

# FEEDBACK

MLA – FOSTERING PROSPERITY

WINTER 2023



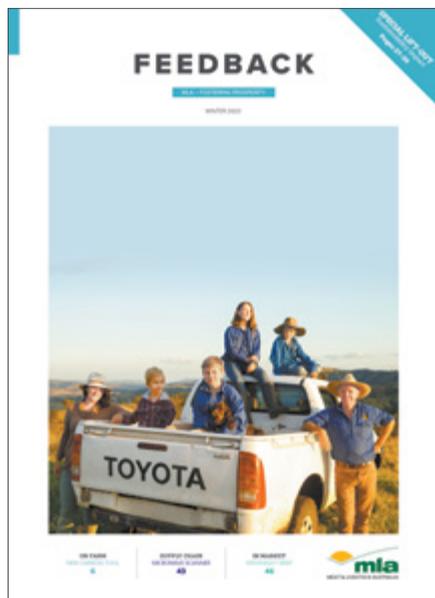
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# FEEDBACK

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



Cover (page 21): The Binnie family at 'Mirannie Station' – Liz, Benny, Campbell, Adelaide, Willber and Steve (left to right). Image: Newcastle Herald.

## Have your say!

We'd love to hear from you.

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# A note from the MD

Welcome to the winter edition of *Feedback* magazine.

Sustainability – while always top of mind – is especially pertinent at this time of year with the release of three important documents to track our industry's progress across environmental, economic and social measures.

## Sustainability scorecards

The industry recently released two sustainability scorecards, to demonstrate the credentials of Australian sheep and beef, highlight the successes and, importantly, identify areas for improvement.

The Sheep Sustainability Framework (SSF) released its second *Annual Report* at historic Anlaby Station, home to SA's oldest Merino stud flock.

One of the key metrics of SSF is the industry's net greenhouse gas emissions. CSIRO reports net emissions generated from Australian sheepmeat and wool production in the latest reporting period (2020) was 9.49Mt CO<sub>2</sub>e, down from 10.21Mt CO<sub>2</sub>e in 2019 and 11.39Mt CO<sub>2</sub>e in 2018.

The beef industry's continued reduction of net CO<sub>2</sub>e was also celebrated at the launch of the fifth *Australian Beef Sustainability Framework (ABSF) Annual Update* in Melbourne, with a reduction of 64.1% in 2020.

Turn to page 4 to read more about highlights from these frameworks' annual reports.

MLA also released its *Sustainability Impact Report 2023*, which highlights significant outcomes from our investments in 2022–23.

There's a special lift-out on pages 27–30. I encourage you to pull out this section and share it with your networks, to help tell the story of how your industry is improving the financial performance, environmental outcomes and resilience of red meat and livestock businesses.

## New tools

New technologies are a key factor of sustainable production.

Read how MLA's new Carbon Calculator is part of producers' emissions reduction toolkit (page 6), how the new electronic National Vendor Declaration Livestock Consignments app is overcoming connectivity challenges to strengthen industry's traceability and integrity (page 8), and how the Australian Feedbase Monitor is now being used by more than 1,857 producers nationally to better plan for profitable pasture (page 10).

Genetics is a foundation of sustainable livestock production, and as producers



look ahead to the peak seedstock sale season, we've compiled information and resources to guide genetic investment.

Turn to page 12 to see how using genetic information to support flock decisions is paying off for a Victorian sheep producer, and page 14 to follow the genetics data-backed journey of a Queensland beef business.

When it comes to data collection, electronic identification (eID) offers producers a powerful tool to collect, analyse and use information to boost productivity.

With the 2025 mandate for sheep and goat producers to implement eID on the horizon, turn to page 18 to learn how MLA investments are supporting producers to collect and use information about flock health, biosecurity and reproductive performance.

## Sharing our stories

This edition shares the stories of producers across the country, for whom sustainable management is part of their business every day.

