mla Your levies at work // July/August 2015

Feedback

Dual purpose

12// **Grazing crops pushing productivity**

03// **Have your say**
How producers can influence industry direction

19// **Putting the profit into the pastoral zone**

21// **Carbon farming**
Strategies to reduce emissions and access carbon credits

30// **Trending now**
Riding the grassfed wave in the US

A note from the MD...

I have been MLA's Managing Director for just over 12 months and in that time MLA has listened to levy payers and positively changed the way it operates.

The industry deserves greater transparency around how their levies are being spent, and MLA will continue to hold itself accountable – we will continue to listen. Here's how we're changing:

Efficiency: More than $6.5 million in fixed cost savings have been achieved across MLA in one year, to put back into research and development and marketing.

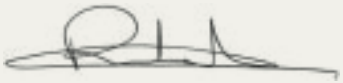
Engagement: 40 face-to-face forums, attended by more than 1,000 producers, have been held around Australia in the past 12 months for producers to speak directly with management and decision makers and provide input.

Consultation: A new regional consultation model is being introduced this year to encourage more producers to have their say on the direction of research and development investment (read more about this model on pages 3 and 6). This is in addition to the consultation with the Peak Industry Councils through the Annual Operating Plan and the Meat Industry Strategic Plan processes and other areas where we consult with industry.

Transparency: The new MLA website was launched in June, providing a clear breakdown of levy streams and key investments (see page 4). This site includes a page on how industry provides direction to MLA on how levies are invested – or in other words – MLA does not make investment decisions on its own.

Education: MLA is working to explain its role better to levy payers – particularly that it is not a political organisation, it has to operate under strict government guidelines and that grassfed cattle levies can only be spent on marketing and R&D activities for grassfed cattle – the same applies for sheep and grainfed cattle.

This year's Annual General Meeting is being held in Brisbane on 10 November. MLA members should have received their Levies Notice in the mail by now. To receive your full voting entitlement at the AGM, please return your Levies Notice by 1 October 2015. For more information call 1800 675 717. MLA wants all members to have a greater input than ever before and voting at MLA's AGM is one very important way that producers can be actively involved.



Richard Norton
MLA Managing Director

Contents

COVER STORY
12 Seeing double

UP-FRONT
03 Have your say where MLA invests in R&D

IN-BRIEF
04 Check out MLA's new website
04 MLA Board Selection Committee seeks a grassfed cattle producer representative
04 Lodge your levies notice
05 Taking a trip
05 Response to grassfed cattle inquiry

INSIGHT
06 In consultation
06 Guidance from the grassroots

INDUSTRY
08 Investing in people
08 In profile: Tracey Steinrucken
08 In profile: Sam Archer
10 The good news on gas

ON-FARM
14 Dual-purpose farming on the Tablelands
16 Crunch time: do forages pay in the Fitzroy?

03 Have your say
12 Dual purpose
19 Pastoral profit
21 Carbon farming

17 Feeding forages for the long-term
18 Value adding with forages
19 Partner up with Pastoral Profit
19 Performance matters
21 Welcome to carbon farming
22 The burning issue of carbon credits
24 Tree farming pays at Bulgoo
25 Back to Basics: Buying better bulls
27 Reproduction tops the genetic shopping list
28 Taking breeding technology to the breeders

GROWING DEMAND
30 Selling grassfed to the States
32 In profile: Cathy Nash Holley
33 Everything's better on beef

MARKETS
34 Around the globe
35 On the ground: Middle East/North Africa
36 Recipe: Red wine braised beef cheeks
36 Taking a snapshot
37 What will free trade with China mean for producers?

IN THE FIELD
38 Past and upcoming events

Cover image: Goulburn, NSW, sheep and cattle producer Angus Gibson with dual purpose wheat. Photo by Kim Woods.

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Regional consultation

Have your say where MLA invests in R&D

Australia's cattle and sheep producers are set to have greater input than ever before into setting MLA's research and development priorities.

MLA is enhancing its consultation process with grassroots cattle and sheep producers to ensure MLA's work better reflects their needs.

The consultation framework divides Australia's livestock production areas into three zones – northern, southern and western and each will operate within a national structure.

Levy payers can initially become involved in the process by nominating for a position on their regional red meat advisory committee in the southern and western zones.

Eleven producer committees already exist in north Australia and northern producers regularly have the chance to nominate to sit on these committees.

The regional groups will feed locally-important R&D priorities through to a regional producer committee for consideration and then, if successful, onto one of three meat Research Councils:

- → Southern Australian Meat Research Council (SAMRC)
- → Western Australian Meat Research Council (WAMRC)
- → North Australia Beef Research Council (NABRC) (which has been providing direction to R&D investment for some time)

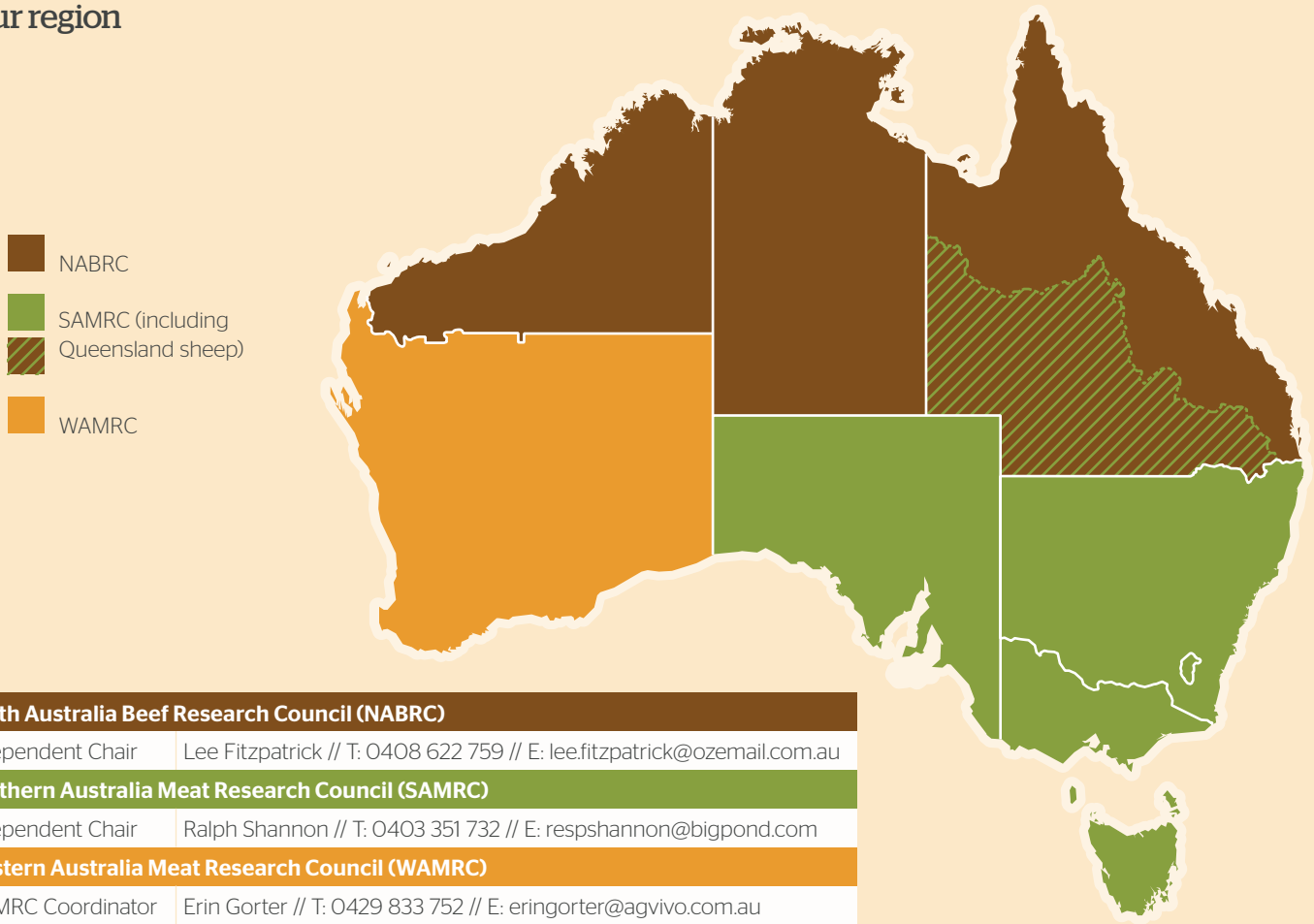
These Councils will collectively represent the interests of northern, southern and western grassfed cattle and sheep levy payers at further industry meetings.

Look out for advertisements on MLA's website and regional media for details on how you can be part of this strengthened regional consultation system that will guide MLA's R&D priorities.

For more on the consultation framework, turn to page 6.

www.mla.com.au

Your region



North Australia Beef Research Council (NABRC)	
Independent Chair	Lee Fitzpatrick // T: 0408 622 759 // E: lee.fitzpatrick@ozemail.com.au
Southern Australia Meat Research Council (SAMRC)	
Independent Chair	Ralph Shannon // T: 0403 351 732 // E: respshannon@bigpond.com
Western Australia Meat Research Council (WAMRC)	
WAMRC Coordinator	Erin Gorter // T: 0429 833 752 // E: eringorter@agvivo.com.au

Check out MLA's new website

Livestock producers are being encouraged to explore MLA's new website, www.mla.com.au. Driven by levy payer feedback that the website should offer more producer resources, the first phase has seen a redesign with the focus being on making it easier to navigate.

The second phase, to be introduced in the next six months, will see additional online tools and a new member portal included.

Features of the new website:

- → Easier access to information such as price and market data, consumer insights and research outcomes
- → Six core information areas across the top and a clear breakdown of levy income and investment for grassfed cattle, grainfed cattle, sheep, goats and the supply chain
- → Simple snapshots of each levy and a breakdown of what proportion is invested in research and development, marketing and other areas
- → Information on how levies are collected, the process for setting investment priorities and the outcomes of those investments.
- → Tools and resources for all sheep, cattle and goat producers.

Producers are encouraged to visit the new website, explore all areas and send any feedback to **info@mla.com.au**

MLA Board Selection Committee seeks a grassfed cattle producer representative

Nominations are being sought from cattle producers for election to the MLA Board Selection Committee at this year's Annual General Meeting (AGM), to be held on 10 November 2015, in Brisbane.

At the 2014 AGM members voted to make amendments to MLA's Constitution. One of these was to increase the number of grassfed cattle producer representatives on MLA's Board Selection Committee from one to two people to give grassfed cattle producers greater representation and influence over the MLA Board selection process.

The role of the Selection Committee is to report on the suitability of candidates for election to the MLA Board. The Selection Committee is currently made up of eight people; three representatives nominated by producer peak councils; three members directly elected by MLA members (one each for grassfed, grainfed and sheep) and two MLA Directors. This is another way producers can influence governance at MLA.

MLA cattle producer members have the opportunity to directly elect an additional cattle producer representative to the MLA Board Selection Committee for a three-year term.

All nominees are put forward to the AGM for a vote by the cattle producer members.

Members wishing to nominate a person, or wishing to nominate themselves for election by MLA producer members to the MLA Board Selection Committee at the 2015 MLA AGM, must give written notice to MLA by 25 September 2015.

For more information on the Selection Committee process and to access the nomination form, email companysecretary@mla.com.au or visit **www.mla.com.au/selectioncommittee**

Lodge your levies notice

MLA members are encouraged to obtain their full voting rights for this year's AGM by submitting their Levies Notice by post or online.

All MLA members will receive a Levies Notice by mail in July. By returning this notice or lodging online, members inform MLA of the amount of levies paid last financial year.

This is voluntary, but it is important members lodge their levies to receive their full voting entitlement for all meetings and polls held in 2015–16, in particular this year's AGM.

To ensure you receive your full voting entitlements, return your Levies Notice or lodge online by **1 October 2015**.

To find out more, go to **www.mla.com.au/voting** or call **1800 675 717**.

You should receive your AGM pack (including your voting entitlement and proxy form) in the mail in mid October 2015.

A new tool could help reduce the cost and time of transporting cattle in Australia.

In northern Australia cattle travel an average of close to 1,000 kilometres, and as much as 2,500 kilometres to get to processors.

Developed by CSIRO, TRANSIT (TRAnsport Network Strategic Investment Tool) identifies ways to improve the efficiency of livestock transport, saving fuel costs and wear and tear and minimising stress for truck drivers and animals.

"In developing this tool we completed the most comprehensive mapping of the cattle supply chain in Australia," lead researcher Dr Andrew Higgins said.

MLA is part funding the extension of TRANSIT to cover all cattle movements across Australia so that it can be applied to transport bottlenecks elsewhere.

As well as establishing the most direct transport routes, TRANSIT can identify the best opportunities for infrastructure and policy development, including increased access for higher productivity vehicles on some roads, and improved links to rail.

By providing a holistic view of the direct and indirect transport costs across the entire road network, TRANSIT has informed many infrastructure and policy opportunities under consideration by governments, industry and community in northern Australia.

For example, TRANSIT has modelled the potential benefits of sealing the remaining 105 kilometres of the Hann Highway, north of Hughenden in central Queensland.

It showed that this would reduce travel time on the Highway from five to three and a half hours, saving about 1,160 hours for the estimated 1,300 road train trips taken on the road each year.

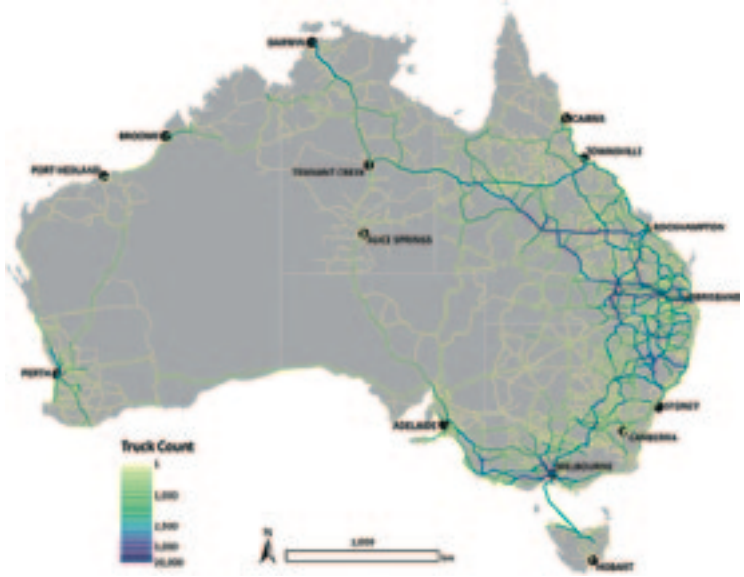
TRANSIT also identified that the number of road trains using the fully sealed Hann Highway would increase by 25%, removing heavy vehicles from the congested coastal highways.

These benefits translate to a modelled cost saving of $1.23 million/year, plus the additional savings from shorter return journeys for empty trucks and benefits to other road users.

"Other advantages from a more efficient supply chain are improved safety and welfare of the live animals and the truck drivers themselves taking these long journeys, reduced emissions, and a more sustainable industry at a time of growth," Andrew said.

For northern Australia, the TRANSIT project used data on 12,000 properties, finishing farms, sale yards, feedlots, export yards, rest stops, abattoirs and ports; and 15,000 road segments (ranked according to highway, major road or minor road, sealed or unsealed, among many other factors).

The investment in TRANSIT, through MLA's industry issues research program, will provide peak industry councils with a tool to inform the transport and infrastructure priorities for the industry.



This map represents estimated cattle truck movements/ year on those roads, based on known cattle movements between shires. It assumes (on roads where they are allowed) it is a B-double and only the trip to the processor is counted (not the empty return trip).

Watch a video on the livestock movements as mapped by TRANSITat **www.csiro.au/en/News/News-releases/2015/New-tool-cuts-cattle-transport-costs-with-maths**

Response to grassfed cattle inquiry

Minister for Agriculture, Barnaby Joyce, provided the Government's response in July to the findings of the Senate Inquiry into Industry structures and systems governing levies on grassfed cattle which examined the representative and R&D levy arrangements for the grassfed cattle sector and options to improve transparency, accountability and engagement with levy payers.

