mla Your member magazine // October 2012

Feedback

Productive and profitable

Keeping Australia's red meat industry at the forefront

A note from the MD...

Producing more with less is a trademark of the livestock industry with productivity in broadacre agriculture growing between 1% and 2.5% per year in recent decades.

Given the fundamental linkage between productivity and the profitability of producers, MLA is squarely focused on creating opportunities to increase productivity across the supply chain. In fact five of MLA's 15 key focus areas we talked about in the September issue of *Feedback* are centred on this very issue. These five areas are:

- creating opportunities through research and extension to improve reproduction efficiency in northern beef (by five percentage points) and maternal sheep breeds (by two percentage points)
- creating opportunities through genetic research and management practices to improve pasture and forage crop productivity, quality and persistence
- creating opportunities with new practices or technologies to improve labour efficiency by 5%, encompassing occupational health and safety, labour resource need and yield
- creating opportunities to improve compliance to market specifications by 3% by providing information and tools that encourage practice change on farm
- creating opportunities through research to minimise the threat and impact of exotic, emerging and endemic diseases on Australian livestock enterprises

Through our programs, projects and activities we're committed to pulling out all stops to provide the R&D, tools, training and information to create opportunities for producers to increase their productivity and in doing so, their bottom line.

I welcome your thoughts and comments any time at **managingdirector@mla.com.au**

Scott Hansen
MLA Managing Director

Contents

Cover: Rob Perkins of Ebor, NSW. Image by Matthew Cawood..

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Your feedback

MLA's recent Meat Profit Day in Albany WA provided cattle, sheep and goat producers with the opportunity to discover ways to improve their red meat businesses. The day was well attended with producers from across southern WA and also included a concurrent social media discussion including the following tweets.

Vicki White @RTWhite_Co 28 Aug
@RTWhite_Co Sheep Shower. Totally pumped following the #mlampd yesterday. fantastic event to have been involved in. great work @DirtSouthern
Collapse Reply Retweet Favorite
6:34 PM - 28 Aug 12 - Details

Catherine Marriott @roseycatherine 28 Aug
#MLAMPD an exciting day, a room full of passionate, intelligent and forward thinking change agents!! Agriculture is in good hands!
Expand Reply Retweet Favorite
6:34 PM - 28 Aug 12 - Details

Jack South @sheepsback 28 Aug
@meatlivestock great day offering interesting information from interesting speakers thanks
Expand

The Sheeps Back @sheepsback 28 Aug
#MLAMPD Tim McRae - high grain prices to come. How much can u afford to feed your sheep next autumn? Grow more grass ?or face the $?
Expand

The Sheeps Back @sheepsback 28 Aug
#mlampd Simon Hill doing a great job of explaining why sheep systems without grass are hard work regardless of stocking rate
Collapse Reply Retweet Favorite

Now it's your turn.

Follow MLA on Twitter **@meatlivestock** or get connected on Facebook at **www.facebook.com/meatandlivestock australia** to have your say and join the conversation.

To share your views and questions, send your feedback to the editor at **info@mla.com.au**

MLA online

MLA tools

Southern WA Meat Profit Day webcasts and presentations
Download the webcasts and presentations from the speakers on the day at
www.mla.com.au/southernWAMPD

Upcoming events
Find out about industry events during October and November including the Feed demand calculator workshop, BeefUp forums and Breeding EDGE workshops.
www.mla.com.au/events

fridayfeedback
Get practical on-farm information and the latest market news to your inbox every Friday by subscribing to *fridayfeedback*.
www.mla.com.au/fridayfeedback

Social networking

Facebook
Stay connected with MLA by 'friending' us on Facebook.
www.facebook.com/meatandlivestockaustralia

Twitter
Read the latest tweets by following MLA on Twitter.
www.twitter.com/meatlivestock

Flickr
View MLA's photo stream on Flickr including the Southern WA Meat Profit Day in August.
www.flickr.com/meatlivestock

YouTube
Get an introduction to using Twitter so you can share your story with the community.
www.youtube.com/mlafeedbacktv

Outstanding grades for MSA

Meat Standards Australia (MSA) grading numbers are booming, with almost 2.1 million head of cattle and 3.3 million head of sheep graded nationally in 2011-12.

There was a 43% growth in cattle and almost 380% growth in sheep graded.

Beef carcase compliance for the year equalled 94.3%, a slight increase from 94% in 2010-11.

An additional 4,232 producers registered during the year, taking the total number of registered producers to 23,751.

Queensland continues to have the most MSA-graded cattle with 956,741 head graded (up 43%) during the year, followed by NSW (574,892 graded), WA (199,897), SA (169,341), Tasmania (112,710) and Victoria (54,970). A total of 2,068,530 head of cattle were graded nationwide, (figure 1).

NSW (1,107,083 head graded) led the sheep grading numbers, followed by Victoria (1,102,710 graded), SA (805,743) and WA (291,526). A total of 3,307,062 head of sheep were graded during the year (figure 2).

MSA Operations Manager, Michael Crowley, said strong demand for MSA product has driven the boom in grading numbers during the year.

"A combination of growth in existing supply chains, as well as uptake by national retailers, has really driven the sharp increase in grading numbers and producer participation," he said.

"We think there's an even spread across the supply chain. Processors are paying more for MSA cattle, but then in turn getting more for the product.

"With the average MSA cattle carcase weight around 275kg, the premium looks to be around $50 a head."

www.mla.com.au/msa

Figure 1 National MSA beef grading numbers

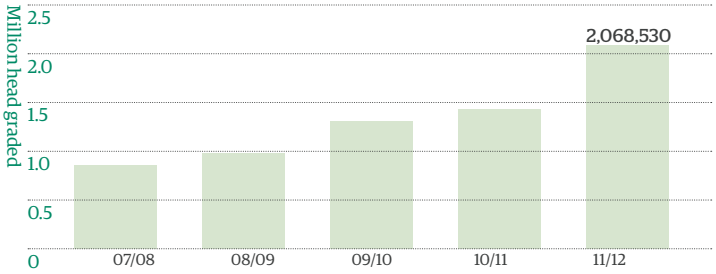
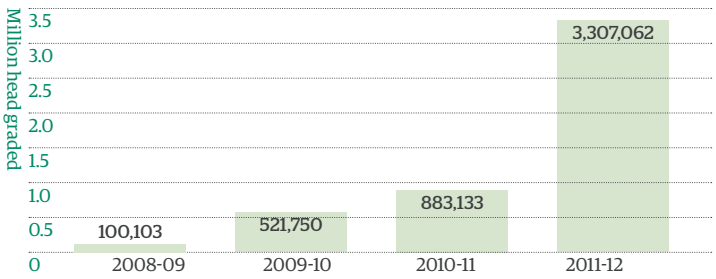


Figure 2 National MSA sheepmeat grading numbers



Insights on sheep mastitis

A new research project is underway to establish the effect breed and location has on the occurrence of mastitis in sheep, to allow producers to more effectively prevent and treat the disease which currently claims 5% of ewes in some flocks each year.

Project leader Dr Stuart Barber said there is little information available on mastitis in Australian sheep and this study will be the first to review it across a wide geographic range to evaluate the importance of the disease and its potential financial impacts.

The two year project, being conducted by the University of Melbourne, started in June and will analyse milk samples from animals that have shown signs of mastitis, evidenced by changes in the udder, sheep behaviour or milk appearance, from across Australia.

The project will also look at features including udder phenotype and milk cell count to determine if they influence the development of mastitis and provide insights into the conditions that cause the disease to occur and the kind of sheep it affects.

Clinical mastitis with infection in the right side. Image courtesy of Dr Stuart Barber.

This information will allow the development of a checklist to help producers manage their flock and allow breeders to select against mastitis. Producers who would like to submit any samples of milk from ewes with clinical mastitis contact Dr Stuart Barber.

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Beef strategy input needed

CATTLE COUNCIL OF AUSTRALIA

The final draft of Beef 2015 and Beyond, a national strategy for the grassfed beef sector developed by the Cattle Council of Australia (CCA), is now available for producer and stakeholder comment, until 19 October 2012.

Once adopted, the strategy will provide a framework for defining and focusing the priorities of the sector and the broader Australian beef industry through the Meat Industry Strategic Plan (MISP).

The strategy will also assist in directing and mobilising appropriate resources through the Council and MLA.

Comment on the strategy can be made online at **http://yoursaybeef2015and beyond.com.au/**

ESCAS Tranche 2

Australia's new government-regulated Exporter Supply Chain Assurance System (ESCAS) has now been applied to 99% of the Australia's live export trade, following the September introduction of Tranche 2 of the regulatory framework.

The markets included in the latest phase were Israel, Japan, Malaysia, Oman, the Philippines, Saudi Arabia, Singapore and the United Arab Emirates. The remaining export partners, Brunei, Mauritius, Russia and Vietnam will be covered by the end of 2012 (see table 1).

Under ESCAS, the exporter must provide evidence of ESCAS compliance right through the supply chain before being issued with approval for export by the Department of Agriculture, Fisheries and Forestry (DAFF).

When requested, MLA supports exporters and importers to meet the requirements of the new regulations, including conducting gap analysis and training programs overseas.

www.daff.gov.au/aqis/export/live-animals/livestock/escas

Table 1 **Timeline for implementation of the regulatory framework**

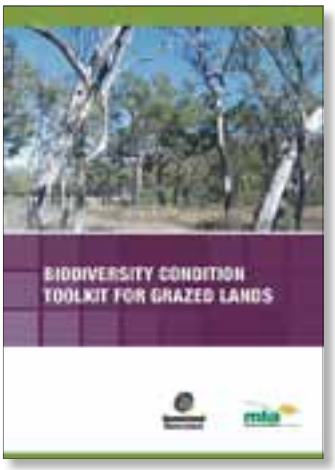
Tranche	Countries	Implementation Date	% of Trade
Existing	Indonesia, Egypt	Post-arrival regulatory arrangements already in place.	75%
Tranche 1	Kuwait, Bahrain, Qatar, Turkey	1 March 2012	
Tranche 2	Israel, Japan, Jordan, Malaysia, Oman, Philippines, Saudi Arabia, Singapore, United Arab Emirates	1 September 2012	99%
Tranche 3	Brunei, Mauritius, Russia, Vietnam, other markets	By 31 December 2012	100%

Note: The new regulatory framework will be applied to new markets on their commencement.

Source: www.daff.gov.au/aqis/export/live-animals/livestock/escas

Your feedback on Feedback

MLA is currently carrying out research on what readers of Feedback think of the magazine. Why not take five minutes and have your say by completing a short online survey: **www.mla.com.au/feedback-survey**



Biodiversity toolkit

A newly developed toolkit aims to build land managers' knowledge of sustainable grazing management, while fostering enthusiasm for caring for diversity on their properties.

The *Biodiversity condition toolkit for grazed lands* comprises 12 modules to support facilitators, extension officers and Natural Resource Management (NRM) groups who work with land managers responsible for grazing land and biodiversity conservation in southern Queensland.

The Biodiversity and Ecosystems Sciences Unit (Environment and Resources Sciences, Queensland State Government) together with MLA published the toolkit.

To learn more about managing biodiversity on grazed lands go to **www.mla.com.au/biodiversitytoolkit**

Productivity and profitability

Fighting the current

You're swimming up a fast flowing river but the current is getting stronger by the minute. Do you give up and get dragged back downstream? Or do you improve your technique and swim harder?

In much the same way livestock producers face a similar conundrum: How to stay profitable despite rising input costs and falling returns for their outputs. To do this – to swim against the current – requires productivity increases, year in, year out.

For the period 1968–69 to 2010–11, the terms of trade for Australian farmers declined annually by an average 2.47% . This means the cost of farm inputs rose at a faster rate than the price received for the production from those inputs. If productivity hadn't increased during this period, Australia's agricultural industries would've eventually drowned. But thanks in part, to industry's investment in research and development by R&D corporations (of which MLA is one), governments, universities, researchers and the private sector, almost two-thirds of the gross value of broadacre production in recent years has been attributed to productivity improvements.*

A common measure of productivity (total factor productivity) estimates the gains in productivity in the red meat industry between 1977–78 and 2009–10 were 1.4% per annum for beef and 0.5% per annum for sheep (including wool). Though these rates are lower than the cropping industry (1.6%), the gap between the productivity growth rates of the cropping and livestock industries is narrowing due to genetic improvement in the beef herd, the strong shift to prime lamb production, improved pasture and fodder crops and herd/flock and disease management (which have reduced mortalities and increased branding rates). See figure 1.

Dr Jane Weatherley, MLA's R&D Communication and Adoption Manager, explained that although productivity and profitability go hand in hand, profitability is only possible if a business is highly productive; and productivity is only possible through optimum – not maximum – operating scale.

"Productivity isn't simply about increasing production. We could replace the word productivity with efficiency. It's MLA's goal, through investment in R&D, to assist producers to improve on-farm efficiency and help them make more with less," she said.

Just as profitability is only possible when a business is highly productive; productivity is only possible when producers have sound management skills.

"The best managers are those who can optimise the efficiency of their production to maximise profit. Getting that balance right is the hard thing but the first step is to improve management skills," Jane said.

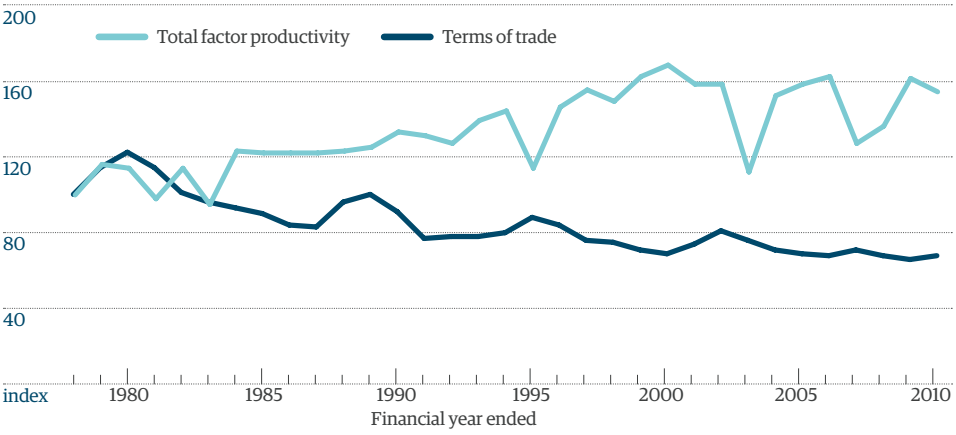
"Efficiency gains are fundamental to any business surviving. The best producers invest in technology for efficiency gains and also invest in their own skill development to ensure their management practices are not limiting the business performance. "

Given the fundamental linkage between productivity and the profitability of producers, MLA is squarely focused on providing opportunities to increasing productivity across the supply chain. In the next three years, five of MLA's 15 key focus areas (see September edition of *Feedback*, pages 8–9) are centred on this very issue (see 'A note from the MD...' on the inside cover of this edition for a description of these five areas).

The challenge of swimming against the current will always be something producers have to manage. Ultimately it's the skill of the manager that will keep the business afloat. Engaging with research, development and extension programs provides options to support producers in this process.

ABARES, Agricultural Commodities, Vol 2, No. 1 March quarter 2012

Figure 1 **Broadacre total factor productivity and the farmer terms of trade, 1977–78 to 2009–10**



Note: Total factor productivity shown here relates to broadacre (non-irrigated) agriculture only, although the farmer terms of trade covers all Australian agriculture. Source: ABARES (Australian farm survey results 2009-10 to 2011-12)

Jane Weatherley, MLA
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MLA offers a range of business skill courses for producers including Business Edge (for northern producers), More Beef from Pastures and Making More From Sheep (for southern producers). Go to **www.mla.com.au/events**

Have your say on this topic on the MLA blog: **www.mla.com.au/blog**

In profile | Taking it to the top

Keith and Roxie Holzwart

The tyranny of distance and unpredictability of seasons are no barriers to running a productive, profitable beef business, as Top End producer Keith Holzwart reveals.

Since buying a 'blank canvas' south of Katherine in 1987 of 1,578 square kilometres, Keith and his wife Roxie have embraced R&D to develop pastures, strategically position infrastructure and boost herd management to achieve performance gains across the business.

