

# Feedback

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## A note from the MD...



### **M**LA has recently made two significant announcements.

The first was the independent review of MLA's performance over the last five years. This review included an economic impact assessment which concluded that MLA had good governance structures in place and delivered a healthy return on investment. Every dollar invested by MLA in the five years to 2014-15 was found to

generate current and future benefits of \$6.20. The review was the most comprehensive impact assessment of the levy expenditure in the history of MLA. Apart from the numbers being run by the Centre for International Economics, 200 industry people reviewed all the operations of MLA.

The review found many MLA programs performing to a high level such as the market access program (delivering current and future benefits of \$24 for every \$1 invested) and livestock exports (current and future benefits of \$14.50 for every dollar invested). Other areas, although delivering a positive return, offer room for improvement. These include domestic beef marketing (benefits of \$1.10 for every \$1 investment) and on-farm productivity (benefits of \$2.70 for every dollar invested). Importantly, the review recommended ways to improve MLA's future performance and we're using its findings to do so.

The second major announcement was the release of the new *MLA Strategic Plan 2016-2020*. The plan maps out MLA's priorities with a clear focus on commercial

outcomes which increase the profitability, sustainability and global competitiveness of Australia's red meat and livestock industry. The plan is aligned to the *Meat Industry Strategic Plan 2020* and the Australian Government's priorities and I encourage you to read it here: [www.mla.com.au/strategicplan](http://www.mla.com.au/strategicplan).

More detail on these announcements is also provided on pages 3, 6 and 7 in this edition of *Feedback*.

The *Strategic Plan* acts as MLA's compass over the next four years, but it's critical that you as a levy payer have a say about the specific research needs in your area. You can do that through one of the many red meat and livestock committees across Australia. I encourage you to keep an eye out for their regional events at [www.mla.com.au/About-MLA/RD-Consultation](http://www.mla.com.au/About-MLA/RD-Consultation) and get involved.

**Richard Norton**  
MLA Managing Director

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# A 360° view of MLA

MLA recently released two significant reports: one on the performance of the company in the five years to 2014-15; the other sets out the strategic direction of MLA to 2020.

## Looking back

The latest independent Performance Review was the most comprehensive examination of MLA's performance ever, covering governance, stakeholder engagement, planning and operations and also an economic evaluation of the value of MLA's research, development and marketing programs to the red meat industry and community.

The review found that MLA delivers a good return on investment overall - \$6.20 for every dollar invested by its levy payers, the Australian Government and value chain partners.

It also found that many programs performed to a high level and confirmed that MLA has the necessary governance and organisational arrangements in place to deliver on its plans. The review identified other areas of the company which need improvement and included recommendations to assist in driving future performance.

## Looking forward

The Performance Review informs MLA's next five year funding agreement with the Australian Government and MLA's *Strategic Plan 2016-2020*. The Strategic Plan is also fully aligned with the *Meat Industry Strategic Plan 2020* and the Australian Government's Rural Research, Development and Extension Priorities, as well as its Science and Research Priorities.

Importantly, the Strategic Plan focuses on commercial outcomes which increase the profitability, sustainability and global competitiveness of Australia's red meat and livestock industry.

Six strategic pillars form the foundation of MLA's Strategic Plan. Each pillar is accompanied with an outcome statement, indicating what will be achieved when the pillar is delivered successfully. MLA has 13 strategic priorities to help achieve these outcomes (see Table 1).

**Turn to pages 6-7 for more in-depth details of both reports. →**










 [www.mla.com.au/performance-review](http://www.mla.com.au/performance-review)  
[www.mla.com.au/strategicplan](http://www.mla.com.au/strategicplan)

Table 1 Summary of MLA's Strategic Plan 2016-2020

Pillar	Outcome	Priority
 <b>1. Consumer and community support</b>	The community continues to support the Australian red meat industry, with industry practices in step with community expectations.	<ul style="list-style-type: none"> <li>• Continuous improvement of the welfare of animals in our care</li> <li>• Stewardship of environmental resources</li> <li>• Role of red meat in a healthy diet</li> </ul>
 <b>2. Market growth and diversification</b>	Improved access to markets, with marketing programs and value creating innovation driving increased consumer and customer preference and premiums for Australian red meat.	<ul style="list-style-type: none"> <li>• Efficiency and value in trade and market access</li> <li>• Marketing Australian red meat and livestock</li> </ul>
 <b>3. Supply chain efficiency and integrity</b>	Increased returns through the value chain, with participants and consumers confident in product quality, pricing and integrity systems.	<ul style="list-style-type: none"> <li>• Optimising product quality and cost efficiency</li> <li>• Guaranteeing product quality and systems integrity</li> </ul>
 <b>4. Productivity and profitability</b>	Productivity gains through the value chain from the adoption of tools and technologies.	<ul style="list-style-type: none"> <li>• Production efficiencies on farms and in feedlots</li> <li>• Processing productivity</li> <li>• Live export productivity</li> </ul>
 <b>5. Leadership and collaborative culture</b>	Industry participants are confident in industry leadership capability.	<ul style="list-style-type: none"> <li>• Building leadership capability</li> <li>• Protecting and promoting our industry</li> </ul>
 <b>6. Stakeholder engagement</b>	Industry participants are confident that the levy investment is delivering value.	<ul style="list-style-type: none"> <li>• Engagement with producers and stakeholders</li> </ul>



# Hot off the press

Three new research projects of major significance to lifting productivity and profitability in the red meat and livestock sector have been announced.

They are:

**A new fit for genes:** The National Livestock Genetics Consortium has been formed by MLA as a means of accelerating genetic gain. More than 23 private and public organisations have already joined the consortium, which aims to double the annual rate of improvement in industry genetic value by 2022 through the delivery of DNA-based genetic technologies. MLA already invests \$37 million annually in genetic research and the new consortium has generated additional investment of \$16 million in cash and \$38 million in in-kind support from the partners.

**X-ray vision:** Next generation technology for meat processors and their customers will be fast-tracked in a new Australian Government 'Rural Research and Development for Profit' program with a \$4.8 million government contribution. MLA will partner with Australian

Pork Ltd, the Australian Meat Processor Corporation and three processors to contribute a further \$11.5 million. Led by Murdoch University, the project will develop x-ray technology and hyperspectral and 3D digital imaging to move the supply chain to a system of accurate measurement and improved quality.

**Productive partners:** Hailed the most significant injection of research funds into the northern beef industry for 20 years, the MLA Donor Company will partner with the University of Queensland on targeted productivity improvement research. The \$8 million a year project will run for a minimum of three years and will focus on animal nutrition, supplementation and feedbase; cattle health and welfare; and reproductive efficiency and management.

## Pastoral power

**Did you know MLA's Making More From Sheep program now has a new module on pastoral production?**

The module, 'Efficient Pastoral Production', was jointly developed by MLA and Australian Wool Innovation.

It contains seven procedures, each containing critical 'must do' activities and tools to assist you to manage the issues identified in the module.

Signposts direct you to further information and assistance on the particular topic.



Check it out at: [www.makingmorefromsheep.com.au/efficient-pastoral-production](http://www.makingmorefromsheep.com.au/efficient-pastoral-production)

# Malaysians learn down under

Thirteen meat buyers representing nine major Malaysian retailers now have a better understanding of the paddock-to-plate journey of lamb following an MLA-hosted trip to Australia in March.

Malaysia is Australia's fourth largest sheepmeat export market. The trip was designed to familiarise buyers with Australian sheepmeat products, farming and processing, food safety and Halal systems.

Highlights of the trip, which was supported by the South Australian Government through Primary Industries and Regions SA, included:

→ visits to sheep enterprises, including 'Adelaide Plains', 'Illoura Sheep Farm' and 'Thornby Premium Lamb'



Malaysian retail meat buyers visited 'Illoura', a sheep farm where they were hosted by Allan Piggott (in hat) and James Marcopoulos, Thomas Foods International (third from right).

→ a welcome dinner with industry representatives

→ lamb and beef carcass cutting demonstration at Regency TAFE

→ an inspection of Thomas Foods International's Murray Bridge processing facility

→ tours of supermarkets and the Adelaide Central Market

→ sampling lamb chops and beef steaks.

MLA International Business Manager for South Asia Andrew Simpson said on

departure the visitors had told him they had never been on a trip that was so comprehensive, educational and enjoyable.

"They were overwhelmed by the fact that they managed to meet all important links in the Australian meat industry from the producer, scientist, veterinarian, meat processor and right through to the butchers," he said.



**Andrew Simpson, MLA**  
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# Refreshing the rump... and other traditional cuts

A new program targeting the foodservice sector has been launched to encourage whole carcass utilisation and inspire new uses for traditional cuts.

MLA Manager Trade Content and Communications Mary-Jane Morse said the food industry was constantly looking for fresh inspiration and ways to create value.

"The cost of putting a meal on the plate is a real challenge for the sector and, with strong competition in the protein category, it is essential we demonstrate how our proteins deliver on value, versatility and adaptability to global food trends to ensure we remain on the menu," she said.

The new 'Masterpieces' program addresses the time-poor nature of chefs through a series of short and engaging animations and videos on Rare Medium's social media channels.

"The media consumption habits of chefs have changed and, as such, this new program takes a digital focus across a variety of social media platforms," said Mary-Jane.

"In the first month we accumulated in excess of 100,000 views with numbers anticipated to grow as the program gains momentum."

Each month, the program will focus on a different primal - starting with beef rump (in March), lamb leg (April), goat forequarter (May), with beef chuck and lamb shoulder to come - and a range of educational and inspirational content released over the course of each month.

The digital nature of the program allows it to easily be adapted and shared further through trade and consumer channels as well as internationally in key global regions.

**\$23.5 billion a year** turned over  
by Australian restaurants and cafés

## The video campaign includes:

### Carcass to Cuts

An overview of the primal, its location on and percentage of the carcass, composition and characteristics, the cuts derived from the primal and their cooking methods.

### Around the World

Key export destinations for the primal around the world and examples of how chefs are using it in those markets.

### On the Menu

How cuts from the primal can be used in a variety of foodservice venues - incorporating current and projected foodservice trends and modern takes on classic dishes.

### Masterpieces Chef Challenge

The series includes a five-minute YouTube video (pictured), a 30-second teaser for Facebook and Instagram and recipes and images of the dishes created. The series engages influential chefs to challenge a guest in a cook-off, using cuts from the month's showcased primal.



- 101,252 total views of beef rump videos
- 90,302 total views of lamb leg videos
- 22,740 views of goat forequarter videos (mid way through goat campaign)



Above: Masterpieces Episode 1 - Giovanni Paradiso and Mike Eggert cook beef rump.

## Future grazing

Futurist Paul Higgins (pictured) is heading the line-up of speakers at the MLA-sponsored Lambex 2016, to be held at Albury, NSW, from 10-12 August, 2016.



"To a certain extent the lamb industry is in a good space at the moment, with volumes down and demand high, but sometimes it is forgotten that these cycles come and go," Paul said.

Here is an insight into what he perceives will impact on the future of the lamb industry:

- **The discerning customer:** They are prepared to pay for good quality lamb but they will demand information on the product.
- **Data:** The strategic lever to getting that information to the customer will be the data gathered along the supply chain.
- **Connections:** Producers will need to work with end users and research organisations to focus on reducing costs while improving their capacity to meet customer demand.



Follow the program at:  
[www.facebook.com/raremediumjournal](http://www.facebook.com/raremediumjournal)



Register at:  
[www.lambex.com.au](http://www.lambex.com.au)

# Reporting back

Two new reports provide direction for MLA's future focus. The first is the independent Performance Review of the company. The second is MLA's *Strategic Plan 2016-2020*.

## 1. Performance Review

An independent Performance Review has found that MLA delivers a return of \$6.20 on every dollar invested by its levy payers, research partners and the Australian Government.

Despite the strong result, the review included a series of recommendations for improvement that will assist MLA to further enhance the red meat industry's profitability and sustainability by 2020.

The review comprised of a **Performance Review** and an economic **Impact Assessment**.

The Performance Review, conducted by ACIL Allen, examined MLA's performance in the five years to 2014-15 and confirmed that MLA has the necessary governance and organisational arrangements in place to deliver against its plans.

MLA Managing Director Richard Norton said the review represented the most comprehensive examination of MLA's performance ever - and that MLA was already acting on its findings.

"The review found that many of MLA's programs are delivering exceptional results; such as Meat Standards Australia generating \$679m in industry returns on a \$54m dollar investment," he said.

"MLA's vital work in improving market access for red meat capturing a return of \$24 for every dollar invested. Animal health and welfare programs, market information and the MLA Donor Company were also shown to be high performers.

"In other areas, we must continue to improve. For example, on-farm adoption of R&D in our industry is too slow, leading to a below par return on investment. This is a challenge for industry and one way MLA is working to address it is through a new regional consultation model that will ensure research is best targeted to producers and their business needs.

"In domestic marketing, our lamb marketing program performed well but our beef program lacked consistency and delivered a lesser result. We're addressing this with our new 'Better on Beef' campaign launched in 2015, which uses data and insights to better target consumers by reinforcing the nutritional credentials of beef.

"At MLA we have listened, worked hard and made fundamental changes, and the review acknowledges this. We don't shy away from the need to keep improving."

### Impact Assessment highlights

- Each of MLA's four main strategic areas of activity (*Maintaining and improving market access; Growing demand; Increasing productivity; and Industry integrity and sustainability*) generated a positive return on investment ranging from \$3.80 to \$14.80 for every dollar invested.
- The majority of MLA programs generated healthy industry returns and all programs generated a positive return on investment.
- Four program areas within the strategic framework contributed 46% of total industry returns from 20% of expenditure.
- The best performing program areas were 'Market access' (24.0:1); 'Livestock exports' (14.5:1); 'Eating quality' (12.5:1); 'Product integrity' (8.3:1).
- Five programs returned less than \$3 for every dollar invested
- Two programs returned 7% of total industry returns whilst using 23% of expenditure; 'Domestic beef marketing' (1.1:1) and 'On-farm productivity' (2.7:1).

### Performance Review findings

1. There is considerable benefit of having one service company spanning the entire value chain.

**Recommendation:** Maintain current company structures to ensure MLA has the 'breathing space' necessary to operationalise the internal reforms that have been implemented in the past two to three years. This recommendation supports the continuation of the MLA Donor Company (MDC) (but with enhancements) as a fully owned subsidiary of MLA.

2. *Meat Industry Strategic Plan 2020* (MISP 2020) is an under-utilised planning, investment, engagement and communication tool.

**Recommendation:** Use MISP 2020 as the access and exit point to MLA - to reinforce the role of MISP 2020 as a strategic planning and operational tool which drives internal and external company interactions.

3. Listening is not enough, genuine partnerships are needed to drive future performance.

**Recommendation:** Improve MLA's strategic partnership model to ensure stakeholder engagement is meaningful, focused on building trust, oriented to evolve from transactional communication to seeking stakeholder involvement, and calibrated to generate mutual benefits for stakeholders and MLA.

