

FEEDBACK

MLA – FOSTERING PROSPERITY

DECEMBER 2017/JANUARY 2018



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FEEDBACK

MLA fosters the long-term prosperity of the Australian red meat and livestock industry by delivering world-class research, development and marketing outcomes.



Cover: Ben and Nicole Hayes, along with two of their children Nikita and Jamie, hosted the Red Meat 2017 producer tour at their property, 'Undoolya Station', Alice Springs (page 5). Image by Lisa Hatzimihail.

Have your say!

We'd love to hear from you

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A NOTE FROM THE MD...



Welcome to our Red Meat 2017 special edition of Feedback.

More than 400 producers and industry representatives attended MLA's showcase event in Alice Springs, and I don't think many would disagree that it was a fantastic way to finish the year.

Red Meat 2017 definitely served its purpose as a celebration of our nation's superior beef, lamb and goatmeat. It was more than just an AGM – the jam-packed program included a producer tour, tradeshow, business breakfast and several forums (see pages 6–10), but I think one of the real highlights was the food. As always, MLA's Corporate Chef Sam Burke did not disappoint when it came to preparing the 'best of the best' red meat dishes for our guests.

Another major highlight from the event was the diversity of innovations on display – from a DEXA machine to digital mapping solutions, there was something for everyone at both the producer tour and the tradeshow. Innovation is a key focus for MLA in 2017 and is one of the main forces behind our industry's push to profitability, sustainability and global competitiveness.

My address at the AGM focused on our industry's path to prosperity. What keeps us on the path is a razor-sharp understanding of what our consumer really wants and then delivering on those desires. Our industry has worked hard to produce some of the best red meat in the world, and that's because we've acknowledged that the consumer is king. Producers are more focused than

ever on where their product is ending up post-farm gate, and it's important that we continue to listen to our consumers' demands, mine insights, innovate and enhance our product offering so that we can prosper into the future.

Another key component of my address was the announcement that Australia's red meat industry can be carbon neutral by 2030 – an important step in acknowledging our consumers' demands and giving them confidence in our quality product (see page 4).

It was a pleasure to meet so many producers at Red Meat 2017, but for those who weren't able to make it to the Red Centre, please continue to share your views on *Feedback* and any other aspect of MLA with me.

Richard Norton
MLA Managing Director

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Going neutral

Australia's red meat industry can be carbon neutral by 2030, MLA's Managing Director

Richard Norton told the company's Annual General Meeting in Alice Springs in November.

Richard (pictured) said achieving the goal would put Australia head and shoulders above its competitors, giving consumers even more confidence in the quality and integrity of Australian red meat and turning environmental criticism of the industry on its head.

He said Australian red meat's reputation was second-to-none among global consumers, but the industry must keep focusing on changing consumer demands and act on emerging threats and market disruptors to prosper into the future.

"With industry commitment, the right policy settings and new investment in research, development and adoption, the Australian red meat industry can be carbon neutral by 2030," Richard said.

"And we can be the first red meat exporting nation to do so."

Richard reported that MLA had initiated a project with CSIRO to identify pathways for the red meat industry, farm and processing sector included, to become carbon neutral.

The project has identified a series of innovation and farm management options, including the expanded use of legumes and dung beetles in pastures, savannah fire management in northern

Australia, feed supplements, lot feeding systems and vegetation management. Genetic selection and a potential vaccine to reduce methane production in the rumen were other opportunities, he said.

Richard said the dividends from setting a carbon neutral goal would include:

- increased productivity in the red meat industry
- additional farm income from carbon mitigation projects
- a major contribution to government targets on emissions reduction
- another strong assurance for consumers of the quality and integrity of our naturally produced, great-tasting Australian red meat.

Richard reported that MLA was gathering more consumer insights from export markets than ever before, which was directly informing where and how MLA invested the industry's marketing levy.

"There are clear market signals in our high value international markets that emissions from livestock production are an issue for consumers who are also increasingly interested in the provenance of their food," he said.

"At the same time, global companies and billionaire entrepreneurs are investing big dollars in projects to manufacture cultured and synthetic beef to try and lay claim to having zero environmental and welfare impact.

"There are other signals as well. Both sides of federal parliament have committed to further reduce national carbon emissions by 2030 and most



state governments have set carbon-neutral targets."

Richard said the Australian red meat industry had already done much of the heavy lifting in the reduction of Australia's total emissions to date and had an opportunity to create an even better story about its product in the years ahead.

"The red meat industry has already reduced its share of Australia's total emissions from 20% of Australia's 600 million tonnes total emissions in 2005 to just 13% in 2015, while also helping to reduce Australia's overall emissions to 525 million tonnes over the same period," he said. ■

Watch Richard's presentation to Red Meat 2017 at redmeat.mla.com.au/watch.html

The process

An MLA-commissioned project conducted by CSIRO has looked into how the red meat industry (defined as the farm and processor sectors) can become carbon neutral by 2030.

The process for the project has been:

1. Collaboration with the Australian Department of the Environment and Energy to establish the 2005 industry baseline in alignment with federal government emission baselines.
2. Establish contributions from the beef, sheep grazing, feedlot and processing sectors to overall industry greenhouse gas emissions (GHG).
3. Assume national herd numbers of 28 million cattle and 70 million sheep (10-year averages).
4. Explore options for reducing GHG emissions from animals and processing, and carbon capture from trees and soil and then quantify their impacts (applicability, practicality and cost effectiveness).
5. Identify pathways based on various combinations of these practices to gain carbon neutrality by 2030.
6. Determine what research, development and adoption is needed for the industry to achieve this target, along with associated financial returns in productivity gains and potential carbon credits.

The final report is expected to be published by the end of 2017. ■

Red Meat 2017 round-up



More than 400 red meat producers and industry representatives met in the heart of central Australia's pastoral industry on 21–22 November 2017 for MLA's showcase event – Red Meat 2017.

The jam-packed event at Alice Springs included a producer tour to the Hayes family's 'Undoolya Station', a tradeshow and technology demonstrations, a business breakfast, a producer forum, MLA's Annual General Meeting and meals featuring Australian beef, lamb and goatmeat as the heroes.

At Red Meat 2017, MLA members voted on the election of three Directors to the MLA Board – which included the election of two first-time Board Directors:

Alan Beckett currently serves on the MLA Board and runs an Angus breeding and backgrounding operation in Yea, Victoria. He's also a professional services expert in auditing, corporate services and risk management. Alan received 80.5% votes in favour.

Russell Lethbridge and his family run Werrington Cattle Company, a commercial beef cattle breeding, growing and fattening enterprise in Queensland. He received 86.9% votes in favour.

Andrew Michael is a sheep producer, working his 1,500ha family farm at Snowtown, SA, as well as grazing land in the state's north-east and south-east. He received 79% votes in favour.

MLA members also voted in three producers to represent them on the MLA Selection Committee:

Peter Quinn, representing grassfed cattle producers

Tony Fitzgerald, representing lot feeder producers

Jane Kellock, representing sheep producers (this will be Jane's second term on the Selection Committee).

The role of the Selection Committee is to call for applications, review, interview and then report to members on the suitability of candidates for election to the MLA Board. ■



The MLA Board (from left): Erin Gorter, Richard Norton, Alan Beckett, Allister Watson, Dr Michele Allan, Robert Fitzpatrick, Andrew Michael, Russell Lethbridge and Steven Chaur. Absent is George Scott.

Images on pages 5–9 by Lisa Hatzimihail.

Highlights

Producer tour

MLA's producer tour was held at 'Undoolya Station', home to Ben, Nicole, Nikita and Jamie Hayes who provided a first-hand overview of the station's operation and some of the innovations being used in the management of their cattle enterprise.

MLA's **Michael Finucan, Michael Crowley, Sarah Strachan** and **Kelly Payne** covered topics ranging from global trade dynamics and what they mean for your business, premium markets and how to access them, using carcass feedback to improve your returns, and value adding to the carcass and our industry.

Following a barbecue lunch cooked by MLA Corporate Chef **Sam Burke** and Kelly Payne, producers were shown some of the latest innovations under development in MLA's autonomous program – including unmanned aerial and land vehicles, remote sensing and digital mapping solutions. ■



Business breakfast

The flow of data across the value chain was the theme of MLA's business breakfast.

Anna Speer from AuctionsPlus shared how technology can connect Australia's livestock marketplace.

Teys Australia's **Tom Maguire** covered how objective animal and carcass measurement and supporting technologies can underpin value-based marketing and support accurate individual assessment and feedback.

Mick Keogh, Agricultural Commissioner from the Australian Competition and Consumer Commission, explored the data and information critical for red meat competition, productivity and growth in the industry. ■



Red Meat Advisory Council (RMAC) forum

RMAC's independent Chair **Don Mackay** and local producer **Chris Nott** addressed the key risks and opportunities for red meat businesses beyond 2017. Representatives from all peak industry councils joined a panel discussion and answered questions from the floor. ■



Taking a gourmet trip in the Red Centre

MLA's corporate chef Sam Burke is no stranger to cooking for large crowds, but his role at Red Meat 2017 in Alice Springs this month was a bit different. This time, he cooked beef, lamb and goatmeat 'produced by levy payers for levy payers'. Sam and the culinary team from Crowne Plaza Alice Springs, headed up by Executive Chef Gavin Wilcock, produced almost 2,000 meals across the two days in the Red Centre.

Here *Feedback* talks to Sam about some of the event highlights.

What did you get up to at Red Meat 2017?

The event was something brand new for MLA – it was more than just an AGM. It was all about bringing the industry together to highlight the great things that are happening at the moment, from innovation and technology to a focus on different cuisines.

For me, Red Meat 2017 was an opportunity to show the levy payers who work so hard to bring us these proteins how the red meat they produce is cooked around the world, as well as in the domestic market. They don't always get to see what happens down the track, so it was great to show them how it's cooked in different cultures and markets.

How did you do that?

There was a lot of cooking over coals this year to show our producers that 'street food' element. We also did a lot of 'slow and low' cooking using Texan offset smokers and focused on both primal and non-primal cuts. We really wanted to emphasise the importance of total carcase utilisation.

Highlights were the beef and lamb *shashliks* served with Israeli cous cous, smoked *Xian* lamb racks with seaweed salad and Chateaubriand steak with *pomme Lyonnaise* and mushroom ragout sauce. To celebrate Australia's Free Trade Agreement with Peru, we also cooked up some grilled Adobo-rubbed beef heart skewers over the parilla (a South American grill) and served them with a fresh quinoa salad.

✉ Sam Burke
 E: sburke@mla.com.au

Red Meat 2017 in action

MLA producer forum

Topics covered at the MLA producer forum stretched across the red meat value chain:

MLA's **Lisa Sharp** covered the global 'mega trends' that are driving consumers' purchase decisions and what they mean for our industry today and tomorrow.

Dr Jane Weatherley shared how the Integrity Systems Company is harnessing the power of data to strengthen the industry's integrity and traceability systems and protect Australia's global reputation for clean, safe and natural red meat.

MLA's **Michael Crowley** explored the opportunities for producers to set up their business for success using eating quality programs, genetics and objective measurement.

Sean Starling from MLA covered current research and development innovations in the pipeline and those on the horizon that will drive the industry's productivity and efficiency across the value chain.

MLA Annual General Meeting

MLA Chair **Michele Allan's** opening address focused on the cattle, sheep and goat markets and observed how Australian red meat has fought hard to hold its place on menus and dinner tables this year. She also spoke of the value of MLA's two subsidiary companies – Integrity Systems Company and MLA Donor Company – in driving improvements in the profitability, global competitiveness and sustainability of the Australian red meat industry.

Managing Director **Richard Norton** reported on the performance of MLA over the last 12 months, including how the company is meeting the KPIs set out in the *Meat Industry Strategic Plan*, with the ultimate goal of fostering prosperity in Australia's red meat industry. He focused on MLA's work to ensure the industry is responding to and meeting consumer demands, including addressing growing consumer demand for a sustainable product and a plan that could see our industry become carbon neutral by 2030. (see story on page 4). ■

Access the presentations at redmeat.mla.com.au



In the field



"Every bit of the producer tour was useful. I wrote heaps of notes all the way through the presentations. I'll be looking into the MSA Index when I get home."

Clare McMahon, cattle producer, Kiah, NSW



David Eagleson (Alice Springs), Ian and Kate McCamley (Rolleston, QLD)



Tom Heggaton (Wagga Wagga, NSW) and James Beale (Katherine, NT)



Tess Herbert (Eugowra, NSW) and Don Mackay (Brisbane, QLD)



"Compliments to the chef. The food was magnificent!" (Jenni)

"It's been interesting to see different production systems and how people solve problems with unique strategies." (James)

Jenni and James Jackson, sheep producers, Guyra, NSW



Bill Sykes (Benalla, VIC) and Kim Haywood (Perth, WA)



Ashley House (Aramac, QLD) and Alex Marcocci (Melbourne, VIC)



John Smart, Dave Kent and Harold Sharman (Kangaroo Valley, NSW)



Milton and Linda Heywood (Sandy Point, VIC)



"My big takeaway was the effort it takes to service 100 different export markets. Michael Finucan's presentation (at the producer tour) showed the diversity of these markets. I can appreciate the effort MLA is putting into export markets."



Therese and Justin Toohey (Byron Bay, NSW)

Louis Grey, agricultural advisor, Hitachi Consulting, Eagle Farm, Queensland

Download your copy of the
MLA Annual Report 2016–17
 at mla.com.au/annualreport



The year in review

MLA's *Annual Report 2016–17* provides a transparent overview of MLA's activities, highlights and outcomes for the year and reports on the company's key performance indicators and financial performance.

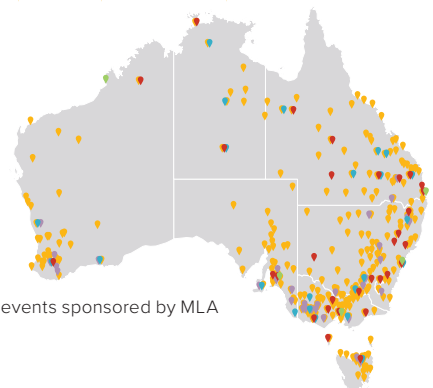
Here are highlights covered in the *Annual Report 2016–17*:

<p>\$24 million in MLA co-funding to fast-track DEXA installations in processing mla.com.au and search 'DEXA'</p>	<p>Trade liberalisation in Indonesia, China and the United Arab Emirates mla.com.au/international-markets</p>		
<p>World-first single step genetic analysis developed for Brahman breed brahman.com.au</p>	<p>myMLA and single sign-on to industry integrity systems launched and Prices & Markets upgraded mla.com.au/mymla</p>	<p>Beef Industry Sustainability Framework endorsed sustainableaustralianbeef.com.au</p>	
<p>70% of US chefs attending MLA immersion workshops trial Australian red meat; 65% add it to the menu, 40% of these permanently mla.com.au/chef-immersions</p>	<p>Up to \$500,000 cost savings for converting processor waste to energy ampc.com.au and search 'wastewater and biogas project'</p>		
<p>Additional \$120 million in farm gate returns delivered by Meat Standards Australia mla.com.au/msa</p>	<p>Australian Beef Language reviewed and set for enhancement mla.com.au/beeflanguage</p>		
<p>23% increase in domestic lamb sales during the 2016 summer lamb campaign australianlamb.com.au</p>		<p>NLIS Ltd relaunched as Integrity Systems Company mla.com.au/integrity</p>	
<p>Producer knowledge and skills rise from 46% to 76% during Profitable Grazing Systems pilot, with this program extended for five years mla.com.au/pgs</p>	<p>42% reduction in wild rabbits at calicivirus release sites and PAPP toxin for wild dogs and foxes becomes commercially available pestsmart.org.au</p>		

FAST FACTS

MLA was active across the country in 2016–17 and was involved in more than 400 industry events. Managing Director Richard Norton attended more than 50 of these.

- ◆ Community engagement events
- ◆ Attended by Richard Norton
- ◆ Regional consultation
- ◆ Producer Demonstration Sites
- ◆ Adoption events and workshops



These locations are in addition to 82 events sponsored by MLA

Connecting you with solutions



MLA is preparing to tackle one of the red meat industry's biggest productivity constraints.

