mla Your levies at work // September 2013

Feedback

A strong finish

30// **Bannockburn's Steve Munge talks feeding regimes**

A note from the MD...

I recently returned from a week in China where I met with importers, government, end users and MLA staff to gauge the drivers of the sudden increase in demand for Australian beef and lamb in the market and how we can best respond to this demand growth.

It is clear that Australian beef is benefiting from major competitors currently being excluded from the market, as well as heightened consumer concerns around food safety. There is also genuine demand growth for beef and lamb in the market, driven by increasing incomes in the major cities. We now have a real opportunity to capitalise on Australia's unique clean and safe brand, to reach end users and position our product in the market. This opportunity is consistent across our newer growth markets, as shown in consumer research MLA recently commissioned to gain insights into the preferences of a diverse range of consumers in our 10 key markets (see article on pages 32–33). In Australia's emerging growth markets, freshness and food safety were the two most important attributes when selecting which meat to purchase.

This edition of *Feedback* features reports on producer demonstration sites and pasture trials – on-farm R&D projects that MLA invests in on industry's behalf. Earlier in the year we commissioned an independent review of the systems we use for investing in projects such as these, to get recommendations as part of our regular drive for continuous improvement. The review has provided four key areas for us to work on: how we lead the national beef and sheepmeat R,D & E strategies; how we balance our R&D portfolio with long and short term programs; how we enhance our engagement with stakeholders (producer and researcher); and how we enhance our performance management systems.

The next edition of *Feedback* will cover a broad review of our R&D programs and steps being taken to strengthen our systems to maximise the benefits from producer levies and government funds invested in R&D.

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Contents

Cover: Steve Munge, Manager of 'Bannockburn', Bell, Queensland. Image by Paula Heelan.

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Pastures

Putting pastures on trial

A new project aims to produce a 'one-stop-shop' pasture database to support producers in their decision making to improve their pastures.

Figure 1 Locations of the Pasture Variety Trial Network trial sites

The Pasture Variety Trial Network (PVTN), a partnership between MLA and the Australian Seed Federation (ASF), will establish and manage independent trial sites (see figure 1). Seed companies will provide data from variety trials to build an Australia-wide database for analysis.

Results from the trial sites are expected in late 2014.

PVTN manager David Hudson said the program will give producers confidence to invest in new pastures by providing independent analysis of pasture variety performance across temperate regions.

"In the past, there has been limited objective performance data to support producer decisions about which pasture variety to sow. This has resulted in uncertainty and little incentive to invest in new pastures," David said.

The project will assess annual and perennial grass and legume pasture varieties in a series of field trials throughout south-eastern Australia. The aim is to eventually establish trial sites across the temperate and subtropical livestock production regions of Australia.

"All information will be analysed by an MLA-appointed statistician and reviewed by the PVTN Technical Advisory Committee," David said.

"The data generated will be collated into a single database that producers and their advisers can use to confidently choose high-performance species for incorporating into a pasture renovation program in their particular regions."

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Fast facts

In Australia there are:

73 commercial varieties of annual ryegrass

61 of perennial ryegrass

51 of lucerne

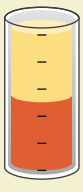
Table 1 Number of varieties of pasture species commercially available and those entered into the PVTN trial

Pasture species	Commercial varieties available (ASF Database)	Commercial varieties entered in PVTN Trial Program 2012
Annual ryegrass/ Italian ryegrass	73	60
Perennial ryegrass	61	31
Tall fescue	29	12
Phalaris	16	12
Cocksfoot	22	14
Sub clover	32	20
Lucerne	51	20

Source: SGA Solutions

Project dashboard: PVTN trials

Financial contributions to the project:
$1,708,478



MLA levies: **50%**

Government: **50%**

Length of project:
5 years
(one year completed)

Project is part of MLA's objective to:
Create opportunities through genetic research and management practices to improve pasture and forage crop productivity, quality and persistence.

Revised cattle trade rules

In 2007 industry bodies developed and launched the Australian Cattle Trade Rules (ACTR) to provide standard terms and conditions for the contracting of cattle.

The rules have recently been reviewed and updated by a committee drawn from peak industry councils.

The trade rules underpin the cattle contracts forming the basis for trade, and guide the actions of the buyer and seller for the life of the contract.

The ACTR provide:

→consistency in contract terms and conditions

→transparency in the contracting process

→clarity in business arrangements.

They outline:

→buyer and seller obligations

→what actions may be taken when obligations aren't met

→dispute resolution

The changes to the rules include how prices can be determined prior to delivery, after live weighing and after slaughter; penalties for late payments; how GST is factored into the sale price; and further clarification of the consequences of default payments.

The ACTR are endorsed by the Cattle Council of Australia, Australian Lot Feeders Association, the Australian Dairy Federation, Australian Livestock and Property Agents, Grain Trade Australia and MLA.

For a cattle contract pro forma, a contracting guide, or further information contact **Ben Thomas, MLA** // T: 02 9463 9333 E: bthomas@mla.com.au or go to **www.mla.com.au/price-and-supply-management**

Preparing for future weather

A new website could help southern livestock producers prepare for the weather of the future.

The site, **www.sla2030.net.au**, was developed to communicate the research findings of the Southern Livestock Adaptation 2030 (SLA 2030) project, of which MLA was a partner. It allows producers to see the potential impact of modelled climate scenarios on their productivity and profitability.

The research examined forecast changes in rainfall and temperature in 2030 and converted that into answers for producers, at a local level, to questions such as: "what impact might it have on my pasture production, my livestock production or my profitability; and what could I do about it?"

The website includes:

→ Key findings of the research.

→ Information about the models used to examine climate change and its impacts.

→ An interactive map of locations where modelling was undertaken by state departments, which allows the user to examine the climate scenarios and potential impacts on livestock production and profitability, at a local level. Responses to a range of adaptations (farm management changes) are provided.

→ Information on the background research by CSIRO, the University of Melbourne and the Tasmanian Institute of Agriculture, along with copies of all relevant research papers or abstracts.

→ A resources section for more information.

Russell Pattinson, SLA 2030 Project Manager
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www.sla2030.net.au

Measuring the work

A new online tool, called the Quantifying Labour Input Database, is available to help producers measure labour efficiency and identify areas for improvement.

With funding from MLA, Rural Directions Pty Ltd has developed a user-friendly tool that will quantify the labour input of individual operations.

Registered producers will have free access to the time sheet system, which is an industry-specific, whole-of-business tool.

The tool will allow participating producers to gain a thorough understanding of labour use in their enterprises, enabling them to assess labour efficiency and benchmark their results against industry peers.

Recent R&D projects and reviews have indicated that there is a lack of data available on the amount of time spent on each of the different jobs undertaken in a livestock enterprise.

"Many current systems do not record information to the task level. More commonly, tasks are grouped together and recorded as 'sheep work' or 'cattle work'. This lack of data makes it difficult to effectively assess the role and benefits of adopting labour saving technologies and practices," Rural Directions project leader Natasha Morley said.

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To find out more and register to participate visit **www.ruraldirections.com**

Now showing at cinemas... sustainable farming

The latest Target 100 campaign will help movie goers learn more about where their food comes from and the sustainable practices employed to produce it.

A 12-month campaign was launched in July with a 60-second advertisement screening in independent cinemas in Sydney, Melbourne and Brisbane, with a target audience of 1.5 million people.

The advertisement features four Target 100 producers from around the country explaining why they feel it is important to invest in sustainable farming practices.

The advertisement invites the audience to visit the Target 100 website to learn more about the initiatives being undertaken by the industry.

See the ad at: **www.youtube.com** and search 'Sustainable sheep and cattle farming in Australia'.

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Learning more about leucaena

A new Producer Demonstration Site (PDS), funded by MLA and the Queensland Department of Agriculture, Fisheries and Forestry, will further examine planting techniques for dryland leucaena.

Due for completion in 2015, the PDS will be managed by Mackenzie River CQ Beef and hosted by Lachie and Carlie Ward at Dingo in Central Queensland.

Forty hectares of leucaena will be planted this year at six and 18 metre row spacings. The project will monitor and analyse soil, plant and animal nutrient effects and economic outcomes.

David Hickey, Project Leader, DAFFQ
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MLA AGM

Turn to the back page to find out all the key dates in the lead up to MLA's annual general meeting.

Three ways to access more *Feedback*

1. If you would like extra free copies of *Feedback* mailed to you, call 1800 675 717 or email: **publications@mla.com.au**
2. *Feedback* magazine is now available at: **www.mla.com.au/feedback** Back issues of the magazine from January/February 2012 are also available on the MLA website.
3. Receive weekly instalments of the latest MLA news by subscribing to *fridayfeedback*. Call 1800 675 717 or email **publications@mla.com.au** to sign up.

Animal nutrition

Element of deficiency

Your pastures are productive, the parasites are under control and you're on top of genetics. But your breeding cattle aren't performing as you had hoped. What's holding them back? The answer could lie in trace element deficiencies.

Thanks to a group of Victorian producers, supported by the University of Melbourne's Mackinnon Project and Senior Consultant Dr John Webb-Ware, there is now more information and cost-benefit analysis on treating deficiencies in the key trace elements of selenium, copper, cobalt and iodine.

The southern perspective:

John Webb-Ware says trace element deficiency can be a problem in southern areas:

What's the most common trace element deficiency?
In Victoria, it is selenium deficiency. The study found that 11 of the 13 farms involved were selenium deficient, while only two were copper deficient.

How can producers tell if breeders have a trace element deficiency?
There can be obvious physical or clinical signs. For example, black cattle with copper deficiency may have a rusty, red tinge to their coat or red cattle may appear sandy in colour. Other symptoms include decreased growth rates (particularly in young cattle aged 3–12 months), diarrhoea in cattle on lush pastures, skeletal defects, anaemia and infertility. It's also useful to know a property's history. If it has been selenium deficient in the past, for instance, it would be prudent to keep an eye out for symptoms such as ill thrift, stiff gait or respiratory distress. The only way to know for sure is to blood test; I would recommend this before any animals are treated.

When is it cost-effective to treat?
The difference in production after selenium supplementation of deficient stock was substantial, with a difference in weight gain in young cattle of up to 6.4kg between May and November for weaned cattle 10–15 months of age. The benefit increased to about 9kg when the cattle were 17 months old.

Does treating selenium deficiency have any effect on fertility?
If heifers are close to their critical mating weights it can improve conception rates but, if they are well over, further improvements are unlikely.

Do high production enterprises with high fertiliser applications have less trouble with trace element deficiencies?
No, quite the opposite. Modern, intensive farming practices can exacerbate an existing selenium deficiency. For example, selenium availability is often reduced in pasture with high fertiliser application – due to decreased concentration of selenium and reduced uptake by grazing livestock, and complex interaction with compounds such as sulphur. High levels of molybdenum and sulphur in the soil also decrease the availability of copper. Liming of the soil increases the availability of molybdenum, causing copper deficiency, as do high concentrations of iron – but without the same clinical signs of decreased growth rate and infertility.

Are there any times of the year when selenium deficiency is more prevalent?
Selenium availability is usually lowest during periods of lush pasture growth, especially in spring, so the impact of supplementation will probably be greatest at this time. Selenium and other trace nutrient status may vary between years, so monitoring should be repeated after a few years, ideally in spring, especially where the deficiency is marginal.

Clinical signs for copper deficiency include a rough coat, bronze tinged Angus colour, poor growth, and diarrhoea

What's the best way to treat selenium deficiency and how much does it cost?
All the trial sites used Deposel® as a selenium supplement in the treatment group. One property established an additional treatment group using Permatrace® capsules. Both products claim to make selenium available for up to 12 months in cattle. Deposel costs about $1.70–$2.30 per head for weaners, depending on their liveweight at treatment. At current cattle prices, all trials generated growth rate responses and an impressive return on investment, with benefit-cost ratios ranging from 3:1 to 9:1. The response increased to 18:1 on one group of cattle when the trial continued to autumn when the cattle were about 18 months old. Based on a typical self-replacing herd in a high rainfall area with selenium deficiency, the beef production per hectare will increase by about 1% with the cost of production reducing by about 1%. Responses will be greater in trading herds where all cattle are young and growing.

The producers involved in this research, which also focused on anthelmintic resistance in beef cattle and the impacts of worms on production, were clients of the Mackinnon Project or were selected for their high production beef enterprises.

Feedback talked to two cattle production specialists about what to look out for in southern and northern production systems.

Mineral deficiency checklist

Clinical signs of a mineral deficiency include the following:

- **Copper deficiency** – Rough coat, sandy-colour Hereford or bronze-tinged Angus, poor growth, diarrhoea.
- **Selenium deficiency** – Stiff-legged gait, sudden death, poor growth.
- **Cobalt deficiency** – Ill-thrift, emaciation.
- **Phosphorus deficiency** – Chewing bones, poor growth, soft bones and fractures, infertility.

The northern perspective:

MLA's animal Production Research Coordinator for Northern Australia, Geoff Niethe, says trace element deficiency is not a major problem in northern beef production systems, but there are certain areas where deficiencies are more prevalent.

Phosphorous is the most common mineral deficiency in northern Australian cattle.

What are the deficiency issues in the north?
Phosphorous is the most common mineral deficiency that is treated. It causes a lower feed intake (especially in the growing/wet season), stunted growth, poor reproductive performance and increased mortality rates in cattle not vaccinated for botulism where bone chewing is common. This is usually treated by blocks, loose licks and through the water, where medicators are proven to be effective.

Any others?
Copper deficiency occurs in the coastal areas of south-east Queensland, Marine Plains and in some brigalow country, but is more common in highly intensive systems.

I don't know of any selenium deficiency problems in northern production systems, but I would encourage producers to test their cattle and be sure rather than waste money on guess work.

What else should northern producers consider when it comes to trace elements?

Don't treat animals for deficiencies 'just in case'. It's important to avoid toxicity, and there is no point treating if there aren't going to be any production gains.

If producers are convinced that a deficiency exists, they can easily test the cost-effectiveness of an on-going herd health program by simply adopting an odds and evens treatment regime, and recording individual responses and weight gains. Monitoring the responses of all treated animals with an even-numbered ear tag is a powerful statistically sound assessment tool.

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Read about mineral deficiencies affecting cattle, sheep and goats in Australia at **www.mla.com.au/mineral-deficiencies**

Use the *Cattle Diseases Guide* from MLA's More Beef from Pastures on-line manual: **www.mla.com.au/tool6.7_cattlediseaseguide**

Download the *Phosphorus management in beef cattle in northern Australia* publication at **www.mla.com.au/phosphorus-management**

Building capability

Tools just a mouse-click away

The livestock producer's 'online toolbox' has been expanded with new and upgraded tools and calculators available on the MLA website.

MLA's Online and eLearning Project Manager Rebecca Niebler said the latest tools included new offerings such as the Breeder Mortality Calculator, as well as upgrades to existing tools, like the Rainfall to Pasture Growth Outlook tool and the Feed Demand Calculator.