4. Sourcing and procurement generates performance issues for MLA and MDC

**Recommendation:** Identify and then implement a leaner and more flexible procurement process to achieve more from its investments and to accelerate realisation of MISP 2020 for the industry's benefit.





# What impact has MLA made to the industry?



An independent assessment of MLA's research, development and marketing programs from 2010-11 to 2014-15 concluded:

**\$1** → = **\$6.20**

Every \$1 invested by MLA in **all programs** yields \$6.20 in current and future returns

**\$1** → = **\$14.80**

Every \$1 invested in **maintaining and improving market access programs** yields \$14.80 in current and future returns

**\$1** → = **\$5.20**

Every \$1 invested in **growing demand programs** yields \$5.20 in current and future returns

**\$1** → = **\$4.50**

Every \$1 invested in **increasing productivity programs** yields \$4.50 in current and future returns

**\$1** → = **\$3.80**

Every \$1 invested in **industry integrity and sustainability programs** yields \$3.80 in current and future returns

## 2. Strategic Plan 2016-2020

MLA's Strategic Plan 2016-2020 sets out MLA's strategic direction and the investment priorities which will contribute to the profitability, sustainability and global competitiveness of the red meat and livestock industry.

This Plan has been developed in collaboration with government and industry stakeholders. It closely aligns with the red meat and livestock industry's *Meat Industry Strategic Plan 2020* (MISP 2020) and the Australian Government's Rural Research, Development and Extension Priorities and its Science and Research

Priorities. It also draws input from MLA analysis of trend data which may impact on MLA's operating environment for the next four years, and was informed by the recent Performance Review (see Figure 1).

The Strategic Plan is the basis for MLA's Annual Investment Plans (AIPs) for each financial year through to 2020. The AIP outlines MLA's annual programs and the actions, key performance indicators and budgets for each.

Turn to page 3 for the key priorities and outcomes of the Strategic Plan.

Figure 1 Inputs to MLA's Strategic Plan 2016-2020



Read the reports and watch videos of Richard Norton summarising the key points:  
[www.mla.com.au/performance-review](http://www.mla.com.au/performance-review) and  
[www.mla.com.au/strategicplan](http://www.mla.com.au/strategicplan)



# And the winner is... the consumer

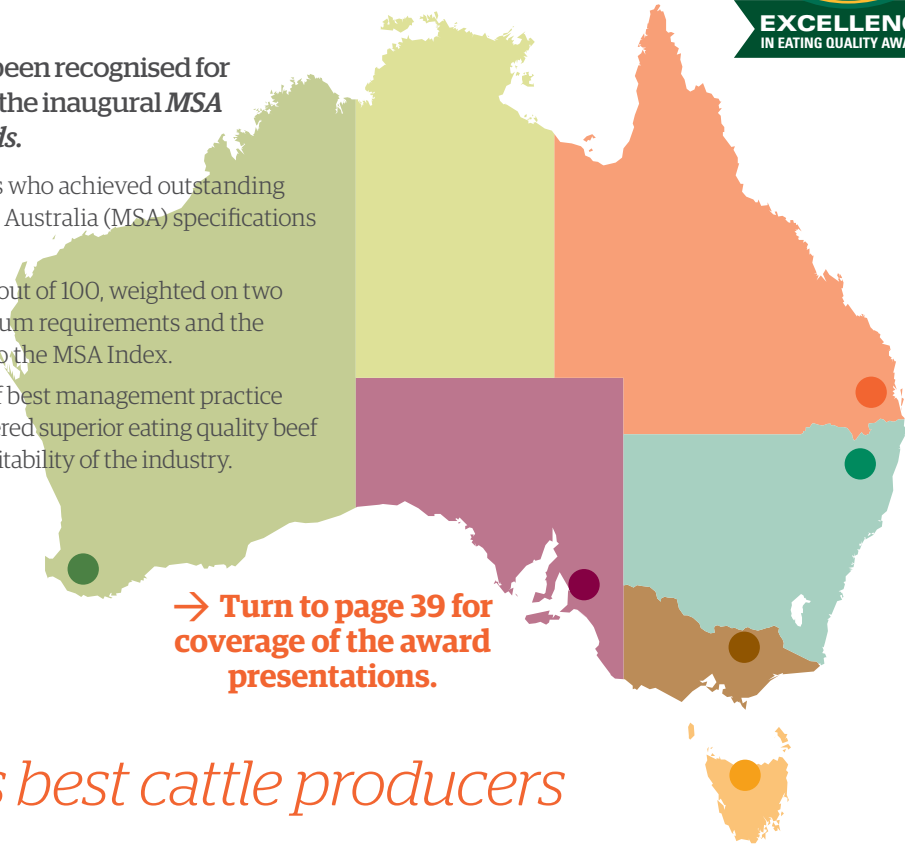


Producers across Australia have been recognised for excellence in cattle production at the inaugural *MSA Excellence in Eating Quality Awards*.

The awards acknowledge the producers who achieved outstanding compliance rates to the Meat Standards Australia (MSA) specifications in 2014-15.

Each eligible producer received a score out of 100, weighted on two factors - the compliance to MSA minimum requirements and the eating quality performance according to the MSA Index.

The awards aimed to raise awareness of best management practice from producers who consistently delivered superior eating quality beef to the benefit of consumers and the profitability of the industry.



→ Turn to page 39 for coverage of the award presentations.

## Meet Australia's best cattle producers

### ● Western Australia



#### Gerald Young and Denice Brookes, Bridgetown

**Enterprise:** Around 60 MSA graded vealers are turned off from the their 70 head Angus-Friesian cow herd annually, which are run on a 150ha property.

**The secret:** No shouting, good nutrition and avoid overcrowding, said Gerald.

"For better handling of my cattle, my yard is designed so that I can draft the cattle by myself," Gerald said.

"I don't open my mouth one little bit - sometimes I feel like it, but I don't - and that's why they are not stressed out, because I'm not shouting at them.

"Recently, one vealer made \$1,780, which I think was the state record - he was only eight- or nine-months-old and he weighed 520kg."

Regular feeding and even stocking rates, regardless of the season, are also influences of his high MSA scoring cattle.

"History has shown if I try and run more cattle to make more money I end up out of pocket. I find if I just run an even herd, I'm prepared for when a bad year hits and I still come out in front," Gerald said.

### ● South Australia



#### Angus McLachlan, Mt Pleasant

**Enterprise:** Angus buys in heifers as two-year-olds at the point of calving from Camperdown, Victoria, and raises the offspring to sell 100-115 grassfed vealers with a 225kg carcass to Woolworths.

**The secret:** Knowing the background of the cattle and a low stress environment, said Angus.

"For us the key is the genetic background of the cows combined with a Limousin bull over them to give our cattle the weight that suits the domestic trade," he said.

The bought-in heifers have been hand raised and bucket reared as paddy calves, and as a consequence they're quiet.

"My overseer, Paul Shutz, is very gentle with cattle. No one shouts at them and they rarely need anything more than reasonable encouragement.

"As a result, the calves are very easy to handle, and when we separate them to weigh them they don't seem to get too upset about that."



## ● Queensland



### Graham and Kay Kahler, Geham

**Enterprise:** Turning off around 100 yearling Limousin steers and heifers each year.

**The secret:** The Kahlers have come close to producing the perfect steak through their careful breeding and feeding.

The ossification or maturity scores were low, a measure that relates to the access to nutrition and quick growth path of the cattle, and has an impact on meat tenderness.

Coupled with that, their cattle exhibited desirable amounts of marbling, which enhances the juiciness and flavour of the beef. Graham said the secret was in “the feed and the breed”.

“Our calves are reared on good kikuya country at Yarraman and when they are weaned they come onto oats cultivation here at Geham.

“They are then moved into smaller lots and fed on a hay and grain mix. They are fed until 10 months of age before being sold into the market that best suits the cattle,” he said.

“You’ve got to have the right breed for producing quality MSA-graded beef and that is what we are trying to do.”

## ● New South Wales



### Rangers Valley Feedlot, Glen Innes

**Enterprise:** 33,500 head of Angus and Wagyu-cross cattle on feed to produce \$130 million worth of meat annually, supplying around 20 countries. Rangers Valley also supplies about 12,000 head a year to the ‘Coles Finest’ program. In addition, about 2,000 Wagyu cattle are bred on the 4,000ha property.

**The secret:** Rangers Valley Managing Director Don Mackay put it down to a “whole of life approach”.

“It starts right back with the genetics, then how the animals are weaned and backgrounded, and the low stress environment throughout the whole process,” he said.

“Then it’s all about how they are managed in the feed yard, how they are transported, and if you miss any of those components then you put at risk your capacity to achieve the best results under MSA, and therefore a really high quality product.

“All cattle that are brought in spend three weeks backgrounding on the property and that’s very important in terms of their health and their stress levels entering a grainfed environment.

“We have very specific training programs for all our staff so they understand the importance of low stress handling. We make sure when the cattle go into the grain feeding environment they are properly assimilated so they are very comfortable.”

## ● Victoria



### Gary Coventry, Benalla

**Enterprise:** Cattle purchased at 300kg in February or March from the saleyards are grown out and finished on a 240ha pasture block and 160ha farm at nearby Lima East.

**The secret:** Capitalising on available feed, according to Gary. He ensures there is feed available before buying in cattle, and reduces numbers during the drier months when feed supply is limited.

All his cattle are pasture fed on a combination of clover, rye and phalaris, supplemented with hay when required.

“For me the secret to getting a high MSA Index score and good compliance is to finish your cattle off when your feed is there and don’t have too many cattle on when there’s no feed - it’s as simple as that,” he said.

The steers are generally Angus, Hereford or pure beef breeds but Gary doesn’t mind a European-cross animal, as long as the cattle have a good temperament. Generally, 250-300 steers are turned off annually as a 250kg carcass for the domestic market, or a heavier carcass of up to 400kg for export, depending on how the season unfolds.

Gary avoids the use of dogs, frequently rotating his cattle in paddocks and only yards when necessary to minimise stress.

“Some people run their cattle through the yards every two weeks and weigh them... why do that? You’re only making more work for yourself,” he said.

## ● Tasmania



### Philip and Gaylene Hughes, Kindred

**Enterprise:** From the Hughes 65ha property at Kindred, near Devonport, the Hugheses turn-off about 50 head a year in the 600-700kg liveweight range.

**The secret:** Philip summed it up as minimising stress, not overstocking and feeding them plenty of silage.

“Genetics also play a big part in MSA, because you’ve got to have the temperament right, and you’ve got to have the breeding and the muscles,” he said.

“I want cattle that look like they’ll grow out to 600 or 650 kilograms, with plenty of muscle about them.”

Philip said it was important to keep the cattle well fed through hard times, with a constant plane of nutrition a key factor in producing tender beef.



Visit each of the winners in a series of on-farm videos developed for the awards: [www.mla.com.au/MSAawards](http://www.mla.com.au/MSAawards)

Watch highlights from the presentations delivered by the MSA team at the awards: [www.youtube.com/meatandlivestock](http://www.youtube.com/meatandlivestock)

## Building capability

# MLA's new 'game changer' approach to adoption



**A new pilot program aimed at lifting the productivity and profitability of red meat producers has been flagged as a game changer in its approach to on-farm adoption of research and development outcomes.**

MLA has launched the Profitable Grazing Systems pilot as part of a change in the way it delivers extension and adoption.

MLA's General Manager Livestock Productivity Dr Jane Weatherley said it built on MLA's best practice packages of information, tools and events.

"While MLA has developed a range of highly effective tools and resources over the years and run workshops to help producers understand and implement those, Profitable Grazing System takes it to the next level through the use of specialist coaches providing longer-term support," Jane said.

"Beef, sheepmeat and goatmeat producers will have ongoing support to help them identify their business potential, build their skills and make on-farm changes.

"The program will be delivered to allow flexibility in meeting producers' regionally relevant needs.

"The aim is for producers to measure, monitor and manage key business performance indicators and be more confident to make decisions, which are informed by that data."

#### Drivers of change

Jane said MLA's new approach to extension and adoption was

driven by a number of factors, including the withdrawal of traditional extension delivery partners - state governments.

"An analysis completed by the Red Meat Co-investment Committee found that, since 2009, there has been a further 25% reduction in state agency resources and identified that the private sector has limited capacity to fill the void," she said.

"With the public sector no longer able to be delivery partners to the extent possible in the past, and the private sector limited to fill the gap, MLA has had to review the approach to extension and adoption strategy investment."

Jane said the program's development was guided by the industry-wide focus on data-driven decision making, including the new *Meat Industry Strategic Plan (MISP 2020)*, which states "...we must continue to build a performance culture and business skills throughout our industry. This includes providing and packaging information and training to support informed and business-oriented decision-making."

"The 2014 situation analyses for sheep, northern and southern beef also identified that current programs need to go further in terms of supporting practice change," Jane said.

"The analyses indicated there is clear opportunity for producers to increase profitability, with the gap between average-performing producers and the top performers getting wider every year."

#### Building on successes

MLA Manager Sheep Innovation and Adoption Renelle Jeffrey said the creation of the pilot program began with a comprehensive evaluation of existing research, development and extension programs, including Making More From Sheep, More Beef from Pastures, Farm300, Producer Demonstration Sites (see case study on page 12) and EverGraze.

"We also conducted a skills and training needs analysis, which included phone surveys with 500 MLA producer members to determine the skills and training they consider are needed," Renelle said.

"We found producers were most concerned with the challenge of business resilience, particularly associated with climate variability (67% respondents) and that there were unmet opportunities for training in key whole-of-farm business management, pasture improvement and grazing management, feeding and animal nutrition, meeting market requirements, knowing cost of production and using financial information to make decisions."

Renelle said the small group supported learning delivery model had been chosen because of its proven effectiveness in programs such as Farm300 (see Sandy Nott case study opposite) and was a

### Test pilot ...

- Profitable Grazing Systems is being piloted by 10 producer groups in northern and southern Australia.
- Groups have between eight and 15 members representing a mix of red meat enterprises. Each group will have its own coach.
- Topics covered by the groups include business, people, feedbase, reproduction and genetics, and meeting value chain specifications.
- The program draws on new and existing MLA extension products, including More Beef from Pastures, Making More From Sheep and FutureBeef.



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

natural evolution of the models used in programs such as Making More From Sheep and More Beef from Pastures.

"Farm300 used small group coaching to develop skills for producers to significantly reduce greenhouse gas emissions while improving productivity from their production systems," she said.

**The rollout**

The 12-month pilot will formally conclude in December this year, however coaching groups will go through their full cycle of implementing change to deliver benefits to producers.

"Part of the pilot phase's role is to gather market research from producers and collaborators on value and willingness to pay for expert support," Renelle said.

At the end of the pilot producer and coach feedback will be used to refine the program.

"We want to ensure it meets their needs while also delivering the industry outcomes we're seeking," Renelle said.

"Following that evaluation, a five-year business plan will be presented to the MLA board in December for investment consideration."