How has R&D investment produced performance gains in your herd?
Increased fertility has given us our biggest productivity gains. We targeted fertility through the Cash Cow project and a Northern Territory research project into calving rates of first-calf heifers. Herd recording software is now an essential part of our business. It allows us to identify individual performance and weed out the bludgers.

We've lifted weaning rates from 58% to 78% but there is still room for improvement. We sold a lot of older cows, focused on heifer management, introduced controlled mating and increased body condition through better pasture management and supplementation.

How have you invested in paddock management for improved productivity?
This country is productive but phosphorus deficient so we supplement year-round. Our overheads are high, but herd recording allows us to identify unproductive animals so we can supplement strategically. We have cut our lick bill by 10–15%.

We worked with the NT Water Resource Department to compile an underground map of the basalt levels, which gives us more surety when drilling bores. Thanks to industry R&D, we now know that 3km is the optimum radius from water for grazing efficiency, so we plan our water locations strategically.

We also monitor fodder availability and manage our stocking rates to optimise pasture utilisation. As a result, we now produce the same number of calves but from 20% less cattle in the paddock.

We increased training across our business and improved staff retention rates.

What is the next R&D focus for you?
Animal welfare – we now test for polled genes in our bull breeding nucleus, to increase productivity through better animal welfare and workplace safety. We expect to have 75% of the stud calves with polled genes this year. R&D has removed the guesswork and allowed us to achieve in five years what would have taken 30.

Can productivity gains drive prices down – do you believe R&D is a benefit or a barrier?
We wouldn't still be producing beef if we ran our enterprise now like we did 20 years ago. R&D has improved many management practices in this area. We can now produce more calves from fewer cows, which is better for the environment and our bottom line.

Keith and Roxie Holzwart. Image: Dennis Schulz

Keith Holzwart // T: 08 8975 9949
E: avago.station@bigpond.com

Snapshot

Keith and Roxie Holzwart, Sturt Plateau, NT.

Property: 157,800ha

Enterprise: Beef production predominately for the live export market

Livestock: 15,000 head, comprised of 9,000–12,000 red Brahman x Senepol cattle (including 4,000–4,500 commercial breeders and a stud bull breeding nucleus) plus agistment stock

Pasture: Flinders and Mitchell, kangaroo grass, native sorghum

Soil: Mix of flood-out country, heavy coolabah and rosewood, through to bloodwood country

Rainfall: 675 mm

MLA's year in review

The *MLA Annual report 2011-12* is a snapshot of the opportunities that MLA has created for cattle, sheep and goat supply chains over the past 12 months.

In 2011-12 MLA sharpened its focus on the core business of providing marketing and R&D services to benefit livestock producers through programs aimed at growing demand and increasing productivity for the industry.

These programs aim to generate a return on the producer levy investments of $4.58 per head of cattle, a maximum of $1.23 per lamb and $0.27 per goat. Here are some of the highlights from the past year:

Growing demand

It was a solid year for the beef and sheepmeat eating quality program, Meat Standards Australia (MSA), with grading numbers booming to 2.1 million cattle and 3.3 million sheep. With Woolworths joining Aldi, CostCo and 600 independent butchers in stocking MSA-graded beef, and backed by a 'What's new' TV commercial, consumer awareness of the program increased from 15% to 40%.

Two seasonal domestic marketing campaigns, in particular, delivered solid results. The summer beef campaign helped lift beef consumption by 730,000 serves during its first month and won several international advertising awards.
The Australia Day lamb campaign, which this year featured Sam Kekovich lambasting popular culture, gave lamb sales value share a 13% boost on the previous year.

On the international front, in Japan, marketing activities focused on promoting the nutritional attributes of Australian beef. The 'Iron Beauties' campaign aimed at educating women about the importance of iron in their diet. 'Iron Beauty' branding now features on menus in over 6,000 foodservice outlets across Japan.

In the Middle East/North Africa region, MLA developed a campaign to encourage consumption of Australian beef and lamb during Ramadan, with 48 supermarkets across the region participating in a promotion to break their fast and 'Celebrate Iftar with Australian beef and lamb'. At the Gulfood show in Dubai, more than $8 million in new business was reported by Australian beef and lamb exporters who attended.

MLA also launched the Target 100 initiative, showcasing the sustainability commitment of cattle and sheep producers, with the website attracting more than 4,000 visitors a month.

On-farm productivity

Producers heard the preliminary results from a landmark study into the fertility of northern cattle herds at Beef Australia 2012. The 'Cash Cow' project collected data from more than 57,000 breeding cattle from 147 mobs across 81 participating properties to determine the factors that impact on a female's breeding performance. The results will help MLA to create opportunities through research and extension to improve the reproductive efficiency of northern cattle herds by five percentage points by 2015.

The second phase of the Sheep Genomics pilot project was completed by the Sheep CRC, providing important insights for producers aiming to balance genetic traits for lean meat yield and eating quality, with research breeding values for these traits now being trialled for impact across the supply chain.

In animal health, research into a potential treatment for *Theileria orientalis* found the drug buparvaquone is effective against the three main strains of the disease, which can cost producers of affected cattle herds approximately $67 per head.

Submit your questions to the MLA AGM

The MLA annual general meeting will be held on Thursday, 15 November 2012 at the Esplanade Hotel, Fremantle, Western Australia.

MLA members unable to attend the meeting, or who would prefer to submit questions in writing, are invited to do so on notice.

Submit questions online at **www.mla.com.au/agm**

Read more online

MLA's *Annual report 2011-12* will be available from 19 October 2012, and mailed to members who have requested a copy with their AGM packs. You can read more at **www.mla.com.au/annualreport**

Sustainability

End to end, sustainable red meat production

Just as what goes into a cow or sheep's mouth can impact productivity, what comes out is just as critical for on-farm sustainability.

MLA is investing $5.49 million into a national research program aimed at developing on-farm strategies to reduce methane from sheep and beef cattle while improving production and improve manure management in the face of a changing climate.

MLA Climate Change Manager Tom Davison said the comprehensive program recognises there is no single solution to managing greenhouse gas emissions (GHG) from Australian livestock systems.

"This new research program will further refine measurement technologies, identify nutritional strategies, aid beef genetic selection for low methane traits, and develop a greater understanding of microbial processes that lead to the production of methane in the rumen."

In recognition of emerging challenges for the livestock industry through carbon policies, the National Livestock Methane Program will also model mitigation strategies to achieve abatement outcomes for the industry in response to the Carbon Farming Initiative (CFI).

Backed by the Department of Agriculture, Fisheries and Forestry, the three-year, $32.6 million National Livestock Methane Program is led by MLA with 12 industry and research partners including CSIRO, the University of WA and Ridley Agriproducts.

Research will focus on:

Measurement:

→ Measure rumen methane in different feeding systems.
→ Develop intra-rumenal devices to improve methane measuring systems.
→ Deliver a recognised means of quantifying emissions from sheep/cattle.

Forages:

→ Evaluate GHG abatement potential of leucaena in comparison with native pastures
→ Predict reductions in emissions from pastures under different grazing practices.

Genetics:

→ Deliver genetic technologies to breed cattle that naturally produce less methane.

Supplements:

→ Assess performance of feed additives as methane mitigants in intensely fed ruminants.
→ Develop the science underpinning nitrate supplementation and rumen defaunation (elimination of rumen protozoa) of livestock to ensure safe methane mitigation technologies.
→ Quantify mitigation potential of feeds and feeding strategies to reduce emissions while improving production efficiency.
→ Demonstrate potential of grape marc (by-product of winemaking) to reduce methane emissions when used as a feed supplement.
→ Determine if nitrate salts can safely replace urea in supplement blocks to reduce the methane emissions of cattle consuming forages in northern Australia.
→ Develop algae-based food supplements for reducing methane emissions from feedlot cattle.

Rumen:

→ Build knowledge of rumen microbial populations to improve the 'carbon capture' potential of livestock.
→ Develop understanding of how the microbes responsible for livestock methane production function, to identify critical control points that should be targeted.

Manure management

Manure emissions are a significant source of GHG in intensive livestock systems. MLA, Australian Pork Limited, Dairy Australia, RIRDC Chicken Meat Program and the Australian Egg Corporation Limited have formed a Manure Management Consortium to oversee research.

Breeding for a low emission future

Producers will need to add another desirable trait to the genetic wish list for a greener future.

Low GHG emitting bloodlines for selective breeding is essential, according to results from a Reducing Emissions from Livestock Research Program (RELRP) (2009-2012) project, part-funded and managed by MLA.

MLA collaborated with industry partners in the three-year program (part of the Australian Government's Climate Change Research Program).

A single grazing cow produces about 300 grams of methane per day, so intervention options suitable for Australia's rangeland grazing industry are vital for a resilient, profitable industry.

Rural Climate Solutions (an alliance between NSW DPI and the University of New England) measured more than 500 young bulls and heifers to determine the amount of methane produced per kg of feed eaten.

Low and high emitting sires were identified, and their progeny were analysed. Early data found that calves with low methane-emitting sires produced about half the methane than the calves by high methane-emitting bulls.

This research will feed into a project in the new National Livestock Methane Program, to examine if there are any tradeoffs when selecting low methane cattle.

www.redmeatgreenfacts.com.au/Reduce-Emission/Research-projects/Reducing-emissions-research

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www.daff.gov.au/climatechange/carbonfarmingfutures/ftrg/national-livestock-emissions-program

Download CFI factsheet //
www.mla.com.au/carbon-farming-initiative

For RELRP summary information visit
www.mla.com.au/RELRP

Climate variability

Championing climate management

Cattle, sheep and goat producers are proactively raising awareness about how risks and opportunities of climate variability can be managed to better the environment and their bottom line.

Australia has one of the most variable climates in the world and over the last decade primary producers have tackled severe droughts through to flooding rains.

Now, 33 farmers across the nation are meeting these challenges head-on as Climate Champion participants, to showcase how they proactively manage climate variability year-round.

The three-year Climate Champion program is part of the Managing Climate Variability (MCV) R&D program. The MCV Program has helped Australian farmers manage risk for more than a decade by providing seasonal forecasts and practical tools to incorporate climate information into on-farm decisions.

MCV Program Science Coordinator Beverley Henry said since the launch of the Climate Champion program in March 2010, participating producers have accessed the latest research in weather forecasting and climate analysis.

"An important part of the program is opening up a conversation between producers and researchers, so Climate Champions are given the opportunity to interact with researchers studying climate variability and provide feedback and suggestions to help set priorities for agricultural research."

Market research conducted for MCV revealed many producers rely on their neighbours for information, so a feature of the Climate Champion program is 'farmers educating farmers'.

"The program does not tell producers what to say. Instead, it is building their capacity by making research, leading scientists and networks available to them," Beverley said.

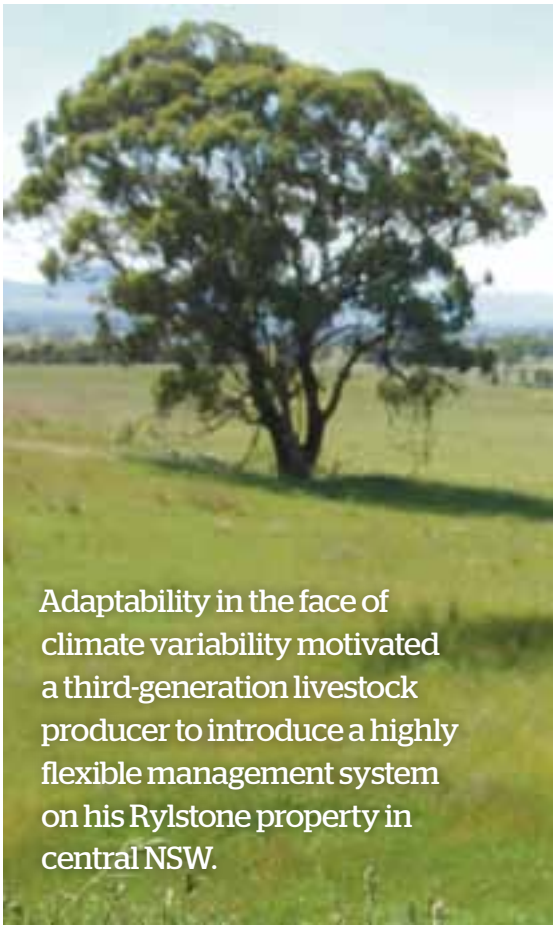
"Participants can disseminate this knowledge with their fellow producers at field days, in on-line discussions, through media interviews, and by opening the gate to showcase their own farming systems.

"They also 'road-test' research tools and products to ensure MCV's R&D investment is targeting issues of real interest to producers. This feedback enables MCV to better represent their climate information needs at national and state forums."

MLA is investing in R&D to position agriculture to manage climate variability, along with fellow MCV partners: the Grains Research and Development Corporation (which manages the MCV), the Rural Industries, and Sugar Research and Development Corporations and the Australian Government Department of Agriculture, Fisheries and Forestry.

For more information and to read Climate Champion profiles: **www.climatekelpie.com.au/ask-a-farmer/climate-champion-program**

Round up climate tools: When it comes to tools and information for managing climate variability on-farm, a producer's best friend is Climate Kelpie: **www.climatekelpie.com.au**



Adaptability in the face of climate variability motivated a third-generation livestock producer to introduce a highly flexible management system on his Rylstone property in central NSW.

Changing with

Ask Sam Hamilton to run through the property's production over the past decade, and the list is long: ewes, wethers, cows and calves, steers, Merinos, Angus and a range of other breeds.

"We see ourselves as animal traders, not breeders," Sam explained. "As a crucial link in the food supply chain, we concentrate on producing protein rather than specific breeds or species."

The Hamiltons restructured their sheep and cattle enterprise in response to the impact of climatic challenges on their productivity and profitability.

"The 1990s drought was very stressful on our livestock, our environment and our family," Sam said. "We decided to change with the climate rather than try to fight it."

Sam's rules for flexibility:

→ **Match carrying capacity to stocking rate:** Sam assesses this ratio weekly. If it is out of balance, stock are sold.

Snapshot

Sam Hamilton and family, Rylstone, NSW.

Property: 1,000ha

Enterprise: Sheep and cattle

Livestock: Numbers vary based on season

Pasture: Native/naturalised

Soil: Undulating hill country, soils range from heavy basalt to granite

Rainfall: 650mm

the seasons

→ **Dynamic grazing:** the Hamilton's 1,000ha property is divided into 80 paddocks. Sam assesses pasture almost daily and moves stock to maintain 100% groundcover.

→ **Constant seasonal observations:** Sam relies on weekly and long-range weather forecasts from the Bureau of Meteorology.

→ **Readiness to react:** Sam minimises risk by reacting quickly and destocking in advance of forecasted weather events.

→ **Avoid drought feeding:** With no extra labour or on-farm feed storage, Sam sells early. The Hamiltons have destocked several times since 1994.

→ **Commodity flexibility:** Sam steps in and out of breeds or species depending on seasonal conditions.

→ **Embrace marketing tools:** AuctionsPlus gives access to producers across Australia who buy/sell at different times to Sam's own region.

→ **Manage the environment:** Over the past decade Sam has planted 6,000 trees for shelter, eco-system function, aesthetics and potential carbon off-set.

"Climate variability means we are never far away from the next drought. We had a very wet summer, but long-range forecasts indicate El Niño is redeveloping in spring/summer, so we factored this into our management back in June," Sam said.

As an MLA-supported Climate Champion participant, Sam appreciates access to climate change scientists and research into managing climate risk, and the opportunity to meet producers from across Australia.

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Managing Climate Variability R&D program

Since 2002, the MCV program has invested in R&D to develop climate forecasting, management and communication tools **www.managingclimate.gov.au**

Projects include:

→ Predicting the onset of the north Australian wet season

→ Improvements to the Bureau of Meteorology's dynamical climate model, POAMA, to improve forecasting skills

→ Integrating National Resource Management implications into a production-based, seasonal climate risk-management system

→ Developing an interactive map of climate drivers and rainfall ranges

→ Identifying how primary producers use climate tools to manage climate risk

→ Modelling for frost forecasts

→ Predicting run-off and soil moisture

Do you have what it takes?