The new program is designed to improve connectivity on farm and through the supply chain.

Initial work will include:

- Development of a connectivity hub through MLA's website, offering a comprehensive list of technology providers and an explanation of their services.
- The opportunity to partner with MLA and specialist technology providers to carry out a comprehensive review of an individual business' connectivity requirements and identify a tailored

solution. Participants will co-fund this work through MLA Donor Company (MDC), sharing results and insights with the wider industry.

- Engaging connectivity managers to work within businesses to identify and advise on solutions – and sharing relevant insights with industry.
- Seeking feedback through a survey to better understand the connectivity needs and experiences of producers.

MLA General Manager – Research, Development and Innovation Sean Starling said the program helps producers identify their connectivity requirements and available solutions.

"We recognise there are existing and ongoing infrastructure challenges

in accessing basic technology and services in rural areas, for which there is not a simple fix," Sean said.

"However, simply navigating and understanding what technology is currently available and how best to implement can be equally challenging.

"Not every producer and business has the same connectivity requirements. For some, their needs are as simple as making a phone call or getting basic internet access in the paddock. For others, it can be about fully integrating your business or transferring data in real time across the supply chain." ■

✉ Sean Starling
E: sstarling@mla.com.au

Producers embrace LPA changes

Thousands of producers have updated their Livestock Production Assurance (LPA) accreditation as part changes implemented on October 1 to strengthen the program.

Since the updates were introduced, more than 4,440 producers completed the new accreditation process. This includes 3,816 who have renewed voluntarily, and an additional 624 who have become accredited for the first time.

These producers have completed the assessment via the LPA Service Centre to demonstrate they understand their food safety, animal welfare and biosecurity responsibilities.

"Producers have been proactive in

understanding and embracing the changes to the LPA program," said Dr Jane Weatherley, CEO, Integrity Systems Company, a wholly owned subsidiary of MLA, who deliver the program on behalf of the red meat industry.

"The changes enhance the integrity of Australia's \$23 billion red meat industry and ensure our reputation and market access is protected, strengthening our promise to consumers and keeping us one step ahead of our competitors.

"It's encouraging to know that producers have taken the time to understand their responsibilities, do the online learning modules and complete the accreditation process."

More than 5,500 producers have also attended 62 workshops across Australia to learn about the changes to

LPA and in particular the introduction of biosecurity requirements.

LPA-accredited mixed farmer Andrew Bell said the Sheepmeat Council of Australia workshop he attended in Horsham, Victoria in mid-October, helped him understand the new requirements.

"A lot of it is commonsense. Going to the workshop was a valuable exercise and has helped me formulate a farm biosecurity plan," Andrew said. ■

✉ E: lpa@mla.com.au
T: 1800 683 111

📄 mla.com.au/LPAchanges



With an industry turnover of \$62 billion, the importance of Australia's red meat and livestock industry has been reinforced in the newly released *State of the Industry* report.

The red meat nation

Commissioned by MLA at the request of the Red Meat Advisory Council (RMAC) and its member councils, it is the first snapshot of the value of the red meat industry to the Australian economy and community.

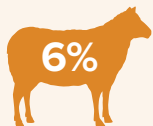
The report is available at: rmac.com.au/state-industry-2017. Here are some of its key findings:

THE OPERATING ENVIRONMENT

Australia has a modest proportion of the world's livestock:



of the global beef herd (2014)



of the global sheep flock (2014)

Global consumption of red meat continues to evolve:



decrease in per capita consumption of beef (1996–2015)



increase in per capita consumption of sheepmeat (1996–2015)

Producer's share of retail dollar increased to:



for beef (2016)



for sheepmeat (2016)

Per capita meat consumption in Australia is higher than the global average:



higher for beef and veal (2015)



higher for sheep and mutton (2015)

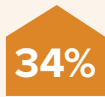
ECONOMIC IMPORTANCE OF THE RED MEAT AND LIVESTOCK INDUSTRY (2015–16)



increase from the previous year



\$62 billion
industry turnover



increase from the previous year



\$18 billion
industry value add



increase from the previous year



75,400
businesses



decrease from the previous year



\$15 billion
industry exports

178,900

direct employment



+

225,930

indirect employment



=

404,830

total employment



Diary dates for 2018

It's time to start planning for the New Year by checking out these upcoming MLA-sponsored events.

All upcoming MLA events and workshops can be found at mla.com.au/events.

Beef Australia

When: 6–12 May

Where: Rockhampton, Queensland

What: Beef Australia, one of the world's leading cattle expos, will feature more than 4,500 cattle covering more than 30 breeds, a tradeshow, symposium, seminars, property tours and celebrity chef cooking demonstrations.

beefaustralia.com.au

LambEx

When: 5–7 August

Where: Perth, WA

What: LambEx is a celebration of Australia's sheep and lamb industries. This year's event boasts a packed program, interesting speakers and networking opportunities, as well as post-conference tours.

lambex.com.au

Red Meat 2018

When: 20–21 November

Where: Canberra, ACT

What: Red Meat 2018 is more than just MLA's Annual General Meeting. It includes forums on the latest research, innovation and marketing insights, MLA tradeshow, producer tour and networking opportunities.

redmeat.mla.com.au

ON FARM

RESEARCH IN ACTION



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IN BRIEF

Meet meat's future

A group of next-generation livestock consultants have started a two-year internship in the second intake of the Future Livestock Consulting Internship program.

Established as a partnership between the MLA Donor Company and participating consulting firms, the program is designed to ensure a flow of new consultants to Australia's livestock industry.

Interns and consulting firms participating in the second intake are:

- **Georgia Reid, WA (AgPro Management)** who grew up on a sheep and cropping farm in south-west WA and has a Bachelor of Agriculture. completed an honours project in Animal and Veterinary Science, investigating the impact of mob density on twin lamb survival.
- **Hilary Beech, NSW (Holmes Sackett)** who grew up on a sheep and cropping farm in WA and has a Bachelor of Agriculture Business Management and a Bachelor of Agriculture.
- **Tara Graetz, SA (Rural Directions)** who has a Bachelor of Agriculture and grew up on the family sheep farm at Willalooka, SA.
- **Jackson Downes, SA (University of Adelaide)** who has a Bachelor of Agricultural Science and

mla.com.au/rural-professionals

A plan for dieback

Following a strong producer response to a survey on pasture dieback in central Queensland, MLA has implemented an action plan to address the issue.

To further understand the extent of pasture dieback and to establish solutions, the plan involves:

Sampling: two commercial companies have been engaged to undertake sampling of affected pasture and soil for diagnosis.

Image surveying: historic and current satellite images of affected properties are being sourced and analysed to assess the extent of the problem.

Consultation: discussions are underway with affected landholders to collect as much relevant information as possible.

MLA has also appointed a Liaison Officer, Greg Palmer, to assist in coordinating the sampling and surveying. ■

✉ Affected property owners who have not yet reported their pasture dieback issues can contact:
Greg Palmer
E: agpalmer@matrixprof.com.au

Ticking off life-long protection

A \$3 million grant has been secured by MLA to develop a new biological product to tackle two of the northern beef industry's most significant pests – cattle tick and buffalo fly. It is estimated the two pests cost producers \$260 million/year.

The three-year Probio-TICK project, funded by the Cooperative Research Centre for Developing Northern Australia, will work to develop a low-cost, chemical residue-free microbial treatment applied to the hide of the cattle to provide life-long protection against the pests.

"Failure to control ectoparasites like cattle tick and buffalo fly is a major roadblock to improved quality, value and sustainability of the northern Australian cattle industry," said MLA Program Manager – Health, Welfare and Biosecurity Dr Jim Rothwell.

The research is being undertaken by MLA in partnership with Microbial Screening Technologies Pty Ltd (MST) and Macquarie University.

Project leader and MST Managing Director Dr Ernest Lacey said Probio-TICK would involve beneficial microbes being applied to the hide of cattle.

"Probio-TICK applies the well-established science of human 'inner-health' probiotics to the 'outer-health' of cattle hides by boosting the animal's innate resistance to pest invasion," he said. ■

✉ Dr Jim Rothwell
E: jrothwell@mla.com.au



New standards for non-Merinos



National standards to predict the energy requirements and intake for sheep, originally based on Merinos, are being re-evaluated to improve accuracy for non-Merinos and maternal ewes.

The project is addressing components of the Australian Feeding Standards for Ruminants, which outline the nutrient requirements and responses of ruminants to changes in their feed supply.

“The new feeding standards we’re working on will be a tool for the sheep industry to help boost productivity and profitability,” said Richard Apps, MLA Program Manager – Sheep R&D and Objective Measurement.

“The Australian Feeding Standards for Ruminants, in their current form, were developed from Merino-based systems but don’t work for modern maternal genetics.

“Lambs from non-Merino or maternal ewes are an important part of the sheepmeat industry, accounting for about 40–45% of total lamb supply.”

Richard said the project would delve deeper into the research undertaken through the MLA-funded Lifetime Maternals project, which was aimed at lifting lamb survival, weaning rates, production and profit in maternal ewe flocks.

Dr Andrew Thompson, lead researcher on the projects, said the redefined predictions, once completed, would enable whole-farm economic modelling to develop optimal management recommendations.

These would be incorporated into new sheep industry extension and adoption programs, as well as existing programs such as Bred Well Fed Well, Profitable Grazing Systems and Lifetime Ewe Management. ■

RESEARCH IN REVIEW

PROJECT NAME

Feeding standards for modern maternal ewes.

RESEARCH ORGANISATIONS

Murdoch University, the South Australian Research and Development Institute, Agriculture Victoria

FUNDING ORGANISATIONS

MLA and research providers

GOAL

To improve the accuracy of on farm economic predictions through national standards to predict energy requirements and intake.

BUDGET

\$872,000

DURATION

June 2017–January 2019

✉ Richard Apps
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Dr Andrew Thompson
E: andrew.thompson@murdoch.edu.au

📄 Lifetime Maternals:
mla.com.au/conditionscore
Find the Lifetime Maternals final report at: mla.com.au and search ‘lifetime maternals’.

Syndrome survey

Have you observed subclover leaves turning red, followed closely by the plants dying? This phenomenon – labelled ‘Red Leaf Subclover Syndrome’ – has been reported in the Esperance region of WA for a number of years; however, following the recent dry winter, producers have grown concerned that it has significantly spread.

To better understand the spread and extent of the syndrome – as well as provide researchers and extension providers with more information in order to identify short and long-term solutions – MLA and Australian Wool Innovation are surveying producers.

📄 Producers in southern Western Australia experiencing issues with their subclover pasture should visit: mla.com.au/subclover

The value of breeding and feeding

Bred Well Fed Well (BFWW) is a practical, one-day workshop on the production benefits of superior genetics, plus feed management for improved performance.

Four things you will learn from BFWW

1. How to understand and use genetics
2. How to develop a breeding objective
3. The importance of nutrition for reproductive performance and profitability
4. How to create simple energy budgets.

BFWW for sheep can now be offered in specific modules covering joining ewe lambs, running maternal breeds and operating in the pastoral zone.

✉ To host or find an upcoming workshop near you contact:
Serina Hancock
BFWW Coordinator
E: s.hancock@murdoch.edu.au

Producer-driven research investment

Direct consultation with producers has led to the funding of 12 new research, development and adoption projects to build prosperity in the sheepmeat and grassfed beef sectors.

The MLA-funded projects, with a total value of \$9.5 million, address key industry priorities within three themes: whole-farm breeder productivity systems; future feedbase scenarios, and profitable and efficient ruminant nutrition.

An extensive regional consultation and selection process resulted in the funding of the research priorities and involved 18 regional committees, as well as the North Australia Beef Research Council, the Southern Australia Meat Research Council and the Western Australia Livestock Research Council. ■

Michael Crowley, MLA General Manager –
Producer Consultation and Adoption
E: mcrowley@mla.com.au

Project	Principal researchers
New approaches to increase the weaning rate of the national sheep flock through dietary additives for ewes in late pregnancy	South Australian Research and Development Institute
Improving beef production through management of plant toxins, including the Pimelea toxin	University of Queensland (QAAFI)
Feeding leucaena to manage the rumen for maximum beef profit including evaluation of the psyllid-resistant cultivar, Redlands, and investigating increasing the area of land suitable for growing leucaena	CSIRO Agriculture and Food and Queensland Government through the Department of Agriculture and Fisheries
Grazing strategies and tools to improve profitability and land condition based on outcomes from the long-term Wambiana Grazing Trial	Queensland Department of Agriculture and Fisheries
Development of a single-shot immuno-contraceptive vaccine as an alternative to cattle spaying	University of Queensland
Maximising the value of existing technology for sheep producers, namely eID	AgriPartner Consulting
Reducing foetal and lamb losses in young ewes by improved understanding of maternal infections	Murdoch University
Managing fecund (highly fertile) sheep flocks to improve the survival of triplet carriers and their offspring	Murdoch University
Boosting lamb survival with ewe vitamin and mineral supplementation	Murdoch University
The gateway to selecting for nutrient-efficient livestock – or ‘better doers’	NSW Department of Primary Industries
Improving breeder herd performance through optimal pasture utilisation in northern Australia	Northern Territory Department of Primary Industry and Resources
Grazing with self-herding methods to improve breeder nutrition and reproduction	Rangelands NRM

Which ewe belongs to who?

SmartShepherd has developed a lightweight, re-usable smart tag to gather and transmit relationship data to enable more efficient, accurate identification of mothers and their offspring in sheep, cattle and goat operations.

The tag works without GPS or internet connectivity and utilises low-cost Bluetooth technology and an Internet of Things (IoT) architecture.

MLA Donor Company (MDC) supported the development of SmartShepherd through its new innovation and entrepreneurship platform I+E Connect, enabling the technology to be trialled on

farm. Field trials with cattle are underway.

SmartShepherd co-founder and CEO David Rubie said the technology was designed to give producers an easier way to improve the maternal genetics.

“Field trials of the SmartShepherd system achieved 96% pedigree accuracy within 48 hours of the tags being placed on the ewes and lambs,” he said.

“The smart tags can be re-used, meaning the cost of determining pedigree will be a fraction of the cost of genomics. Due to this shift in economics it will be possible to perform full pedigree recording over entire commercial flocks or herds.” ■



smartshepherd.com.au
MDC's I+E Connect

E: i+econnect@mla.com.au

Over the fence

In 'Over the Fence', *Feedback* follows a group of producers from around Australia as they manage their operations over the course of a year and respond to the challenges that arise. This is the third instalment in the series. Read the others from the previous two editions at mla.com.au/feedback.



SNAPSHOT:

Nick Radford,
Penola, South Australia



Area: 3,690ha

Enterprise:
Breeding Angus cattle

SEASONAL CHALLENGES:

Since moving to the south east from western NSW, I have appreciated the reliable seasons. I know when it will be dry, wet or cold, and when growth is going to be slow or fast. However, it's good to be prepared for the worst and not just expect the best. Nothing beats observation for managing dry conditions; monitoring the condition of our cows is a great indicator for me.

PROGRESS ON LONG-TERM GOALS:

Calves were weaned in early spring onto irrigated pastures. This allowed the cows to rebuild fat reserves for use through summer and autumn (if needed).

We've had some experience in renovating and renewing water points over the years, as most farms that we've purchased were either due for a revamp or needed extra water points when we reduced paddock sizes. I feel it's best not to put all your eggs in one basket. If you have 1,000 cows relying on one pump, it doesn't leave you much time to fix any problems. We are working on installing solar-powered pumps for moving water around the property, with a back-up generator as insurance.

We're all due for a break after a busy year, so the family has a week at the beach planned this summer. ■

ACTIVITIES OVER THE NEXT TWO MONTHS:

- > Pregnancy testing 609 maiden heifers.
- > Rebuilding the dirt base of the weaning yard. This involves removing manure and replacing it with a limestone base.
- > Weaning calves.

✉ Nick Radford
E: nickradford5@bigpond.com

📄 Cattle condition score guidelines: mbfp.mla.com.au – Weaner Throughput module.