Turn to page 17 to meet some of the producers involved in a national project which is equipping them to adapt to and mitigate the impact of future climates, and follow the story of a NSW family who has built a resilient business in the face of many challenges (page 21).

Social sustainability is just as important as environmental measures. Learn how a Profitable Grazing Systems course on effective leadership is upskilling industry leaders to build cohesive and supportive teams on page 31.

We also have some great examples of how our industry is keeping red meat on consumers' plates – check out page 46 for an innovative business which has just launched a new range of meals. ■

- Jason Strong MLA Managing Director
- 📧 Have a question for me? [jstrong@mla.com.au](mailto:jstrong@mla.com.au)

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*This season...*

*Attend*

A BredWell  
FedWell  
workshop:

📍 [mla.com.au/  
bredwellfedwell](http://mla.com.au/bredwellfedwell)



*Watch*

Copley  
Pastoral  
genetics case study:

📍 [mla.com.au/  
genetics-copley](http://mla.com.au/genetics-copley)



*Use*

The new  
eNVD app:

📍 [integritysystems.  
com.au/envd-app](http://integritysystems.com.au/envd-app)





## Important update for MLA members

MLA is changing how we allocate voting entitlements for our Annual General Meeting (AGM).

We are now implementing the use of the Levy Payer Register to calculate voting entitlements. This means we will not be sending you a Levies Notice as we no longer need the self-declaration of the Levies Notice. Voting entitlements will now be allocated based on the transactions that have occurred during the period 1 July 2022 – 30 June 2023, as notified to MLA by the Department of Agriculture, Fisheries and Forestry.

### What to do before 31 July

To do this, we need your ABN as declared on your levy return form, so we can correctly match the levies you have paid on the Levy Payer Register to your MLA membership. (If you don't have an ABN, then please ensure your contact information is updated to be consistent with your levy return form).

You can do this by either:

- scanning this QR code to access the survey, or
- visiting [mla.com.au/agm](https://mla.com.au/agm) and following the links to the survey.



You will need your MLA member number as well.

By supplying your ABN, you will secure full voting entitlements at the AGM.

Please supply your ABN (or contact details) by 31 July 2023.

MLA members who we are unable to match to the Levy Payer Register will receive one vote at the AGM.

Later this year, you will receive an AGM pack in the mail, which contains further details on the AGM and the voting process.

📞 If you have any questions or would like more information, please call **1800 023 100** or visit [mla.com.au/membership](https://mla.com.au/membership)

## Know your role in transporting livestock

When transporting livestock, it's essential they are prepared and managed in a way that reduces stress and minimises risks to animal welfare.

Producers, agents, transporters and buyers must understand their roles and responsibilities when transporting livestock to comply with the *Australian Animal Welfare Standards and Guidelines for the Land Transport of Livestock* and relevant state and territory legislation.

📖 You can learn more about this chain of responsibility and access MLA's *Is the animal fit to load guide* at [mla.com.au/fittoload](https://mla.com.au/fittoload)



## Here's how MLA is investing your levies

MLA's *Annual Investment Plan (AIP)* informs levy payers, peak industry councils, the Australian Government and the wider industry about MLA's planned work program in 2023–24.

MLA prepares an AIP each financial year to guide the practical delivery of our long-term investment priorities and outcomes. These are set out in MLA's *Strategic Plan 2025* and align with the Australian Government's science and research priorities, and its rural research, development and extension priorities.

📖 Read the 2023–24 AIP at [mla.com.au/aip](https://mla.com.au/aip)



## Have you joined Cattle Australia?

Cattle Australia is the peak body for our nation's largest agricultural sector, the grassfed cattle industry. Get involved in the future of your industry by becoming a Cattle Australia member. Members can run for office, vote in elections, influence how the levies you pay are invested to grow our industry's future and tackle the issues that matter through one national voice.