"The online tools help producers use and apply the best management practices developed through MLA's research projects," Rebecca said.

"Some of the tools automate large and complex calculations, and provide visual output in terms of graphs.

"We try to update the tools with new results, and incorporate feedback from our members. Some of the upgrades are designed to make older tools more user-friendly and add new functionality."

The tools can be tried out online at **www.mla.com.au/toolbox**

They include the following:

Breeder Mortality Calculator

The Breeder Mortality Calculator assists northern cattle producers to use property records to determine levels of breeder mortality in their herds.

Two versions of the calculator have been developed:

- → Simple - based on annual livestock schedule counts
- → Advanced - based on monthly livestock schedule counts for various livestock classes

The calculator was developed as part of an MLA research project and is designed for use on extensive northern beef properties where cattle may only be mustered once or twice a year.

www.mla.com.au/breedermortality

Southern Pasture Audit tool

The Southern Pasture Audit tool operates on a series of maps showing the geographical distribution of significant pasture species in southern Australia.

The tool enables users to select a region (based on Statistical Local Areas) and a pasture type, so they can see the distribution of that pasture type in that area.

The Southern Pasture Audit tool was developed following a feedbase survey in NSW, Victoria, Tasmania, South Australia and southern Western Australia - an area which supports about 10 million cattle and 70 million sheep.

www.mla.com.au/southernpastures

Feed Demand Calculator

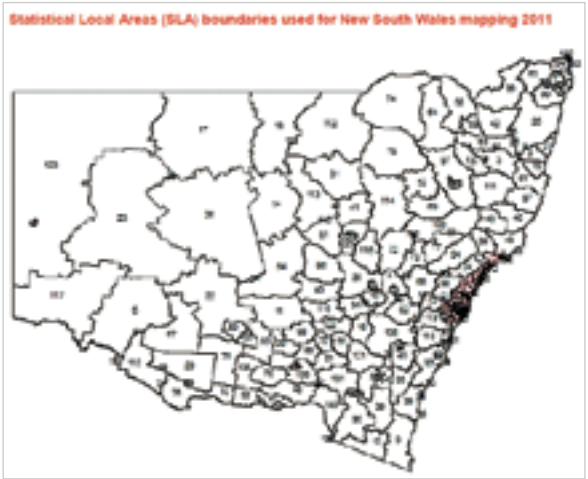
The Feed Demand Calculator provides southern cattle and sheep producers with a pattern of feed supply and demand over a 12-month period, the location of feed gaps and the ways in which modifying the livestock enterprise might help to close these gaps.

This tool has been updated to incorporate new information on the contribution of forage shrubs to the feedbase.

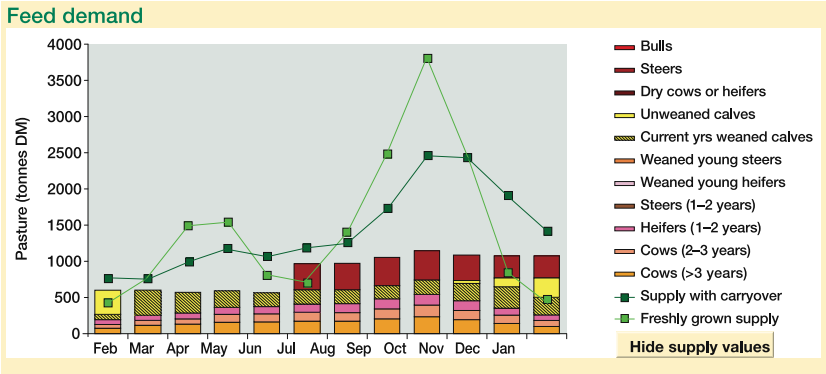
The calculator's user manual has also been updated to reflect the tool's upgrades.

www.mla.com.au/feeddemand

NSW mapping from the Southern Pasture Audit tool



Screen from the Feed Demand Calculator.



Rainfall to Pasture Growth Outlook tool

The Rainfall to Pasture Growth Outlook tool provides producers with estimates of their likely pasture growth for the coming season which enables them to make improved pasture and grazing management decisions.

The tool uses historical weather information (rainfall and temperature) recorded by the Bureau of Meteorology (**www.bom.gov.au**) along with indices of soil moisture and pasture growth from the past nine months to generate an outlook for potential pasture growth over the next three months for over 3,300 locations across southern Australia.

Importantly, the tool displays median pasture growth indices for each week of the year based on historical rainfall and temperature records and the variation about that median point for each week of the year. The results indicate the pattern of pasture growth for a 'moderate' year, as compared to an 'excellent' or very poor year.

While the technical content of the tool remains the same, the tool's functionality has been enhanced to overcome 'freezing' issues, making it more user-friendly and stable.

The new version doesn't require users to log in if they don't want to save their favourite weather stations, but logging in now lets users save as many stations as they like. Areas can now be selected by postcode or weather station.

www.mla.com.au/rainfall-to-pasture-tool

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www.mla.com.au/toolbox

Growing demand

Learning in the land of the rising sun

Seven young Australian cattle producers who travelled to Japan recently as part of MLA's Producer to Producer program (P2P) not only came away more knowledgeable about Japan's livestock industry but left Japanese producers with a sense that Australian beef complements – rather than threatens – their industry.

The P2P program is an MLA initiative launched last year to encourage greater beef consumption in Japan through a stronger partnership between the two countries.

Initially, the P2P program was an extension of the 'Together With Japan' relief program for Japanese producers affected by the March 2011 tsunami. In 2012, a group of young Japanese cattle producers travelled to Australia to learn more about our cattle operations.

In this second round of the P2P program, a group of Australian producers spent a week in June touring Japanese Wagyu farms and retail and foodservice operations. They met local producers and visited their communities and gained first-hand experience of the important role Australian beef plays in the Japanese market.

The P2P group also visited areas affected by the tsunami and the nuclear disaster in the Fukushima prefecture, and discussed current issues with local producers, such as the Australia-Japan Free Trade Agreement and Trans Pacific Partnership.

Western Australian producer Annabelle Coppin, from Yarrie Station in the Pilbara, said she valued the chance to speak personally with Japanese producers.

"Initially, Japanese producers were concerned that their agricultural livelihood would be threatened by an increase in imported food as a result of the free trade frameworks," she said.

"One Japanese producer said he felt threatened by a new trade structure between the two countries. He was worried that his business would be put under another threat and had never seen a future with the two countries working together.

"But, by spending time with us he could see that we share the same passions and challenges and we are honest, genuine farmers. Because of this he could envisage that our operations could complement the future of the Japanese beef industry."

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Above: P2P Delegation members (L-R) Jordan Peach, Morton and Co; David Maconochie, Hopkins River; Emma Redden, Triple A Angus; Andrew Gray, A-Bar Dot Genetics; Greg Bradfield, Musselroe Beef; Alison McIntosh, AJM Livestock Solutions and Annabelle Coppin, East Pilbara Cattle Company, participate in an Aussie Beef promotion at Aeon, the biggest retailer in Japan, with Aeon managers Taisei Uemori and Akira Kenmotsu. The group donned Aussie Beef red aprons to help serve in-store samples of Australian beef to customers.

Feedlots

Focusing on feedlots

Up to 2.5 million cattle pass through Australian feedlots each year. They play a significant role in the livestock industry in value adding and finishing, as well as drought mitigation.

Following six years of economic and seasonal challenges, the industry's most recent focus has shifted from largely risk management and welfare issues to also address feedlot productivity.

A fly infected with Metarhizium fungus. Photos supplied by Department of Agriculture Fisheries and Forestry Queensland.

Spraying fungus in a cattle feedlot.

Harnessing fungi for fly control, generating power from manure and controlling Bovine Respiratory Disease are just some of the goals of MLA's current feedlot program.

The work is funded from grain-fed levies and government contributions, and developed in close conjunction with the Australian Lot Feeders' Association.

More than 40 MLA feedlot program projects are under way. Here is a snapshot of some of these projects:

Making more with less

An improvement in the feed efficiency of cattle can generate substantial savings for industry. A conservative estimate of the value of a 0.5% reduction in feed cost for the feedlot sector alone equates to $2.85 million a year.

Direct genetic improvement of the feed efficiency trait is impossible without individual feed intake data on animals with a known sire and dam.

A project overseen by Dr Ken Geenty at the University of New England is collecting individual feed intake data on progeny from the Beef Information Nucleus projects.

(For more information, see the story on the University of New England's Tullimba Feedlot in the March 2013 issue of *Feedback*.)

Fly control

Feedlots are home to not only cattle but also the pesky fly.

A fungus that attaches itself to flies and then kills them is the subject of research by Dr Peter James at the University of Queensland.

A previous project found the fungus was effective in controlling flies and had potential as a cost-effective solution. The focus has moved to producing a fungal biopesticide of interest to potential commercial partners.

Profitable partnerships

Another project was the adapting of Beef Profit Partnerships (previously used with producer groups and developed by the Beef CRC) for feedlots.

The concept was explored by the CRC for Genetic Technologies as an extension and adoption mechanism. It was based on regional groups of producers (or lotfeeders) coming together to share experiences and information and to work together to solve common problems. The project was managed by Robyn Tucker from FSA Consulting.

Breathing easier

Bovine Respiratory Disease is the most common cause of illness and death in Australian feedlot cattle.

A project is underway to provide the feedlot sector with improved strategies for managing Bovine Respiratory Disease in feedlots and will include the production of a best practice manual.

The work is being undertaken by Dr Tim Mahony from the Queensland Alliance for Agriculture and Food Innovation.

Manure power

Manure is being used to generate renewable energy in other parts of the world but is it applicable in Australia?

Peter Watts from FSA Consulting is working on a project to assess the status of energy recovery from feedlot manure around the world. The project aims to demonstrate the effectiveness of combustion, gasification and pyrolysis as energy recovery options through pilot trials of these technologies.

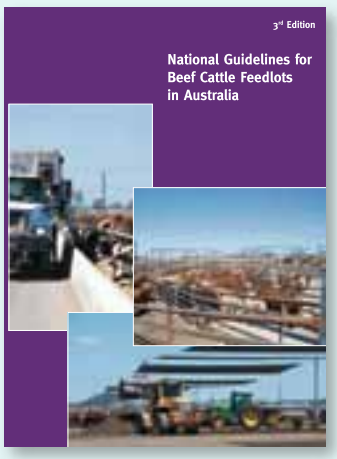
Want to keep up-to-date with best practice in the cattle feedlot industry?

The second edition of the *National Beef Cattle Feedlot Environmental Code of Practice* is now available at

www.mla.com.au/national-beef-cattle-feedlot-cop

And the third edition of the *National Guidelines for Beef Cattle Feedlots in Australia* is now available at

www.mla.com.au/national-guidelines-beef-cattle-feedlots



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Research at work

The latest on-farm strategies emerging from MLA's investment in research

In this issue

Weighty solutions for the west

Kimberley cattle producers have been looking closely at the station-to-boat supply chain, with an MLA-supported trial revealing the most cost-effective methods for managing cattle prior to export.

Livestock export is a core activity of WA's cattle industry, especially in the Kimberley where many of the region's 706,000 cattle are destined for shipment.

The sale price is determined by the weight of cattle when entering an export depot so distance, time off feed and management pre-sale can have significant implications.

An MLA Producer Demonstration Site (PDS) to assess the influence of pre-sale feeding regimes was initiated by the Kimberley Beef Research Committee (KBRC) and the WA Department of Agriculture and Food. The trial was held at Leopold Downs, Fitzroy Crossing, and 400km away at the Roebuck Export Depot.

Three strategies were trialled:

→ retaining stock in the station's holding paddock pre-trucking and allowing them to graze on native pastures

→ transporting pellets or oaten hay to feed on-station

→ delivering stock direct to depot

1.96 million
WA herd size (June 2012)

225,190
Annual live cattle exports from WA

36%
Proportion of WA herd sent to live export

706,000
Kimberley herd size

69
Number of cattle businesses in the Kimberley

Market compliance

The bulls in the trial (see box for details on how the trial was conducted) lost an average 13.1kg during the five-hour road trip between Leopold Downs and the export depot. In addition to replacing the gut fill lost during transport, the bulls already accustomed to hay or pellets at Leopold Downs went on to gain an average 16.6kg after 14 days at the depot. This was an average of 7.3kg more than the group which grazed in the holding paddock.

Counting the costs

Once the costs of feeding were accounted for, the best option was keeping stock in a holding paddock and allowing them to graze on native pastures until required for transport. The difference in net value between the holding paddock and the next best option (delivering stock direct to Roebuck Export Depot and putting them on feed until the point-of-sale if a secure, watered and well-grassed holding paddock is not available) was about $10/head.

The least attractive option was to feed pellets or hay on-station.

Downstream impacts

KBRC Chairman Mike DeLong of Dampier Downs, Broome, said the PDS built producers' awareness of what happens to livestock after leaving their station.

"Kimberley producers have made significant genetic and management gains, but often miss opportunities to pick up profit down the supply chain," Mike said.

"While there is plenty of anecdotal evidence about weight change pre-shipment, this trial quantifies the impact of different preparation regimes.

"Every producer must weigh up their own unique circumstances. Hopefully the findings from this PDS will help the decision making process. The hard and expensive work done on station to produce a quality product can be diminished by not following up to the point-of-sale and beyond. This highlights that the entire supply chain has an influence on the bottom line."

Left: Feeder bulls from group one were fed shipper pellets for 14 days at Leopold Downs and for a further 14 days at Roebuck Export Depot. These bulls gained about 27.5kg (11%) over the duration of the PDS.

The nuts and bolts

The trial combined feeding strategies already in place at Leopold Downs with standard pre-shipment preparation requirements at the Roebuck Export Depot for cattle destined for Indonesia.

It is a requirement for cattle to be fed on shipper pellets in the depot at least 24 hours before shipping to adjust to the new diet before loading, and to ensure they weigh between 200 and 350kg. Stock are often held for longer, depending on their weight, markets and vessel availability.

During the on-station trial, 180 Brahman-cross feeder bulls were allocated to one of three feeding regimes: shipper pellets, oaten hay, or grazing on native pastures in a holding paddock. The cattle were subjected to a 12-hour wet curfew (supplied water but not feed) before weighing. They were weighed on day one and prior to trucking on day 14.

On arrival at Roebuck Export Depot, cattle were fed the standard ration of pellets and oaten hay for 14 days. Cattle were weighed on arrival and after 14 days on feed, and feed intake was measured.

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ON-STATION: Stress free is key

Ned McCord managed Leopold Downs during the PDS trials.

Ned McCord has a simple strategy to prepare cattle for live export: use low-stress stock handling techniques, know your market specifications, assess inputs against expected returns, and be adaptable.

Ned managed Leopold Downs, owned by The Bunuba Cattle Company, during the PDS that was held on the station to trial feeding regimes. (He has since moved onto another role in the company).