The difference in dry matter between two paddocks in a rotation, based on information Nick learned through the Pasture Principles course.



Heifers ready for pregnancy testing.



Rebuilding the dirt base of the weaning yard. This involves removing manure and replacing it with a limestone base.



Long, calm sunny days make solar pumps the best option for the water points on Nick's property. As a back-up, they have a generator to pump water at night.

Over the fence



The historic shearing shed at 'South Mokanger' was built in the 1860s by the Chirnside family and is one of three built by the family in Victoria. One of the others is located at the Werribee Open Range Zoo.



Johnny's father, Rob who works with Johnny in the business.



SNAPSHOT:

Johnny Gardner,
Cavendish, Victoria



Area: 1,850ha

Enterprise:

Prime lamb production from a 10,000 self-replacing ewe flock and 220ha of grain and oilseed crops

SEASONAL CHALLENGES:

It was a very different winter and spring. It was really wet through the end of winter and stayed cold well into spring, which slowed pasture growth and meant it was quite tight for feed into September. In case it didn't turn around, we did some imprint feeding of lambs – although now we have the opposite challenge of using up abundant feed. We took some cattle on agistment in early October. Lambs were weaned into weight groups and, along with the ewes, were put into a rotational grazing system to fully use all pasture. Pasture quality was monitored and, once it fell below 65% digestibility, silage and grain were used to maintain condition scores.

PROGRESS ON LONG-TERM GOALS:

We've subdivided some larger paddocks to assist with rotational grazing. To supply water to the new paddocks, new dam options are being investigated and ground water is being tested, with a view to sinking another bore. We've sown 120ha of summer crop (brassica) to help finish lambs and get the ewe lambs to a minimum joining weight of 45kg.

HANDY TOOLS:

To assist with rotational grazing, I'm trialling the EverGraze pasture management tool. It allows me to enter variables such as mob size, available pasture and rate of growth, and calculates how long each mob should be left on each pasture. ■

ACTIVITIES OVER THE NEXT TWO MONTHS:

- > Weaning lambs.
- > Crutching for summer fly control.
- > Shearing.

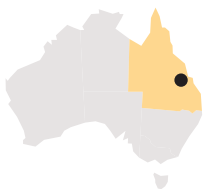
✉ Johnny Gardner
E: southmokanger@outlook.com

💻 EverGraze pasture management tool: evergraze.com.au/tools
Sheep condition score guidelines: makingmorefromsheep.com.au – Wean more lambs module.



SNAPSHOT:

Carlie and Lauchie Ward,
Dingo, Emerald and Bajool, Queensland



Area:
8,500ha plus
12,750ha leased

Enterprise:
Breeding and backgrounding with a herd of crossbred cows joined to Angus and Wagyu sires

SEASONAL CHALLENGES:

The challenge is preparing for a scenario where there isn't a typical (or any) break in the season. We aim to keep good ground cover while maintaining a modest daily gain from our stock. To do this, we market our larger animals and retain weaners. It often means making an early call, regardless of market conditions, and ensuring we aren't carrying any surplus females or heavier stock (and then trying not to look back).

To manage through these periods, we supplement with a molasses–urea mix and Rumensin®, so the weaners will be ready to gain quickly when we get a summer break. It also enables us to maintain a reasonable land condition score, so it will also respond rapidly. We are also trialling this regimen on first and second-calf heifers to improve reconception rates.

PROGRESS ON LONG-TERM GOALS:

Our focus is on efficient pasture utilisation and wet season spelling, while monitoring market conditions for trades. On the coastal country, we are trialling creep feeding of calves to improve conception rates, increase weaner weights and decrease the time to reach market for our empties. Feed monitoring and budgeting is an important part of our business and we're constantly trying to balance trade opportunities against the need to conserve pasture for the following winter. As our stock water at 'Namgooyah' (Dingo) is fed through a reticulated trough and tank system with no surface water available, it requires constant monitoring. Due to labour shortages, we are investigating remote monitoring options. Hot conditions also put pressure on our windmill-fed systems at Bajool (usually when stock supplementation is also at its peak), so we are exploring solar-based systems.

If we get a good break in the season, we will take a holiday, but it's often difficult because of the pressures at this time of year. ■

ACTIVITIES OVER THE NEXT TWO MONTHS:

- > Marketing any remaining feeder cattle if we don't get a decent season break. Feeding lick and molasses to our target mobs.
- > Due to staffing changes, we're looking at a restructure and/or new employees. We want to have a solid human resources plan in place beforehand.
- > Changing our accounting system to a more 'real time' system to improve payrolls and budgets.

✉ Carlie and Lauchie Ward
E: namgooyah@bigpond.com

🖥 futurebeef.com.au for information on molasses supplementation, water requirements and managing ground cover



Tailing out weaners at Carlie and Lauchie Ward's property. The Wards manage through dry periods feeding M8U (molasses–urea mix) and Rumensin®, so the weaners will be ready to gain quickly when the season breaks.

Meet the new ewe



The genetic choices producers make today will affect their flocks for the next 10 years.

So what genetics should producers focus on now to ensure the breeding ewe of the future can satisfy both production requirements and consumer demands?

We asked six red meat industry professionals from different parts of the value chain for their perspectives on the 'ewe of the future'.

What will the breeding ewe look like in 2027?

'The ultimate animal'

The producer:

Chris Wallace-Smith,
prime lamb producer,
'Spring Grove', Jarklin, Victoria



She will be bare-breeched, as mulesing will no longer need to take place, and she will have a fully mapped genetic code which will help produce the ultimate lamb.

At the moment, ASBVs are used to select the ultimate sire – but in the future, I hope to see a greater understanding of the ewe's genetic make-up.

Together with feedback from new technology such as DEXA and Livestock Data Link (LDL) (see story on page 41), this genetic information will help producers select the ultimate ewe to produce the ultimate lamb.

The future ewe will be highly productive, with uniformity right across the flock to give the producer the best return. An even line of ewes producing an even line of lambs will also deliver the consistency the customer will demand.

✉ Chris Wallace-Smith
E: bungawitta296@bigpond.com

'Resilient'

The researcher:

Dr Mark Ferguson,
neXtgen Agri Ltd,
New Zealand



The ewe of 2027 will be a low, wide 'brick' of an animal due to selection for muscling, fat, early growth and maternal efficiency. She will have good health, worm resistance and white wool, and will wean the equivalent in her own body weight in lambs annually.

As an industry, we're good at selecting for big animals, but who likes handling stropky 100kg ewes? What we need is early maturity. You'll get that by selecting for post-weaning eye muscle depth and post-weaning weight, and selecting against mature weight.

Big sheep have higher energy needs and costs. With increasing competition from humans for grain consumption, as well as pressure from the non-meat protein movement, sheep of the future may have to be solely pastured. This will require an animal that can buffer periods of low pasture availability, resulting in an increase in efficiency of the entire system. Selection for muscling and fat will allow this.

With the rise of ethical products, the pressure is on to ensure animal welfare is high and chemical use is low.

✉ Dr Mark Ferguson
E: ferg.nextgen@gmail.com

‘Fully genetically mapped’

The genetics supplier:

Andrew Bouffler, Trigger Vale Poll Merino and White Suffolk Studs, Lockhart, NSW



The ewe of the future has to be smaller and more efficient at converting feed, easy-care, and have good reproductive traits to produce plenty of lambs with good eating quality and yield.

She will also be incredibly ‘measured’. She will have a full pedigree, with data for physical traits and meat eating quality, and we will have accurate predictions on her adult ewe performance.

Particular issues to consider are:

- Growth and mature size: both Merinos and composites will be more muscled, which means they will be earlier maturing and have a smaller adult ewe size.
- Birth weight: through genetics, we need to ensure that genotypic birth weights don’t get any higher and use management to ensure they don’t get too low or high.
- Health and welfare: it will be an indictment on our entire sheep industry if mulesing is still happening in 10 years’ time.

✉ Andrew Bouffler
E: info@triggervalesheepstuds.com.au

‘Easy care’

The processor:

Dr David Rutley, Lamb Supply Chain Coordinator, Thomas Foods International



The most important person in the value chain is the consumer. The priority for consumers today is food safety, and I don’t expect that will change. Consumers are also interested in eating quality, so sheep need good intramuscular fat.

Community expectations are becoming important, especially those relating to animal welfare and the environment. In terms of animal welfare, we will probably be looking at fewer animal interventions, so ewes may have bare breeches and be more resistant to parasites.

In summary, the future ewe:

- will not be highly muscled, but will have a nice finish of fat
- will have reasonable to good intramuscular fat
- will be fertile, have twins and triplets, and have enough fat to raise those lambs
- will have bare breeches and clean tips and ends
- will be resistant to fly strike, worms and parasites.

✉ Dr David Rutley
E: david.rutley@thomasfoods.com

🖥️ sheepgenetics.org.au, Making More From Sheep’s module nine: ‘Gain from Genetics’.

‘Good at growing’

The consultant:

Dr John Webb Ware, The Mackinnon Project, University of Melbourne



I expect to see improvement in the key economic and production traits for growth, carcass traits and fertility, including net lambs weaned. There will also be focus on:

- Ewe size: mature body size is pushing the envelope from a workplace health and safety and handling point of view. In future, we want the ‘curve-bender’ type of sheep – good lamb growth but moderate mature size, as there is a strong correlation between ewe size and lamb growth. Lamb survival and dystocia will require constant attention and need to be balanced with other production traits.
- Animal health: mulesing will cease and, without a suitable alternative, wrinkle and breech traits will be important. For southern breeders, selecting for reduced dagginess and low worm egg count (unfortunately, traits that are independent of each other) will be important.
- Net feed efficiency: there are huge strides to be made here, but it will be a long-term process.

✉ Dr John Webb Ware
E: j.webbware@unimelb.edu.au

‘Smaller, healthier, tasty and affordable cuts’

The customer:

Brian Vossler, Corporate Executive Chef, Shula’s Steak Houses, US



We are still eating the same types of things as we were 20 or 30 years ago, just preparing them differently. Customer tastes haven’t changed a whole lot, but what has changed is their expectations. People like to know about the food they eat and where it’s coming from.

We use Australian lamb racks in our steak houses and they have been well received. We are known for steaks, but we also have seafood and all-natural chicken on the menu. We wanted to add Australian lamb because of its quality and story.

After visiting sheep producers in Australia on a tour hosted by MLA in 2016, I could see it wasn’t just a business to them, but a way of life. The fact that the lamb is pasture-raised and fed was important in our decision making process.

Going forward, I see smaller portion options, healthier choices, cost and, of course, flavour as being important to the consumer. ■

✉ Brian Vossler
E: brian.vossler@shula.com

A tropical take on feedlots

Each year MLA supports a Nuffield scholar who spends time travelling internationally to learn about a livestock topic of their choice. In 2018, MLA's most recent Nuffield scholar Stewart Borg will research intensive grazing strategies in a tropical environment.

Rather than expand through additional property purchases, the Borg family have investigated value adding to their beef through a feedlot – the first of its kind in Queensland's tropics.

"Currently, we send all our steers to southern Queensland feedlots, but in recent years there have been issues with feedlot space and we have been forced to sell our steers early," he said.

"We already feed our own soybeans and oats to cattle in the paddock, so setting up a feedlot would streamline our whole operation and allow us to grow and diversify. It really is the missing link in our business."

On his study tour, Stewart will research intensive grazing strategies used in tropical environments and visit intensive integrated enterprises in the southern United States, Indonesia, Brazil and Argentina.

"Our feedlot will have to differentiate in its management practices and designs compared with feedlots in more traditional environments in Australia," Stewart said.

"Environmental issues such as how the cattle handle the heat, high humidity and rainfall will be a focus when I'm in Indonesia and Brazil, while South



MLA-supported Nuffield scholarship recipient Stewart Borg with his family, Madelyn, Sarah, Heidi and Chelsea. Photo: Kelly Butterworth, Queensland Country Life

America has logistical challenges similar to ours, and it will be interesting to see how they overcome them.

"In the US, I'll look at animal nutrition. We have more similarities with their feedlot industry as it's based wholly around corn and soybeans, both of which are crops we already grow."

Stewart also plans to see how these intensive operations manage other challenges, including target markets, market specification and compliance, feed sources and staffing.

The Borg family already has first-stage approval for a 1,000-head feedlot but anticipate that it will be another two to three years before it is up and running at full capacity. ■

✉ Stewart Borg
E: stewart_n_sarah@hotmail.com

🖥 nuffield.com.au

SNAPSHOT: Stewart and Sarah Borg, Sarina, Queensland



Area:
2,400ha

Enterprise:
Stud and commercial Brahman cattle and cropping, including sugar cane

Livestock:
2,500-head

Pasture:
Tropical, coastal pastures and pondage (Hymenachne grass)

Soil:
Variable coastal soil types

Rainfall:
2,235mm

Producing the best of the best

MLA announced the winners of the Meat Standards Australia (MSA) Excellence in Eating Quality Awards in a series of events held in September and October.

The awards raised awareness of MSA best practice management by recognising the producers in each state who consistently deliver beef with high eating quality. Awards were presented for Most Outstanding Beef Producer, Most Outstanding Beef Producer – Grainfed and the MSA Progress Award.

Producers who consigned animals above the average for their category in their state during 2015–16 and 2016–17 were eligible for awards. They were then assessed against criteria including their compliance rates to MSA specifications and their eating quality performance, as represented by the MSA Index results. This was based on carcass-grading data shared via myMSA.

MSA Producer Engagement Officer

Jarrold Lees said while the winners showed excellence in achieving a consistently high MSA Index, they shared other common characteristics.

“Each used MSA grading as a form of feedback and are working on improving their outcomes – through improved handling techniques resulting in low-stress animals or genetic selection to improve eating quality attributes,” he said.

“Another key trait of all winners was that they understood their market and how to produce the type of cattle needed to meet their customers’ specifications.”

The MSA Index is influenced by carcass attributes that are able to be managed by the producer. The key influences on an MSA Index score are:

- **Very high importance:** hormone growth promotant status, being a milk-fed vealer and whether they have gone through an MSA-licensed saleyard or not
- **High importance:** marbling score, hump height, tropical breed content and ossification score

- **Medium importance:** rib fat depth
- **Low importance:** hot standard carcass weight and sex.

“Using the MSA Index calculator can allow producers to quantify what has an impact on their type of cattle and balance attributes like ossification, weight and marbling to achieve their MSA Index goal,” Jarrold said. ■

✉ Jarrold Lees
MSA Producer
Engagement Officer
E: jlees@mla.com.au

🖥 Use the MSA Index calculator at:
mymsa.com.au/msamobile
mla.com.au/msa
Watch videos on each of the winners on their properties and read their case studies at:
mla.com.au/msaawards

See over for profiles on the winners of the Most Outstanding Beef Producer and Most Outstanding Beef Producer – Grainfed awards.



MSA's top producers

MSA Excellence in Eating Quality Most Outstanding Beef Producer



VICTORIA

Winners:

Ross and Colin Coyle,
'Murray View', Barnawartha

Enterprise: Steers bought in at 8–12 months old from the nearby Barnawartha North saleyards to grow out to more than 600kg. While they favour Angus, the Coyles also buy Herefords, Shorthorns and Black Baldies from a range of breeders. The cattle are sold to Greenham's Smithton plant in north-west Tasmania.

Winning formula

Management: "Grading in the top of the MSA Index is 90% what you put down their throats and the rest is keeping them quiet through handling," Ross (pictured left with Colin) said. On arrival, cattle are drenched, ear tagged and their individual number recorded, then put out into lightly stocked hill country which grows mainly native pastures. We might take a round bale up to them to get them coming to us, but otherwise there's not too much contact. After 6–8 months, the cattle are brought on to the flatter, improved country for another 6–8 months and handled more often.

Selection: "We select more on type and we recognise good cattle. If the same vendor is at the saleyards next time, we'll go back and buy from them. We used to select mainly on size – animals with as big a frame as fitted our budget, but now I take temperament into account a lot more."

Feedback: "Once you get involved in adhering to MSA protocols, you start to see the benefits in grading, and that what you do on farm has an impact on things like the number of dark cutters. Twelve months ago I went to watch the MSA graders working and that helped me to understand the reasoning behind the standards."