Minister Joyce acknowledged that MLA – as the provider of R&D and marketing services to the grassfed cattle industry – can provide a solid basis for the future with greater direction from grass-fed levy payers. Minister Joyce also said the government would continue to allocate the current grassfed levy to MLA.

MLA Managing Director Richard Norton said MLA had now fundamentally changed the way it operated and was improving the way it communicated the benefits of project investment to levy payers.

"We listened carefully, and will continue to listen to our levy payers. MLA has undergone a complete review of the business to become more efficient, more transparent and more accountable for every levy dollar being invested on behalf of the industry," Richard said.

www.mla.com.au/About-MLA/Media-releases/Media-releases/MLA-welcomes-greater-oversight-from-producers

In consultation

Following an independent review of MLA's levy investment systems for on-farm research and development, a regional consultation framework has been developed to improve transparency and engagement with stakeholders in setting priorities for R&D.

MLA's Managing Director Richard Norton said this new approach to industry consultation was a top priority.

"MLA must become more transparent in communicating how government funds and processor levies work, and demonstrate sheep and cattle levies are not spent on processor initiatives," he said.

"Having this level of direct consultation – on an annual cycle – will be resource intensive but this structure will allow true two-way engagement on the levy investment."

New annual call for R&D

The topics covered in MLA's annual call for new R&D projects will be guided by the priorities identified during consultation and that complement existing programs. Regular evaluation of MLA red meat R&D will also help the Red Meat Panel identify and maintain a balanced R&D portfolio.

Regional producer chairs of NABRC, WAMRC and SAMRC will review project proposals to identify those that fit the red meat R&D priorities, while panels of technical experts will assess and advise MLA on the scientific merit of each proposal.

To contact the chairs/coordinator of the three research councils, see page 3.

How the regional consultation will work

Local input: Individual producers and producer groups provide their priorities and input to one of the regional producer committees. There are 11 committees in the north, committees in the south and coordinated producer groups in the west.

Regional input: These committees and groups feed the consolidated input from producers in their regions into the north, south and west Beef/Meat Research Councils.

National input and priority setting: The three regional Research Councils feed their priorities into the National Red Meat Panel. The peak industry councils (Cattle Council and Sheepmeat Council of Australia) also have input at this stage. The Panel approves the national R&D priorities, taking into account the local and regional priorities and ensuring a balanced portfolio. These priorities are then assessed against strategic plans for the cattle and sheep industries, as overseen by peak industry councils. This informs MLA's annual call for R&D projects.

Feedback: MLA works in partnership with regional producer committees and groups to ensure the results of the consultation process and regionally relevant R&D is communicated back to producers.

Guidance from the grassroots

More producers should help steer the direction of agricultural research, according to Texas cattle producer and breeding consultant Andrew Gray.

As chairman of the North Australia Beef Research Council's (NABRC) South Queensland committee, Andrew has seen how producer input can directly influence the research and development priorities. Among the successes are strategies to tackle phosphorus deficiency and pasture rundown, and improvements to artificial breeding or insemination.

"A lot of the research work has occurred as a direct result of producers putting their hands up and saying, 'Hey, there's a problem'," Andrew said.

"In the north of my region, producers experiencing rundown of their buffel-based pastures, have been able to make some very educated decisions based on the MLA-supported trials and research carried out by Department of Agriculture and Fisheries agronomist Gavin Peck.

"Another example is the recent CashCow project that has road-mapped the reproductive performance of the entire northern beef herd and instigated new directions for research.

"In my opinion, this is a sensible use of levy payers' contributions."

Snapshot

Andrew Gray, Texas, Qld.

Property: 'Orana' – 3,239ha; 'Uambi' – 1,619ha

Enterprise: Embryo recipiency, including custom sire breeding, AI program management, semen import/export, breeding consultancy and breeding Wagyu-Angus cross for the Wagyu feeder market

Livestock: 650 Angus-Wagyu cross breeders

Pasture: Bluegrass (pitted and Queensland blue grass)

Soil: Traprock

Rainfall: 650mm

Snapshot

Charles Nason, Roma, Qld.

Property: 10,000ha

Enterprise: Beef production (target markets depend on seasonal conditions), cropping (seed oats, wheat and barley)

Livestock: 750 composite breeders

Pasture: Buffel and naturalised buffel with some medics

Soil: Melon-hole brigalow, belah to cypress pine on sandy loams and hard setting, shallow soils

Rainfall: 550mm

Andrew, who runs a large-scale embryo recipient business, as well as breeding Wagyu-Angus cross for the Wagyu feeder market, is particularly interested in the research outcomes in artificial breeding.

"Dr Sophie Edwards of the University of Queensland has been doing some interesting work with Fixed Time Artificial Insemination (FTAI); in particular, her MLA project on improving pregnancy rates in Brahmans," he said.

"This is an issue that is totally producer driven – the commercial operators are crying out for better genetics and ways to speed up their rate of genetic gain."

Roma cattle producer Charles Nason is a veteran of the producer consultation process surrounding research, development and extension (R&D) and has witnessed many examples of mixed successes.

"In the past, government organisations provided the majority of funding for R&D but, unfortunately, this has reduced significantly in recent years," he said.

"MLA has been called on to provide an increasing percentage of funds and take a leadership role on issues that continue to contribute to the improved productivity of the beef industry."

Charles said NABRC's South Queensland committee has been proactive in suggesting and supporting many projects with outcomes for producers such as the Northern Beef Nutritional Management Education package; the Grain and Graze project; NIRS (Near Infrared Reflectance Spectroscopy) dung sampling (analysing faecal samples to determine the quality of the pasture); and the buffel pasture rundown project.

"These examples show how producer input to the research agenda can generate really useful outcomes and are a credit to MLA and its researchers and consultants," he said.

"They have played an important role in allocating a meagre R&D budget for the benefit of the industry."

Charles breeds composite cattle as well as cropping his 10,000ha property 'Banoona', 60km south-west of Roma.

Despite mixed success on his farm with some research outcomes, such as addressing buffel rundown with legumes, Charles is still adamant that producers need to take an interest in and support R&D.

"One of the fringe benefits is that it encourages scientists to interact with producers and helps to 'practicalise' their research," he said.

"It's important we are critical of what we do and constantly seek improvement. We should never become complacent, but continually review and question to ensure R&D funds are directed where they will benefit industry the most."

If you want more information about your North Australia Beef Research Council's regional committee, or to discuss research, development and extension priorities, go to the NABRC website at **www.nabrc.org.au** and select your region from the map to find the contact details for your regional committee Chairman or Secretary.

Andrew Gray // T: 07 4653 1424
E: abardotgenetics@activ8.net.au or
Charles Nason // T: 07 4626 5323
E: banoona@bigpond.com

Building capability

Investing in people

MLA is investing in the future of the cattle and sheep industry by providing support for leadership and professional development training for producers and research funding for scientists.

According to MLA's General Manager of On-farm Innovation and Adoption, Dr Matthew McDonagh, the investment is relatively small but focused.

"The targets of this investment are different – producers and scientists – but the goal is the same: to develop industry capability," Matt said.

"We try to be strategic about the people we invest in. For example, in our postgraduate scholarship program we're effectively looking for students who already have good enough academic performance to have received an Australian Postgraduate Award.

"They come to us with a government scholarship and we top that up with operational funds.

"The students' work is almost always directly linked to MLA's areas of interest – for example, invasive weeds – however, we will also invest in more strategic projects.

"To a certain extent the people are more important than the project, and analysis has shown we have a fairly good retention rate of these scientists within agriculture."

Matt said investment in producer training was also about building industry capability.

"We need good producers to work with us and provide direction and leadership on research and development priorities," he said.

"By providing producers with the opportunity to develop their professional skills, we're increasing the likelihood of delivering positive outcomes for our industry, which is what MLA is all about."

Matthew McDonagh, MLA
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Find out more at: **www.mla.com.au/Research-and-development/Funding-opportunities**

In profile

Tracey Steinrucken // *Fulbright*

MLA supports the work of talented scientists with an interest in livestock to ensure the best and brightest are focused on delivering positive outcomes for the industry.

One of those scientists is plant ecologist Tracey Steinrucken, who is based at the CSIRO Biosecurity Flagship in Brisbane.

Tracey is studying the microbiology of parkinsonia, an invasive woody weed, for her MLA-supported PhD. Her goal is to discover the cause of the dieback phenomenon observed in the plant in Australia, and she has identified differences in the microbial communities of dieback-affected and healthy plants.

Already a recipient of an Australian Postgraduate Award, Tracey has been awarded the prestigious 2015 Fulbright Queensland Postgraduate Scholarship.

The scholarship will enable her to spend 10 months at the Forest Pathology and Mycology Lab at the University of California, Berkeley.

What will the Fulbright Scholarship experience involve?

I'll be hosted by UC Berkeley, but I'll also be travelling to Mexico and southern Texas to do fieldwork for my parkinsonia research. The Fulbright program has already connected me with many alumni in my field, and the future networking opportunities are endless.

Q. How will your MLA research grant support this experience?

The Fulbright Scholarship provides a stipend, plus accommodation and travel expenses, but it doesn't cover research costs. The work I'll be doing on parkinsonia includes novel, high-throughput molecular studies and

Sam Archer // *ARLP participant*

Beef and lamb producer Sam Archer farms on 'Kincora' at Gundagai, in southern NSW and is MLA's sponsored participant in Round 22 of the Australian Rural Leadership Program (ARLP).

Sam has a long-held interest in natural resource management. His farm is a research site for the Australian National University and was a pilot site for the Australian Government's Environmental Stewardship Program.

Sam was awarded an MLA-funded Nuffield Farming Scholarship in 2008. He used it to investigate consumer-funded environmental stewardship schemes throughout the Americas, Europe and India. During his travels, he saw numerous schemes successfully deliver carbon, water and biodiversity outcomes, and is keen to develop an integrated scheme for Australia that allows farmers to be paid for their stewardship of the land.

Feedback caught up with Sam and found out why the first ARLP session in the Kimberley was a 'homecoming' of sorts.

Tell us a little about your background?

My family has been farming in Australia since the 1850s. I went to Marcus Oldham College, worked in commercial roles in regional Australia and then studied anthropology. I spent the next three years delivering economic development programs with Indigenous groups in the Kimberley region before my wife Sabrina and I took over management of 'Kincora' in 1999.

What prompted you to apply for the ARLP?

It is a unique opportunity to participate in a prestigious program that supports leadership and provides the opportunity to network with current, former and future industry and community leaders.

scholar

cross-border fieldwork. MLA's support will go a long way to covering those costs, so I can make the most of my time and the amazing facilities at UC Berkeley.

How do you see your experience benefiting livestock producers in Australia?

Parkinsonia is native to the southern United States and Mexico, as well as South America. Over there, it's just part of the normal flora, whereas in Australia it is a weed of national significance and a huge problem for our pastoral industries. So far, dieback has not been observed in the native parkinsonia populations or in closely related species. I will investigate the role of protective and pathogenic microbial communities in the native populations, and compare them to communities in healthy and dieback-affected parkinsonia in Australia. As well as expanding on my research, I hope to talk with landholders, academics and representatives of the US Department of Agriculture about general invasive species management and share what I learn with MLA and other Australian stakeholders.

Tracey Steinrucken
E: tracey.steinrucken@csiro.au

How do you see MLA's investment as helping both you and the livestock industry?

Producers are being asked to do more with less, while faced with an increasing regulatory burden and discussion about our social licence. We need to advocate for our industry, and I feel MLA's investment will enable me to do that more effectively. We do, however, need to achieve outcomes. Identifying problems is easy; my goal is to develop the skills that will help deliver solutions.

What industry leadership positions have you held?

I've been fortunate to hold a number of industry roles. These include being a member of the Australian Farm Institute's Research Advisory Committee and the National Farmers' Federation Economics Committee, a director at the Rural Industries Research and Development Corporation and senior vice president with the NSW Farmers' Association. Currently, I'm chair of Riverina Local Land Services.

Sam Archer
E: sam@wallabycreekpastoral.com.au

Emissions

The good news on gas

A three-year research program led by MLA has delivered tools and techniques for producers to achieve 'more meat and less methane', to boost their environmental credentials and bottom line.

When cattle and sheep digest feed, up to 12% of feed energy is lost in the form of methane gas, a by-product of microorganisms that live in the rumen. Methane is belched out into the atmosphere – energy that could otherwise have been used to make muscle, milk or wool.

Reducing methane not only has environmental benefits; it also allows producers to stop wasted feed energy and turn it into something saleable, such as meat or wool.

Three years ago, the National Livestock Methane Program (NLMP) set out to develop a better understanding of the science of methane emissions in livestock.

During the program, researchers identified a range of treatments – including supplements, forages and genetics – that beef and lamb producers can apply to their production system to lower methane emissions and maintain or lift productivity (see list below).

While not 'silver bullet' solutions, these strategies can be matched to individual enterprises to deliver a triple benefit: increased on-farm efficiency; the potential to generate revenue through the Emissions Reduction Fund; and support for the industry's clean, green credentials.

As well as providing on-farm tools and strategies that producers can use now, or in the near future, the NLMP also studied the processes of methane

Methane down, productivity up

Practices that can be implemented now:

Leucaena: Grazing cattle on leucaena can improve productivity and profitability and reduce emissions. In Central Queensland trials, cattle grazing on both pasture and leucaena had growth rates 22% higher than cattle grazing just pasture and produced 20% less methane. Whole-farm modelling showed a farm with leucaena could have 37% higher gross margins (and 17% less methane emissions) than a farm without leucaena. Modelling suggests that if leucaena was adopted in 10% of cattle production systems in the northern coastal region of Australia, it could reduce greenhouse gas (GHG) emissions by 112,000 tonnes annually – or more than 7% of the total emissions from cattle in the region.

Australian native shrubs: Studies in south-west Australia show that strip-grazing sheep on rows of native shrubs with preserved inter-row pasture species for 6–8 weeks in autumn substantially improves stock growth rate and condition. It also eliminates the need for supplementary feeding during the autumn feed gap. The methane-reducing properties of native species cut emissions in this period by up to 26% (a 4% reduction over the year).

Practices with potential:

Red macro-algae: Feeding dried and ground preparations of the marine red macro-algae species *Asparagopsis taxiformis* to cattle and sheep has reduced emissions by up to 80%. The algae appear to change the concentration of short-chain fatty acids in the rumen, which provides an alternative sink for hydrogen – a key element in methane production. The barrier to widespread adoption is the relatively high cost and low availability, so work is underway to develop commercially viable production systems.

production. The researchers developed a better understanding of how methane is actually produced in livestock, as well as practical and accurate means to measure it.

New knowledge acquired from the NLMP included:

→ Manipulating rumen function to improve the capture of energy from feed and reduce the loss of energy in the form of emissions.

→ Developing a membrane that uses wireless sensors in the rumen to detect the concentration of various gases and measure methane emissions from cattle.

→ Road-testing a paddock-based GreenFeed Emission Monitoring (GEM) system from the US to see how it handles Australian conditions. (It has been found to be suitable for long term use in remote grazing environments.)

→ Developing a GEM unit specifically designed to measure emissions from sheep. This is a breakthrough, as few tools that can accurately measure emissions from sheep are available.

There is still work to be done. Research indicates that with the right tools and practices up to 40% or more of feed energy that is lost in methane can be captured and put to productive purposes.

Read about opportunities from the Emissions Reduction Fund on pages 21–25.

The NLMP (2012-2015) was a $32.8 million research program funded by the Department of Agriculture, Meat & Livestock Australia, Dairy Australia, Australian Wool Innovation, with support from 15 collaborating organisations. The NLMP consisted of 17 projects across five research streams: measurement, genetics, supplements, forages and rumen microbiology. It was managed by MLA.

Farm300: **www.mla.com.au**

More lambs more often/Project 2020: **www.rist.edu.au**

More Beef from Pastures: **www.mla.com.au/mbfp**

Download the *More meat, milk and wool: less methane* on the outcomes from the NLMP: **www.mla.com.au/nlmp**

Nitrate instead of urea: Northern cattle producers could reduce methane emissions by substituting urea with nitrate during dry season supplementation. Feeding nitrate at 10 grams/kilogram of dry matter intake can reduce methane by up to 10%. An abatement method has been approved under the Emissions Reduction Fund, so producers may also be eligible to obtain carbon credits. (Best Management Practice guidelines are being developed to help producers feed nitrates safely).