MLA currently supports three producers as Climate Champions, and is looking for a producer from NT, WA or north Queensland to join the initiative.

Participants are supported through training, resource kits and a small quarterly payment to:

→ Review weather forecasting research and tools

→ Present climate research information to industry networks

→ Showcase farming systems they use to respond to climate variability

→ Speak to the media and lead discussions with other farmers

Application forms are available from:

→ Econnect Communication: 07 3846 7111

→ **www.surveymonkey.com/s/ClimateChampionsWA**

Research at work

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

In this issue

A natural handbrake for parkinsonia

Grassroots research is raising hope – ground can be reclaimed from one of Australia's most invasive and destructive weeds. →

Invasive weeds

Far left: Parkinsonia flowers and seed pods. The seeds have a hard, thick coat and can remain viable in the soil for many years.

Left: A healthy stand of the highly invasive prickle bush, parkinsonia.

Bottom left: A workshop participant tries her hand at drilling a parkinsonia tree in preparation for inserting the fungi-filled capsule.

Photos courtesy of Dr Vic Galea

While they didn't have to don white coats in a lab, Queensland producers took scientific research into their own hands to turn the tide on parkinsonia invasion.

The aim of the research, with MLA funding, was to develop a system for parkinsonia dieback, a phenomenon caused by native soil fungi.

Following initial research, Dr Vic Galea and his team from the University of Queensland's School of Agriculture and Food Sciences devised a method of injecting healthy trees with fungi-filled capsules (which became a form of *mycoherbicide*).

And while taking this experimental technology into the field was a 'gamble', Vic said the response of landholders was overwhelmingly positive.

Producers take the reins

Vic led the Parkinsonia Dieback Trials, which kicked off in 2010, but it was the producers who answered the call and did the groundwork in establishing 72 trials across a catchment area which covered 60% of Queensland from Cunnamulla to the Gulf.

Following a series of workshops, 109 producers, with help from community group members and extension officers, took on the role of researchers, inoculating the parkinsonia trees on the trial sites with three different strains of fungi and observing the results.

Early signs of success

"The project proved that experimental technology was easily translated into industry practice, with high levels of success in establishment of disease," Vic reported.

"Industry members indicated that with minor modifications and limited mechanisation of the inoculation process, this technology could easily be translated into industry practice."

While the trials were only preliminary and initially involved 2.6ha of infestation, the fungi causing dieback is already seen as another weapon against the weed with producers taking it upon themselves to spread it even further. →

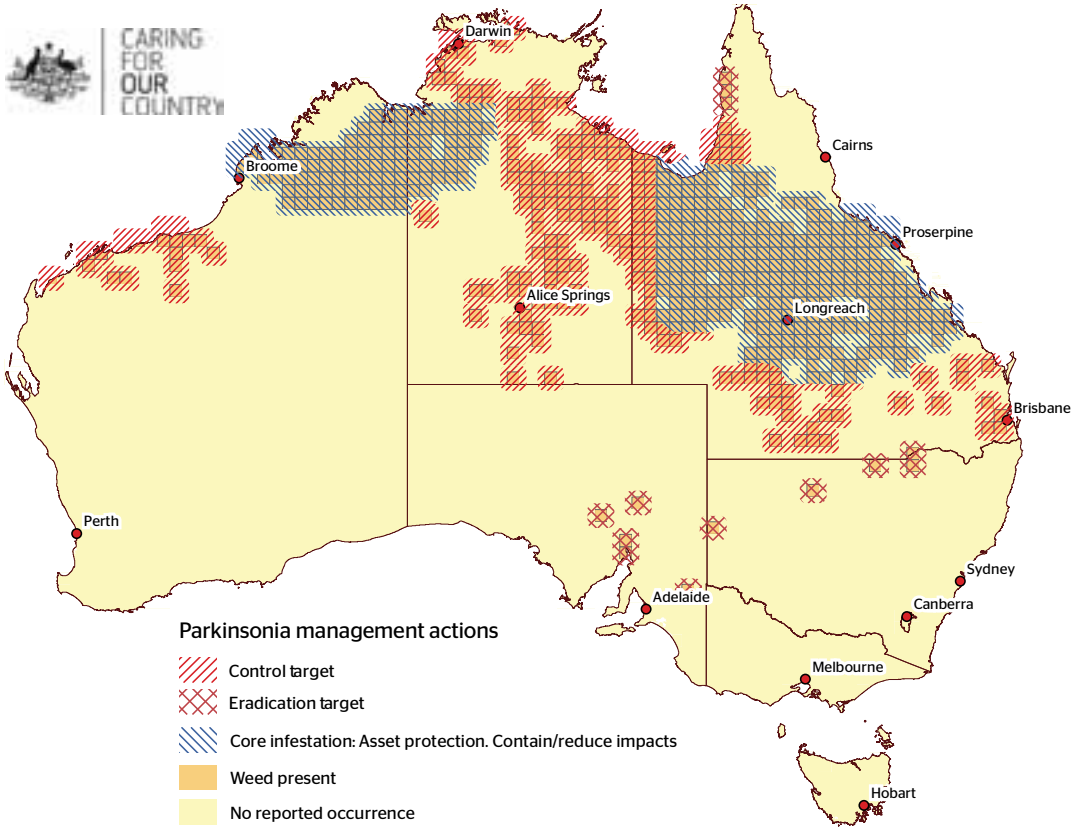
800,000ha
currently infested with parkinsonia in northern Australia

Parkinsonia management techniques checklist:

1. **Herbicide control**
   - → Aerial application
   - → Foliar (overall) spraying
   - → Basal bark spraying
   - → Cut stump application
   - → Soil application
2. **Mechanical control**
   - → Grubbing
   - → Stick raking
   - → Blade ploughing
   - → Chain pulling
   - → Cutter bar
3. **Fire**
4. **Grazing management systems**
5. **Native organisms**
6. **Introduced biological control agents**
7. **Integrated management techniques**

Source: www.weeds.org.au/docs/Parkinsonia_Mgmnt-3.pdf

Figure 1 Parkinsonia (*parkinsonia aculeata*) weed spread and management actions 2011



→

Even in its native form, many landholders felt the technology would allow for spot treatment of parkinsonia infestations in a way that may be more convenient than herbicide use. It was also highly compatible with organic farming, which is currently limited to physical control mechanisms for woody weed management.

In many cases the trials are still in progress as the time to plant death is somewhat variable.

"However, the infection rates look good. The trials were effective in causing infection, the translation to death takes time and we are yet to be able to pin that down exactly; it varies from location to location," Vic said.

"This is a biological process and can't be compared to a chemical herbicide."

Parkinsonia threatens rangelands and wetlands across Australia and is classified as a 'Weed of National Significance' due to its invasiveness, ability to spread and economic and environmental impacts (figure 1).

"I've been working with producers for 25 years and this has been one of the best projects I've ever been involved in," Vic said.

"I really enjoyed working closely with people from industry and seeing all the different groups talking together, learning from each other and sharing their valuable knowledge with me."

What next?

Data collected from the trial sites will now be used for further study, as the research indicated variation in performance among the three test mycoherbicides across different locations.

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For demonstrations on how the fungus works go to **www.youtube.com** and search for 'parkinsonia'

Participation in the parkinsonia dieback trials has provided another weapon in the fight against this invasive weed for these Prairie beef producers.

Snapshot

David and Michelle Fryer , Prairie, Qld.

Property: 22,000ha

Enterprise: Beef cattle breeding

Target market: Backgrounders and feedlotters

Livestock: 3,500 crossbreed cattle

Pasture: 3,500ha of developed Gidgee country sown to buffel grass and stylos with the balance, spinifex to Mitchell grass

Soil: Light sandy loam to heavy cracking clays

Rainfall: 450mm

A terminal solution in a long battle

For David and Michelle Fryer the invitation to join the parkinsonia dieback trials in 2010 offered welcome light at the end of a long and expensive tunnel.

Since 1989, David and Michelle had tried various weed management techniques from biocontrols such as a seed-boring bug and camels for prickle bush control, to helicopter spraying, basal bark spraying with Access*, foliar application of Starane*, and controlled burning.

With limited success, the Fryers felt "slowly and steadily we were losing the battle."

"Foliar spraying was costing us about $40/hectare, including labour, fuel and vehicle maintenance, and that's only one annual treatment. You've got to keep following up and following up to get the regrowth.

"Our land value is about $240/ha, so over time it's cost prohibitive. As with many other grazing enterprises we are time poor and chemical treatment has to be carried out in the plants' growth period which coincides with our busiest time of year with stock."

The Fryers run a 3,500 head crossbred herd on 'Railview' at Prairie, joining Charolais bulls with their Brahman females then crossing selected progeny with Angus and Droughtmaster bulls to produce steers for feedlots and backgrounders.

"The parkinsonia was well established around a 250 hectare dam," David said.

"It was fairly dense and really hinders mustering, but our biggest concern came five years ago when we bought a neighbouring place. It was only 3,500ha but it had parkinsonia and prickly acacia spread pretty well through the watercourses and over the block – perfect for our dieback trials."

The Fryers have been buoyed by the success of the trials, giving them hope R&D could provide solutions for their other weed challenges.

"One of the strains we trialled was just terminal and killed the plants outright," David said.

"I'm just going around now breaking off limbs from sites that have the dieback and chucking them around the dam and other sites that don't have it."

David said a lot of positives have come from being involved in the trials, including the opportunity to network with other landholders, meet the researchers and access their expertise, and, of course, help develop what he hopes will become a successful biocontrol agent.

"It's given me optimism to think they're out there researching and, if they've found a good control for parkinsonia, prickly acacia might be next," he said.

** Access and Starane are registered herbicides from Dow AgriSciences*

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Forage shrubs

A shrub solution

Forage shrubs for animal production can be about more than just salt bush, as the Enrich project has discovered.

Profits can be lifted by 15–20% by incorporating native perennial forage shrubs into mixed livestock and cropping systems, while contributing to sustainable land management across southern Australia.

This has been a major finding of the Enrich project, which was set up in 2005, to examine a wide range of Australian native shrubs to use in grazing systems where other perennial options were limited.

Researchers tested more than 100 species, from a potential pool of 6,742 native woody flora, to develop a shortlist of 17 (see page 15), which comprises the most promising species to improve feed reliability, reduce salinity, erosion and greenhouse gases.

Enrich research sites in WA, SA and NSW found that incorporating a range of these species – with the exact mix depending on local conditions – into the feedbase has potential to increase sheep carrying capacity by 1DSE/ha during autumn, reduce autumn supplementary feeding costs by up to 60% from $13/ha to $5/ha and allow grazing of annual pastures to be deferred in the early winter months.

At a trial at Badgingarra, WA, sheep gained an average 100g/head/day on established forage shrubs and inter-row pastures and put on 0.5 of a condition score in six weeks in autumn.

South Australian Research and Development Institute (SARDI) Research Officer Jason Emms said, of the shrubs tested, about 25 had edible biomass of at least one third of old man saltbush and 52 had a rumen digestibility equal to or higher than oaten chaff. The average crude protein level was 17% and all met minimum protein requirements to maintain liveweight in adult sheep.

"Many of these native perennial shrubs are high in mineral content and 15 species that we tested showed reduced methane production from sheep without reducing total gas production from fermentation," he said.

"Twenty three species also reduced gastrointestinal parasite development compared to a control group."

Enrich researchers have shown there is potential for a typical farm with forage shrubs covering an area of 7–9% to achieve a net carbon balance (sequestered carbon minus emissions) of about 230 tonnes of CO^2-e/year and reduce groundwater recharge by an average 20% from 20ml/ha to 16ml/ha.

Economic modelling through Enrich, which was a collaboration between MLA through the Future Farm Industries CRC and led by CSIRO Livestock Industries, found planting 10% of a typical WA central wheatbelt property to native forage shrubs could lift whole farm profits by 15–20%, from about $102/ha to $117/ha.

What next?

The next phase of Enrich, from mid-2012 to late 2013, will analyse the animal performance and health, grazing management and environmental benefits of combining forage shrub species in a polyculture – where each plant is grown for a specific purpose.

Enrich research will culminate in a detailed producer information package due for release in late 2013 and facilitate the commercial availability of some shrub species.

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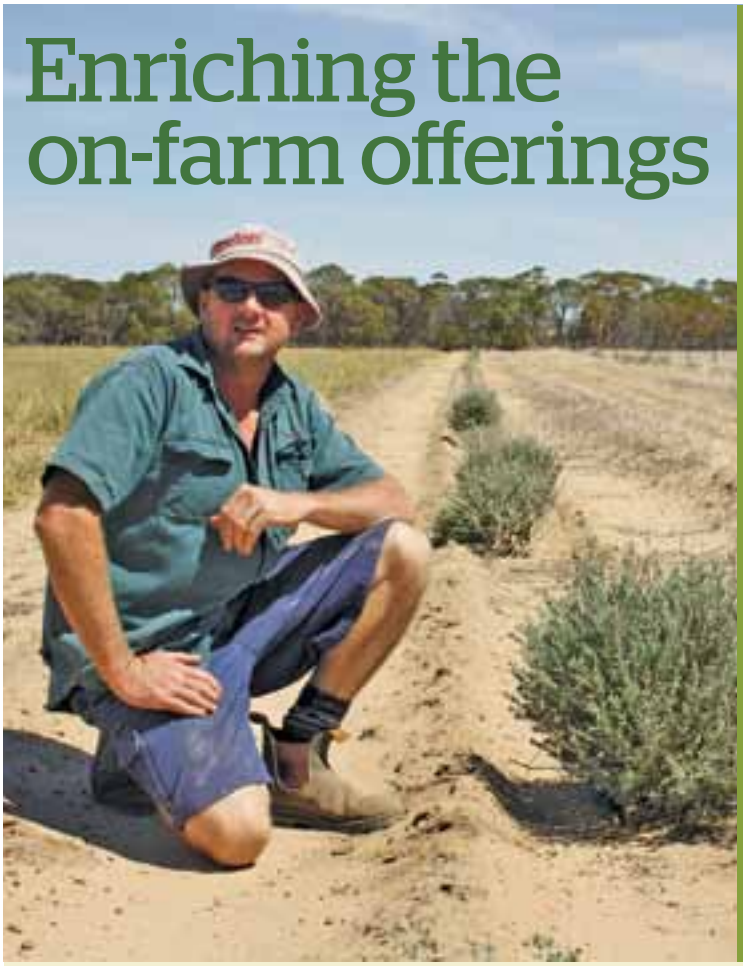
Download the *Grow More Pasture module* from **www.makingmorefromsheep.com.au** or order a copy from 1800 675 717.

Enriching the on-farm offerings



Snapshot

Rob and Lauren Grylls, Bencubbin, WA.

Property: 4,200ha

Enterprise: Merino sheep, cropping wheat, barley oats, triticale, field peas and lupins, alley systems of forage shrubs

Livestock: 3,040 head total sheep flock

Pasture: 1,420ha annual clovers, native grasses, perennial shrubs, summer active grasses

Soil: Variable from clay to sandy types

Rainfall: 300mm

Major findings of Enrich program 2005-12:

- At least 17 shrub species identified as adapted and productive for low rainfall grazing systems
- Animal protein and grazing requirements can be met by shrubs
- Species need to be selected on their ability to persist and regrow after grazing
- Shrubs can fill summer and autumn feed gaps
- Shrubs could boost profit by up to 20% in marginal areas
- Shrubs can improve natural resource management

Shrubs have been added to the menu by this West Australian sheep enterprise and the nutritional benefits of dietary diversity are already being seen.

Rob and Lauren Grylls, the third generation to run the Bencubbin property in central WA, strive to use sustainable integrated sheep and cropping systems which drive productivity improvements.

For 20 years, saltbush has been planted on most saline areas to lower the water table and provide valuable autumn sheep feed. But the Enrich program outcomes have seen Rob use newer forage shrub species on sandplain paddocks.

Last year the Grylls planted 15% of a 70ha paddock to an alley system of Old Man and River saltbush, Rhagodia preissii, Satiny bluebush and weeping tagasaste.

This winter, another 50ha paddock was sown in alleys comprising one row of big seeded acacia in the centre and two forage shrub rows on the outside.

