward higher compliance. Currently, it's difficult. All we have to guide producers is a weight range and a fat score, and that's not much information on which to base decisions for management changes or genetic improvement. Hopefully, in the next 12 months we will have a feedback system using more-accurate AUSMEAT parameters.

**What is driving the change?**

This is being driven by customer demand and the company's desire to stay ahead of the market. The new system will allow producers to better target animals that give JBS more flexibility to meet the needs of a broader customer base.

**What sort of animal will provide that flexibility?**

For example, we're (currently) finding it difficult to place 30kg-plus lambs, particularly in the US, since the economic downturn. Larger lambs are getting expensive because of the sheer size and weight of the legs. US restaurants have basically taken lamb off the menu. A more average carcass, say 24kg to 26kg, would give us increased flexibility in both domestic and export markets. Also, heavier carcasses are usually put into frozen product at a discount over lighter chilled carcasses.

**Are there processing concerns relating to larger carcass weights?**

Excess trimming costs and increased risk to employees' occupational health and safety are important issues for us. It is unreasonable to expect employees to work with 30kg plus carcasses all day. Not only does it make the job more difficult but the risk of injury is increased.

**What are the benefits to producers of turning off smaller lambs?**

The difference in producing a 30kg plus lamb and an animal at 24kg to 26kg could mean significant savings on feed and transport costs.



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View *FeedbackTV* episode 17 for a segment on a supply chain initiative with JBS Australia which provides insight into the importance of producing the right lamb every time for consistent customer satisfaction. Visit [www.youtube.com/mlafeedbacktv](http://www.youtube.com/mlafeedbacktv)

## Meeting market specifications

# Livestock Data Link - carcase feedback made easy

Consistently meeting market specs and capturing available premiums should become a lot simpler for cattle and lamb producers later this year with the adoption of Livestock Data Link (LDL). Here is an update of where this new web-based feedback tool is up to.

**L**DL will lever off the NLIS database and help take some of the mystery out of processors' kill sheets.

It will provide a one-stop shop for standardised, easy-to-understand, carcase feedback information to help producers boost compliance.

MLA's Integrated Production Systems Manager, Jo Quigley, said the MLA initiative was unique as it not only highlighted the problems but also provided solutions.

"The idea is that producers can go to a single site to access all carcase performance data from multiple processors," she said.

"They can see how individual carcasses performed, how their animals performed as a group in terms of meeting target market specifications and also the opportunity cost for non-compliance.

"One of the key benefits of LDL will be the resources and links provided to producers to help solve their non-compliance issues, for example, if their animals are too lean, too fat, are bruised or have incorrect dentition."

The resources library, presented through links, tips and tools, is a culmination of the extensive work done by the NSW and Victorian Department of Primary Industries, MLA, CSIRO and other research organisations into improving on-farm productivity and meeting market specifications.

When a producer is logged into LDL (via the NLIS database website), and carcase feedback results are analysed by LDL, LDL

will link the producer to the most appropriate section of the resources library.

For example, if animals are too fat or there are compliance issues related to dentition, the producer will be directed to resources relating to these issues.

"We've drawn a direct link between performance outcomes and how to get there," Jo said. "Anywhere producers are not receiving maximum returns for their animals, LDL will explain why and offer solutions."

Jo said producers will be able to have complete confidence in the protection and privacy of data supplied to LDL.

"Producers will only have access to their own information through their personal, secure NLIS database login," she said.

### Processor support

So far, LDL has been piloted by four processors including JBS Australia, which plans to trial live data, with feedback from its key producers, in the first half of this year.

JBS Australia's Farm Assurance Manager, Mark Inglis, believes LDL has great potential for boosting export competitiveness.

"It should help us source a more consistent product, particularly in terms of weight and fat scores, which will help us achieve efficiencies through our plants," he said.

"It will also allow us to compare our producers and map their performance throughout the year."

### Livestock Data Link will allow producers to:

- Access carcase feedback information from multiple processors on a single website securely
- See the performance of individual animals
- Analyse and benchmark performance on regional, state and national levels
- Understand the actual cost of non-compliance
- Find solutions to address non-compliance via a resource library of tips, tools and fact sheets.

### Livestock Data Link will allow processors to:

- Customise grids to individual market specifications
- Streamline meaningful feedback from customers to producers
- Achieve cost-savings through increased product compliance
- Benchmark suppliers and monitor year-round performance.

The company hopes to have the system up and running by 2014, following producer workshops.

### Value adding

During the next 12 months, MLA plans to expand LDL to incorporate chiller assessment data, MSA feedback and animal health and disease feedback.

From a broader industry view, Jo said having a centralised carcase feedback system would provide a platform for the analysis and benchmarking of a herd or flock, and much broader analysis at regional, state and even national levels.

"Also, such a large data collection will make a significant contribution to better targeted R&D investments," she said.

Producers supplying livestock to participating plants should be able to access Livestock Data Link via their NLIS database account at [www.nlis.mla.com.au](http://www.nlis.mla.com.au) later in 2013.



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**Property:** 4,600 hectares owned, leased and share-farmed

**Enterprise:** Cropping, prime lambs targeting domestic and export markets

**Livestock:** 2,500 Merino and first-cross ewes joined to terminal sires; trade and breed 10,000 lambs annually; 90 Santa/Angus breeders joined to Charolais

**Pasture:** Improved with predominantly lucerne

**Soil:** Red clay loam

**Rainfall:** 520mm



# Global roaming

**Sixth-generation producer James Male's desire to maximise margins from grain-finished lambs has taken him across the globe as an MLA-sponsored Nuffield scholar.**

**J**ames gained a global industry focus during scholarship trips to India, Bahrain, Turkey, Ukraine, France, United Kingdom, United States and New Zealand in 2012. He also came home armed with ideas and innovations to incorporate in the mixed enterprise he runs with his brother Greg.

"We established a feedlot four years ago as an opportunity to value-add our out-of-spec (feed) grain and for security in dry years," James said.

"Nuffield gave me an understanding of how Australia's global competitors and markets perceive agriculture, how crucial livestock exports are to our industry, and showed me there are real opportunities for Australian producers to optimise production of grainfed lambs."

The scholarship equipped James with targets to boost productivity and profitability. Here are his top 10 learnings from the year of study:

- 1. Aim for security.** Forward contracts minimise price risk when trading lambs.
- 2. Research before investing.** The right infrastructure, technology and handling equipment can improve efficiency and reduce stress.
- 3. Know the costs that count.** James now focuses on feed costs per kilogram of liveweight gain rather than feed conversion efficiency.

- 4. Think local.** Source lambs that are raised locally to minimise the stress of long-distance travel, time off feed and set-backs from climate/environment changes.
- 5. Value add.** A feedlot adds value to mixed enterprises. By channelling down-graded barley through the feedlot, James increased its value from \$80 to \$240/tonne.
- 6. Be flexible.** Adapt turn-off to meet market demands and change feedlot rations depending on grain availability to reduce cost of production.
- 7. Manage performance from the start.** Take particular care when inducting lambs onto a grain ration. After visiting US lamb feedlots, James is replacing self-feeders with troughs for better control of intake.
- 8. Know your margins.** If grain prices are high, it might be worthwhile to sell grain instead of feeding and turn-off lambs as stores.
- 9. Learn from other's success.** The chicken meat industry has enjoyed significant genetic gains, as it focuses on one product. Instead of a dual wool/meat focus, lamb producers should breed for genetic gains for their dominant market.
- 10. Develop productive relationships.** Your agent and processor can play a key role in your business.

## 2014 Nuffield scholarships

Nuffield Australia awards scholarships each year to farmers to increase practical farming knowledge, management skills and techniques which can be shared across the industry.

Applications for the 2014 scholarships are open from 1 April to 30 June 2013. Guidelines and application forms are available from Nuffield Australia.



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**www.nuffield.com.au**  
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James is improving feedlot efficiency in his operation by investing in low-stress sheep-handling equipment and introducing electronic identification devices to identify high-performing lines. His goal is to double throughput to 20,000 lambs/year.



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James' Nuffield report is available at:  
**www.nuffieldinternational.org/rep\_pdf/1352329760Nuffield\_Report\_James\_Male.pdf**

Interested in lamb feedlotting? Visit  
**www.mla.com.au/lamblotfeeding**

# Feeding young minds

Imagine standing in front of a class of urban students who have no experience of agriculture. They think milk is made at a factory, have not made the connection between cattle and beef, and picture a 'farmer' as a man in overalls. You have 30 minutes to change their understanding of how food is produced and the realities of life on the land. What would you say?

**T**hree young women from Queensland and NSW have taken up this challenge in their role as MLA-supported Young Farming Champions.

Bronwyn Roberts, Kylie Stretton and Steph Fowler are part of the 'Art4Agriculture' network of 24 young people who are telling the community

about the role Australian producers play in feeding the world.

Art4Agriculture National Program Director Lynne Strong said that since the program started in 2007 it had helped position agriculture as an innovative career of choice.

"Art4Agriculture delivers events and activities that focus on youth, career opportunities, the environment,

community and the arts - all linked with agriculture," Lynne said.

"One of our first initiatives was the Archibull Prize competition, now in its fourth year. We give primary and secondary students a blank, life-sized fibreglass cow on which to create an artwork on the theme 'What does it take to feed and clothe your community for a day, sustainably?'

## Let's meet two champions:



(Left) Young Farming Champion Kylie Stretton with her husband Shane and children Ella-Beth (8) and Clancy (6). Image: Vicki Miller

**Kylie Stretton, 31, Charters Towers, Qld, a producer who also runs a livestock agency with husband Shane**

**How do we communicate with young people about agriculture?**

The primary students I visited loved photos of my own children and nieces and

nephews - seeing kids their own age doing farm work amazed them. It's important that we set a good example, be fun, interesting and inspiring.

**What were some of the questions asked by students?**

The one that excited me the most was when a boy about 11 years old made the

connection between station and herd sizes and the type of land they were on - the further west and north we get, the less fertile our soil is, so the cattle need lots more land than cattle in southern areas.

**What do you love about the cattle industry?**

I love that the northern beef industry is operated mostly on rangelands that are left very close to their natural state. We are innovative and world leaders in what we do. It's something to be proud of.

**What are your plans?**

I want to keep on advocating for agriculture - I have only just started and have a lot to learn but I'd love to be able to help others learn to advocate for their industries.



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Simone Neville teaches agriculture at Tuggerah Lakes Secondary College's Berkeley Vale campus on NSW's Central Coast. The school took part in the Archibull Competition for the first time in 2012, with 30 agriculture and art students showcasing their creative talents, writing a blog, creating a video and hearing from Young Farming Champion, Bronwyn Roberts.

"Our kids want to experience agriculture, so we go on as many excursions to training days, field days and shows that I can organise so that they have an idea of what the real 'farming world' is like," Simone said. "Their interest in farming has changed quite markedly since we started the Archibull Prize competition - some have become way more focused on following their dreams

and want to work on big cattle properties up north, thanks to 'Farmer Bron's' great presentation." (See Bronwyn's profile below).

Other Young Farming Champions visited schools with no agricultural program to share their experiences with students.

The current crop of Champions represent the beef, cotton, wool and dairy industries, and are supported by MLA, Cotton Australia, Australian Wool Innovation and Pauls.



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## Good grades

The Young Farming Champions are at the top of their class, according to student feedback.

**After participating in the Archibull prize:**

- The gender stereotype was abolished, with nine out of 10 secondary students saying farming was also a good career choice for women.
- 80% of secondary students said the program inspired new ideas about sustainability and farming.
- 87% of primary and 80% of secondary students now have an interest in an agricultural career.

## Bronwyn Roberts, 29, Emerald, Qld, Grazing Land Management Officer and producer

**What have you learnt about the cattle industry since becoming involved in the program?**

I learnt what everyday people are doing to help promote our beef industry - from small business owners launching national community engagement platforms, to young academics studying meat science for a PhD that aims to improve meat's eating quality, to female producers promoting agriculture as a career choice for young women.

**How do we communicate with young people about agriculture?**

Media and social media have a strong impact - people want personal stories, relationships and experiences that reflect their own values, even if it is a virtual experience.

**What were some of the questions asked by students?**

The students were genuinely interested in everything, from whether I develop emotional attachment to my animals to how can they get involved in agriculture.