Best management practices: On-farm practices that improve reproductive performance and efficiency of feed utilisation (such as increasing calving/lambing rates or quicker turn-off of sale stock) can reduce farm emissions intensity. Although total methane emissions may increase if improving the efficiency of feed use results in a larger animal-carrying capacity overall, methane intensity or the amount emitted per unit of saleable product will be reduced.

Grape marc: This by-product of winemaking contains compounds such as tannins and oil that can reduce emissions. Feeding grape marc to stock has a variable impact on methane emissions and productivity, as it can differ in active tannins and has low energy content for animals. It could be most effective and profitable to use grape marc as a replacement to low-quality diets or during feed shortages for sheep in southern Australia, where it could reduce emissions by up to 10% while maintaining weight.

Bioactive plant compounds: Two bioactive compounds extracted from native Australian leptospermum and melaleuca plants have reduced GHG emissions in ruminants by up to 97% in laboratory experiments. It has been estimated that when provided as supplements in real-world conditions, these compounds would reduce methane emissions by about 25%. Further research and animal trials are warranted to validate the effectiveness and economic viability of these compounds.

Genetics: Research showed that low methane emissions are a moderately heritable trait in beef cattle. It appears that lower-emitting animals have smaller rumens with different populations of microorganisms compared to the norm. The gain from genetic selection is cumulative and could provide an 8%/year reduction in emissions after 20 years of selection. A project is underway to evaluate the use of BREEDPLAN as a selection tool to reduce methane emissions while maintaining or improving productivity.

Research at work

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

In this issue

16// **Finessing forages**
Research reveals when and how producers can make money from forage crops.

24// **Tree retention**
Find out how avoided deforestation works in reality in western NSW.

25// **Bull buying tips**
A shopping list for investing in genetics.

27// **Reproductive growth**
Why focusing on the genetic traits in bulls and cows pays off.

Seeing double

Two dual-purpose crops – wheat and canola – have been put to the test in an MLA-funded project to give livestock producers strategies to maximise their value in sheep enterprises.

CSIRO, Charles Sturt University (CSU) and Victorian State Government researchers are developing guidelines to grow and graze dual-purpose crops, with inter-linked experiments in the Tablelands, NSW Riverina and south-west Victoria.

While wheat is a commonly grazed crop, canola is emerging as a valuable addition to the feed mix and can offer 700–2,300 sheep grazing days/hectare.

The research shows dual-purpose canola provides high-quality feed for ewes, gives producers flexible crop rotations (canola can be used as a break-crop to manage weeds and diseases) and can fill the autumn/winter feed gap. →

Pasture management

Research snapshot:

- **NSW Riverina (research is based at Wagga Wagga, NSW):** Shawn McGrath, of Charles Sturt University (CSU), is looking at the potential for Dorper sheep on a feedbase that includes dual-purpose crops.
- **Tablelands (research is based at Canberra, ACT):** CSIRO researcher Cesar Pinares-Patiño is taking a systems approach to compare ewe and weaner performance on pastures and crop with stock grazed only on pasture.
- **South-west Victoria (research is based at Hamilton, Vic):** Victorian State Government research scientists Maggie Raeside and Ralph Behrendt are researching the potential for spring-sown canola crops to increase ewe conception and reproduction rates and boost producer productivity.

Here are some of the early findings:

Mineral profile

The experiment at Wagga Wagga compared White Dorper and Merino ewes grazing dual-purpose crops during late-pregnancy and lambing and assessed the nutritional value of the crops.

Earlier CSIRO research showed that providing a loose-lick supplement containing magnesium and salt to young sheep grazing canola did not improve lamb growth rates, so sheep grazing canola in the Wagga Wagga trial were not given mineral supplements.

"Canola forage has higher levels of calcium and magnesium than wheat, and the ratio of potassium to sodium seems to be lower in canola forage compared to wheat forage," CSU researcher Shawn McGrath said.

"A high ratio of potassium to sodium in the diet can restrict absorption of magnesium from the rumen."

The mineral profile of wheat is very different, with low sodium, marginal magnesium and variable levels of calcium.

"So, it is recommended that ewes grazing wheat be provided a mineral supplement that includes magnesium, calcium and salt to reduce the risk of metabolic diseases such as hypocalcaemia and hypomagnesaemia (grass tetany)," Shawn said.

Body condition

A key livestock management practice when grazing late-pregnant and lambing ewes on dual-purpose crops is to ensure ewes are in adequate body condition score coming into lambing (BCS ≥ 3) to reduce the risk of metabolic diseases.

The dual-purpose crops were grazed for eight weeks in the trial, then ewes and lambs grazed lucerne until weaning. They were weighed regularly while grazing the crops and at weaning.

White Dorper lambs from ewes that grazed canola had an average weaning weight of 29.4kg. This was higher than the lambs from ewes grazing wheat, which averaged 26.5kg.

However, there was very little difference between the two dual-purpose crops with crossbred (White Suffolk x Merino) lambs (28.5kg weaning weight when ewes grazed canola, 28.8kg when ewes grazed wheat).

Nutritional needs

The quality of diet differed between the two dual-purpose crops.

Although the digestibility of both dual-purpose crops was initially very high, the digestibility of wheat declined during the experiment. Similarly, the crude protein content of wheat was initially higher than canola, but declined during the grazing period and was lower than canola at the end of grazing.

However, the energy and protein content of both crops was still sufficient to meet the requirements of lactating ewes.

In contrast, the fibre content of canola was much lower than wheat throughout the experiment.

"Although we didn't provide hay to the ewes grazing canola in this trial, it is often recommended producers provide additional fibre such as hay to livestock grazing brassica crops, due to the low fibre content," Shawn said.

The fibre content of wheat forage is sufficient and does not require fibre supplementation.

Performance in good and bad seasons

The Tablelands research honed in on the benefits and risks of integrating dual-purpose crops in a pasture system.

The study involved three treatments:

- a pasture-only system (control)
- pasture with dual-purpose crops grazed by Merino ewes
- pasture with dual-purpose crops grazed by weaners.

Now, two years into the four-year project, CSIRO researcher Cesar Pinares-Patiño said the message was that including dual-purpose crops can benefit in good and bad seasons.

"The first year, 2013, had a dry autumn so we supplemented stock. Sheep grazing pasture-only needed almost twice the amount of grain as the ewes and weaners that grazed dual-purpose crops," Cesar said.

"The ewes and weaners on dual-purpose crops had larger weight gains than the sheep that only grazed pasture. In this year, dual-purpose crops effectively reduced the feed gap in winter."

Because of the better growing conditions in 2014, animal performance, pasture production and crop yields were higher than in 2013. While there was no difference in daily weight gains between stock grazing pasture and pasture/dual-purpose crops in 2014, inclusion of dual-purpose crops allowed an increase in winter stocking rates.

Maximising returns

Grazing dual-purpose crops can make good economic sense.

The trials that included dual-purpose crops had higher gross margin/ha (by 38–65%) than the pasture-only trial.

Researchers also found that grazing crops do not have to lower grain production. Autumn and winter grazing of wheat and canola on the Tablelands and in south-west Victoria had no effects on grain yield.

→

Table 1 **This table shows the typical sowing times, grazing periods, range of grazing days and seed yield achieved in experiments and in commercial fields as part of a GRDC-funded dual-purpose canola project conducted by CSIRO. These varieties were used successfully in dual-purpose experiments across different regions and are representative of others that would also be suitable in specific areas. The results are for crops where grazing had no impact on the seed yield or oil content of canola.**

Region/GSR	Canola type	Sowing window	Grazing achieved		Yield range (t/ha)
			Timing	DSE days/ha	
High rainfall (300–500mm GSR*) (Goulburn, Delegate, Holbrook, Inverleigh)	Winter (e.g. Taurus Hyola970 Sensation Edimax)	1 March to 10 April	May–August	1,500–3,000	3.0 to 5.0
Medium rainfall (250–350mm GSR) (Young, Greenethorpe, Cootamundra)	Late spring (e.g. Garnet, Hyola575CL, 45Y88)	5 April to 30 April	June–July	600–800	2.0 to 3.5
Lower rainfall (150–250mm) (Temora, Wagga Wagga)	Mid spring (e.g. Tawriffic, 45Y82, 43C80)	15 April to 8 May	June–mid July	200–600	1.0 to 2.5

* GSR (growing season rainfall)

Source: John Kirkegaard, CSIRO

→

However, there are agronomic considerations such as early sowing of dual-purpose crops to match the window of opportunity for grazing without affecting grain yield. A good rule of thumb is to remove stock from canola by July so the crop can recover for harvest.

Adding dual-purpose crops to a grazing system also gives producers the chance to spell permanent pastures for use earlier during the growing season.

Results from the first experiment in south-west Victoria showed that ewe lambs can be safely joined on dual-purpose canola – canola forage being superior to perennial ryegrass in terms of feed on offer, forage nutritive value and animal performance. With its early establishment features, grazing canola crop during late pregnancy and lambing is promising for improving meat production.

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Maggie Raeside // E: Margaret.Raeside@ecodev.vic.gov.au (Victorian research)

Tips and tools: grazing dual-purpose canola

- → Sow early with later-maturing types with high blackleg tolerance.
- → Graze when plants are well anchored (six leaf stage).
- → Lock up canola before buds elongate more than 10cm.
- → Comply with chemical withholding periods before grazing canola.
- → Follow agronomic best practice: **www.grdc.com.au/CanolaBestPracticeGuide**
- → Be aware of the potential risk of nitrate toxicity for livestock.
- → CSIRO is conducting research to address whether fibre supplementation is required. In the meantime, supplementation is recommended.

Pasture management

Dual-purpose farming on the Tablelands

Goulburn, in the high rainfall zone of the NSW Tablelands, was known as the home of the fine wool Merino sheep not that long ago. But dual-purpose wheat and canola, backed up by agronomic packages, have underpinned moves into prime lambs, livestock trading and opportunity agisting.

Snapshot

Angus Gibson and share farmers Peter and Cate Brooks, Goulburn, NSW.

Property: 2,225ha (890ha cropping)

Enterprise: Sheep production, dual-purpose wheat and canola

Livestock: Trade cattle, Merino lambs

Pasture: Mainly native, 100ha of sown pastures

Soil: Range from alluvial, granite, ironstone and silty loams

Rainfall: 650mm

For Angus Gibson and his sharefarmers, Peter (pictured) and Cate Brooks, dual-purpose crops have been behind a dramatic rise in productivity.

Peter, who manages 890ha of cropping on the property, started growing dual-purpose canola in 2009, inspired by a presentation at a local field day by CSIRO canola researcher Dr John Kirkegaard.

"I was drawn by John's passion and belief that this crop could aid farming in our area. We badly needed to add the rotation at traditional weedy oats and wheat crops," Peter said.

He initially grew 46Y78 Pioneer Clearfield® hybrid canola, which averaged 1.9 tonnes/ha – despite a tough finish and after carrying 6,000 Merino lambs on agistment. He now plants Clearfield winter canola varieties, such as Hyola 970 CL, chosen for blackleg resistance, herbicide tolerance and grazing performance.

Dual-purpose canola is an important agronomic and economic fit in the business.

"It gives us the ability to control grass weeds and produce more profitable wheat, and it supplies a mix of income," Peter said.

"A well-run program of grazing and grain is a high-expense, high-return system. It costs $750/ha, but it returns around $900/ha for meat and $900/ha for grain (a potential gross margin of $1,050/ha)."

Inputs and outputs

For grazing this year, Peter planted 460ha of Manning winter wheat, 330ha of canola and 90ha of Wedgetail wheat.

His targets for each crop are:

- → Manning wheat: 4 tonnes/ha forage for grazing, and 4-6 tonnes/ha grain recovery at harvest
- → Canola: 3.5 tonnes/ha forage, and 2-2.5 tonnes/ha grain
- → Wedgetail wheat: 2 tonnes/ha forage, and 5 tonnes/ha grain

The partnership buys in predominantly Angus cattle at around 350kg and grows them to 480–529kg on wheat.

They also run 3,200 Merino lambs and finish 6,000 terminal lambs on canola for forward contracts.

Agronomy

Peter sows from February to April, on the basis that early sowing delivers more dry matter. The Hyola 970 CL canola is sown at a rate of 2.7kg/ha, using a 12-metre Seedhawk with 25cm (10 inch) spacing. The triple bin setup allows 180kg of nitrogen MAP blend to be sown with the seed (including 100kg urea and Flutriafol).

Peter fallow sprays up to three times after harvest, as well as using a pre-emergence spray and an in-crop spray if required, which is usually an aerial application of aphicide and heliothis in November. He ground-applies fungicide in September.

He introduces stock after the withholding periods and removes lambs in mid-July.

Stocking rates vary, but a typical season will see 30 lambs (35kg/head)/ha for 60 days. The canola produces 200–300g/day liveweight gains.

Peter starts wind rowing the canola in late November and harvests in mid-December.

He selects varieties that develop outside the frost period and spreads out planting to minimise frost risk.

The potential of a wet harvest has been addressed with the purchase of five 280 tonne drying silos, so grain can be harvested when it is ready, despite a high moisture content (up to 15%).

Peter is an avid co-operator in CSIRO dual-purpose canola trials.

"This research has the ability to change farming systems in the entire high rainfall zone," he said.

"It is an evolving area that may become applicable to more arid systems. The rates of technological change are astounding. The CSIRO team is so passionate that I have no doubt that they will continue to find big production and agronomy gains in the future."

Lessons learned

- → Preparation, preparation, preparation! Dual-purpose crops have a high work load, year round. Harvest leads to sowing, which leads to livestock and then harvest again.
- → Don't skim on inputs. You need to source available funds to run the system.
- → Deal with a realistic, experienced adviser who can develop a program to follow. It's important to align with someone who has experience to deal with the high level of interactions in this system.
- → Become a student of the livestock markets.
- → Make sure seed has high vigour and germination.

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Forage management

Crunch time: do forages pay in the Fitzroy?

Central Queensland cattle producers now have a tool to measure the costs and benefits of finishing their stock on high-output forages.

Six common forage options – oats, forage sorghum, lablab, leucaena-grass, butterfly pea-grass and perennial grass pasture – have been benchmarked in an MLA and Queensland Department of Agriculture and Fisheries co-funded project.

Researchers collected data from 24 sites in the Fitzroy River catchment from 2011 to 2014, and developed economic case studies with producers to measure the impact of forages on whole-farm profitability.

High Output Forages (HOF) project leader Maree Bowen said the work provided a better understanding of animal performance and economic factors to improve on-farm decision making.

"Targeted use of high quality forages has the potential to improve the profitability of cattle enterprises by increasing enterprise turnover and productivity, and providing a viable alternative to grain finishing for the production of high quality beef," she said.

Maree said producers needed to combine best practice agronomy, with best practice cattle management and feed budgeting to achieve a profitable outcome, and have an understanding of the financial implications for their business.

The results:
The research found that (under current market and cost conditions):

- There was a wide range of profitability and productivity for annual and perennial forages in the Fitzroy River catchment (see Figure 1).
- Perennial legume-grass pastures were more profitable than perennial grass pasture and annual forages. In particular, leucaena-grass had the highest average gross margin of $184/ha/year.
- Leucaena-grass pastures also produced the highest average total beef production (198kg/ha/year).
- Forage sorghum, despite producing twice the biomass of oats and lablab, had only slightly higher beef production due to poor utilisation of forage sorghum biomass and a lower quality diet.
- Annual forages often did not add economic value to cattle enterprises because of the potentially better cropping or perennial forage opportunities foregone.
- All high-output forages can increase business risk, due to high establishment costs and the need for timeliness in planting and managing.

Maree said some producers may not be realising the full potential of sown forages because they were not managing them with 'best practice' principles.

"The effect of sown forages on farm profitability can be marginal and the increase in business risk significant," she said.