Each year, the station sends 4,500–5,000 young cattle and 1,000 cows and bulls to the Roebuck Export Depot. The Brahmans (60%) are prepared for shipment to Indonesia, while the Shorthorn and Brahman-cross stock are cleared to go south to domestic markets at Perth, or onto agistment in preparation for export the following February to Israel.

"We have trialled preparation strategies over the past eight years to try and recoup weight lost during the 400km trip to Roebuck, so this PDS was a logical step to share management decisions at Leopold Downs," Ned said.

He found the best approach was to be flexible in the face of market fluctuations, seasonal conditions and the availability and price of feed.

"We look closely at feed and freight costs each year. If good quality pasture is available, we might run some cattle in a holding paddock."

"Some years it is more cost effective to feed cattle hay or pellets on-station, and other years we send them to the export yards for longer preparation to avoid paying freight costs on feed to station. The difference could be $50–60/head," Ned said.

The annual strategy is identified up to two months before the first road trains roll into Leopold Downs in May.

"Once we have an indication of prices, we work backwards and assess what feeding strategy will give us the best profit margin on expected return," Ned said.

Pre-sale preparation is underpinned by animal welfare and education of staff.

"We teach our staff low-stress stock handling. This improves animal welfare and affects our bottom line. Quiet cattle are more cost-efficient because they settle onto feed quicker," Ned said.

"We also feed pellets and hay at weaning, and this education helps to minimise stress in the export yards."

Ned always followed cattle into Roebuck to gain feedback from the depot's staff, and to see how stock handled the trip and their new environment.

"As producers we spend so much time, money and effort concentrating on breeding and raising cattle to the point of sale, but what happens after they leave our property is also very important."

Snapshot

Ned McCord, former manager, Leopold Downs, Fitzroy Crossing, WA

Property: 404,648ha across two stations (Leopold Downs and Fairfield Station are run as one property)

Enterprise: Beef cattle breeding

Livestock: 20,000 head, 60% Brahman, 40% Kimberley Shorthorn and Brahman-cross

Pasture: Mix of native pastures, spear grasses, Mitchell and Flinders grass

Soil: Mix of heavy black soil and lighter spinifex

Rainfall: 500mm

Lessons learned

- Use low-stress stock handling techniques to improve animal welfare and settle cattle onto feed before shipment.
- Educating stock at weaning to create opportunities to make profit later.
- Balance production costs with expected return to select a pre-sale preparation strategy.

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AT DEPOT: Next stop, Indonesia

As manager of the Indigenous Land Corporation's Roebuck Export Depot (RED), Paul Heil prepares thousands of cattle from the Kimberley and Pilbara regions and the Northern Territory for shipment every year.

Above: Matthew Fletcher (Department of Agriculture and Food Western Australia) and Peter Hooley (Roebuck Export Depot) mulling over weights after the final weighing.

The 15,000-head capacity Roebuck Export Depot not only prepares cattle for export to Indonesia, Egypt, the Philippines and Malaysia, but it also provides a clearing house for cattle heading south for domestic processing, store sales or agistment.

With more than 100 stations supplying stock, Paul sees the results of on-property strategies to ensure cattle get on with the business of eating when they arrive in the depot.

"We can pick cattle that have been well-handled and fed pellets either during weaning or before trucking," he said.

"These cattle are familiar with yards and go straight onto food and water when they arrive here.

"They perform 100% better than cattle straight out of the paddock. Insufficient preparation is an animal welfare issue, because cattle don't eat or drink until they adjust to their new environment.

"The quicker cattle rehydrate and achieve compensatory weight gain after trucking, the less time they need to spend in the yards, so the producer gets more bang for their buck. It also helps RED manage staff and throughput."

Paul encouraged producers to follow their stock off-station.

"A lot of station owners and managers are surprised at how their cattle perform in the yards. Some of these cattle have only been handled by a few people, and behave very differently in a strange environment," he said.

"Seeing their cattle in the next stage of the supply chain lets producers identify how they could pick up profit by adjusting their management."

Paul said four to five days in the export yards could be the balance between the cost of feeding and recouping weight. He hopes future trials can identify the optimum time frame.

Following the PDS, Paul is reassessing the depot's feed regime. Pellets, hay and silage are currently fed separately, but he has plans to introduce a mix wagon to optimise feed intake.

"Freight costs $200/tonne so if we can feed more efficiently and finish cattle sooner, it will be a win-win situation," he said.

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Labour efficiency

Telemetry passes the test

Farm consultant Mark Gardner believes telemetry is a viable investment for any livestock producer with piped, tanked or troughed water and pumps.

Mark, a director of Vanguard Business Services based in Dubbo, NSW, led an MLA-funded Producer Demonstration Site (PDS) that tested the effectiveness of Observant's* Livestock Water Management system on the Harvey family's Gilgai Farms at Geurie in central NSW.

The trial documented the costs of installation, identified potential issues and challenges, and monitored the impact of the technology on the costs and time savings. The Harvey family captured data to calculate the payback period for the technology, allowing for wages, fuel costs, and vehicle wear and tear.

The trial was the first on-farm demonstration of the commercial installation and use of remote monitoring of stock water in Central West NSW.

"Telemetry has been demonstrated further west in the pastoral areas, but we wanted to trial it in a more closely settled area," Mark said.

"Eric Harvey's farm is quite undulating, with lots of trees and patchy mobile phone coverage.

"Phil Whitton from Observant was confident it would work, though, as the system can use UHF and Next G in combination."

The trial showed telemetry was a viable cost-saving technology, from both a practical perspective in hilly terrain, as well as having a short payback period.

The trialled system cost $21,000, but Mark said a lower-cost system was possible. The PDS trialled a higher cost system so it could use all the features to test the capacity of a range of telemetry devices in hilly country.

"The system allowed the full range of monitoring on a number of water systems, cameras, weather stations and remote pump stop-start on a large property aggregation," he said.

Pay back

Based on a $30/hour labour cost and an 80¢/km rate for vehicle use, the payback period was less than one year.

As the producers developed trust in the system and made fewer physical checks, the payback period fell to 9.6 months.

"We trialled a 'Rolls Royce' system, but we also looked at payback times on more basic systems," Mark said.

"Savings could be made by removing the mobile camera and power unit, or reducing the scope of pump automation. The fastest payback we found was 8.2 months.

"I think the larger your property, the quicker the payback will be. It is technology that all livestock producers with piped, tanked or troughed water and pumps can look at as a viable investment."

Mark said the biggest challenge was retro-fitting the automation technology to existing pumps.

"Ideally, you would buy pumps that are pre-wired, but not everyone can start with new gear," he said.

Observant provided good telephone technical support and were able to diagnose some problems online, but Mark said local technical support and installation was an issue at this stage.

"This is new technology, so support will come as it is taken up," he said.

** Observant is a company which provides water monitoring services and products.*

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To read the full findings of the PDS go to **www.mla.com.au/monitoring-saves-headaches**

Observant: **www.observant.com.au**

Lessons learned at the PDS

1. Get a full system designed first. You don't have to install it all at once, but have it designed by a supplier with a good reputation.
2. To get the most value, you need a smartphone and get used to it before you start using telemetry. The system also lends itself to an iPad.
3. If you are putting in a new water system, plan for adding telemetry. Buy pumps and motors that allow telemetry to be fitted down the track.
4. Visit sites where telemetry is established.

Signalling a new era on Gilgai Farms

Monitoring stock water points using telemetry is saving the Harvey family 14 hours a week and allowing them to spend more time on their beef and lamb direct marketing business.

Eric and Luke Harvey and their families run Gilgai Farms at Geurie in central west NSW, a 2,800ha aggregation of seven properties with undulating pasture and wooded areas.

Stock water is supplied by 101 dams and three boreholes with nine pumping points. One pump is solar-powered, while the other two run on diesel. Forty-four kilometres of pipeline feeds water to 94 watering points.

The rolling land, with drops of up to 84 metres, presented a challenge to the water engineer in designing the initial watering system.

The Gilgai Farms' Producer Demonstration Site (PDS) featured Observant C2 units retro-fitted to the existing pump system, as well as the tanks and three rain gauges.

Using Observant's technology, a UHF signal linked the units back to a mobile station located on a high point and equipped with a modem. A mobile camera was placed on the troughs being used and was moved with the livestock.

The big picture

The Harveys were happy to host the telemetry PDS because it tied in with their management goals.

"Gilgai Farms is holistically managed for a triple bottom line of people, ecology and profits," Eric said.

→

Snapshot

Harvey family, Geurie, NSW.

Property: 2,800ha

Enterprise: Direct marketing of beef and Merino lamb via the internet

Livestock: 14,000–20,000 DSE – evenly distributed between Simmental cattle and fine to superfine Merinos

Pasture: 182 species of grasses, forbs and shrubs

Soil: Nine soil types from heavy black, self-mulching basalt soils to white clays and very sodic soils

Rainfall: 600mm

Mark Gardner and Eric Harvey at the Murga Ridge tanks site. The Murga Ridge pump stops and starts according to the tank levels.

Left: The portable telemetry equipment can follow the mobile pump unit to additional sites, providing additional value for the capital outlay and creating flexibility.

→

"Telemetry ties in with our profits and people goals. It has saved us two hours a day, seven days a week on a water run through summer, and two hours a day, three or four times a week through winter.

"It has also given us peace of mind, which is enormously important.

"I got a call from Luke when he was at the coast in February because he could see on his iPhone that one of the tanks was down to 2%.

"I was able to tell him we'd had a blowout in one of the pipes and had fixed it. It really hit home to us that no matter where we are, we can check the water with confidence."

Sharing knowledge

About 60 landholders participated in the PDS project over three years, travelling up to 500kms to attend field days at Gilgai Farms.

Eric said the farm often hosted soil management field days, so demonstrating the Observant technology at the same time made sense.

Gilgai Farms features an 'ecologically regenerative farming system' with a focus on soil health and the application of biological additives.

The Harveys see telemetry as simply another farm management tool, and found the technology easy to master.

"If you can drive a smartphone that's all you need to know," Eric said.

"The real challenge was the electrical wiring of our old pumps so we could turn them on and off with our phones or computer.

"It took a while to get that running properly.

"If you just wanted a telemetry system that monitored your water levels, it would be very simple."

How telemetry benefited Gilgai Farms

Labour use

- → Reduces labour requirements by up to 14 hours a week
- → Allows more time to be spent on the direct marketing business

Productivity

- → Allows proactive planning to combine jobs, ie if you receive a message at 9pm saying diesel is low in a pump, you can plan to fill it on the way to do something else in the morning

Financials

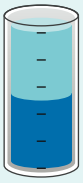
- → Has paid for itself in 9.6 months
- → The labour saving was valued at $420/week

Sustainability

- → Reduces fuel use

Project dashboard: Telemetry PDS in Central NSW – Gilgai Farms

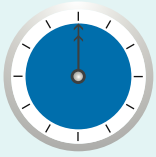
Financial contributions to the project
$31,550



MLA levies: **50%**

Government: **50%**

Length of project:
2 years
7 months
(Completed April 2013)



Project is part of MLA's objective to:

Create opportunities with new practices or technologies to improve labour efficiency by 5% encompassing occupational health and safety, labour resource need and yield.

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To watch a video about this PDS and how Gilgai Farms implemented telemetry go to **www.mla.com.au/telemetryPDS**

Market compliance

Setting the standards

When John and Leonie Bourke began supplying Meat Standards Australia (MSA) eligible cattle to a feedlot, quite a few didn't make the feedlot's specifications. Seven years on and with new measures in place, they now meet the specifications almost every time – attracting premiums from a minimum of $20 a head to more than $80.

When the Bourkes realised there was potential to increase compliance, they armed themselves with information and education.

"We attended a MSA information day, hosted by MLA and the larger processors, which we found extremely informative," Leonie said.

"Easy access to information and regular feedlot liaison keeps us up to date, and we access carcase statistics over the internet if we have any production issues. While everything is falling into place now – we still learn every day."

→

Snapshot

John and Leonie Bourke, Mundubbera, Qld.

Property: 6,071ha across four properties including a forestry lease block

Enterprise: Predominantly Santa Gertrudis and Angus crossbreed, running with black Angus bulls

Livestock: About 600 breeders

Pasture: Mix of scrub and forest country, mixed forest grasses, Rhodes and buffel grass

Rainfall: 600mm

→

From their home base at Strathdee – west of Mundubbera in Queensland's Wide Bay Burnett region – the Bourkes run a predominantly "crossbred on the red side" herd. Most are marketed to Smithfield Feedlot in the South Burnett.

"We run mostly Santa Gertrudis and Angus-cross cows with black Angus bulls, which we introduced in 2006 to better suit Smithfield's specifications," Leonie said.

"As they prefer crossbred cattle with a British mix, minimal hump and a more compact, thicker body, we find Angus bulls over a Santa-cross herd fits the bill. We weren't sure how the Angus cattle would go in our summer heat and in tick and fly country, but they have been fine."

As the Bourkes run their bulls year round, which is essential on their poorer forest country, calves are weaned twice a year. Any calves not likely to meet preferred market specifications are sold through the saleyards straight from the cows.

"We wean the remainder and grow them through to the 300–360kg weight range for the supermarket trade at Smithfield Feedlot," Leonie said.

"Any steers too big or out of specification are grown out to 450kg and sold to Smithfield for their 100-day bullock trade. The bigger heifers, including those selected for replacement breeders, are grown out on our better country, with the final selection going into the breeder herd and the remainder fattened for the MSA market."

Low stress operation

In a bid to achieve even-tempered, easily-worked cattle, the Bourkes source bulls with good temperaments and have made yard work an essential part of their operation.

"We yard-wean to remove the stress factor down the track," Leonie said.

"We work our cattle in and out of the yards for three weeks after weaning and familiarise them with noise and unusual surrounds by presenting them with people, dogs, tractors, motorbikes and horses.

"After the weaning process, the cattle are mustered into the yards every two to three months for any necessary treatment, including buffalo fly."

Cattle are brought in about two weeks ahead of sale for weighing and mouthing.

Tips for meeting market specifications

- → Source information from **www.mla.com.au** and information days
- → Liaise regularly with the feedlot
- → Source bulls with good temperament
- → Yard wean and do frequent yard work
- → Consider strategic changes to herd structure and breeding program
- → Minimise cattle stress factors

"We hold cattle ready for sale in a separate paddock until the day before trucking, when we then bring them into the yards, put them on hay until mid-afternoon and provide only water overnight. We truck them early in the morning while the day's still cool for minimum stress," Leonie said.

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Making the grade

Jason Shearer-Smith says MSA provides opportunities to differentiate market product and accurately predicts eating quality.

The path to MSA for feedlot cattle starts well before entering the feeding pens – it begins on the farm of origin. One lot feeder suggests that knowing your cattle, understanding weights and heeding specifications will help you make the grade.