**What are your future plans?**

I have aspirations of becoming a person of influence within the beef industry, particularly in the agri-political field. I see being a Young Farming Champion as a step in this direction.



**What do you love about the cattle industry?**

I love knowing that I am making a difference in the world by producing food. I am also proud to be part of an industry that manages more than 60% of Australia's landscape. We are the custodians of the land and are managing the environment for future generations. I think that's pretty special.

(Above) Young Farming Champion Bronwyn with Tuggerah Lakes Secondary College students and their Archibull entry.



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## Research at work

Every month, check this section of *Feedback* to find MLA's latest information and resources for making a difference in the paddock.

**In this issue****16// Supplying the EU**

Processors and producers are working together to meet the requirements of a premium beef market

**20// Parasite control**

How to manage ewes and weaners for improved animal health

**26// Making measurements**

The role a research feedlot facility is playing to help producers manage climate challenges

**28// Taking the bait**

A range of new feral animal management tools are now commercially available

**Snapshot**

Carly Buttrose,  
Kangaroo Island,  
SA.



**Property:**  
2,000ha

**Enterprise:**  
Prime lambs, beef

**Livestock:**  
6,500 Border  
Leicester-cross  
ewes, 250 Angus-  
cross breeders

**Pasture:**  
Annual rye grass  
and soft clover  
pastures; 80ha of  
irrigated chicory,  
annual grazing  
cereals and brassica

**Soil:**  
Sandy loam over  
laterite gravel

**Rainfall:**  
875mm in winter

# Carly's learning curve →

## Adaptation

→

*Putting theory into practice has led one young Kangaroo Island producer to utilise management tools learned in the Making More From Sheep (MMFS) program.*

**C**arly Buttrose marvels at how her life has changed over the past three years.

Managing her family's 2,000 hectare prime lamb and beef enterprise on Kangaroo Island is a world away from the 29-year-old's career as a research agronomist delivering R&D programs on SA's Yorke Peninsula.

"I always wanted to come home to the farm, so when the opportunity came up to take over the business I jumped at it - but transitioning from broadacre cropping to livestock production was a steep learning curve," Carly said.

"I used to advise other people, so I had to develop the confidence to be the one making critical management decisions."

Carly has met the new challenge head-on by embracing principles from her agronomy background.

*"I run the farm as a business, not just a lifestyle. I make every decision - whether it be when to fertilise, what pastures to sow or what stock to sell - based on the return to the business."*

"I set goals for the next five and 10 years and am now identifying specific production and financial benchmarks. My research background has also been important as I have knowledge of agricultural technology and where it can fit into the business."

One of Carly's strategies was joining a MMFS course on Kangaroo Island.

"The course couldn't have come at a better time. I had just come back to the farm so the information and tools, combined with the

local knowledge of the facilitators and participants, were invaluable," she said.

During the course, Carly set her sights on efficiency gains in her livestock, which include 6,500 Border Leicester-cross ewes crossed with white and black Suffolk terminal sires, plus 250 Angus-cross cattle for feedlot and backgrounding markets.

Kangaroo Island experiences long, wet winters and short growing seasons, so Carly identified the need to target nutrition to optimise ewe productivity in a narrow window.

"If we lamb too early, the ewes can lose condition but if we leave it too late there isn't enough time to finish the lambs," Carly said.

"We also have to get ewe nutrition right so lambs are born at the right weight and maintain condition. MMFS gave me confidence to assess the energy needs of our stock and estimate feed availability to optimise pasture utilisation."

Carly now prioritises pastures so lambs get the best feed. Depending on the season, she aims to sell most lambs off annual ryegrass and soft clover pastures by December. The remaining lambs are finished on 80ha of irrigated forage crops to reach turn-off targets of 42-45kg liveweight.

Carly also came away from MMFS with the ability to condition score her flock.

"Efficiency gains don't come from a blanket approach, and I now have a hands-on, accurate way to determine what condition our sheep are in and manage them appropriately," she said.

"I condition scored all our ewes in January and segregated for targeted feeding.

**Kangaroo Island is home to**

**650,000**

sheep

**20,000**

cattle

**4,600**

people

**150**

producers

**140,000**

visitors annually

Our ewes have a lot of multiple births and need to be a minimum score of three through lambing. If a ewe has a condition score of 4, I know there is 8kg leeway, but a ewe in a condition score 2 is costing us."

Carly is also targeting production costs through more strategic supplementation, and has tackled the property's worm burden through regular monitoring, strategic drenching and paddock prioritisation so lambs can maintain condition in worm-free pastures.

Looking ahead, she plans to invest in genetics to achieve extra performance gains in the business.



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To access MMFS manual visit  
[www.mla.com.au/mmfs](http://www.mla.com.au/mmfs)

For feed supply and demand  
download the feed demand calculator  
[www.mla.com.au/feeddemand](http://www.mla.com.au/feeddemand)

## Stop press:

Carly has been awarded a 2013 Nuffield Scholarship, supported by Rabobank. She will study world's best practice in optimising the reproductive potential of sheep, with her research focusing on improving lambing percentages and increasing lamb survival rates. Carly's fact-finding trip will include visits to major lamb producers in New Zealand, the UK and Argentina. Follow Carly's blog on the Nuffield website (<http://nuffield.com.au/scholars-blog-sites>), from June 2013.

# The business of decision making

**When third generation Kangaroo Island producer Simon Wheaton joined a Making More From Sheep (MMFS) group last year he was driven by a desire to back up his business decision-making with more than just 'gut feel'.**

Simon returned to the farm in 2008 after a decade on the shearing circuit. His father, Barry, still plays a key role, but the business is in transition to Simon and his wife, Eloise, and long-term viability remains the focus.

"Traditionally, most of our farm activities have been based on instinct, but I really wanted to put some hard evidence behind the decisions we make," Simon said.

"For example, we have always calculated our stocking rate as 5.5 sheep/ha, but when I analysed our paddocks as part of the course, it turns out some of our land can carry that many and some can carry double the number.

"The course not only gave me a better understanding of our pasture composition and seasonal changes, but also provided some actual data to support a more efficient and highly productive stocking rate."

The Wheatons run 8,500 Merinos and 1,000 Merino-White Suffolk prime lambs on 1,450 hectares in the Haines area.

The cross-bred lambs are turned off at five months (October or November) to target carcase weights of 18-22kg.

The family also crop 120 hectares with barley and oats. They use their own grain and pasture hay to fill nutrition gaps. A 400-head, on-farm feedlot ensures consistent turn-off if spring feed runs out early.

Freight to Kangaroo Island adds \$50/tonne to any on-farm inputs, so Simon has turned his focus to increasing efficiency in the business by changing his grazing program to manage feed and boost productivity.

"We used to have a set stocking rate but we are now moving sheep on a 3-4 week rotational system to rest and rejuvenate paddocks. The paddocks are looking better and it is reducing less-palatable grasses."



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## Snapshot

Simon and Eloise Wheaton,  
Kangaroo Island,  
SA.



**Property:**  
1,450ha

**Enterprise:**  
Merino wool and  
cross-bred lambs

**Livestock:**  
8,500 Merinos,  
1,000 Merino-  
White Suffolk  
lambs

**Pasture:**  
Legume/clover  
base and annual  
grasses

**Soil:**  
Clay loam

**Rainfall:**  
500mm, winter  
predominant

# My island farm

**Kangaroo Island may be best known for its wildlife and pristine coastlines but the 4,405 square kilometres of South Australia also boasts a fair few sheep.**

**S**A rural consultant Tim Prance, who advises many of the island's 150 producers, has watched the generational transition on Kangaroo Island.

"These younger producers are looking for tools and information to secure the future productivity of their family farms," he said.

In response, Tim and Kangaroo Island veterinarian Greg Johnsson delivered a 12-month *Making More From Sheep* (MMFS) course on the island - a best practice package of information and tools developed by MLA and Australian Wool Innovation.

During eight on-farm sessions, 17 Kangaroo Island producers (mostly under 40 years of age) targeted the long-term profitability and sustainability of their sheep and wool businesses, which ranged from 2,000 to 10,000 ewes.

Although Kangaroo Island has a reliable, mild climate and is free from dingoes, foxes and rabbits, it is not without farming challenges.

"Every farm input and all stock and wool must be ferried across 13km of ocean separating Kangaroo Island and Cape Jarvis," Tim said.

"Producers also have to deal with very acidic soils, winter waterlogging, dry summers and a short growing season. Farm expansion is difficult as much of the high-rainfall western end of the island has been planted to blue gums."

The MMFS course equipped producers to respond to these challenges by maintaining groundcover during summer, grazing to keep desirable perennial species productive, implementing solutions for problem soils and monitoring livestock condition.



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[www.makingmorefromsheep.com.au](http://www.makingmorefromsheep.com.au)



## Snapshot

Glenn and Natalie Williams, Jericho, Qld.



**Property:**  
7,400ha

**Enterprise:**  
Cattle

**Livestock:**  
Up to 3,000 head including 860 breeding cows

**Pasture:**  
Native, stylo and buffel grass

**Soil:**  
Texas sand and black soil

**Rainfall:**  
625mm

*Glenn and Natalie Williams. Photo courtesy www.beefcentral.com*

# Phosphorus driven production

**When Glenn and Natalie Williams took over 'Granville' in 1995 the only way was up.**

**T**here were two paddocks, no house, three silted-up dams and one bore. The herd mortality rate was 9%, with a 52% conception rate and an average weaning weight of 150kg.

The classic signs of phosphorus deficiency were also evident - peg leg, bone chewing and cattle dying from botulism.

Three areas were identified as crucial to improving production - infrastructure, phosphorus levels and pasture improvement.

Today, the property has cattle yards, two sub-artesian bores, 74 water troughs, 137km of high-pressure piping, 34 x 34,000 litre water tanks and a house with power. Four dams are fenced off so the cattle drink only piped bore water - making it ideal for supplementation.

Initially, the Williams used dry lick with urea in the dry season and phosphorus in the wet, putting out the phosphorus to the breeders 6-8 weeks before the start of calving and continuing through the wet season. It soon became apparent that, even with a goal of dry lick costing 22¢/kg of beef

produced, supplementation with lick was the highest variable cost after fuel.

The Williams also had problems getting the dry lick out during the wet and in shifting troughs when rotating cattle between paddocks. It took four hours to move the cattle and the rest of the day to move the lick troughs. They also suspected that only 60-70% of the cattle were eating the licks.

All cattle are now supplemented through a water nutrient dispenser at the troughs. Glenn adjusts the intake level according to diet quality, which is monitored through faecal near infra-red reflectance spectrometry (NIRS).

All breeders are provided with lick all year round - a step that has allowed a move from continuous to controlled mating, with re-conception rates in first-calf breeders of 60-70% and a lift in overall conception of 15%. Mortality has dropped to 1%.

Any cattle coming on to the property on agistment from the north are fed up to 140 grams phosphate (or 29 grams of phosphorus) per day for three to four weeks (which is much higher than the normal requirement of 50 grams phosphate (or 10

grams of phosphorus) per head/day. This is to compensate for any P deficiency at their previous location.

The Williams like to ensure there is always three months' feed in front of the cattle. At the end of the growing season, they do a pasture budget aiming for 2,400kg dry matter/ha at the end of the dry season.

A combination of pasture improvement and land rehabilitation from poor and degraded to A condition has lifted stocking rates by 30%. The return per adult equivalent has doubled to \$200 and young stock are now gaining 200kg in the year following weaning. Previously, they were only gaining 130kg/year.



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Read more case studies in the *Phosphorus management of beef cattle in northern Australia* manual available at [www.mla.com.au/phosphorus-management](http://www.mla.com.au/phosphorus-management)

## Meeting market specifications



# Euro challenge

Opportunities for Australian beef in the EU grainfed market are there, but the big challenge lies in lifting the volume of accredited supply.

**I**mproved access to the EU's grainfed beef market, via the new 48,200t multi-nation quota, is an opportunity that's come knocking, according to Allied Beef's Managing Director, James Maclean.

"Nationwide, we have about 2,000 EU-accredited producers and our supply links for this market are very fragmented," he said.

"We need to increase our EU herd and find additional pathways to meet their specifications. We share this quota with nations such as the US and Canada but, at the end of the day, we have just as much opportunity to supply as they do."

Queensland-based Allied Beef supplies 1,000 head of EU-accredited cattle each week. It also acts as an EU trade facilitator, vertically linking Australia's EU production chain from producer through to exporter.