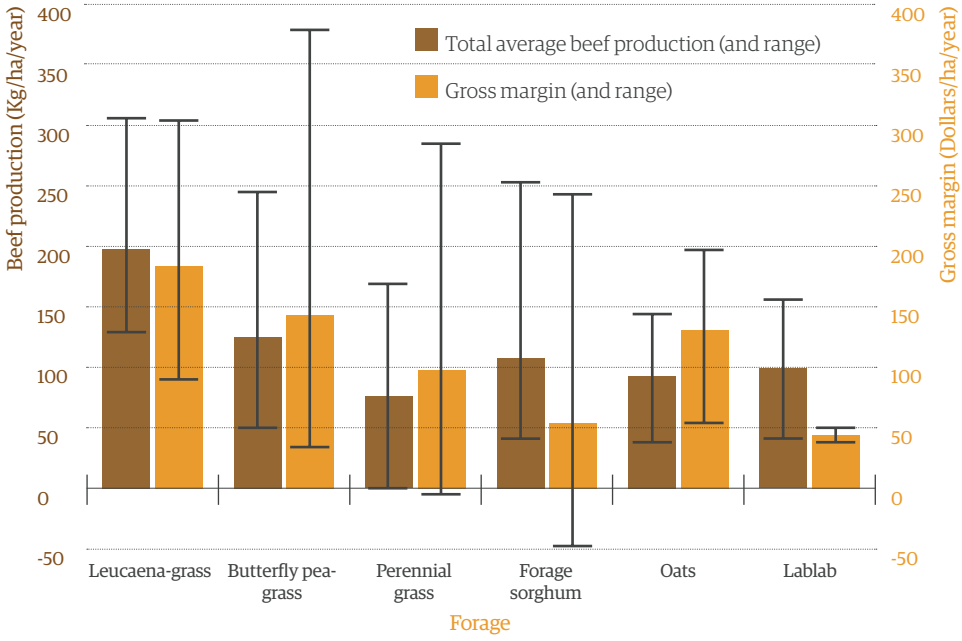
"For producers to make the most out of high-output forages, they should carefully assess the role of sown forages in meeting their production goals and improving overall profitability of their business."

As part of the project, the *Feeding Forages in the Fitzroy* guide was developed to assist producers in deciding if high quality sown forages will help meet their production goals and assess the economics of forages.

This guide contains best practice strategies to establish, manage and graze different forages to target optimal productivity and profitability. It outlines approaches to incorporating high quality forages into feed plans to give the best opportunity to achieve target growth rates and liveweights required to meet market specifications,

It also includes gross margins, based on 2011-2014 data collected from 24 producer co-operator forage sites across the Fitzroy River catchment to provide objective comparisons of various forage options.

Figure 1 **Profitability and productivity of annual and perennial forages in the Fitzroy River catchment**



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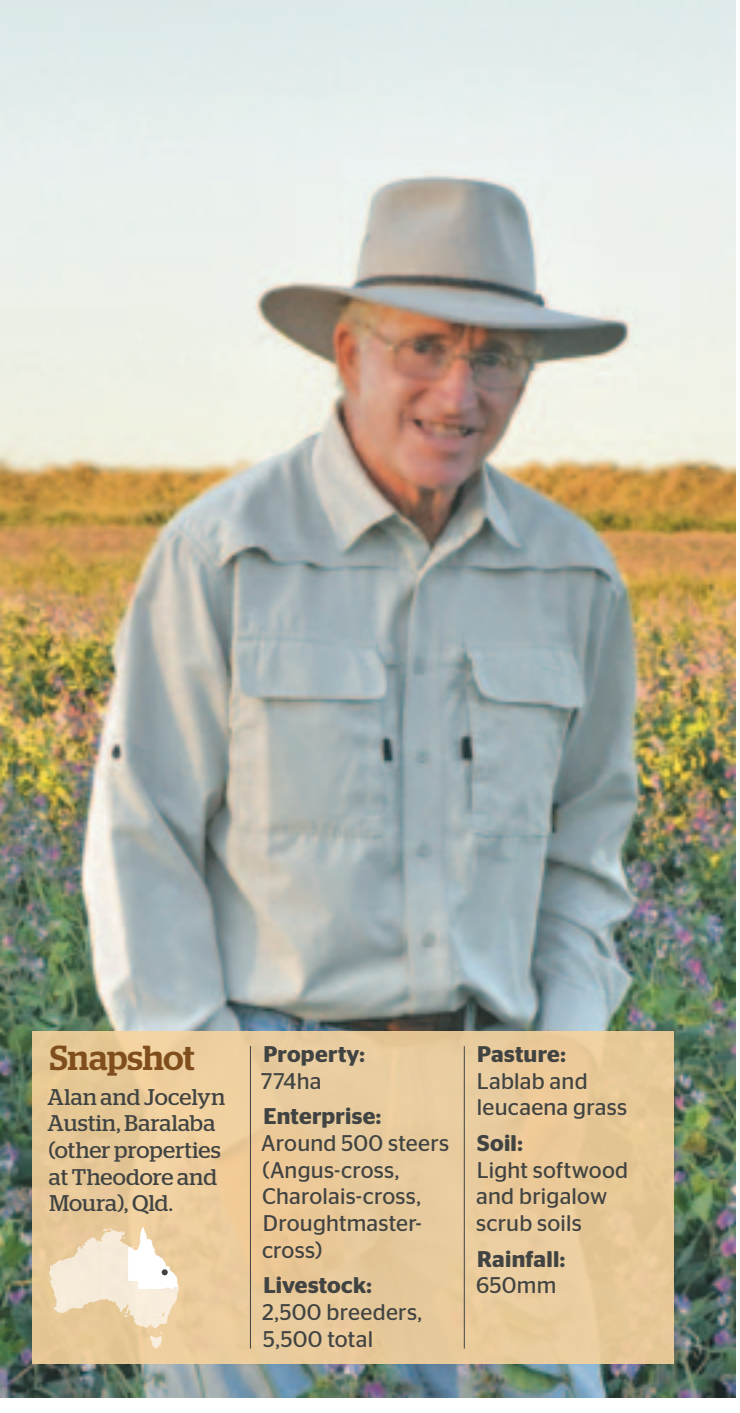
Feeding forages for the long-term

High quality forages play an important role in the Austin family's diverse Central Queensland enterprise. While his brothers Greg and Mike manage cotton and organic cattle enterprises at Baralaba and Theodore, Alan Austin (pictured) and his wife Jocelyn background cattle at 'Nonda', Baralaba, for central and south-east Queensland feedlot markets.



Snapshot

Alan and Jocelyn Austin, Baralaba (other properties at Theodore and Moura), Qld.

Property: 774ha

Enterprise: Around 500 steers (Angus-cross, Charolais-cross, Droughtmaster-cross)

Livestock: 2,500 breeders, 5,500 total

Pasture: Lablab and leucaena grass

Soil: Light softwood and brigalow scrub soils

Rainfall: 650mm

Alan drew on his prior cropping experience to develop cultivation for crops to finish cattle, which has had the added benefit of controlling couch grass.

He plants a cash crop of wheat, has an annual program of lablab and has established 180ha of leucaena-grass pastures.

Alan buys 270-280kg steers from Emerald or Gracemere, and aims to reach an average selling weight of 480kg. Stocking rate can vary, but a recent example of carrying capacity was 112 head of cattle on 60ha of lablab for 100 days.

When he established his leucaena-grass pastures, Alan cultivated the soil up to three times and used Roundup to manage weeds.

He planted the leucaena rows three metres apart (future plantings will be expanded to 5m for more consistent growth) in January. The leucaena and inter-row sabi grass (perennial urochloa) was ready to graze around 15 months later. Alan said cattle achieved good weight gains on this system and ate all the leucaena leaf before consuming the grass.

Ongoing management includes contract chopping leucaena, which is usually only required every two to three years following good summer rain.

Alan rotationally grazes leucaena paddocks through summer and into autumn. He introduces new stock into existing mobs to reduce the need to inoculate cattle with rumen bacteria.

Establishment costs were low, at around $200/ha, thanks to ideal soils for leucaena, previous cultivation and access to planting equipment from within the family partnership.

He believes the lifespan of well-managed leucaena (at least 20 years), combined with its high-protein diet for cattle, make it the best-value forage for his land and production targets.

"We weighed a mob of 270 cattle in late April and, after 44 days grazing leucaena, they averaged 0.8kg/day," Alan said.

"Over summer, the daily weight gains increase up to 1.3kg/head."

Lablab is also an important forage option. Depending on summer rain, Alan plants the summer forage between December and February. He introduces cattle when the green leaf forms around 60% of the total biomass – for optimal diet quality – and grazes the lablab over autumn and winter.

Weight watchers

Alan's lablab was assessed in 2012-13 for a case study as part of Department of Agriculture and Fisheries Queensland's and MLA's High Output Forages project (see story on page 16).

During this period, total beef production off lablab was high (156kg/ha) with daily weight gains (0.98kg/head/day over 111 days) and moderate stocking rates. The high cost of managing the forage ($113/ha), combined with the fact that cattle grew faster than expected and became too heavy for the feedlot market, produced a negative cattle price margin (sale less purchase price) for cattle of $-0.14/kg lwt off the lablab. The resulting gross margin for this crop was $50/ha.

However, Alan believes he would usually make a small profit when cattle hit the intended market.

"As well as providing income from grazing and grain, the lablab is increasing the nutrient levels in the soil," he said.

Alan said a message from the trial was the need to weigh cattle more frequently to assist turning them off at the optimum weight for the target market.

He said participating in the DAF Qld and MLA trials gave him a better insight into the costs of production.

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Forage management

Value adding with forages

Snapshot

Andrew and Amanda Patterson, Rolleston, Qld

Property: 7,363ha

Enterprise: Beef production, cropping

Livestock: 800–900 Brahman-infused breeders, terminal Limousin, Charolais, Charbray sires

Pasture: Open downs, summer and winter forages

Soil: Black cracking clay, heavy clay alluvial

Rainfall: 650–700mm

The ability to finish cattle on forage crops gives Andrew Patterson greater flexibility in his enterprise.

It allows him to target MSA-graded grassfed specifications and, when conditions are right, to run a trading enterprise.

A Department of Agriculture and Fisheries (DAF) Queensland and MLA trial in 2012–2013 gave Andrew an insight into the profitability and productivity of forages.

His stock achieved growth rates of more than 1.5kg/head/day on oats in 2012, following 258mm of in-crop rainfall. A drier year in 2013 (125mm in-crop) still produced good average growth rates of 0.91kg/head/day off oats. Stocking rates, inputs and days grazed varied between years due to seasonal factors. The gross margin was $144/ha for the 2012 oats crop and $177/ha for the 2013 crop.

Forage sorghum had a lower return, but Andrew believes it still has a role.

"Grazing summer forages keeps our cattle going forward and maintains weight gains before they go onto oats in winter," he said.

Andrew is improving MSA compliance through cattle selection, nutrition and turn-off time. Cattle finished on forage oats last year recorded 80% MSA compliance.

Summer and winter forage crops help to finish heifers at 230–270kg and steers at 250–300kg (dressed weights).

Andrew usually divides his 1,500ha of cultivation equally between a winter cash crop (wheat or chickpeas), oats, a summer cash crop (sorghum) and a summer forage (sugar graze and Dolichos/lablab).

However, he is flexible – based on markets and seasons. For example, he took advantage of low cattle prices in 2015 and increased the area of oats to handle an additional 500 head of trade steers and heifers.

Andrew didn't plant summer forages in 2014, due to insufficient soil moisture. He took advantage of local agistment to relieve grazing pressure and, when it rained in January 2015, grew grain sorghum to cover agistment costs.

Andrew sticks to a plan when it comes to managing the forage crops, and his top tip is to be organised.

"We manage our cattle around our crops. We can delay weaning or branding by a couple of weeks, but if you don't spray weeds or plant crops on time it can have a big economic impact down the track," he said.

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High-output forage toolbox

1. Ask the right questions

- Why am I growing forages?
- What forage type/s are suited to my land and soil type and production system?
- What is the expected forage and beef production?
- What is the likelihood of the forage improving the profitability of my cattle enterprise?

2. Crunch the numbers

It is important to consider economic, forage and livestock performance when comparing forage options. An updated forage cost calculator (with new information from producers involved in the project) is available from **www.futurebeefcom.au/knowledge-centre/business-management/beef-business-tools/#hofspreadsheets**

3. Plan ahead

Prepare for this year's plantings with these forage guides:

- *2015 Forage Oats Variety Guide*: **www.daf.qld.gov.au** or call 13 25 23 to receive a copy.
- *Butterfly pea booklet*: **www.futurebeef.com.au/resources/publications**
- *Leucaena: a guide to establishment and management*: **www.mla.com.au/leucaena**

4. Practice best practice

The producer guide, *Feeding Forages in the Fitzroy*, brings together information on agronomy, management, cattle production and economic performance. Download it at: **www.futurebeef.com.au/resources/publications**

Business management

Partner up with Pastoral Profit

The Pastoral Profit program, a joint initiative of MLA and Australian Wool Innovation (AWI), is designed to provide producers in the pastoral zone with leading industry information, resources and advice from technical experts to build on their business skills.

Productivity and good business skills underpin successful pastoral zone livestock enterprises. This was the message from agricultural business consultant Dr Phil Holmes at the webinar launch of the Pastoral Profit program. His advice included:

- → maintaining a 'safe' level of 85% equity in the long term
- → starting succession planning early
- → paying the principals (husband and wife team) at least $140,000/year
- → generating all current operating and capital expenses from working capital.

Phil's recommendations:
Business management is crucial: Too often, business management is overlooked within pastoral operations as the day-to-day running of a property consumes time and resources.

"A lot of people think if they can get it right in the paddock, then the rest will work out, but – in my experience – this is not the case," he said.

Focus on productivity: Phil challenged the long-held premise that high production input costs were the primary contributing factor to poor profitability.

"If you look at the data over the past 50 years, in today's dollars there is no evidence to show farm operating costs have gone up faster than inflation," he said.

"The focus has to be on productivity – making sure the land, labour force and livestock are as productive as possible."

Next steps
The webinar, and a follow-up webinar on how to put programs in place for change, is available from **www.pastoralprofit.com.au**.

How to get involved

Go to **www.pastoralprofit.com.au** to find out about activities in your area. Contact **National Coordinator Pene Keynes** (T: 08 8841 4500 or E: pastoralprofit@ruraldirections.com) or go directly to your state coordinator:

- → **Anne Collins, South Australia Regional Coordinator**
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Performance matters

David Counsell is a veterinarian with postgraduate qualifications in economics and finance. He spent more than 10 years as an agribusiness consultant in livestock systems across Australia and now, with his wife Genevieve, runs a sheep enterprise at Barcaldine.

He draws on his experience for his role on the advisory committee for the new Pastoral Profit program.

"Pastoral producers typically miss out on access to business advisers and services because of our isolation," he said.

David said the program would give producers in the pastoral region an enhanced opportunity to access industry information, resources and technical experts through face-to-face and on-line activities.

"There is wide variation in the financial performance of pastoral businesses, and the need to lift profitability is huge," he said.

Business measurement
The Counsells have made changes in their own business to improve productivity and profitability. Underpinning their approach is a clear focus on measurement, to avoid 'driving blind'.

The Counsells run 10,000 Merino sheep on their 15,000ha family property, 'Dunblane'. While their main focus is wool production, cast-for-age sheep are sold via AuctionsPlus to southern restockers or direct to processors, and they trade cattle when seasonal conditions are favourable.

Highly variable rainfall patterns can make livestock production in the pastoral region a challenge. Due to a run of dry seasons and pressure from wild dogs and kangaroos, David and Genevieve are honing in on core management strategies.

David draws on local producer benchmarking groups to set key performance indicators (KPIs) for their business. These include:

- → **Reducing mortality:** Historically, flock mortality has been more than 6% (the industry average is 4%), but their goal is to get it lower than 2%.

→

Business management

Snapshot

David and Genevieve Counsell, Barcaldine, QLD.

Property: 15,000ha

Enterprise: Wool production and opportunity cattle trading

Livestock: 10,000 sheep

Pasture: Mitchell open downs country

Soil: Grey cracking soils

Rainfall: 452mm median rainfall

- **Lifting lamb marking percentages:** Historically, marking has been 55-60%, but they have their sights set on more than 80%.
- **Improve fleece values:** The Counsells have moved from 22 microns to 18 microns thanks to an artificial insemination program and aggressive selection in the past eight years. They are now focusing on increasing wool cut while maintaining quality.

To achieve these KPIs, David has implemented strategies that balance production and environmental sustainability. He said economic gains also go hand-in-hand with social benefits, as a profitable model which navigates tough seasons will reduce stress.

Predator control

The Counsells are building 50km of feral-proof fencing. David's cost-benefit analysis on the fencing showed a 22-30% return on investment.