QUEENSLAND/NT

Winner:

Kaylene Wonka,
'Blue Poles', Chinchilla, Queensland

Enterprise: 300 Murray Grey–Angus breeders turning off 100 head/year to JBS Australia's Dinmore plant. Also supplies a number of local butchers.

Winning formula

Nutrition: Cattle are predominantly grassfed (Rhodes grass and leucaena) and grain-assisted at the end (sorghum, barley and wheat grown on the property). Kaylene, with her late husband Daryl, first planted leucaena in 1994 and now has about 25ha of Cunningham and Tarramba varieties.

Compliance: "I like to turn them off young to help with the MSA ossification score. When I draft the cattle, I estimate fat depth and then compare what comes back on the kill sheet. I like to check pH and marbling – they play an important role in MSA scores."

Genetics: "I look for quality bulls that are early maturing and have a good temperament and medium birth weight."

Management: "Every day I check the cattle so they get used to my voice and having that contact. This plays a big part in developing good temperament."



WA

Winners:

Shane and Leanne Ablett,
Cowaramup

Enterprise: A Murray Grey–Angus breeding herd turning off forty 400kg milk-fed vealers/year for Woolworths.

Winning formula

Genetics: "We target high growth rates, good eye muscle and low birth weight, and we get rid of any poor performers in the herd," Leanne said.

Management: "Calves (born in February) are first weighed in late September to early October, and paddocks and feed are allocated accordingly. Animals are treated quietly to reduce stress and the calves are kept with their mums until the last minute. Because we have low stock numbers and an abundance of pasture in most seasons, we can run mobs of 20–30 head. In the final eight weeks, we fine-tune our feeding for growth of at least 1kg/head/day and up to 3–4kg/head/day."

Compliance: "Monitoring our MSA Index results across multiple years gives insights into overall eating quality. Meat pH is tracked as a measure of animal stress and the success of low-stress handling techniques. Other attributes important to us are carcase weight and fat coverage. Our target for MSA rib fat measurements is 10–12mm and we consistently achieve this, with a long-term average of 10mm."



TASMANIA

Winner:

Katrina Simpson,
Wynyard

Enterprise: Buying in weaners, generally locally bred Angus or Hereford steers, and growing them out to 300kg dressed weight at 12–18 months. Around 30 head/year are sold to Greenham's at Smithton for the Cape Grim Beef brand.

Winning formula

Selection: "When I buy cattle, I pay close attention to their temperament and only source quiet, well-bred animals," Katrina said.

Management: "Low-stress stock handling is a management tool to ensure the cattle meet MSA specifications, in particular the requirement for pH to be below 5.71. The only times they're really in the cattle yards are when they first arrive and then when they're ready to be sent for processing. The property is a combination of low and high country, which I understock to manage the impacts of the high rainfall on the low country. There is also some bush here, which provides winter shelter and summer shade for the cattle."

Nutrition: "The cattle are fattened on pastures year-round and then, when grass quality starts to drop, they're fed on silage and hay which I grow on the property as well."



NSW

Winners:

Jason and Ann Lewis and Jason's parents, John and Lynne,
'Clevecourt', Bingara

Enterprise: JAC Wagyu, a vertically integrated business on 2,000ha with a breeder herd of 400 Angus and 100 Wagyu females, producing offspring sold at 650–700kg for Coles and for their own brand.

Winning formula

Management: "Cattle are yard-weaned over two weeks, where they are introduced to supplementary feeding gradually. Dogs, people and motorbikes are introduced to cattle when young and then used on a weekly basis. To minimise stress, cattle are not processed for transport in extreme hot or cold weather," Jason said.

Nutrition: To reach target weights, cattle spend 400 days grazing sub-tropical grasses with a hay–grain supplement in small paddocks. This is having positive impact on MSA marbling scores.

Feedback: After making the top three finalists in 2016, Jason and Ann looked to MSA results to keep fine-tuning.

"We're dealing with a very high-value animal and asking for quite a large premium from customers for our product, so it's important to aim for 100% compliance."



SA

Winners:

Michael Famularo and James Sackl,
'Blue Lake Station', Kongorong

Enterprise: Blue Lake Station, which turns off 1,600 Angus steers/year, trades cattle and undertakes contract feeding for clients. The steers are sourced from their own breeding herd and are grazed on pastures. They are then finished in a 400-head undercover feeding facility that is currently working towards National Feedlot Accreditation Scheme accreditation, and turned off at 580–625kg for Coles.

Winning formula

Management: Genetics are sought for temperament traits. MSA feedback on pH is monitored as a measure of stress and low-stress handling techniques used, which include preparing cattle with mineral supplementation and extra handling for the two weeks leading up to transportation.

Nutrition: "Calving is on improved phalaris and ryegrass pastures, where calves also have access to extra protein and grain supplements from three weeks of age," Michael (pictured) said.

"By supplementary feeding the calves in the paddock, we are setting up the rumen for the best potential feed conversion efficiency and easy transition to the feedlot." ■

Rewarded for grainfed excellence

MSA Excellence in Eating Quality Most Outstanding Beef Producer – Grainfed



SA

Winners:

Lynton and Sonia Joyce,
'Englefield Grange' feedlot, Wandearah

Enterprise: A 1,600ha mixed farm with a 300-head feedlot turning off 300–500 head/year to processors for two main buyers – Austral Meat Adelaide and Woolworths.

Winning formula

Background: Processor feedback shapes future purchasing decisions. The preference is to source British breeds, but *Bos indicus* types are occasionally purchased.

Systems: Newly purchased cattle graze on native and improved pastures before moving on to crop stubbles in early summer, and into the feedlot for finishing in January. Farm-produced barley and wheat and locally purchased grain, legumes and hay are fed for 70–100 days to reach 420–450kg live weight. "The whole system is highly integrated and works well, reducing business risks and helping to optimise whole-farm profitability through diversity," Lynton said.

Nutrition: Good nutrition ensures carcasses have adequate rib fat coverage (minimum of 3mm) and a meat pH below 5.71.



WA

Winner:

Carpenter Beef Pty Ltd
(of Rami Koyu's Central Agri Group),
'Joanna Plains' feedlot, Dandaragan

Enterprise: A 10,400-head enterprise at Marianna's Background Facility, a 3,000-head feedlot and a further 10,000-head backgrounding at the 9,300ha 'Joanna Plains'.

The facilities are also licensed live export depots. Most of the output is processed with Harvey Beef or for WA supermarkets, with some destined for export.

Winning formula

Consistency: From 2015–17, Carpenter Beef achieved MSA Index averages that placed it in the top 5% of eating quality for grainfed beef nationally.

Animal welfare: MSA feedback led to improvements in animal handling, particularly in yard function and feedlot exit strategies.

Supply: About 80% of the cattle are sourced from the Pilbara and Kimberley, mostly through long-term supply relationships.

"Our business needs to be highly adaptable, due to northern and local seasonal conditions, the ever-changing cattle market and the availability and pricing of grain and fodder," manager Nathan Lidgett (pictured) said.

Nutrition: All grain and hay is sourced from within a 60km radius and, at peak times, could be feeding up to 10,000 head a day. At 10–13kg/head/day, that equates to 100–130 tonnes/day. The target growth rate is above 1.8kg/head/day for the short-fed (72-day) ration program for cattle over 400kg. High-end (Wagyu–Angus) long-fed (200-day) programs require a slower growth rate (closer to 1kg/head/day) to ensure high quality marbling.



QUEENSLAND

Winners:

Robert and Jenny Reardon,
'Reardon Operations' feedlot,
Worral Creek

Enterprise: A cattle finishing enterprise in an irrigated cotton, dryland cropping and grazing operation that spans 25,000ha on the Queensland–NSW border. The 1,000-head feedlot sources weaners from the Reardons' properties at Goondiwindi, Mungindi and Moree, and turns off 300 head/year. Cattle are supplied to Woolworths, Coles and Teys Australia.

Winning formula

Feedback: "We joined MSA to receive feedback about the performance and eating quality of our cattle at processing, particularly for traits important to consumers and to monitor any changes in those traits," Reardon Operations General Manager Tristram Hertslet said (pictured above right, with Robert).

Background: Feedlot-finished weaners are a mix of Angus, Santa Gertrudis and Simmental-cross breeds.

Stress management: The aim is to have a smooth transition from pastures to feedlot finishing, to preparing for transport, to processor. Getting the cattle used to a different ration and to different staff helps with the transition.

Nutrition: Reardon Operations uses its own silage, grain (mostly gradings) and cottonseed in starter, intermediate and finisher rations. Breeding stock are grazed on the Worral Creek property and, if the season is good and weight gain is sufficient, weaners are left on native grasses or improved pastures. If conditions deteriorate, they are shifted to the feedlot after induction to grain and hay in self-feeders in the paddock. Target entry weight is 300kg for 70–120 days feeding.



VICTORIA

Winner:
RM Gillett & Co,
'Jalna' feedlot, Anakie

Enterprise: A 7,000-head facility (registered in 1969) delivering 70-day trade cattle and 100-day, custom-fed Angus steers for the Coles Finest brand.

Winning formula

Stress management: "Our MSA figures showed how stress in cattle had a direct correlation with meat colour and pH levels," owner David Gillett (pictured) said.

The combination of introducing horses, redesigning feedlot facilities and continual education of staff has resulted in incremental gains that show up in the MSA data. In the early days, pen riding at 'Jalna' was done on foot or by motorbike, but now 100% is done on horseback.

Professional support: The feedlot works closely with companies and producers that supply grain and supplements, nutritionist Dr John Doyle from Toowoomba (who visits monthly to design rations) and a consulting vet. There are 14 staff between the farm and the feedlot and knowledge of animal welfare and pen riding techniques is continually upgraded with Dr Kev Sullivan, an expert on low stress and acclimation.

Improving compliance: Construction is underway for a roof to cover 1,800 head of cattle, to reduce the effect of muddy winters, which cause the cattle hair to become matted and problematic during processing. Funded by a grant from the Coles Nurture Fund, it will reduce the cost and stress of washing cattle. A jump in weight gain and a reduction in the feed usually required to keep the cattle warm is also expected to result.



NSW

Winner:
Japan's Marubeni Corporation,
'Rangers Valley', Glen Innes

Enterprise: A 40,000-head feedlot turning off 11,000 head/year, with 80% directed at export markets and the remainder directed to the Coles Finest brand, underpinned by MSA grading. Marubeni exports grainfed Wagyu and Angus beef under its brands including Black Market, Black Onyx and WX to China, South Korea and Europe (France, Italy, Monaco, Switzerland and Finland).

Winning formula

Handling: "The cattle are backgrounded for a minimum of three weeks as part of a pre-conditioning program allowing the cattle to settle before going into the feedlot to start their feeding term," Managing Director Keith Howe (pictured) said.

Among the initiatives undertaken to further enhance animal welfare and boost productivity is the installation of woodchip bedding in pens to boost the comfort of their long-fed cattle throughout the year.

"MSA science has transformed meat grading and instigated good supply chain practices like breeding for temperament, low-stress handling and welfare in the feedlot."

Genetics: "We work with very good producers to provide us with the genetics and deliver the cattle at the starting weight we require, when we want them. It takes a lot of collaboration."

Cattle are also selected on structural conformation and body condition. ■

More good news on MSA

With more than 2.7 million cattle graded through the MSA program in 2016–17, an estimated \$130 million was delivered to producers through additional farm-gate returns.

According to data released in the *MSA Annual Outcomes Report 2016–17*, cattle presented for MSA grading represented 40% of the national adult cattle slaughter, an increase of 2% on 2015–16, despite the decline in overall national cattle slaughter.

There were 5.7 million sheep presented for MSA grading in 2016–17, representing 25% of national lamb slaughter, with 71% of lambs supplying lamb brands underpinned by MSA.

Other key outcomes included:

- carcass compliance to MSA minimum requirements increased to 93.9% and the average MSA Index lifted to 57.59%
- producers received an additional \$65/head (or \$34/head for grainfed) for MSA compliance
- 156 brands now use MSA as their quality system and 11 of those use exporter guidelines to market MSA-branded products in international markets.

Download the *MSA Annual Outcomes Report 2016–17* at mla.com.au/msa.

Repronomics: new frontier genetics

Repronomics, the northern beef industry fertility project, is delivering new genetic assessment tools and accelerating progress of the Brahman, Santa Gertrudis and Droughtmaster breeds.

Project Leader Dr David Johnston said the project is designed to identify the genetic factors which impact the northern beef industry's most influential profit driver – the weaning rate.

“Weaning rates can be as low as 50%, especially in first-calf cows,” he said.

Now in its fourth year, the project has involved artificial insemination of more than 3,000 cows in beef research station herds using semen from young bulls.

These matings, along with natural mating groups, have generated about 1,200 calves/year.

Resulting daughters provided critical reproduction traits such as age at puberty, first-calf cow anoestrus interval and calving and weaning rates.

Information is collected using intensive physical data recording – combined with new high density single nucleotide polymorphism (SNP) genotyping – from animals on which highly accurate data has been generated.

At a farm level, this translates to more accurate estimated breeding values (EBVs) through BREEDPLAN, recording of new economically important traits, and earlier identification of high-value sires.

Repronomics milestones

- **New tools:** Repronomics underpinned Brahman BREEDPLAN to achieve an Australian first – becoming the first breed to move to single-step genomic analysis.

Single-step genomic analysis is a new genetic analysis in which pedigree, performance and genomic (DNA) information is processed and analysed all together, rather than being a blend of a direct genomic value and an EBV.

Benefits include more accurate days to calving EBVs (from less than 30% accuracy to almost 50% for young bulls); ability to identify parents (if their genomic information is available); and contribution of genomic information for individuals to the EBVs of their relatives.

- **Working along the value chain:** Project steers are being measured for carcass and meat quality traits, and future cohorts will be some of the first cattle assessed using DEXA technology to estimate carcass yield.
- **Breed (not just animal) comparison:** Development of across-breed EBVs comparing individual traits of Brahmans, Droughtmaster and Santa Gertrudis ‘head-to-head’ is progressing, with David confident their first trial will begin by the end of the year.

“This has enormous potential for industry and, for the first time, would enable producers to compare the EBVs of, say, a Brahman directly with a Santa Gertrudis or Droughtmaster,” he said.

With each cohort involved in the project, the data generated becomes more powerful and David is excited to see their first progeny-generated females (born in 2014) now calving.

“This is the first big hit of project data coming through where we have collected information on age of puberty and calving outcome,” he said.

“Now we’ll start recording the lactation anoestrus interval on these first-calf cows. It’s from now on that we’ll really get to see the benefits.” ■





Queensland Department of Agriculture and Fisheries project technician Nick Brazier taking a DNA sample from a calf at Brian Pastures Research Station as a 2014-drop project cow watches on.

RESEARCH IN REVIEW

PROJECT AIM

To improve weaning rates in northern Australia through enhancing the accuracy of genetic selection.

RESEARCH ORGANISATIONS

University of New England's Animal Genetics and Breeding Unit, Queensland Department of Agriculture and Fisheries, Northern Territory Department of Primary Industry and Fisheries, Queensland Alliance for Agriculture and Food Innovation and the Agricultural Business Research Institute.

FUNDING

MLA and partners

BUDGET

\$3.1 million

DURATION

October 2013–October 2018

KEY FINDINGS TO DATE

- Large genetic differences observed for 'heifer age at puberty' and 'time taken to return to cycling' in first-calf cows.
- Increased EBV accuracies from new single-step Brahman BREEDPLAN genomic evaluation.

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Smarter data is the way forward

With 25 years of cattle performance recording under their belts, David and Sonya Greenup see the Repronomics project as offering an exciting new era.

The Greenups' Rosevale Santa Gertrudis stud is one of the major co-operators of the Repronomics herds. David and Sonya believe industry contribution will create more linkages between bloodlines and provide more accurate information on the breed's up-and-coming sires.

"We're trying to breed animals that will lift herd profitability in all environments," David said.