*"Presently, there is increased demand from backgrounders wanting EU-accredited cattle at 250-350kg to grow out to 400-500kg before being placed on feed for 115-120 days," he said.*

However, James said EU market specifications varied widely depending on customers' needs.

"It's very difficult to say that the EU market wants 'x' as each Australian processor and lot feeder develops their own individual relationships with their customers," he said. "For example, some want Wagyu whereas others are more focused on Angus."

The EU is Australia's most valuable export market on a dollar/kilogram basis. James said high-quality, grainfed beef could attract 20-40¢/kg (carcase weight) more than the equivalent non-EU article.

"There is a distinct premium for EU producers to sell into the market as opposed to non-EU feeder or slaughter markets; they're probably 15-20¢/kg live weight better off," he said. "However, if selling weaners, that premium has been more difficult to realise if sellers are not linked up with EU-accredited buyers."

**Table 1** General EU cattle selling specifications

	Stocker cattle	Feeder cattle	High quality beef grainfed
<b>Breed</b>	Brahman Cross bred British Angus	Brahman Cross bred British Angus	Brahman Cross bred British Angus
<b>Weight</b>	250-320kg	400-500kg	300-400kg HDW
<b>Feeding</b>	Grass	Crop/grass	About 115 days on feed
<b>Buyer</b>	Backgrounders	Lot feeders	Beef processors
<b>NB</b>	Specifications may vary according to customers' individual requirements		



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**Snapshot**

Tom Skipper,  
Guyra, NSW.



**Property:**  
2,200ha

**Enterprise:**  
EU beef  
production

**Livestock:**  
Angus and  
Hereford, 1,000  
breeders

**Pasture:**  
Quantum MaxP®  
(fescue), rye grass  
with red and white  
clovers. The older  
pastures are  
phalaris, rye,  
Demeter fescue  
and clover.

**Soil:**  
Red and black  
basalt

**Rainfall:**  
850mm

# Making the most of market opportunities

*Maintaining EU accreditation is all in a day's work for Guyra beef producer Tom Skipper, who regularly sells into this premium market.*

**F**or beef producers who adhere to good management principles, EU accreditation is 'money for jam'.

That's the advice of commercial Hereford breeder, Tom Skipper of Guyra, NSW, who enjoys premiums of up to 30¢/kg dressed for grassfed, 20-22 month-old steers.

"We've been EU-accredited since 2000 and I do hear criticisms from people that the process is difficult and costly and that premiums aren't always realised, however, that hasn't been our experience," he said.

"We're audited about once every five years and that's just to make sure the N LIS devices we have tally with the database – nothing more than what you would do in any well-managed operation. There's also no cost to remain EU-accredited."

Tom's family has owned 'Ollera Station' since 1838, and more recently 'Cabarfeidh', and has been committed to breeding Herefords since 1842. It's only in the past two years that the family has branched out to buy Angus bulls to capture the benefits of hybrid vigour and the premium Angus price.

Today, the Skippers run more than 1,000 breeders. When and what they sell varies with the seasons and market opportunities.

"Most of our stock is sold through the EU system, however, we will go through the saleyards or direct if it's more profitable," Tom said.

"Our EU weaners are attracting a \$35 to \$50/head premium, feeders steers can make 10¢/kg to 15¢/kg (live weight) more and steers we grow out to slaughter weights, about 600kg live or 320kg dressed, milk to two-teeth, are making 20¢/kg to 30¢/kg dressed more."

The Skippers keep about 60% of their heifer drop with the remainder fattened to 400kg and sold to the feeder market.

The family also has 300 Charbray breeders, bought to bolster stock numbers after the drought, joined to Angus and Hereford bulls.

"Being EU accredited isn't rocket science and we don't find there are any challenges maintaining our status," Tom said. "It's just about doing a good job and it gives us another option without costing us anything extra."

Producing cattle for the EU market will be discussed at the Pacific Beef Expo on 20-22 June at Casino. Register at [www.mla.com.au/pacificbeefworkshops](http://www.mla.com.au/pacificbeefworkshops) or 1800 675 717 (option 4).



To participate in EU cattle accreditation and N LIS training workshops in Victoria contact **Sam Ellis, DPI**  
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[www.dpi.vic.gov.au/betterbeef](http://www.dpi.vic.gov.au/betterbeef)

For more assistance contact the **EUCAS Helpline** T: 1800 305 544 or E: [EUCAS@daff.gov.au](mailto:EUCAS@daff.gov.au)



European Union Cattle Accreditation Scheme rules and application forms for farms to become accredited [www.daff.gov.au/aqis/export/meat/elmer-3/eucas/rules](http://www.daff.gov.au/aqis/export/meat/elmer-3/eucas/rules)

To find the closest accredited saleyards to you: [www.daff.gov.au/aqis/export/meat/elmer-3/eucas/saleyards](http://www.daff.gov.au/aqis/export/meat/elmer-3/eucas/saleyards)

## Improving pasture productivity

# Seed-to-soil contact critical to establish legumes

A central Queensland project has revealed how producers can boost legumes in pastures dominated by buffel grass.

**M**aximising the contact between soil and seed is the key to establishing legumes to combat rundown of sown pasture and minimise time and money wasted on costly legume seed that doesn't survive.

Fitzroy Basin Association Grazing Land Management Officer Joe O'Reagain said the MLA-funded Bundaleer Producer Demonstration Site (PDS) had shown treatments that increased soil disturbance or placed the seed directly in contact with the soil doubled plant establishment compared with broadcasting.

"The more careful we are at ensuring good seed-soil contact, the better the initial establishment," Joe said.

"There are greater costs associated with getting better soil-seed contact, such as machinery and fuel expenses, however it appears to pay off."

The exact costs of the different treatments will be established in the next 12 months of research.

The PDS, on Matthew and Maryellen Peart's Arcadia Valley property 'Bundaleer', investigated different approaches to establishing legumes in buffel grass-dominated brigalow soils.

The site consisted of two adjoining buffel grass paddocks on heavy brigalow clay soils. Three legume species (butterfly pea, burgundy bean and siratro) were planted together across the two paddocks via broadcast, direct drill seeder and crocodile seeder. The control had no legumes sown.

A crocodile seeder is an implement with a large cylindrical drum to which shovel-like tools are attached. Seed placed in the drum escapes through holes at each shovel as the implement is towed along behind a 4WD or tractor.

Both paddocks were heavily grazed prior to planting, however only one was subjected to a herd of 200 head/ha for 12 hours immediately after sowing, to see if hoof impacts would boost soil-seed contact.

### Making it count

Initial establishment counts (Table 1) showed that direct drilling doubled the initial establishment rate compared with simply broadcasting the seed, but high-density grazing immediately after sowing had no impact on legume establishment.

However, with the crocodile-seeder treatment, high-density grazing did improve initial seedling counts, doubling legume establishment from 62,500 to 118,000 plants/ha.

There is good producer interest in the trial because much of Central Queensland's sown pastures are affected by pasture rundown, and many producers are keen to get more legumes into their pastures.

"Grazing productivity and profitability are reducing from declining pasture production, carrying capacity and live weight gains," Joe said.

"Traditional pasture renovation methods, such as blade ploughing, are expensive and economically unsustainable, and their pasture renovation effect is short-lived. By establishing legumes, producers have an opportunity to improve diet quality and provide some nitrogen to their soils on an ongoing basis."

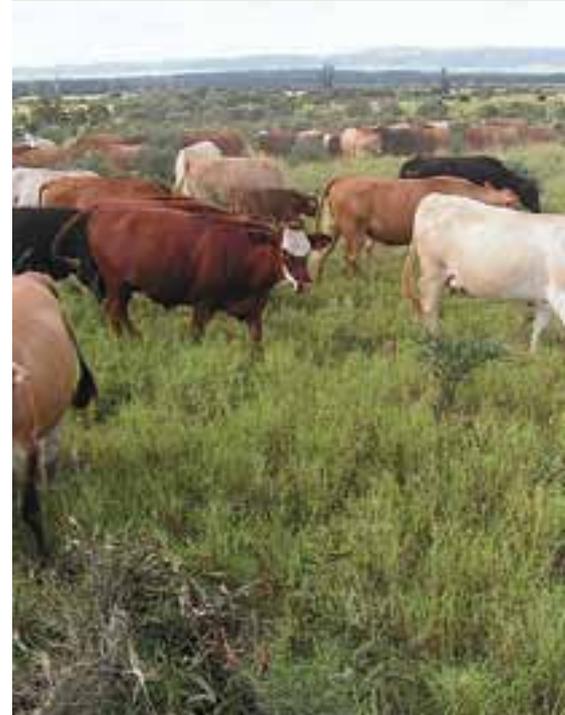
### Best options

Across all treatments, siratro has been the most abundant legume to date, with burgundy bean appearing in moderate proportions and butterfly pea plant densities being very low.

More recent results (Table 1) showed large declines in plant numbers (which is



Above: The trial is investigating different approaches to establishing legumes in buffel grass dominated brigalow soils.



expected as seedlings compete with each other and other plants) but the impact of soil disturbance is still marked. The benefit of high-density grazing on seedling numbers from the crocodile-seeder option had disappeared by this time.

Even with excellent seasons (1,700mm rainfall for 2010), only 6.5% of the viable



Below: There was no measurable benefit to establishment from high density grazing.



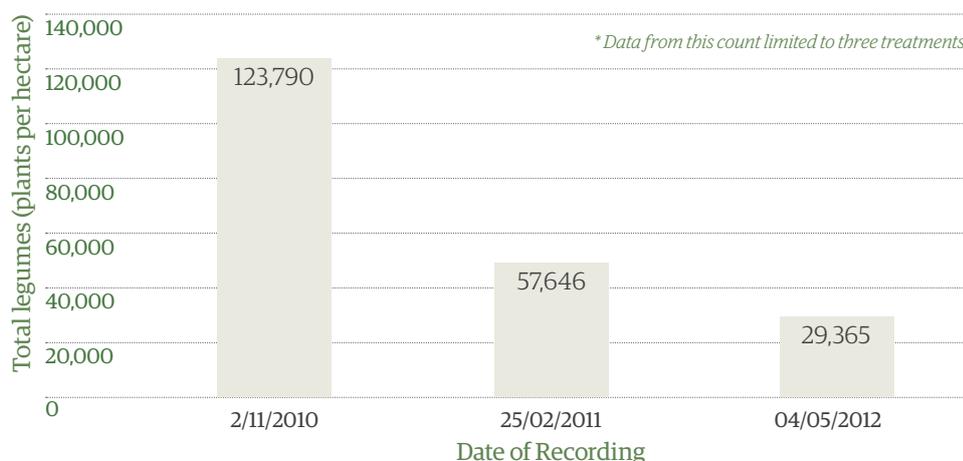
### Joe's top tips for growing legumes:

- Strategic spelling is important for legume survival as stock preferentially graze them.
- If you are going to sow legumes, do your homework:
  - find the most suitable legumes for the soil type and grazing system
  - talk to neighbours and professionals with experience
  - look carefully at seasonal forecasts and know when you can expect season-breaking rain
  - learn about rhizobia, otherwise your legumes may not produce nitrogen properly.
- When planning legumes for your own pastures, remember the PDS operated in a period of excellent seasons, a small amount of sampling was carried out, and there was no replication.

Treatment	Initial establishment counts (legume plants per ha) recorded February 2011			Second round plant counts (legume plants per ha) recorded May 2012		
	Herd Impact		Mean	Herd Impact		Mean
	Without	With		Without	With	
Broadcast	34,386	32,683	33,535	14,359	30,526	22,443
Broadcast near water point	38,095	54,167	46,131	24,800	27,000	25,900
Direct drill seeder	61,410	59,907	60,659	41,600	23,636	32,618
Crocodile seeder	62,517	118,000	90,259	41,000	32,000	31,851
Control	0	0	0	0	0	0
<b>Mean</b>	<b>49,102*</b>	<b>66,189*</b>	<b>57,646*</b>	<b>28,291*</b>	<b>30,440*</b>	<b>29,365*</b>

\*Means exclude control values.

Figure 1 Plant population attrition over the life of the trial (average total legumes/ha).



seed had germinated and survived at last count (Figure 1). But, despite severe attrition, Joe said current plant populations were still acceptable and were better on average where mechanical disturbance had occurred.