📖 Sign up at [cattleaustralia.com.au/join](https://cattleaustralia.com.au/join)

📖 Check out the back page of this edition to see how MLA works with peak industry councils and other industry stakeholders.

**CA** CATTLE AUSTRALIA

# Biosecurity boost with LSD vaccine

**M**LA has funded a project to produce and test mRNA vaccines which can be rapidly mass produced in Australia in the event of a lumpy skin disease (LSD) or other exotic disease outbreak.

MLA's Program Manager for Animal Wellbeing, Michael Laurence, said there were currently no LSD vaccines registered for use in Australia.

"This project will develop an mRNA vaccine pipeline initially for LSD, but potentially for other emergency diseases," he said.

"This will enable capacity for rapid mass production of a vaccine for LSD in the event of an outbreak."

While some killed LSD vaccines exist overseas, the path to Australian registration for these traditionally produced vaccines is longer than that for a new mRNA vaccine.

It took just a few months to make this vaccine which is a very short timeline compared to traditional vaccine development.

"The LSD vaccine construct is now being tested for efficacy in animals. By the end of this year, we will know if this vaccine will work in ruminants," Michael said.

## Role of mRNA-based vaccines

Next-generation (mRNA-based) vaccine technologies may provide a game-changing approach to emergency disease preparedness.

"If properly harnessed, this technology could be used as one of the effective tools in a rapid response to outbreaks – enabling eradication and return to disease-freedom status," Michael said.

"Live vaccines cannot be imported to Australia. The establishment of the capacity to produce a vaccine for LSD is the priority that will provide the Australian cattle and other ruminant industries with insurance against an imminent biosecurity threat that would have far-reaching trade, animal health and economic implications."

Predicted high vaccine efficacy provides a realistic pathway to the management and control of an LSD outbreak in Australia.

"The nature of mRNA vaccines enables the development of laboratory tests to distinguish the immune response in vaccinated animals from natural infection.



"Success of this project might provide a pilot vaccine suitable for use in Australia in less than two years," Michael said.

## More disease investment

The establishment of an mRNA production capability and development of an LSD vaccine will be the initial flagship, stand-alone project within a larger program of

adopting technology to rapidly produce vaccines for emergency animal disease.

The program includes mRNA vaccine development for the two main strains of foot-and-mouth disease as well as exotic Bovine pestivirus and Border disease in sheep. Updates on this project will be provided as it advances. ■

✉ Michael Laurence [mlaurence@mla.com.au](mailto:mlaurence@mla.com.au)

## A new era for Australia-UK trade

The Australia-United Kingdom Free Trade Agreement (A-UKFTA) will see Australian beef and sheepmeat/goatmeat access to the UK liberalised over a transition period.

The A-UKFTA, which was agreed in principle in June 2021 and signed on 17 December 2021, entered into force at midnight on 31 May.

Andrew McDonald, chair of the Australia-UK Red Meat Market Access Taskforce, said the FTA marks a new chapter in Australia-UK trade relations and provides an important framework for the sector.

"The FTA provides an opportunity to modernise our trading relationship for the future, and we look forward to more

streamlined trade and reduced supply chain costs with the implementation of the agreement," he said.

Australian beef and sheepmeat exports will now enter the UK under a new tariff rate quota (TRQ) regime – with initial TRQ tonnages gradually increasing over a 10-year transition period. Product within the TRQ amounts will enter tariff-free.

While there will be no TRQ regime post year 10, a volume safeguard provision will apply until the end of year 15, beyond which no safeguards will apply. ■

🔗 Learn more about international markets for Australian red meat at [mla.com.au/international-markets](https://mla.com.au/international-markets)



# Sustainability scorecards steer future course

The Australian Beef Sustainability Framework (ABSF) and Sheep Sustainability Framework (SSF) have released their annual updates, which serve as scorecards on how the industry is tracking against measures for animal care, environmental stewardship, economic resilience and people and community.