Rob said the deep rooted perennial shrub species in the alleys reduced recharge and salinity down the slope and protected against wind erosion.

He said he was also trialling summer active grasses between the shrub alleys and on sandy hillsides. For this, he was using an Evergreen Northern Mix that included Rhodes, Panic and Signal grasses.

Rob estimated the cost of establishing forage shrub alleys at a density of 15%/ha was about $100/ha and the total cost with summer active grasses was about $265/ha. The Grylls received a Caring for our Country grant to trial and establish forage shrubs and new grass species on their property and Rob said this had helped to reduce costs.

→

Most suitable Australian native perennial forage shrubs for grazing identified by the Enrich program:

Acacia ligulata	Sandhill wattle
Acacia neriifolia	Oleander wattle
Atriplex amnicola	River saltbush
Atriplex nummularia	Old man saltbush
Atriplex rhagodioides	River Murray saltbush
Chamaecytisus prolifer	Tagasaste
Chenopodium nitrariaceum	Nitre goosefoot
Eremophila glabra	Tar bush
Eremophila longifolia	Emu bush
Enchyleana tomentosa	Ruby saltbush
Maireana astroticha	Low pearl bluebush
Maireana brevifolia	Small leaved bluebush
Maireana pyramidata	Black bluebush
Maireana sedifolia	Pearl bluebush
Rhagodia eremea	Tall saltbush
Rhagodia preissii	Mallee saltbush
Rhagodia spinescens	Thorny saltbush

Summer active pastures and forage crop alleys during the peak of summer in February 2012.

Perennial grass growing on wodjil sand.

Positive side effects

He said the aim of planting a combination of forage shrubs and grasses was to help alleviate the autumn feed gap that occurred in most years and required costly supplementary feeding, but he would need to greatly expand plantings to achieve this.

"While biomass from forage shrubs is not large, livestock health, wool quality and wool staple strength is improved during this period from the protein, Vitamin E, minerals and calcium in the shrubs," he said.

Rob's tips for successful establishment of forage shrub seedlings:

1. Water well before planting
2. Rip well
3. Ensure seedling root ball is completely buried

Rob's tips for successful establishment of summer active grasses:

1. Use knockdown herbicide in early winter and early spring to remove weeds and preserve moisture
2. Seed after soil temperature warms up in spring
3. Plant seeds 1cm deep and firm down with press wheels
4. Select sandy soil types

"I have noticed less mineral feed supplements are sought by ewes that have access to forage shrubs, but this is a minimal saving at the moment."

Rob said his aim was to maintain ewe body weights during the autumn feed gap to increase lambing rates and the lamb's lifetime ability to grow wool and meat.

He said there was a marketing opportunity to improve the value of prime lambs fed on saltbush before slaughter as vitamin E in the saltbush improved the meat's appearance and shelf life.

Production gains

The main grazing period for the Grylls' perennial shrubs and pastures is in March and April, after which this feedbase is given a long recovery.

Last year's forage shrub paddock, which also had triticale stubble, supported 500 ewe hoggets for four weeks.

After opening rains in May, the paddock was then sown to annual crops and the sheep returned to germinating pasture paddocks, which had been allowed a spell.

Rob said a major challenge to lifting production from existing medic pastures on his property was insect damage from lucerne flea, aphids and red legged earth mite.

He said using the forage shrub and summer active grasses system had big potential to boost the productivity and fertility of sandplain soils by lifting soil organic matter.

Rob Grylls with Rhagodia preissii, which has been the best saltbush performer on less fertile sandy soils on his central wheatbelt property in WA.

"When these sandplain paddocks begin performing, the negative effects of salinity further down slope are also reduced, giving whole-farm environmental and livestock production benefits," he said.

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Animal husbandry

The kindest cut of all

MLA-funded research has taken the guesswork out of which castration method delivers the best animal welfare outcomes for the northern cattle industry.

Banding, rings or the knife? Which is the most humane castration method?

University of Queensland Senior Research Fellow Carol Petherick, who recently completed research comparing tension-banding with surgical castration, says appearances are deceiving and less blood is by no means a guarantee of less pain or less risk of infection. Carol said the research clearly showed tension-banding castration is an inferior option to surgery for the northern beef cattle industry.

"Castration is one of the most common procedures carried out in the beef industry. From a marketing perspective tension-banded castration is promoted as producing superior welfare and production outcomes compared to other castration methods, particularly for older bulls," she said. "However, our research shows this is perception, not fact."

Three months post-castration, researchers found there were no weight or production differences between the two methods.

Research approach

Carol, along with a team from CSIRO, New Zealand's Massey University and the Queensland Government, compared the welfare outcomes of tension banding versus surgical castration on two age groups of Brahman bulls: weaners (seven to 10 months old) and older bulls (22 to 25 months old).

Pain was assessed by measuring blood cortisol levels (a hormone activated by stress) and by recording the animals' behaviour. Wounds were also assigned a score to help monitor post-castration healing and recovery.

"We found banding caused less pain and discomfort than surgical castration during the procedures," Carol said. "However, during the next 1.5 hours, banded bulls from both age groups experienced greater pain and stress than the surgically castrated bulls."

Relief

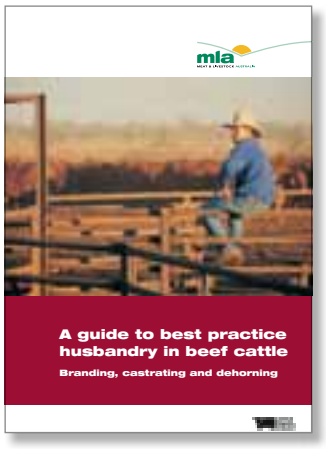
Carol said ketoprofen (a non-steroidal anti-inflammatory) helped alleviate pain in the surgically castrated mature bulls (mostly between 1.5 and three hours afterwards) but not in the mature banded bulls.

"Ketoprofen made little difference to the weaner groups, they all recorded high cortisol concentrations but we believe this was because the mature bulls were all quiet and accustomed to being handled while the weaners were not, and the cortisol response to pain was masked by their stress response to being handled and restrained," she said.

Two to four weeks post-castration the mature banded bulls were still showing elevated cortisol compared to the surgical castrates, while haptoglobin concentrations (an indicator of inflammation) were significantly high in all banded cattle.

1. *Carol makes behaviour observations following castration.*
2. *Tension banding being applied.*
3. *This data logger helped assess levels of animal stress by detecting how long the bulls spent standing or lying down.*

Research clearly shows tension-banding castration is an inferior option to surgery. There are no weight or production differences between the two methods.



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Download *A guide to best practice husbandry in beef cattle - Branding, castrating and dehorning* at **www.mla.com.au/beefhusbandryguide**

Maternal productivity

Rib fat EBV and reproductive link

A clearer understanding of the relationship between Rib Fat EBV and fertility was an outcome from Beef CRC research.

Research from the Beef CRC's Maternal Productivity Program, led by Associate Professor Wayne Pitchford, has shed more light on the association between BREEDPLAN Rib Fat EBV and cow reproductive rate.

Rib Fat EBVs are estimates of the genetic differences between animals in fat depth at 12/13th rib site in a 300kg carcase. They are significant to beef producers because of their impact on fatness and meat yield. Stock with positive Rib Fat EBVs are likely to produce progeny that are fatter and yield less on average, than stock with lower or negative Rib Fat EBVs.

The research program aimed to address the concerns of some producers that breeding cattle to produce higher yielding, leaner carcases by selecting negative Rump and Rib Fat EBVs may be compromising the ability of cows to maintain sufficient body condition for timely re-joining, especially during tough seasons or when nutrition is limited.

"To understand the impact that Rib Fat EBV has on reproductive rate, an intensive research station project was held over four years involving 391 Angus heifers specifically selected for divergence in BREEDPLAN Rib Fat EBV," Wayne said.

"The heifers were divided into two groups; a high rib fat line, which had an average Rib Fat EBV of +1.0mm (compared to the 2010 Angus breed average of -0.1mm) while the low rib fat line had an average Rib Fat EBV of -1.3mm. The two groups represented approximately the top and bottom 10% of the Angus breed."

The heifers were monitored for reproductive performance at two sites, Struan Research Centre, South Australia, and Vasse Research Station, Western Australia. At each site heifers were managed together so any differences in reproductive rate could be shown to be genetic.

Interpreting the data

"One of the most important outcomes was the large difference in pregnancy rates between the two groups of heifers," Wayne said.

"The high Rib Fat EBV heifers had 8% higher pregnancy rate than low Rib Fat EBV heifers after a nine-week joining (91% vs. 83%).

"Under the increased pressure of a six-week heifer joining, the difference was greater, with a 13% variation in pregnancy rate between the lines (78% vs. 65%) (Table 1). Although the difference in actual fat depth between the lines was only 0.9mm (4.5mm vs. 3.6mm), this equated to a 20% difference in rib fat depth, and was associated with the large difference in heifer pregnancy rate."

Wayne said it followed that as pre-joining rib fat depth increased up to 10mm, so did pregnancy rates with the greatest increases observed for leaner heifers with low levels of pre-joining rib fat depth.

"An increase in pre-joining rib fat depth from 2mm to 3mm was associated with a 6% increase in pregnancy rate while an increase from 8mm to 9mm was associated with less than 1% increase in pregnancy rate," he said. (see Figure 1).

"For the first time we've been able to show that heifers with a very negative Rib Fat EBV (bottom 10%) have a greater likelihood of reduced pregnancy rate at their first joining."

8%
higher pregnancy rate for high Rib Fat EBV heifers after a nine-week joining.

13%
higher pregnancy rate for high Rib Fat EBV heifers after six-week joining

6%
increase in pregnancy rate for 2–3mm rib fat depth

1%
increase in pregnancy rate for 8–9mm fat depth

Table 1 **Age, weight, rib fat depth at joining and pregnancy rate for high and low Rib Fat EBV heifers**

Line	Age (days)	Weight (kg)	Rib fat (mm)	Pregnancy rate (%) Nine-week joining	Pregnancy rate (%) Six-week joining
High Rib Fat EBV	475	360	4.5	91	78
Low Rib Fat EBV	461	363	3.6	83	65

Source: Beef CRC

Next time around

However, differences in reproductive rate between the lines on their second and subsequent calves were much smaller. If dry heifers were culled based on pregnancy test, observed reproductive rates over four calving opportunities were:

→ **High Rib Fat EBV**

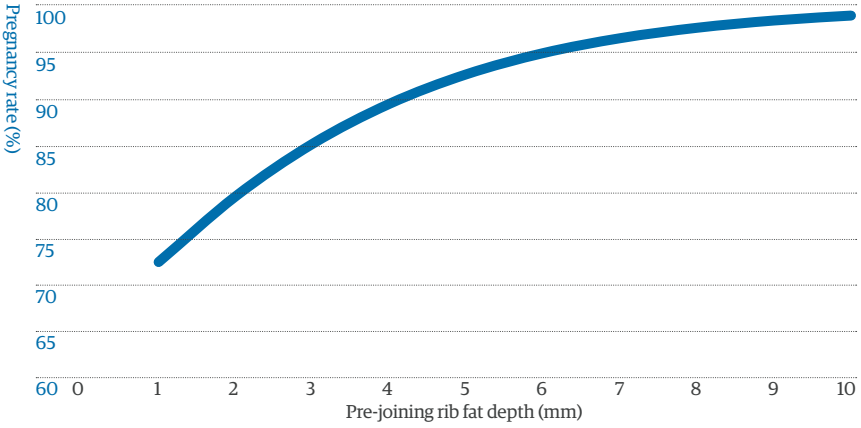
- 3.6 calves over 4 joinings
- 82% of cows were pregnancy tested in calf in 4 successive years

→ **Low Rib Fat EBV**

- 3.5 calves over 4 joinings
- 79% of cows were pregnancy tested in calf in 4 successive years

This finding has important implications; if producers cull based on heifer a pregnancy test, subsequent differences in cow reproductive rate between high and low Rib Fat EBV cows are small.

Figure 1 **Heifer pregnancy rate at various levels of pre-joining rib fat depth**



Source: Beef CRC

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Download *More Beef from Pastures Module 5 Genetics* // **www.mla.com.au/morebeef**

Balancing reproduction and carcase traits

Most cattle producers have in mind their perfect bovine female with a blend of the best of reproductive and carcase traits, but the challenge is how to achieve it.

With the vast suite of EBV tools available, producers have the ability to tailor their herd quickly to specific markets. However, when breeding for replacements, producers need to be mindful of selecting the correct balance of traits that will optimise pre- and post-farm profitability.

So what genetic decisions can producers make to ensure the best outcomes? According to Beef CRC Maternal Productivity Program Leader Wayne Pitchford, for traits such as Rib Fat EBV, producers need to be mindful of applying a breeding objective that is appropriate for both their target beef market and reproductive performance in the cow herd environment.

"In terms of breeding, a practical strategy is to seek bulls with high $index values for a selection index that suits a producer's current production system and target markets, while avoiding extreme EBVs in any one trait," Wayne said.

"Producers still need to focus on carcase traits, including retail beef yield, and not just adopt selection strategies that focus on Rib Fat EBV in isolation."

Wayne said for seedstock producers, the message from the research was clear. They should continue to use an overall selection index that incorporates weaning rate. This strategy allows for animals with the best combination of all traits to be identified, including animals that can sustain heifer calving under tight feed conditions.

Fat and fertile – the fine genetic line

For cattle breeders, deciding which traits to enhance in their herd is usually the easy part. Balancing the interactions between those traits is the challenge.

It is imperative for breeders like Sinclair Munro to establish what the Rib Fat EBV can tell them about striking a profitable balance between fertility and carcase performance.

"It's about maintaining some genetic diversity and balancing the output of the whole herd," Sinclair said.

The Munro family has run 'Booroomooka Angus Stud' since 1926, on country near Bingara, NSW, owned by the family since 1858.

"And ultimately, it's about knowing your cattle and interacting management to get the desired outcomes. There's nothing to stop people selecting extremely low-fat cattle, so long as they are able to manage them to keep adequate fat so that fertility does not drop."

'Keera', the Munro's home property, extends across low-fertility hill country. It is under these testing conditions 900 stud cows are run.

The family also joins 800 commercial breeders producing mostly feeder steers – an in-house performance test of their stud's genetics.

Booroomooka was one of the herds that contributed objective data to the Beef CRC Maternal Productivity Industry Herd Project. The information was used to assess relationships between rib fat, muscle, frame, weight and fertility traits.

Sinclair said Booroomooka has always placed importance on good fat levels. 'Keera' can seldom support cattle in luxury conditions.

"We've thought that the ability to carry some fat through tough spells is insurance, and we've seen that in the field," he says. "That has put our herd BREEDPLAN EBVs for rib fat slightly above breed average."

The Beef CRC's finding that this strategy was good for fertility, as well as the 'do-ability' of cattle under less than ideal conditions, was welcome confirmation that decades of selection has been on the right track.

Snapshot

The Munro family, Bingara, NSW.

Property: 8,094ha

Enterprise: Angus stud, feeder steer production

Livestock: 900 stud breeders, 800 commercial breeders

Pasture: Tropical grasses, native summer grasses, forage oat crops, lucerne, arrowleaf clover

Soil: Traprock hills, loam flats, red clay slopes, black self-mulching soils, light sand

Rainfall: Summer dominant 700mm

On the other hand

Fat has its downsides, though. Sinclair observes putting fat on cattle is energy-intensive and expensive compared to stacking on cheaper muscle. And too much fat is penalised by processors.

Booroomooka's clients are making their own demands. Fertile females are a key driver of profit, and cows that can hold a 3+ condition score after calving are more likely to get pregnant again than those with less fat.

Booroomooka aims to join its own yearling heifers at a weight of at least 300 kilograms, with a scanned rib fat of at least 5mm.

"The CRC work showed that fat cover in yearlings was highly correlated with how cattle ranked in later life," Sinclair said.

"The exception can be high milkers – producing lots of milk can drain the condition off a cow quickly."

The stud's genetic selection and management process delivers high pregnancy rates for the first joining. Keera's environment, typical of many properties out of the high rainfall zones, is demanding on second-calf heifers. Booroomooka's genetic selection and management is continually improving the re-conception rate under these conditions.