Queensland Department of Agriculture, Fisheries and Forestry pasture agronomist, Stuart Buck, said it was important to

consider the benefit of seed-bed preparation to reduce competition from the existing pasture and to store soil moisture when weighing up the costs and returns of different establishment methods.

"While removing grass through cultivation or herbicides increases the preparation costs, it significantly reduces the risks of

failure, particularly during poor-average seasons," Stuart said.



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## Managing parasites

**Fast facts**

Round worms are the major cause of production losses in sheep.

The most important round worms are:

- Summer dominant rainfall areas - barber's pole worm (*Haemonchus contortus*) and black scour worm (*Trichostrongylus* spp.)
- Winter dominant rainfall areas - brown stomach worm (*Teladorsagia circumcincta*) and black scour worm (*Trichostrongylus* spp.)
- Uniform rainfall areas - all three worm species, but their level of importance depends on the timing of rain, eg barber's pole worm outbreaks in wet summers.

# Four-point plan puts parasites on notice



Four simple steps could help put the brake on Australia's sheep gastrointestinal worm problem, which hampers productivity and profitability.

**T**he cost of worm management has risen from \$3.32 to \$3.93 per head over the last decade.

University of New England (UNE) Associate Professor Lewis Kahn and his fellow contributors have created a four-point plan to minimise the cost of worms, particularly in the management of ewes and lambs.

"Late pregnancy and lactation impose a loss of resistance to worms in ewes, which is most pronounced in Merinos and for multiple-bearing ewes regardless of breed," Lewis said.

"The ewe's vulnerability at lambing is responsible for much of the worm infection on many properties throughout the year; this is where the worm cycle often starts."

To follow the four-point plan to manage worm infection in lambing ewes, ensure ewes have:

- A very low worm egg count (by conducting a WormTest) before lambing, and/or receive an effective drench.
- Access to low worm-risk paddocks that have not been contaminated with worm eggs for 2-5 months (shorter for warmer months, longer for colder months) before lambing.
- Increased genetic worm resistance by using worm-resistant sires in the breeding program.
- A body condition score 3 or above for lambing.

**Lamb plan**

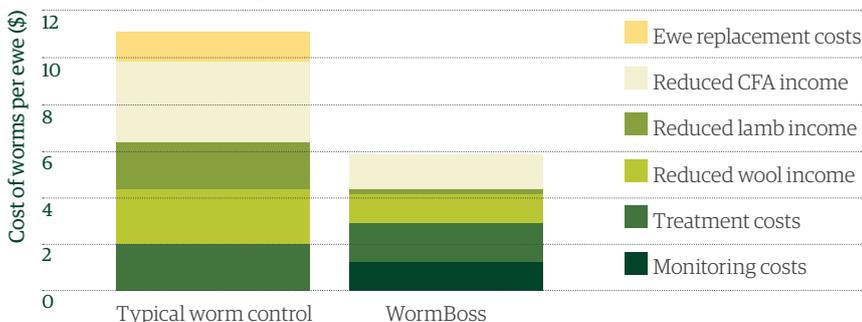
Access to low worm-risk paddocks is a vital part of the management strategy for lambing ewes.

It is often possible to greatly reduce the number of infective larvae on lambing paddocks with early planning. For example, if sheep are removed from proposed lambing paddocks during March-April in the summer rainfall tablelands of NSW, low temperatures during winter will prevent barber's

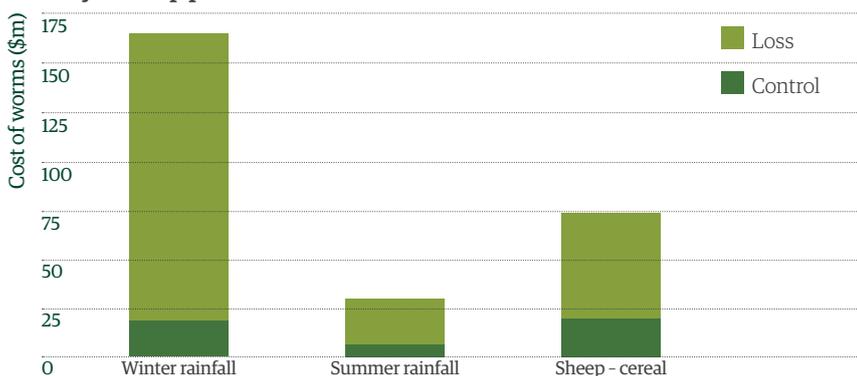
# \$267 million

is the cost of worms to the Australian sheep industry

**Figure 1** This graph shows the annual cost per ewe of treatment and lost production due to worms, for WormBoss versus typical worm control practices, in the summer rainfall dominant NSW Northern Tablelands. Total cost of worms is the treatment and monitoring costs plus the reduced returns from sales of cast-for-age (CFA) stock, wool and lambs.



**Figure 2** Worms cost the Australian sheep industry \$267 million. This graph shows the cost of worm control and production losses due to worms across the major sheep production zones.



Figures 1 and 2 courtesy of Dr Gareth Kelly and Sheep CRC

pole worms developing. This will mean spring-lambing paddocks have a low worm risk.

Producers should also practise 'within-farm quarantining' at weaning by treating ewes and lambs as they leave the lambing paddock with a drench unrelated to that used pre-lambing.

"The other part of the quarantining strategy involves 'diluting' the resistant worms left behind on the lambing paddock by putting in sheep that haven't been recently treated with the ewes' pre-lambing drench," Lewis said.

"After the resistant worms are 'diluted', other practices like grazing cattle or spelling can be used to reduce numbers of worm larvae."

Producers are strongly encouraged to buy worm-resistant sires, such as those with a negative ASBV (Australian Sheep Breeding Value) for worm egg count.

"Greater worm resistance is a great safety net for your sheep and reduces reliance on drenches," Lewis said.



The new WormBoss website contains practical solutions to Australian sheep producers' worm problems.

## WormBoss gets a makeover

Producers can expect the new WormBoss website to be "the next best thing to having an adviser on the phone," according to WormBoss Manager Dr Lewis Kahn.

While the seven-year-old site has been well accepted and valued by industry, Lewis said it was time for an update.

"WormBoss has specifically been an information source about worm control; it wasn't set up to address specific worm problems," he said.

The updated WormBoss has three important new elements:

- Australia-wide, region-specific worm control programs
- Online drench decision guides
- An improved database to help with drench selection

"We didn't want to reinvent the wheel, so we have consulted widely with industry professionals and drawn on new research to update and further develop WormBoss programs," Lewis said.

The drench decision guides will help solve current worm problems by guiding producers through a series of questions, before making specific drench recommendations.

WormBoss was developed by Australian Wool Innovation Ltd (AWI) and Sheep CRC (partly funded by MLA) to help producers reduce the cost of worms by effective sheep management and drenching practices. It was first launched in March 2005.

The new website is [www.wormboss.com.au](http://www.wormboss.com.au)



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Download Module 11 *Healthy and Contented Sheep* from Making More From Sheep at [www.makingmorefromsheep.com.au](http://www.makingmorefromsheep.com.au)

## Managing parasites



# Congi reaps rewards from worm strategy

## Snapshot

Producer: TA Field Estates Pty Ltd  
 Manager: Anthony Uren, Woolbrook, NSW



**Property:**  
9,987ha

**Enterprise:**  
Fine wool Merino sheep, Hereford cross Angus cattle

**Livestock:**  
16,000 Merino ewes (total 32,000 sheep), 1,500 cattle

**Pasture:**  
Native pastures, fertilised with super annually

**Soil:**  
Granite

**Rainfall:**  
800mm

**M**anager Anthony Uren believes barber's pole worm and other internal parasites are the biggest limiting factor to sheep production on Congi Station, in the NSW Northern Tablelands.

"To increase sheep numbers, it is imperative we have effective measures in place to manage internal parasites," Anthony said.

"Through a wet summer, drenching sheep is a large and time-consuming job; it's a bit like painting the Harbour Bridge."

Congi Station is one of TA Field Estates' extensive NSW agricultural holdings. The 9,987ha property, 30km west of Walcha, carries up to 32,000 sheep and joins 16,000 fine wool Merino ewes each year.

Congi also runs a small Merino stud with a nucleus of 500 ewes and calves down 1,500 Hereford-Angus cows, sending steers into the feedlot market at 450 to 500kg.

"Due to the large numbers of sheep, we were trying a blanket drenching approach at strategic times throughout the year," Anthony said.

"Unfortunately, internal parasites are not that prescriptive and over a couple of wet summers, we were found out."

Anthony and his team are now using WormBoss Regional Program principles. They have reduced sheep numbers by 9,400 DSE and increased the number of cows joined by 500 (7,000 DSE), while refining the parasite management system.

### The outcomes

"Our goal is to ensure an optimal animal health program for our sheep, which we are confident will lead to increased animal productivity, higher body weights with better conception rates, higher wool cuts and improved tensile strength and, of course, reduced mortality rates," he said.

"For several years we have been setting up country for our weaners to move onto post-weaning, which is paying dividends."

This is done by spelling the country in spring for up to 90 days, during which time the paddocks are grazed with cattle or left empty. Worm-free paddocks for lambing ewes are created by resting those paddocks from sheep in the autumn.

The Congi team also tests regularly for drench resistance and takes ASBVs (Australian Sheep Breeding Values) for worm egg count into consideration when selecting sires.

While it is too early to quantify the gains from adopting WormBoss principles, to Anthony the anecdotal evidence is clear.

"This year we've observed a sound wool clip across all age groups, the ewes came off the board in condition score 3.5, setting them up for a good lambing, and our lambs came out of winter in the best condition we've seen for a long while."



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## Weed management

## Australia's first bioherbicide one step closer

The commercial registration of Australia's first bioherbicide - Di-Bak - is moving closer, a result of collaboration between MLA, the University of Queensland (UQ) and landholders.

**U**Q Associate Professor in plant pathology Dr Vic Galea said the parkinsonia bioherbicide was the first of its kind in Australia and its registration would pave the way for other biocontrols targeting weeds such as prickly acacia, *Mimosa pigra* and giant rat's tail grass.

Parkinsonia is one of Australia's worst weeds, infesting nearly a million hectares across Queensland, the Northern Territory and northern WA and costing \$60 million a year in chemical control.

From initial research starting in 2004, Vic and his team isolated 200 native soil fungi that caused a dieback phenomenon in parkinsonia. They distilled them down into the three lethal strains that now constitute Di-Bak.

Di-Bak is administered in a gelatine capsule inserted into the parkinsonia tree's trunk, killing the tree within six months to two years, while reducing seeding capacity and plant vigour.

"We are in the process of registering Di-Bak with the Australian Pesticides and Veterinary Medicines Authority, (APVMA)" Vic said.

"It will probably take until mid-2014 to complete the registration process. Because it is Australia's first bioherbicide, it is new to the APVMA as well as to us, but they have been very helpful in guiding us through."

Registration of Di-Bak is being undertaken by BioHerbicides Australia Pty Ltd (BHA),

a company established by UQ's research commercialisation company, UniQuest, and a private partner.

#### Progress through process

The process is being supported by new MLA funding of \$300,000, which has enabled the establishment of trial sites to meet registration requirements.

"Registration is detailed and expensive and we have to complete a series of modules to meet the requirements," Vic said.

"One of the modules requires field efficacy data, and we're collecting that data from four large trials at three locations: 'Bushy Park Station' and 'Stradbroke Station', near Duchess in north-west Queensland, and 'Magowra Station', in the gulf country south of Normanton."

The field efficacy trials are examining the influence of mixed strain use, varying dose rates, varying tree density and other factors on inoculation success.

"At this stage, it looks like we're going to go with a single capsule per tree, containing a blend of the three fungi," Vic said.

"Shelf life is an issue. We're currently looking at a six-month shelf life. We're hoping to extend it a bit longer but, having said that, it is a biological product; if you bought yoghurt you wouldn't expect it to live in your fridge for six months."

Researchers are also trialling a mechanical inoculator, which reduces the inoculation time from 30-60 seconds to seven seconds per tree.

Figure 1 Location and number of landholders participating in on-farm parkinsonia trials.



Researcher Ken Goulter takes a sample from an inoculated parkinsonia tree.