Jason Shearer-Smith, who runs the family-owned Smithfield Feedlot in Queensland's South Burnett, looks for well-grown, young cattle with minimal hump height to meet customer demands.

Jason's family has supplied domestic and export markets through its feedlot for 27 years. The feedlot has an 18,500-head capacity and annual turnoff of 60,000 grainfed cattle. Three grazing properties assist with backgrounding and grain production.

"Following MSA guidelines does require work and forward planning to continually meet specifications," Jason said.

"Overall cattle management, particularly drafting, trucking and mixing cattle, can be a challenge. It requires a lot more pens and mob separation and, at times, additional feeding of cattle to ensure they have had a chance to mingle with their new mob."

The feedlot uses more than 280 tonnes of feed a day. A state-of-the-art steam flaking technology provides a ration to maximise average daily gain and feed conversion efficiency.

Good preparation

Jason said feedlot-destined cattle should be well handled and of workable temperament, and premiums are paid for vaccinations.

"Cattle should have the 5-in-1 vaccine and the Bovilis MH vaccine for respiratory disease – two shots, 4–12 weeks apart is best," Jason said.

"Bunk training is preferable and animals can be given hormonal growth promotants (HGP) with pastoral grass implants. We prefer HGP-treated cattle, even though that does slightly affect MSA grading. All cattle at Smithfield, except European Union cattle, are treated with HGPs."

Crossbred cattle are preferred at Smithfield Feedlot, and cattle with a mix of British, *Bos indicus* and European genetics are found to be the best.

"British reduces hump height and improves marbling and eating quality, *Bos indicus* gives us environmental adaptation and the European cattle give us growth and yield," Jason said.

Smithfield's market specs

Generally, Smithfield likes incoming animals to be less than 50% *Bos indicus**.

The domestic specification for steers and/or heifers includes milk teeth, weight between 300 and 380kg and less than 38% *Bos indicus* content.

For 100-day steers, requirements are 0–2 teeth, weight between 380 and 480kg and less than 50% *Bos indicus* content.

* MSA criteria includes cattle with 100% *Bos indicus* bloodlines but lotfeeders such as Smithfield can establish their own specifications for their system.

Preparing cattle for the feedlot

- Measure weights
- Know the feedlot specifications
- Stock should be well handled with workable temperament
- Bunk or feeder trained is preferable
- Consider vaccinating your cattle: 5-in-1 and Bovilis MH (premiums paid)
- HGP-treated preferred

Smithfield Feedlot
www.feedlot.com.au

www.mla.com.au/msa

Download the MSA *Tips and Tools Beef Information Kit* at:
www.mla.com.au/msabeef

Feedbase

Getting the most from saltbush

Use it or lose it
You can't 'save it up' from one year to the next. Saltbush will drop leaves in autumn if it gets water stressed. Shrubs need to be kept grazed to keep the leaves within easy reach for the sheep.

Spend more money on the 'better' saltland
Old man saltbush alone does not produce enough biomass and is too salty to be the whole diet – the understorey is critical to profitability.

Supplement or complement
Sheep can't maintain liveweight by saltbush alone; they need extra food sources to supplement their energy requirements. They also need some low-salt feed to complement their diets. Saltbush should only form about 30–40% of the total diet.

Provide good, easily accessible water
Dried saltbush leaves are one quarter salt and sheep can't eat salty food unless they can drink water. A sheep on saltbush will drink as much as 10 litres of water per day. Think about the water supply and the temperature of the water at the watering point – water that travels through black poly pipe on the soil surface to get to a trough can be too hot for sheep to drink on a hot day.

Watch your lambing ewes carefully
They need supplementary energy when grazing saltbush. Mineral imbalances may cause problems and for ewes this can include calcium deficiency.

Serving up tastier saltbush

To preserve the genetic integrity of the new cultivars, cuttings are the most reliable method of propagation.

A researcher visiting Murray Clement's farm at Kellerberrin in Western Australia a few years ago gave the producer a new perspective on his challenging saline soils.

Snapshot
Murray Clement, Kellerberrin, WA.

Property:
2,000ha

Enterprise:
Sheep – prime lamb; wool; cropping – wheat barley

Livestock:
800 head – Merino ewes, Poll Dorset sires

Pasture:
Saltbush, some medic

Soil:
Range from medium to heavy clay; some saline areas

Rainfall:
"Used to be 325mm – but haven't had that for a long time."

New, elite lines of old man saltbush are being trialled at 13 sites across Australia in a project that is set to deliver highly palatable and digestible saltbush cultivars.

Dr Hayley Norman, CSIRO, who leads the Future Farm Industries Cooperative Research Centre (FFI CRC) old man saltbush project, said the results are currently being evaluated.

"The new cultivars were selected primarily for nutritive value – specifically digestibility and palatability," Hayley said.

"That's what all the economic models indicated would have the biggest impact on profitability. Biomass production was third on our list but these elite lines are still eight times more productive than the average of the 'wild' material we started with. That is a real bonus."

Most of the 13 trial sites for the new cultivars are in Western Australia, but there are also sites in NSW and South Australia. In all, 8,000 individual saltbush plants were planted at the trial sites in the MLA-funded project.

"Survival of the seedlings has been high at all the sites except one in South Australia, where drought and rabbits took their toll," Hayley said.

"Our aim was to have sites across a range of rainfall zones, in a variety of soil types and with different salinity levels.

"Most of the initial research work has been done on three sites, but before we released any of the cultivars we wanted to put them into more challenging environments to make sure they weren't 'princesses' – we want cultivars that live up to our expectations in the real world. We want them to be at least as tough as those that local nurseries have been selecting for a long time, but with the extra benefit of higher nutritive value."

The researchers are assessing the trial site results ahead of making decisions about which cultivars will be commercialised. Future Farm Industries CRC is developing a commercialisation strategy, in conjunction with various local nurseries. As yet, no decisions have been made as to how many clonal lines will be released, but the plan is to have the first of the new cultivars released ready for planting in 2014.

"It may be that there's one standout, or it may be that a few cultivars present themselves as being best for particular conditions," Hayley said.

"We don't see the new cultivars taking over completely in any single planting. I certainly don't want to see people planting great monocultures of only one cultivar. But, by incorporating the new line or lines into plantings, the overall nutritive value of grazing those saltbush areas should increase, which will improve livestock productivity."

Old man saltbush has already proven to be a useful additional forage for sheep, particularly during the summer/autumn feed gap. It provides a green food source when other feed is limited and also provides good quantities of minerals, vitamin E, protein and sulphur.

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www.futurefarmonline.com.au/research/future-livestock-production/oldman-saltbush-improvement.htm

A saline solution

Murray said, "He told me I didn't have a salt problem, I had a salt opportunity. Now, I reckon that's true."

Murray came to the realisation via saltbush, a forage plant initially introduced for a local Landcare demonstration in 2005-06 and now considered instrumental in maintaining production through climate variability.

"I guess productivity is different things to different people. But if I can turn bare and degraded saline country into country that I can run stock on, then I reckon that's improving productivity," Murray said.

Murray freely admits he was initially badgered into planting saltbush. But now it's hard to imagine anyone being more passionate about old man saltbush or the research Dr Hayley Norman is conducting.

"We put the first saltbush in around 2005-06 as part of a demonstration that Glenis Bachelor was organising for the local Landcare group. Glenis was the Natural Resource Management Officer and I had a lot of respect for the work she was doing, so I eventually agreed to give it a go," Murray said.

"We had a lot of valley floor salinity – it was very soft country, and was unproductive and eroding. It was so bare it used to blow. It was just horrible."

It was into these areas that Murray put the first saltbush seedlings, initially planting river (cultivar Rivermore) and old man saltbush. Small-leaved bluebush naturally populated the area. Sheep were excluded from the area for about a year after the seedlings were planted.

"We've now planted almost 200,000 saltbush seedlings on the property," Murray said.

Before the first saltbush were planted, electromagnetic surveys were conducted to determine salinity levels. Murray combined the knowledge gained from those initial surveys with experience gained since to work out where to plant saltbush on his property. He aims to plant around 1,000-1,500 stems per hectare, and estimates about 150ha have been planted.

→

"We plant the seedlings with a Chatfield tree planter – in one pass it deep rips and plants the seedlings. When you deep rip, you want to leave the soil cloddy," he said.

"If you've got bare, saline country that's blowing, the best things to do is exclude sheep and plant saltbush around the outside. Deep ripping is an option. If there's samphire growing, it's too salty for saltbush – but that area won't be blowing anyway."

More than saltbush

Murray doesn't just plant the saltbush and walk away. He sees it as the lynchpin in a whole new pasture system.

"After a year or two, you can go back and plant Rivermore between the old man saltbush and the samphire," he said.

"The Rivermore seems to tolerate greater waterlogging and we seem to be able to sneak it further into the saline areas than we can the old man. And because it's more prostrate, it catches whatever seeds are blowing through – native seeds, ryegrass, all sorts of things. It creates a microclimate for the annuals to grow in."

It is important to control weeds when establishing saltbush. For Murray, that means controlling ice plant.

"It's no good if ice plant becomes the dominant understorey. However, I have found that it can be controlled using herbicide.

"We're now working on growing Yagan barley, which is an old variety, in the area near the saltbush. In those saline areas, it's important to get a quick-maturing barley variety and plant it as late as you can. That gives you the best chance of a reasonable harvest. Barley is a better option in saline areas than wheat – it tolerates more salt."

Productive saltland

The productive saltland that Murray has created using saltbush as a base was instrumental in getting the farm through the dry, difficult seasons of 2010 and 2011.

"Most of the ewes spent the whole of last year in saltbush. The lambs did well and the ewes went in to the summer in really good condition. Our lambing percentage was around 90% and we had very little tender-wool. I was happy with that – it was a difficult season and feed was at a premium," Murray said.

"I think the biggest negative with saltbush was the low nutrient level and palatability, and Hayley Norman is addressing that now with the new saltbush cultivars that she's working on. I have tremendous respect for that work, and for Hayley herself. She's a world-renowned scientist and she makes her research relevant to our bottom line."

Lessons learned

- Plant saltbush around the edge of bare saline areas and exclude sheep during establishment.
- Rainfall will always determine the stocking rate.
- Different approaches, and different plants, are needed for areas with different salinity.
- Barley tolerates more salinity than wheat. Plant a quick-maturing variety as late as possible.

Murray Clement
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Experience has taught Murray Clement where saltbush will and will not grow on his property.

Building capability

Goal attack

Business coaching isn't just for corporate high flyers. Dr Kristy Howard says it works just as well out in the paddock, and producers have plenty to gain.

Snowline Speckle Park Stud's Rick Munt and Tania Weller and business coach Dr Kristy Howard.

Running an agricultural business doesn't have to be a solo enterprise. Research funded by MLA and the Victorian Department of Environment and Primary Industries has shown that a little help – in the form of business coaching – can significantly improve producers' lives.

Business coach Dr Kristy Howard, of Inspiring Excellence, who undertook this research last year, said it was important to understand the barriers to change and why many producers find it difficult to adopt new technologies, or apply what they learn in workshops on-farm.

"This pilot project focussed on eight Victorian producers to see whether a more corporate approach of one-on-one business coaching could make a significant difference."

The process

The research project, which ran for 10 months, involved Kristy visiting each participant on-farm, with three one-on-one Skype or telephone sessions and a final visit to help participants achieve the goal they set at the start of the program.

"All the participants made some progress towards their goals, which were all quite different – from promoting a stud bull to increasing business cash flow," she said.

"At the end, all the participants came together and met for the first time and were able to trade experiences and opinions of their own journeys."

Kristy found a key to the program's success was its element of accountability.

"It's one thing to make goals but – through the coaching process – you're continually asked to report on the progress you're making, which compelled most participants to act rather than procrastinate," she said.

"Another important feature of the program was that it provided a unique opportunity for many producers to talk openly and honestly, in a confidential situation, about what they were doing, the decisions they were making and why. Many producers found it quite confronting at the beginning but, as the program progressed, they thrived on it."

Kristy said it was important to understand the fundamental differences between coaching (the focus of this project) and consulting.

"When producers go to a consultant, the consultant is expected to solve the problem and deliver the best strategy for making that happen," she said. "In coaching, producers learn the skills to do that for themselves."

Kristy believes the project has shown that business coaching has potential either in one-on-one situations or in small groups as part of the Better Beef Network or similar programs.

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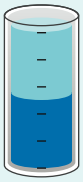
Project dashboard: Decision making processes for producers

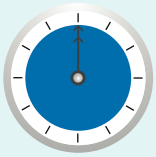
Financial contributions to the project:
$19,200



MLA levies: **50%**

Government: **50%**

Length of project:
1 year
(completed)



Decision making checklist

These five steps can help you make, and follow through on, business decisions.

Step 1: Identification

- What decision do you need to make? What problem do you need to solve?
- Get specific in the detail of the decision and identify the critical factors in making the decision.

Step 2: Options

- Gather information that is directly related to the problem. Doing this will help you better understand what needs to be done in solving the problem, and will also help to generate ideas for a possible solution.
- Make a list of every possible alternative; even ones that may initially sound silly or seem unrealistic.
- Seek the opinions of people that you trust, speak to experts and professionals. This will help you to come up with a variety of solutions when weighing all your options for a final decision. Gather as many resources as possible.
- Consider the option of 'do nothing' and what that will mean.

Step 3: Consequences

- Review the pros and cons of the different options that you listed in step 2 (including the do nothing option). This step is essential and it will also help you feel comfortable with all your options and the possible outcome of your chosen option.

Step 4: Implementation

- Execute your final decision. This step can cause some people a lot of anxiety. It is also where you have to trust your instincts and act.
- Ask yourself, does it feel right? Does this decision work best for me now, and in the future? When you answer these questions back, you should feel good about the result. Although you may still be slightly indecisive about your final decision, you should to take into account how this makes you feel.

Step 5: Evaluation

- What was the outcome of the decision – did it solve your problem?
- This final step is as, if not more, important as step one. Evaluating decisions will help you to further develop your decision making skills for future problems. This step is also fundamental because it may require you to seek out new information and make some changes along the way.

Snapshot

Tania Weller and Rick Munt, Kergunyah South, Vic.

Property: 486ha

Enterprise: Speckle Park Stud and crossbreeding with Angus cows (about 40 calves due this year)

Livestock: Two Speckle Park bulls, Speckle Park cows and calves

Pasture: Subclover, phalaris, ryegrass

Soil: Red loam

Rainfall: 951mm

Marketing decision making

Snowline Speckle Park Stud partner Tania Weller. Photo by Jennifer Fennell.

Having swapped corporate clothes for work boots seven years ago, Tania Weller from Snowline Speckle Park Stud felt right at home with MLA's pilot business coaching project.

Starting a stud from scratch is a tall order, and the Munt-Weller partnership in Victoria's Kiewa Valley found business coaching helped provide focus and direction for their new business.