Initially, it will provide safe lambing paddocks; in time, fences will be added to give all the sheep protection. Average lamb marking rates have risen from 55% to 75% in the past three years, and David is confident they can reach 80%.

Risk management

David matches stocking rates to long and medium-term carrying capacity, so he doesn't run out of grass but can still take advantage of favourable seasons. He uses spreadsheets based on the Stocktake program for feed budgets and to adjust stocking rates.

In response to the continuing dry, the Counsells have destocked all cattle and half their flock, and are supplementing the remaining sheep with a grain-based ration.

Based on feed budgets, David is tentatively confident they have sufficient grass to last to Christmas.

"Managing total grazing pressure is a really important aspect of grazing management," David said.

"Kangaroos are a big problem so we have to factor this into our management strategies."

Genetic gain

The Counsells have bred their own rams for the past six years and now generate ASBVs to guide selection within their latest crop of young rams.

David targets profitable traits such as fleece value, dry season performance and reproduction to match performance to production goals such as marking rates and drought resilience.

Flexibility and adaptability

The Counsells work on a cost of production (CoP) which ranges from $5.50 -$7.50/kg greasy wool. The low CoP puts the business in the top 20% of local benchmarking groups, but David believes they can always do better.

"We are really working on labour efficiency (with labour saving devices) and genetics (increasing wool cut/DSE) to increase margin.

"Each dry season is different; this time we are preserving at all costs all females and selling the wethers due to higher meat prices. When it rains, sheep will be hard to come by."

His motto is to work differently, not harder, so he is prepared to adjust management as circumstances change. For example, although wool is the main focus, he would be prepared to consider a dual-purpose flock if the sheep meat market remained strong and if mortality can be further curbed.

Technology

David and Genevieve are early adopters and have embraced everything from electric fences and solar pumps to telemetry systems and electronic ID tags to save labour and increase efficiency.

A return-on-investment budget is conducted on all investments above $10,000.

"For example, we have moved from flock-based data recording to an individual animal system," David said.

"All females are electronically tagged to identify their genetic merit. Any high performers in terms of fleece weight and reproduction can then be allocated to the ram breeding nucleus; alternatively, the poor performers are sold, depending on season."

He now has his eye on UAVs (drones) as a potential management tool: "I don't yet know exactly how we will use drones, but a bird's eye view of sheep, watering points and pastures has to be valuable to pastoralists."

Lessons learned

- Benchmarking and external advice are critical to identify and meet KPIs.
- Consider total grazing pressure, not just stocking rates.
- Genetics is a key profit driver and can be continually improved.
- Make incremental changes that are considered and sustainable.
- Embrace new technologies such as data collection and monitoring tools.

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Carbon credits

Welcome to carbon farming

Australian producers are cashing in on land and livestock management strategies that not only store carbon, but can boost productivity.

Volume of abatement by method

* This includes multiple methods under the Emissions Reduction Fund

It's been a long road, but in April 2015 the Clean Energy Regulator conducted the first reverse auction to buy carbon credits from people and businesses reducing their greenhouse gas emissions through approved project activities.

It was the first allocation of the $2.55 billion set aside by the Federal Government for the Emissions Reduction Fund (ERF), which is administered by the Clean Energy Regulator.

The ERF is the centrepiece of the Government's Direct Action Plan. Parliament passed the Carbon Farming Initiative Amendment Bill 2014 last November, paving the way for the Government to buy carbon credits from more sectors of the economy than were covered under the previous Carbon Farming Initiative (CFI). (Previously, the onus was on industry to buy carbon credits from land managers).

MLA, in partnership with the Australian Agricultural Company (AACo), has been working to design methodologies to enable cattle and sheep producers to be rewarded for their efforts in reducing carbon emissions.

Phil Cohn from RAMPCarbon was the project leader for this work. He said land managers who practised dry season savanna burning, protected native forests and had grazing systems that sequestered carbon in the soil were among those who successfully secured contracts with the Government through the first auction.

"The average price paid for carbon credits at this auction was $13.95, and the Government contracted 47 million carbon credits, mostly from land management projects," Phil said.

"This has set a benchmark for producers to continue to be rewarded for reducing emissions."

There are several methods livestock producers can apply to earn Australian Carbon Credit Units (ACCUs). One ACCU is earned for each tonne of carbon dioxide equivalent (tCO2-e) stored or avoided by a project. The approved methods are:

Early dry season savanna burning
→ Reduce emissions released by large-scale wildfires through the use of strategic early dry season fire management across the savannas in the tropical north of Australia (above 1,000mm average annual rainfall). (see case study on page 22)

Feeding nitrates to beef cattle
→ Reduce greenhouse gas emissions from pasture-fed cattle by substituting urea supplements with a nitrate supplement in the form of lick blocks.

Native forest protection (avoided deforestation)
→ Remove carbon dioxide from the atmosphere by sequestering carbon in trees in native forests, and avoid emissions of greenhouse gases attributable to the clearing or clear-felling of a native forest (see case study on page 24).

Sequestering carbon in soil in grazing systems
→ Store carbon in soils by introducing activities that increase inputs of carbon to the soil and/or reduce loss of carbon from the soil, such as converting cropland to permanent pasture, rejuvenating pastures or changing grazing patterns.

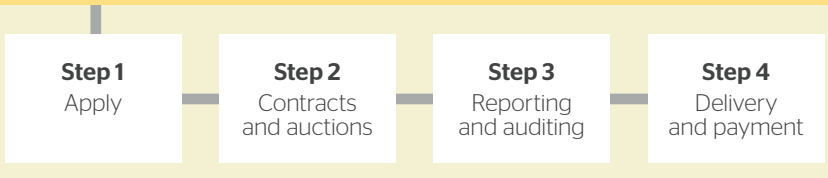
Permanent environmental plantings of native trees
→ Establish permanent plantings of native trees to sequester carbon dioxide from the atmosphere and store it in the tree biomass and debris. Benefits could include increased biodiversity, alleviated dryland salinity and reduced wind and/or water erosion.

Another methodology for cattle producers is on the horizon. If approved, producers could earn ACCUs for reducing emissions intensity in their herd through strategies that result in turning cattle off earlier and increasing calving rates.

"This will see producers rewarded financially on top of the productivity gains they can make by farming more efficiently," Phil said.

He said programs such as Farm300, managed by MLA, provide producers with information and support to implement projects to reduce emissions intensity and increase enterprise productivity and profitability.

Four steps to the Emissions Reduction Fund



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Farm300: **www.mla.com.au/farm300**

Carbon credits

The burning issue of carbon credits

Top End cattle producers are generating income from the carbon market by changing the time they burn savanna.

The Indigenous Land Corporation (ILC) is one land manager firing up for economic, environmental, social and cultural gains.

ILC's agricultural operations (managed by its subsidiary, the National Indigenous Pastoral Enterprise) cover six million hectares in 13 properties in Western Australia, the Northern Territory and far north Queensland, running 100,000 cattle.

In 2012, ILC's 'Fish River' property, in the Northern Territory, became the site of the first controlled early dry season savanna burning project to be approved under the Carbon Farming Initiative (CFI) to produce Australian carbon credit units. The first three years of the project produced more than 40,000 credits, which were sold to Caltex Australia for more than $800,000.

Since then, a savanna burning project has also been established on 'Merepah Station', an ILC-run 186,00ha pastoral property on Cape York with 9,500 cattle. This project generated 32,826 carbon credits in 2013 and 2014, which were sold under the Carbon Pricing Mechanism.

How it works

Australia has more than 1.5 million square kilometres of savanna, consisting mainly of annual and perennial grasses and predominately eucalypt trees. Land managers use a combination of land and aerial techniques to burn savanna during the dry season to decrease fuel loads and regenerate vegetation.

Through the Emissions Reduction Fund (ERF), (which replaced the Carbon Pricing Mechanism), strategic savanna burning methods can be used to reduce methane and nitrous oxide released by fire.

The method requires an increase in the proportion of early season burning in areas with more than 600mm long-term average annual rainfall (as defined in the rainfall zone maps) and with specific vegetation fuel types.

Fires from August to December (the traditional time for savanna burning) tend to burn hot and quick, consuming trees as well as the grass understory of the savanna, while fires earlier in the year are cooler and are usually contained to the grass.

Early dry season fires can also extinguish overnight under dewy conditions, whereas low humidity and dry fuel loads later in the year mean fires can burn longer and engulf large areas.

ILC Senior Policy and Environment Advisor Nerissa Walton said approved savanna burning projects presented more than an opportunity to earn carbon credits.

"The savanna methodology blends western science and traditional practices. The ability for Indigenous people to undertake a traditional practice such as savanna burning to reconnect with country is culturally significant," she said.

"Planned burning early in the dry season reduces the occurrence and extent of late season wildfires which could risk sensitive environmental zones and cultural sites."

The projects also have social benefits, as all revenue from the sale of credits is being reinvested in managing the properties and supporting Indigenous jobs and training.

Before you start

Nerissa said carbon farming was a complex process that carried up-front costs before income flows.

She said factors to consider when changing the timing of burning included considering whether productivity could be affected by woody thickening and being mindful that any fire used to manage pasture in the dry season would affect the carbon credits generated that year.

"ILC has built capacity to understand and apply the methodology, but we still require assistance from experts to undertake aspects of these projects, such as validating vegetation maps and auditing," she said.

The ERF reporting process requires details to validate carbon abatement. ILC uses online tools such as the Northern Australian Fire Information service – which maps burnt areas – and the Savanna Burning Abatement Tool, which calculates the emissions abatement achieved by the project.

Carbon market

Carbon credits can be issued under the methodology when early dry season burning in the project year is greater than the average early dry season burn during the baseline period and increases the proportion of the area burnt in the early dry season. (In the above 1,000mm average annual rainfall zone, the baseline is the 10 years prior to the project start date.)

Although ILC savanna burning projects were not successful in the first reverse auction conducted by the Clean Energy Regulator (CER) in April 2015, 'Fish River' and 'Merepah' Fire Projects continue to earn credits through the CER. ILC can choose to bank these, offer them in future auctions or sell them on the secondary or voluntary carbon markets.

"Savanna burning activities are an annual cost and, by using methodology in the way it was intended – with a high level involvement of traditional owners – the ILC will find it difficult to compete with other projects in the ERF auctions," Nerissa said.

"The ILC is exploring opportunities in the voluntary carbon market to sell credits to people who value the unique benefits delivered through these projects, such as greater biodiversity and jobs for Indigenous people on country.

The ILC is exploring other potential carbon farming activities, which could include developing projects under the whole herd management methodology or soil carbon methodology.

Careful consideration

Industry consultant Phil Cohn, from RAMP Carbon, said for smaller landholders considering using the savanna burning methodology there were several factors to weigh up.

"As ILC's projects demonstrate, in order to earn sufficient ACCUs to make the project feasible, considerable land areas (tens of thousands of hectares) need to be subject to regular late season wildfires," he said.

"To overcome these scale issues, northern landholders may consider teaming up with neighbouring properties. This makes good sense for fire management across the landscape, as well as overcoming some of the barriers faced by small projects wishing to participate in the ERF."

Lessons learned

The ILC learned the following lessons through the 'Merepah' and 'Fish River' Fire Projects:

- Carbon farming presents a significant opportunity for diversification where other economic development opportunities are limited.
- Cattle and carbon businesses can operate successfully together.
- Small projects can work, but navigating the ERF takes time.
- Source good advice to understand the carbon market and ensure all required statutory permits (e.g. permits to burn) are in place.
- Be conservative when assessing project viability and estimating CO_2-e abatement potential, as savanna burning projects are subject to annual variation.
- Regularly update business plans to reflect market and methodology changes.
- Ensure record keeping is of a high standard, as the audit is exceptionally thorough.

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Tools

- Northern Australian Fire Information, which maps fire: **www.firenorth.org.au/nafi3/**
- Savanna Burning Abatement Tool (SavBAT), which calculates how much carbon is abated: **http://savbat2.net.au/#/welcome**
- Savanna burning method: **www.environment.gov.au/climate-change/emissions-reduction-fund/methods/savanna-burning**

Carbon credits

Tree farming pays at Bulgoo

Snapshot

Peter and Beverly Yench, Cobar, NSW.

Property: 21,000ha

Enterprise: Prime lambs and opportunity cropping

Livestock: 3,000–4,000 Dorpers, turn off prime lambs around 22kg dressed weight

Pasture: Native scrub, mulga and wilga

Soil: Light sandy soils

Rainfall: 300–355mm

Sheep producer Peter Yench is earning carbon credits for his avoided deforestation project in Cobar, NSW. Image supplied by GreenCollar.

Western NSW lamb producer Peter Yench has done it all. The returned serviceman has been a drover, shearer, grazier and motel manager.

Now he can add 'carbon farmer' to the list, with his commitment to keep almost 7,000ha of forest on his Cobar property standing for 100 years.

Peter and his wife Beverly 'retired' eight years ago to 'Bulgoo Station', 40km south of Cobar.

Looking back, Peter said the property was a '21,000ha paddock' when they took it over, but today it is a different story. He has erected 70km of hinge joint fencing, progressively segmenting the property into 20 paddocks to improve pasture utilisation through rotational grazing.

He has also developed water access across 4,800ha, to open up grazing land and promote biodiversity.

Peter applied for a Property Vegetation Plan (PVP) from the NSW Government in 2009 to manage native vegetation. He chained, raked and burned woody vegetation to clean up 3,600ha of cultivation (used for opportunity cropping when there is sufficient soil moisture to plant oats and wheat).

Farming carbon

The decision to not clear all the forest was initiated by Beverley and Peter's daughter Fiona, who was studying environmental science at university.

"She told us we should look for ways to store carbon, because one day we would be able to sell it," Peter recalled.

"It turned out to be good advice."

In 2012, the Yenchs attended a carbon farming information day hosted by the local Catchment Management Authority. There, they met climate consultant Lewis Tyndall, of GreenCollar, who was investigating opportunities to develop Native Forest Protection projects under the Carbon Farming Initiative (CFI).

The Yenchs qualified to apply for Australian Carbon Credits (ACCUs) through the CFI's 'avoided deforestation' methodology, partly because they held a pre-1 July 2010 PVP. Land that would not have been cleared under the PVP or did not meet a standard definition of forest was excluded.

GreenCollar did the technical, legal and development 'grunt' work. They surveyed hundreds of plots to map the type, size and density of the forest, measured how much carbon is stored in the trees and calculated how many ACCUs could be claimed.

The avoided deforestation project was initially set up to credit Peter (as landholder) with ACCUs for 20 years, as part of a longer 100-year commitment to protect the station. Beverly and Peter received two annual payments through the CFI before it was integrated with the Emissions Reduction Fund in December 2014.

In April this year, they joined 40 other producers who secured 10-year funding for the carbon they hold in their trees and soil, in the first auction of the Emissions Reduction Fund. They collectively

Native forest protection (avoided deforestation)

- Applies to a native forest that has the potential to be cleared for conversion into cropland or pastures.
- Abatement is achieved by not clearing the native forest and avoiding the emissions that clearing would have produced.
- Removes carbon dioxide from the atmosphere by sequestering carbon in trees in one or more native forests.
- Additional abatement may be achieved by managing the native forest in a way that enhances carbon stocks.

www.cleanenergyregulator.gov.au

manage about 250,000ha of forest, which stores around 20 million tonnes of carbon.

While he is understandably coy about the total value of the project, Peter said about one million tonnes of carbon is stored in his 7,000ha avoided deforestation project.

GreenCollar estimates 20 million tonnes of carbon dioxide emissions have been saved and contracted for, generating significant income for farms in the western division.

Peter is investing this alternative revenue stream back into 'Bulgoo', with a business plan that includes spreading water and fencing more paddocks to increase pasture utilisation and improve biodiversity. He also bought a neighbouring 32,300ha property last year to expand the business.

Peter stressed the land is not locked up at 'Bulgoo', as he can still graze the native forest. He does have to maintain firebreaks and fences and control feral animals – activities he was already undertaking.

The Yenchs are conscious of the realities of farming in the marginal western division, where tough seasons, historic over-stocking, run-down infrastructure and encroachment of woody vegetation has reduced productivity and stymied investment on many properties.

"We love the land, and this is an opportunity to put something back into our property. Developing water and fences allows us to drought-proof 'Bulgoo'," Peter said.