#### Fast facts

- Registration of Australia's first bioherbicide, Di-Bak, is expected by mid-2014
- 109 Queensland producers contributed, by helping with research, to the bioherbicide's development by setting up 72 on-property trials from 2010 to 2012 (See Figure 1)



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# Tackling GRT in three steps

24  
On-farm

Good grazing management has a critical role to play in battling the increasing threat of giant rat's tail grass (GRT) and the other members of the weedy *Sporobolus* grass family.

That's the message from Queensland Department of Agriculture, Fisheries and Forestry (QDAFF) senior scientist Steven Bray, who co-authored the department's *Weedy Sporobolus Grasses Best Practice Manual*.

"Weedy Sporobolus grasses are a problem because they are very tough, so the cattle avoid them and eat out the good grasses," Steven said.

"This encourages the weedy Sporobolus grasses until, eventually, they're all that's left in the paddock.

"Rat's tail grass produces a lot of seed which can remain viable in the soil for up to 10 years."

Steven advises producers to adopt a three-step planning process when tackling a GRT infestation.

## Identify

**1:** Create a property map, highlighting areas of GRT infestation. Identify which paddocks have a lot of GRT, which paddocks have a few scattered plants, which areas are key seed sources leading to infestation and spread along creek lines, and identify which paddocks are clean.

## Prevent

**2:** Prevent the seed spreading to clean country. Keeping paddocks clean is a much better economic proposition than controlling GRT after the paddocks are infested. Clean paddocks can be kept GRT-free by managing stock movement by remembering that if cattle have been in a paddock with GRT the seed sticks to cattle's coats when it's wet and stock also pass seed in manure. Spray out GRT near fences, creating a buffer strip around infested paddocks. Implementing vehicle movement guidelines and having a wash-down site are other control measures.

## Control

**3:** Identify the most cost effective long term strategy for control. If there is a heavy infestation with few desirable pasture plants, consider spraying the paddock with glyphosate, planting a forage crop for a couple of years and then replanting the pasture. If there are scattered GRT plants with desirable pasture plants in between, consider an aerial application of the selective herbicide flupropanate. Sharing the cost with a neighbour who has a similar infestation makes this option more affordable.

## Weed management



# 30,000

viable GRT seeds spread/beast/day

# Fungi fight against giant rat's tail grass

The potential is being explored for two native soil fungi to combat one of the worst weed species in northern Australia: giant rat's tail grass (GRT).

**U**nintentionally introduced in the early 1900s, five exotic weedy *Sporobolus* grasses, including GRT, have invaded an estimated 450,000ha of grazing land in coastal and sub-coastal eastern Australia, reducing carrying capacity by up to 80% and costing the industry about \$60 million annually.

In the latest attack on the unwanted invader, an MLA-supported project is building on the success of recent research in northern NSW, which identified two endemic fungi as potential biological control agents for giant Parramatta grass (GPG), a close relative of GRT.

In field tests around Grafton, the frequency of GPG declined at three properties from 88-96% in 2006 to 22-45% in 2009. This decline also reduced the seed production and spread of the weed.

Professor Ann Lawrie from the Royal Melbourne Institute of Technology (RMIT) is leading the new project and said the fungus has proven effective as a biocontrol against GPG in northern NSW and researchers also saw symptoms of dieback in GRT at the sites.

Ann is conducting seedling trials in the laboratory to test the effectiveness of the fungi against GRT, with the next step to be tests on mature plants sent from Queensland.

*Left: FutureBeef Extension Officer Lauren Williams with GRT tussocks near Mackay.*

"We should know how effective the fungi will be against GRT in the first half of 2013," she said.

## Tackling the problem

Mackay-based Queensland Department of Agriculture, Fisheries and Forestry (QDAFF) Industry Development Officer Jim Fletcher said GRT was a difficult weed to manage.

"GRT is one of the worst pasture weeds because it is largely unpalatable; cattle struggle to break it down," Jim said.

"It is highly invasive because it has a very high seed production, producing up to 85,000 seeds per square metre in a year. Compare that with Rhodes grass, which produces about 200 seeds per square metre.

"And when the plant shoots it starts producing seeds from a very young age."

Biosecurity Queensland's senior weed specialist Dr Wayne Vogler said current control methods include the use of herbicides, careful grazing management, vehicle and animal hygiene and direct pasture replacement.

"If an effective biological control agent was found it could have significant environmental and financial benefits to producers and the wider community as it would potentially provide long-term control of GRT."



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For further information on how to manage GRT:

[www.daff.qld.gov.au/documents/Biosecurity\\_GeneralPlantHealthPestsDiseaseAndWeeds/Weedy-Sporobolus-manual.pdf](http://www.daff.qld.gov.au/documents/Biosecurity_GeneralPlantHealthPestsDiseaseAndWeeds/Weedy-Sporobolus-manual.pdf)

[www.daff.qld.gov.au/documents/Biosecurity\\_EnvironmentalPests/IPA-Giant-Rats-Tail-Grass-PP48.pdf](http://www.daff.qld.gov.au/documents/Biosecurity_EnvironmentalPests/IPA-Giant-Rats-Tail-Grass-PP48.pdf)

[www.futurebeef.com.au/topics/pastures-and-forage-crops/weeds/](http://www.futurebeef.com.au/topics/pastures-and-forage-crops/weeds/)

<http://savanna.cdu.edu.au/downloads/burd12.pdf>



# Feedlot findings driving cattle gains



*Levy investment in Australia's only cattle feedlot research facility will underpin findings that will return dividends to cattle producers across Australia.*

**T**ullimba Feedlot, a 1,000-head feedlot near Armidale NSW, bought by the University of New England in 1995, has made significant contributions to ensure the Australian cattle industry remains internationally competitive. It continues to pioneer scientific advances, particularly measuring feed efficiency and methane emissions in cattle.

Research by the first Beef CRC at Tullimba between 1991 and 1998 that compared grassfed and grainfed production systems helped shape future breeding programs and on-farm management practices, and provided the first environmental guidelines for the Australian feedlot industry.

Access to quality export markets in Japan and Korea became possible due to findings

at Tullimba that helped guarantee meat-eating quality – the science that underpins MSA.

#### Wide ranging research

Former Beef CRC Chief Executive Officer and now CSIRO Senior Principal Research Scientist, Dr Heather Burrow, said feedlot-based research has an impact on every part of the supply chain.

“Work at Tullimba contributed to new BREEDPLAN traits and genomic prediction equations aimed at guaranteeing feed-efficiency, meat-eating quality and upgraded animal welfare guidelines. It developed the feedlot-entry pre-boosting strategy that improves animal performance and now has almost 100% compliance by feedlot suppliers,” she said.

Tullimba also played a role in developing the two Bovine Respiratory Disease vaccines administered as part of the pre-boosting strategy.

Heather said contract research was another important facet. Pharmaceutical companies use the facility to trial products such as alternative hormone growth promotants (HGP) and nutritional treatments. It also plays an educational role, providing training in undergraduate and postgraduate feedlot management.

#### Investing in the future

The University of New England (UNE) Rural Properties Manager Dr Ken Geenty, along with the feedlot's Manager Colin Crampton, is looking forward to a new era at Tullimba, ushered in by a recent \$500,000 upgrade of the facility, part-funded by MLA.



"This is a flagship property; we want it to be a centre of excellence for cattle feedlot research," Ken says.

A significant part of the upgrade was a \$300,000 investment in the Canadian GrowSafe feeder and weigher systems, which measures an individual's feed intake, monitors their feeding habits and weighs them at watering points. It supplies a continuous data feed on the animal's performance and has an alert system to pick up irregularities, such as loss of appetite or illness.

"We have 32 units being utilised by the Beef Information Nucleus projects to measure feed intake and therefore feed efficiency of their sires," Ken said. "The Angus, Charolais, Limousin and Hereford societies intend to use the site and we may have some Wagyu's in, later in 2013."

*Above: Angus Australia Chief Executive Officer Dr Peter Parnell with Tullimba Feedlot Manager Colin Crampton and UNE's Rural Properties Manager Dr Ken Geenty.*

Tullimba has a strategic alliance with Rangers Valley Feedlot near Glen Innes, NSW, which provides feed formulation advice and supplies and is supported by the Australian Lot Feeders Association.



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[www.une.edu.au/ers/rural-properties/tullimba.php](http://www.une.edu.au/ers/rural-properties/tullimba.php)

## Investing in green genes

Fertility   
Growth   
Emissions ???

### Producers could soon be adding low methane emissions to their genetic shopping list.

A profit index that includes methane emission costs, sires who produce low methane-emitting progeny, and carbon credits for your cow herd might sound 'pie in the sky', but think again.

Dr Robert Herd's research, utilising the Trangie Agricultural Research Centre's Angus herd, is well on the way to this breakthrough.

As project leader for Genetic Improvement of Beef Cattle for Greenhouse Gas Outcomes, Robert has been working with a team of researchers to establish just what is needed to breed a low-emissions animal.

First was to demonstrate at Tullimba Feedlot the direct correlation between lower feed intake animals and lower methane emissions. This confirmed that producers could use breeding for improved feed efficiency as a strategy to reduce gas emissions.

Second, the project found that there could be up to a three-fold variation in methane emissions between individual Angus sires' progeny.

"Once we established this, the challenge was to show we could breed for lower methane emissions without compromising growth," Robert said.

**"We have established two unique low methane-emitting lines in the research herd and so far we have not seen any compromise in their normal performance."**

There is no reason to assume this variation in methane emissions is not present in other breeds, he added.

This year researchers plan to measure methane emissions of individual cattle from a number of beef breeds with new equipment installed in the Tullimba Feedlot pens.

"By working with the Beef Information Nucleus projects, we hope to gather enough data to show that genetic variation is present for other beef breeds," Robert said.

"From there, we plan to examine whether we can combine feed efficiency and methane production information with DNA prediction equations to produce methane estimated breeding values for Australian cattle and perhaps even profit indices to individual sires that include this environment impact."

The project is funded by the Department of Agriculture, Fisheries and Forestry National Livestock Methane Program and administered by MLA.



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## Predator control

# Farewell to the ferals

**Good seasons don't just mean better pasture growth and improved crop yields - they also mean higher feral pig numbers. Researchers suggest populations can triple each year if not controlled.**



**I**ncreasing feral pig populations threaten Australia's agricultural viability, biosecurity and environment, but a number of control measures have been developed with support from MLA.

Invasive Animals CRC Field Research Officer, Jason Wishart, has spent the past five years working on projects advancing feral pig control. He says recent good seasons have seen feral pig populations escalate, with anecdotal evidence that some sheep producers are losing up to half their lambs to pigs.

"Feral pigs are highly destructive and it's not just sheep producers who are impacted," he said.

"Grain growers, fruit and sugar cane growers and other livestock

producers are all affected through product loss or damage, pasture competition and destruction and damage to infrastructure."

Feral pigs threaten natural habitat and are also carriers of serious diseases such as leptospirosis, brucellosis, sparganosis, tuberculosis and others that are dangerous to humans as well as livestock.

According to the Department of Primary Industries Victoria, research has suggested that during a relatively good season feral pig numbers can increase three-fold each year. This is why the development of more effective, target-specific controls has been so important.

MLA, the Invasive Animals CRC, Animal Control Technologies Australia (ACTA) and the

Bureau of Rural Sciences are collaboratively trialling some world-first technologies to get on top of the problem.

Here are some of the tools available now or under development:

### **HogHopper™**

Launched in 2010, HogHopper™ is a light-weight, aluminium, box-shaped trap, with lift doors on either side that harnesses the pigs' natural feeding behaviour to gain access to the bait.

"Producers and public land managers have really embraced this device - ACTA sold more than 300 units in the first 12 months," Jason said. "Baits are kept drier and fresher for longer, which increases uptake and effectiveness of baiting.

HogHopper™ also reduces labour input and costs as the device only needs to be checked periodically."

### **PIGOUT®**

Available since 2008, PIGOUT® is a 1080-based bait matrix. It is particularly targeted at omnivores and has intentionally been made less attractive to carnivores and herbivores.