In 2000, the Booroomooka herd average for rib fat was -0.1 and eye muscle area (EMA) was +2.8. A decade later, the herd average had shifted to +0.1 for rib fat and +4.8 for EMA.

Meeting the market

Markets are also changing in ways that put an emphasis on fat, Sinclair reported.

"At the moment, more feedlots are turning off cattle with fewer days on feed. Also a lot more of our bull customers are targeting high-quality MSA grading specifications, including those grass finished."

"That means cattle have to put on fat a bit earlier. People are looking to turn their cattle off at 18-20 months, before a second winter, and processor specifications require that stock have a minimum of 6mm of fat at slaughter."

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Feeding regimes

What did they eat?

The two rations were (on a dry matter (DM) basis):

Group 1: 90% cereal/legume silage, 10% molasses

Group 2: 70% whole oat grain, 8% cottonseed meal (CSM), 22% cereal/legume silage

Both groups were fed approximately 1.07 kg/day total DM for the silage group and 0.81 kg/day total DM for the oats/CSM group.

Each group also received 20g/hd/day of a commercial mineral mix.

Oats for girls, silage for boys

Different feeding regimes for ewes at conception may influence the sex ratio of their offspring, according to preliminary findings of MLA-funded research, with grain high in omega 6 leading to more female lambs while omega 3-rich silage resulting in more males.

62–64%
female lambs from Merino and crossbred ewes fed grain-based ration

40–45%
female lambs from Merino and crossbred ewes fed silage-based ration

Eighteen months of the research (on top of earlier research funded by the EH Graham Centre) at Wagga in southern NSW has found the supplementary feed type, fed to both first cross and Merino ewes for six weeks prior to joining and for 17 days following, had an impact on the sex ratio of the flock's offspring and the time it takes to reach oestrus.

Project Leader Dr Edward Clayton, a ruminant nutrition specialist with the NSW Department of Primary Industries (DPI), said the 2011 MLA-funded research, conducted on 600 ewes, found 64% of the Merino offspring were female when ewes were fed an oat grain/cottonseed meal (CSM) based ration, while the crossbreds produced 62% females. Ewes fed a silage based ration produced, in both Merinos and crossbreds, between 40 and 45% female offspring.

"Why would producers want to change the sex ratio of their lambs? If you are running a terminal sire flock for prime lamb production more males could be useful or if you are building up your flock, more females could help you get their faster," Ed said.

The research also found ewes fed the oats/CSM reached oestrus approximately half a day earlier than those fed silage. While Ed said this may not seem hugely significant, it could be beneficial when seeking greater synchronisation of ewes for a tighter joining period, for AI or for using fewer rams and warranted further investigation.

It could be in the timing

The research is continuing with trials also examining whether the impacts of the timing of supplementary feeding on the sex ratio is from the feeding prior to or following joining. This year the ewes will be fed the opposite diet to the one received in the first year of the project.

Blood samples have also been taken from all offspring and, this year, the lambs will be measured after slaughter to assess if the diet impacted on the omega 3 or omega 6 levels and other eating quality traits in their meat.

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Cost of production

Kilos and costs – the profit drivers

Understanding the profit drivers in beef production is not a complex exercise, according to the facilitator of six Beef Profit Groups in northern NSW.

The simple philosophy of the groups is based on establishing two figures – the kilograms of meat produced and the costs of producing that meat.

Facilitator Bill Hoffman, of Hoffman Beef Consulting, said each group addresses unique production and profit issues at quarterly meetings, but at their core is a strong focus on measuring and monitoring business health through annually calculating the kilograms and the costs.

Located at Guyra, Ebor, Yarrowitch, Baryulgil, Northern Rivers and in the North West, the groups involve 72 producers who collectively manage 79,900 cattle, conservatively valued at $63.9 million, across 119,850ha.

"The most profitable beef producers do not necessarily have the lowest cost of production (CoP), but they have it under control, it's relatively low, and importantly, they're using the figure to improve their beef enterprise," Bill said.

Most of the groups have been calculating CoP for a number of years, which has enabled Bill to develop indicative regional benchmarks for different beef operations in various locations.

Comparing CoPs

Within the six groups there is a wide range of CoP each year from $0.79/kg to $3.92/kg. Each year there are outliers (notably different figures from the bulk of the data) for a range of reasons, but the median 2010-11 CoP across the Ebor, Guyra and Yarrowitch groups was $1.22/kg.

"The benefit of having six beef profit groups with the same facilitator is we can compare the CoP within the group, and across the groups, because it was calculated in the same way," Bill said.

"In the early days the group environment offers support and confidence in calculating CoP. Over time the capacity is built within the individual members so that if the group was to dissolve, producers would continue to calculate their CoP individually as a measure of business health."

Bill emphasised any form of benchmarking needs to be approached with caution.

"Benchmarking an individual business year-to-year with itself gives the most informed view of where the business is going. A high CoP in one year may indicate one off events such as major pasture renovation or significant repairs and maintenance so it is important to look at the trend over a minimum of three years, preferably five," Bill said.

"To date we have kept the process simple as that is what group members tell me they want. We focus on the operational level of the business and a small number of Key Performance Indicators that are strongly collated with profit and I am sure that has strong flow on benefits to overall profit."

CoP and kilograms of beef produced are strong indicators of profit. Between 2008-09 and 2010-11 CoP has fallen by $0.33/kg and kilos of beef produced has risen by 14,896kgs across the three NSW northern tablelands Beef Profit Network groups.

"In 2010-11 86% of the members would have achieved a positive operating margin in $/kgs of beef they produced and that is a pleasing result," Bill said.

Calculating CoP

There are four components to the calculation:

1. Kilograms of beef produced

This is calculated by recording any significant change that occurred in the inventory of livestock on the property at the end of the year compared to the start.

Kilograms of beef sold are recorded in liveweight terms (carcase weight sales are converted to a liveweight equivalent).

Kilograms of beef purchased is subtracted from the sale of kilograms.

2. Labour costs

These include permanent and/or casual labour costs plus an allowance for a fulltime owner/operator at $50,000 per year.

3. Herd enterprise costs

These include health, selling, purchased fodder and transport costs.

4. Overhead costs

As the name implies these are the costs largely incurred regardless of what happens in the production part of the business. For example repairs and maintenance, insurance, rates, pasture improvement and maintenance costs and depreciation.

Total costs are divided by the kilograms produced to give the CoP in $/kg liveweight.

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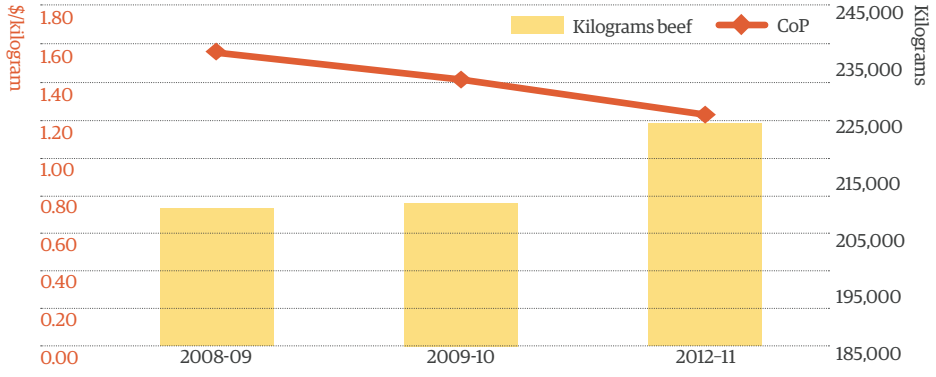
The *MLA beef cost of production calculator* is a tool to help beef producers determine their CoP and compare their performance annually **www.mla.com.au/beefCoP**

Figure 1 **Average cost of production (/kg) and total kilograms of beef produced over three years for six Beef Profit Groups.**



Source: Bill Hoffman

Snapshot

Rob and Jill Perkins, Ebor, NSW.

Property: 1,100ha

Enterprise: Trading feeder steers (heavy)

Livestock: 1,500 Angus/ Hereford/ Shorthorn steers

Pasture: Highly improved, high input temperate species – ryegrass, fescue, cocksfoot (NZ type pastures)

Soil: Granite and basalt

Rainfall: 1,300mm

Questioning costs of production

Understanding the greatest impacts on his cost of production have given northern NSW tablelands producer Rob Perkins a powerful tool to increase profit.

Ebor beef producer Rob Perkins quickly realised that penny pinching on a drum of drench wasn't going to grow his bottom line. But closer examination of his cost of production (CoP) and his big expenses would.

"After three years my CoP has averaged out at about $1.10/kg. I know my biggest costs are pasture and fertiliser and I scrutinise these large costs to make sure I am getting value for money," he said.

"Having intimate knowledge of my costs allows me to narrow my focus and takes it off trying to save $10 on drench."

After four years with the Ebor Beef Profit Group, Rob continues to value the insight that calculating his CoP gives him into his heavy feeder steer operation. The big costs in Rob's operation stem from the high input, highly improved, intensively managed pasture base.

To manage his fertiliser input costs and maintain high quality pastures, Rob has a simple philosophy of replacing the nutrients removed by the cattle.

"Because we are monitoring the stock weights monthly, and know how many kilograms of beef we produce, we can replace the nutrients per kilogram of beef removed. We also soil test and occasionally tissue test," Rob said.

Rob is acutely aware that monitoring and tactical control of stock, coupled with high pasture utilisation, are vital to maximise kilograms of beef per hectare.

"The trader steer market probably has the highest cents per kilogram. We have the scales linked to the NLIS devices so we can monitor stock weights monthly and draft off the tops. We are aiming to get the cattle to 470–480kg," Rob said.

"I also know the price I am going to get for my animals before they leave the farm."

Profit from pastures

Another challenge in Rob's enterprise is utilising the summer feed flush and he always runs slaughter cattle, as well as the feeder steers, to assist in achieving this.

Rob likes to increase the numbers of crossbred cattle in summer to consume the surplus feed and uses MSA to maximise the returns from these cattle.

As he is running a trading, as opposed to a breeding, operation, gathering the data to calculate Rob's CoP takes time but he insists it's no deterrent.

"If the group dissolved tomorrow I would continue to calculate my CoP for my own benefit," he said.

"If you have a good accounting package, the process of collecting the data is not onerous. We pull most of our figures off the information prepared for the accountant, and then it is simply a matter of adding up the kilograms of beef that have entered and exited the property."

The Ebor Beef Profit Group benefits from the sharing of information about each individual enterprise.

"The first year we kept our CoP private but it didn't take long before we just opened the books," Rob said.

"It has been a great policy as nothing is divulged outside the four walls of the meeting. Different producers have different costs of production and when you understand their philosophy, and the goals they have for their business, things start to fall into place."

Table 1 Ebor Beef Profit Group

Year	Mean cost of production and range ($/kg)	Mean kilograms of beef/ha and range
2008-09	1.54 (0.86-3.54)	327 (117-912)
2009-10	1.38 (0.86-2.69)	364 (131-937)
2010-11	1.22 (0.79-2.26)	327 (166-609)

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Phosphorus

Weighing up phosphorus options

Northern beef producers recognise the impact of phosphorus (P) on their productivity. It is easy to measure the response of adding P to cattle's diet in severely P-deficient country. However, determining the economics of it in not-so-deficient areas is a bit trickier.

Here MLA's Northern Beef R&D Research Coordinator, Geoff Niethe, outlines some of the options for northern cattle producers.

In an attempt to provide more certainty into the P supplementation debate, MLA is funding several research projects to establish a more reliable and practical P test and to determine the responses in growth rates and fertility that occur at various levels of P in the diet.

Challenges include accurately defining the marginal phosphorus deficient areas and the classes of cattle and the seasonal conditions when a positive response will occur. In the interim, a new P manual is in production using all the knowledge that has been accumulated to date and will address the key principles to consider when applying strategies and practices to get the best economic returns from feeding supplementary phosphorus. Some of the important facts on P are:

Which animals most need P?

→ The animals that need P the most are growing animals, late-pregnant breeders and wet cows.

→ Soil P levels is an easy way to determine if P supplementation should occur but it can prove problematic where various soil/ land types exist in the same paddock. In general, where soil P levels:

- are deficient (5mg/kg or less), feed P supplements to all classes of stock
- are marginal (6–8mg/kg), feed P to young breeders and test older breeders
- exceed 8 mg/kg, the economic benefits from feeding cattle are marginal

→ Responses to P supplement will be variable if animals on P deficient country have access to adjacent high P soils such as frontage country.

→ Animals showing signs of severe phosphorous deficiency including bone chewing, broken bones, peg-leg, poor body condition of breeders and botulism.

→ There are no simple diagnostic tests for the P status of cattle. Blood tests on growing steers immediately after the wet season are still the best indicator of P status, while faecal P is a more practical and readily obtainable procedure.

When should P be fed?

→ Deficient animals respond best to P supplement when their diet has adequate protein and energy. This is why P supplementation is most effective during the wet season.

→ On deficient country, feeding P over the wet season to:

- young growing stock can increase their growth by 40–60kg/year
- lactating breeder cows can increase conception rates by 15–20%

→ Where the native pasture on deficient country contains at least 30% stylo, cattle may respond significantly to P supplement during the dry season.

→ A typical wet season P supplement will contain 10–12% P; a typical dry season supplement will contain 2–4% P and also non-protein nitrogen (eg urea).

→ Supplements should be compared on the cost of their P content, on the practicality of feeding out and on whether the animals will be able or willing to eat target amounts.

How do P supplements affect the stocking rate?

→ As cattle eat more pasture when P supplements are fed, the stocking rate should be reduced to avoid overgrazing.

→ On deficient country, lowering the stocking rate will not reduce the need to feed P.

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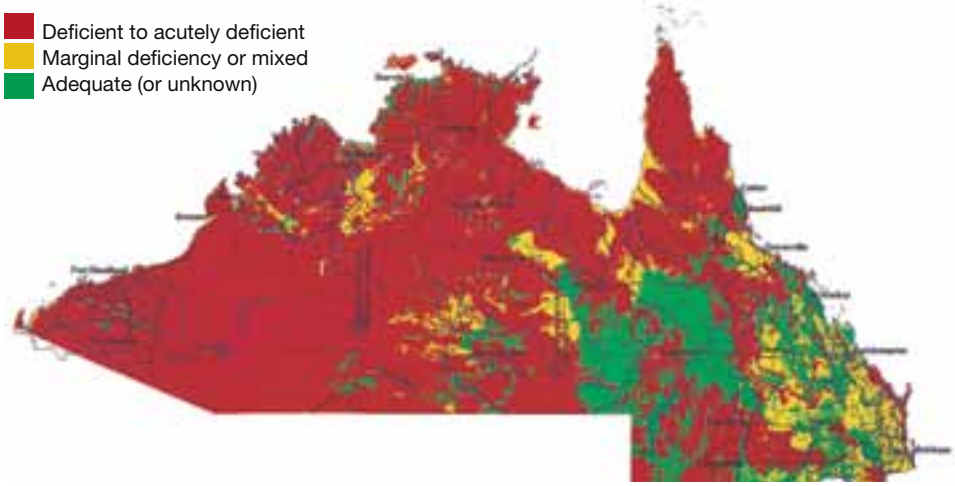
Order // *Water medication - a guide for producers* at **www.mla.com.au/water**

Figure 1 **Phosphorus status in Northern Australia**



P is for profit

Snapshot

Cameron and Doreen Quartermaine, Watson River, QLD.

Property: 89,000ha

Enterprise: Previously aimed at the live export market, but now sending cattle south for fattening on agistment for domestic sales.

Livestock: 6,000 head

Pasture: 325ha of improved grasses and legumes on cleared country

Soil: Phosphorus deficient yellow clay

Rainfall: 1,500mm

Doreen and Cameron Quartermaine with Joe Rolfe (centre), DAFF Queensland Principal Extension Officer (beef), who is one of the contributors to the new phosphorus manual.

(Other contributors to the manual include representatives from NT Department of Resources, Department of Agriculture and Food WA and QAAFI from the University of Queensland).

An intensive wet season phosphorus supplement program is paying off for two Cape York producers.