Tania and Mike Weller combined forces with neighbours Wayne and Leanne Munt, and their son, Rick, to form Snowline Speckle Park Stud in April, 2012.

They bought the much-decorated Wattle Grove Rocket E24 for $20,000. Rocket was senior champion bull at last year's Sydney and Brisbane Royal Shows, supreme Speckle Park exhibit at Beef Australia 2012 and was fourth in the event's interbreed section.

The commitment to getting Snowline Speckle Park Stud off the ground has been unshakeable, but even this business-savvy outfit realised they didn't have all the skills required to successfully launch Wattle Grove Rocket E24 as a prominent beef sire.

When Dr Kristy Howard approached them to join the MLA-funded pilot business coaching project, the timing was perfect.

"We were basically at the point where we'd spent all this money on a bull and we needed to promote him and create semen sales in order to get some return on our investment," Tania Weller said.

"I've got an eight-year-old daughter so the prospect of hitting the road for days at a time to promote a bull just wasn't going to work."

"Rick and I did the coaching and it really helped us make progress," Tania said.

> "Kristy showed us that tearing around trying to do a million things at once was actually counterproductive. Instead, we focused on one thing and made sure we ticked all the boxes before moving on."

Tania and Rick also learnt to focus on the parts of the stud they were good at, and to outsource tasks that required more experience.

"One of the best outcomes of the coaching was that we organised Rocket to be listed with the artificial breeding company, Agri-Gene, for semen sales," Tania said.

"We've just had his photos and a YouTube video done of him in the paddock to go on their website. We've sold straws already, so we're quite excited about this next phase. We realised promoting semen sales was an area we didn't have the expertise to do properly and we were better off concentrating on farm operations and stud marketing."

Tania said both she and Rick enjoyed the coaching and found it a positive, rewarding experience.

"I don't think any of it was difficult," she said. "Kristy made us think about return on investment and to focus on realising a financial return on current assets.

"As a former city-corporate person, I'm quite comfortable with the concept of business coaching, and it's certainly something I'd like to see our business revisit about once every two years. You can always learn something new."

The Wellers and Munts are forging ahead with ambitious plans to promote their stud and the Speckle Park breed. By the end of next year they hope to start supplying the restaurant trade with their own beef label.

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Coaching puts picture together

Michael Trewin is an established Europen Union-accredited cattle producer, but the business coaching he did through an MLA pilot project showed him there's always room for improvement.

For a while there, cattle producer Michael Trewin was worried he couldn't see the forest for the trees.

He had great ideas, plenty of know-how gathered from courses such as Prograze, his Better Beef group and various Healthy Soil days, but putting it all together just wasn't happening.

"Coming out of the drought, our repair and maintenance costs were through the roof. I had ideas in my head I couldn't seem to get into practice and I really felt like I needed to get a better handle on our cash flow," Michael said.

When Dr Kristy Howard offered Michael the opportunity to join the MLA-funded pilot business coaching project, he jumped at it.

"For me, it was fantastic," Michael said. "I set the goal of being able to produce a cash flow budget and statement on a monthly basis, with the ultimate aim of reducing our overdraft by $25,000.

"It might sound simple, but most accounting packages are set up for tax accounting. I wanted something that reflected the farm cash flow, with a budget overlay, that could be reconciled monthly with the cheque book. I didn't want anything complicated."

Working it out

Kristy kicked off the 10-month program by visiting Michael on-farm and listening to him outline his goals.

After six months of discussions with his accountant and Kristy, Michael achieved a simple, one-page spreadsheet that takes him only 10 minutes to fill in once a month. It provides information on income, expenses, year-to-date figures, has a budget overlay, and allows him to easily and quickly understand his financial position.

"Our accountant was so impressed with it he now recommends it to other small business owners," he said.

To maintain his momentum, Michael formulated an activities calendar to help him plan ahead.

"Whenever I had a phone call with Kirsty, we'd set down objectives for the next session, which included jobs such as reviewing budget figures and cattle income. I found I got a lot more done and felt more in control of what was happening on the farm," he said.

"I think the coaching process took the pontificating out of it."

Michael also found solace in being able to discuss confidential business issues with a professional skilled in not only agriculture, but also problem solving.

"We discussed a lot of other issues which impact our profitability, such as the importance of having a flexible production system, ways to increase turn-off weights and our optimum stocking rate," he said. "Kristy had a lot of really useful knowledge to bring to the table."

Michael was so impressed by the process he plans to meet up with Kristy quarterly as part of a private business coaching arrangement.

Snapshot

Michael and Shirley Trewin
Bungil, Vic.

Property: 800ha

Enterprise: EU-accredited beef production

Livestock: 330–340 Hereford cows (80% Poll Hereford)

Pasture: Phalaris, native perennials, annuals with mycrolaena, red grass on hills

Soil: Sandy loam with rising decomposed granite on hills

Rainfall: 900mm

Lessons learned

- Someone who is skilled and independent can be a great sounding board.
- The coaching process keeps you accountable to your goals.
- Being challenged by a coach puts you outside your comfort zone – in a good way.
- One-on-one coaching provides the opportunity to talk about the 'nitty-gritty' financial issues that would never be raised in a group situation.
- Business coaching is a worthwhile business investment.

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Finishing systems

First across the finish line

A southern Queensland Producer Demonstration Site (PDS) has found that steers in high-input finishing systems (leucaena, oats, feedlot) can produce significantly higher returns than steers constantly grazing improved grass pastures.

The three year MLA-funded PDS was conducted on Ranald and Sally Ferrier's property, 'Bannockburn' at Bell, in southern Queensland. It doesn't officially wrap up until next month, but the numbers have been crunched providing some key findings for producers to consider.

The PDS evaluated the economic performance of finishing systems incorporating: improved grass pastures, elevated (predominantly frost-free) leucaena-grass pastures, oats and an on-farm feedlot.

The project team, led by Queensland Department of Agriculture, Fisheries and Forestry (QDAFF) FutureBeef extension officers Tim Emery (Project Leader) and Roger Sneath, worked with the Ferriers and Property Manager Steve Munge to regularly weigh cattle, collect faecal samples to monitor diet quality, compile the data and organise field days. QDAFF Economist, Fred Chudleigh, compared the economics for each system.

Two mobs of non-HGP, predominantly crossbred steers, with a 350kg entry weight, were assessed: 87 head over a 364-day period in 2011 and 100 head over 320 days in 2012. They were destined for the European Union.

"While the 2012 trial had to be shortened by 40 days due to well below average rainfall and resultant management decisions, we were still able to capture invaluable data," Tim said.

"Our project design had about three-quarters of each mob on leucaena-grass pastures for six months up until June, then the group was split three ways onto oats, into the feedlot and back onto leucaena. The remaining steers stayed on improved pastures of Bambatsi, green panic and Rhodes for the whole period."

The PDS showed that steers grazing leucaena (on a predominantly frost free site) year-round delivered more than double the kg/ha compared with improved pastures, producing 252kg versus 125kg in 2011 (Table 1).

"The average daily gain on leucaena-grass pastures was 0.7kg/head/day across both years and the steers on improved pastures averaged 0.58kg/head/day and 0.48kg/head/day in respective years," Tim said.

"The feedlot in both years allowed the steers to put on just over 1.5kg/head/day."

Seasonal variation

Despite access to quality improved pastures, steers went backwards by about 0.25kg/head/day during winter in both years. Those on leucaena during winter added 0.1kg/head/day in 2011 and 0.56kg/head/day in 2012.

"In spring, the steers on improved pastures definitely kicked away again (compensatory gain probably assisted) and during summer the weight gains on improved grass pastures were pretty much on par with those on leucaena," Tim said.

"Low weight gains in early 2011 were a result of extremely high rainfall."

Steers grazing elevated leucaena year-round performed slightly better economically than those which grazed oats and slightly worse than those that went into the feedlot. This result is dependent on many factors, including rainfall, cattle performance, cattle prices and grain prices.

Top: Bell producer, John Walker, at the end of a field day at 'Bannockburn' in April where he learnt more about the different steer finishing systems studied at the MLA-funded PDS.

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Crunching the numbers

The Bannockburn PDS shows an encouraging overall picture, but QDAFF Economist Fred Chudleigh (pictured), said the intricate details also need to be considered.

"The trial groups' average does not tell the whole story. Now that many producers are regularly weighing steers and recording individual performance, there is an opportunity to improve returns by looking more at the individual animal performance and to understand why some (cattle) perform better than others when higher inputs are being applied to the production system," he said.

"Steer finishing systems similar to those at Bannockburn can improve both business production output and profitability when appropriately implemented and managed."

The results comparison for 2011 and 2012 indicated the partial return on livestock capital invested for each period, with the second starting in June, and for each year of the finishing systems trial (Table 2). As this partial return looked at the value added by the steers less variable costs but not all overheads, the results are relative to each other only. The extensive analysis took into consideration the opportunity cost of the steer capital, pasture development and land capital, along with the costs of labour, treatments, feeding and selling.

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Table 1 **Performance of trialled finishing systems**

The PDS showed that steers grazing leucaena (on a predominantly frost free site) year-round delivered more than double the kg/ha compared with improved pastures, producing 252kg versus 125kg in 2011.

2011 364 days	ha	Equiv hd/ period	ha/hd	Wt in	Wt out	kg/hd	kg/ha	Days	ADG*
Grass	32	19.1*	1.68	337	547	210	125	364	0.58
Leucaena	134	131.7*	1.02	342	598	256	252	364	0.70
Oats (105 days)	13.5	31.6*	0.43	518	599	81	190	105	0.77
Feedlot (no HGP)				518	694	176		116	1.52

2012 320 days	ha	Equiv hd/ period	ha/hd	Wt in	Wt out	kg/hd	kg/ha	Days	ADG*
Grass	42.7	21.2*	2.01	351	504	153	76	320	0.48
Leucaena	157	120*	1.31	350	584	234	179	320	0.73
Oats (80days)	13.5	25	0.54	509	582	73	134	80	0.91
Feedlot (no HGP)				499	688	189		123	1.54

** ADG is average daily gain*
** Other cattle grazed these paddocks and were accounted for in the stocking rate calculations*
** NB. Figures have been updated since the April Field Day.*

Table 2 **Economic summary (partial return)**

In both 2011 and 2012, the economic analysis found that cattle fed first on leucaena and then at the on-farm feedlot recorded the highest annual return (31% in 2011 and 19% in 2012), followed by cattle fed leucaena during both grazing periods (26% in 2011 and 18% in 2012), then cattle fed leucaena then oats. Cattle fed improved pastures recorded the lowest return in both years.

1st grazing period	1st period return		2nd grazing period	2nd period return		Annual return (AR)		Post 2nd period return (Finished on grain bin in the paddock)*	
	2011	2012		2011	2012	2011	2012	2011	2012
Leucaena	19%	9%	Leucaena	6%	6%	26%	18%		5% (Bin) 35% (AR)
			Oats	3%	3%	22%	11%	1% (Bin) 24% (AR)	2% (Bin) 13% (AR)
			Feedlot	10%	13%	31%	19%		
Improved pastures	7%	7%	Improved pastures	6%	-5%	14%	-1%		14% (Feedlot with HGP) 17% (AR)
			Feedlot (10 head)		15%		28%		

NOTES: *• 2011 - 364 days grazing the leucaena and improved pastures (mob one)*
• 2012 - 320 days grazing the leucaena and improved pastures (mob two)
• Annual return is calculated based on the steer value at the start of the first period.
** Steers deemed not ready for slaughter at the end of each second period were placed on a grain bin in order to hit market specifications quicker.*

Source: QDAFF

Growing the knowledge base

Ranald and Sally Ferrier now have a bank of valuable data to help them decide how to best finish their steers.

Ranald, who with the Property Manager, Steve Munge (pictured), worked first hand with the PDS hosted on his property 'Bannockburn'. He said having independently monitored performance data, giving figures legitimacy, was invaluable.

"The results gave us a snapshot of what we did over those two years with the trial steers. While we might do things differently in the future, we'll have that hard data to draw on," Ranald said.

Cattle are backgrounded on the Ferriers' property 'Nareeten', near Roma. The majority are then further grown at 'Bannockburn' on leucaena and improved pastures before being finished on oats or in the feedlot.

For the past seven years, the Ferriers and 'Bannockburn' manager Steve Munge have developed the mixed farming enterprise with a 500-head feedlot, Cunningham leucaena and improved Bambatsi, green panic, Katambora and Tolga Rhodes grass and creeping blue grass pastures.

More than 200ha of leucaena has been planted in the past five years, with half established on an elevated location rarely affected by frost.

Traditional finishing

With predominantly Angus and Euro-cross cattle, the finishing preference is the feedlot.

"It's a wonderful management tool and you know where you are going by the time the cattle go in," Ranald said.

"We've made a decision to finish our cattle rather than turn them off as feeder cattle and we feel the feedlot is a good way to secure that process.

"It certainly gives cash flow security and an ability to fatten our cattle regardless of seasons. But, clearly, given fluctuating cattle and grain prices, some years are better than others."

The Ferriers grow between 2,500 and 3,000 tonnes of grain annually, predominantly sorghum and wheat.

"We graze cattle on oats in the winter because it helps them keep moving forward, whereas they struggle on the improved pastures," Ranald said.

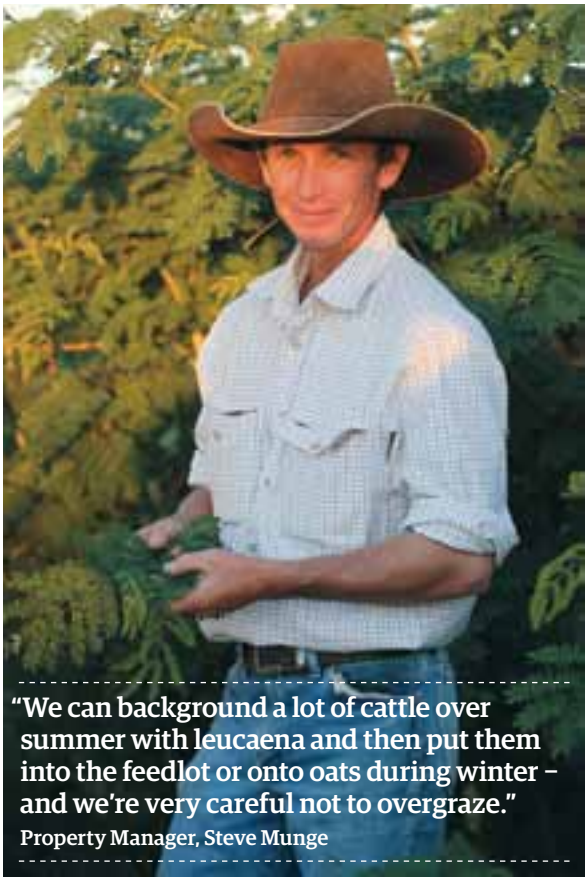
"Leucaena generally gets frosted during winter on our non-elevated country, but it is definitely a useful option on our elevated country to at least maintain or put weight on cattle."