## Small group support invaluable

**South Australian producer Sandy Nott credits the Farm300 program with 'helping cement' ideas that have increased his property's productivity and profitability, while also reducing greenhouse gas emissions.**

Farm300 featured coaches working with small groups of producers, a model similar to MLA's new Profitable Grazing Systems program.

Sandy participated in eight Farm300 sessions with fellow members of the Fleurieu Beef Group, and was coached by Melissa Rebbeck, director of Climate and Agricultural Support.

The group members were looking for ways to modify their enterprises to cope with the ever-increasing summer feed gap in their region.

"We used to calve in August on our property but, because of the dry seasons and earlier spring shut-off, we have moved calving back to July," Sandy said.

"Farm300 cemented that idea for me.

"The result has been an extra 50kg of liveweight gain because we're calving onto green feed rather than drying off feed."

Sandy also used the Farm300 sessions to work through his ideas for alternative supplementary feeding regimes, including adding the wine industry by-product grape marc to feed rations.

While Sandy was most interested in cost, research has shown feeding grape marc reduces greenhouse gas emissions of livestock while boosting production - a win-win that met the Farm300 objectives.

"We have to supplementary feed for about 115 days and, in the past, we used to make a loss in terms of weight gain," Sandy said.

"We were also paying up to \$200 a tonne for hay, while grape marc cost about \$30 a tonne."

Mixing grape marc with his silage and incorporating other supplements means Sandy's cattle are now gaining weight over the summer feed gap period and he can turn them off as 500kg steers at 15 months old.

"In the past we would have had to wait until they were 21-24 months old to reach 500kg and we also would have had to supplementary feed them over two summers, instead of just one," he said.

The success of the new feeding regime has been extended to trade steers and lambs, with ration recipes adjusted to meet nutrition needs and production goals.



**Snapshot**

Sandy Nott,  
Fleurieu  
Peninsula, SA.



**Property:**  
650ha

**Enterprise:**  
Cattle breeding and trading and sheep trading

**Livestock:**  
400 black Angus breeders, 500-600 trade steers/year, 1,000 trade lambs/year

**Pasture:**  
70% perennial, 30% annual for early season feed

**Soil:**  
Black fertile river flats rising to red loam on the hills

**Rainfall:**  
700-800mm



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Read the situation analysis for your industry at: [www.mla.com.au/News-and-events/Publications](http://www.mla.com.au/News-and-events/Publications)

More Beef from Pastures:  
[www.mla.com.au/mbfp](http://www.mla.com.au/mbfp)

Making More From Sheep:  
[www.makingmorefromsheep.com.au](http://www.makingmorefromsheep.com.au)

EverGraze:  
[www.evergraze.com.au](http://www.evergraze.com.au)

**The main benefits Sandy found from a small group learning model were:**

- a locally based group meant reduced travel times
- ideal forum to introduce and research new ideas
- direct contact and support from the coach provided a great sounding board
- the coach was a good information resource
- support helped lift confidence to make changes.

**What is Farm300?**

Farm300 was developed by MLA and funded by the Australian Government to help livestock producers increase on-farm productivity and profitability while reducing greenhouse gas emissions.

Twenty-five advisers delivered locally relevant coaching sessions to groups of six to 15 producers between August 2014 and April 2015.

Videos tracking the experience of six Farm300 participants, including Sandy, can be viewed at: [www.mla.com.au/Farm300](http://www.mla.com.au/Farm300)



**Sandy Nott**  
E: [awc@ffms.co](mailto:awc@ffms.co)



## Building capability

## Tailor-made adoption strategies

**Snapshot**Linton Wadley,  
Lacey West, Vic.**Property:**  
1,200ha**Enterprise:**Backgrounding  
steers**Pasture:**Phalaris and annual  
ryegrass/clover**Soil:**

Clay loam

**Rainfall:**

650mm

MLA Producer Demonstration Site host Linton Wadley and agricultural consultant Chris Mirams inspecting cattle on Linton's property in north-east Victoria.

**An MLA Producer Demonstration Site (PDS) is answering questions about the costs and benefits of rotational grazing. It has also provided insights into the way producers learn, and informed the development of MLA's new Profitable Grazing Systems program.**

Producer Linton Wadley from the Burgoogee Creek Landcare Group in Victoria hosted the three-year demonstration 'Grazing systems to improve profit'.

By the end of the project Linton had changed his management from a traditional set-stocking regime to embracing all the on-farm practices demonstrated in the PDS including:

- rotational grazing
- measuring pastures
- creating an autumn feed wedge
- strategic pasture budgets
- strategic applications of urea
- using decision-support tools
- soil testing and fertilising to critical values
- feed testing and understanding feed quality.

"Making these changes has given us more control over the business," Linton said.

"We are able to see things happening in advance and so are proactive, rather than reactive to a situation."

Facilitated by agricultural consultant Chris Mirams\*, the PDS featured an advisory group of five producer members from the Burgoogee Creek Landcare Group, who were responsible for providing strategic direction and local advocacy.

Initially 70 producers from the group's database were invited to

attend quarterly meetings and field days at the demonstration site.

"As the trial progressed, the producers attached to the trial enjoyed the field days and understood the concepts, however very little change was occurring on farm," Chris said.

"It became clear just demonstrating the technologies was not going to affect change, so an adoption strategy was developed around a core group of only 20 producers attached to two mentor farms and two facilitators."

**Narrowing the focus**

The mentors were Ron Ferguson and Linton, while the facilitators were Victorian land health extension officer Sue Briggs and Chris.

An easily adopted rotation was created on Linton's farm, on a 200ha grazing block of seven existing paddocks, with 320 yearling steers rotated through the paddocks.

"The aim was to stock the paddocks when there was 3,000kg of dry matter (DM) available and graze down to a target of 1,500kg DM, and achieve an average rest period of 40 days," Chris said.

"The rules were flexible and changed with stocking rate, pasture growth and pasture availability."

Working closely with the group members, Chris and Sue were able to develop an understanding of individual members' adaptive capacity and mould the program to their specific needs.

"We were able to tailor an extension program that not only provided the data, but also developed the skills in planning and execution and managing risk and uncertainty," Chris said.

"The mentor producers, Linton and Ron, also challenged and motivated the group. They both set a great example."

According to Linton, the PDS's success in achieving transformational change in the participants' farming systems was due to the individual attention and support provided by the facilitators.

"I had seen a lot of these practices before and wanted to have a go, but I was looking for guidance to get started," Linton said.

"I think it was the shove in the back and someone saying 'have a go', coupled with the tools and information, that made it work.

"I also feel Chris has shown me more than tools because I now want to know more and am looking for the 'next thing'. I also have more of an idea of where and how to look for advice."

**Linton's key on-farm changes included:**

- moved from set stocking to rotational grazing on 95% of the farm
- setting a production target of 600kg of beef/hectare/year
- targeting soil nutrients - undertaking more soil testing and attacking the limiting factors, whether it be acidity, phosphorus or potassium
- applying the correct amount of phosphorus for the target stocking rate
- doing pasture budgets, using urea to grow more feed in the winter and using sacrifice paddocks in autumn to create a feed wedge before winter sets in
- still supplementary feeding but the new tools concentrate the timing of feeding, which saves a lot of silage
- implementation of a more effective weed control program.

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\*Chris Mirams is also a director of MLA

## Research at work

The latest on-farm strategies emerging from MLA's investment in research, development and adoption.

### In this issue

#### 17// Whole Farm Grazing

A new program aims to lift producers' skills, knowledge and confidence to make on-farm changes.

#### 18// Leucaena learnings

A producer shares the not-so-easy, yet worthwhile road to success with this legume.

#### 20// Fertiliser know-how

Find out how the alternatives stack up against traditional fertilisers.

#### 28// Moving on

Tips and tricks on how to successfully yard wean your cattle.



# Is eID for you?

**There are many financial and practical factors to consider before investing in on-farm electronic identification (eID) technology.**

Electronic identification allows producers to track individual, rather than average, performance across their flock and build a bank of data based on objective measurements, said Sheep CRC Industry Engagement and Training Coordinator Lu Hogan.

"Sheep production systems based on measurement, management and marketing of animals according to individual performance can increase enterprise productivity and returns, improve on-farm management and enhance information along the supply chain," Lu said.

If the technology is used to manage data it can also pay off, with some producers recording a 35% return on investment - or payback in three years.

Achieve Ag Solutions director and consultant Nathan Scott advises producers how to use electronic identification as a tool to increase profitability.

"Electronic identification is not a silver bullet, but it can be part of a suite of management tools," he said.

"It allows producers to understand the variations in individual animal performance to apply selection pressure and can be used as a feedback system for management."





## Labour efficiency



## Why eID?

eID can be linked to data collected for individual animal management, such as:

- pregnancy status including singles/twins/triplets, early/late births and birth status
- weight gain for lambs and liveweight change in ewes, before, during and after joining
- fleece weight and quality
- animal health history
- genetics and breeding history (including particular sire lines)
- nutrition
- condition score
- paddock-to-paddock movements.

→ While he sees eID as a 'no brainer' for recording in the seedstock industry, Nathan said this technology also offered commercial producers a cost-effective way to hone their management skills.

There are many eID options - from wand readers priced at about \$1,000 to \$1,500, through to auto drafting management systems that can cost up to \$30,000.

Added to this is the cost of individual tags, which range in price from state to state, although prices are expected to decrease with increased adoption.

When deciding to purchase eID tags, it's also important to ensure they have passed retention thresholds and are NLIS approved.

Nathan recommends producers keep eID simple to begin with, by recording just a few key things, but be aware that there is scope to expand. For example, eID can be paired with technologies such as Pedigree Matchmaker to match ewes and lambs and identify high-performing ewes or with walk-over-weighing technology to measure weight gains.

He said it was also important to underpin eID with proper security and back-up systems, to preserve the integrity of data so it can be used with confidence.

### Future opportunities

Lu said eID technology can be a powerful tool for over-the-hooks marketing, such as

## Is it for me?

Nathan asks producers the following questions to help them identify the best set-up for their specific business objectives. This helps producers develop a clear plan of what they want to achieve and avoid buying unnecessary technology and generating data that is not essential to their management goals.

- 1. What are you trying to achieve?** Is it to increase lamb marking percentage? Increase fleece weight or reduce micron? Lift lamb growth rates? This is the most critical question, as you must have a clear goal in mind before considering investment in technologies to help manage data.
- 2. What role will this technology play in achieving those goals?** Will the data be used to identify the most or least productive animals in your flock? Will it guide animal health treatments or supplementation; influence marketing decisions; or simply provide feedback on your management?
- 3. What are your strengths/interests?** Not everyone is excited by data so be realistic about your capabilities and interest in data collection and interpretation. Consider engaging a service provider to analyse data or use contractors who have eID systems in place.
- 4. Will you use the data you are collecting?** There is no point collecting data from eID if it won't be used. The decisions made using data will make money, not the tag itself - the tag is just a catalyst for change.
- 5. What equipment (scales, computer, internet access and suitable yards) do you already have and what equipment would you need to purchase?** Is a complex system required to allow multiple tasks (such as weighing, drafting) in a single pass, or is a simple wand or panel reader sufficient to produce the data you want? What software is best suited to your requirements? Are you capable of operating the software and equipment or would you need further training?



projecting when stock are market-ready. It can be paired with feedback mechanisms from processors to guide on-farm management and improve market compliance.

eID could also play a role in risk mitigation.

“The Sheep CRC is developing a program that combines on-farm data and ‘big data’ from weather and pasture growth modelling to enable producers to identify and then manage at-risk animals,” Lu said.

“For example, this tool would utilise eID to identify animals with low condition score that are at risk from predicted extreme weather events. This would enhance animal wellbeing and productivity, and demonstrate the industry’s responsible livestock management credentials.”

#### Adoption

Lu said eID had been in the research and development pipeline since about 2002, and commercial products have been around for about 10 years.

In the Sheep CRC’s last survey on the subject (in 2013), 10% of Australian sheep producers were using eIDs and an additional 20% were interested in the technology.

Lu said the indicators showed that adoption of the technology had been growing steadily since then.

*MLA is a major co-funder of the Sheep CRC.*



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## Resources

- MLA publication - *On-farm application and value of Electronic Identification (EID) for the sheep industry in Australia*: [www.mla.com.au/EID](http://www.mla.com.au/EID)
- Victorian Department of Agriculture: [www.agriculture.vic.gov.au](http://www.agriculture.vic.gov.au) and search for ‘eID reader’
- Search ‘eID’ on the Sheep CRC website to find producer courses and a decision making guide: [www.sheepcrc.com.au](http://www.sheepcrc.com.au)

# Tagging for top performers

**Gordon Brown readily confesses he is no computer whiz yet, but has found using the latest technology is delivering large benefits in the sheep enterprise he manages.**

Dedicated to his composite sheep breeding program, Gordon combines some of the latest electronic identification tools, such as eID tags and Pedigree Matchmaker, with his meticulous hand-written records to hone his commercial enterprise’s performance. →



## Labour efficiency

→

## Snapshot

Gordon Brown,  
Manager,  
'Shelburn',  
Geelong, Victoria.



**Property:**  
1,215ha

**Enterprise:**  
Prime lamb  
production for  
export and  
cropping

**Livestock:**  
2,500 composite  
ewes

**Pasture:**  
Third native  
grasses, two-thirds  
improved with  
mixes of lucerne,  
clover, tall fescue  
and cocksfoot

**Soil:**  
Light, sandy red  
gum country to  
treeless volcanic  
basalt

**Rainfall:**  
500mm

"I've been using eID tags for three years with the aim of identifying our top producers, those ewes that produce the most kilograms of lamb per hectare," he said.

"I come from a Merino background where it is much easier to visually assess and select the animals you want in your flock.

"However, with prime lamb production it's far more difficult, particularly comparing the performance of twins and triplets with singles.

**"If I can identify those mothers who are really productive in terms of producing kg/ha, I can form a select flock with traits I want to keep and replicate."**

Last year Gordon's best ewe mob recorded 214% scanned in lamb for 185% weaned lambs.

"If I could have my pick, I'd have a ewe that can do a good job of raising twins every time," he said.

The 'Shelburn' flock lambs during the tough July-August period, the weaners are then feedlotted on grain grown on the property and grown out for export at about 27-28kg dressed.

**Walk by scanning**

Gordon's lambs are tagged with eIDs at marking, returned to their mothers and the Pedigree MatchMaker is put in the paddock near a fenced-off watering point and a lick which acts as an attractant.

As the ewes and lambs pass the Pedigree MatchMaker several times (see photo page 15) over two to three weeks, it records which animals are walking past and then the ewe-lamb tag relationship is assessed to assign dam pedigree.

Gordon's farm consultant, Nathan Scott of Achieve Ag Solutions, then downloads the data and completes the ewe-lamb tag association analysis so that Gordon can use this information.

Gordon also uses a Tru-Test scanner, scale and three-way drafting machine to not only segregate his ewes on performance but to record weights at weaning, monthly during the pre-joining period, and then at least two weeks prior to rams being taken out to ensure the ewes are gaining weight.

"I probably overdo it but I like to record this information because if I have problems later on such as disappointing conception rates, this information might help explain why and help me better manage similar situations in the future," he said.