This data allows the industry to determine directional changes over time, highlight successes, identify areas for improvement and demonstrate the sustainability credentials of Australia’s beef and sheep industries.

Australia’s beef industry is taking its commitment to sustainability to a new level with the ABSF 2023 Annual update reporting a decrease in net carbon emissions, more forest on grazing lands, and, for the first time, the announcement of ambitious goals to guide investment and attention into the future.

Progress towards Australia’s red meat industry target of being carbon neutral by 2030 (CN30) is evident, with net CO<sub>2</sub>e emissions of the beef industry 64.07% below the 2005 baseline level (2020 data).

Other highlights were:

- Methane emissions in 2020 were the lowest recorded, primarily due to a reduced national herd.
- Carbon sequestered in on-farm vegetation was the highest ever recorded.
- Mortality rate of cattle during sea voyages halved in two years, reaching a record low of 0.05%.
- Forest on grazing land increased by almost 780,000ha with removal of primary vegetation at a historic low.
- Water used per kilogram of liveweight gain down 18%.
- Awareness of Australian Animal Welfare Standards for Cattle reached 100% for the first time.

- The feedlot industry increased the percentage of feedlot capacity with access to shade to 63% and on track to reach its goal of 100% by 2026.

The only two negative trends were a decline in water efficiency by processors due to reduced throughput and a reduction in producers undertaking activities to increase soil moisture retention.

As part of the Annual update 2023 launch in Melbourne in June, the Red Meat Advisory Council also announced five new sustainability goals – covering animal welfare, environmental, economic and social commitments – to be reported on within the ABSF as part of constant improvement in its sustainability credentials.



The second SSF annual report, released at historic ‘Anlaby Station’, SA, in May revealed the broadest range of data to date on the performance of the Australian wool and sheepmeat industry.

The SSF’s Annual Report 2023 had made notable gains in its reporting capacity over the past year against 58 indicators, with a range of new information being added in 2023, including 25 new baseline data points in the latest iteration.

In the inaugural annual report in 2023, just over half of the indicators were reported with data. This year, 91% of the indicators are reported with data and the industry is on track for 100% next year.

Highlights included:

- CSIRO reports net emissions generated from Australian sheepmeat and wool production was 9.49Mt CO<sub>2</sub>e in 2020, down from 11.39Mt CO<sub>2</sub>e in 2018..
- More producers have completed AWI’s Lifetime Ewe Management training
- The percentage of non-mulesed/ceased mulesed bales offered has risen to 15.8% (Merino) and 40.1% (non-Merino).
- Zero fatalities in the sheep industry in the latest reporting period (2020–21).
- Sheep mortality on ships during export has declined to 0.14%
- The percentage of Australians who believe Australian lambs are farmed and raised in a humane manner has risen to 55% (from 53%).
- Australia’s value share of global sheepmeat exports has risen to 45% and global wool exports has risen to 75.5%.
- The percentage of sheep-grazing land achieving 50% ground cover is holding steady at 62.2%.
- Australia continues to be declared free from 12 major diseases.
- 91% of producers use vaccinations to prevent disease and protect their flock (new data)
- 50% of sheep producers generate and use renewable energy (new data).

However, there have been directional declines in research, development, and adoption investment in sheepmeat, and the gross value of agricultural production for both sheepmeat and wool and an increase in the number of serious injury workers’ compensation claims.



Read the ABSF 2023 Annual update:  
[sustainableaustralianbeef.com.au](https://sustainableaustralianbeef.com.au)



Read the SSF Annual report 2023:  
[sheepsustainabilityframework.com.au](https://sheepsustainabilityframework.com.au)



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# ON FARM

RESEARCH IN ACTION

## Seasonal action plan

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Map out a productive path for your herd, founded on fertility data.

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Follow these tips on how to make eID pay in rangeland enterprises.

Southern

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Get more bang for your buck at spring sales by setting genetic targets.