He said that while the better the country, the better the leucaena growth, he would be cautious about taking prime farming land from farming production for leucaena.

"It takes away your options - you just can't plough it out in a few years if grain goes through the roof," he said.

Manager Steve Munge, who runs the property with the help of Eric Molyneux, was pivotal to the success of the PDS.

"Having leucaena on elevated country and being able to utilise it during winter pushed up steer gains for the year to an average of 0.7kg/head/day for two consecutive years with an 877mm and 517mm rainfall," Steve said.



"We can background a lot of cattle over summer with leucaena and then put them into the feedlot or onto oats during winter – and we're very careful not to overgraze."
Property Manager, Steve Munge

Lessons learned

- Independent, rigorous research data provides a good background for decision making.
- Consider carefully where leucaena is grown. In a frost-free location it provides greater production potential but that area then loses flexibility.
- Focus on filling the winter feed gap. Winter is a time when cattle can quickly go backwards.

Snapshot

Ranald and Sally Ferrier, Roma and Bell, Qld.

Property:
4,800ha in total

Enterprise:
Beef cattle - Angus and Euro-cross cattle and (at Bannockburn) grain production

Pasture:
Bannockburn: Cunningham leucaena and improved Bambatsi, green panic, Katambora and Tolga Rhodes grass and creeping blue grass pastures.
Nareeten: predominantly buffel grass.

Soil:
Bannockburn: Vine scrub country to heavier alluvial black soil flats.
Nareeten: Brigalow scrub country to sandalwood box.

Rainfall:
Bannockburn: 660mm
Nareeten: 610mm

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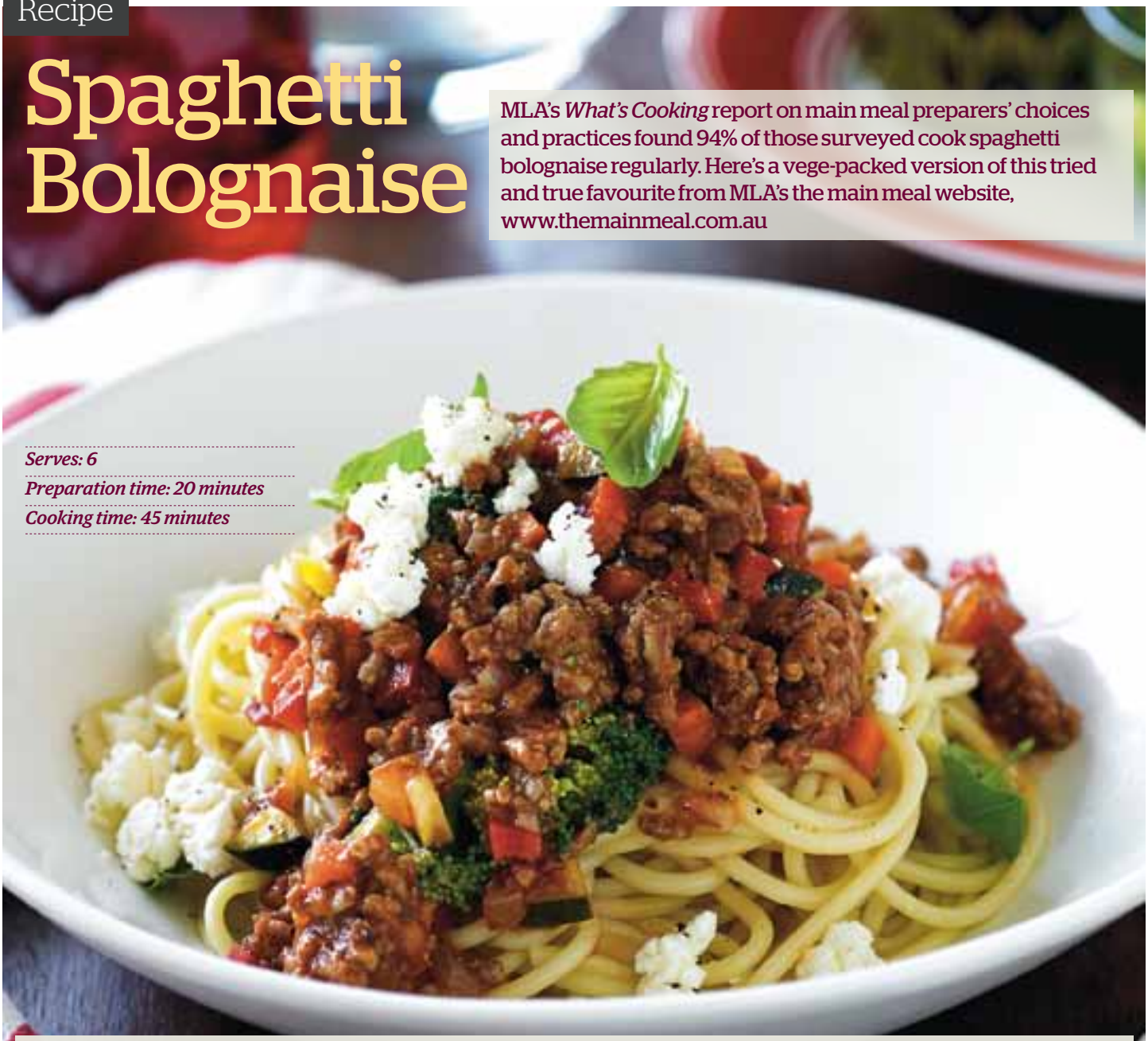
Recipe

Spaghetti Bolognaise

MLA's *What's Cooking* report on main meal preparers' choices and practices found 94% of those surveyed cook spaghetti bolognaise regularly. Here's a vege-packed version of this tried and true favourite from MLA's the main meal website, www.themainmeal.com.au



Serves: 6
Preparation time: 20 minutes
Cooking time: 45 minutes

Ingredients

800g extra lean beef mince
2 tbsp olive oil
1 red onion, finely chopped
2 cloves garlic, crushed
1 carrot, diced
1 zucchini, diced
1 red capsicum, diced
1 small head broccoli, cut into small florets
1 tsp dried oregano
2 tbsp roughly chopped basil, plus extra leaves, to serve
700g jar *passata* tomato sauce
500g spaghetti
Firm, reduced-fat ricotta, to serve

Method

1. Heat oil in a large non-stick saucepan over high heat. Add beef, onion and garlic and cook, breaking up the mince with a wooden spoon, for 12 minutes or until browned. Stir in remaining vegetables, herbs and *passata* sauce and bring to the boil. Reduce heat to low and simmer, stirring occasionally, for 40 minutes or until vegetables are tender and sauce has thickened slightly.
2. Meanwhile, cook spaghetti in a saucepan of boiling water according to packet instructions. Drain.
3. To serve, divide spaghetti among six bowls, top with bolognaise sauce and scatter with basil leaves. Serve with crumbled ricotta.

Essential tips:

→ Mix and match the vegetables using a selection of your favourites.
→ Try grating the zucchini and carrot to 'hide' vegetables from younger children.
→ Firm, light ricotta can also be substituted with shaved parmesan.
→ Freeze leftovers in an airtight container for a quick, easy weeknight meal.

Global consumers

Australian beef and lamb reign superior

Who eats what and where?

New MLA-funded global consumer research provides a better understanding of what protein shoppers in our key and growing markets are buying, and their attitudes towards Australian beef and lamb.

The research examined consumer perceptions and behaviours in South Korea, Indonesia, Malaysia, China, Taiwan, the United States, Saudi Arabia, United Arab Emirates, Japan and Australia.

MLA Manager Consumer Marketing Andrew Cox said the investment had been highly beneficial.

"By using the same questionnaire and methodology across the regions and analysing them together, we get information that allows a comparison of a variety of consumer attitudes and behaviours across different markets," he said.

"Improved knowledge of global consumers leads to better strategies and increased insights."

The results showed that while each market had individual traits, there were broad similarities.

"Encouragingly, beef and lamb are viewed as the most highly regarded meats in all markets," Andrew said.

"Often local product is preferred in other countries, but the good news is Australian beef or lamb is often the most favoured among imported meats in these markets."

Annual research is now planned to track consumption trends and the perceptions of Australian beef and lamb in these markets.

Global dining

The results of MLA's latest global research reinforce the idea that consumers have an emotional connection with the dishes they cook with Australian beef and lamb but the depth of that relationship differs in each region.

Encouragingly, beef and lamb – or both, in the case of Australia and UAE – rank in the top three meats of unprompted 'top of mind' awareness, across all markets.

Freshness was ranked the most important attribute when selecting meat across all countries (see Table 1).

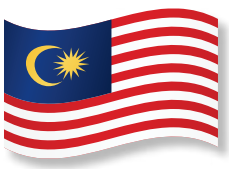
When surveyed, people were asked which types of meat they bought in the last month to prepare for a meal at home; how many meals with meat were eaten in the last seven days, and people's top of mind (unprompted) awareness of meat was measured by asking 'when thinking about meat, which types came to mind?'

Here's a snapshot of consumption trends by region.

AUSTRALIANS have a strong emotional connection with beef and lamb. Thanks in part to the Australia Day campaign at the time of the research, lamb was viewed the best at 26%, while beef ranked second with 21%. Although beef and lamb are highly regarded, Australians see chicken as a more affordable alternative and, as a result, consume it more.

CHINA continues to shine as a developing market for Australian beef. Surveyed shoppers (in Shanghai and Beijing) view Australian beef as a superior safe product essential for their growing children. It is considered a luxury item. Pork is most highly regarded at 65%, and dominates consumption: 94% of respondents had eaten it at least once in the past month when they were surveyed. Chicken is next, with 85% of respondents buying it monthly and beef is close behind, at 84% while lamb is 56%.

Imported beef was eaten more often by respondents in **INDONESIA** than in any other export market. Beef is the most highly regarded at 52%. In terms of weekly consumption, beef ranks third behind chicken and seafood, but 43% of Indonesians say their favourite beef is Australian. Lamb is not popular.



Similarly, lamb does not feature regularly on the shopping list of most **MALAYSIANS**. Chicken is the most well-known with awareness at 34% and 96% bought it during the month, followed by seafood and then beef. Over half of Malaysians view Australian beef as the highest quality in their country. Of all nine markets, Malaysians generally buy the most seafood in the month. Pork consumption levels are low, due to a high Muslim population.

A taste for Australia

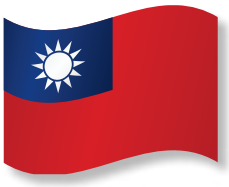
43%
of Indonesians say their favourite beef is Australian

99%
of South Koreans have heard of Australian beef

Table1 **Importance of attributes when selecting meat, by market**

Rank	Korea	UAE	Saudi	Indonesia	Malaysia	China	Taiwan	Australia	US	Average
1	Freshness	Freshness	Freshness	Freshness	Freshness	Freshness	Freshness	Freshness	Freshness	Freshness
2	Taste	Taste	Consistent quality standards	Guaranteed safe to eat	Guaranteed safe to eat	Guaranteed safe to eat	Guaranteed safe to eat	Taste	Taste	Guaranteed safe to eat
3	Guaranteed safe to eat	Consistent quality standards	Taste	High nutritional value	High nutritional value	High nutritional value	High nutritional value	Guaranteed safe to eat	Guaranteed safe to eat	Taste
4	Cheaper	High nutritional value	Low in fat	Consistent quality standards	Consistent quality standards	Taste	Consistent quality standards	Consistent quality standards	High nutritional value	High nutritional value
5	High nutritional value	Low in fat	Guaranteed safe to eat	Low in fat	Taste	Consistent quality standards	Is easy and convenient to prepare	High nutritional value	Consistent quality standards	Consistent quality standards

SOUTH KOREANS love their beef. It is the most highly regarded at 40%, and 99% of Koreans have heard of Australian beef. However, beef is eaten less during the week, outshone by pork and seafood. Lamb consumption is virtually non-existent in Korea.

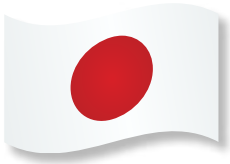


TAIWAN is a pork loving nation. Beef is fourth for consumption, but is thought of second, behind pork. 87% of Taiwanese rate Australian beef as their favourite beef. On average, Taiwanese eat beef 1.8 times a week, compared to chicken and seafood (each eaten an average of about three times a week), while pork is eaten upwards of four times.

UNITED STATES survey respondents (in New York City and Boston) thought of chicken, beef and pork equally at 13%. Chicken and beef dominate actual monthly purchases, while lamb is eaten less, down at fifth spot for consumption, behind seafood and pork.

SAUDI ARABIA is lamb territory. Lamb is the most highly regarded meat at 55%, followed by chicken at 10% and goat at 4%, and it also tops Saudi Arabia's monthly purchases at 56%. Weekly consumption levels are slightly different with lamb ranking second behind chicken.

In the neighbouring **UNITED ARAB EMIRATES**, lamb is the second most bought meat during the month, at 61%, just behind chicken at 62%. These rankings are also reflected in people's awareness of lamb. 55% of UAE respondents perceive Australian lamb to have the highest quality. Chicken is eaten more than twice a week, compared with lamb at about 1.7 times a week.



JAPAN is another market dominated by pork. Japanese regard chicken, pork and seafood the most positively, with pork the most thought of, at 24%. Beef is also highly regarded and 98% of Japanese have heard of Australian beef. Beef's top of mind awareness is 23% but respondents said they ate beef less than once a week, placing it fourth on the consumption list.

Project dashboard: Global consumer research 2013

Financial contributions to the project:
$105,570

MLA: **100%**

Length of project:
4 months; completed

Project is part of MLA's objective to:
Create new business for Australian beef and lamb in domestic and global markets to win 20 new major accounts.