"We're focused on a wide range of traits including fertility, docility, growth, carcase specifications, structural soundness and polledness – but because fertility (both male and female) is such a dominant profit driver, it is our first selection criterion, and other traits must follow.

"It's quite difficult to source new genetics that tick all those boxes."

The Greenups use the days to calving estimated breeding value (EBV) to measure fertility and focus heavily on semen morphology, demanding higher than usually acceptable counts.

"We find this trait correlates heavily with female fertility and, if bulls are working under stress, those that exhibit a higher percentage of normal sperm are more likely to remain fertile longer than animals with lower counts," David said.

"The accepted norm is 70%, but we aim for 85% and above for the sires we use."

David believes the Santa Gertrudis breed will reap the rewards of Repronomics within five years.

"Changing the genetic direction in a herd takes time and, at this stage, it's about building the volume of data – especially in traits that are costly and hard to measure. As we do that, the accuracies of our EBVs, and our ability to make better selection decisions using them, will build over time," he said.

"To be able to pull some tail hairs and know, with a high level of accuracy, what a young bull or heifer is capable of, is one of the breakthroughs we're looking forward to."

David said more clients are realising the benefits of selecting animals using EBVs.

"We have a wave of producers who are really focused on performance data when making buying decisions," he said.

"Plenty of bulls 'look the part' but potentially will decrease herd profitability if, for example, they leave behind daughters that are slow breeders." ■

LESSONS LEARNED

- > Semen morphology has a strong correlation to female fertility.
- > Project data will bolster BREEDPLAN analysis and make it easier to identify genetics with desirable performance in traits that drive herd profitability.

SNAPSHOT:
David and Sonya Greenup, 'Rosevale', Jandowae, Queensland 



Area:
12,000ha


Enterprise:
Stud and commercial Santa Gertrudis with composite infusion

Livestock:
700 commercial and 700 stud breeders

Pasture:
Natives, green panic, forage sorghum and oats

Soil:
Sandy to heavy black soil

Rainfall:
625mm

 David and Sonya Greenup
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TECHNOLOGY 

An innovation super highway

Producer Innovation Fast-Track is an initiative developed by MLA Donor Company (MDC) to enable producers to actively drive the innovation agenda. This program identifies industry trailblazers and provides the support and expertise required to build their innovation capability.

An evolving pilot program, Producer Innovation Fast-Track is designed to accelerate the development and adoption of innovations and capabilities to significantly improve farm and value chain performance. It provides the expertise, co-funding and support to producers who are innovators, early adopters, ag-tech entrepreneurs or future value chain leaders.

Read below about a current Fast-Track project with the Lindorff family, based at Anakie and Rowsley in southern Victoria.



Value adding eID

A new ear tag recording unit which uses eID technology to collect data on how many times livestock visit feeders is currently in development phase. The market validation and producer research process for 'The Feeder Reader' is underway.

Back story:

Brothers Chris and Justin Lindorff are sheep producers with day jobs. Chris is an ecologist and Justin an electronics engineer – as they say, Chris likes understanding the nature of problems, Justin finds ways to solve them. Both saw opportunities in the mandatory roll out of electronic identification (eID) in Victoria – first and foremost, the management of feedlot/supplementary feeding sheep and cattle.

Justin and his wife Katie (Katie is pictured above with two of their lambs) were early adopters of sheep eID as newcomers to farming

(they started with a run-down block in 2001), using it to help refine management of their self-replacing Wiltshire Horn ewe flock. Chris and his wife Helena have more recently moved into farming with the purchase of a block of land.

How does it work?

The Feeder Reader is fitted to a feeding unit for grain or pellets to identify which animals visit and how often they eat, via their eID ear tags. The benefit is being able to detect both the shy feeders and the domineering over-feeders.

"It's estimated five to 20% of animals can be shy feeders. Initially they'll fall behind the

rest of the mob and ultimately you'll end up with an animal in poor health," Justin said.

"By identifying what sort of animals you're dealing with, you can then manage them accordingly – say by putting them in with another mob or giving them access to extra feed."

Other potential benefits of the Feeder Reader are early detection of health issues (when an animal doesn't visit the feeder that day) and improved labour efficiency via remote monitoring.

On the fast-track:


The Lindorffs had the concept for the Feeder Reader, but were challenged by the delivery to market.

"Producers are very good at solving their own problems – we don't always need people in the cities coming out and seeing there is a dollar to be

made. Fast-Track is allowing us to access a wealth of expertise to develop our own solution," Justin said.

During Fast-Track supported product validation and market interviews, producers emphasised that the information from the Feeder Reader has to be easy to access and simple to understand.

Long-term, the Lindorffs hope their business will evolve to find other technologies which boost productivity via livestock eID. ■

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 mla.com.au/fasttrack

Plan ahead for legume success

Declining pasture productivity may be widespread in northern Australia, but it's not something producers have to live with.

Recent MLA-funded research, using legume trial sites up to 30 years old, has shown certain legume species such as Caatinga stylo and Desmanthus can improve soil nitrogen, lift livestock production by up to 100% and, with good management, persist for decades.

However, project leader and senior pasture agronomist with Agri-Science Queensland Gavin Peck (pictured) said while many producers accept the benefits of legumes, the sticking point is achieving successful establishment.

"One of the great outcomes from this work has been the development of best practice establishment methods for the Brigalow Belt bioregion, which has one of the toughest climates for establishing legumes into existing grass pastures," he said.



"These results have applications in other environments for improving reliability of legume establishment.

"We're presently designing workshops to help producers understand these principles and select the best establishment techniques for their situation."

Gavin said legume establishment can be approached in four stages: planning, fallowing to store soil moisture, planting and post-emergent care.

1. Planning

Producers need to plan legume sowings to give them the best chance of success. Key considerations for producers in the planning phase are:

- which paddock?
- what legume?
- the ideal establishment method.

"It pays to sow down your best paddocks first and graze the pastures with your most valuable livestock to ensure the fastest return on investment," Gavin said.

"More fertile soils with higher phosphorus levels and higher water-holding capacity are generally more profitable for sowing legumes. Soil tests can help identify the more fertile soils as well as whether fertiliser is required."

Legume cultivars should be selected to suit the soil type and climate. Establishment methods can be altered to suit the legume selected and the condition of the pasture that it is to be planted into.

Gavin said legume seed suited to the Brigalow Belt has regularly been in short supply. Forward planning allows seed purchases to be made early.

2. Fallowing

In the episodic climate of the Brigalow Belt, fallowing is critical for storing enough soil moisture and reducing weed competition to ensure successful legume germination and strong early growth.

Gavin said rainfall records and soil moisture research suggests the general rule is the drier the location, the longer the fallow period.

"In the project's research trials, 9–12 month fallows produced by far the best legume growth. However, in wetter years, shorter six-month fallows could store similar amounts of soil moisture and support similar legume growth," he said.

"Long fallows of 9–12 months produced three to five times the legume dry matter of medium-length fallows (four to six months).

"Where grass and weed loads are high, producers may need to use longer fallow periods and/or a post-emergent herbicide."

3. Planting

Timing of sowing is critical. Small-seeded legumes need a germinating rain with follow-up rainfall before dry-out.

For summer-growing legumes in the Brigalow Belt, January and February have higher probability for both germinating and follow-up rain, but stored soil moisture can dramatically increase the planting window.

Gavin emphasised the importance of good seed quality and correct seeding rates.

"Spending more on good quality seed is a better investment than cheap, poor quality seed. Seed purchases should be



based on pure live seed per kilogram, not merely on cost," he said.

Inoculation with the correct strain of rhizobia allows legumes to fix large amounts of nitrogen.

Gavin said rhizobia can die from drying out or overheating, which is a problem for summer sowing of small seeds near the surface of the soil.

"Water injection or other methods that place the rhizobia deeper in the soil can dramatically improve nodulation and nitrogen fixation," he said.

"Good seed-to-soil contact is vital for germination, and how best to achieve that should determine the sowing method used, such as whether to direct drill or broadcast from a plane."

Gavin said producers with loamy soils that are typically crusting and hard setting will get a better result from drilling, using zero till or sowing into dense pasture cover.

However, on self-mulching clay soils without excessive pasture cover, he said the project's trials showed little benefit from drilling and, in these situations, broadcasting was often a

better choice for producers without suitable equipment.

"If you are going to direct drill, you must have good control of sowing depth," he said.

"Small-seeded legumes are planted just below the surface, ideally 1cm or shallower, and if this can't be achieved, broadcasting is a better option.

"Sowing too deep can result in the legumes not being able to emerge and therefore complete failure.

"Light harrows and rubber-tyred rollers (behind the seeder) can improve the seed-to-soil contact."

4. Post-emergent care

Producers need to control competition from weeds and other grasses until the legumes are well established. Grazing needs to be managed with the aim of maximising seed set in the first year and seedling recruitment in the first few years.

In seasons with good stored soil moisture and legume growth, plants can be grazed lightly (as long as they aren't being ripped out of the ground).

Light grazing can stimulate flowering in fast-growing vegetative plants and improve seed production before the plants run out of soil water.

In drier years, it is often better to allow the legumes to seed before grazing. ■

RESEARCH IN REVIEW

PROJECT AIM

To help producers assess and implement on farm options to improve pasture productivity in central and southern Queensland, and to improve the reliability and performance of legumes in grass pastures.

RESEARCH ORGANISATIONS

Queensland Department of Agriculture and Fisheries (QDAF)

FUNDING

MLA: \$1.3 million
QDAF: \$2.2 million

DURATION

2016–2021

KEY FINDINGS TO DATE

- There are highly persistent and productive legumes that will establish successfully over large areas of northern Australia.
- Better producer understanding of establishment techniques should improve legume adoption.



A *Desmanthus* seedling four weeks after germinating rains in a medium-fallow, sprayed treatment at Goondiwindi. Plants with access to stored fallow moisture grew more rapidly than those without access.



A *Desmanthus* seedling four weeks after germinating rains. It was sown on single pass cultivation (no fallow) at Goondiwindi and most seedlings in this plot died before additional rain.

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Onus on self-improvement



Will Onus (pictured) believes in the value of outsourcing. He uses agricultural, finance and marketing experts to guide key business and 'big picture' decisions, while focusing his own efforts on the daily demands of farming.

"People can only make so many quality decisions in a day and I would much rather focus on the day-to-day farm issues than try to make all the big picture decisions as well," he said.

"It really requires more resources than any one person has."

This approach has seen the business embark on an aggressive expansion strategy that has more than

doubled the size of their breeding herd in three years.

By leveraging the rising beef market, Will increased his Angus herd from 557 cows to 1,400 cows plus 300 maiden heifers.

"We've obviously had to forego income in the short-term to achieve that kind of growth, but our timing with the low national cattle herd and strong prices worked well for us," Will said.

"We bought in cheap weaner heifers at 180–220kg for the first two years and joined them, along with our heifer progeny, and by year three we had sufficient numbers to join all our own."

Will, his wife Simone and his mother Mandy utilise their 'unofficial board of management', which includes a financial adviser, mortgage broker, livestock consultant and stock agent. Will said their input has been critical to the business being able to attract capital for expansion and build return on assets, while maintaining cash flow and viability.

"Their input also gives me more confidence to make decisions," he said.

The driver of this expansion project has been the family succession plan and the need for all family members to be able to derive income from the business.

Pivotal to the plan was securing more land for livestock, which was achieved through a long-term agistment agreement at Condobolin, NSW.

Now, heifers are value added by joining and selling them pregnancy-tested in calf, while steers are grown out to feeder weights (450–470kg live weight) at Adjungbilly. The family has a trade-based sheep operation that sees cast-for-age ewes purchased and joined to terminal sires.


Store lambs, considered a by-product of a wool enterprise, are sold after shearing in December.


While Will is happy to outsource for particular expertise, he is also keen to improve his skills through programs such as MLA's Business EDGE.

"Pasture management courses showed me you could take a more scientific approach to livestock production and, as a fairly new sheep producer, I found Australian Wool Innovation's Lifetime Ewe Management program absolutely brilliant – it's provided the foundation for our sheep enterprise," he said. ■

LESSONS LEARNED

- Using consultants to support business decisions eases stress, builds confidence and creates more time for running the farm.
- Embrace learning opportunities.
- Use experts to make the most of market and growth opportunities.

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 See story on Business EDGE opposite

SNAPSHOT: Will, Simone and Mandy Onus, 'Woodside', Adjungbilly, Gundagai, NSW



Area:
1,700ha plus
1,619ha of
agistment at
Condobolin,
NSW

Enterprise:
Feeder steers
and wool
production

Livestock:
1,400 Angus
breeders and
2,500 Merino
ewes

Pasture:
Phalaris,
clover,
summer-
active natives

Soil:
Granite, red
basalt

Rainfall:
830mm

Get the EDGE

Want to become a more effective business operator? Improving your understanding of financial literacy will go a long way in helping you make informed and confident business decisions.

According to John Francis (pictured), agricultural consultant, director at Holmes Sackett and deliverer of MLA's Business EDGE courses in NSW, many producers could improve their profitability by better understanding the financial components of their business.

"One of the fundamental concepts is understanding the limitations of using taxation accounts as a basis for business decisions. They are designed for the taxation department, not for farm managers," he said.

"Business EDGE is about teaching producers to develop a personalised chart of accounts that accurately reflect the income and expenditure of each of their enterprises.

"This allows producers to understand their capital allocation, calculate their return on investment and identify opportunities to improve their business." ■



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BUILDING CAPABILITY

Profitable Grazing Systems underway

Producers wanting to participate in MLA's new adoption and extension program, Profitable Grazing Systems (PGS), can now contact their state or territory coordinator.

The PGS program provides beef, lamb and goatmeat producers with long-term coaching from specialist service providers to help boost their business skills and increase on farm adoption of research and development. The supported learning format involves a local, group-based approach to extension and adoption.

Participants will benefit from easy access to high quality, skills-focused learning programs, while service providers will benefit from a range of professional development opportunities and enhanced market access.

MLA's General Manager – Producer Consultation and Adoption Michael Crowley said the coordinators help link producers with service providers

who are delivering the PGS program across Australia.

"PGS builds on the tools and resources of MLA's flagship extension and adoption programs, including Making More From Sheep and More Beef from Pastures. The PGS model and content have been extensively tested, with 130 producers participating in the pilot program in 2016," he said.

"Producers in the pilot averaged an additional \$30,000, or 39% improvement, in profit from their businesses. Participants saw an increasing return on capital from an average of 1.8% to 2.5%." ■

✉ Contact information for PGS State Coordinators can be found below.

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Managing moisture that

Improved monitoring and management of irrigated pastures is paying off for the Archer family of Tasmania – they have tripled stocking rates, increased pasture utilisation and boosted profitability.

The Archers started irrigating crops 12 years ago and now finish crossbred lambs (averaging 46kg live weight), Poll Hereford steers (520kg) and heifers (480kg) on irrigated pastures.

The family hosted phase one of a three-year MLA-funded Producer Demonstration Site (PDS) run by the Longford Red Meat Group. The PDS assessed lamb performance on irrigated ryegrass and clover under rotational and set-stocking systems from November–June 2017.

Andrew Archer co-founded the group after he and fellow producers participated in Lifetime Ewe Management and Pasture Principles courses, and wanted to improve returns from increasingly intensified enterprises.

“We felt the potential of our irrigated grazing systems weren’t being fulfilled and wanted to see how different options stacked up,” Andrew said.

During the PDS, crossbred lambs grazed a 48ha centre pivot which was divided into 4ha cells for the ryegrass and clover (both rotationally grazed) and two 12ha blocks for the grass and clover set-stocked treatments. An average of 20mm of irrigation was applied twice a week.

On average, lambs were rotated weekly in summer and every 15 days in autumn. Clover was grazed from canopy closure until 800kg dry matter (DM)/ha and the ryegrass grazing trigger point was the three-leaf stage until 1,000kg DM/ha.

Using electronic ID ear tags, lambs were weighed on entry, monthly, and on turn-off at 44kg. Gains were 100–270g/day on clover and up to 100g/day on ryegrass.

Fine-tuning

Understanding plant physiology is important to making rotational grazing decisions at specific times during plant growth, not just by set or random grazing or rest intervals.