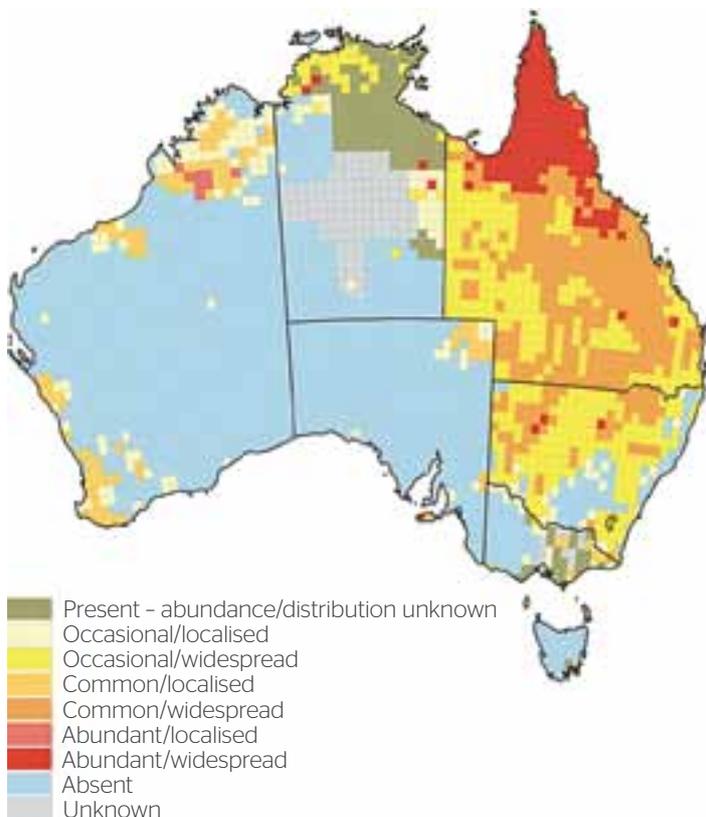
It features a thick, non-toxic outer layer that helps reduce non-target uptake and increases its resilience, making it suitable for deployment by air.

A feature of PIGOUT® is that the high dose of poison required to kill a feral pig is localised within the bait's core.

### **HOGGONE®**

HOGGONE® is pig bait based on the food preservative sodium

Figure 1 Feral pig occurrence, abundance and distribution in Australia 2006/07



Top left: HogHopper™ - an outcome of investment in feral animal control R&D.  
Bottom left: A feral pig taking the bait from the HogHopper™.



nitrite, commonly used in salami and corn beef. It works by oxidising haemoglobin in red blood cells, which stops them carrying oxygen. Pigs are particularly susceptible to sodium nitrite.

It has several advantages over 1080-based baits including the availability of an antidote (Methylene Blue) in cases of accidental poisoning. It is also considered more humane than 1080 poisoning, with a shorter time between consumption and death.

HOGGONE® is being developed and prototypes of the bait have achieved feral pig population knockdowns of between 65% and 90%. Jason says further testing is required and product registration with the Australian

Pesticides and Veterinary Medicines Authority (APVMA) before being commercially available.

**PIGOUT® Econobaits**

PIGOUT® Econobaits (1080) are designed for use in the HogHopper™ as they are much smaller than their parent product PIGOUT® and do not contain the poison core. Their reduced size and simplified method of toxin delivery aims to help producers lower their control costs. PIGOUT® Econobaits are expected to be commercially available during 2014.

**Nitrite concentrate**

This product has the flexibility to be applied to grain and other bait types. Field trials are about to start and, with good results, a

registration application will be submitted to the APVMA. This product could also be available for sale by 2014.

Fact sheets are available from the Invasive Animals CRC- see [www.feral.org.au/pestsmart](http://www.feral.org.au/pestsmart)

**20 million**  
feral pigs in Australia  
**\$100 million**

annual cost of feral pigs to Australian producers

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[www.invasiveanimals.com](http://www.invasiveanimals.com)

## Nutrition

# Dietary Guidelines – providing the facts about beef and lamb

**Veronique Droulez**  
MLA Marketing Manager  
Nutrition



**Revised Australian Dietary Guidelines have been released, providing guidance for policy-makers, practitioners and consumers on nutrition and healthy eating.**

**The revision of the 2003 Dietary Guidelines was undertaken by the National Health and Medical Research Committee (NHMRC), with extensive public consultations, including submissions by MLA and industry through peak industry councils and state farming organisations, to ensure the guidelines reflect the latest scientific evidence as well as Australian eating practices.**

**It was important to ensure the NHMRC had the most up-to-date and relevant evidence on the nutritional value of Australian beef and lamb within the context of the Australian diet.**

The NHMRC considered the risk of chronic diseases associated with consumption of specific foods, as well as their contribution to nutrient intake. The environmental impact of food was also considered.

MLA worked alongside peak industry councils and state farming organisations and provided the NHMRC with credible evidence on Australian beef and lamb production and consumption practices, and their consequences for both health and the environment.

We reinforced beef and lamb's role as an important source of iron and zinc, particularly in vulnerable groups such as young women, who often restrict their red meat intake.

We provided results from MLA-funded research on early feeding practices that suggested meat intake in toddlers was lower than recommended. The research reinforced the need to introduce iron-rich foods such as beef and lamb from six months of age.

There was concern regarding the link between colorectal cancer and red meat consumption. We provided evidence that showed Australians eat beef and lamb trimmed of fat, with vegetables and in reasonable portion sizes. These eating patterns differ from the populations from which the evidence linking colorectal cancer with red meat consumption was reported.

We also submitted evidence from Dominik Alexander, a nutrition and cancer epidemiologist from the US, who has found no association between red meat intake and the risk of colorectal cancer in women but a weak association in men. Importantly, he found that the difference between men and women was not due to differences in meat intake and that high red meat consumers tended to follow unhealthy diets and lifestyles.

We are investing in research to better understand the current evidence, in particular the effect of other diet and lifestyle factors that often co-exist with red meat consumption. It is also considering how emerging evidence on the role of gut

## Stop Press

The new Australian Dietary Guidelines were released on 18 February 2013.

The Guidelines continue to recommend beef and lamb as good sources of bioavailable iron and zinc in the Australian diet.

The guidelines say, "To enhance dietary variety and reduce some of the health risks associated with consuming meat, up to a maximum of 455g per week (one serve or 65g per day) of lean meat is recommended for Australian adults."

**The recommended 455g of beef and lamb per week may be eaten in the most practical and preferred way, for example, by combining 65g daily serves to 130g every second day.**

This is consistent with industry's message of red meat three to four times a week, at a portion size of 100-150g, reflecting the amounts typically used by Australians to make popular beef and lamb meals such as steak, spaghetti bolognese, stir fry, casserole and roasts.

microbiota may help to better understand the type of diets most likely to improve health outcomes.

As the guidelines consider the environmental impact of food choices, MLA collaborated with other primary food industries to provide the NHMRC with a better understanding of environmental issues from an Australian agricultural perspective.

Underpinning this submission was research managed by Rural Industries Research and Development Corporation and supported by MLA, as well as research funded by MLA and carried out by CSIRO. This research aims to gain a better understanding of the environmental sustainability of diets.

These projects indicated that the most effective strategies were to reduce overall food consumption and household waste, and to focus on reducing the intake of energy-dense, nutrient-poor foods. It also showed the importance of using Australian evidence to inform policy as well as the importance of considering environmental factors other than greenhouse gas emissions.



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For more information about the new guidelines, visit [www.eatforhealth.gov.au](http://www.eatforhealth.gov.au)

## Campaigns backed by research

MLA has commissioned a number of reports on what Australians choose to prepare for their main meal. These reports provide useful insights into what meals are prepared, who prepares them, and what drives meal choice for different meal preparers at different life stages. Ultimately the messages derived from these studies are delivered to consumers through marketing campaigns such as the 'proper dinner', but, before that, extensive research must be carried out for each study.

*Last Night's Dinner* study in 2009 found that Australians were mostly cooking and eating healthy and well balanced dinners at home, with the most popular meals including those that were easy to cook, healthy and were a family favourite, such as spaghetti bolognese and steak and vegetables. This study was followed by the *Main Meal Repertoires* report in 2011 which showed that main meal preparers prefer a flexible approach to menu planning to allow for spontaneity and accommodate the season, supermarket specials and schedule. It found a strong correlation between cooking confidence, size of the meal repertoire and healthiness of meals, and begged the overarching question - is cooking skill important for increasing the healthiness of a meal?

MLA's Marketing Manager - Nutrition, Veronique Droulez, said the latest study, supported by the 'proper dinner' campaign, builds on the average consumer's existing repertoire of three to four beef and lamb meals a week and further encourages them to serve these meals with plenty of vegetables.

"The latest campaign is drawn from our insights into Australians' main meal choices and preparation practices which suggest main meal preparers want simple, practical and healthy meal solutions which build on what they are already doing and require only small changes to existing practices," she said.

"Whilst health is an important driver of meal choice, taste and convenience are top priorities. Consumers won't compromise on taste and convenience - the meal must be easy to make, require little planning and most importantly, the family must like it."



**Veronique Droulez, MLA**  
E: vdroulez@mmla.com.au

## Marco Pierre White promotes a 'proper dinner'



**You don't need to be a Michelin-starred chef to prepare a proper dinner. Just start with beef or lamb and vegetables, according to MLA's latest nutrition campaign.**

**Featuring Marco Pierre White, world-renowned chef and current host of MasterChef Professionals, the campaign reminds Australians that beef and lamb are essential ingredients for a delicious and nutritious meal.**

In the TV advertisement, Marco Pierre White is seated at a silver service table proclaiming "you don't have to be all fancy and posh to enjoy some proper nosh". He then sweeps the setting to the floor leaving a well-balanced beef meal.

MLA Group Marketing Manager - Consumer, Andrew Cox, said the new campaign encourages people to learn how to cook healthy meals featuring beef or lamb and vegetables.

"We're telling all Australians that you don't need to be fancy - or go to a lot of trouble -

to create a proper dinner. Just serve beef or lamb with lots of veggies three to four times a week to help give your body the nutrients it needs," he said.

"With his passion for honest, uncomplicated food, Marco Pierre White was a natural choice to front this campaign. He has become a big fan of Australian beef and lamb during his three-month stint filming MasterChef Professionals."

The campaign also features the re-launch of MLA's consumer website [www.themainmeal.com.au](http://www.themainmeal.com.au) to help people share recipes and food knowledge.



**Andrew Cox, MLA**  
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Visit [www.themainmeal.com.au](http://www.themainmeal.com.au) to view the commercial

# Pumping iron in Indonesia

*For the past year, MLA has run a nutrition campaign in 12 Indonesian schools to increase awareness of Australian beef and its nutritional benefits. More than 3,000 students have participated in the program.*

**A**fter taking part in the schools nutrition campaign, 90% of students said they understand more about the nutritional content and benefit of eating beef.

Ninety-seven per cent of parents said their child told them about the program and they read the associated nutritional flyers.

Of the 12 schools, three have heard the nutrition messages about Australian beef for the second consecutive year. Between the two years, awareness of Australian beef by parents increased from 50% to 90%. In the first year of the program, 5% of parents used Australian beef three to four times a week. In the second year, this had increased to 15%.

Here we talk to Sarah Fauzia, who is the chief of Badan Konsultasi Gizi - IPB (Nutrition Consulting Associated - IPB), and helped administer the program in Indonesia. She has visited four schools and six community events to share the good news on Australian beef.



*Nutrition specialist Sarah Fauzia explains to Indonesian school children the importance of a balanced diet, which includes beef.*

#### **What do you think of MLA's school nutrition program?**

Good, because it provided knowledge about the importance of balanced nutrition and the contribution of beef in fulfilling dietary iron requirements especially for children.

#### **What do you think of Australian beef?**

It's tender and delicious. The first time I tried it was through a program with MLA - and it was a great experience.

#### **What's your role with MLA's school nutrition program?**

I provide information about the nutritional content in beef and the importance of consuming beef a minimum of three or four times a week.

#### **What do teachers and parents have to say about the schools nutrition program?**

Feedback from teachers is that it's a great program and beneficial, especially for understanding beef consists of

a lot of important nutrients needed for children. Mothers appreciate all the information, learning about nutrition as well as how to cook Australian beef in a practical and easy way.

#### **What are the children most interested in learning about Australian beef?**

Taste; they enjoy eating Australian beef in all testing and sampling snacks and meals that MLA provides through the program, like spaghetti and meatballs, and burgers.

## 90%

of participating Indonesian students reported understanding more about the nutritional aspects of Australian beef.