53%
of Malaysians perceive Australian beef as being the highest quality

55%
of UAE respondents perceive Australian lamb to have the highest quality

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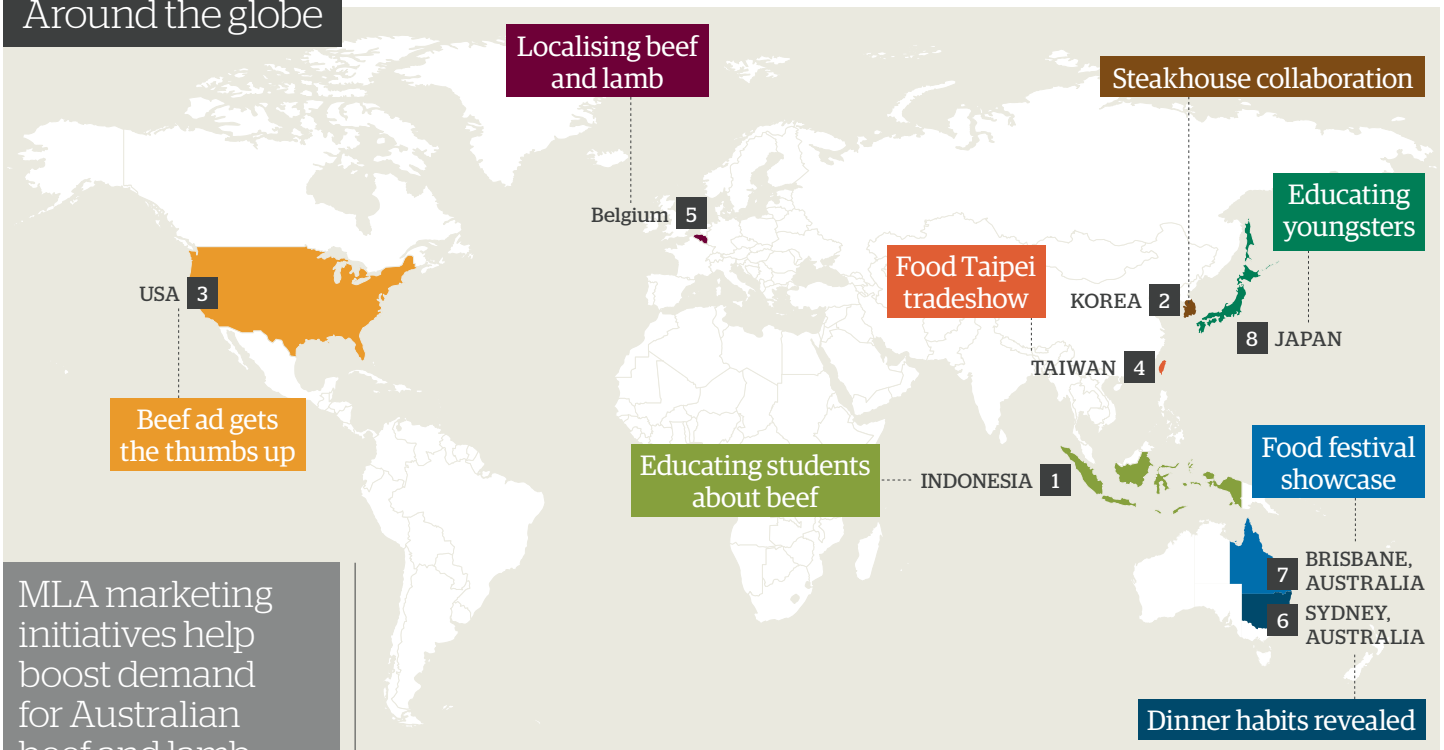
Around the globe



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

1 INDONESIA

Students learn beef's benefits

About 850 elementary school students in Jakarta were educated by MLA, a nutritionist and a chef in July about balanced nutrition and how Australian beef can help. The importance of improving nutrition in Indonesia was highlighted in a recent World Bank report, which indicated that 36% of Indonesian children under five years old suffer stunted growth.

850

Jakarta students participated in MLA's nutrition education program

2 SOUTH KOREA

Aussie beef on steakhouse menu

The *Hojuchungjungwoo* logo (meaning 'Australian beef clean and safe') has been appearing on menu books, placemats and posters in all 108 Outback Steakhouse restaurants across Korea between May and September. About 60,000 copies of an Outback Steakhouse advertisement with the Australian beef logo were released in a South Korean fashion magazine, *Allure*, over two months.

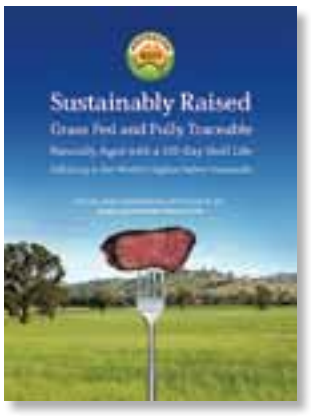
108

Korean restaurant venues are promoting the Aussie beef logo

3 US

A memorable magazine ad

The 'Sustainably Raised' Australian beef advertisement was the most memorable of 52 advertisements in the April issue of popular US trade magazine *Meat and Poultry*, according to the magazine's reader survey. Some 72% recalled seeing the Australian beef ad, while 31% of all magazine readers took further action to find out more about Australian beef. A reader and company representative said: "Sustainability is a big thing to not only our suppliers, but to our customers, and the ad was very eye catching".



4 TAIWAN

Food Taipei features Aussie beef and lamb

The benefits of Australian beef and lamb were promoted at Taiwan's popular food trade show, Food Taipei, over four days in June which attracted 61,000 attendees. MLA provided regular taste-samples and hosted an information session for 150 people which covered the nutritional benefits of beef and lamb in a balanced diet and the importance of quality and safe Australian beef and lamb. Interactive cooking demonstrations were conducted of easy-to-cook recipes, including the famous Taiwanese signature dish, beef noodle soup.

61,000
people attended Food Taipei

5 BELGIUM

Tapping into Belgian cuisine

MLA organised taste testings for a global hotel chain as part of efforts to have hoteliers and chefs view Australian beef and lamb as a quality base adaptable to local cuisines. The executive chef of the hotel group prepared a number of dishes from a range of cuts, including oyster blade, to demonstrate the versatility of Australian beef and lamb with the view to developing 'localised' recipes. The aim is to build awareness of Australian product as food service outlets update menus coming into autumn. The event built on a successful Chef's Table event hosted earlier in the year in Brussels by MLA and the Australian Embassy.

6 AUSTRALIA

What's Cooking in Sydney?

MLA's newest nutrition report into the dinner habits of Australians was released to the nutrition industry in Sydney recently. The *What's Cooking?* report launch was attended by 50 nutritionists, dieticians, health care professionals, industry researchers and academics.

7 AUSTRALIA

Foodie festival success

The 'Nothing beats Beef' and 'Target 100' brands were sponsors of the MLA-supported Regional Flavours festival, a two day food and wine event held in Brisbane in July which attracted around 70,000 people. MLA's 'Smokehouse Beef' tent educated 'food aware' consumers about the versatility in barbecuing non-loin cuts, and the industry's sustainability efforts, while well-known regional chefs and producers were on hand to promote, and demonstrate how to cook Australian beef.

8 JAPAN

Aussie beef for lunch

More than 7,000 Japanese school students have learned about Australian beef from MLA's school visit programs. Recently, MLA visited elementary schools including the Hiradaiyon Primary School in the Fukushima Prefecture, which was affected by the 2011 tsunami. Students learned about Aussie beef safety and Australia's natural environment. After the sessions, students ate Aussie beef for their lunch.

7,000
Japanese school students educated about Aussie beef

On the ground

European Union

Michael Crowley
MLA Regional Manager
European Union and Russia
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Australian beef volumes reached 17,533 tonnes in 2012-13, the highest since 1998, and a 31% increase year-on-year.

In that period, 8,700 tonnes of grainfed beef were shipped to the EU, an increase of 82% year-on-year with growth set to continue. At 8,800 tonnes, grassfed beef was up 2% year-on-year. The EU bought Australian beef at an average of $9.65/kg in 2012, making it our highest value export customer.

Growth in beef exports to the region has been facilitated by Australia's access to the new High Quality Beef Grain Fed (HQB GF) quota, gained in 2010, in which Australia shares access with the US, Uruguay, Canada and New Zealand. The HQB GF quota increased from 20,000 tonnes to 48,200 tonnes in August 2012. As a result, strategic supply chain alliances have emerged, with businesses in both Australia and the EU growing in partnership.

Although the EU has recently been plagued by economic problems, it is a huge market, with more than 500 million people consuming roughly eight million tonnes of beef and two million tonnes of sheepmeat a year.

The economic situation has had a greater impact on sheepmeat, placing pressure on imported Australian lamb competing against cheaper New Zealand product and an oversupply of UK lambs at the start of the year.

Australian exporters have a great opportunity to continue to expand grainfed beef volumes and maintain existing grassfed beef and sheepmeat levels while maintaining price. To achieve this we have to be strategic in our marketing.

To support the rise, MLA's main marketing investments in the EU are in:

1. Market supply chain education, training and development.
2. Supporting exporter investment in marketing programs behind proprietary brands.
3. Supporting importer investment in brand promotion, partnering with MLA to raise awareness of Australian red meat.
4. Trade show stands at major region and international events
5. Market access: capitalising on current market conditions and improving long term, sustainable access.

Market observations

Weak dollar, improved outlook

The high Australian dollar has acted as a handbrake on the beef and lamb industry for the past three years, but its recent rapid depreciation has rejuvenated the export outlook.

Tim McRae
MLA Economist

After about three years at close to or above parity – peaking at US$1.10 – the Australian dollar's decline to around US$0.90 is a welcome factor in the long-term viability of the industry.

A slowdown in the Chinese economy, which has been reflected in the Australian mining sector, has assisted the decline of the dollar. Record low Australian interest rates and the slowing Australian economy have also played their part.

The main benefit to producers from the lower dollar is the improvement in the price competitiveness of Australian red meat in overseas markets, without reducing returns paid at home.

It has been the erosion of price competitiveness of Australian red meat in recent years caused by the high Australian dollar, as well as improved access for competitors in export markets, that has been felt the most by the industry.

Relative movements in currency are also crucial, whether it is the Australian dollar against the Brazilian real for beef into Russia or against the New Zealand dollar for lamb into the UK.

Positive signals out of the US economy have helped strengthen the value of the US dollar. If combined with a recovery in consumer sentiment through the US, demand for protein products should increase in 2014.

While the two largest influences on the Australian cattle and sheep industry – rainfall and the Australian dollar – are out of producers' control, it is encouraging to see one moving in the right direction.

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Beef cattle projections

Reaching highs and lows

MLA's mid-year cattle projections, released in July, have been heavily influenced by the failed wet season in the north, combined with large herd numbers and poor summer and autumn in the southern states.

Supply prospects

The growth of the Australian cattle herd is one of the major revisions in the mid-year update compared to estimates in January.

The Australian cattle herd at 30 June 2013 is estimated at 28.25 million head, down 2.6% on last year's peak of 29 million (see Figure 1). This reflects the historically high cattle turnoff over the first six months of this year.

A further smaller decline is forecast in 2013-14 as the impact of the poor 2012-13 breeding season becomes evident.

Deteriorating conditions have delivered an historically high turnoff for January to June 2013. Slaughter rates are on track to reach 7.725 million head for 2013, up 5.1% year-on-year (see Figure 2).

While slaughter rates are forecast to be considerably higher, production has only been slightly revised up (1.7% year-on-year) and is likely to reach 2.188 million tonnes cwt. Underpinning the less-significant increase is an expected lighter average adult carcase weight, at 278kg/head (down 3.3%), caused by an increased proportion of females and unfinished cattle slaughtered.

While a wet winter across southern Australia has influenced supply and price considerations for the rest of 2013, the timing, reach and frequency of the northern wet season will have the largest influence upon cattle prices and supplies for the coming year.

Export interest

The assumption that the Australian dollar will remain below parity for the remainder of 2013 should help maintain demand and interest for Australian beef from overseas markets. This will be especially important if Australian supplies tighten and prices increase.

The combination of the drought-induced slaughter and already high exports for the first six months of 2013 is expected to lead to Australian beef and veal exports reaching one million tonnes swt in 2013, up 4% year-on-year, and the highest on record for any calendar year.

The noticeable difference to the mid-year update, compared to previous years, is the increasing demand from emerging markets, compared to traditional markets (see Figure 3).

Conditions are likely to remain tough in Japan, where the improved US market access and the struggling Japanese economy will pressure Australia's trading position. The 2013 volume is likely to reach 290,000 tonnes swt, back 6% year-on-year – the lowest volume since 2003.

While sales in the first six months of 2013 to the US have been sluggish due to increased competition from New Zealand and high US cow slaughter, shipments for the second half of the year are likely to increase and reach similar volumes to 2012, at 225,000 tonnes swt.

Australian exports to Korea have surged and are likely to remain robust for the rest of the year, despite the 5.32% tariff advantage currently enjoyed by the US. The total volume for 2013 is forecast to increase 3% year-on-year, to 130,000 tonnes swt.

The growing food safety concerns in China, on top of the reluctance to import US beef (due to the use of ractopamine) and reduced domestic production, have caused Australian beef export volumes into China to continually break records. After a strong start to 2013, with shipments likely to remain high for the rest of the year, the 2013 forecast total has been revised to 115,000 tonnes swt – up 249% year-on-year.

Exports to the Middle East have also surged, assisted by Saudi Arabia's ban on Brazilian beef after a BSE case was reported in late 2012. Provided Saudi Arabia maintains its stance on Brazilian beef, Australian volumes to the Middle East are likely to reach 50,000 tonnes swt in 2013, up 59% year-on-year.

Reflecting the strong export demand – particularly in developing markets – and with the Australian dollar likely to remain below parity for the foreseeable future, domestic consumption is expected to slip by 1.4% year-on-year, to 710,000 tonnes cwt.

The bottom line

Overall, the outlook for the Australian cattle and beef industry for the second half of 2013 and into 2014 has been improved by good winter rainfalls through southern Australia and the depreciation of the Australian dollar.

While conditions for northern Australian producers will remain tough until the wet season arrives, the overall balance of the national market should see some benefit delivered by tighter cattle supplies, and anticipated higher cattle prices in southern Australia into spring and summer.