"I believe that by the end of the 20 years, we will lift the carrying capacity of this property from 3,000–4,000 head to 6,000–7,000 head by improving waters and increasing biodiversity."

Peter also has a personal motivation for building up biodiversity and storing carbon.

"I have four beaut grandchildren, aged nine years to 10 months – I can already see even the youngest one, Drew, being a future landholder in the western districts," he said with a chuckle.

"I think about their future. I don't want them to have to wear face masks in 50 years because of higher greenhouse gas emissions."

Peter now has his eye on other activities to claim carbon credits, such as managing regenerated forests, soil carbon (approved methodologies) and using biochar.

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Genetics

BACK TO BASICS:
Buying better bulls

There are many ways to improve beef herd productivity and profitability, and one of the most obvious is to select better bulls.

North Coast Local Land Services senior livestock officer Nathan Jennings (pictured) talked on the topic of buying better bulls at an MLA-sponsored Casino Beef Week information day earlier this year.

Nathan said the four areas to consider when buying bulls were reproductive fitness; temperament and structural soundness; conformation and muscling; and estimated breeding values (EBVs).

"Other people may change the order of importance of these factors, but this is the order I like to consider them in," he said.

See over for Nathan's top tips for buying better bulls .

Genetics

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1. Reproductive fitness

The bull has to be reproductively sound so he can produce an adequate quantity of good quality semen and also have the willingness to serve cows.

A good way to ensure this is through a Bull Breeding Soundness Evaluation (BBSE). This is not a genetic evaluation, but is a physical assessment of the bull's reproductive performance. A lot of sale catalogues present their bulls as 'vet checked'. Clarify what 'vet checked' means, i.e. does it just mean their health status is okay, or does it mean both their health status and reproductive fitness have been assessed?

2. Temperament and structural soundness

The bull has to be of good temperament and structurally sound. Temperament is a no-brainer – if a bull is of poor temperament he will be a problem on-farm and it's likely his progeny will follow in his footsteps.

A bull must be structurally sound because, as he gets older, he needs to remain fit enough to walk and trot across distances and not become sore, which may prevent him from wanting to serve cows.

As most producers know, the most important structural areas to be aware of are around the hind legs. Look out for post legs, or straight legs, as that exposes a bull to hock problems and arthritis in the hip and stifle joints as he gets older. A sickle hock bull also tends to be a little clumsy when mounting or dismounting from a cow, especially as they get older and heavier. Swollen hocks indicate leg problems. Excessive grain feeding or injuries from fighting can be a cause of swollen hocks.

Producers also need to be mindful of any extremes in shoulder thickness, which may lead to calving difficulties. In *Bos indicus* bulls the length of the sheath is important – bulls with extremely long sheaths have a higher chance of injury to the prepuce, which can result in them being unable to serve cows.

3. Conformation and muscling

A bull should be well-muscled, which helps ensure their progeny will have adequate muscling as well. Better-muscled cattle have heavier carcase weights and tend to have higher dressing percentages, meat yield will often be higher and there tends to be a more even fat distribution over the carcase.

Obviously, muscling needs to be balanced with a farm's environmental conditions; however, Beef CRC research showed that in British-bred cattle, increasing the muscle score of a cow from D to C had no adverse effects on her reproductive performance, even in times of nutritional stress.

4. Estimated breeding values (EBVs)

Any new bulls you're looking to buy should have superior genetics to bulls you've purchased in the past. EBVs are the best tool available to help provide that genetic benchmark and, therefore, genetic improvement.

Many experienced cattle producers feel they are capable of visually selecting a good quality bull but – when it comes down to choosing between two bulls with similar age, weight, muscle and fat scores, and both have passed their BBSE – EBVs can show which bull is more suitable for your enterprise. They also provide information on things that can't be seen, such as marble score or the fertility of his daughters. EBVs allow you to determine how much bulls are genetically different for particular traits.

Genetics are cumulative and permanent. I like to use the example of a bull in a self-replacing herd. Imagine you're going to buy a new bull in 2015 and the bull goes out and joins the current cow herd this year. You select the best of his heifers born in 2016 to become replacement breeders. For these heifers' calves, 50% of their genetics come from the bull and 50% from their mothers. In 10 years' time, when those heifer calves are mature breeders in your herd, 25% of the genetics of their calves will still be influenced by that original bull you bought back in 2015. When you consider that a bull in a self-replacing herd will influence the genetics of the herd for a long time to come, isn't it better to have that extra information when making your choice?

Of course, I'm not saying bulls should be bought entirely on their genetics or EBVs, but it's a very good tool to help increase confidence around visual selection decisions and to keep a measure of the genetics coming into the herd.

Finally...

When using EBVs for genetic improvement, there are three criteria that need to be applied:

→ The trait has to be of economic importance to the producer.

→ The producer has to be able to measure the trait in the progeny.

→ There has to be variation in the trait, so you can expect to make some gain.

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Read the More Beef from Pastures module on cattle genetics: **www.mla.com.au/mbfp/Cattle-genetics/3-Buy-the-right-bulls**

Snapshot

Russell and Donna Lethbridge, 'Werrington', Townsville; 'Rainmore', Alpha, Qld.

Property: 'Werrington' – 20,000ha; 'Rainmore' – 27,000ha

Enterprise: Brahman steers for the Japanese feeder market; heifers for the domestic feeder market

Livestock: 'Werrington' – 3,000 AE (adult equivalent); 'Rainmore' – 4,500 AE; up to 10,000 depending on agistment availability

Pasture: 'Werrington' – natives, stylos, open forest; 'Rainmore' – buffel, stylos, natives

Soil: 'Werrington' – light alluvial to heavy clay, light granite; 'Rainmore' – heavy brigalow, scrub red loamy soil, lighter eucalypt country

Rainfall: 'Werrington' – 700mm; 'Rainmore' – 525mm

Reproduction tops the genetic shopping list

Russell Lethbridge and his son, Clayton, mustering breeders at 'Werrington'.

When Queensland producer Russell Lethbridge talks breeding objectives, he is absolutely clear about what he wants.

With knowledge fashioned from hard experience and an open mind, Russell has embraced genetics to create a highly fertile, early maturing Brahman herd whose progeny appeal to a broad range of markets.

And his approach is surprisingly simple – select for reproduction and the rest will follow.

"I breed to produce a marketable animal, one that is fleshy and early maturing, will put muscle on bones at any time after 12 months and will lay down fat before it's three years old," Russell said.

To achieve this he places selection pressure on his females, only buys bulls with BREEDPLAN breeding values for 'Days to Calving' and whose dams are proven reproductive performers.

"The reliability of the mother is very important. If she's had nine calves in 10 years, it's her genetics I want," Russell said.

"When selecting bulls, I think too many people are obsessed with growth traits and don't pay enough attention to fertility indicators such as moderate frame size, Days to Calving, calving ease and scrotal circumference.

"Our most progressive move was finding a seedstock producer who had the same commercial trait objectives as us - clearly, making the demands on our females was only improving us so far."

No room for freeloaders

All females are pregnancy tested each year after a four-month, controlled mating period and all empties are sold.

Heifers, on the other hand, face their biggest fertility challenge first up – a 10-week joining. However, most don't disappoint. This year 92.5% conceived, compared to 40–50% 15 years ago.

"Where it really pays off is with the first calvers," Russell said.

"This year we had 75% re-join successfully on no rain and in very challenging conditions."

This approach means the entire herd of about 3,000 breeders is young, with about a third of the annual calf drop out of maiden heifers.

However, recent benchmarking has shown these young heifers hold their own, with the herd operating at 20% above the district average for reproduction efficiency.

While Russell doesn't chase growth traits when buying bulls but has found, during the past 20 years, that selection for reproduction capacity has made his cows heavier (220–240kg carcase weight).

He believes improved female reproduction also translates to improved adaption to the environment with their breeder mortality rate at less than 2%.

Bull temperament is also a major consideration with Russell and Donna's three children, Clayton, 23, Kate, 22, and Georgia, 20, all involved in the day-to-day running of the business.

However, for the Lethbridge family, genetics is only part of the equation for success, with the rest being good management.

→

Genetics

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In the paddock

Intensive phosphorus supplementation during the wet, annual vibrio vaccinations for bulls and maintaining adequate pasture protein for growing cattle, all contribute to the herd's profitability.

The location of the Lethbridge's two properties also means their enterprise is spoilt for choice for market destinations.

About 65% of the steers (averaging 480kg) are sold to the 100-day Japanese feeder market, while the remainder are grain-fed for slaughter as milk and two-teeth with some grading MSA. Cull heifers head to feedlots for the supermarket trade while cull cows end up as US ground beef.

"We have been using hormone growth promotants (HGPs) as they reduce our turn-off times by 60 days, which allows us to rest pastures and that is really valuable to us," Russell said.

"But there is a 5¢/kg penalty on HGPs and some markets are closed to us."

Keen to spread their risk, the Lethbridge family plans to gain Pasturefed Cattle Assurance System (PCAS) accreditation for 'Rainmore'.

"We'll take one step at a time," Russell said.

"We've used Rumensin (an antibiotic excluded under PCAS) for years during weaning to prevent coccidiosis so we will progress this slowly to ensure any premiums aren't outweighed by extra cost or poor animal welfare outcomes."

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BREEDPLAN **http://breedplan.une.edu.au**

Taking breeding technology to the breeders

Funding for Tropical Beef Technology Services (TBTS), a breeding technology resource unit that bridges the gap between scientists and producers, has been extended until December 2015.

For the past four years, this quiet achiever has helped members of the eight participating tropical breed societies to understand and use genetic improvement tools (such as BREEDPLAN) and shared important Beef CRC outcomes (in particular information on fertility traits and how to apply DNA technology to accelerate the rate of genetic gain).

TBTS technical consultant Paul Williams said TBTS played a vital extension role in northern Australia.

"We have shown significant progress during the past four years and now that the industry has these new fertility tools, TBTS will play a critical role in driving these innovations in northern Australia," he said.

Here are some of TBTS's achievements:

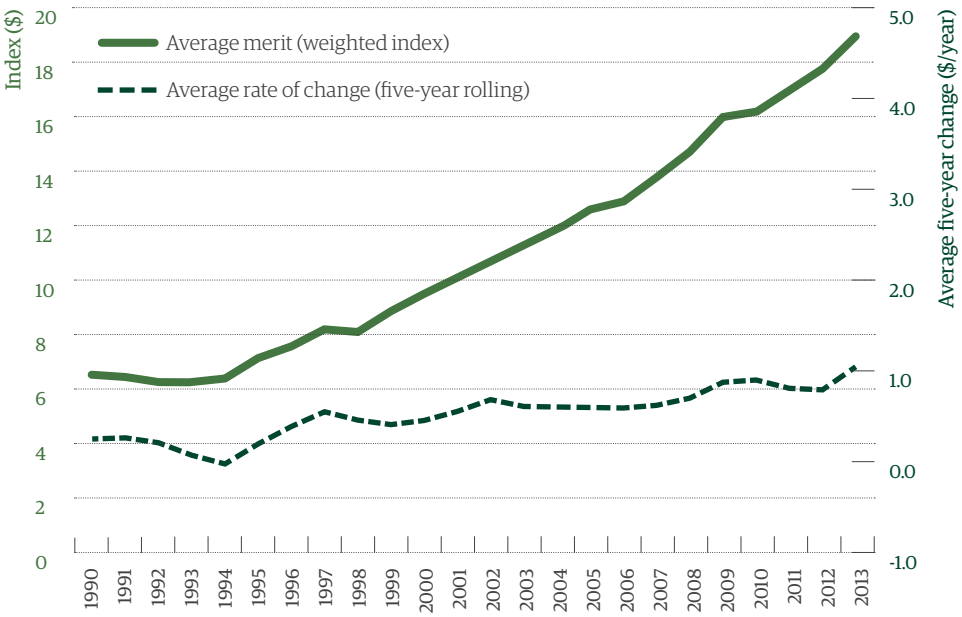
Driving genetic gain

Paul said the service, funded by the MLA Donor Company (which does not use producer levies), had improved the economic competitiveness of tropical breeds by continuing to lift their rate of genetic gain.

"Since 2009-10, the rate of genetic progress has increased from $0.28 per cow mated per calving year to $1.23 for 2012-13," he said.

"That's an increase in value of $3.04 per cow mated over that period. This gives producers a genuine opportunity to improve their herd's profitability."

Figure 1 **The overall genetic change in the northern seedstock industry over the period of the TBTS project has increased from $0.28/year in 2009–10 to $1.23/year in 2013–14**



Source: TBTS

Better BREEDPLAN

TBTS has been hard at work on the ground, recording an additional 20,000 female fertility records that have been analysed for BREEDPLAN and helped produce the 'Days to Calving' Estimated Breeding Value.

The service has helped producers understand the ramifications of having a genomic test to predict fertility, a key outcome of the Beef CRC, and how that science can be applied to improve beef-breeding businesses' productivity and profitability.

"We can now pull hair and predict how fertile the daughters of a sire will be in the Brahman breed, with the big payoff being the boost to fertility across a commercial herd which has roll-on benefits to the whole production system," Paul said.

"If producers can lift their calving rates 10% by improving fertility, the extra is pure profit."

Understanding genomics

Scientific language can be daunting, but TBTS has played an extension role in translating genomic discoveries into 'news you can use'.

This includes the polled gene marker test and the introduction of genomics being incorporated into Brahman BREEDPLAN for 'Days to Calving' and '200-day weight'.

Improving indexes

Since 2011, TBTS has helped develop new BreedObject selection indexes such as the Brangus, Droughtmaster and Brahman Live Export indexes as well as improved existing indexes for Brahman, Santa Gertrudis, Belmont Red and Brangus.

Paul said these achievements helped northern producers to better match their genetic investments to their target markets.

Next steps

For producers wanting to learn more about BREEDPLAN, including how to record and understand traits, what strategies are available to improve fertility and understanding genomics, TBTS has a suite of resources on its web site.

These include articles on Beef CRC research findings for both male and female fertility and webinars on the Beef CRC's research outcomes for the genetics of reproduction, and understanding and recording female information for fertility traits.

Paul Williams // T: 0427 018 982
E: paul@tbts.une.edu.au

Visit the TBTS website at **tbts.une.edu.au**

The day began with guests networking and admiring the Aussie product...

...followed by presenters and discussions.

Selling grassfed to the States

Natural, 'free-from' and grassfed are emerging as the latest at the top of the list of must-have protein attributes for US beef consumers. It's a trend that is set to continue and US foodservice operators are keen to ensure they meet the responsibly sourced food needs of discerning diners. It applies as much to the multi-million dollar chains as it does a local foodtruck.

Sourcing responsibly raised proteins in volume for these massive foodservice accounts is an issue MLA is weighing in on.

As part of a broader strategy to build awareness of the 'True Aussie' brand including the opportunity for sourcing high quality chilled grassfed beef and lamb from Australia in volume, MLA in North America delivered a 'Raise the Steaks' culinary immersion in Chicago recently.

"We hosted 18 culinary directors from some of the largest foodservice brands in the US who spent the day learning, eating and cooking with Australian grassfed beef and lamb," MLA's US Business Development Manager - Foodservice Catherine Golding said.

"It is these direct hands-on experiences, educational and networking opportunities that open up the conversation about complementary and sustainable protein alternatives from Australia in this beef hungry market."

Collectively the attendees represented nearly $50 billion in annual foodservice sales across 5,200 restaurants in the US.

Suppliers of Australian beef and lamb who supported the event with product and displays were Teys-Cargill, JBS Imports, Arcadian Organic and Natural Meat Co, Strauss, Thomas Foods International, Broadleaf, Cape Grim and The Lamb Co-operative.

- → The US became the number one export destination for Australian beef in 2014, taking 397,000 tonnes
- → Of this, about 70% was frozen manufacturing product and the remainder mostly high quality chilled grassfed beef
- → Chilled grassfed beef has grown substantially in the past 15 years and doubled in shipped volume in the past year
- → The top five cuts of beef Australia exports to the US are: inside, thin flank, outside, knuckle, shin/shank
- → The US is Australia's largest and most valuable lamb export market

With a focus on the quality of Australian product and why it is a good choice for US operators, Catherine shared the True Aussie story highlighting Australia's credentials for supply chain efficiency and transparency, quality control, sustainability and animal welfare.