After the campaign

## 77%

of the children said they will ask their mum to cook Aussie beef

After the campaign

## 65%

of parents said they will cook Aussie beef for their children's meal



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## Recipe

# Traditional roast leg of lamb

## with olive dressing

*All over the world, lamb is enjoyed at Easter and here MLA has created a modern take on the traditional lamb roast which can be enjoyed by the whole family.*



*Serves: 6*

*Preparation time: 10 minutes*

*Cooking time: 50 minutes*

### Ingredients

1kg half leg lamb  
3 cloves garlic, sliced  
1 rosemary twig  
2 tbsp of olive oil  
salt and pepper to season  
mint and parsley to garnish

### Olive dressing

1 cup of mixed pitted olives  
2 cloves garlic, chopped  
1 tbsp anchovy fillets, chopped  
100ml extra virgin olive oil  
100ml pure cream  
1 tbsp each of fresh mint and flat leaf parsley, chopped  
1 lemon, juiced

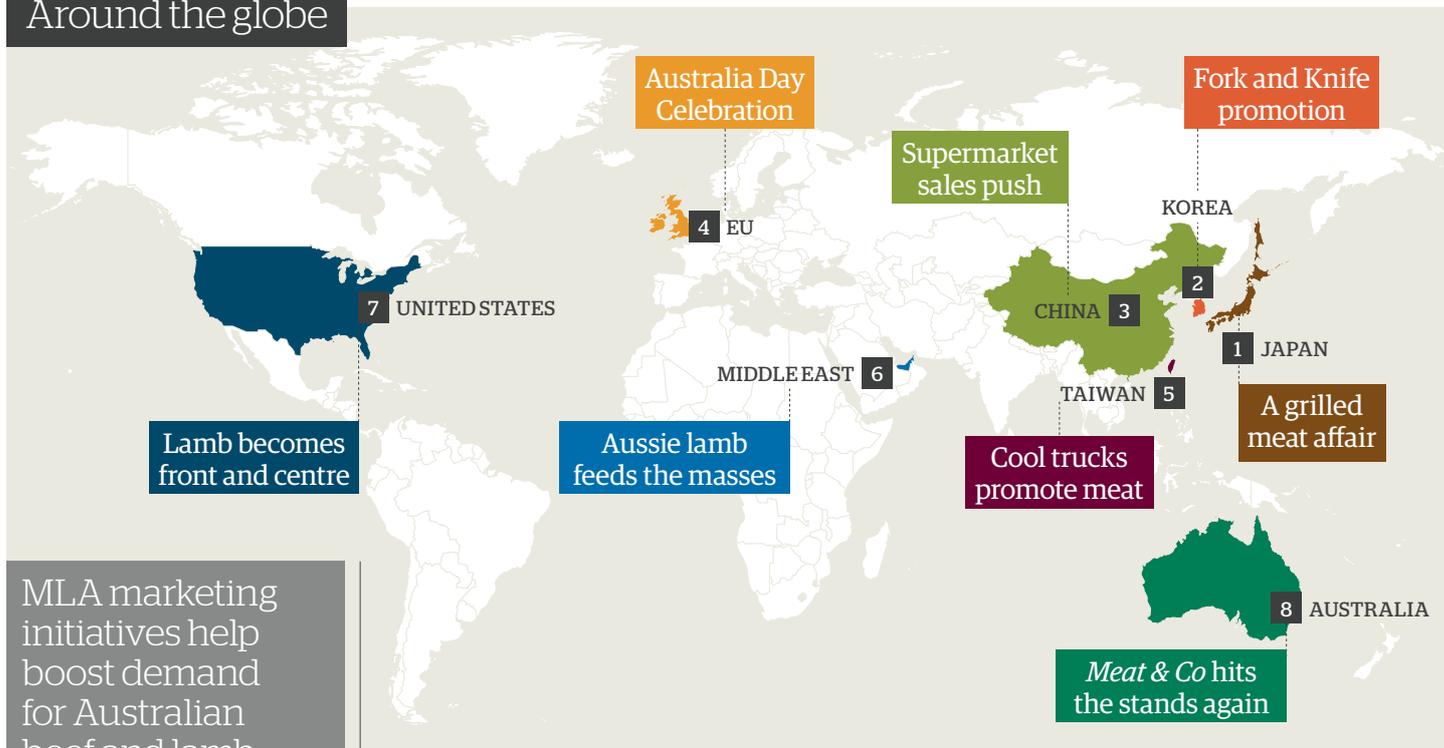
### Method

1. Preheat oven to 200 degrees.
2. Trim excess fat from lamb. Spike lamb around 20 times to depth of 3mm each, insert slice of garlic and sprig of rosemary in each opening. Rub with one tablespoon oil and season with salt and pepper.
3. Place on roasting rack and cook for 20 minutes at 200 degrees, reduce heat to 170 degrees for further 30 minutes.
4. **Olive dressing:** Gently fry olives one to two minutes, until fragrant. Add garlic, anchovy and capers fry for further one to two minutes. Add cream, remove from heat, and stir well. Add chopped herbs and lemon juice.
5. Pour the olive dressing over the sliced meat just prior to serving.

### Serving tip

The following day, use up the leftovers by cutting the lamb into strips and adding to a green salad for a delicious lamb and olive salad.

## Around the globe



MLA marketing initiatives help boost demand for Australian beef and lamb both at home and in our global marketplace.

### 1 JAPAN

#### A feel great taste



The *Yakiniku* Business Fair, which attracted 300 companies and 22,000 visitors, was held in Tokyo and Osaka earlier this year. *Yakiniku* - or grilled meat - is a \$10 billion industry in Japan and the trade fairs provided a great opportunity for MLA to introduce new yakiniku items in the Feel Great with Aussie Beef! promotion.

MLA offered aged grassfed Aussie beef yakiniku samples in Tokyo and demonstrated yakiniku cutting techniques in Osaka.

Yakiniku is a

**\$10bn**

industry in Japan

### 2 KOREA

#### Beef carves up

Australian beef sales in four award-winning restaurants were boosted 10% during the MLA/Lotte Hotel 'Fork and Knife Promotion' (see below left). The promotion featured the *Hoju Chung Jung Woo* logo, which markets Australian beef as 'clean and safe'. A variety of menus were created using Australian beef and restaurants gave away Australian short rib gift sets to customers.

Australian beef sales boosted by 10% during the 'Fork and Knife' promotion

### 3 CHINA

#### Aussie beef chills out

During a sampling program in a supermarket chain in Shenzhen, southern China's major financial centre, the Australian chilled meat display extended to nine sections of the open chiller area. MLA presented several new beef cuts, including tri-tip, intercostal, shin/shank and point-end brisket in Western and Asian style.

### 4 EU

#### Aussie, Aussie, Aussie



More than 500 people celebrated Australia Day with lamb and beef at the Australian High Commission in London, in an event supported by MLA. Guests included chefs and retailers, and all feedback confirmed that Australian product was the star of the show. Across the Channel, more than 120 Belgians and foodservice representatives rugged up to celebrate Australia Day at a barbecue event co-sponsored by MLA and attended by the Australian Ambassador, Duncan Lewis. Organised by the Australian Society in Belgium, Australian product was showcased throughout the day and resulted in one foodservice and one catering lead.



## 5 TAIWAN

## Driving the clean, green message



Following the success of the initial program in 2011, MLA has introduced another 10 delivery trucks promoting Australian beef across Taiwan. The initiative aims to create awareness for Australian beef and its natural, safe and healthy attributes, and also to provide a platform for the trade to meet government requirements in relation to compulsory country of origin labelling (COOL) regulations for all imported beef. With the cooperation of seven participating trade companies, 13 trucks are now increasing the exposure of Australian beef throughout Taiwan.

## 6 MIDDLE EAST

## Dubai's great Aussie barbecue

To celebrate Australia Day, Dubai hosted 'The Great Australian Barbecue', the Middle East's largest free family barbecue, attended by nearly 3,000 people. In association with the UAE Red Crescent foundation, MLA served up 750kg of Australian lamb as well as a variety of entertainment for families, including live cooking and top tips by MLA chef Tarek Ibrahim on how to have the perfect barbecue.

**750kg**  
of Australian lamb enjoyed at Dubai barbecue

## 7 UNITED STATES

## Aussie lamb warms up Washington

The Restaurant Association Metropolitan Washington (RAMW) partnered with MLA to run an Australian lamb competition to demonstrate that lamb can be a great centre-of-the-plate option. The competition focused on Australia's clean and green image, high food safety standards and grassfed products. Held during the RAMW Winter Restaurant Week in February, the competition involved 10 restaurants in the greater Washington DC area and required each of them to feature a special Australian lamb dish during the competition week. Diners voted for their favourite dish via Australian Lamb's Facebook page, with the winning chef scoring a trip to Australia.

## 8 AUSTRALIA

## Meat &amp; Co back for seconds

Branded the 'beef lovers' journal', the second issue of MLA's *Meat & Co* magazine provides an in-depth product message about farming integrity and promotes innovative recipes using underutilised cuts, such as chimichurri beef short ribs or panco-crumbed beef brisket. Chimichurri is a South American sauce used for grilled meat and panco is a Japanese-style breadcrumb. *Meat & Co* targets home cooks who want to try more complicated recipes and learn more about food, and is distributed to high-end butchers and meat retailers around Australia. A recent survey of the first issue found *Meat & Co* improved the quality perceptions of Australian beef for 61% of respondents, while 92% of respondents learnt something new.



## Market observations

## Sheep momentum slowed

*After a considerable recovery in sentiment in the lamb industry from 2010 to 2012, a prolonged dry spell across most of the country late in 2012 saw a return to lower sheep and lamb prices, and wariness about stocking capabilities. This is expected to continue in 2013. As a result, the flock growth of the past two years is expected to slow.*

**Robert Barker**  
MLA Sheepmeat Analyst



The Australian sheep flock reached a 100-year low in 2010, after years of decline through the 1990s and 2000s due to low wool prices and drought.

With widespread rain in 2010 and 2011, sheep and lamb slaughter declined as producers looked to take advantage of improved growing conditions to finish stock to heavier weights and run more lambs on their land.

Over this time, lamb and sheep prices reached record levels, with restocker demand pulling the industry higher.

In 2012, the weather turned, and restocker activity dissipated as pastures dried off and growth slowed. There was less pressure on processors to pay higher prices, which dropped to 2008 levels by the end of the year.

Sheep and lamb slaughter rates picked up to their highest levels in 3-4 years, with

producers across wide areas of the country looking to turn stock off at the same time, putting further downward pressure on the market.

Fortunately, overseas markets, particularly in the Middle East and China, bought larger volumes of product.

In 2013, with expected below-average rainfall for most sheep-producing regions, sheep and lamb slaughter rates are expected to increase again.

The lower prices of 2012 are likely to remain, which means overseas buyers will continue to become more important.

Unless growing conditions improve in the near future, the Australian lamb and sheep slaughter is expected to level out until global demand for the final product is strong enough to be the main price driver, rather than the supply reasons seen in 2011.



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## On the ground

## Taiwan

**Michael Edmonds**

MLA General Manager,  
Global Marketing  
E: medmonds@mla.com.au



**F**ollowing the passing of Aaron Iori, MLA's Regional Manager for South-East Asia and Greater China, on 1 January 2013, it is with the greatest respect that I write about a growing market in the region Aaron oversaw: Taiwan.

Food safety is a key issue in Taiwan and concerns about the safety of local and imported beef have had an impact among retailers, foodservice and consumers in the market.

Aaron recognised this as an opportunity to raise the profile of Australian beef and position it as a supplier of premium, safe, healthy and natural beef. Marketing programs in Taiwan target retailers, foodservice, trade and consumers.

One of these activities was a series of seminars with 350 business operators to provide reassurance that Australian beef is clean, safe and chemical/residue free.

A recent McDonald's advertising campaign featured the Australian beef logo on its marketing material throughout 360 outlets across Taiwan to assure their customers that McDonald's only serves safe and residue-free Australian beef. It has plans to increase its presence to 500 outlets in the next three years.

MLA's activity at the Taipei International Beef Noodle Festival (see article on page 37) - an event we have been involved in for many years - also focused on promoting the clean image of Australian beef to 250,000 visitors.