Ensuring 50 tonne of phosphorus (P) supplement is consumed by cattle during the summer would be a challenge for any producer, but add in 1,500mm of monsoonal rains and logistics take on a whole new meaning.

For Cameron and Doreen Quartermaine it has proved a worthwhile exercise to deliver 70g of lick/head/day for breeders and heifers and 35g for steers over 120 days across the whole property during the wet season. They have calculated that it has added at least $60,000 to their bottom line.

With "grossly phosphorus deficient" country, the Quartermaines have established a wet season program which involves supplementing all stock with a 67% DCP (Di-calcium phosphate), 23% salt, 5% Gran Am, 2% each of lime and molasses and 0.5% premix by running stock in nine paddocks with licks delivered through 31 purpose built sheds.

Four shipping containers, each holding 14 tonnes of supplement, have been strategically placed as wet season depots and bridges built across creeks which flood allow access by four wheel motorcycles for refilling the troughs.

In 2009-10, over the whole herd, the cost was $7.40/head or $44,450.

Reward for effort

The Quartermaines can easily measure the impact of P on their system. In the mid 1990s the cattle refused to eat a bad batch of lick. In the following dry the result was high mortality, less calves and greater rates of peg-leg (when cattle develop brittle bones and a lame gait from severe P deficiency) as well as greater deaths in calves left chasing surviving cows for milk.

"We've always been convinced about the cost-effectiveness and production benefits of feeding P but that experience reinforced it as a must for all cattle in our country - every year," Cameron said.

"If we stopped, our breeder losses would increase from 3% to 8-10%. The heifers would not conceive until three years of age - whereas currently it is two - and we'd only wean about 45% (70% with supplements) which would leave almost no scope for heifer sales."

Another measurable benefit is the wet season weight gain is about 40kg higher thanks to licks. Without P, Cameron suggested his "best fat cows" would only hit 340kg, which would carry a price penalty.

"On top of all this, there are huge savings on mustering and cattle handling costs as the cattle are quieter and can be collected from lick points," he said.

70%
weaning rates with P supplements

45%
weaning rates without P supplements

3%
breeder losses with P supplements

8–10%
breeder losses without P supplements

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Pasture

Measuring greener pastures

A bird's eye view of what pastures are growing in southern Australia will provide insights into future research for the livestock industry.

Southern Australia's first pasture audit in 17 years has found pasture varieties and their condition have changed dramatically in the past two decades.

Analyst Graham Donald, who also worked on southern Australia's first pasture audit in 1994, observed the effect of prolonged drought and the tightening economic situation for many producers has had an impact on pastures.

"The audit showed 30% of southern Australia's pastures are in decline and there has also been a substantial change in pasture composition which reflects the huge shift in the way farmers do business," Graham said.

He explained one of the biggest changes was an increase in the variety of pasture cultivars and the large-scale adoption of fodder or dual-purpose crops, reflecting a drive for increased enterprise flexibility as producers hedge their bets against climatic challenges.

State trends

The audit, funded by MLA, found the area planted to lucerne in NSW, Victoria, Tasmania, South Australia and south Western Australia had risen considerably while Tasmania also had increased plantings of cocksfoot. South Australia had more fescue and burr medic and in Western Australia, there were more plantings of serradella.

Conversely balansa clover plantings had substantially reduced.

"This could mean it was oversold in the '90s or just didn't have the persistence producers wanted," Graham said. "The recent perturbed climate events following a period of extended drought may affect the sustainability and persistence of some pastures."

Research direction

MLA Manager, Environmental and Natural Resource Management, Cameron Allan said the results of the audit will provide input to the $27 million Feedbase Investment Plan and also ensure a maximum return on producer levies by helping to identify the best R&D opportunities.

"A defendable case is required for investment decisions and historically, pasture-related information generally available is now insufficient – it lacks detail," he said. "This audit has gathered opinions from local experts about the mix of pastures in their locality.

"Many pieces of data are combined to build a case including ABAREs statistics, volume of seed sold and local evidence but it still leaves us with an incomplete understanding of the feedbase that supports our livestock industries."

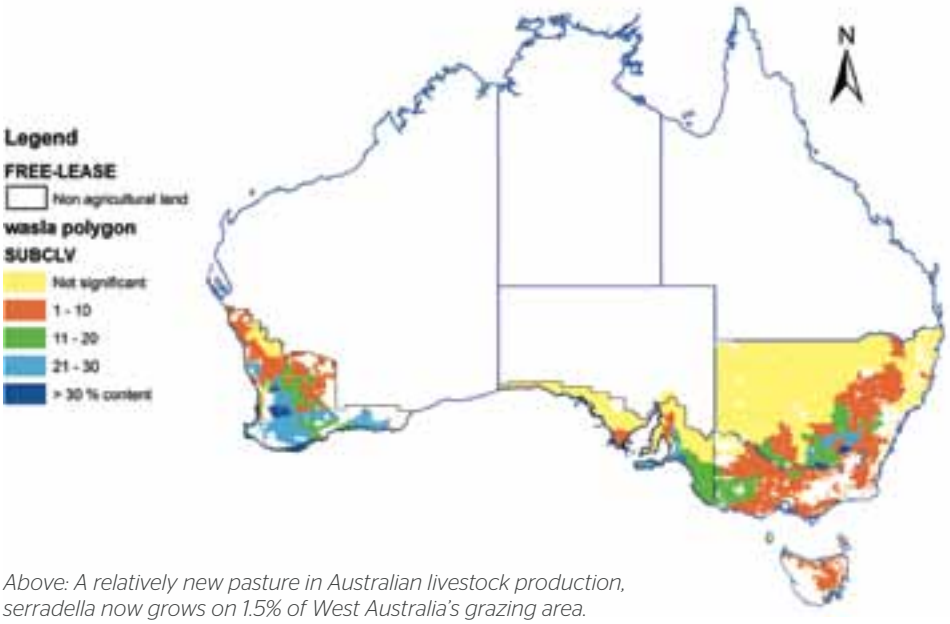
Cameron said this unique snapshot of pasture composition and condition had enormous potential.

"We hope to create a living database where this information can be more regularly updated and provide valuable support and sound justification for investment decisions made by the public and private sectors," he said.

"It could also be used to update producer tools such as the website www.pasturepicker.com.au"

Cameron said the next step is to work with public agencies and the private sector to see how this information can best be used to support industry.

Figure1 **A map illustrating subclover distribution across Australia.** *Source CSIRO.*



Above: A relatively new pasture in Australian livestock production, serradella now grows on 1.5% of West Australia's grazing area.

National pasture run down

50% of NSW pastures remain in a native state.

In 1994, balansa clover covered almost 27.5 million ha across Western Australia, NSW, Queensland, South Australia, Victoria and Tasmania. Today, there are no significant plantings of it in any state.

900,000ha of phalaris and 500,000ha of subclover in Victoria, which has 7.4 million ha of grazing area (figure 1).

Native pastures make up almost a quarter of South Australia's total grazing area, excluding the rangelands, while annual medic proved the most popular improved pasture choice.

1.5% of Western Australia's grazing area is now planted to serradella.

11.4% of Tasmania's grazing area is perennial ryegrass/white clover.

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Forage crops

Keeping your forage crop out of the red

500,000ha
forage oats planted annually in the northern region

$250m
beef cattle production from forage oats

61%
of forage oat growers have experienced leaf rust in previous five years

Do you have more than just cattle eating away at your oat crops? To get a better understanding of how much leaf rust is chewing up your forage oats, new research is underway to accurately measure the level of yield loss and the economic impact of leaf rust infection; and to measure the yield increase and economic gain when fungicide is applied.

Project leader, Queensland Department of Agriculture, Fisheries and Forestry (QDAFF) Agri-Science Queensland Senior Plant Breeder (Oats) Bruce Winter said that, although there is good information on the benefits of fungicides in wheat and barley, there is no research based on fungicide use in forage oats.

"Few producers bother with fungicide application in forage oats because it is seen as a low value crop, with only a small percentage grown for grain or seed production," he said.

"However, fungicide application has become more economically viable, down from about $50/ha five years ago to $8–$10/ha now, which makes fungicide control an option."

An MLA-funded two-year research project will operate two trial sites – dryland west of Toowoomba and irrigated at Gatton in Queensland, to deliver agronomic recommendations based on economics for the use of fungicide to control leaf rust (Puccinia coronata) in forage oats.

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The 2012 Forage Oat Variety Guide is available at **www.daff.qld.gov.au/documents/PlantIndustries_FieldCropsAndPasture/2012-Forage-oat-variety-guide.pdf**

Did you know...

Leaf rust outbreaks are worse under mild and moist weather conditions, and are evidenced by small, light orange-yellow pustules appearing about 7–10 days after infection.

How to manage leaf rust in oats

- Plant rust-resistant or less susceptible varieties. There are two resistant varieties available suited to northern NSW and Queensland called Aladdin and Drover.
- Tebuconazole (eg Folicur) and propiconazole (eg Tilt) are registered for control of leaf rust in forage oats in Queensland. While there is no information available on the economic thresholds for application, it is more likely to be economical in high value seed or hay crops.
- Avoid planting too early (before mid-March) or too late (after June).
- Losses from infection can be reduced by grazing or cutting rust infected crops before the disease becomes severe.
- Control 'bridge' crops or out-of-season oat and wild oat plants.
- Plant in wider rows to produce an open canopy and reduce losses from trampling.
- Maintain good soil and crop nutrition with nitrogen to minimise the impact of infection.

Snapshot

Justin Gilbert, Dorrigo, NSW.

Property: 520ha

Enterprise: Goats and cattle

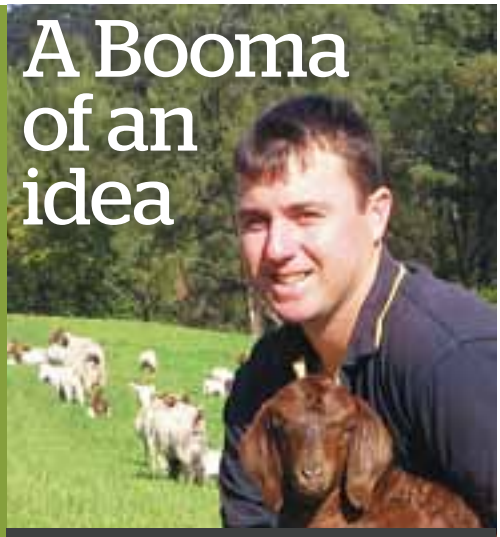
Livestock: 1,600 breeder goats plus feedlot. More than 2,000 goats in total

Pasture: Ryegrass and oats

Soil: Mixed, predominantly granite

Rainfall: 1,375mm

A Booma of an idea



Kakadu plum and chilli jam goat shanks didn't cross Justin Gilbert's mind when he invested in boer-cross goats as weed controllers 12 years ago.

Justin found the goats easier to manage than his cattle and quickly moved to a larger scale operation, adding a feedlot and stud.

Four years ago he began selling goatmeat to butchers, restaurants and farmers' markets. Every week, he said, demand "was bigger and bigger".

Today Justin turns off close to 3,000 goats annually from his Dorrigo property on the NSW north coast, and a network of producers "from as far as Lighting Ridge to Dubbo to nearby" supplies his business, Booma Boers, which is stepping up to the next level with support from MLA.

Justin was supplementing his farmed goats with wild or rangeland goats, which caused problems with consistency. MLA Product Innovation Manager, David Carew, said MLA helped him develop value-adding methods, including sous vide technology (see box 'What is sous vide?') to create tender meat which retains texture. These techniques also enable the whole carcase to be used.

Getting it on the menu

Justin found two groups of customers: those who have traditionally eaten goatmeat, and the "more educated 20 to 40-year-olds, who are either well-travelled or foodies".

Goatmeat has the advantage of being low fat, but that meant many customers did not know how to cook it, "so we had to either educate them, which we do, or make the process easier."

"We turned the forequarter meat into a Moroccan style curry, sous vide cooked," David said. "The hind leg is very lean, and not good for curry and there is not enough connective tissue, so we made a meat pie filling so that Justin could find some bulk business into pie shops and hotel restaurant groups."

The shanks and ribs were portioned "packed with the flavour you expect from meat on the bone."

What is sous vide?

Sous vide is a method of cooking food. It is vacuum sealed and cooked at a gentle temperature in a precisely controlled water bath. It achieves perfect, repeatable results every time. Sous vide cooking is great for retaining vibrant flavour and texture in vegetables and cooking secondary cuts of meat without drying them out.

Where to from here

Justin's next step is to broaden his market. David said it is difficult to get people to try unfamiliar main courses, so entry points like entrees, tapas and lunch are the focus.

"If the foodservice industry can get goat meat in an easy form, like a pie or an entree, they are more inclined to give it a go," David explained.

Booma Boer products are marketed by Murray Valley Meats, through butcher shops.

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All the goodness of goat

Low in fat and a good source of iron, zinc and vitamin B12 – MLA-funded research has revealed a nutritional powerhouse in goatmeat.

"The goat industry now has nutritional data to support its product. Nutrition is a driver for demand, and having this information can help grow demand for Australian goatmeat in the domestic market and overseas," said Blair Brice, MLA's Manager Goat Industry Development.

"Goatmeat has a fairly similar nutrient profile to beef and lamb in terms of iron and protein, as well as being a good source of zinc and vitamin B12."

As part of the Murdoch University-conducted research, 30 goat carcases representing three different production systems (rangeland goats from WA's Goldfields and Murchison pastoral regions, feedlot finished rangeland goats and Boer-cross goats from the agricultural region) were sourced from two WA abattoirs.

The carcases were analysed to determine their nutrient composition using composite lean muscle and fat samples.

A 100g portion of lean goatmeat and standard goatmeat cuts (uncooked) contains more than 25% recommended daily intake of protein, iron, zinc and vitamin B12 for an adult male.

The data will be supplied to Food Standards Australia New Zealand (FSANZ) for incorporation into its nutrient composition database, as well as for use in analysing the current Australian Health Survey.

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In profile | Partners in prime cuts

Tony Le Deux and Tom Hawkins

After more than two decades handling catering events including Melbourne Food and Wine Festival's longest lunch, consulting for Macro Wholefoods and later Thomas Dux, and establishing Bunning's food and beverage arm, Tony Le Deux (pictured) decided to bring his expertise to retail. Bringing in his nephew, Geelong AFL player Tom Hawkins, as his business partner in 2010, the two bought a butcher and delicatessen business, Torquay Farm Foods, on the Victorian coast. While Tom's football career is demanding, the two regularly talk business strategies and progress and Tom undertakes a promotional role for their business.

Tom, you're enjoying a stellar football career, what motivated you to invest in Torquay Farm Foods?
My parents, John and Jennie Hawkins, are lamb and beef producers at Finley in southern NSW. Our family has been growing Angus cattle for a couple of generations. Going into a business like this was a way for me to stay involved in an industry I'm passionate about. And this venture with Tony, who's as passionate about red meat as I am, was a great opportunity to be involved in something other than just football.

Tony, what are the red meat trends you are noticing?
We have been promoting grassfed beef and that's been a trend for us lately. People are identifying where their meat is from and how it's raised – particularly lamb – as ours is relatively local.

Are customers led by industry campaigns?
MLA's lamb campaigns are really good. Located in a holiday destination, we find Sam Kekovich's lamb promotions particularly helpful in holiday times because they influence visitors' buying decisions.

What makes your business work?
Our point of difference sets us apart. We're able to bring our red meat product knowledge to the market – not only about its origin and the way it's treated on the way through the supply chain, but also how to handle and cook the meat. We've also introduced products such as cheese, olive oil, pasta and coffee to complement the meat we sell. We take the promotion of our business seriously. I write a fortnightly column and include a recipe for our local newspaper and that's well received.

Tony Le Deux
T: 03 5264 7776

Spring lamb hits the catwalk

Lamb has turned fashionista – in MLA's latest marketing initiative.

MLA's spring lamb campaign has brought together experts in fashion and cuisine – designer Leona Edmiston and celebrity chef Ben O'Donoghue – to make lamb the hottest ingredient for the season.

The result of their 'collamboration' was a fashion-themed recipe magazine – *Chop til you drop* – with 2.4 million copies distributed through retailers nationally. It was also inserted in popular publications, such as *Woman's Day* and *The Australian Women's Weekly*.