Gordon has recently invested in a hand-held scanner, which means he can conveniently record any replacement eID tag numbers without having to get the animal back to the yards

"Missing tags is not a big problem but can occasionally occur in lambs," he said.

The next frontier for 'Shelburn' is to receive eID-linked automated feedback from processors on carcass attributes such as hot carcass weight and fat scores.

"It will be pretty exciting to receive information on what the consumers are demanding and how well our best pedigree lines deliver on that," Gordon said.

"It will have a huge influence on our genetic and animal selection as well as on-farm management in the future."



**Gordon Brown**

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Gordon Brown (left) with his technology adviser Nathan Scott



Pedigree MatchMaker is a walk-by system with associated software that uses animal data to estimate association between dams and their lambs and ultimately provides an accurate pedigree match.



To find out more visit:  
[www.sheepcra.org.au/goto/pedigree-matchmaker](http://www.sheepcra.org.au/goto/pedigree-matchmaker)



## Pastures

**What:** MLA's Whole Farm Grazing Strategies - a new producer training package developed from the EverGraze project.

**Who:** Producers in Victoria, South Australia, southern NSW and southern Western Australia are encouraged to participate.

**Why:** To develop a big picture approach to improving profitability and sustainability.

**How:** A structured program of discussion groups, farm visits, paddock walks held over six or seven days in a two-year period under the guidance of a trainer.

**Themes:** The sessions are structured around seven themes: pastures for extensive livestock; soils and land class; livestock - strategies to address production, environmental and lifestyle requirements; the nuts and bolts of grazing management; tactical management to balance feed demand and supply; making on-farm strategic change; and producer presentations of change on farm.

**Sign up:** [www.evergraze.com.au/wfgs](http://www.evergraze.com.au/wfgs)



### Snapshot

David and Deb Bain,  
Stockyard Hill,  
Victoria



**Property:**  
1,500ha

**Enterprise:**  
Prime lamb and  
wool production

**Livestock:**  
4,500 crossbreds  
and 3,500 Merinos

**Soil:**  
Volcanic loam and  
basalt clay and  
stone barriers

**Rainfall:**  
625mm

Victorian sheep producers Deb and David Bain (pictured) found the on-farm changes applied as a result of their participation in the two-year pilot of the Whole Farm Grazing Strategies (WFGS) program stood them in good stead last summer.

"It's one of the best courses I've done, and I've done a lot of courses. In conjunction with other programs such as Lifetime Ewe Management, we have improved our turn-off by about 10% as a result," David said.

David was motivated to participate in the pilot to help with his plan to improve on-farm infrastructure by reducing paddock sizes, fencing into land classes and increasing watering points.

"This farm has been in my family for 150 years, and when I took over it had a lot of big paddocks, some over 100 hectares, with water up one end, and we were relying on windmills," David said.

"The infrastructure was my big issue - I was growing feed, but I wasn't utilising it - so that's what I was concentrating on when I started the course.

Water points were increased by pumping from a reliable spring-fed dam via poly pipe to tanks that gravity fed to watering points. (See photo above - these paddocks were previously a one 120ha paddock, which has now been divided into five. This area was 1.5km from a waterpoint and was consistently undergrazed. Water for that tank is now pumped from four kilometres away.)

Last summer was one of the driest on record for the Western District producers, and their

improvements to water infrastructure to enable better use of paddocks meant they didn't need to destock.

### Fine tuning

The Bains run 4,500 crossbred sheep, selling their second-cross lambs as stores and the wether portion of their Coopworth flock as stores as well.

They also run 3,500 Merinos, producing 18-micron wool.

"Our biggest problem has always been lack of feed over summer. Climate change aside, we needed some more techniques to provide summer feed, and as a result of doing the WFGS course, I've been planting fodder crops in summer," David said.

"I've put in 50ha of lucerne already but I've got another 70ha to go, and I've found an agronomist who's helping me with a multi-year plan to make sure when I do put the lucerne in it establishes properly.

The enterprise also has lambing and shearing routines to fit in with the pasture production cycle.

"I normally lambed in August/September, and I've gone to July/August now," David said.

"We were shearing in November, but we get our flush of growth in spring here and it interfered with weaning. Bringing shearing through to October frees up that time of the year to do other things like first summer drench or weaning.

"I've also continued with my infrastructure plan. I've identified a couple of hundred hectares of native grasslands and I've decided that there's no way I can improve that, so I'm fencing that into smaller paddocks of 30ha or 50ha, so I can manage them better."

### Why David recommends WFGS

"It tackled issues in a logical sequence and provided the support to make a plan and put it into action," he said.

"I hadn't really looked into the next step, of how you go about sowing pasture, and the techniques you need to employ to upgrade all the different areas of the farm.

"The course provided the charts and tools to get everything out of your head and onto paper.

"I think with a lot of producers, everything goes on in their head but this course makes you write it down into a plan. It's up to you whether you follow it or not, but at least you've thought about it."



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## Feedbase

# Leucaena – more cash with less gas



## The benefits of grazing leucaena (versus native pastures) include:

- faster liveweight gain
- higher finishing weights
- 15% higher stocking rates
- 31% lift in liveweight turn-offs
- reduced carbon emissions
- increased carbon trading opportunities

**Grazing leucaena is a win-win for producers. That's the finding of a recent MLA-funded study into the impacts of leucaena plantations on productivity and greenhouse gas emissions in northern Australia.**

Increased production, better sequestration of soil carbon and reduced enteric (rumen created) methane emissions are the producer benefits revealed by recent leucaena grazing trials.

"We found that by finishing steers on leucaena, stocking rates could be increased by 15% and liveweight turn-off improved 31%, compared with systems based on native pastures alone," said Senior Research Fellow at the Tasmanian Institute of Agriculture Dr Matthew Harrison.

"During a trial at Belmont Research Station in Queensland, steers grazed on leucaena had a liveweight gain advantage of 170 g/day over grass-finished steers over 500 days, resulting in them being 186kg heavier at slaughter."

Matthew said the grass-finished steers also took 108 days longer to reach a comparable slaughter weight.

"Longer finishing times mean higher emissions intensity or, in other words, cattle emit more methane over their lifetime so emissions per unit carcase weight are much higher," he said.

"This is a disincentive for the industry and an added cost to producers."

The proviso is that cattle grazing leucaena must also be administered a rumen inoculum (see 'Inoculum 'good as gold', far right) to prevent mimosine toxicity, but this is generally well known.

"Our research evidence showed that leucaena is definitely a worthwhile investment for the productivity gains it can deliver to northern beef enterprises," Matthew said.

### Increased income

From a carbon trading perspective, grazing leucaena plantations is an eligible practice under the Australian Government's Emission Reduction Fund's Beef Herd Management methodology.

Credits can be earned from lowering livestock emissions intensity – steers grazed on leucaena produced less carbon dioxide per kilogram of beef than those fed on grass alone – and from carbon sequestration through the roots of leucaena in soil organic matter.

"There is also the added bonus from growing leucaena in hedgerows, which has beneficial effects on the surrounding soil and grass pasture through the fixation of atmospheric nitrogen, resulting in improved feed quality of both the leucaena and the grass," Matthew said.

Matthew said leucaena's value as an income generator under abatement schemes was small though when compared to the extra income that could be gained from the improved livestock production outcomes.

"This is because a kilogram of beef is worth about 70 times more than a kilogram of carbon dioxide mitigation and this will remain the case until the value of Australian Carbon Credit Units increases substantially," he said.



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## Inoculum 'good as gold'

An MLA-funded investigation into the effectiveness of the leucaena inoculum has found that it is as effective as ever.

Diane Ouwerkerk, from the University of Queensland's Associate Professor Athol Klieve's rumen ecology group, explained the team found the bacterial composition of inoculum had changed very little during its 20 years of production and producers could still rely on it to effectively degrade toxicity in cattle grazing leucaena.

"An added bonus of the research was that we found inoculum, despatched to properties frozen and then used upon thawing, can be stored for up to 30 hours, at between 2 and 8°C, and remain effective," she said.

"For producers, this takes some pressure off the delivery logistics – they can store it overnight in a fridge, drench their cattle the next day and be confident their stock are protected from mimosine toxicity."

Diane said inoculum is administered as a rumen drench at 100mL/animal, to 10% of the herd, which has been grazing leucaena for at least a week.

"Having some leucaena already in the rumen gives the bacteria in the inoculum their best chance for survival and establishment," she said.



**Diane Ouwerkerk**  
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### Resources:

For more information on growing leucaena contact the Leucaena Network:  
E: [admin@leucaena.net](mailto:admin@leucaena.net), [www.leucaena.net](http://www.leucaena.net)

Find out more about approved Emissions Reduction Fund methodologies at  
[www.environment.gov.au/climate-change/emissions-reduction-fund](http://www.environment.gov.au/climate-change/emissions-reduction-fund)

To view the full report: [www.mla.com.au/leucaena-rumen-inoculum](http://www.mla.com.au/leucaena-rumen-inoculum)

Inoculum is available by contacting the Tick Fever Centre: T: 07 3898 9655

If leucaena wasn't such a productive shrub with significant economic and environmental benefits, Shaun Tobin would have given up on growing it long ago. He has battled heatwaves, flash flooding, challenging soils, gaps in agronomic advice and soil borne disease to finally achieve a leucaena plantation for cattle grazing.



### Snapshot

Shaun Tobin,  
Wallaville, Qld.



**Property:**  
180ha

**Enterprise:**  
Beef and sugar cane

**Livestock:**  
150 steers

**Pasture:**  
All improved  
Bluegrass and  
Rhodes grass

**Soil:**  
Heavy black to  
loamy red soil

**Rainfall:**  
900mm

## From tears to triumph: one producer's leucaena tale

### In the beginning

"I became interested in leucaena about 10 years ago when the sugarcane industry hit a tough spot. I was really impressed with the weight gain potential," Shaun said.

"Our neighbours had grown it successfully so I was encouraged to give it a go."

Before his first attempt, Shaun completed a 'Leucaena Network' course at the Brian Pastures Research Station at Gayndah and bought a planting machine. However, despite his upskilling and thorough preparation, Shaun could not have prepared for the challenges nature was about to send his way.

### First challenge - heat

"Initially, I sowed the Tarramba variety that November in sandy loam soil but shortly after we suffered a heatwave and that just flattened the seedlings," he said.

### Second challenge - floods

The next attempt wasn't until last year with the variety Wondergraze. This time it was in December and Shaun changed location to soil types of black and red loams "which are kinder to seedlings in the heat".

But six weeks after germination, a freak February storm delivered 150mm of rain in an afternoon and washed away 5ha of seedlings from his 20ha plot.

### Third challenge - soil types

Undeterred by heatwaves and flooding rains, Shaun re-planted the damaged areas shortly after.

"By moving the hedgerows to different soil types I discovered how critical planting depth is to success," he said.

"The first planting, in sandy loam soil, was sown at 75mm, while the second time, in the heavier soils, was 20 to 25mm.

"Varying soils require different planting depths - generally the heavier the soil, the deeper the seed can be."

### Fourth challenge - disease

"Again I had a really good strike but when the leucaena got to about 30cm high, individual plants started dying," he said.

With the help of an agronomist, Shaun narrowed down the cause to a soil bacteria or fungi.

"Since then I've replanted some seed treated with fungicide and inoculants," he said.

### Lessons learned

Shaun said his key learning, from both the course and practical experience, was the need for good site preparation, including fertiliser application prior to sowing.

"I know I've had some setbacks but if you prepare the site well, plant in spring and have some good luck with the weather, it is feasible to graze the plants within six to seven months," he said.

"Success really depends on your groundwork and the weather."

Shaun said the toughest part of the journey was sourcing regionally-relevant advice.

"I would really like to see more extension people on the ground to help producers establish leucaena because, despite the challenges, it has the potential to dramatically improve a beef operation's profitability and, once established, should last more than 20 years," he said.

### Looking ahead

For Shaun, established leucaena hedgerows will increase the profitability of his beef trading operation.

"We usually source weaners weighing about 250kg during May-June and grow them out to about 400kg on an annual cycle," he said.

"Grazing a leucaena-pasture mix can achieve weight gains of 1.5kg/day but even if they only put on 1kg/day, I should be able to buy in weaners and grow them out twice a year, rather than just once."

Shaun hopes to plant 20ha of leucaena each year for the next four years and will stick to the Wondergraze variety. However, he is also keen to try Redlands, the new MLA-funded psyllid-resistant variety, when it becomes commercially available.

This year, Shaun will plant leucaena earlier, after the last frost, and is hopeful of being able to graze it off prior to winter next year.



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## Soil nutrition

# Hit pay dirt with informed fertiliser choices

**A series of MLA-funded projects has shed light on how producers can find the best alternative fertiliser product for their pasture.**

Project leader Dr Lewis Khan, of Agricultural Information and Monitoring Services, said an extensive literature review revealed there was limited information available on the effectiveness of alternative fertilisers from independently collected sources and replicated experiments with appropriate statistical analysis.

"This has certainly hampered the decision-making process for producers when it comes to choosing the best soil treatments and fertilisers," he said.

To address this challenge, teams of researchers applied 43 soil treatments in NSW winter and summer rainfall areas, then compared the performance of microbial products, plant growth or microbial foods, animal wastes, phosphorus, biologically activated rock phosphate, and major or trace nutrients other than phosphorus.

The soil treatments were tested alone and in combination with superphosphate to determine their performance and cost-effectiveness for improving the productivity of soils and pasture.

## Decision making

Despite the number of choices, Lewis said the results from the five field trials gave clear direction about what soil treatment attributes producers need to focus on to achieve pasture and production improvements:

- "With phosphorus-limiting soils, soil treatments that provide phosphorus, and also generally sulphur, were the most effective for increasing pasture production," he said.
- "In this situation, microbial products, plant growth or microbial foods or less

limiting major or trace elements did not increase pasture production".

- Where soils were not limited by phosphorus or sulphur, and had low exchangeable aluminium, the application of phosphorus, microbial products, plant growth or microbial foods also did not improve pasture production.
- Where soils were deficient in phosphorus, it made little difference in what form the phosphorus was applied. Pasture production still increased, but faster pasture responses were observed from more readily available forms.

"Animal wastes or other products capable of providing phosphorus can be effective soil treatments," he said (see "Where to start").

Interestingly, the research found no relationship between the levels of microbial biomass and activity and changes in pasture production.

Where increases were detected, it was in response to plant-limiting nutrients being applied, not to the application of microbial and plant growth or microbial foods.

## The economics

According to Lewis, the most cost-effective way to improve pasture growth was to address limiting nutrients, such as phosphorus and sulphur.

Across all the projects, the most cost-effective soil treatments were those that provided adequate amounts of phosphorus.



Untreated control with 2,100kg DM/ha and 3% white clover content.



Pasture fertilised with super had 4,050kg DM/ha and white clover comprised 15% of pasture DM.



Pasture fertilised with compost had 2,650kg DM/ha and 3% white clover content.