Although shin shank was the cut in the spotlight at the festival, and is typically favoured in Taiwan (accounting for 32% of beef exports to Taiwan during 2012), MLA has been working hard to introduce alternate cuts to the market. It has been pleasing to see that foodservice operators and wet markets are embracing blade as another cut for use in stir fries and hot pots.

Aaron's energy and vision for this market have set a solid foundation for us to continue raising the profile of Australian beef and lamb in this important market.

## Market insight



**Australian beef and sheepmeat exports to Taiwan remain strong as this important customer embraces our clean, green and safe meat message.**

**Shin/shank, which is traditionally used for the beef noodle soup dish, was the major cut sent by Australian exporters to Taiwan during 2012 -**

**32%**  
**of overall exports**

**A**ustralian beef is readily available to Taiwanese consumers, accounting for 90% of retail shelf space and 82% of the beef used in casual dining, restaurants and hotel outlets.

Taiwan has historically been a strong and stable market for Australian beef and veal. In 2012, it was Australia's fourth largest individual export market, with 38,280 tonnes swt, with Australia taking a 49% share of the imported market for the first eleven months of 2012.

The market for Australian sheepmeat is smaller than for beef and is largely centred on hot pots and stir fries in mid-scale to fine-dining restaurants. Australian sheepmeat exports to Taiwan during 2012 increased 12% year-on-year to 6,482 tonnes swt.

The Taiwanese consider Australian beef and lamb to be a nourishing food with a 'clean and green' reputation.

To reflect the Taiwanese culture of matching food to the season, MLA conducts week-long marketing activities such as in-store sampling programs and foodservice marketing campaigns to increase the profile and consumption of Australian beef and sheepmeat.

**Competitive landscape**

Competition in Taiwan is similar to Australia's other major beef export destinations, with US and New Zealand beef also available in the market.



*A family enjoying the Taipei International Beef Noodle Festival.*

Overall imports for the first eleven months of 2012 were down 8% in 2012 due to restrictions placed on US beef by Taiwanese authorities.

Taiwanese domestic beef production is relatively low, estimated to be around 6,000 tonnes cwt at the end of 2012, with just 5.7% self-sufficiency (USDA). Stringent entry requirements for product from countries with foot and mouth disease and BSE add support to Australia's position in Taiwan.

### Opportunities and challenges

Taiwan is expecting a mild economic recovery in 2013 due to improved global demand. However, being highly dependent on China as an export destination, any disruption to cross-straits commerce could affect the Taiwanese economy, given exports account for 74% of gross domestic product (GDP) (IMA Asia, *Asia Forecast Book Q4 2012 Forecasts to 2017*).

The Taiwan population is expected to reach 23 million in 2013 but fall to 21 million in 2050, due to its rapidly ageing population. With slow wage and population growth, local consumer growth is anticipated to be weak over the longer term.



### Taiwan's signature beef dish

One of Taiwan's most popular dishes is beef noodle soup, a traditional soup made from stewed or braised beef, beef broth, vegetables and Chinese noodles.

In the capital, Taipei, there are 300 beef noodle restaurants that generate around \$37 million (2011). Each year chefs and restaurants compete at the 'Taipei International Beef Noodle Festival' to see who makes the best beef noodle in Taiwan.

The most recent festival, held in December 2012, was attended by 250,000 visitors.

MLA promoted Australian beef and its healthy, safe and natural attributes at the festival in a number of ways, and Australian shin/shank was the primary ingredient used by the 62 teams in the beef noodle cooking competition.

Taipei City Government published 7,000 copies of the *Beef Noodle Consumer Guide* featuring stories on beef noodles, the event, and a page featuring Australian beef.



**GDP** (Source: IMA Asia, f=forecast)

2012: **1.2%**  
2013f: **2.7%**  
2014f: **3.3%**

**Population** (Source: United States Census)

2013f: **23 million**  
2020f: **24 million**  
2050f: **21 million**

**Beef self-sufficiency** (Source: USDA)

2012f: **5.7%**

**Australian beef exports to Taiwan**

(Source: DAFF)

The value of beef exports reached a record high during 2012, increasing 7% year-on-year and 44% on the five-year average, to \$210 million (Global Trade Atlas). The improved returns coincide with record export volumes to the country -

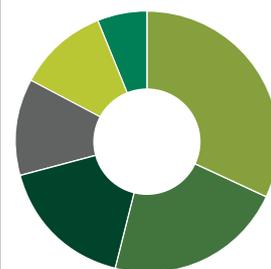
**38,280 tonnes swt**

**Australian sheepmeat exports to Taiwan**

(Source: DAFF)

2012: **6,482 tonnes swt** (up 12% on 2011)

**Top 5 beef cuts exported in 2012 to Taiwan**



**Shin/shank: 32%**

**Blade: 22%**

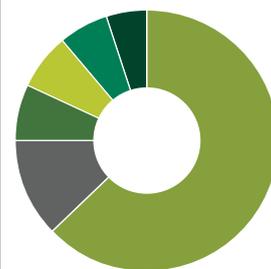
**Other: 17%**

**Intercostals: 12%**

**Manufacturing: 11%**

**Thick flank/knuckle: 6%**

**Top 5 sheepmeat cuts exported in 2012 to Taiwan**



**Manufacturing: 63%**

**Other: 12%**

**Shoulder: 7%**

**Carcass: 7%**

**Breast and flap: 6%**

**Rack: 5%**

Source: DAFF

## Ag tour to Indonesia

A group of students and staff from the University of Adelaide visited Indonesia last November. The 12-day study tour, organised by Associate Professor Wayne Pitchford, showed students different agricultural and livestock production systems, cultures and government regulations, and provided an insight into research and work opportunities.

The visit included three large feedlots, a village production system, two abattoirs, two universities and wet markets. MLA partly funded and organised some of the tour.

One of the students, Felicity Davies, said the trip enabled her to get a greater understanding of how Indonesian culture, politics, the economy and agricultural production systems combine.

**More information: Wayne Pitchford**

**E: [wayne.pitchford@adelaide.edu.au](mailto:wayne.pitchford@adelaide.edu.au) // M: 0418 809 688**

**Web: [www.adelaide.edu.au](http://www.adelaide.edu.au), [www.beefcra.com](http://www.beefcra.com)**



*Indonesian student study tour 2012 - Back row from left: Jahari and Hendrik (stockmen at Way Laga Breeding facility), Ashlee Carslake-Hunt, Mick Deland, Michael Aldridge, Neny Santy (Feedlot Veterinarian), Michael Wilkes, James Rainsford and Trish Eats. Front row from left: Holly Hannaford, Felicity Davies, Jennifer Cook, Dr Stephen Lee, Stacey Jonas, Romy Bennett, Tracey Fischer and Associate Professor Wayne Pitchford. Photo courtesy of Dr Mandi Carr, University of Adelaide*



*Participants discussing bull selection criteria at the Glen Bold Murray Grey stud, Echunga, SA*

## South Australian Beef School

On 20-21 November, 29 producers gathered at Strathalbyn Saleyards and on various producer properties to learn about cattle breeding and management. On the first day, MLA economist Tim McRae spoke on beef markets, including specifications, compliance and the industry outlook. Other topics included assessing muscle, fat and structure on the live animal plus practical cattle assessments. The second day focused on getting the most from the bulls you buy and looked at fertility, on-farm management and visual assessment. Producers rated the event highly.

**More information: Penny Schulz, Schulz Livestock**

**T: 0417 853 094**

**E: [penny@schulzlivestock.com.au](mailto:penny@schulzlivestock.com.au)**

## Upcoming events

### Beyond the gate tours

These red meat supply chain tours are a chance for MLA members to meet with processors, wholesalers, butchers and executive chefs, who deliver their product to the consumer.

#### When and where:

18 March, Brisbane Qld  
16 April, Sydney NSW - SOLD OUT

#### Bookings:

[www.mla.com.au/BTG-Brisbane](http://www.mla.com.au/BTG-Brisbane)

#### More information:

[www.mla.com.au/events](http://www.mla.com.au/events)

### BusinessEDGE workshop

A two-day financial and business management training workshop for northern beef producers to improve beef business efficiency and profitability.

#### When and where:

17-18 April, Blackall Qld

#### Bookings:

07 5482 4368  
[jackie@jackiekyte.com.au](mailto:jackie@jackiekyte.com.au)

#### More information:

[www.mla.com.au/events](http://www.mla.com.au/events)

### The Western Australian Farmers Federation 2013 Annual Conference

The annual conference combines agricultural discussion with networking opportunities. More than 500 delegates, including producers, industry, government and the media are expected to attend.

#### When and where:

21 and 22 March, Swan Valley WA

#### Bookings:

08 9486 2100

#### More information:

[www.waff.org.au](http://www.waff.org.au)



Find more events and information at [www.mla.com.au/events](http://www.mla.com.au/events)



Some of Brisbane's best chefs tour the AACO feedlot, 'Aronui', near Dalby, Queensland.

## MSA paddock to plate tour

Some of Brisbane's best chefs attended a paddock to plate tour of South-East Queensland in November.

The day focused on Meat Standards Australia (MSA) and how many brands in the marketplace are underpinned by this trademark. Attendees visited a feedlot, a beef processing plant and an MSA-licensed restaurant. Attendees now understand more about beef production and processing in Australia, and how MSA helps ensure the eating quality of the meat they use.

**More information: MSA // T: 1800 111 672  
www.mla.com.au/msa**

## Making herds more profitable

During October and November, 34 producers from 20 beef businesses attended Breeding EDGE workshops at Bowen and Nebo, Queensland. The workshops aimed to provide producers with tools to increase returns from their herds.

Since the workshops, 15 of the attending businesses have continued discussions with workshop facilitators. Some attendees have begun changing the direction of their breeding programs, introduced new breeds to their herds and run artificial insemination programs with superior sires.

**For more of these events visit  
www.mla.com.au/events**



Right: Charles Williams from 'Riverside' Nebo viewing live spermatozoa under the microscope at ALC Brahman's, Nebo

### Northern Territory Cattleman's Association (NTCA) Annual Conference and AGM

The annual general meeting, conference and dinner will be a two day intensive program aimed at challenging industry to look at the emerging issues facing current and future generations of producers.

**When and where:**  
21-22 March, Alice Springs NT

**Bookings:** 08 8952 5122

**More information:**  
www.ntca.org.au

### Influential Women's workshops

MLA is supporting a series of Influential Women's workshops set up to build the capacity of rural and regional Australia by increasing the skills and confidence of women.

**When and where:**  
29-30 April, Katherine NT  
9-10 May, Albany WA  
3-4 June, Benalla Vic  
6-7 June, Holbrook NSW

**Bookings:**  
www.influentialwomen.com.au

### Innovation workshops - Pacific Beef Expo

Take part in MLA's Innovation workshops to pick up new ideas and skills to help build a better beef business. The one hour workshops will focus on the key profit drivers in your beef business and deliver practical information and tools that can make a difference to your bottom line.

**When and where:**  
20-22 June, Casino NSW

**Bookings:** www.mla.com.au/  
pacificbeefworkshops or  
1800 675 717 (option 4)

### Graham centre sheep field day

This sheep field day provides an opportunity for producers to hear the latest news and research in sheep management and production, and network with researchers and industry experts.

**When and where:**  
28 June, Wagga Wagga NSW

**Bookings:** 02 6938 1806  
tnugent@csu.edu.au

**More information:**  
www.mla.com.au/events  
www.csu.edu.au/research/  
grahamcentre/field-day/  
sheep.htm

# Beyond the gate

## The red meat supply chain tour for MLA members

EACH TOUR  
LIMITED TO  
40 MEMBERS  
- BE QUICK TO  
REGISTER FOR  
THIS EXCLUSIVE  
OPPORTUNITY

**BRISBANE: MONDAY 18 MARCH**

Beyond the gate gives MLA members the chance to follow their products through the supply chain to consumers' plates – meeting with processors, feedlotters, wholesalers, butchers and executive chefs. Take part in an exclusive beef and lamb MasterClass, get a behind the scenes look at restaurant and foodservice operations and dine at one of the city's best restaurants.

\* The tour will be subsidised by MLA but there will be a charge of \$95 per person.

For more information:  
Tania Sloan, MLA // E: [tsloan@mla.com.au](mailto:tsloan@mla.com.au)  
Bookings: [www.mla.com.au/BTG-Brisbane](http://www.mla.com.au/BTG-Brisbane)  
**1800 675 717 (option 4)**