Chop till you drop magazine featured Viewa, an interactive app which brings the pages of the magazine to life. Scanning the pages with a smartphone or tablet allows the viewer to watch a video of the recipe being prepared by Ben O'Donoghue and Leona Edmiston.

"The fashion theme resonates with consumers during spring, tying in with Fashion Week, spring racing and the traditional peak in lamb supply. This campaign builds on the success of the fashion inspired spring campaigns of previous years, which delivered strong results," said Andrew Cox, Group Marketing Manager – Consumer, MLA.

"The campaign also promotes a range of lesser known cuts through magazine editorials, food magazines and TV cooking segments."

A new television commercial – launched on 16 September – depicted Edmiston and O'Donoghue creating their spring recipe collection; playing up the contrast between food and fashion worlds.

Butchers were encouraged to dress up their stores with spring campaign materials including posters and cabinet stickers for the chance to win a $5000 store makeover.

"Retailer support is integral to the success of our campaigns. Having promotional materials in-store keeps lamb top-of-mind with consumers and, more importantly, influences purchase decisions," Andrew said.

2.4 million copies

of *Chop til you drop* will be distributed as part of MLA's new spring lamb campaign

2.4%

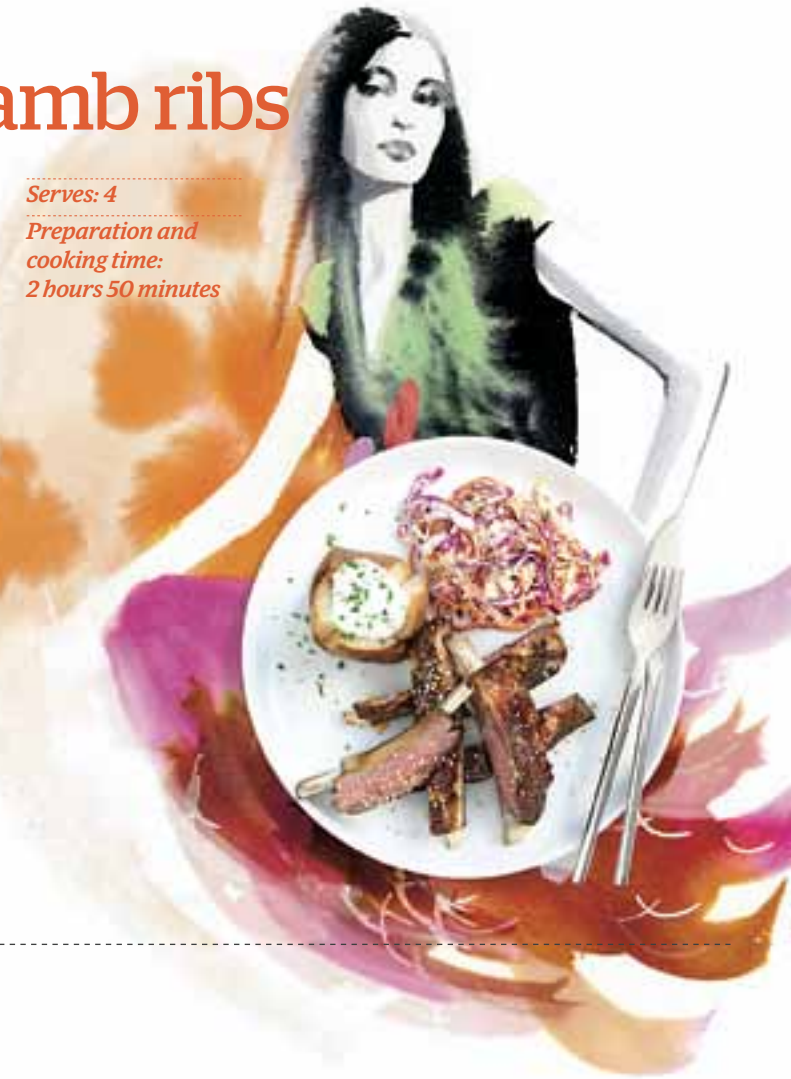
increase in lamb sales value during spring 2011

Andrew Cox, MLA
T: 02 9463 9158
E: acox@mla.com.au

View the ad, recipes, extra footage and more at **www.collamboration.com.au** and **www.themainmeal.com.au**

Recipes

Cajun style lamb ribs



Serves: 4

Preparation and cooking time: 2 hours 50 minutes

Ingredients

4 x 4 lamb breast ribs (1kg), skin removed

1 tablespoon Cajun spice mix

1 tablespoon brown sugar

1 tablespoon flaked salt

100g red cabbage, finely sliced

100g white cabbage, finely sliced

1 red apple, finely shredded

1 medium carrot, finely shredded

160g yoghurt

1 tablespoon lemon juice

4 Desiree potatoes

½ cup barbecue sauce

2 teaspoons sesame seeds, toasted

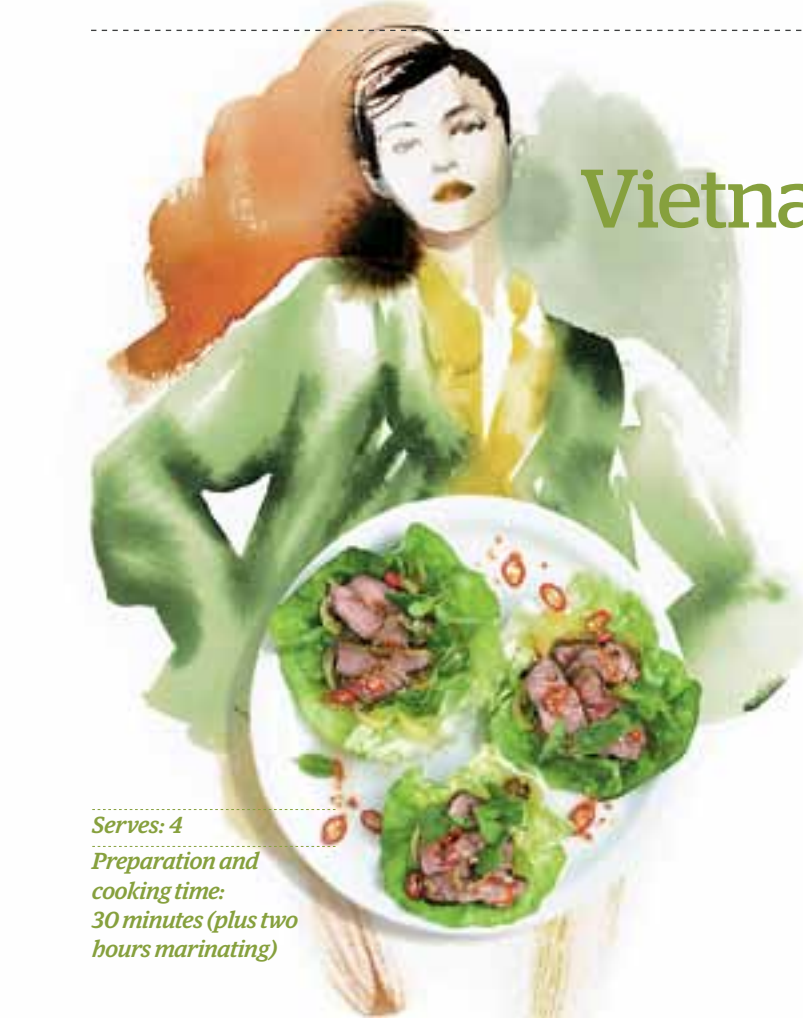
100g sour cream

1 tablespoon finely chopped chives

Method

1. Preheat oven to 160°C. Mix Cajun spice, brown sugar and flaked salt together in a bowl, then rub into lamb ribs.
2. Coleslaw: mix cabbage, apple and carrot with yoghurt and lemon juice, and season to taste.
3. Pour one cup of water into a deep roasting tray, add ribs and cover with foil. Cook for two and a half hours or until very tender. After lamb has been in the oven for 30 minutes, place potatoes onto a foil-lined oven tray and cook in oven for two hours until crispy skinned.
4. When the ribs are cooked, brush liberally with barbecue sauce and grill for two to three minutes. Serve sprinkled with sesame seeds. Cut a cross in the top of each potato and add sour cream and chives.

Vietnamese lamb rump



Serves: 4

Preparation and cooking time: 30 minutes (plus two hours marinating)

Ingredients

4 x 120g lamb rump steaks

1 tablespoon ginger puree

2 cloves garlic, finely chopped

1 teaspoon turmeric powder

2 tablespoons caster sugar

1/3 cup (80ml) Chinese rice wine or dry sherry

2 tablespoons fish sauce

2 limes, juiced

1/4 long red chilli, finely chopped

2 tablespoons sunflower oil

1 medium brown onion, finely sliced

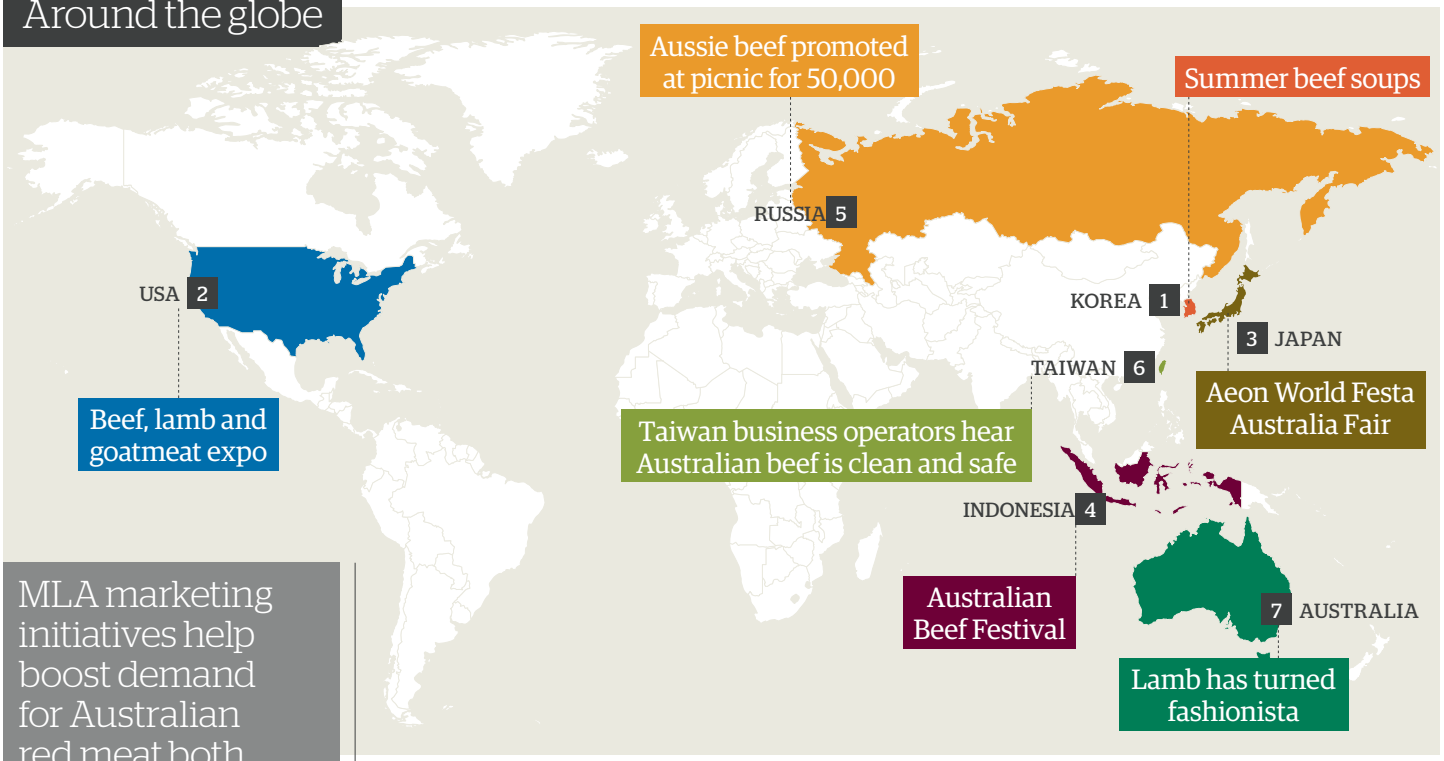
1 butter lettuce

1 cup each coriander and mint leaves

Method

1. For the marinade, combine ginger, one clove of chopped garlic, turmeric, one tablespoon of sugar and rice wine. Trim any excess fat off the lamb and rub in marinade.
2. **Sweet chilli dressing:** whisk together the remaining sugar and two tablespoons of water, add the fish sauce and lime juice and stir to dissolve sugar completely. Add the remaining garlic and chilli.
3. Heat the oil in a large frying pan on a medium heat. Drain the lamb from the marinade and add to the frying pan. Cook for eight minutes, turning occasionally on all sides. Remove from the frying pan, add onion and cook for one minute or until just softened.
4. To serve, slice lamb and distribute along with onion in lettuce cups and pour on dressing. Add coriander and mint and top with chilli if you desire.

Around the globe



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

Korean soup called Seolleongtang made from ox bones and beef brisket.

1 KOREA

A soup-er promotion

Famed for its beef soup, Korean restaurant chain Hanchon Seolleongtang held an MLA-supported Australian beef promotion from July to mid-August. The chain currently operates 38 outlets throughout Korea and uses only Australian beef in its dishes. Korean consumers were encouraged to enjoy healthy beef soups like *dogani-tang* with Australian tendon and *seolleong-tang* with brisket during the hottest month in summer – a period in which Koreans traditionally consume chicken soup. During the promotion, Hanchon served around 200,000 customers – a 43% increase on last year and with sales of more than KRW122 million (A$102,206) for their *dogani-tang*, up 75% on last year.

43%

sales increase in beef soup on the previous year

2 USA

Satisfying el apetito

MLA partnered with an importer to showcase branded grassfed beef, lamb and goatmeat at the Expo Comida Latina and the Western Foodservice and Hospitality Expo. Attracting 10,000 retail and foodservice buyers, the Expo is North America's only trade event focused on bringing together products from around the globe which appeal to Hispanic Americans. The co-located shows featured more than 600 booths of products. Australian grassfed beef, flapmeat (lamb breast and belly) and loin chops were sampled by the attendees with flapmeat being particularly popular with the Hispanic foodservice and retail businesses. A number of foodservice leads and one retail lead were generated from the show, with the retailer already committing to using Australian lamb. The US Hispanic population accounted for 56% of the nation's growth from 2000–2010.

50.5m

Hispanics in the US

3 JAPAN

Advancing Australian beef

Japanese retail giant, Aeon, hosted an 'Aeon World Festa Australia Fair' for three days in July at more than 1,200 of its outlets nationwide. Australian beef was among the Australian food items promoted at the Fair. MLA organised in-store demonstrations at 300 Aeon outlets with Aussie beef delicatessen-style items, as well as fresh meat, popular during the festa. Menu items included an Aussie beef steak bowl (steak on top of rice), roast beef and an Aussie beef hamburger steak lunch box. Aeon also created original recipe ideas using Aussie beef for distribution to shoppers during the Fair.

4 INDONESIA

Australian Beef Festival

Eight Jakarta restaurants took part in an 'Australian Beef Festival' foodservice promotion, organised by an Indonesian importer with MLA support. The restaurants increased sales by 160% on the previous month. The program encouraged the restaurants and their respective executives to feature Australian beef on the menu to increase awareness and consumption of beef throughout July. Promotional material showcasing Australian beef attributes – healthy, safe, natural, tender and halal certified – was placed in the restaurants to encourage and educate diners.

5 RUSSIA

Summer meat and music celebration

Russian online retailer Meat&Wine, providore of Australian red meat and wine, established a restaurant area with support from MLA to promote Australian beef at Afisha Picnic, Moscow's huge one-day summer music and lifestyle outdoor festival. The event attracted more than 50,000 people and 1,500 VIP guests who were given access to the restaurant area and offered a taste of Australian beef. The Meat&Wine stand was decorated with the Australian beef logo, an Australian flag, a roll-up banner and other promotional material.