## Where to start

**To help producers navigate the options, Lewis recommends the following steps:**

- Decide your objective for pasture growth and soil fertility – maximum production may not be everyone's goal.
- Use a soil test to determine the deficiencies and toxicities that you need to address.
- Identify the fertilisers and soil treatments that address any nutrient deficiencies and toxicities.
- Obtain a nutrient analysis of the possible alternative fertiliser products and check for contaminants and livestock and human health risks.
- Ask suppliers for evidence of nutrient availability and product performance.
- Calculate the cost of the available nutrients in the possible products.
- Choose the product on the basis of all information collected in the previous steps.
- Monitor the pasture's response to the product by conducting a soil test at least every two years.



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## Plucking out the facts

An MLA-funded Producer Demonstration Site, run by Dr Lewis Kahn and his team, showed chicken litter can have bonuses as a pasture fertiliser option.

The project, undertaken in the New England region of NSW, found:

- The application of chicken litter at the same dollar value as commercial phosphorous (P) fertiliser produced the same amount of pasture in the same amount of time.
- Clover dominance in the chicken litter plot was slightly less (because of more nitrogen applied by chicken litter favouring grasses and less available P - chicken manure releases it at a slower rate) creating a more stable system, that is, fewer bare patches when clover burns off.
- When applied at the same rate of P as commercial fertiliser, chicken litter has the potential to grow extra grass because of its higher level of nitrogen.
- If the chicken litter can be sourced and spread at a similar cost to commercial P then the extra nitrogen is free.
- Some sources of chicken litter are high in calcium, creating a liming effect, which, if purchased at a similar price to commercial P, is again a free benefit.
- It is important to soil test first, apply fertiliser to address the most limiting nutrients, choose the fertiliser that is the most cost-effective and monitor over time.



# Digging into the value of compost

## Can compost replace superphosphate as an effective, economic way of improving pasture performance?

It's a question asked by a growing number of producers and, until now, there has been no conclusive scientific evidence to answer it.

A Producer Demonstration Site at 'Wongwibinda', near Armidale, NSW, supported by MLA and producers from the Southern New England Landcare group, compared the effects of superphosphate and compost applications on pasture performance. The research determined which fertiliser options were the most economical and beneficial for producers.

Research team leader Dr Lewis Kahn, of Agricultural Information and Monitoring Services, said the project showed there was a significant difference in the amount and quality of pasture feed produced by superphosphate compared to compost and, from a commercial perspective, superphosphate was the clear winner.

**"Over the five years of the trial, extra herbage production on the superphosphate-applied plots was 5.8t DM/ha greater than for the untreated control plots, compared to 1.8t DM/ha on the compost-applied plots," he said.**

"There was also large difference in the feed quality of the pasture.

"Pasture grown from superphosphate treatments contained higher crude protein, phosphorus and sulphur."

Lewis said the true economic benefit of higher quality pastures was easily underestimated.

However, by entering the pasture quality data from the superphosphate and the compost plots into the GrazFeed computer program, (assuming the same amount of herbage mass), it predicted 300kg steers would grow 200g/day faster grazing the superphosphate-fertilised plot.

Superphosphate also proved the most cost-effective option with one tonne of extra herbage costing \$70.

"If we assume that livestock convert herbage to weight gain at a ratio of 10:1 or better, an extra tonne of pasture could produce an extra 100kg of liveweight," Lewis said.

"For example, if the net return (i.e. less cost of

### ✓ Compared with compost, superphosphate offered:

- higher pasture growth
- higher crude protein, phosphorus and sulphur in the pasture
- greater return on investment.

### ✗ Compost application failed to produce:

- any improvement in soil phosphorus or sulphur levels
- any lift in soil bacteria or fungi levels.

production) from the sale of yearling beef cattle was \$2/kg, the value of the extra tonne of pasture would be \$200/tonne, which is clearly profitable.

"In addition, the profitability from the extra pasture will improve in the future when lower maintenance rates of fertiliser are used to maintain the extra pasture production."

Lewis said compost fertiliser, unlike superphosphate, failed to increase the soil concentrations of phosphorus and sulphur - key limiting nutrients for pasture growth.

"Soil biology was highly variable during the years of the trial with no consistent differences associated with fertiliser treatments and soil pH was also unaffected," he said.

**"Compost didn't increase concentrations of fungi and bacteria either.**

"Taken together, the soil chemistry and biology results showed that - on the phosphorus-responsive site - superphosphate was the only fertiliser to increase soil concentrations of major nutrients required by plants."



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For more help use MLA's *Five Easy Steps: P Tool* user booklet:  
[www.mla.com.au/fiveeasysteps](http://www.mla.com.au/fiveeasysteps)

## Soil nutrition

# Super-charged pastures the winner



## Snapshot

Bill and Jacqui Perrottet, Guyra, NSW.



**Property:**  
1,538ha

**Enterprise:**  
Black baldy cattle for feeder market, trade steers, wool, prime lambs, meat goats

**Livestock:**  
400 breeding cows, 1,800 Merino ewes, 900 Dorset ewes, 800 wethers and 600 nannies

**Pasture:**  
700ha fescue/white clover; remainder native with naturalised improved red grass, poa tussock and white clover

**Soil:**  
Red and black basalt

**Rainfall:**  
900mm

Since taking part in an MLA-funded fertiliser demonstration, Bill and Jacqui Perrottet have a clear idea on which fertilisers to use and which ones to avoid.

The couple jumped at the chance when they were invited to take part in a demonstration to compare the performance of compost and superphosphate.

The Perrottets, who juggle five enterprises on their 1,538ha property 'Urandangie', were keen to gather more accurate feedbase information on their farm and to discover whether compost could deliver any significant benefits that superphosphate had not.

'Urandangie' has a long fertiliser history with 15kg/ha of sulphur (S) and phosphorous (P) applied annually in early spring on all highly utilised areas.

Areas that are set stocked are fertilised every second year.

"For the demonstration, I had a site where we carried out our normal fertiliser practice and an adjacent area with the equivalent value of compost applied (about 500kg/ha)," Bill said.

"I recorded dry matter when stock went in and out of each area, as well as stock numbers, DSE ratings and liveweight gains.

"Dr Lewis Kahn, the project leader, used this data to calculate stocking rate in DSE/ha and total pasture growth rate in kg of DM/ha per day.

"We can use this information for future feed budgeting."

Bill said there was no difference in the sites on his property and no significant difference in weight gain of the stock.

"Soil tests showed there was adequate P and S at the 'Urandangie' sites when the trial began," he said.

"With Olsen P levels above 15mg/kg, it explains why there was no difference between the normal fertiliser practice and application of compost."

However, on other P-deficient properties involved in the demonstration, it was a different story.

"We actually learnt more from these farms where we saw a significant increase in dry matter on areas where single super was applied compared to the compost," Bill said.

"As a result of the demonstration, I won't be using compost as part of my pasture program; however, we also compared the application of chicken litter and that proved a cost-effective alternative to single super on some sites."



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## Market compliance



# Linking up for a win-win

**Processor JBS Southern is seeing the benefits of MLA's Livestock Data Link (LDL) through more animals meeting specifications. Producers, too, are reaping rewards by receiving more meaningful information on which livestock comply and what they can do about those that don't.**

LDL is an online carcass feedback system, helping producers improve their compliance to market specifications. It links slaughter data from the National Livestock Identification System and the MSA databases with tools, benchmarking reports and a library of helpful information to help producers improve market compliance.

JBS Southern was one of the early adopters of LDL, rolling out the system to suppliers under its Farm Assured producer group. It has taken more than 12 months for JBS Southern to introduce LDL via workshops and supplier support, but according to JBS Farm Assurance and Supply Chain Manager for the Great Southern Program, Mark Inglis, the benefits are being measured at every step of the process.

LDL, according to Mark, has helped JBS to understand the exact measurements affecting compliance – rather than just using “meaningless numbers” – and to educate their buyers and livestock agents on the characteristics of animals most likely to reach compliance.

“Suppliers always know which animals are the tail-end and when they see via LDL why they weren't compliant it gives them information they can act on,” Mark said.

“Those producers then have the power to act on that information via their management

or use of genetics to improve areas of non-compliance.”

The flow-on effects from improved meeting of specs are numerous, according to Mark.

“We have deadlines for containers to be filled with meat for export. If we don't have high levels of compliance, our chances of filling that container by the deadline are impacted, meaning we have to wear the cost of a half-filled container and an unhappy customer,” he said.

“It is in our best interest, and the industry's, to make sure that containers are filled every time with 100% compliant beef or lamb.”

LDL has helped JBS to create grids, which, Mark said, “actually have meaning” and help the company identify where supply was falling down.

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**“As an example - overall compliance including MSA beef compliance at JBS was 66% four years ago. Last year it was 88%. I put that down to standardising the data going back to producers in a format that means something,” Mark said.**  
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“In the past three or four months we've had under 7% non-compliance and as low as 3.4% non-compliance for grassfed cattle being graded for MSA.”

The company has also used LDL to educate their buyers on the characteristics of animals more likely to reach compliance.

“The sort of steer buyers assumed that would be ideal was often lean and muscular,

when actually an animal with a bit more fat coverage grades really well for MSA,” Mark said.

### Industry wide benefit

MLA Manager Integrated Industry Systems Jo Quigley said research commissioned by MLA in 2011-12 identified that the Australian beef industry loses an estimated \$51 million/year by producing cattle that do not meet market specifications.

“An additional \$64 million a year is lost through carcass condemnments, and between \$12m and \$49m is lost due to offal and meat condemnments,” Jo said.

Research was undertaken in 2013-14 to identify the potential benefits of the LDL program for the Australian lamb industry. It was conducted across two major markets (domestic supermarkets and Middle East export) and indicated that the potential cost of non-compliance for the Australian lamb industry could range upwards from \$8.4 million a year or approximately 0.61% of total farm-gate value of slaughter lambs (annual slaughter value estimated at \$1.4 billion using ABARES data).

“An enhanced value chain feedback system like LDL has the potential to unlock this unrealised value and remove value chain wastage by providing appropriate messaging with regards to what the market is actually seeking,” Jo said.

## \$51 million/year

lost when Australian cattle don't meet market specs



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## Market compliance

# Trading on value



## Snapshot

Elke and Peter Hocking, Lucindale and Kangaroo Island, SA.



**Property:**  
627ha Lucindale and 166ha Kangaroo Island

**Enterprise:**  
Beef and prime lamb production

## Livestock:

220 crossbred cows, 130 steer/heifer weaners, 1,950 first cross ewes

## Pasture:

Improved pastures predominantly subterranean clover, perennial and annual grasses

## Soil:

Sand, sandy loam through to heavy black clay soils

## Rainfall:

625mm

**Producers Elke and Peter Hocking are using Livestock Data Link (LDL) to identify the changes that are needed in their enterprise to improve their market compliance and profitability.**

Their flock is a self-replacing Border Leicester/Merino cross, crossed back to White Suffolk and they will join about 1,900 ewes and turn-off about 2,500 lambs this year.

The Hockings are JBS Farm Assured suppliers who have used LDL to focus on the performance of their prime lamb operation.

“One of the biggest advantages of LDL is that it helps producers make meaningful decisions and changes based on the feedback it provides, in order to become more compliant and, ultimately, increase profitability,” Elke (pictured above) said.

“We still get carcase weight data and fat scores, but rather than on a mob basis, I can download all of the individual data.

“You can plot compliance specifications for fat and weight against the grid you sold on and also put in different grids to see whether your animals might have been better suited to different markets”.

Elke said the feedback includes an estimate of lean meat yield, which producers haven't been able to access since 2008 when VIAscan was operating.

“We've been using Australian Sheep Breeding Values for the past 15 years and our genetic selection has been focused on increasing muscle and growth to produce fast growing lambs with better carcase lean meat yields,” she said.

“With LDL, producers can go in and have a look at what influences lean meat yield, carcase weight and fat scores, and you can start making management decisions on that basis.

“Whilst there is currently no payment based on lean meat yield, LDL provides a platform for future measurements as they come online.”

### Finding answers

Elke said not only does the system show why an animal might not have met its specifications, but also provides links to a library of tools to help improve future performance.

“If you hover your computer mouse over the data of the non-compliant animals it will let you see the library of solutions and links to all the fantastic tools MLA has,” Elke said.

“Another advantage of LDL compared to normal feedback sheets is the convenience factor.

“You're often too busy to look at feedback during the lamb marketing season.

“We sold most of our lambs in October/November last year but didn't go back in and access the data until early this year.

“With LDL, you just log in to the database, pull up the period you know you killed in and all the data is just sitting there for you. This means you can benchmark your lambs over different years and seasons and also benchmark your lambs against other producers in the same region.”

Elke has a Master of Meat Science and delivers Lifetime Ewe Management courses. Elke said there is growing demand from producers for more carcase measurements.

“I've got a passion to see the development of value-based trading, particularly in the prime lamb enterprise and as producers Peter and I have always been interested in utilising best practice within our production system,” she said.



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## Genetics

## Speeding up genetic progress

**Wider and better use of artificial insemination (AI) to improve the genetics in the northern cattle herd could lift profitability and create opportunities for Australian breeders in the global genetics market.**

**Snapshot**

Darcy and Kara Knudsen, Mundubbera and Hughenden, Qld.



**Property:**  
Mundubbera  
7,300ha;  
Hughenden  
33,000ha

**Enterprise:**  
Beef production

**Livestock:**  
Mundubbera (600 to 1,000 breeders, mainly Santa Gertrudis);  
Hughenden (significantly destocked due to drought)

**Pasture:**

Mundubbera - native forest, river flats on loam,  
Hughenden - Mitchell Downs country

**Soil:**

Mundubbera - brown duplex/river loam and black self mulching  
Hughenden - black soil

**Rainfall:**

Mundubbera - 650mm  
Hughenden - 450mm

These were the findings of Queensland cattle producer and 2013 MLA-sponsored Nuffield Scholar Kara Knudsen, whose report *Accelerating genetic progress in north Australian beef herds* was recently released. Her travels took her to Argentina, Uruguay, Canada, the US, Qatar, France, Ukraine and Turkey.

Slow genetic progress and the need to increase profitability prompted Kara to study fixed-time artificial insemination (FTAI), embryo transfer (ET), and ultrasound techniques and services that can be replicated in large herds.

Kara evaluated FTAI, which involves manipulating hormones so all females in the herd ovulate at the same time to enable insemination at a set time. She found FTAI is economically viable under certain circumstances for most commercial producers, and the benefits can accrue quickly.

"The current emphasis in Australia is FTAI in heifers, however, heifers represent only 30% of a breeding herd and have a lower calving rate as they are on their first calf," Kara said.

"Lactating cows, which are often perceived to be more difficult, are an underutilised resource. Adding a proportion of cows to the producer's FTAI program can increase the rate of genetic progress considerably.

"More research into FTAI in lactating cows in extensive herds is required, including calf management and the benefits of temporary weaning."

Kara found well managed herds with practices in place to manage body condition, nutrition, disease and mating intervals were well placed to progress to assisted reproductive technology.