“Ryegrass is more sensitive to grazing interval and getting this wrong can compromise pasture quality, quantity and survivability. Clover is more

forgiving, but the right grazing interval can deliver big gains,” Andrew said.

Rotational stocking rates should be 30–50% higher than set stocking to capture additional pasture growth, especially during the spring pasture flush.

In the trial, the gross margin/ha for clover was \$1,252 (rotational) and \$2,303 (set-stocked), and for ryegrass it was -\$455 (rotational) and -\$457 (set-stocked). The ryegrass treatment resulted in a negative gross margin due to a range of reasons, including conservative stocking rates, a rotation which was too long and high post-grazing residuals.

“Under the right grazing management, profitability of irrigated pastures can match some cash crops,” Andrew said.

The Archers are no longer growing clover for seed production, just for grazing. They are increasing their stocking rate on irrigated pasture from 10 to 30 lambs/ha, halving grazing cells (originally 20–30ha) and investing in portable fencing infrastructure and watering points.

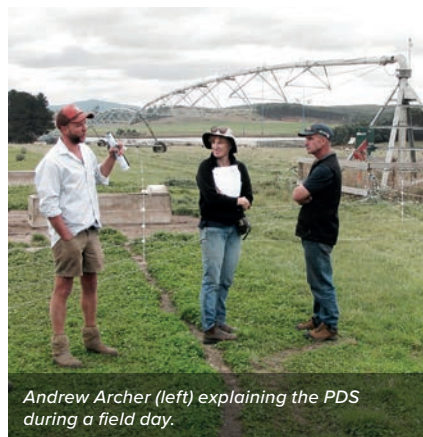
The PDS showed management can be optimised by capturing, processing and reacting to data in a timely manner, so the Archers introduced technology such as probes to monitor soil moisture.

Labour per hectare was 2.5–3 times higher for rotational grazing but the cost per dry sheep equivalent was offset by increased numbers.

The 12-month second phase of the PDS is hosted by John Ramsay, Bothwell (who was also the winner of the 2014 MLA Challenge). The trial will replicate the research on the Archers’ property, but with data also being collected during lambing and rotational grazing treatments running at higher stocking rates than the set-stocked grazing. ■

LESSONS LEARNED

- > Monitoring soil moisture and understanding plant requirements drives profitable irrigated grazing.
- > Small grazing cells and higher stocking rates underpin pasture utilisation.
- > Programs such as Pasture Principles support best practice management.



Andrew Archer (left) explaining the PDS during a field day.

SNAPSHOT: Bruce, Katrina, Andrew and Sam Archer, ‘Chester’, Westwood, Tasmania



Area:
2,600ha
(300ha
irrigated)

Enterprise:
Sheep, cattle
and cropping

Livestock:
5,000 Cormo–
Border Leicester–
Texel ewes, 500
Poll Hereford
breeders

Pasture:
Irrigated
ryegrass and
clover

Soil:
River flats
through to
ranges

Rainfall:
650mm

matters

RESEARCH IN REVIEW

PROJECT NAME

The Longford Red Meat Group Producer Demonstration Site.

RESEARCH ORGANISATIONS

Macquarie Franklin, Longford Red Meat Group

FUNDING ORGANISATIONS

MLA
TP Jones and Co

GOAL

Taking into account the influence of the type of pasture (ryegrass versus white clover) and animal health considerations, the aim is to determine if there are any production and profit benefits associated with modifying fencing infrastructure under centre pivots to improve grazing management and pasture utilisation.

BUDGET

\$75,000

DURATION

April 2016–June 2019

KEY FINDINGS TO DATE

- Rotational grazing decisions should be made at specific times during plant growth.
- Ryegrass is more sensitive to grazing interval than clover – getting this wrong can compromise pasture quality, quantity and survivability.
- Rotational stocking rates should be 30–50% higher than set stocking.
- For a lamb finishing system, gross margin per hectare for clover is higher than ryegrass.

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Find out how to apply for Producer Demonstration Site funding at mla.com.au/pds

Turning water into weight

Water isn't the limiting factor for profitable irrigated grazing – it's management.

Macquarie Franklin principal consultant Basil Doonan told attendees of MLA's 2017 Tasmanian Red Meat Update that capital investment in water infrastructure ranges from \$8,000–\$15,000/ha, and is only cost effective for producers who practise exceptional grazing and irrigation management.

“An irrigated operation with average stocking rates and average pasture utilisation just won't pay,” he said.

“Producers who use less than one tonne of dry matter (DM)/100mm of rain or irrigation have tremendous opportunity to increase productivity and profitability.”

Tasmania's irrigated landscape is changing, particularly in 400–700mm rainfall zones where producers are investing in water infrastructure or intensifying existing irrigation by introducing livestock onto irrigated cropping.

Basil said lambs and, increasingly, cattle were being finished on irrigated perennial ryegrass, clover or dual-purpose crops. Producers are also lambing ewes onto irrigated pastures to fast-track lamb finishing and reach condition scores for joining.

“If you get grazing and irrigation management right, irrigated pastures can be profitable and deliver daily weight gains of 250–350g/head/day for lambs and close to 2kg/head/day for cattle,” Basil said.

Regardless of enterprise, Basil said the following four factors can make irrigated pastures pay.

1. Understand your production goal

Adding an intensive enterprise to the mix requires management changes. For example, bi-monthly feed budgeting needs to be increased to fortnightly under intensive grazing.

Intensive grazing requires more frequent monitoring of internal parasites and involves additional allocation of labour, but labour costs/head are offset by higher stocking rates.

White clover can produce higher weight gains than ryegrass (see producer case study) but is only productive for nine months. Ryegrass can be grazed year-round, bridging autumn and early spring feed gaps.

“A livestock trader might opt for white clover, but a breeding enterprise could use perennial ryegrass or ryegrass–clover mix to ensure quality pasture is available at critical times such as lambing,” Basil said.

2. The right water at the right time

Dormancy in perennial pastures is triggered as soon as soil moisture tension (a measure of dryness) reaches 35kpi, so turn on the tap before then, or risk losing 30–40 days of production.

“The time it takes for plants to return to full growth can erode the profitability of irrigation for that year,” Basil said.

3. Best practice grazing

Rotationally grazed irrigated pastures can produce 30–50% more DM than set-stocked pastures.

Fine-tune grazing with a stocking rate of 40–80 dry sheep equivalents/ha, and rotate based on plant morphology. Ryegrass should be grazed from 2.5–3 leaf until there is residual DM of 1.3–1.5 tonnes/ha. Clover can be grazed at canopy closure until 1.0–1.5 tonnes DM/ha.

4. Measure

“Best practice grazing management provides feed security and underpins decisions about stocking rates, fertiliser and rotation length, but these levers can only be pulled if there is formal monitoring in place,” Basil said.

Invest in technologies such as irrigation monitoring equipment and plate meters, and observe leaf stage to guide decisions about when to water pastures, rotate stock and use supplements. ■

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🖥 Upskill grazing management with workshops such as Profitable Grazing Systems

mla.com.au/pgs

Find tools such as the Rainfall to Pasture Growth Outlook and feed budget calculator at mla.com.au/tools

LESSONS LEARNED

- > Early weaning saves cow condition and reduces feed costs.
- > Segregate small weaners so they are not 'bossed out' of feed by larger weaners.
- > Understand supplement labels to ensure stock get what they need at a cost-effective price.

Tactics to thrive, not just survive

Strategies learnt from a Nutrition EDGE workshop helped Rodney Neill survive a tough 12 months.

With only 76mm of rain falling on 'Miramar' for the year to mid-October, Rodney and his partner Jane made early decisions to build and preserve their breeder herd, while ensuring their calves remained on track to meet their turn-off target weight of 600kg live weight at 18–22 months old.

"It's been a very challenging time. The biggest rainfall event we'd had for the year was 16mm," Rodney said.

"We usually finish our steers on oats, but we decided not to grow them due to insufficient soil moisture.

"As a result, we had to consider other rations and supplements and different management strategies to get the herd through."

Bringing weaning forward

Rodney and Jane weaned the calves three months earlier than normal, with most calves aged three to five months and weighing 150–200kg.

"The cows were starting to slip (in condition) but, very soon after we weaned, there was an obvious improvement and they required less feed," he said.

Support to grow

Calves were vaccinated with 5-in-1 vaccine and fed a ration of 20% grain, 10% cottonseed, 5% cottonseed meal and silage (forage sorghum and, later, oaten).

"They were a bit slow to start eating so I also fed them oaten hay in the yard to help them along," Rodney said.



"In hindsight, I should have segregated the smaller calves. They tended to get pushed out of the feed by the larger weaners; however, they've caught up in weight and condition now."

Following a small rainfall event, Rodney moved the weaners out to a paddock to avoid increased disease risk in wet yards and continued his feeding regimen.

Once they dried out, he returned them to the yard and continued feeding.

By day 40 of Rodney and Jane's 100 to 120-day feed program, the weaners were gaining an average of 1.8kg/day.

Smart breeder management

Meanwhile, breeders which had been away on agistment were forced to return home as feed ran out.

"We managed this by opening all our cropping country for them (4,000ha) and feeding a urea-based dry lick," Rodney said.

Rodney believes maintaining selection pressure on his herd for fertility pays off in tough times.

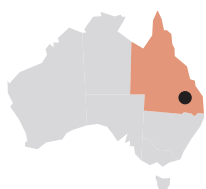
"We join our heifers at 13–14 months, pregnancy test each year and remove any empties or non-performers," he said.

"Even with the past year being so tough, we still managed a 90% pregnancy rate from a three-month joining." ■

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SNAPSHOT: Rodney Neill and Jane Mactier, 'Miramar', Surat, Queensland



Area:
6,883ha

Enterprise:
Cropping and
cattle breeding
for the Japanese
ox market

Livestock:
800 Brangus
breeders

Pasture:
Mitchell grass, buffel,
bambatsi panic

Soil:
Grey clay

Rainfall:
450mm

Take control of feed costs

Managing cattle through tough seasons can be emotionally and financially challenging.

However, according to Désirée Jackson, deliverer of MLA's Nutrition EDGE course, there are practical strategies producers can employ to reduce stress, contain costs and improve animal performance.

"During the past six months, many parts of northern Australia have experienced dry conditions with pastures severely damaged by frost or small, ineffective falls of rain," she said.

"Pasture energy and protein may be insufficient to maintain animal body weight and condition score, so producers will need to consider feeding additional forage, providing energy supplements and implementing management strategies to ensure animals remain in saleable and/or breeding condition."

Tactics such as early weaning, segregating breeders for preferential feeding and reducing stocking rates can all help, but Désirée believes early preparation is crucial in order to get a herd through in the best condition possible.

"If producers know the long-term historical green date for their area and, if there has been no significant break beyond that, contingency plans need to be put in place," she said.

"Even if it does rain after the production point date (which is approximately six weeks following the green date), producers should be aware their pastures will not produce the same bulk over the growing season."

Désirée warned that, if cattle have been nutritionally stressed and are in low body condition, they are often at greater risk during the transitional period after rain.

This is when the existing dry pasture has been rain-spoiled and new pasture is just emerging.

"Stocking rates need to be assessed and adjusted when carrying out a forage budget. The aim should always be to ensure there is sufficient roughage available going into the wet season," Désirée said.

"A diet quality analysis, best done when grass has gone to seed, is also useful to ascertain the balance between energy and protein so that the correct management, including the most appropriate supplement, can be determined.

"If energy is deficient and more limiting in the diet than protein, producers are less likely to get a response from urea-based supplements and may need to upgrade to an energy supplement, depending on the severity of the energy deficiency."

Be aware that urea-based supplements (including the energy-based, fortified molasses which contains urea) stimulate appetite, creating a comparative stocking rate increase of about 30%.

Two simple strategies to manage feed costs

1. Bring weaning forward

Early weaning is an effective strategy for preserving cow body condition and cutting feed costs. Here are Désirée's recommendations for getting it right:

- When cow body condition is very light, wean down to 80kg and segregate weaners into weight groups of 100kg and under, 100–150kg and 150kg plus.
- Weaners under 150kg need quality forage, with adequate levels of energy and protein, for example cereal hay, while very small weaners may need a grain-based supplement, but feed with caution.
- Weaners under 150kg that are not going forward are at significant risk of poor, long-term post-weaning performance.
- If young weaners are under stress or are being fed in small yards, they may need a rumen modifier to prevent coccidiosis.
- The aim is to get small weaners into that next weight group where they are cheaper to feed but still going ahead.

2. Determine foetal age at pregnancy testing

According to Désirée, information provided by foetal aging at pregnancy testing can be strategically used to minimise feed costs. Here's how to manage it:

- Knowing when cows are due to calve means producers can segregate breeders into those calving before the green date and those due to calve after. Costs can be reduced by feeding energy supplements to just the early calvers when it is required.
- Similarly, empty cows should be identified and, if a producer wants to keep them, they have the option of feeding them a cheaper, urea-based supplement (where effective) rather than the more expensive energy-based supplements.
- Maiden heifers should be managed separately, aiming to calve in body condition score of 3.5. This can be achieved by spike-feeding six to eight weeks before the start of calving. This helps minimise their post-partum anoestrous period and improves reconception rates. ■

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📺 Want to attend a Nutrition EDGE workshop or organise one in your area? Go to mla.com.au/edgenetwork
Download MLA's free publication *Phosphorus management of beef cattle in northern Australia* at futurebeef.com.au/minerals-and-vitamins

Giving canola even more purpose

While grazing canola to fill the winter feed gap is now entrenched in mixed farming systems, it can also fill the summer–autumn feed gap in temperate high-rainfall zones.

A study part-funded by MLA assessing the benefits and risks of incorporating spring-sown winter-type canola varieties at Hamilton, Victoria, has revealed a flexible and profitable option for sheep producers to fill the summer–autumn feed gap.

Sowing winter-type canola varieties during spring in temperate high-rainfall zones exploits the vernalisation (induction of a plant's flowering process) requirements of the crop during winter.

The canola remains vegetative and can be grazed as a forage crop with high nutritive value during its first summer and autumn. After vernalisation, the canola sets seed and can be harvested in the second spring–summer.

According to researcher Maggie Raeside of Agriculture Victoria, results demonstrate that it can be used as a summer–autumn forage for grazing ewe lambs before and during joining, while offering a range of benefits over traditional forage options.

With sufficient rainfall, canola can produce 2–4 tonnes dry matter (DM)/ha by the first grazing (about 8–10 weeks after sowing). It will respond well to summer and autumn rainfall events and can regrow after grazing to allow multiple grazings. Canola has a high digestibility and low neutral detergent fibre content, providing approximately 12 MJ/kg DM and 14% crude protein.

“Grazing spring-sown canola during summer and autumn will not affect canola yield at harvest, providing grazing ceases before the plants start producing flower buds,” Maggie said.

Boosting whole-farm profit

Economic modelling has shown that joining ewe lambs to lamb at one-year-old improves farm profits over conventional two-year-old ewe joining.

“The use of spring-sown canola as a key feed source to achieve target joining weights reduces risk and supports whole-farm profits, compared with forage-only enterprises,” Maggie said.

“Our research measured ewe lamb growth rates in the range of 100–240g/day, once the sheep adapted to grazing the forage crop, which is equal to or better than traditional options, such as Winfred forage brassica, lucerne, perennial ryegrass and chicory.”

Animal health impacts

There appear to be no negative effects of grazing canola on ewe reproductive performance before and during joining, according to the research.

However, as with any change in diet, producers are encouraged to introduce stock slowly to the forage crops and allow them to adapt to the new feed source by allowing access to familiar feed sources, such as hay or dry pasture.

Maximising the benefits

Canola seed is significantly more expensive than typical forage brassica varieties, so it is important that producers consider harvest of the canola as an integral part of the process, rather than an added benefit.

However, Maggie also encouraged producers to weigh up the opportunity costs of foregone grazing during the period the canola needs to be excluded from grazing while it is flowering and pod filling – usually July–December.