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Read MLA's *Australian cattle industry projections* mid-year update at **www.mla.com.au/industryprojections**

Figure 1 Australian cattle herd

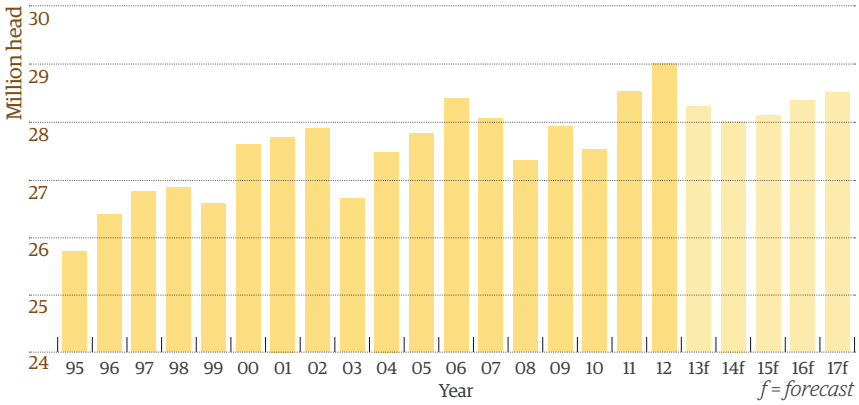


Figure 2 Australian cattle slaughter

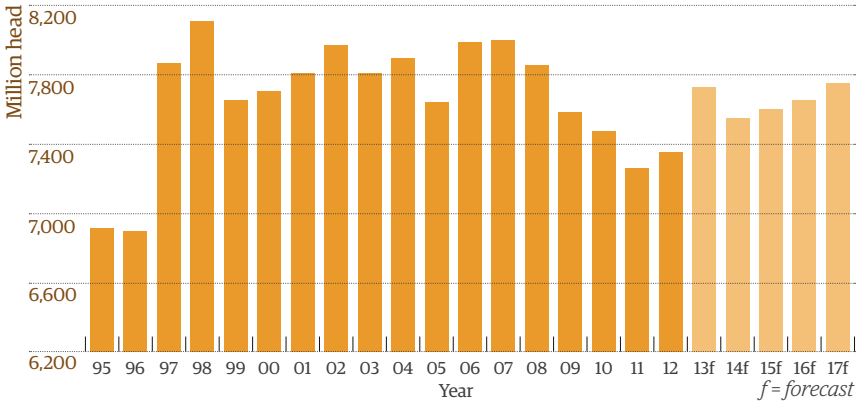
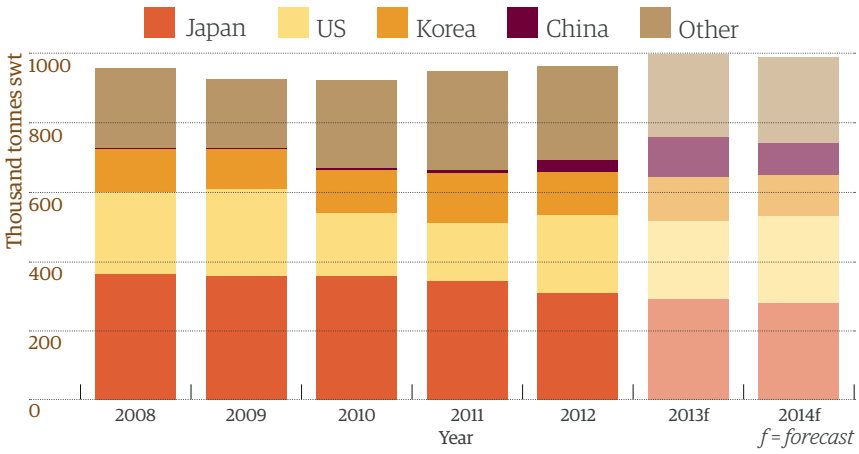


Figure 3 Australian beef and veal exports



Lamb cutlet supplier Graham Clothier, Mark Grossman (Chair Advisory Board of Agriculture) and Sam Kekovich

Millicent // Celebrating with lamb

The Agricultural Bureau of South Australia celebrated its 125th anniversary with a dinner attended by 115 guests at Millicent, SA, on 29 June 2013.

Guest speaker Sam Kekovich wowed the audience with his signature sense of humour as he spoke about his role as MLA 'Lambassador' and the associated promotional campaigns.

The lamb theme continued with guests served local lamb cutlets as an entree and lamb shanks for the main course. The evening provided a networking opportunity for producers, suppliers and agricultural business representatives.

More information: www.agbureau.com.au

Rockhampton // Youth embrace beef

Meat Standards Australia (MSA) presented an education session and 'cooking with MSA' class to 140 young Brahman breeders at the 2013 Rockhampton Junior Beef Show. MSA training facilitators, Kelly Payne and Jake Phillips, promoted the link between beef production and food to the participants, who were aged from six to 26. To learn about eating quality and how easy it is to cook with beef, participants prepared and cooked a meal, with five group winners competing in a 'Masterchef' style cook-off.

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

Masterchefs in action

Sheep exhibitors at the field day

Mudgee // Having a field day

MLA's Ben Thomas presented on the current state of the livestock industry and the latest MLA industry projections. Chef Rebecca Sutton from Mudgee catering business olive.a.twist and a butcher from Perry Street Meats spoke on the use of seasonal and local vegetables and matching wine and food, and demonstrated how to bone and butterfly a leg of lamb. The event enabled producers to speak with experts in their field, and their feedback was positive.

More information: www.mudgeefielddays.com.au

Upcoming events

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

AgForce state conference 2013

This conference is your chance to hear speakers relevant to your business, talk to AgForce staff and meet other primary producers from across the state. The conference is also the place to communicate the issues and concerns which need to be addressed by industry.

When and where:
17–19 September, Townsville Qld

Bookings:
www.agforceqld.org.au

BusinessEDGE workshops

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

When and where:
10–11 October, Dalby Qld
14–15 October, St George Qld
28–29 October, Taroom Qld
30–31 October, Springsure Qld

Bookings: 07 5482 4368
jackie@jackiekyte.com.au

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

Influential Women's workshop

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

When and where:
16–17 September, Coonawarra SA
1–2 October, Wellington NSW
23–24 October, Cloncurry Qld

Bookings:
www.influentialwomen.com.au

MEET THE CHALLENGERS...

From one end of the country to the other, six diverse livestock enterprises are putting their businesses through the year-long MLA Challenge. Here we introduce two of the participants. To learn more about all the Challengers go to www.mla.com.au/challenge

ABC television's Landline program recently featured the MLA Challenge and plans to cover it regularly during the 12 month program. To see the first segment go to: www.abc.net.au/landline/content/2013/s3827979.htm

'Ratho' quick facts

Property size: 1,800ha

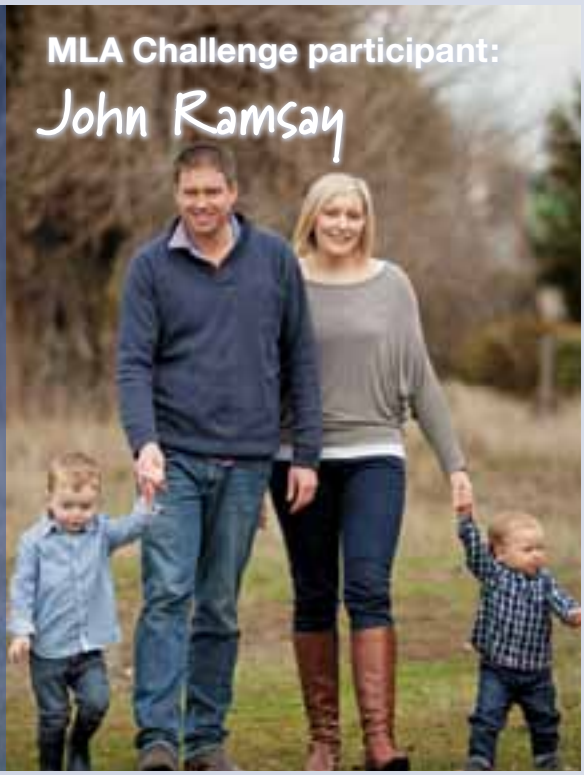
Herd / flock size: 7,000 head

Breeds: Merino and composite

Average annual rainfall: 500mm

Soil type: Sandy, sandy clay loams

Pasture type: Fescue, short term ryegrass, annual grasses, irrigated ryegrass



John Ramsay with his wife, Annie, and sons Alex and Henry.

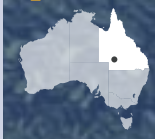
The Ramsay family runs a 14,000 head sheep enterprise across three Tasmanian properties, but John Ramsay will focus his challenge participation on the 1,800ha 'Ratho' at Bothwell, where he runs 7,000 Merino and composite sheep and grows poppies.

What prompted you to nominate for the MLA Challenge? I initially saw the MLA Challenge in *Feedback* magazine and thought it looked interesting, but because only six people in Australia would be selected I thought I wouldn't have a shot. I didn't think any more of it until our local Woolworths lamb buyer encouraged me to apply. I like a challenge, so it will be good to focus on changing our business for the better in the coming year. Change for the better is exciting.

What do you hope to achieve in the year? We are heavily focused on sheepmeat in our business. We run an intensive operation with high debt levels and need to maximise profits in order to grow. I hope the advice and mentoring I get from the Challenge can help us be more profitable and sustainable.

I'm also focused on building skills and knowledge to better manage my business, and I'm keen to share experiences during the Challenge with other producers.

'Coniston Station' quick facts



Property size: 28,328ha

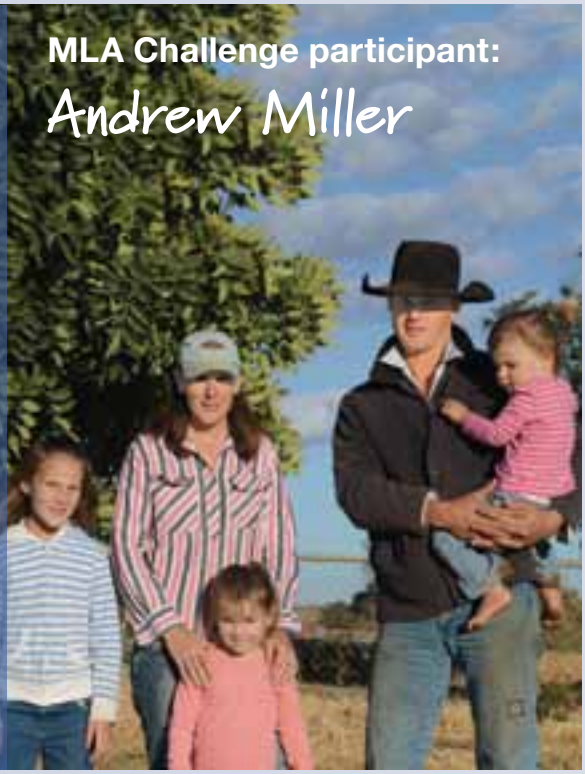
Herd / flock size: 1,000 head of cattle and 500 Merino ewes

Breeds: Droughtmaster X

Average annual rainfall: 280mm

Soil type: Black soil, sand hills

Pasture type: Mitchell grass, river grasses



Andrew Miller with his wife, Megan, and daughters, Bridie, Alice and Grace.

Andrew Miller leases Coniston Station, near Windorah, Queensland, with his wife Megan. The Millers both come from local farming families; Megan's family settled in the area in the mid-1800s.

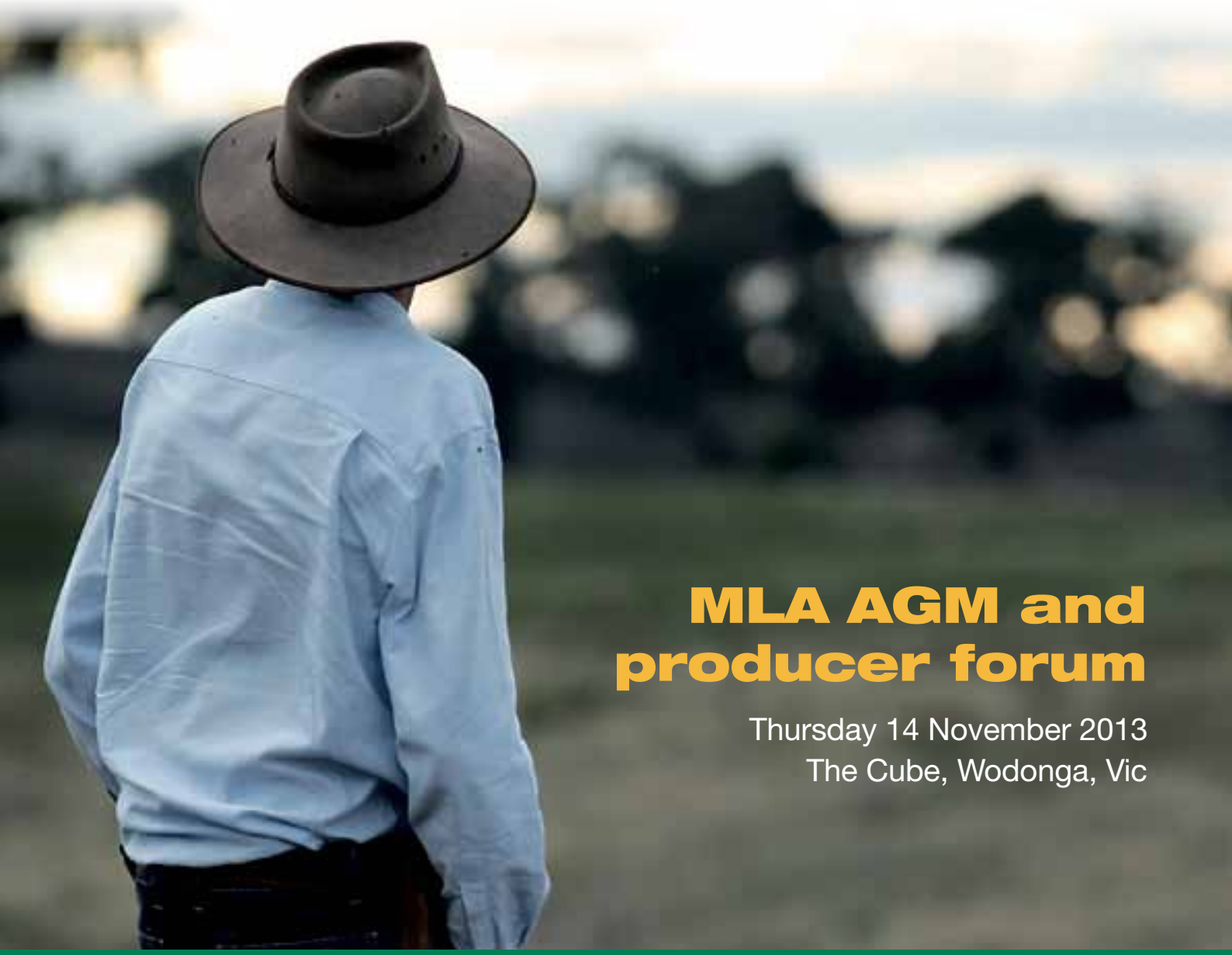
Currently, they run a self-replacing Droughtmaster-cross herd on the station, with the aim of growing the steer calves out to 400kg plus. They also have 500 Merino ewes.

What prompted you to nominate for the MLA Challenge? Our goal is to buy our own property, and more experience in business management would help us run our business more effectively.

What do you hope to achieve in the year? We want to maximise profitability, gain a better understanding of different aspects of our business and help to change the sometimes negative image of agriculture. We love the fact that running our own business means we are able to put our own ideas into practice, as opposed to managing a grazing enterprise for someone else. We think the knowledge, support and information provided as part of the MLA Challenge will be a perfect opportunity for us.

We are looking forward to meeting new people, receiving advice from professionals, making changes to our business and seeing the positive results of those changes.

mla
MEAT & LIVESTOCK AUSTRALIA



MLA AGM and producer forum

Thursday 14 November 2013
The Cube, Wodonga, Vic

Have your say
Key action dates

3 October	Return your levies notice or lodge online to receive your full voting entitlement
3 October	Last day to sign up for MLA membership to participate in the 2013 AGM
8 November	Submit your questions on notice for the AGM
12 November	Return your proxy form or submit online by 2pm AEDT
14 November	MLA AGM and producer forum

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