However, producers in northern Australian need support to build and adopt the required technology, skills and field expertise.

"In order to lift the standard of technicians in both AI and ET, and to protect producers using assisted reproduction, a recognised qualification that requires assessment could be used," Kara said.

"There is an existing AI accreditation, but it is not widely recognised in northern Australia."

Kara's research also found greater use of Estimated Breeding Values (EBVs) to select genetics backed by sound performance was needed to further genetic progression and make the best use of AI.

**Another income stream**

With northern Australia subject to climatic conditions similar to many cattle producing continents, including South America, parts of Africa, and temperate areas of North America and Europe, Kara said there was huge potential to increase exports of genetics.

"The sale of genetics through semen and embryos both for domestic markets and export has been largely overlooked by Australian seedstock producers. Embryos in particular have potential to be exported as they are much easier to transport disease free," she said.

"The genetics market in Australia is fragmented and for the most part, seedstock producers are left to fend for themselves in relation to navigating the many pitfalls associated with exporting genetics.

"A concerted effort must be made to gain access to a growing demand for genetics by creating overseas demand for Australian genetics and secondly by assisting exporters to gain access to these markets."

Kara and her husband Darcy run 750 Santa Gertrudis breeders on their Mundubbera property, and have a further 33,200ha of Mitchell/Downs country at Hughenden, with up to 4,000 head run mostly as a trading operation and at less than 50% stocked due to drought conditions.

They first started using FTAI in their business in 2009.

"There's no doubt that if we can improve genetics we can improve our bottom lines - the cost of genetics is expensive and producers need to be getting better value out of their purchases," Kara said.

**Kara Knudsen**

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Read Kara's full report at:

[www.nuffieldinternational.org](http://www.nuffieldinternational.org)



Consider applying for a Nuffield Scholarship. Applications close on 30 June 2016. Go to [www.nuffield.com.au](http://www.nuffield.com.au)

**Kara's key findings:**

- there are potential productivity gains from improved AI practices in Australia
- upskilling and standard qualification systems are needed for AI practitioners
- Australia is missing out on income due to an inefficient genetics export program.



Building capability

# Taking the lead

Jack Walker's career has taken him from a family beef business into the corporate sector and back to a family business.

## Snapshot

Jack and Mim Walker, Ian and Anna Becker, Theodore, Qld.



**Property:**  
6,400ha

**Enterprise:**  
Breeding and grass fattening - self-replacing herd

**Livestock:**  
Commercial herd of 2,000 head of Red Brangus/ Santa Gertrudis/ Droughtmaster-cross cattle plus 100 head in Jack and Mim's Red Brangus stud herd

**Pasture:**  
Improved tropical grasses including buffel, Katambora Rhodes grass and green panic grass, with introduced legumes including Seca stylo, Aztec atro and the tree legume, leucaena. Native blue grasses and spear grasses intersperse the introduced pastures on the more alluvial soils

**Soil:**  
One-third alluvial forest soils and the remainder brigalow and softwood scrub clay soils

**Rainfall:**  
750mm





A wide-ranging career provided the perfect springboard for Jack to develop his industry leadership skills as an MLA-sponsored participant in the Australian Rural Leadership Program (ARLP) in 2014-15.

### The journey

Jack grew up on the family property near Wandoan in south-west Queensland. He graduated with Honours in a Bachelor of Agricultural Science - Animal Science from the University of Queensland, then spent 10 years working in large family-run and corporate beef enterprises. His roles ranged from rangeland officer with Stanbroke to General Manager of Rural Production with Australian Country Choice. In late 2012, Jack and his wife Mim returned to her family's business 'Fairholme', at Theodore, in Central Queensland's Brigalow Belt. They work alongside Mim's parents, Ian and Anna Becker. Jack and Mim now have two children - Charlie, three, and Molly, one.

The family runs a self-replacing herd of 2,000 commercial Red Brangus/Santa Gertrudis/Droughtmaster-cross cattle. They predominately sell grass-finished MSA bullocks and heifers, which are EU and Pasturefed Cattle Assurance System (PCAS) accredited. They manage seasonal challenges with earlier turn-off as feeders to feedlots in drier times.

Jack and Mim operate their 100-head Jateebee Red Brangus stud alongside the Fairholme commercial herd.

### Business direction

"We aim to produce fertile, productive cattle suited to central and northern Australia that have the ability to lay down fat and finish at a young age on grass," Jack said.

"We have a nucleus of highly fertile and productive cows that we intend to expand slowly, at a pace that allows strict selection for fertility, confirmation, temperament, performance and ability to finish."

Market compliance is a priority at Fairholme.

"Our goal is to increase optimisation of sale grids," Jack said.

"This includes minimising nutritional gaps to maximise growth and reduce dentition, as well as striving to improve genetic capability by introducing elite genetics and performance testing."

One production challenge in the Brigalow Belt is managing soils that are reducing in fertility, so Jack is focused on maintaining and

improving carrying capacity and performance with a range of tools, including grazing management practices and the optimisation of pasture legumes.

### The next step

Capability is another business driver - Jack has always sought appropriate and focused training, so at the encouragement of his previous employer he applied for the 2014-15 round of the ARLP - Course 21.

"I had reached a time in my career in the beef industry where I believed I could make a difference in leadership, but needed to build on my skill set to take it to the next level," he said.

"I admired the balanced, progressive leadership styles of several individuals who had completed the ARLP."

Through the ARLP program, Jack was exposed to a spectrum of social, political, economic, international and personal challenges facing rural communities and industries.

"I found the ARLP experience far more complex than I expected. The course introduced us to many different leadership styles, techniques, structures and theories, and allowed us to step through all of this with 33 other people from all parts of rural Australia, from many different industries, service providers, organisations and cultures," he said.

"The outcome was a challenging and deeply rewarding 18 months that took us from the Carboyd Ranges in the Kimberley to the Federal Parliament House to Indonesia."

While Jack is focusing on his young family and business, he has a keen interest in research and innovation in the beef industry and sees his future leadership roles in these areas. He cites the beef industry's need to minimise costs as a hurdle that makes the leap from research and development to industry uptake extremely difficult.

"MLA is doing some great work with industry in this area, and there is always room to be smarter in this field to get concepts into a commercially viable reality," he said.

### Jack's learnings from the Australian Rural Leadership Program:

- Most people can identify the problems; effective leaders seek and produce successful outcomes.
- We often think that the grassfed red meat industry has issues that no other industry has experienced. In fact, almost every issue we are facing today has a precedent in other industries that we can learn from.
- There is a difference between noise and leadership: the outcome is significantly different.
- Strive to understand an issue - do not assume you know everything - all stakeholders can make a big difference as a leader dealing with an issue.
- Leadership is a skill and can be learnt.
- Courage is critical to leadership.



#### Jack Walker

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Australian Rural Leadership Program:

[www.rural-leaders.com.au](http://www.rural-leaders.com.au)

Applications for Course 24 will open in August



## Cattle husbandry



## Tips and tricks for yard weaning cattle

**With buyers prepared to pay a premium at the weaner sales for yard-weaned calves, a few simple weaning techniques can pay dividends for cattle producers, according to feedlot veterinarian Lachlan Strohfeltd of Bell Veterinary Services, Queensland.**

Herefords Australia, with support from MLA's More Beef from Pastures and Coopers Animal Health, hosted a weaning acclimation field day earlier this year at Millicent, SA, with Lachlan (pictured) as the guest speaker.

Lachlan said best practice weaning techniques could result in immediate post weaning daily weight gains of 0.5-0.7kg.

Calves should be weaned at a set time or in tougher seasons once cow body condition declines. In poor seasons, calves may be weaned down to a minimum of 100kg liveweight.

**"Good handling techniques on-farm in an animal's first six months of life will be with that animal for life," Lachlan said.**

"If we wean 1,500 animals in a year and they are all gaining 0.5kg a day during the yard weaning process, that equates to 750kg of beef a day or 3,750kg after five days of weaning - a truly solid return on investment for some basic TLC."

"We wean cattle to manage herd fertility, the land and to ensure sustainability."

Lachlan said calves often suffered from confinement anxiety on the first few days of weaning.

"Up until that point, rarely have the calves been locked inside four fences where the pressure is so intense - we are able to reduce that level of stress with intensive handling techniques," he said.

"Educated cattle complete the weaner process faster, giving a more positive result in the end.

"The yard weaning process has a lasting effect on the life of the individual animal in the breeding herd too, especially in females where fertility and puberty are driven by body weight."

### The basics

Lachlan said educated weaners responded to the handler's body position, pressure and timing.

He recommended allowing 2.5m<sup>2</sup>/animal for 200kg liveweight calves in weaning yards, with the space requirement increasing with higher liveweights.

"This gives the cattle enough room to display their natural behaviours," he said.

"A good weaning yard has strong panels with not a lot of gap between rails - rubber belting around the sides will keep the smaller calves in."

A supply of fresh water and quality hay is not only critical to achieving post-weaning growth and production performance, but the hay can be used to reinforce daily positive achievements.

Holding paddocks are ideal for working the weaners as a herd each day of the weaning process.

Once weaners leave the holding paddocks, pasture quality should be a minimum of 11.5 megajoules of energy and 15% protein to sustain growth rates.

### Animal health

"When it comes to clostridial (5-in-1 or 7-in-1) vaccination, ideally the first dose three weeks before weaning as the stress of vaccination can be ameliorated while the calf is on its mother, followed by a booster shot four to six weeks apart," Lachlan said.

He urged producers to vaccinate with Bovilis MH + IBR at weaning to reduce the effects of Bovine Respiratory Disease in commercial herds both on farm and later in life as they enter the feedlot production system.

Some feedlots are paying suppliers up to \$8/head to vaccinate weaners with Bovilis MH + IBR or supplying the vaccine directly to the producer.

### At the beginning

When handling weaners in the yard on day one, Lachlan recommended initiating movement from the front of the herd, using the natural instincts of the lead animal.

"When the lead animal licks its lips, it is accepting pressure and will go wherever you want it to move," he said.

"Place pressure on the animal by taking a step towards it to initiate movement - if the animal steps backwards, take a step back and release the pressure. The aim is to initiate voluntary motion amongst the group - let them decide on where they want to go and control their movement to that point.

"Move the mob from corner to corner in the yard until they move as a herd.

"Work with the lead animal to control pace by working on body position relative to his. Walk against the animals to speed them up, but walk with them to slow them down.



Andrew Donoghue of Herefords Australia, vet Lachlan Strohfeldt of Bell, Queensland and producer Andrew Bell, Millicent, co-ordinated the MBfP weaner acclimation workshop.

"As soon as the lead animal walks off, encourage the rest of the herd to follow in an orderly fashion. Each time the herd should be less disjointed.

"Handlers need to constantly read the cattle and observe what they are telling us.

"If the cattle have their heads up, it means they are stressed or uncomfortable. An animal that chews and walks away from pressure calmly is comfortable with the situation.

"Do not spend any more than 30 minutes each day working them in this way - if you cannot control the situation, ask yourself why and do not blame the cattle."

### New experiences

On the second and third day, introduce the calves to walking through gateways and, on day four, open the crush and allow them to walk through quietly without anything touching them.

"By the end of the weaning process, the cattle must display discipline by being quiet, walking in a straight line and having brakes," Lachlan said.

"Once a mob reaches over 200 head, it is advised to use two people in the preconditioning process."

The length of the yard weaning process is decided by the response of the cattle. When animals stop bellowing, eat well, walk straight and have been taught how to stop, weaning can stop.



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More Beef from Pastures Weaner  
Throughput module:  
[www.mbfpl.com.au/  
Weaner-throughput](http://www.mbfpl.com.au/Weaner-throughput)

Resources for weaning: [www.mla.com.au/  
Research-and-development/  
Animal-health-welfare-biosecurity/  
Husbandry/  
Weaning](http://www.mla.com.au/Research-and-development/Animal-health-welfare-biosecurity/Husbandry/Weaning)

## Top tips for yard weaning:

- Allow plenty of time to work with the weaners from day one - don't set unreasonable time restraints on yourself.
- Initiate movement from the front of the herd, not from behind the cattle.
- Be positioned where the cattle can see you and where they can also see where you want them to go.
- Cattle instinct is to always come back to where they came from - use this to move the herd.
- On day one, simply seek to move the cattle from corner to corner until they start moving as a herd.
- Work with the lead animal to control the pace of the herd - walk along with him to control his speed.
- Walk against the cattle to speed them up, walk with them to slow them down.
- Spend 10-30 minutes each day moving them as a herd through the yards then reward them with quality hay.
- On days two and three, educate the calves to walk through gateways.
- On day four, allow the calves to walk quietly through the open crush and feed out into pasture.



Calves happily eating pellets from troughs 48 hours post yard weaning.



## Pastures

# Building grass castles

**“We are pasture farmers who specialise in beef cattle weight gain.”**

**So says John Scott, who, along with wife Kate, brings an intense focus on quality to every stage of their pasture improvement program – the lynchpin that brings productivity gains to their enterprise.**

When the Scotts purchased the property three years ago, the majority had considerable pasture run-down, and dingoes, pigs and kangaroos were rife.

The first thing was to erect exclusion fencing.

“If we wanted to develop improved pastures, we had to give it the best chance by fencing vermin out,” John said.

The next step was cattle selection. The Scotts choose only crossbred with 50% Brahman content or less, and temperament plays a big role, preferring cattle that have been properly weaned and handled.

“Depending on the season we run 400 cattle in each mob, and we rotationally graze them,” Kate said.

Cattle are supplemented with Bentobite, which works on protozoa levels in the rumen to improve

protein uptake, and sulphur and mineral licks year round for rumen health and buffalo fly.

Their improved pasture grasses consist of buffel, creeping bluegrass, Progardes™ desmanthus, Premier digit, Reclaimer Rhodes and Bambatsi. John said it was important to choose pastures that gave them a head start.

“We wanted pastures that come away earlier than everything else. The Premier digit and creeping bluegrass is green a month and a half earlier than other species,” John said.

“When our buffel is frosted and dormant, our improved pastures are up and away, and two months is a lot of time for weight gain.

Three years ago, desmanthus was introduced after considering a number of legume options, including lucerne and leucaena. The couple



## Snapshot

John and Kate Scott,  
Roma, Qld.



**Property:**  
2,830ha

**Enterprise:**  
Backgrounding  
cattle for feedlots

## Livestock:

Crossbreed Santa  
Gertrudis, Brahman,  
Charolais,  
Droughtmaster,  
Hereford

## Pasture:

Buffel, creeping  
bluegrass,  
Progardes, premier  
digit, Reclaimer  
Rhodes, Bambatsi

## Soil:

Red and black  
Brigalow Belah soils  
going into lighter  
box country

**Rainfall:**  
600mm

*John Scott pictured  
between two trial  
paddock preparation  
sites, cutter bar (left)  
and offset (right).*



attended a number of leucaena courses, but each time felt the management requirements were going to be too onerous.

“Desmanthus is key to our strategy of avoiding pasture run-down. We like the fact that it is a high protein cattle feed and a fabulous soil improver for our country,” Kate said.