As part of MLA's education of industry on how to make the most of grassfed beef and pasture raised lamb, it regularly communicates recipes, menu concepts and tips, such as these.

Chef Adam Moore's top five grassfed beef cooking tips

- → Do not overcook your grassfed beef – aim for medium rare for best results.
- → Grassfed meat requires less cooking time due to its high protein and low fat content. 30% less cooking time is a good rule of thumb.
- → Do not over-handle ground (minced) meat- use high searing temperatures and only flip once to reduce losing those juices in ground product.
- → Allow meat to rest before cutting- 5-10 minutes will allow the meat to relax and absorb additional juices that you would lose cutting the meat too soon.
- → Bring your grassfed beef up to room temperature before cooking. This allows for a well seared exterior and warmed interior without having to use excessive time to cook (and dry out the meat).

Chef Gerard Bertholon from Cusine Solutions demonstrates sous-vide while chefs take 'notes' and taste test.

Chef Tarek and local chef Keith Brunell.

Chef Tarek shows how to break down a lamb carcase.

"The core fundamentals of how the Australian industry produces its beef and lamb match well into the growing concerns of US diners about whether what they are eating is good for them, good for the planet and good for the welfare of the animals that produce it," Catherine said.

Editor-in-chief of the *Flavour & The Menu* magazine, Cathy Nash Holley (see profile on page 32), spoke on food trends where 'feel good cuisine', as well as alternative proteins such as grassfed beef and lamb used in a familiar US style dish featured heavily in the discussion.

Attendees learned the ins and outs of sous-vide (a method of cooking where food is sealed in a bag and is placed in a water bath) with a demonstration from Cuisine Solutions, showing the technique for further capturing quality and tenderness even more consistently in meat.

MLA's Master Chef Tarek Ibrahim travelled to Chicago to partner with local chef and recipe developer Keith Brunell, formerly of *Maggiano's Little Italy*, to give a whole carcase butchery and culinary demonstration.

Keith created:

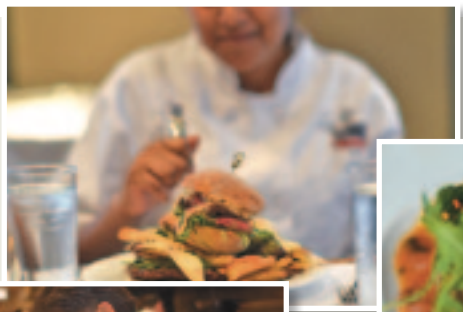
- → Lamb shoulder chop – 24 hour sous-vide, grilled and glazed – osso bucco style with creamy polenta and parmesan reggiano
- → Leg of lamb or lamb sirloin – for spiedini or for a grilled roast with farro, roasted grapes, salsa verde and honey gastrique
- → Beef chuck flap – for braciole with caramelized onion, fontina cheese and truffle
- → Sirloin cap steak Milanese – pounded super thin, breaded pan sautéed schnitzel style with a picatta of preserved lemon, capers, parsley and shallots

Operators also got hands-on participating in a basket challenge, developing their own dishes using a range of grassfed beef and lamb cuts.

"Building an understanding of how the Australian industry produces its beef and lamb, particularly how it manages its natural resources and cares for its animals and communities is a story that is increasingly capturing the attention of the US foodservice industry looking for ethically sourced food options," Catherine said.

Catherine Golding, MLA
E: cgolding@mla.com.au

Chefs try their own recipes with grassfed Aussie beef and lamb.



In profile | Food trends

Cathy Nash Holley // *Food forecaster*

Cathy Nash Holley is the publisher and editor-in-chief of the US foodservice industry magazine, *Flavor & The Menu*. The magazine brings to life food trends and fleshes out how the foodservice industry can make the most of the latest fashions in food.

At the recent MLA 'Raise the Steaks' immersion event (see previous page), Cathy moderated a 'Trends Round Table'. Here she shares with *Feedback* her thoughts on where grassfed beef and pasturefed lamb fit into the current trends.

What US market trends can grassfed beef and pasturefed lamb align themselves with? Grassfed beef and lamb definitely fit with many US food trends. Chefs and consumers are paying more attention to the source of their food, and those products that have a "halo of healthfulness and sustainability" put foodservice and retail markets at an advantage - or at least a point of differentiation – and that puts consumers at ease.

Chefs are learning to feature grassfed products in more flavorful ways, bettering its perception. As well, thanks in part to new ways of eating (for example Paleo diets), educated food consumers realise the nutritional benefits of grassfed beef and lamb.

What advantage does Australian beef and lamb offer over local products? Grassfed beef and lamb resonate with those consumers seeking authenticity, and an inherent link to the source, which is very important today. They offer operators a point of distinction and bring with them a commitment to sustainability and mindfulness of animal welfare.

Do consumers want to know the whole production story? More consumers are becoming interested in knowing more about where their food comes from. These more educated or interested consumers are interested in a couple key issues within food production: primarily, the treatment of animals and how they're raised (organic, grassfed, etc.) and whether or not that is beneficial to the consumer, both in terms of nutrition and their value systems. Sustainability is secondary, but becoming more important.

Five hot trends in food now?

- **Goodbye vegetarian, hello veg-centric.** Making the vegetables the star of the dish, with the protein to enhance it.
- **Global sandwiches:** From the *banh mi* to the *torta* to the *piada*, protein-based sandwiches provide a comforting platform for global flavours.
- **Modern brunch:** Brunch menus are seeing a makeover, introducing new, savoury dishes to a younger demographic of brunch diners.
- **Bowls:** The ultimate comfort meal, 'bowl builds' are based on a grain or bean base with toppings of produce and protein plus textural and flavour punches.
- **Snacks and bar bites:** The continued small-plate movement has taken over American menus, with every concept offering a menu of small, shareable and craveable bites like fritters, meatballs and scrumpets (a cross between a scone and a crumpet).

Find out more trends at **www.GetFlavor.com**

Domestic marketing

Everything's better on beef

With consumers listing price and nutrition as the main reasons they are eating less beef, MLA's marketing team has changed its direction with the aim of addressing the decline in per capita consumption.

Left: Dinner 3 Ways host Hayden Quinn pictured with racing royalty Kate Waterhouse.

Andrew Howie, MLA's Marketing Manager Consumer Programs said to win back share from chicken and other proteins we need to give Australians permission to eat more beef.

"We have set out to do that by reminding them of beef's superior nutritional make-up," he said.

In March, the You're Better on Beef campaign was launched, underpinned by the message that consumers will feel better when powered by nutrient rich beef.

It was targeted at mums, and surveys during and following the campaign found that as a result of seeing the campaign 54% of the target audience felt they were "more likely to eat beef" versus the benchmark of 42%.

"Over time, we expect this result to translate into an increase in per capita beef consumption," Andrew said.

Although only a small sample period, results would show this to be the case, with an increase in per week consumption amongst the target audience (mums) to 1.72 serves, up 0.17.

"These are the results from the first four months of a two year campaign and we expect, with further development of the "You're Better on Beef" message, for these figures to remain positive," Andrew said.

What's next?

A new video series, *Dinner 3 Ways*, has been launched by MLA.

Hosted by Australian cook, Hayden Quinn, *Dinner 3 Ways* works to create healthy beef and lamb meals in partnership with six well known Australians, each of whom represent specific target audiences for MLA.

Across 18 episodes, Hayden and his guests will take six key cuts of beef and lamb and bring audiences three exciting recipes for each, designed to ignite inspiration in the kitchen whilst also guiding audiences with cooking tips and solutions.

Featured in the new series is Australian media icon Ita Buttrose, food personality Adam Liaw, Olympic superstar Eamon Sullivan, racing royalty Kate Waterhouse, comedian Em Rusciano and social media sensation Caitlyn Paterson.

"Our objective is to break down barriers to consumption, ensuring beef and lamb meals are viewed well in regards to taste, value, nutrition and versatility," Andrew said.

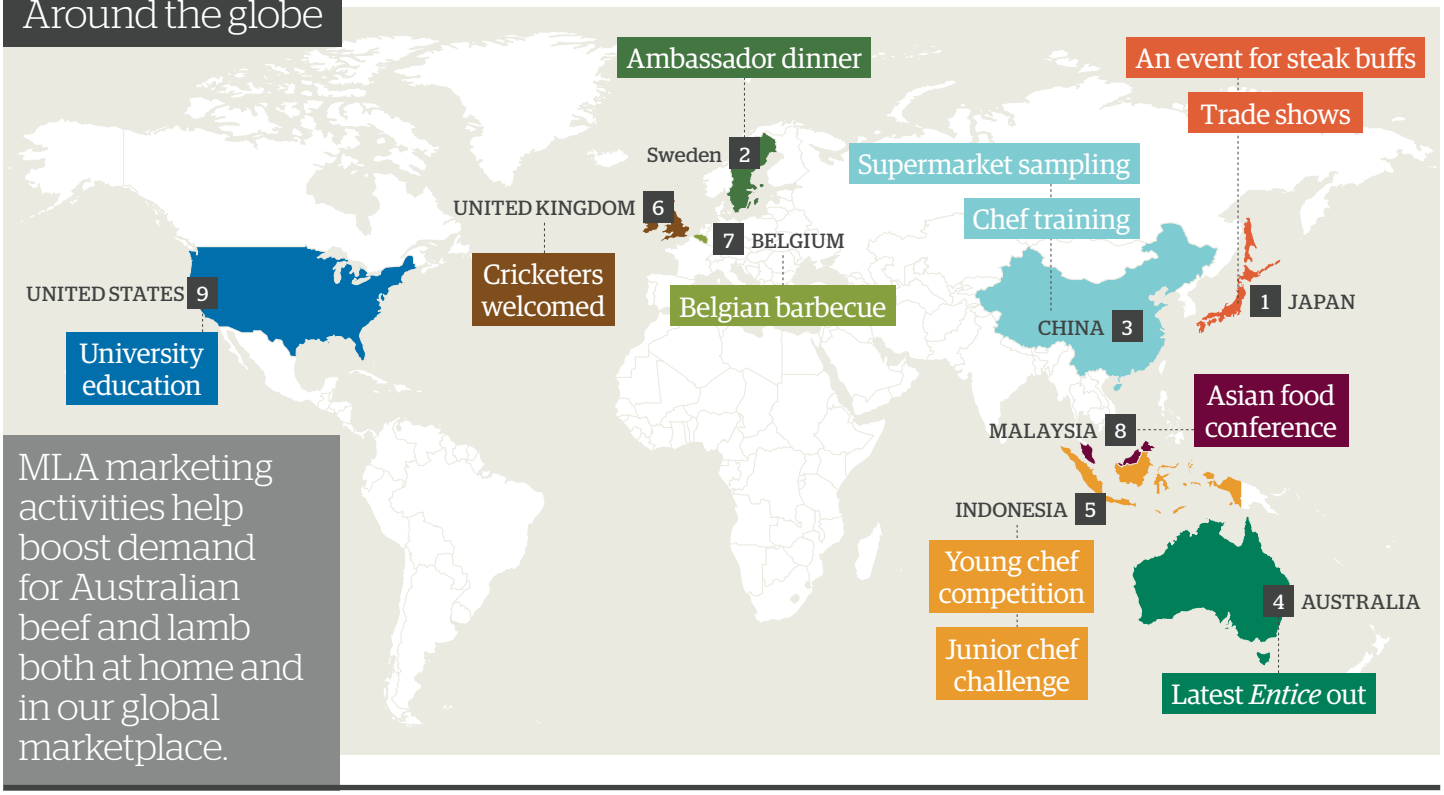
In a further drive to ensure relevance to the audience, the series features a 'follow your own journey' construct, allowing the audience to pick and choose which recipe from three to watch following a brief introduction from Hayden about what they will be cooking.

"We know modern life is busy for everyone; from young professionals to overloaded mums. With so much else going on it's hard to be inspired in the kitchen seven days a week," Andrew said.

"*Dinner 3 Ways* has been specifically designed to show how simple it is to prepare a variety of healthy meals using beef and lamb."

To view the new series hosted by Hayden Quinn head to: **www.youtube.com/beefandlambcomau**

Around the globe



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

1 JAPAN

Meat week winner

Diners enjoyed 11,000 Australian steak meals at the booth of popular steak restaurant, Steak Buff x Teppei's at Tokyo's Niku (Meat) Festival.

MLA supported the restaurant at the event, which attracted 937,000 people who enjoyed delights from 59 restaurants. More than 552,000 people visited the Steak Buff x Teppei booth over 12 days.

Steak Buff x Teppei came third in the visitor's popularity vote.

600

Japanese restaurants have added Akami-niku (steak) menus to their offerings in the past four years.

Trade talk

Thirteen Australian beef and lamb exporters attended MLA's second Aussie Beef and Lamb Trade Show 2015, held in both Tokyo and Osaka, along with 600 importers, wholesalers, foodservice and retail operators.

MLA presented a business seminar on 'the latest steak cut and menu ideas for summer' for retail and foodservice groups.

90%

of the audience rated the event as valuable for their business

2 SWEDEN

Would you like (Aussie) meatballs with that?

MLA partnered with a large importer and hosted a promotional dinner supported by the Australian Ambassador to Sweden. The event was attended by a range of large wholesale, restaurant and foodservice businesses. MLA Chef Sam Burke gave a demonstration and designed a menu to improve product knowledge of the audience.

3 CHINA

Supermarket sales success

A 12-day sampling promotion of Australian beef in supermarket chain Lotus, in Guangzhou saw sales increase 632%. MLA supported the promotion to lift exposure of cuts, including oyster blade, brisket and chuck roll in the Guangzhou market. The chain plans to follow up with an 'Australian Week' promotion, incorporating other Australian food products.

632%

increase in Australian beef sales during promotion

Five star training

More than 150 chefs from a Chinese hotel and restaurant chain, which used 190 tonnes of Australian beef last year, participated in MLA training in Shandong. Trainers explained the versatility of beef and lamb, offered menu suggestions and demonstrated using striploin, eye round and chuck roll (from Kilcoy). The chain has 30 five-star hotels and restaurants in Shandong and Beijing.

4 AUSTRALIA

An enticing winter

One million copies of the 'cooler months' edition of MLA's consumer recipe magazine *Entice* have been distributed free at butchers, independent retailers, Woolworths (400,000) and Aldi (180,000). *Entice* is also available online at MLA's consumer recipe website www.beefandlamb.com.au.

295,000

online readers of *Entice* in June

5 INDONESIA

Battling it out

Sixty-six young chefs had two hours to create a three course menu using Australian beef non-loin cuts at the Australian Beef Challenge, during the 10th Indonesian Salon Culinaire's FHI (Food Hotel Indonesia). MLA was a sponsor of the competition, which attracted participants from five-star hotels, fine dining restaurants and culinary schools. More than 24,600 culinary professionals and 1,421 international exhibiting companies, including 11 exporters of Australian boxed beef attended.

Taking up the challenge

Thirty junior chefs created two mince dishes in 30 minutes (Mexican beef with cheese and tomato bolognaise) in the finals of the MLA Indonesia Australian Beef Junior Chef Challenge. More than 9,500 student chefs from 10 international, national and junior high schools in Jakarta joined the program, which included nutrition workshops and a presentation by celebrity chef Australian beef ambassador Vania Wibisono.

$14,872
worth of coverage of event in six media outlets

6 UNITED KINGDOM

Beef and lamb steps up to the crease

MLA chef Sam Burke serves it up to the Australian cricketers.

The Australian Cricket Team was welcomed to the UK with Australian beef and lamb. MLA served Australian beef and lamb at a high profile reception hosted by the High Commissioner in London. The High Commissioner's guests included senior government/ministerial, corporate representatives and business people, as well as the cricketers.

7 BELGIUM

Barbecuing in Belgium

An Australian barbecue was staged by the Australian Embassy in Brussels with MLA. The event aimed to inform importers and government on current barriers to trade, while looking at avenues to improve access in Europe. MLA chef Sam Burke prepared traditional Australian beef and lamb dishes for the 250 industry, government and European Union representatives attending.

8 MALAYSIA

What's next for Asian cuisine?

Four guest chefs, a facilitator and a master butcher presented the first-ever Asian Cuisine Conference on 'A Revolution in Asian Cuisine Pairing with Australian Meat'. About 130 chefs from Malaysia, Singapore, Indonesia and Myanmar discussed the future of Asian cuisine and how non-loin cuts of Australian red meat could be incorporated into their cooking.