“Like all crops, canola should be considered as part of a cropping enterprise's rotation and part of a pasture improvement program for livestock,” Maggie said. ■

RESEARCH IN REVIEW

PROJECT NAME

Step changes in meat production systems from dual-purpose crops in the feedbase.

RESEARCH ORGANISATIONS

CSIRO, Charles Sturt University and Agriculture Victoria

RESEARCH GOAL

To explore novel uses of dual-purpose crops to increase meat production and subsequently increase farm income and lower risk by incorporating dual-purpose crops into systems to address the overarching question: “Over the long-term, does extra supply of high quality feed and an extra source of income from grain increase or decrease the reliability of year-round feed supply and business risk?”

BUDGET

\$2.9 million (MLA \$1.6 million)

DURATION

2013–2016

KEY FINDINGS TO DATE

- In suitable environments such as south-west Victoria, spring-sown canola can be used to increase growth rates of ewe lambs for joining in autumn, and grazing the brassica crops has no negative impacts on maiden ewe reproductive performance.
- Timely sowing of crops was important for minimising establishment risk and maximising the grazing opportunity.

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💻 This project has developed producer guidelines: *Grazing spring sown canola for lamb and canola production*. For a copy, contact Maggie Raeside.

SUPPLY CHAIN

DELIVERING VALUE

STRONGER LINKS IN THE CHAIN

Carcass compliance feedback from several processors across Australia is now available to producers via MLA's Livestock Data Link (LDL).

MLA Value Chain Relationship Manager Demi Lollback said processors including JBS Australia (southern division), Wingham Beef Exports and Oakey Beef Exports were already releasing online carcass compliance feedback, with more about to come on board.

Animal health feedback is also available in LDL via the National Sheep Health Monitoring Project.

"This means more than 7,000 sheep producers can access animal health data collected on their animals, which may assist them to improve on farm practices," Demi said.

"Eleven plants have had data from this project released through LDL. We are now working with beef and sheep processors who collect animal health information as part of their day-to-day processes to build a pipeline to LDL and have all health feedback readily available."

The overall objective of LDL is to assist in optimising supply chain performance through turning complex information into simple decision making through analysis, comparison and reporting.

Consignment performance can also be linked to supporting materials to help producers understand what management practices could improve performance.

Why comply?

Non-compliance with market specifications costs the beef industry an estimated \$127 million–\$163 million/year, according to research conducted by MLA. This includes value lost due to:

- downgrades for out-of-specification carcasses (\$51 million/year)
- condemned carcasses (\$64 million/year)
- loss of meat and offal value due to animal health and disease (\$12 million–\$49 million/year).

The potential cost of non-compliance to market specification for the Australian lamb industry is more than \$8.4 million/year, based on research conducted by MLA.

In addition, a report by GHD Hassall looking at the costs and benefits of e-surveillance in the sheep, lamb and goat industries estimated more than \$110 million/year is lost on 10 diseases and conditions. This equates to an average annual cost of just over \$11 million/disease. The burden of cost varies by disease and condition but, overall, the on farm sector bears 86% of the cost.

LDL can be accessed with a National Livestock Identification System (NLIS) User ID and password. If producers don't already have an account with NLIS, they can create one at nlis.mla.com.au.

Alternatively, producers can log in to their LDL account through myMLA once their registration has been confirmed through LDL. ■

 mla.com.au/ldl

mla.com.au/about-mla/mymla
Learn more about LDL and its new animal health feedback by checking out a new video at youtube.com.au/meatandlivestock (click on videos).

It features *Feedback's* Over the Fence participant Johnny Gardner explaining the value to his lamb operation from understanding shortfalls in compliance.



BRINGING ON INNOVATION

MLA Donor Company's (MDC) Young Food Innovators program is building red meat industry capability by developing the skills of young producers.

This month we meet three Young Food Innovators from the program's second intake, which has a food value chain focus.

The trio come from different sections of the value chain: genetics supply, lamb production and direct marketing, and processing and distribution.

Young Food Innovators is supported by funding from MDC and the Australian Government Department of Agriculture and Water Resources as part of its Rural R&D for Profit programme.

 Information: mla.com.au/youngfoodinnovators



Young Food Innovator participant Rozzie O'Reilly collecting samples from new-born lambs for genotyping.

Meet three of the current participants:

Rozzie O'Reilly

Tell us about your background.

My passion for livestock production started at a young age – we had a small sheep and cattle enterprise in the beautiful Riverina. I studied animal science, majoring in livestock production, at the University of New England.

Why did you choose to work in the red meat industry, and what keeps you here?

The dynamic and ever-evolving atmosphere of the red meat industry excites me; I'm forever learning and there's never a dull day.

What does your current role involve?

I'm the breeding manager at LAMBPRO Pty Ltd.


LAMBPRO is a prime lamb seedstock business, based in Holbrook, southern NSW, which produces maternal and terminal seedstock. We identify animals that will increase kilograms and dollars per kilogram, and multiply them using artificial insemination, embryo transfer and natural mating.

I manage the breeding program, which included performance recording more than 6,000 lambs in 2017. I'm also involved in LAMBPRO's independent research projects, which aim to improve current business models and develop new markets.

What's one lesson you have already learned from the Young Food Innovators program?

The program has provided me with exposure to the process of design thinking, as well as consumer insights into product development.

The biggest take-home message from this has been that consumers must be our number one priority when developing innovative products. We need to understand their pains and needs.

 Rozzie O'Reilly
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Dan Reid

Tell us about your background.

I'm a sixth-generation lamb producer from the NSW Riverina; our family farm 'Mimosa' is between Temora and Coolamon.

I studied journalism at university and worked as a journalist for three years before moving overseas for three years.

I returned home to the farm and my brother Jason became qualified as a butcher not long afterwards. We decided to add some value, cut out the middle man and control the price we get for our lamb by having a crack at direct marketing.

We created Mimosa Valley Lamb with the selling point being 'we look after every step of the process'.

What does your current role involve?

In the past 12 months I've moved more into marketing and selling, but I'm still heavily involved in the farm – particularly around shearing and lambing. Our main income comes from the Carriageworks Farmers Market in Sydney. We used to attend sporadically, but now I go every week. That consistency is important to our customer base and has made a big difference to our return.

Why did you choose to work in the red meat industry, and what keeps you here?

I was born into it and stay because of the value we can achieve. By telling our story and delivering great quality, we can get a much better return.

What's one lesson you have already learned from the Young Food Innovators program?

To look outside the square and think of new ideas and new services to drive the red meat industry forward, and not stay stagnant.

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Instagram: mimosavalleylamb



Dan Reid from Mimosa Valley Lamb pictured outside the Carriageworks Farmers Market in Sydney. Dan posted this photo on the social media platform Instagram, which he uses to promote his products.



James Madden with his father David.

James Madden

Tell us about your background.

I grew up on a farm in Tasmania, then spent my teenage years in Melbourne suburbia.

During my early adulthood, my father David bought an abattoir on Flinders Island. He soon realised it was going to be a tough slog and asked me to help. I said "not a chance".

He offered to give me half the business and make me CEO, so I reconsidered. That was six years ago, and I'm still the CEO of Flinders Island Meat despite making a lot of mistakes and almost sending the business broke twice.

What does your current role involve?

I've taken my hands off day-to-day operations and tend to focus on strategy, projects and business development.

Over the years, we've changed our business model and become vertically integrated. We recently sold the abattoir and now process our lamb under contract at a third-party facility.

We're now concentrating on our meat distribution company in Melbourne.

Why did you choose to work in the red meat industry, and what keeps you here?

I enjoy the challenge of running and growing a business and I love eating meat.

This industry is steeped in tradition, so I've found it can be reluctant to embrace change. There is a lot of opportunity to be on the cutting edge by taking inspiration from other industries.

What's one lesson you have already learned from the Young Food Innovators program?

We've been learning how to step back from our businesses and question whether what we're doing is the right way to do it, or if it's just the way it's always been done. ■

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Instagram: @FIMeat



REDUCING ENDEMIC CONDITIONS

Endemic health issues in sheep are not just causing problems for processors; their impact is felt through the value chain from paddock-to-plate, according to industry experts.

Earlier this year MLA Donor Company announced a \$3 million three-year research project 'Reducing the financial impact of endemic conditions in sheep'. It will record 21 key conditions such as grass seed infestation, pneumonia, sheep measles, rib fractures and arthritis detected during processing.

Thomas Foods International Lamb Supply Chain Coordinator, Dr David Rutley oversees the processor's involvement in the new endemic diseases project and said the customer is king.

"We need to think about the consumer – food safety, portion size and eating quality is important to them," he said.

"The chef wants to know that lamb has been cut evenly and has a low pH, and how much connective tissue it contains so they can cook it evenly for the consumer.

"Shelf life, temperature control and oxygen exclusion are important for the wholesaler and butcher. All of those issues plus yield are important to the processor.

"But the producer must also think about what the consumer wants to receive."

Disease feedback on sheep and lamb carcasses is available on Livestock Data Link (LDL – see story on page 41). David said the information from LDL, combined with processor feedback, DEXA technology for measuring lean meat yield and the Sheep CRC data application, ASKBILL, will be useful in shaping on farm management.

Here we examine causes and impacts of two of the endemic conditions – arthritis and rib fractures – as well as management practices to prevent them.

Arthritis

The cause: Incorrect tail docking (to two knuckles rather than three) increases the incidence of arthritis in lambs. Docking too high means the skin pulls tighter, takes longer to heal and there is more chance of infection lodging in the joint, causing arthritis.

Impact: Apart from trimming loss, growth is also reduced by arthritis. The growth of arthritic lambs is reduced, as seen in lower hot standard carcass weights, and they have less fat (measured at the girth rib – GR – site) than normal lambs.

Management: Follow correct tail docking procedures (see more information below).

Rib fractures

The cause: MLA-funded research identified that rib fractures result from injuries to sheep during handling (such as yarding), occur generally more than two months prior to slaughter and are higher in sheep suffering mineral deficiencies. The deficiencies are correlated with grazing on acid soil types, which are generally low in calcium and/or copper.

Impact: Cuts, such as racks and ribs, are downgraded and processors wear increased costs due to extra trimming and waste.

Management: Dr Colin Trengove, an animal health researcher from University of Adelaide, ran an MLA-funded project assessing the rate of rib fracture in processing in 2016. He said simple improvements make a big difference and suggested the following:

- Remove sharp objects and points in the yards, such as unnecessary posts, to create smooth areas for lambs to move through. Fit drafting gates with rubber trim.
- Consider supplementation of sheep based on soil, pasture, blood or liver testing for deficiencies.
- Once soil/pasture tests are complete and deficiencies have been identified, strategically lime soils and/or top-dress pastures depending on the deficiency (e.g. calcium or copper). ■

RESEARCH IN REVIEW

PROJECT NAME

Reducing the financial impact of endemic conditions in sheep.

RESEARCH ORGANISATIONS

Facilitated by the SA Sheep Industry Blueprint in collaboration with Thomas Foods International and JBS Australia

FUNDING ORGANISATIONS

MLA Donor Company and SA Sheep Industry Fund

GOAL

To record 21 key conditions in sheep, detected during processing, for producer reporting to address and manage health conditions on farm.

BUDGET

\$3 million

DURATION

2017–2020

KEY FINDINGS TO DATE

Endemic conditions in sheep cost \$140 million/year in lost production, non-compliance and costs to processing.

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📄 Best practice tail docking:
mla.com.au/publications and search 'A producers guide to sheep husbandry practices'
Livestock Data Link:
ldl.mla.com.au
makingmorefromsheep.com.au and search 'copper deficiency'.
Listen to Colin explain the impact and management of rib fractures in a webinar at tinyurl.com/y9q83ctg
askbill.com.au

IN MARKET

GROWING DEMAND

TARTER LAMB. CALLS FOR A CELEBRATION YOU NEVER LAMB ALONE

LAMB. THE CROWD PLEASER



LAMB. THE CROWD PLEASER



Made-to-order marketing

Bundaberg butcher Ken Barritt loves in-store point of sale (POS) materials and promotions. They provide a talking point with customers, allowing him to chat about new cuts and seasonal cooking techniques.

“Promotional materials and competitions help me grab the customer’s attention,” said Ken, who is regularly the largest national supporter of MLA’s Australian Butchers’ Guild (ABG) promotions.

“It all helps. Every time a promotion comes out, I take the time to read the material so I can drive my team of butchers to make sure we give all our customers a chance to win.

“We get 120 customers through here a day. If I can use POS material and promotions to sell more beef and lamb and get a couple of new customers through the door it’s well worth the effort.”

Ken can now order the POS materials he wants in the quantities he needs for his business as he, and all butchers, will now receive a unique URL link to an online order form which will allow them to customise their orders for MLA promotional material.

The ABG is an MLA-supported initiative that provides retail support, training and resources to a network of proactive butchers to help them promote beef and lamb to customers in their local community. ■

FLEXIBILITY FOR BUTCHERS

According to MLA’s Trade Marketing Executive Elisha Moran, 86% of butcher shops value and use MLA point of sale (POS) materials, such as recipe brochures, bunting and ticket toppers.

“However, no two butchers are the same so to maximise the value of our POS material MLA is evolving to an ‘order on demand’ system where butchers can customise their order by selecting the elements that work best in their business,” she said

“We are rolling out this program over 12 months, giving all butchers time to adjust. Going forward we expect printing efficiencies that are likely to result in cost savings to levy payers.”

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🖨 Australian Butchers’ Guild:
australianbutchersguild.com.au

FOOD FOR THE FUTURE



Consumers are changing – living longer, travelling more and accessing huge volumes of information. Changes in behaviour and lifestyle are affecting how, when and why we eat certain foods. ‘Preventive health and wellness’ and ‘convenience’ are two food megatrends Australians are already embracing.

MLA is working to ensure red meat is best positioned to target these trends – and those quickly emerging – by collaborating with innovative businesses, as well as with global food trend experts, technology developers and nutritionists. This is being done via the MLA Donor Company (MDC) 2Morrow’s Food program.

MDC High Value Food Frontier Manager Michael Lee said that as well as identifying trends, it was important to have relationships and strategies in place to be able to react to them quickly.

Mobile meals

“One of the major food trends is convenience, which includes snacking-on-the-go and ready meals,” Michael said.

“Developing products and services that go beyond steaks, chops, roasts and sausages is a key initiative to grow high-value demand.

“A good example of this has been the recent work MLA supported to promote the US slow cooked, pulled meat concept in Australia. Now it’s well accepted, we’re investigating what’s next.”

Based on information gathered by the MLA-managed Insights2Innovation program, Michael said meat floss (see breakout box) had been identified as a product with potential both in Australia and as a high-value export.

“Like pulled meat, meat floss would allow us to add value to secondary leg and shoulder cuts and position a new snack usage for red meat,” he said, adding that a small project is underway to assess its potential.

A separate project is investigating the potential for developing red meat alternatives to common sandwich fillers such as tinned fish or protein spreads.

“This project aims to make it easier for people to extend the occasions in which they eat red meat, past dinner, by tapping into the convenience trend,” Michael said.

“Beyond shaved and sliced cold meat, red meat currently doesn’t have a big role in ‘on-the-go lunches’.

“We’re looking at what’s available in other countries, the potential in Australia and possible products such as spreadable sandwich fillers using fresh red meats and sauces, sold via delis.”

Healthy ageing

Preventive health and wellbeing is another food trend gaining traction in Australia.

“This trend is about making better food choices to ensure a healthier, active lifestyle,” Michael said.

“It seems to have been driven by the baby boomers, but has wide appeal.”

MLA is responding via activities and communications which share red meat’s evidence-based credentials as a nutritious food choice, and encouraging people to eat red meat as part of a healthy, balanced diet.

“We’re also developing products and technology, such as powdered beef boosters, high moisture cooking and 3D-printed meat, that will make it easier for people to continue eating nutritious, red meat meals in later life,” Michael said.