The choice of pasture species is determined by the species' suitability for their land type and conditions, which can range from -5° to 45°C.

“I think we've got a good mix now, and it's working well,” John said.

“We've also learned to buy seed on germination quality rather than price.”

The Scotts use the MLA-supported FutureBeef's Stocktake Plus app to measure and manage their grass. It has allowed them to work out exactly the stocking rate and

how many kilograms of pasture and protein is available in each paddock.

A range of paddock preparations, including deep ripping, cutter bar and offsetting have been trialled and offsets are currently favoured but John is open to other methods.

The next project for the Scotts is to make winters more productive. Nitrogen fertiliser in the form of urea on 400ha is being trialled, to allow them to spell a lot of their country in the growing season. Feeding grain in the paddock as a low-cost alternative to feedlotting is also being considered.

The Scotts' medium-term plans are to get the home farm fully productive, which the couple hope to achieve within three years, before looking to expand again.

“Instead of getting more land and going into more debt, we want to improve the land we've got and make it productive. Our running costs are absolutely minimal,” Kate said.

“We think the productivity in this country is only just starting.”



**John and Kate Scott**  
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FutureBeef Stocktake Plus app  
[www.stocktakeplus.com.au](http://www.stocktakeplus.com.au)

## Trade marketing

# Lamb cuts for today's consumer



The research team is collecting physical data for a range of cuts that can be produced from heavy carcasses, including the knuckle (or round).

**Bigger lambs, smaller households, time-poor consumers and higher meat prices.**

**Researchers are seeking modern cuts to help keep lamb on the domestic dinner table as consumers shirk the large - and often costly - traditional leg of lamb.**

**Meat scientist Dr David Hopkins is working on an MLA-driven Sheep CRC project looking for cuts that will make better use of large lamb carcasses.**

Innovation in genetics and management for better growth rates and carcass weights is driving the trend to heavier carcasses (above 25kg) in Australia's national lamb flock.

Coupled with high lamb prices and smaller, time-poor households, retailers are encountering buyer resistance to some traditional lamb cuts, such as large legs and shoulders.

"The latest estimates say the average carcass weight is still going up," said Dr David Hopkins, senior principal research scientist with the NSW Department of Primary Industries.

"That can be problematic in the retail market, because the total weight of some cuts is now so great they have exceeded an acceptable 'price point' and become too expensive for the average consumer.

"This project was driven by MLA to find out if there are things we can do to help the retail industry find alternative cuts.

"Lamb has to compete as a protein source, and we're trying to keep it in front of the pack by giving consumers product choice."

### Alternate cuts

David and his research team began by creating a baseline of current knowledge - the information matrix - that lists all current lamb cuts from the *Handbook of Australian Meat*, as well as cuts from other countries and species. They then set out to investigate potential alternatives to some of these cuts for large lambs.

"We have found there is potential to develop new cuts in the shoulder and we are working on one in particular," David said.

"We haven't done anything with the middle meats - the rack or loin - because that area is already well developed and the price point isn't such an issue.

"It's also unlikely there will be many new developments from the hind leg, because that was well covered in the 'Trim Lamb' campaign in the 1990s, and we're seeing many of those boneless cuts used again now to get value from these bigger lambs."

The researchers collated data on each potential cut, including nutritional and eating quality, and predicted weight and best cooking methods.

Using lambs from the MLA Resource Flock, they are also collecting physical data for a range of cuts applicable to production from heavy carcasses, but for which there is no data available - for example, the nutritive value of the knuckle or round, which is making an appearance again at the retail level.

They also investigated cut fabrication.

"We've done time and motion studies on how long it takes to break down a whole range of different cuts, and that data is being analysed at the moment," David said.

"We will supply that information back to industry as well, because labour is critical to a retail business' cost structure. We're not trying to tell retailers what to do - just to assist them."

The information matrix, *The Nutritive Value and Eating Quality of Australian Lamb Cuts*, can be downloaded from the Sheep CRC website at [www.sheepcrc.org.au](http://www.sheepcrc.org.au). David said it was a 'living document' that would be updated as more information was gathered.

### In action at Lambex 2016

MLA corporate butcher Doug Piper and corporate chef Sam Burke will join meat scientist Dr David Hopkins at Lambex 2016 to discuss and demonstrate potential new cuts from large lamb carcasses.

Doug has been helping the Sheep CRC researchers to assess the potential of the new cuts that David and his team have identified.



**Dr David Hopkins**

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*The Nutritive Value and Eating Quality of Australian Lamb Cuts* - information matrix:

[www.sheepcrc.org.au/files/pages/information/publications/publications-meat/Information\\_Matrix\\_Ver\\_1.pdf](http://www.sheepcrc.org.au/files/pages/information/publications/publications-meat/Information_Matrix_Ver_1.pdf)

→ **Try our mini lamb roast recipe on page 36.**



In profile

## Doug Piper // *The man with the knife*

MLA's 'corporate butcher', Doug Piper (pictured), has come a long way from making sausages in suburban butcher shops to now showing hatted chefs in the US and Europe how to cut up a lamb carcass. He says he's just happy to be talking red meat to whoever is interested.



### What is your background?

I've worked in most areas of the meat industry for more than 38 years. This has included managing retail butcher shops and production rooms, owning two small retail butcher shops in Sydney and managing high-volume supermarket meat departments. I also worked for a large national foodservice provider and sold butcher supplies to retailers throughout northern NSW.

### What is your role with MLA and when did you start in this role?

I've been employed at MLA for eight years. For the past three years I've been the technical support manager, working across the domestic and international markets supporting retail, foodservice and wholesale areas of the industry, delivering whole carcass utilisation programs for beef, lamb,

goat and veal, providing meat training and product development and acting as a 'go-to' person for retail and foodservice.

### How do you educate butchers about beef and lamb?

MLA has foodservice and retail programs that encourage butchers to be innovative and to let them know there is more to beef and lamb than cutlets and fillet steak. MLA has developed a value-adding program that contains a suite of creative, convenient and healthy meal options for butchers to replicate, so they can compete with supermarket chains and fast-food outlets.

### What projects are you working on now?

Relaunching the Australian Butchers Guild for independent retailers and launching a new Butchers' Choice brand of recipes for retailers. I have just returned from the US

where we delivered 'True Aussie' beef and lamb training sessions for retail and foodservice.

### What trends are you noticing with beef and lamb?

Butchers need to know more about cooking beef and lamb. Having complete meal options available is keeping customers coming back. Knowledge of secondary cuts is also paying dividends for those that explore their use.

### How do you like to eat beef and lamb?

I like my beef and lamb medium rare, cooked with a nice char on the barbecue.

### What's your favourite red meat meal?

A slow-cooked lamb shoulder.



Doug Piper, MLA  
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## Around the globe



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

**4%**

of US restaurant menus now feature goat, a growth of 43% in four years



## 1 NORTH AMERICA

### Goat gets the star treatment

The spotlight shone on 'True Aussie' goat in New Orleans, Louisiana, where it was a featured partner at the Rising Star Chefs Gala event. An initiative of independent chef community Starchefs.com, Rising Stars recognises up-and-coming independent chefs. Rising Star Chef Rebecca Wilcomb (pictured) approached MLA to source Aussie product for her dish, citing it as more

consistent than what she usually sources domestically. More than 450 local chefs, restaurateurs, local media and consumer food enthusiasts attended, and foodservice leads from the event were provided to an importer partner.

Goat will now feature at Rising Stars events in Miami and San Francisco - excellent target markets for Aussie goat due to their consumers' love of ethnic flavours and preparedness to experiment.

## 2 TAIWAN

### Breaking new ground



For the first time ever, retail-ready packaged chilled beef is available in Taiwan - and it comes from Australia.

MLA has worked with suppliers, importers and retailers to see the 20 outlets of Jason's Market Place stock Australia's Argyle Beef, produced by Argyle Premium Meats, a company established by southern NSW producers, Lachlan and Andrina Graham.

Jason's Market Place also recently hosted a promotion with MLA called WOW Australia, with in-store marketing of Australian beef and an MLA chef giving a chilled beef demonstration at a media conference.

## 3 KOREA

### Shabu shabu sales growth

MLA's TAB *Shabu shabu* promotion across 12 retailers with 1,560 outlets contributed to sales increasing by 143%, compared with the previous week.

*Shabu shabu* is a healthy Japanese-style dish of thinly sliced beef cooked in boiling water with other ingredients.

The promotion featured television segments, Facebook promotions, a media campaign and retail promotions, where free sauce packs accompanied

*shabu shabu* beef.

Imports of Australian chuck roll, the key ingredient in *shabu shabu*, have more than doubled in the last decade to 39,289 tonnes and MLA is keen to continue growing this market segment.

## 4 EUROPEAN UNION

### Working with the WTO

MLA has been working to further advance red meat's market access following the late-2015 vote by the 163 members of the World Trade Organization (WTO) to eliminate billions in agricultural export subsidies globally.

MLA staff travelled to Geneva in March to discuss Australia's red meat market access priorities, reinforce the importance of ongoing trade reform and provide feedback on the recent outcomes.

MLA International Trade and Market Access Manager Andrew McCallum presented to the 'Cairns Group' - an alliance of 19 agricultural exporting countries who share mutual interests on multilateral trade reform. The presentation reinforced the



importance of improving market access for red meat, including the role the WTO could play in addressing non-tariff barriers to trade. The ensuing discussion focused on how the WTO can further its trade reform negotiating agenda.

The WTO agreement will result in the elimination of around \$15 billion in agricultural export subsidies globally (developed countries immediately, developing countries over a phased implementation timeframe).

While export subsidies are not currently applied to global red meat exports, the agreement provides a welcome 'insurance' policy that such trade distorting measures will not be applied in the future.

WTO members also agreed to put limits, for the first time, on the ability of WTO members to use export finance programs that distort agricultural trade, as well as conditions to ensure international food aid doesn't damage global trade or production in aid recipient countries.

## 5 INDONESIA

### Lunchbox learning

More than 90% of the 1,000 attendees at Food Revolutionnaire, a school nutrition roadshow run by MLA to encourage parents to include healthy foods in school lunchboxes, said they would purchase more beef after learning about its nutritional value. Chef Ivan Anggriawan presented to 1,000 mums at a Catholic school in Jakarta. He then challenged them to create a healthy lunchbox using Aussie beef mince. More than 800 of the parents said they would use the recipes learned in the cooking demonstration.

## 6 CHINA

### Australia Week forum

MLA hosted a series of red meat events during Australia Week (11-15 April 2016) in China. At an MLA-hosted forum on meat importing, a Chinese business audience was highly inquisitive about importing live animals. Panel members Northern Co-operative Meat Company CEO Simon Stahl, livestock export Austrex's David Reed and two Chinese importers received a steady stream of

questions from representatives of more than 120 Chinese businesses.

MLA also hosted a table of Shanghai-based importers at a gala lunch and attended the Australia Sino 100 Year Agricultural Food and Safety Partnership reception with Australian meat industry representatives. While Chinese representatives were positive about Australian red meat at all events, they did express concern about supply and price.

### Chilling out

Importers, distributors and retailers attended the MLA/Australian Meat Processor Corporation chilled meat workshops at three locations in China in January. More than 210 participants at the workshops said they will now "consider importing/selling chilled products". The events, following on from the 2015 chilled cold chain system workshop roadshow, were held to promote the cold chain integrity of Australian red meat and to advocate for expanded market access for all Australian based China-eligible export plants.

## 7 MIDDLE EAST/NORTH AFRICA

### Record-breaking Gulfood, Dubai



More than 90,000 visitors, representing 5,000 companies from 120 countries, made this year's Gulfood, at Dubai, the world's largest annual food trade show, the biggest ever.

MLA ensured Australian beef and lamb had a visible presence by supporting 26 exporters to attend under the 'True Aussie' brand, providing them opportunity to meet with and build relationships with existing clients and connect with new customers.

MLA also sponsored the Salon Culinaire beef and lamb cooking competitions and Chef Tarek was one of the judges. More than 220 chefs demonstrated their skills preparing Australian beef and lamb dishes, and 33 butchers competed in the Australian lamb carcass butcher competition.

## On the ground

### China



**Michael Finucan**  
MLA International Business  
Manager China  
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While the Chinese economy has eased recently, it is still expected to grow at more than 5% annually for the next five years, adding US\$2.3 trillion to the economy. For Australian red meat, the growth in the upper middle class and affluent urban population is important, as this group is more likely to be able to afford Australian products. The size of this sector is expected to grow from 43.4 million to 224 million people by 2022.

Australia is well placed to capture this opportunity through our strong clean, green and safe positioning. With the recent entry into force of the China-Australia FTA (ChAFTA), tariffs levied on beef and sheepmeat (12-25%) will be eliminated over nine years and tariffs on beef offal (12%) will be eliminated over four to seven years.

A challenge in the next two to three years is Australia's tight supply and the increased competition in China from South American competitors. Brazil has recently regained access with 16 plants registered to supply the market. Therefore, Australia must continue to promote its superior integrity systems and ability to supply chilled products to differentiate itself from competitors.

While the Chinese market offers many opportunities, it's a large and diverse one with a number of challenges. In order to maximise these opportunities a detailed understanding of the market is required with careful analysis of the sectors and channels that allow Australia to maximise its returns.

Under the federally-funded Rural Research and Development for Profit programme, MLA is conducting a number of studies in 2016 in the 'China Insights-to-Innovation' component.

Nearing its phase one completion is an 'Attractive Cities Identification and Profiling study', which aims to identify which key cities in China offer the highest value opportunities for Australian red meat, not just now but over the next three to five years. Phase two will identify which consumer segments present the greatest opportunities.

Other studies are looking at models to improve competitiveness for Australian red meat and to gain a greater understanding of policies and regulations that could impact the market.

## Recipe

# Korean-style lamb mini roasts with green pear salad



Finding the traditional leg of lamb too big to feed your household? Check out the 'mini' roasts now available from butchers and meat retailers and try this recipe with an Asian spin.