MLA sponsored the conference, butchery demonstration and a hands-on butchering session.

Positive leads were received from the chefs, particularly during Malaysia's Hari Raya celebrations, and some of the chefs used the non-loin cuts in Ramadan fasting buffet dinners.

9 UNITED STATES

Growing grassfed demand

Stanford University hosted a 'grassfed meats from Australia' educational event in conjunction with MLA. Chefs from the campus, and as far away as southern California and Colorado attended, along with representatives from leading corporate dining facilities like Apple and Google. Chefs saw Stanford's award-winning dining program in action and learned about the sustainable production practices of Australian producers.

On the ground MENA

Dr David Beatty
MLA International Business Manager
Middle East/North Africa
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Ramadan took place during June and July, observed by Muslims worldwide by fasting. The fast is broken after sunset, traditionally with dates, followed by Iftar where families gather sharing buffet-style meals.

During Ramadan, MLA focused on consumer and retail campaigns to grow sales of Australian beef and lamb. The use of themed point-of-sale marketing materials in selected retail outlets across the region was combined with a social media campaign.

MLA celebrity Chef Tarek starred in a television series on Discovery Channel's Fatafeat network cooking show. This 15 episode series sees Tarek team up with fellow celebrity chef Mohamed Orfali to talk, sing and entertain whilst cooking various local favourites to an Arabic audience of over 300 million viewers.

Tarek weaves into episodes the positive attributes of Australian beef, lamb and goat. Several episodes feature footage of Tarek visiting Australian sheep and cattle farms. Five episodes featured a 15 second 'True Aussie' beef and lamb commercial.

In the Gulf region, which includes our largest beef and lamb markets of the United Arab Emirates (UAE) and Saudi Arabia, summer is when many expat families depart for school holidays and escape the extreme heat. Added to this mass exodus, this year, is the downturn in in-bound European tourists, due largely to EU and Russian financial situations.

These will likely impact the bigger MENA markets between June and September, however expectations are that volumes and trade will pick up again come September and the start of winter and tourist season.

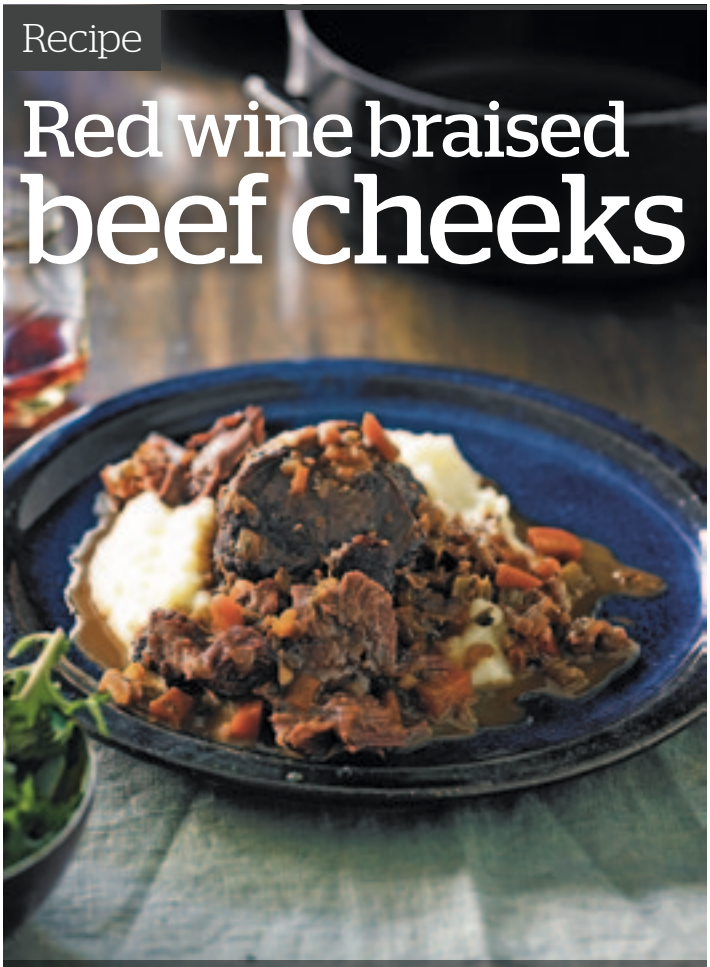
From an on the ground perspective, the outlook for the MENA region remains one of growth with countries like the UAE further developing their tourism industry in the lead up to Expo 2020. Dubai is expecting more than 100 million passengers/year through two airports by 2020 and plans to build more than 100 new hotels.

From a market access perspective, whispers of Brazil's entry back into Saudi Arabia continue with confirmed reports that Saudi inspectors have completed visits to Brazil and negotiations between Governments are underway. Should Brazilian beef re-enter Saudi Arabia, Australian beef exports will be impacted - particularly manufacturing beef cuts.

Beef exports to MENA in 2014-15 were 13% down on the previous year, however total sheepmeat exports were up 18% at 122,018 swt.

Recipe

Red wine braised beef cheeks



Beef and red wine are always a winter warming winner. Here's one of the latest recipes to celebrate the combination from MLA's www.beefandlamb.com.au. Check it out for more winter recipe ideas.

Serves: 4 // Preparation time: 15 minutes

Cooking time: 2 hours, 40 minutes

Ingredients

4 x 175g beef cheeks, trimmed

1 tbsp olive oil

1 onion, diced

1 stick of celery, diced

1 carrot, diced

2 cloves garlic, sliced

4 sprigs of thyme

1 cup red wine

1 cup beef stock

To serve

Cauliflower puree and a kale salad

Method

1. Preheat the oven to 170°c. Heat a casserole dish on the stove over a moderately high heat and cook the beef cheeks in the oil for three minutes on each side or until nicely coloured. Transfer to a plate.
2. Add the onion, celery, carrot and garlic to the pan and cook for a minute or until lightly coloured.
3. Add the beef cheeks along with the thyme, wine and stock and bring to the boil. Cover and place in the oven for 2-2 ½ hours or until the cheeks are very tender.
4. Season with salt and pepper and serve with cauliflower puree and a kale salad.

Global snapshots

Taking a snapshot

Cattle producers can now access the latest market insights in a brief, easy-to-read format with MLA's new *Market Snapshots*.

The *Market Snapshots* series aims to give time-poor producers a better understanding of what's driving demand in the main markets where Australian beef is consumed.

The goal is to help producers be more informed when having discussions with their supply chain partners and – armed with a better understanding of where their product is going – make more-informed decisions about their own production and on-farm investments.

The snapshots cover nine key beef markets: Australia, US, China, Japan, Korea, Indonesia, South Asia, Middle East and the EU. There is also a snapshot examining our major export competitor, India, with another on Brazil to come. A series focusing on core sheepmeat markets is also planned.

MLA Global Insights and Strategy manager Samantha Jamieson said the snapshots were developed in response to feedback at producer forums, which revealed that while MLA was producing a lot of detailed analyses of specific markets, producers were seeking more of an 'overview' of the core markets.

"The Market Insights team responded by producing user friendly snapshots with standard market information, such as trade volumes and values, as well as overviews of consumer trends, consumption trends, sector growth trends, competitors and market access issues in each market," Samantha said.

"Instead of simply reporting on 'what' is happening in a market, the snapshots reveal the 'why', and what effect that may have in terms of driving change in demand for Australian beef and lamb in the future."

To keep the snapshots accessible, the information is presented in a brief, bullet-point style, making it easy to scan the documents' key points.

"We've taken a lot of data and complex information from numerous sources and summarised it for producers, to help them stay informed of the changing demand landscape," Samantha said.

"For example, if you produce grassfed beef and you know the US is buying lots of Australian beef. You can take a look at the US Market Snapshot to find out the latest consumer trends there, such as the increased interest in 'natural' and 'grassfed' beef. The snapshot will help you learn more about where your product is destined, which sectors are growing, and how the US market can influence demand for your cattle."

Samantha said she expected the snapshots would be particularly useful for beef producers with their own brands.

"We work with a number of producers with their own brands through MLA's Collaborative Marketing program," she said.

Beef market insights

Some of the insights in the *Market Snapshots* include:

- **China** – The foodservice sector continues to be the dominant user of Australian beef, as Chinese middleclass consumers – mostly unfamiliar with cooking beef and with busy lifestyles – eat out more often. Consumers require proof of food safety.
- **Middle East** – The Middle East and North Africa is an exciting growth market for Australia. There is a preference in some markets for veal, which can be substituted for lamb or mutton in a wide range of cuisines. This is often exported to parts of the Middle East as whole light veal carcases or sides.
- **Indonesia** – Growth in Indonesia's tourism and in its middle class will be the major drivers that boost the foodservice sector's demand for imported beef, at least over the medium term. Most beef at retail is sold in wet markets. Government regulations restrict modern retail expansion in order to protect small business operators.

"The snapshots will help them better understand their customers and refine their brand marketing strategies.

"Of course, if anyone wants to delve a bit deeper, or has specific questions, we encourage them to contact our market analysts directly."

Samantha said the *Market Snapshots* were "living documents" and would be revised and updated as market status changed, at least once a year.

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You can access the *Market Snapshots* at **www.mla.com.au/Prices-and-markets/Trends-and-analysis/Beef/Market-shapshots**

What will free trade with China mean for producers?

Successful international trade negotiations, such as the historic China-Australia Free Trade Agreement (ChAFTA) signed in June, are a 'godsend for producers' according to Queensland cattle producer Ian McCamley.

Winner of the '2013 Innovation in Red Meat Beef Producer of the Year' award, Ian toured China last year and believes this agreement has the potential to deliver higher returns to the farm gate.

"In discussions with two of the nation's biggest importers, they considered paying $5/kg liveweight very reasonable," he said.

"And their capacity to pay is a world away from ours."

Ian highlighted livestock exports, particularly of feeder and ready-to-process cattle, as exciting opportunities. Boxed meat demand could also grow, he said, as Beijing phased out more street and wet markets.

Ian said our challenge would be the ability to supply.

"MLA's background role in helping these deals come to fruition is a valuable investment of our producer levies," Ian said.

"I'd much rather spend on this than continually push improvements to productivity."

MLA's role

MLA Trade and Market Access Manager Andrew McCallum said MLA's role in trade negotiations was to partner industry and provide the Federal Government with the rationale required for trade reform.

CHAFTA outcomes:

- 12–25% tariffs on Australian beef will be eliminated over the next nine years
- 12–23% tariffs on sheep and goatmeat be eliminated over eight years
- 12–15% tariffs on offal will be eliminated over four to nine years
- 5–14% tariffs on hides and skins will be eliminated over four to eight years
- 10% tariffs on live cattle and sheep will be eliminated over four years.

"MLA does not sit at the negotiating table, so we assist our trade officials by equipping them with the information required to secure the best possible outcomes for livestock, red meat and associated products," Andrew said. This includes provision of market intelligence, economic modelling, commercial insights and advice.

"ChAFTA was an important agreement to secure. It will ultimately deliver tariff-free access for our products and thereby remove significant costs from the supply chain.

"It will also help maintain our international competitiveness, particularly with New Zealand, as its beef and sheepmeat industries will benefit from zero tariffs into China next year."

Ian McCamley // E: ikmccamley@bigpond.com or **Andrew McCallum, MLA** // E: amccallum@mla.com.au

For more a more detailed overview go to: **http://dfat.gov.au/trade/agreements/chafta/Pages/australia-china-fta.aspx**

Queensland//high output forages field days and workshops

Through field days, workshops and a webinar the news is being spread on how to get the most out of high output forages (HOF) for cattle production.

Events at Clermont, Moura and Taroom attracted a total of 47 producers who heard about the outcomes from the MLA-funded HOF research (see pages 16–18 of this edition) from Queensland Department of Agriculture and Fisheries staff including Maree Bowen – Project Leader and Principal Research Scientist, Ruminant Nutrition; Fred Chudleigh – Project Economist, Principal Policy Officer; Stuart Buck – Senior Agronomist, Sown Pastures and Kylie Hopkins – Project Technical Officer.

"The feedback has been excellent with the majority of producers indicating that they intended to make changes to their businesses as a result of the key messages presented," Maree said.

Comments from attendees included:

"Very informative. Probably the best field day I've been to."

"Thank you for this opportunity to fast-track my management practices and knowledge base."

"Really good day, very enjoyable and informative."

A HOF webinar was also held in May with 200 people registered to view it. If you missed out you can watch it at: **https://futurebeef.com.au/resources/projects/high-output-forage-systems-for-meeting-beef-markets/**

Maree Bowen
E: Maree.Bowen@daf.qld.gov.au

Maree Bowen and attendees at the Taroom Field Day.

Fred Chudleigh presents at the Clermont Field Day.

Kylie Hopkins speaking in Moura

Stuart Buck at the Taroom Field Day.

Upcoming events

Find more events and information at **www.mla.com.au/events**

Webinar – unpacking salary packages

→ The Pastoral Award and key terminology

→ Salary packages - key findings from the 2014 Salary Survey

→ Developing a remuneration package – compliance, promotion, motivation

When:
12–1pm, 20 August 2015

Bookings: 08 8841 4500 or
E: admin@ruraldirections.com

More information:
www.mla.com.au/events

MLA AGM and Producer Forum

At MLA's AGM and Producer Forum the MLA Chair and Managing Director will present an update on the company over the past financial year. The Producer Forum will provide members with the opportunity to gain a greater understanding of the activities that the company is involved in and the opportunities that exist for their business.

When and where: 10 November 2015 at Mercure Brisbane, 85–87 North Quay, Brisbane, Queensland

More information:
www.mla.com.au/agm2015

Armidale// Sheep CRC Sheep Innovation Day

Producers demonstrated a hunger for new technology to enable them to be more productive while better meeting consumer needs when attending the Sheep CRC's Sheep Innovation Day in May.

Supported by MLA and the University of New England (UNE), the event was held at UNE's Kirby Farm and attracted more than 130 producers and industry members.

Topics and speakers included:

→ James Rowe: Overview of the Sheep CRC
→ Richard Apps (MLA) : Sheep meat value chains
→ Sam Clark: Genetics and genomics
→ Hamish Chandler (MLA): The resource flock and followers
→ Lu Hogan: Using eID in sheep enterprises

The Sheep Innovation Day also featured hands-on demonstrations in the areas of flock management and the use of electronic identification.

Todd Whillock runs a 2,000-head flock near Woolbrook, NSW, and joins approximately one-third to Poll Dorsets, while the remainder are joined with Merinos for wool production. He attended the Sheep Innovation Day.

"I was excited to hear about the new technologies that are being trialled and the potential for them to allow us to get a clearer picture of the product we are producing and marketing to our consumers," Todd said.

"I like the fact that if these technologies are used by processors and others in the supply chain it will put more pressure on breeders to focus on eating quality traits rather than purely growth rates alone."

Walcha district producer Kim Barnet, 'Miramoona', runs a 7,000 head stud and commercial Merino operation and said technology and genetics were important to verify production and ethical credentials.

"Technology is becoming more and more appropriate to what we do and advancements such as apps for phones which then relate to electronic tagging, weighing or data collection will help us to demonstrate to consumers what we do," Kim said.

eID demonstrations in new shearing shed at Kirby Farm.

Hamish Chandler talking about the resource flock and followers.

Among the presenters at the event was MLA Program Manager, Genetics Implementation and Sheep R&D, Richard Apps, who outlined the latest work being undertaken to develop quality-based sheepmeat value chains.

"An event like the Sheep Innovation Day allows us to demonstrate to producers how this will be possible into the future," Richard said.

www.sheepcrc.org.au

MLA IS YOUR COMPANY
HAVE YOUR SAY...

MLA ANNUAL GENERAL MEETING AND PRODUCER FORUM

Tuesday
10 November 2015

Mercure Brisbane
85-87 North Quay
Brisbane, Queensland

Action dates

25 September	Nominations due for a grassfed cattle producer representative on the MLA Board Selection Committee (see page 4)
1 October	**Return your Levies Notice or lodge online to receive your full voting entitlement**
12 October	AGM pack including proxy form posted to members
8 November	Return your proxy form or submit online by 2pm AEDT
10 November	Attend the MLA Annual General Meeting and Producer Forum

For more information visit **www.mla.com.au/agm2015**
or call **1800 675 717**

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