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Set your business up to weather future climate challenges.

# New tool for carbon accounting

**C**reating a carbon account is now easier with MLA's Carbon Calculator.

Based on the Primary Industries Climate Challenges Centre's Sheep and Beef Greenhouse Accounting Framework (SB-GAF) tool, the MLA Carbon Calculator helps producers identify their net greenhouse gas (GHG) emissions and identify emissions reduction strategies.

MLA Environmental Markets Project Manager, Katelyn Lubcke, said the tool not only supports informed decision making to reduce on-farm emissions, but is also a resource for supply chain opportunities which require on-farm emissions data.

"The Australian red meat and livestock industry has set a target to be carbon neutral by 2030 (CN30)," Katelyn said.

"This means in seven years' time, Australian beef, lamb and goat production will make no net release of GHG emissions into the atmosphere.

"The MLA Carbon Calculator will support industry to achieve this target."

## How it works

The calculator provides a baseline carbon account with total GHG emissions for the enterprise and the emissions intensity of the product produced – for example, emissions produced per kilogram of beef/sheepmeat/wool.

A carbon account includes two key elements:

- GHG emissions, including enteric methane from ruminant production and carbon dioxide from fossil fuels
- direct and indirect emissions of nitrous oxide from fertiliser application, and excreta and methane from manure.

"The value of using the tool is that it provides the 'starting point' for the emissions reduction process as well as providing insights into your individual business' position," Katelyn said.

"There are market opportunities emerging for producers who can quantify their carbon emissions, and reductions, so using the carbon calculator and other tools is important in identifying ways to improve your profitability and carbon outputs." ■

## Reducing emissions a win-win for business

**T**he Allens' south-western Victorian grazing business is proof reducing on-farm emissions doesn't have to come at a price.

"There's nothing to lose by reducing your carbon footprint and improving productivity," David Allen said.

"It's a real win-win for producers to increase efficiency.

"You're not only increasing productivity and profitability, but you're also supporting the environment by reducing emissions."

The family takes a long-term view to ensure a successful and sustainable business for future generations.

"We're ensuring the next generation are leading the way," David said.

"My son Nick has complete control of the farm and is production-focused, whereas I focus on sustainability, carbon and emissions – it's a very holistic view of the entire operation."

## Two-pronged approach

The Allens focus on two key management areas to ensure their carbon reduction goals feed into their broader business management plans.

These are:

1. Carbon sequestration through on-farm efficiencies such as maintaining ground cover, rotational grazing, tree planting and a soil carbon project registered with the Clean Energy Regulator.
2. Emissions reductions through renewable electricity and improved feed efficiencies through genetic selection. This leads to improved turn-off rates, which reduces total methane production.

## On-farm strategies

The Allens use estimated breeding values (EBVs) and advice from their bull breeder to select cattle which are quick growing, efficient and fertile.

"With improved nutrition, feed efficiency and genetics, we're turning cattle off earlier," David said.

### Grazing emissions:

**Scope one** emissions are direct greenhouse gas (GHG) emissions from sources owned or controlled by the business. For example, on-farm diesel emissions, or enteric methane emissions in a grazing system.



**Scope two** emissions are GHG emissions from the generation of purchased electricity consumed by the business. For example, grid-supplied electricity.



**Scope three** emissions are a consequence of the activities of the business but occur from sources not owned or controlled by it. For example, purchased feed for livestock, such as hay, silage etc.





📍 Nick and David Allen on their farm 'Boorook', Mortlake, Victoria.

“Our conception rates are now 94.5% for cows and 92% for heifers.”

They’ve also shortened the time cattle are on-farm – pulling the previous turn-off age of 24–30 months back to 14–20 months.

“This has a big impact on emissions as we’re achieving quicker returns, a lower emissions output, and a stronger long-term financial baseline.”

The Allens manage a rotational grazing system, with high-density stocking rates that see cattle regularly moved between paddocks – sometimes daily – providing rest periods for pastures of 30–60 days.