**Serves: 4 // Preparation time: 20 minutes**

**Cooking time: 30 minutes**

## Ingredients

2 lamb mini roasts (about 250g each)  
 4cm piece ginger, finely grated  
 ¼ cup roughly chopped coriander  
 2 tbsp sesame seeds, toasted  
 2 tsp sesame oil  
 1 tbsp salt reduce tamari or soy sauce  
 1 tsp mirin  
 1 small green pear, coarsely grated  
 Chargrilled pumpkin, to serve

## Green pear salad

3 baby red radishes, thinly sliced  
 1 green pear, thinly sliced  
 1 red onion, thinly sliced  
 1 cup shredded wombok  
 ½ cup mint and coriander leaves  
 75g (½ cup) roasted cashews, roughly chopped  
 1-2 limes, halved, plus extra wedges, to serve  
 Extra sesame oil, to serve

## Method

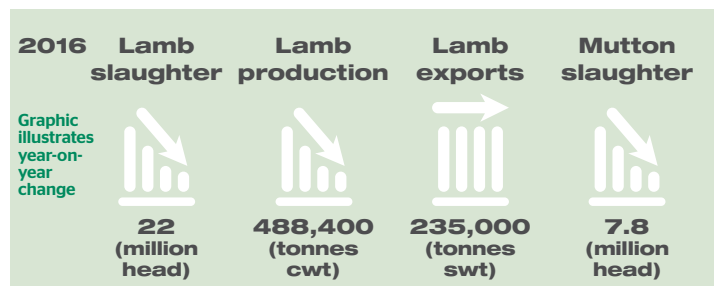
1. Preheat oven to 200°C (180° fan-forced). Place ginger, coriander root, sesame seeds, sesame oil, tamari, mirin and pear in a small food processor; process until chopped and combined. Coat the lamb mini roasts with the marinade; season to taste. Place on a wire rack over an oven tray; roast for 25 to 30 minutes for medium or until cooked to your liking. Alternatively, if time permits, coat lamb and marinate for 3-4 hours or overnight.
2. Meanwhile, place the radishes, pear, onion, wombok, herbs and cashews in a large bowl, squeeze over lime juice and drizzle with extra sesame oil; season to taste and toss.
3. Remove lamb mini roasts from oven, cover loosely with foil and stand for 10 minutes before carving to serve.
4. Divide salad among plates and top with sliced lamb. Serve with extra lime wedges and chargrilled pumpkin.

## Lamb projections

# Lamb supply forecasts revised higher

MLA's 2016 *Sheep industry projections April update* featured significant revisions to the previous December 2015 projections. Most notably, a larger sheep flock and a 750,000 head increase in the number of lambs expected to be processed in 2016 (to 22 million head) – however, this will still be down 3% from the 2015 record.

## What's the outlook?



The higher revised slaughter will flow through to production and exports, which have also been adjusted higher.

Lamb production (Figure 1) is now forecast to decline 3% year-on-year in 2016, to 488,400 tonnes cwt.

**And the price?** Even though numbers will still be tighter than 2015, lamb prices are expected to be tested by the strengthening A\$ and any prolonged hot and dry conditions.

## Lamb projections

With higher lamb throughput in the first quarter, tighter availability is anticipated during winter before new-season supplies ramp up in the final months of the year. Victoria, SA and WA are where this is expected to be most noticeable. Parts of northern NSW and the Monaro are projected to buck the trend with better seasonal conditions.

In terms of production, national average lamb carcase weights have held up surprisingly well considering the hot and dry conditions endured by most during summer. This is expected to be challenged in winter, especially if there is no autumn break in the key lamb producing regions.

Despite averaging slightly heavier for the year-to-date, the average carcase weight for 2016 is likely to be level with last year, at 22.2 kg/head.

Australian lamb exports (Figure 2) in 2016 are forecast to be fairly steady with the past two years, at 235,000 tonnes swt, before gradually growing with production to 280,000 tonnes swt by 2020.



Across other markets, lamb sales to the US in the lead up to Easter were fairly strong (early Easter this year), but it will be worth monitoring how demand holds up through spring and into early summer. One indication is that cold storage levels dropped significantly in February, a good sign given exports from Australia and New Zealand appear to have started the year strongly.

Lamb shipments to China so far this year are slightly ahead of year-ago levels.

### Sheep and mutton projections

Australian sheep slaughter for 2016 has also been revised higher than the initial December forecast, to 7.8 million head - still 8% lower than the previous year.

The MLA and AWI wool and sheepmeat February survey suggested that the number of breeding ewes on hand was 3% higher year-on-year - with increases reported across all states except in South Australia.

With more sheep to be processed than initially forecast, along with a slight lift in the average carcass weight, Australian mutton production for 2016 has also been revised higher, to 185,000 tonnes cwt - although this remains 8% below 2015 (Figure 3).

Mutton exports are on track to decline 11% year-on-year to 135,000 tonnes swt, following suit with production, while livestock export forecasts remain steady at 2.1 million head.

The national average sheep carcass weight has steadily increased in the past decade, largely due to genetic advances and ewe management programs, and 2016 is no exception. Despite tough seasonal conditions across many of the key producing regions over summer, the Australian sheep carcass weight is forecast to average 23.7kg this year.

### Demand for whole carcasses

A particularly interesting dynamic occurring in the lamb industry is generated by the demand for light lambs to be exported as whole carcasses (Figure 4). Using an estimated 16kg lamb carcass weight, the number of lambs processed in 2015 for the trade was 3.3 million head, or 14.4% of the national kill.

There was a significant rise in the proportion of the kill for this purpose in 2012, jumping from 6.3% to 10.7%. Since 2013, the annual total has hovered around 14%.

Across the states, the proportion of the lamb kill used for whole carcass exports varies considerably. In Victoria, 24% of lambs processed for the past three years contributed to the trade, while in Western Australia, 19% were exported as full carcass in 2015. So far in 2016 this has increased to 22%. NSW is the only other noteworthy state contributing to this trade, where 4-5% of the lambs processed have been sold as whole carcass for the past five years.

Considering the majority (91%) of lamb carcass shipments were destined for the Middle East in the past five years, these trends highlight the growing influence of that region on, and importance to, the Australian lamb industry.

Figure 1 Australian lamb production

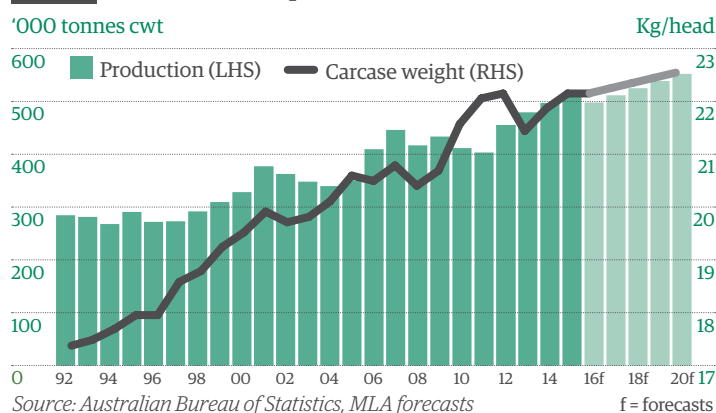


Figure 2 Australian lamb exports

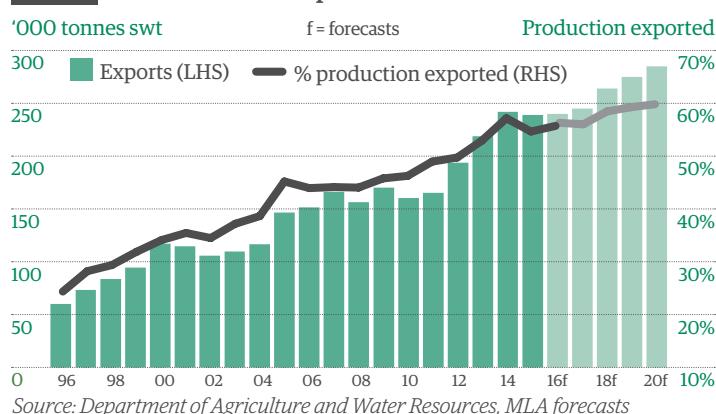


Figure 3 Australian mutton production

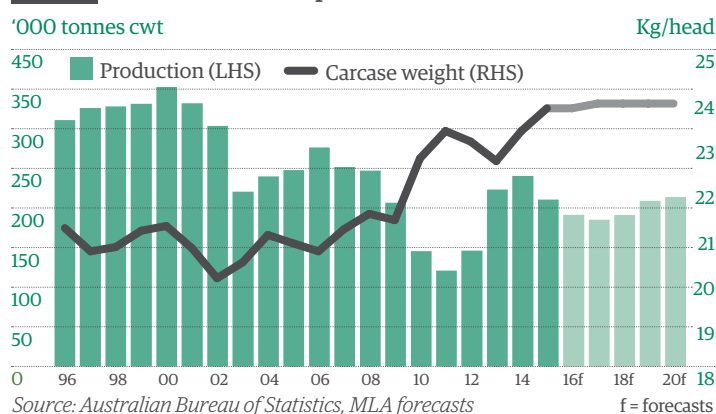
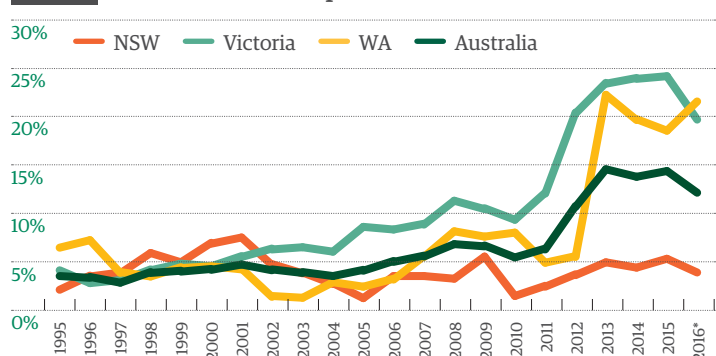


Figure 4 Percent of lambs exported as whole carcasses



Ben Thomas, MLA // E: bthomas@mla.com.au



Read the projections and watch the quarterly video:  
[www.mla.com.au/sheep-projections](http://www.mla.com.au/sheep-projections)

## NSW and Tasmania//US food tour

Restaurateurs, media, corporate chefs and food industry advisers from the US recently travelled to Australia for a tour organised by MLA's North America office to share the paddock-to-plate journey of Australian grassfed beef and lamb.

The group went from Sydney restaurants to watching a carcass being broken down at the Manildra Meat Company's Cootamundra, NSW, plant. The Cootamundra component of the trip included visits to lamb and cattle enterprises owned by Doug and Barb Tozer, Phil and Margie McGeoch and James and Emma Baldry.

In Tasmania, the group inspected JBS's Longford processing facility and visited sheep and beef enterprises supplying the Great Southern brand.

*Feedback* caught up with two participants to discover their tour highlights.

**Robert Sisca, Corporate Executive Chef at Providence G on Rhode Island**, won his spot on the trip after taking out an MLA-sponsored Australia grassfed lamb recipe creation competition with his lamb neck ragu. Robert oversees three restaurants and a function centre with 100 staff preparing a minimum of 500 meals a day. Currently, Providence G is serving Australian spring lamb tartare - diced raw lamb mixed with herbs, cornichons, eschallot and a raw quail egg, served with purple potato chips.

**What Robert will take home:** "This trip will have a big influence on my menu planning - already I'm thinking of simple dishes that celebrate food at its freshest, just like I've tasted here in Australia. I've always been a lover of Australian and US lamb and have made it my business to visit as many farms as I can, wherever they might be. The flavour profiles of Australian and US lamb are different so I use them according to the dish I want to create. Just recently we hosted a large function and I served Aussie lamb lollipops (cutlets) and everyone said they were their favourite thing on the night. I've learnt a lot about traceability and the quality assurance which goes into producing Australian red meat."

**Pam Smith is an Orlando-based nutritionist and menu/restaurant developer** and has worked with some of the largest food outlets in the US including the Hyatt Hotels, Disney, Darden Restaurants, Bahama Breeze and Seasons 52. She has recommended Australian grassfed beef and lamb for years for its calorie and fat profile and omega 3 content. The latest trend, according to Pam, is wholesome, fresh food with good traceability and nutrient content - but not at the cost of flavour. The focus must be on what to put into dishes, not what to leave out.

**What Pam will take home:** "I've loved learning first-hand the amazing story of Australian farming and processing - the passion and commitment to giving the best quality of life to their animals, including their care of the pastures. It was fascinating to see how Australian farms grow crops which can feed the animals in winter and then go on to produce a food crop at the end, like grain or oil - it's a beautiful symbiotic cycle. I just fell in love with the farming families we met. It was also vital for me to see the humane treatment at processing and the respect shown for using every part of the animal - I am taking back an incredible story."

**More information: Catherine Golding E: [cgolding@mla.com.au](mailto:cgolding@mla.com.au)**



## Qld, NSW and Vic // Chef Tarek's adventures

**M**LA's Dubai-based Middle Eastern Master Chef, Tarek Ibrahim, is continuing his campaign to educate the world about the quality and versatility



of Australian red meat. Having trained 2,000 chefs in the Middle East/North African region in 2014-15 and gathered a television audience of 300 million and a Facebook following of almost 50,000, Chef Tarek has been in Australia recently filming 'Australian Adventures with Chef Tarek'. Chef Tarek travelled to the Gold Coast, Sydney, Dubbo in central NSW and Melbourne to film episodes which will showcase Australian produce, particularly red meat. The three part series will be broadcast by Fatafeat, the first and only Arab food channel in the Middle East, and now broadcasting through BEIN which is the region's largest pay TV network.

Follow Chef Tarek at: [www.facebook.com/mastercheftarek/](http://www.facebook.com/mastercheftarek/)



## NSW, South Australia, Victoria, Queensland, Tasmania and Western Australia// MSA Awards

**M**ore than 600 producers attended MLA's series of MSA Award events and Future of Eating Quality forums in March and April.

The Awards recognised the commitment for MSA cattle producers to excellence in eating quality performance and compliance (see pages 8-9).

Producers who attended were the first to hear about the new MSA five-year strategy, as well as the release of the *Australian Beef Eating Quality Audit* and upcoming research.

Producers scored the events as nine out of 10 for meeting their expectations, with many registering to participate in further workshops.

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



Producers Faye and Jo catching up at the Bunbury MSA Awards



WA producers enjoyed listening to Merv Hughes address the awards dinner.



Richard Norton (second from right) with members of the SA Sheep Blueprint Committee (from left) Stephen Lee, Jane Kellock, Joe Keynes and Allan Piggott at the Hahndorf event.



Producers enjoying meals made from MSA blade subprimals at the Toowoomba event



Max Walker talking to the producers at Launceston about his baggy green.



Milton and Linda Heywood of Victoria at the Bendigo event.



Alex Ball and Victorian producer Ron Harris.

## Upcoming events



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

### Animal Production 2016

The biennial conference of the Australian Society of Animal Production in partnership with the New Zealand Society of Animal Production is sponsored by MLA and will address animal production and welfare issues facing the future of global animal agriculture.

**When:** 4-7 July, 2016

**Where:** Adelaide, South Australia

**Bookings and more information:**  
[www.asap.asn.au](http://www.asap.asn.au)

### Tasmanian Red Meat Update

Virtual farm tours and sheep, cattle and pasture updates are on the program at this year's Red Meat Update. MLA Managing Director Richard Norton will deliver the welcome address.

**When:**  
22 July, 2016

**Where:**  
The Tramsheds, Launceston

**Bookings and more information:**  
[www.redmeatupdates.com](http://www.redmeatupdates.com)

### Northern Beef Business Mentoring

Better Beef Business workshops in Queensland.

**When and where:**

14 June Chinchilla  
16 June Goondiwindi  
21 June Durong  
1 July Brisbane  
7 July Toowoomba  
19 July Gympie  
21 July Dalby

**Bookings and more information:**  
[www.abdi.com.au](http://www.abdi.com.au)

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