1,500
Moscow VIPs offered Australian beef

6 TAIWAN

Selling the safe food story

Australia's high standard of food safety and production system credentials were the focus of a series of MLA seminars in southern, central and northern Taiwan in July. Attracting more than 350 business operators from the trade, retail and foodservice sectors, the seminars provided an update on current market information and an insight into Australian beef and lamb options for the global consumer. Following recent residue issues in other imported meat, the key message for the audience was Australian beef is clean, safe and chemical/residue-free. Guests were also treated to a tasting experience of Australian beef and lamb.

7 AUSTRALIA

Spring lamb on show and on-trend

Spring was sprung on Westfield North Rocks in Sydney in early September, with celebrity chef Damian Heads from TV cooking show Ready Steady Cook, running a cooking demonstration to promote MLA's spring lamb campaign. Damian showed shoppers how to make lamb kofta with minted yoghurt and cook lamb rumps. More than 350 lamb samples were handed out during the demonstration, which was supported by a promotion with a local butcher, Beef Bullion.

Market observations

The view from the west

Eastern Australia has generally received good rain, but the same cannot be said for much of southern Western Australia, as many regions continue to await their sustained run of above average rainfall. The differing climatic fortunes between east and west are somewhat representative of the WA livestock industry, which has developed significant differences to the eastern states.

Tim McRae
MLA Economist

The southern WA livestock industry has been characterised by a rapidly shrinking sheep flock, mixed returns for cattle and increased competition from cropping.

Since the turn of the century, the WA sheep flock has almost halved, estimated to be around 13.75 million head at 30 June 2012. Similarly, the WA cattle herd has also contracted, as lower numbers across the southern regions overshadow growth across northern regions of the state.

One of the greatest differences between east and west is the level of competition in the processing sector, along with the markets in which WA produced beef and lamb is eventually consumed. This is often reflected throughout certain periods in prices at the saleyard.

The WA lamb industry is much more focused on export markets to the west and north, namely the Middle East and China. In 2011–12, of the total lamb produced in WA, 35% was exported to the Middle East compared to the national average of 25%. A larger proportion from WA was also exported to China, the EU and North Africa.

As a percentage of Australia's total exports, WA sheep production contributes approximately 9% annually, but 71% of the live sheep export trade.

The WA beef sector makes up 4% of the national production total and 2% of exports. Almost 75% of the beef produced in WA is sold in the WA domestic market – compared to the average 35% of production for Australia. Export shipments are heavily weighted towards Indonesia and the Middle East.

Given the export dependence of the WA sheep and lamb industry, access to overseas markets is a crucial component to underpinning the future viability of the industry – as highlighted by the recent live export issues.

The limiting factor will be the availability of stock, which, for east or west, is primarily dependent upon good seasons.

Tim McRae, MLA
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E: tmcrae@mla.com.au

On the ground

Middle East/North Africa

Jamie Ferguson
MLA Regional Manager
Middle East/North Africa
E: jferguson@mla.com.au

The population of the Middle East and North Africa (MENA) region is forecast to grow by 29 million or 8% by 2015. Real per capita incomes are also expected to increase by 17% over the same period. This growth presents exciting opportunities for Australian red meat in the region, and for me as the newly appointed MLA Regional Manager.

Increasing carcase utilisation and cut development are opportunities to grow demand, particularly for our heavy lamb components, as the traditional size of local lambs in the MENA region is small. Chef and butcher training workshops demonstrating the breakdown of lamb and beef carcases help us achieve this goal.

Australian beef exports to the region have grown by 107% in the past two years, making it an opportune time to promote a wider range of beef cuts. Our marketing activities promote the use of non-loin cuts including rump and oyster blade, which are not traditional cuts in the MENA region but well suited to the traditional wet cooking style. A recent workshop held for chefs from the Marriott Corporation, demonstrated how to breakdown a D-rump. At least one chef, from the Red Sea Marriott, is now using the rump in place of primal cuts, cutting costs but maintaining quality.

Our recent Ramadan promotion, fronted by MLA business development manager, Chef Tarek, ran in five countries through six retail chains. The campaign included 'Chef Tarek recommends' point-of-sale materials and recipe ideas which directed consumer traffic to our new web page **lambandbeef.com** and our facebook page. Chef Tarek was regularly stopped in the street and supermarket aisles by local consumers asking his recommendation on which cut to buy for their meals, why he thinks Australian red meat is best, and wanting to learn more about the halal certification of our product.

Over the next three years, we will also focus on assisting industry and government in addressing technical barriers affecting trade in the region. This includes assisting in improving cold chain management, product expiry expectations, food safety and product handling.

Market insight

Tourist destination: MENA

While global oil prices and reserves, the bulk of which lie in the Middle East (about 65% of the OPEC total), command media attention worldwide, it's easy to forget the MENA region has more to offer, including a burgeoning tourism industry.

Stretching from Senegal on Africa's west coast to Pakistan in the east, up to Turkey and down to Somalia, the MENA region encompasses a diverse range of cultures, coastlines and experiences for travellers. This spells opportunities for the Australian red meat industry in tempting the taste buds of tourists and locals alike.

Tourism is a well-developed industry in some MENA countries and provides important foodservice markets for Australia's high quality lamb and premium beef brands. The MENA countries strongest in tourism are Lebanon, Saudi Arabia, Jordan, Morocco, Egypt, Tunisia, Bahrain and the United Arab Emirates (UAE). These countries have great potential to develop their tourism industry further, given their mild winters, abundant coastlines and their close proximity to Europe and the Gulf Cooperation Council (GCC) nations of Bahrain, the UAE, Oman, Kuwait, Saudi Arabia and Qatar.

The recent Arab spring turmoil and the current political unrest in the Levant region (Lebanon and Syria) helped boost tourism in Dubai as a favourite summer holiday destination for domestic and regional travellers. The Dubai Summer Surprises, an annual shopping and entertainment festival, which is a major attraction, provided a further boost to tourism numbers.

Dubai glamour for Aussie red meat

In an ultra-modern environment, western expats in Dubai are image conscious on all fronts, including which of the 50 steakhouses they should dine at and what red meat they eat at home. It appears people want to be associated with Australian product. In such a melting pot of cultures, Australia is considered to have a high quality of lifestyle, producing excellent quality products supplied to the best restaurants. Australian beef and lamb secondary cuts are used at many of the traditional Arabic restaurants, while prime beef and lamb prime cuts are available at most of the top end international outlets.

On the back of strong demand, Dubai's glamorous four and five star hotels recorded a 4% increase in occupancy rates for the first five months of 2012 to 83%, compared with the same period last year. And the word is Dubai's performance levels will remain strong until the early part of 2013 when a considerable influx of new hotel rooms from new developments will be completed in the UAE. Abu Dhabi alone will see more than 20 new hotels completed over the next three years.

The Red Sea destination of Jeddah, Saudi Arabia, is also hitting its busiest period with strong summer demand. Average occupancy at four and five star chain hotels in the city reached 85.4%, up by 5.8%.

What does all this mean for Australian red meat?

Business Monitor International forecasts a 67% growth in the number of foodservice outlets in the UAE by 2012, with a 216% growth in sales. Lamb sales at foodservice are expected to grow 290% in the UAE alone by 2014, while beef is estimated to rise by 152%. Per capita food consumption is also forecast to increase 21% by 2014.

The Middle East market has a fast growing population that is gradually becoming more westernised, and is open to trying new products that are not part of traditional fare. With Middle East flight traffic at a peak, the international travel experiences of Middle Eastern tourists are whetting their appetites for the same quality offerings within their homes.

Activities centred around promoting Australian red meat, and its established reputation for being safe, clean, delicious and halal-certified, will be well placed to gain a slice of the growing consumption pie.

Eat like an Egyptian

Egypt's per capita income may be half the world's average* making it a traditionally difficult and price conscious market. However, one company has found a niche market in consumers who are after only the finest food products and are willing to pay. Gourmet Egypt, which counts some of Egypt's celebrity set and high society among its customers, is committed to sourcing high quality food from around the world, including Australian beef and lamb.

The company was founded in 2006 and initially set up as a home delivery and online business selling premium quality Australian frozen meat primals and seafood to foodservice and retail customers. In 2008 Gourmet Egypt opened its flagship store which included a chilled beef counter specialising in

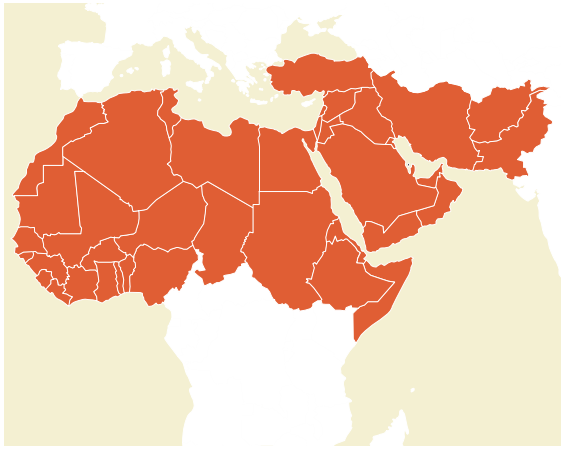
The sleek interior of one of the three Gourmet Egypt stores

Australian beef, self-service multi-decks, a specialty cheese counter for Italian and French cheeses as well as a wide range of pastas, spices, condiments and frozen seafood.

MLA has worked closely with Gourmet Egypt on establishing their meat cabinet and assisting with butcher training. Today the company has three retail outlets and continues to stand by Australian beef and lamb products. Gourmet Egypt has plans to continue opening more retail outlets, believing it's important to be as close to their customers as possible.

** Australian Chamber of Commerce and Industry*

www.gourmetegypt.com



Travel hot spots

55 **million visitors** to Middle East in 2011

68.5 **million visitors** tourist forecast to Middle East by 2026

No 1 destination Saudi Arabia

17.35 million visitors in 2011

120,000 hotel rooms

No 2 destination Egypt

9.5 million visitors in 2011

113,611 hotel rooms

No 3 destination United Arab Emirates

8.73 million visitors in 2011

75,000 hotel rooms in Dubai alone

Source: World Tourism Organisation (www.unwto.org)

63% of the 82 million Egyptians are under the age of 30

60% of the 28 million Saudi Arabians are under the age of 30

GCC (Gulf Cooperation Council) 2012 estimated financial (source IMF)

Nominal GDP **US$1,411bn**

GDP growth **4.0%**

Non-oil GDP growth **5.3%**

US$20bn committed to build 16 new universities in Saudi Arabia, as well as more than 100 colleges

1961 accessible electricity, albeit through diesel powered generators, arrives in the UAE

Southern WA Meat Profit Day

Growing to 'meat' the future was the focus of the Southern WA Meat Profit day, held at Albany in August.

The 320 attendees were encouraged to push themselves past everyday practices and concentrate on the new opportunities available to red meat businesses.

Sessions included: *Making Informed Decisions* where local feedlot and beef producer, Alexandra Rigall, discussed how to effectively use processor feedback to make better decisions on-farm and in the feedlot and *Applying the Science,* at which Rob Banks, MLA's Manager R&D Performance and Evaluation highlighted the best approach to investing in genetics to increase farm profit.

WA Rural Woman of the Year, Catherine Marriott pumped people up during her *Agriculture - Amazing stories, amazing people* presentation while local Blackwood Valley Beef producer Warren Pensini wowed with his whole supply chain marketing approach, starting with an organised on-farm production system.

During the breaks there was the opportunity to attend a range of hands-on workshops including an MSA grading demonstration, lamb carcase breakdown and the wonders of the online world.

To finish the day was the inspirational story of Rob Cook, who overcame a chopper crash which left him a quadriplegic.

To see the presentations online go to www.mla.com.au/southernWAMPD

← MLA's Regional Manager – Australia, Lachlan Bowtell, opened the event and spoke about the range of opportunities MLA is working on taking advantage of growing demand for red meat.

MSA Trade Development Officer Jake Phillips took producers through the MSA grading process. ↓

↑ MSA Training Facilitator Greg Butler, bones out a lamb carcase to highlight the importance of lean meat yield and low fat coverage.

↑ Brad Wooldridge, producer from Arthur River; Erin Gorter, Southern WA Meat Profit Day Project Manager; and Lynley Anderson, Southern DIRT Chair.

← MLA Social Media Manager Matt Dwyer explains how to sign up to Twitter.

If you are interested in running an event with MLA please send an expression of interest email to **events@mla.com.au**

Fukushima students visit a WA farm

As part of the ongoing Together with Japan initiative, MLA worked with the Australia-Japan Foundation and Australian and New Zealand Chamber of Commerce in Japan and charity organisation Materock, to coordinate a visit to WA by students from Iitate village in Fukushima prefecture. This village was one of the most severely impacted by Japan's disasters last year and before that was known as the home of Iitate Wagyu beef. The group visited Blackwood Valley Beef near Albany WA, gaining first-hand experience in how a cattle farm is managed in Australia. The friendly welcome and support received from Australian producers was communicated via media, internet blog and Twitter.

Students at Blackwood Valley Beef

A classic hit at Gympie

Considered the largest Australian domestic carcase competition, the Gympie Carcase Classic, funded by MLA, this year celebrated its 25th birthday, and its fourth Intercollegiate Meat Judging Junior Competition. Hosted by Nolan's Meats, the competition attracted 54 high school students from Gympie, Kingaroy, Aldridge, Murgon, and Maleny State High Schools, along with Noosa District High School.

Consisting of four classes, the competition gave the students the opportunity to evaluate and assess carcases and primals in similar situations to that of an accredited Meat Standards Australia (MSA) grader. The classes consisted of two beef carcase placings and questions classes, a shortloins placings and questions class as well as a retail cut and primal identification class with the placings and questions classes being judged on quality, yield and trimness advantages. Gympie State High School took out first place, with Kingaroy State High School not far behind. Kingaroy student Brooke Rutledge took out Champion Individual and Gympie student Jared Parke was in second place.

Gympie State High School winners.

Cunnamulla spelling day

In follow-up surveys, two thirds of the attendees at the recent spelling field day at "Wallen", Cunnamulla, Queensland, indicated they would make a change on their property as a result of what they learnt on the day. There were lots of questions and producers benefited from hearing from the host producer about his pasture management. The evaluation comments showed all participants learnt something new and improved their knowledge and confidence about spelling – most people were going to fence their paddocks into smaller areas to give them greater ability to spell. This event was funded by Leading Sheep and Making More From Sheep. For more information visit **www.makingmorefromsheep.com.au**

Dr David Phelps, Principal Scientist (Longreach, DAFF), showing the effects of grazing on Mitchell grass plants.

Upcoming events

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

Ringarooma Towards 2000 With Legumes open day

This Ringarooma producer demonstration site (PDS) will conduct a site walk and pasture inspection to discuss the first year of liveweight gain results.

When and where:
31 October,
Ringarooma Tas

Bookings: 0418 375 994

Feed demand calculator workshop

Workshop on animal nutrition and pasture supply and demand. Strategies for implementing and managing grazing management.

When and where:
31 October,
Mount Barker SA
2 November,
Mount Barker SA

Bookings:
08 9780 6100

South Australian Beef School

Practical two-day interactive learning experience on cattle breeding and management. Highlights include: bulls – fertility and year-round management, using EBVs, and cattle assessment.

When and where:
20-21 November,
Strathalbyn SA

Bookings:
08 8210 5230
mbuckby@adelaide showground.com.au

BeefUp forums

Discover how to make more money from your beef production enterprise at MLA's BeefUp forums.

When and where:
20 November, Eulo Qld
21 November, Bollon Qld
27 November, Surat Qld
28 November, Injune Qld

Bookings:
1800 675 717

The Breeding EDGE workshops

Learn how to develop a breeding program or improve your existing one.

When and where:
29-31 October, Bowen Qld
9-11 November, Nebo Qld

Bookings:
0467 804 287
lauren.williams@daff.qld.gov.au

mla
MEAT & LIVESTOCK AUSTRALIA

MLA AGM and producer forum

Thursday 15 November 2012

Esplanade Hotel, Fremantle, WA

Have your say

Key action dates

8 November	submit your questions on notice for the AGM
13 November	return your proxy form by 3pm WA time
15 November	MLA producer forum 12.30pm
15 November	MLA AGM 3pm WA time

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