“These techniques will also help place red meat in a positive position within other food trends, such as ‘naturally functional’, ‘designed for me’, ‘free-from’ and ‘high protein.’” ■

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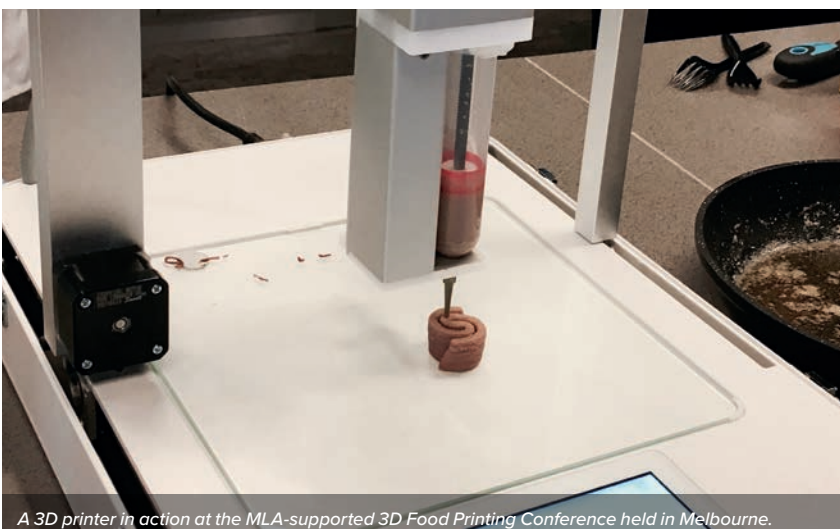


‘Meat floss’ is:

- a shredded, dried meat snack popular in Asian countries, traditionally made with pork or chicken
- has a light, fluffy texture, hence its Mandarin name *rousong*, meaning ‘fluffy meat’
- often candied with different sauces and spices added
- a popular Chinese New Year treat in China while in Malaysia it is popular during Ramadan
- commonly eaten as a bun filling (pictured above), a soup topping or on its own as a snack.

What are some red meat innovations being investigated?

- 3D-printed meat that allows chefs and consumers to ‘design’ the look, taste, texture and nutrient content of their food
- ‘smart’ packaging that reacts with the environment either in the package or outside it, to tell consumers:
 - if the pack has been tampered with
 - the provenance or origin of the food
 - when meat is perfectly aged and ready to cook
 - how the meat should be cooked, depending on the portion size and time of day it is purchased (e.g. slow cooked versus grilled)
- the impact of new technologies, such as ‘smart’ fridges and other appliances and devices, on how we order, deliver, cook, store and consume red meat.



A 3D printer in action at the MLA-supported 3D Food Printing Conference held in Melbourne.

MARKET FOCUS 

The US: still room to grow

The United States is the largest beef customer in the world. While it's a country prepared to pay for good quality lamb, consumption remains low. Here we look at how Australian red meat enjoys continuing opportunities in this market.

Grassfed beef

The US is a massive market for beef with the largest consumption (by gross volume) globally, and there are still opportunities for it to grow further. Demand for a relatively new category has emerged in the past five years – chilled grassfed beef.

Beef for foodservice (hamburgers) makes up the lion's share of volume, but chilled grassfed beef is taking a larger percentage of Australian exports to the US. Volumes doubled between 2013 and 2016, reaching 74,000 tonnes and increasing its volume share from 16% to 24%.

"Much of the interest in grassfed beef has been driven by a belief that it's natural, and better for consumer health and the environment," MLA's International Business Manager for North America Rob Williams said.

"Grassfed beef has certainly stabilised as a core offer in the market. Australia is well positioned, with consumers seeing it as a premium product and most preferred amongst imported options.

"Our key role is to accelerate our position in this relatively new category of the US market to ensure Australia is synonymous with grassfed beef."



David Olson is the man behind US social media platform abachelorandhisgrill.com and is one of the food influencers engaged to promote True Aussie beef and lamb in the US market

Lamb

The US is the largest and most valuable export market for Australian lamb, which accounts for 44% of the US lamb market with local (41%) and New Zealand lamb (15%) making up the difference.

"New entrants (the UK and Ireland) will make their way into the US sheepmeat market next year, so we need to continue to push consumer perceptions that position Australia as a high quality, preferred sheepmeat supplier," Rob said.

While lamb is still largely a niche protein in the US, more Americans are trying it.

Historically, lamb has been more popular in foodservice, appealing to higher-end consumers. While lamb maintains its position as a core protein at fine dining restaurants, strong growth is occurring in other segments such as quick service, family and casual dining.

"A large part of this growth has been driven by changing demographics and a shift in demand for more convenient and affordable lamb options such as lamb burgers, meatballs and kebabs," Rob said.

"These are clear signals that lamb is becoming more easily accessible to a broader spectrum of the population." ■



United States population:

- 324.1 million in 2016

Australian beef exports to US:

- volume – 242,013 tonnes swt
- value – \$1.86 billion

Australian sheepmeat exports to US:

- volume – 64,562 tonnes swt
- value – \$666.8 million

OWN YOUR PARTY – ‘BE AUSSOME’

MLA has launched a more aggressive, integrated national promotion to entice more American consumers to say “I prefer Australian”.

The campaign positions grassfed Australian beef and lamb as a high quality, nutritious and ‘aussome’ protein choice. US consumers are being encouraged to ‘party-fy’ every occasion by adding ‘True Aussie’ grassfed beef or lamb.

‘Own your party’ is an ongoing campaign using print and digital channels, live events and television broadcasts with the message being delivered by in-market influencers using creative, easy recipes and party ideas for key occasions.

“This year-round approach, with a focus on seasonal party opportunities such as tailgating (barbecuing from the back of a truck or ute at a sporting event) or grilling through the summer, provides sustained promotional momentum over time, which is important in building preference,” MLA’s Business Development Manager for North America Catherine Golding said.

“Influencers break through the clutter of conversations in social media, on television and even within social circles with valued opinions and information.

“When you combine them with events and occasion-based marketing, we are engaging consumers in a relevant way and reaching them when they are receptive.”

The campaign’s 12 consumer influencers and 10 chef ambassadors have delivered 95 party ‘takeovers’ (events shared online where Aussie beef and lamb are introduced to guests),

public events and pop-up restaurants this year.

The campaign has resulted in 53,000 consumers being served Australian grassfed beef and lamb, nine regional television news stories and 1,500 daily Pinterest impressions. The campaign has increased MLA’s North America Facebook following for Australian beef and lamb to nearly 77,000.

More highlights are planned, including a Facebook live event with *Fine Cooking* magazine on holiday entertaining ideas, and a PBS TV program, *Moveable Feast*, featuring Australian chef Curtis Stone cooking Australian lamb. This will air on the Thanksgiving weekend to 1.8 million viewers.

“By the end of this first 12 months (December 2017), 115 events, which are being measured and monitored as we go, will have been delivered, building momentum for Aussie grassfed beef and lamb in the minds – and mouths – of Americans,” Catherine said. ■



INFLUENTIAL PARTY PROMOTERS

Ally Phillips has 500,000 social media followers on her Ally’s Kitchen platform. Well known in the foodie world, Ally works with brands compatible with her values and philosophies of living a full life.

She has appeared on Hallmark Channel’s ‘Home & Family TV’ as a best home cook finalist, and on Food Network’s ‘Clash of the Grandmas’.

After winning numerous cooking competitions, Ally published her debut cookbook, *Ally’s Kitchen: A Passport for Adventurous Palates*, in 2015 and launched a new digital magazine, *Ally’s Boho Living*, in 2017.

As one of the Aussie beef and lamb influencers, Ally regularly shares recipes with her followers, hosts events and appears in online campaigns sharing her love of Australian red meat. ■



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🖥️ Check out the campaign:
[trueaussiebeefandlamb.com/
own-your-party](http://trueaussiebeefandlamb.com/own-your-party)

Trade agreements with Australia:

- Australia–US Free Trade Agreement

Import tariffs:

- Beef – in quota (423,214 tonnes) nil.
Out of quota – 17.6%
- Sheepmeat – nil

US consumption:

- 28kg/person/year of beef, down from 33.4kg/person in the 1980s. However, consumption increased in 2016 and is expected to do so again in 2017

39% of Americans have never tried lamb because they:

- are not familiar with it
- don’t know how to cook it
- didn’t think they would like the taste
- hadn’t had the opportunity

(Source: MLA Global Consumer Tracker, 2016)



From saleyards to trade talks

When Josh Anderson finished his agriculture degree at the University of New England, he followed a well-worn graduate path into agribusiness banking with NAB. After stints in Toowoomba, Queensland and the NSW Hunter Valley, he started to think more big picture and wanted to participate in the growing of Australia's red meat sector.

"I worked for livestock agents while I was studying, so I knew the importance of the sheep and cattle industries from the ground up," he said.

"Now that I'm based overseas in a market that is not self-sufficient in red meat production, one thing that rings true is just how important a role we all play in contributing a valuable portion of the world's source of protein."

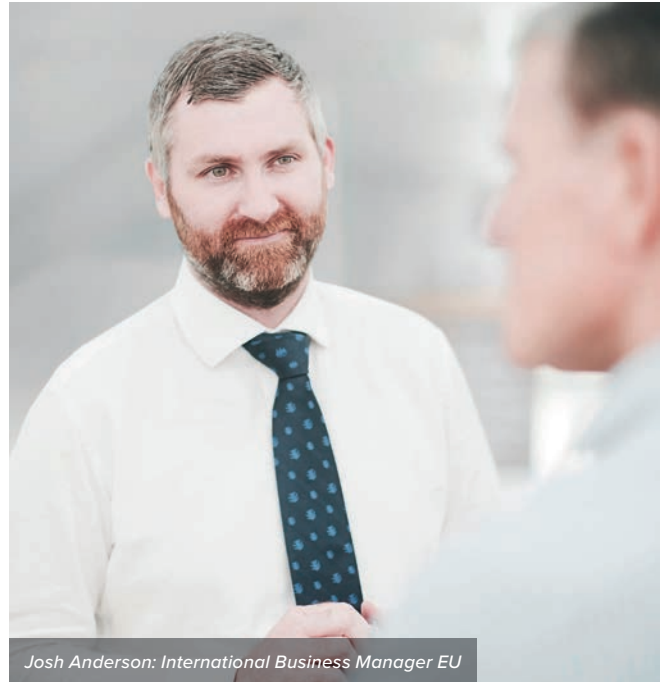
After joining MLA's market information team and overseeing the evolution of the National Livestock Reporting Service, Josh put his hand up for consideration for an International Business Manager role.

Originally moving to Brussels, today he is based in London, where he is dealing with the challenge of an ever-changing landscape for European political and trade situations.

Twenty-eight countries make up the EU, and Josh has met with each of their relevant trade and agricultural committee representatives at least once. He has also met various members of the EU Parliament (there are 751 in total), industry associations, producer groups and the World Trade Organization (which has more than 160 members).

At least once a fortnight, Josh takes the Eurostar train to Brussels for meetings, and in 2017 he took more than 40 trips in Europe representing the interests of Australian red meat.

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Josh Anderson: International Business Manager EU

Here Josh talks to *Feedback* about his current role with MLA:

Q:

Explain your role with MLA and how you came to a career in the red meat industry?

I lead MLA's operations in Europe. Our office is predominantly focused on defending and expanding the Australian red meat industry's access into this highly valuable market.

My family has owned properties across Queensland and NSW and currently run a beef enterprise in the New England region of NSW, so I was naturally attracted to the industry.

MLA was, for me, an attractive company to work for, as I have a personal interest in making sure the sector is as prosperous as it can be. I believe that expanding access to global markets for our product is vitally important.

Q:

What are the best parts of your job?

Recent developments with the UK leaving the EU will present a number of challenges and opportunities for the Australian industry. Industry has really stepped up to the challenges, with a coordinated approach towards seeking more secure access into Europe. I thoroughly enjoy working with the people in our industry, many of whom offer their time on a voluntary basis.

Q:

How do you like to eat your red meat?

My favourite cut of lamb is the rump. MLA's Corporate Chef Sam Burke introduced me to it and how to cook it. I use garlic and oil for seasoning and grill it on the barbecue, when the London weather permits.

For beef, I love a good T-bone. It's just a cut that you don't often see in Europe, but every time I'm home, I enjoy one. ■

Serving up summer with lamb

Whether you're having a quiet night in or hosting a summer barbecue this holiday season, lamb is the meat for every occasion. It's versatile, tasty and perfect for bringing everyone together.



BARBECUE

Lemon and rosemary loin chops with pea dip

SERVES: 6

- 8 loin chops, fat trimmed
- 1 tbsp olive oil
- 3 cloves garlic, crushed
- Zest and juice of 2 lemons
- 1 ½ tbsp rosemary leaves, finely chopped
- 1 cup frozen peas, blanched in boiling water
- ½ cup Greek yoghurt
- 1 tbsp tahini
- ¼ cup fresh mint leaves, finely chopped
- ¼ tsp chilli flakes

Chargrilled lemon wedges to serve

1. Place the oil, two cloves garlic, half the lemon zest and juice, rosemary and lamb in a large snap-lock bag. Season and set aside to marinate for 10 minutes.
2. Meanwhile, place remaining garlic, lemon zest and juice, peas, yoghurt, tahini, mint and chilli in a small food processor. Season and blend until combined.
3. Heat a chargrill pan or barbecue to medium-high and cook lamb 3–4 minutes each side or until cooked to your liking. Rest for five minutes. Serve with dip and lemon wedges.

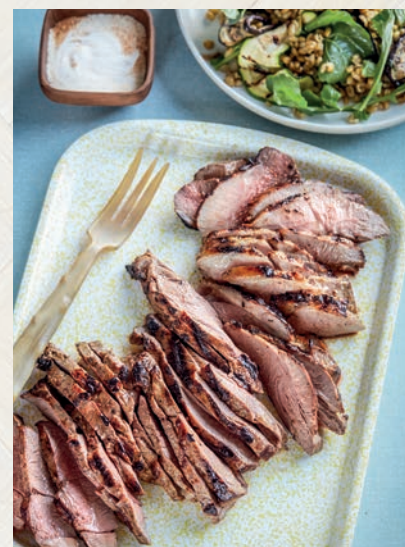
FINGER FOOD

Tamarind and lime ribs

SERVES: 6

- 1.2kg lamb ribs
- 1 tbsp vegetable oil
- 3cm piece ginger, finely grated
- 2 garlic cloves, crushed
- ½ cup tamarind concentrate
- Zest and juice of one lime
- 2 tbsp brown sugar
- 1 tbsp fish sauce
- 1 tsp Sriracha sauce

1. Preheat oven to 200°C (180°C fan-forced). Line a baking tray with paper.
2. Heat a lightly oiled chargrill pan or barbecue to medium-high. Cook lamb for 4–5 minutes on each side until lightly charred. Place on prepared tray.
3. Meanwhile, place oil, ginger, garlic, tamarind, zest and juice, brown sugar, fish sauce and Sriracha into a saucepan and heat over medium for 4–5 minutes or until sugar dissolves and sauce slightly thickens.
4. Brush lamb with marinade, reserving leftover in a bowl and cook in oven for 45–50 minutes, basting occasionally, until tender. Cover loosely with foil to rest for 10 minutes before serving.



FESTIVE FORMAL

Mustard and maple butterflied lamb leg

SERVES: 6

- 900g butterflied lamb leg
- 1 tbsp olive oil
- 2 tbsp Dijon mustard
- 2 tbsp maple syrup
- Crème fraiche or yoghurt and ground cinnamon to serve

1. Combine oil, mustard and maple syrup and season. Place in a snap-lock bag or bowl and add leg. Turn to coat and marinate for 10 minutes.
2. Heat a chargrill pan or barbecue to medium-high. Cook lamb 3–4 minutes each side or until charred. Reduce heat to medium-low and cook for a further 12–14 minutes, turning a few times, or until cooked to your liking. Remove from the heat, set aside on a plate covered loosely with foil and rest for 10 minutes. Thinly slice and serve topped with crème fraiche or yoghurt and cinnamon.
3. Head to australianlamb.com.au to find the recipe for a farro and vegetable salad to match this dish.

Find more lamb inspiration at
australianlamb.com.au



What pasture variety gives the best bang for your buck?

Compare the performance of more than 100 pasture varieties across multiple seasons with the new **Pasture Trial Network website**

tools.mla.com.au/ptn