“We aim to have 100% ground cover, 100% of the time. Our 150 paddocks are grazed 25.8% of the time and rested for 74.2%.”

“All this is lowering our carbon footprint in one way or another.

“Everything is interconnected. If you have healthy soil, you have healthy pasture.

If you have healthy pasture, you have healthy waterways. If you have healthy pasture and water, you have healthy stock. Nothing works in isolation.”

### Starting the journey

Baselining their carbon footprint was the first step to reduce carbon emissions.

“Simply identifying opportunities to improve efficiencies will help deliver a smaller carbon footprint and savings,” David said.

“The carbon framework allows us to market our product as a carbon neutral or low carbon status. It’s opened up opportunities for new revenue streams and sustainable management practices.”

These can include supplying grassfed cattle to carbon neutral or low carbon supermarket brands.

## SNAPSHOT



**THE ALLEN FAMILY,**  
 Mortlake, Victoria



### AREA

2,200ha over four farms

### ENTERPRISE

2,300 Angus and composite-cross cattle, 2,800 Merino sheep and cropping

### PASTURES

Cropping and perennial pastures – ryegrass, phalaris, cocksfoot and legumes

### SOIL

Basalt plains

### RAINFALL

600mm

### Tools of the trade

“We’ve used various tools over the years – such as the Sheep and Beef Greenhouse Accounting Framework (SB-GAF) and, more recently, the new Australian Feedbase Monitor (see story page 10) – to understand and use refined data that’s relative to our production.”

David is keen to use the new MLA Carbon Calculator (see story opposite) to measure and monitor changes in their business’ emissions.

“As an industry, and personally as a producer, we’re in the fortunate position to be able to mitigate emissions and influence climate change by sequestering carbon into the soil or vegetation.” ■

## TO DO



🔍 A carbon account requires information about:

- different classes of livestock
- weaning/turn-off rates
- liveweight gains
- livestock inventory numbers
- inputs and outputs such as fuel, fertiliser and purchased feed.

Visit [mла.com.au/tools](https://mla.com.au/tools) for producer resources to collect this data.

🔍 Learn more about carbon accounting at [mла.com.au/carbon-account](https://mла.com.au/carbon-account)

🔍 Know your land and vegetation types to identify suitable sites to build carbon stocks: [mла.com.au/classified-vegetation](https://mла.com.au/classified-vegetation)

🔍 Carbon e-learning modules: [mла.com.au/elearning](https://mла.com.au/elearning)

🔍 Carbon Neutral by 2030: [mла.com.au/cn30](https://mла.com.au/cn30)

## TOOLBOX



🔍 MLA Carbon Calculator: [mла.com.au/carbon-calculator](https://mла.com.au/carbon-calculator)

🔍 Australian Feedbase Monitor: [mла.com.au/afm](https://mла.com.au/afm)

🔍 MLA’s genetics hub: [genetics.mла.com.au](https://genetics.mла.com.au)



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# eNVD app another step in digital journey

**C**entral Queensland producer Will Wilson has embraced a new digital tool which not only helps strengthen the traceability and integrity of the red meat industry, but also overcomes connectivity challenges to deliver efficiency gains to his beef business.

The new electronic National Vendor Declaration (eNVD) Livestock Consignments app, developed by MLA subsidiary Integrity Systems Company (ISC), is the result of extensive testing by producers and supply chain members.

It's purpose-built to overcome internet connectivity issues which have plagued the industry's move from paper to digital NVDs. The app uses QR codes to transfer consignment details through the supply chain – making it fast, accurate and simple.

As an early adopter of technology, Will has been sending consignments from his 'Calliope Station' through the app since November, and can see the benefit it offers for on-farm assurance, traceability and integrity.

It's a natural progression from when he ditched paper NVD forms and moved to the web-based eNVD system early on.

He now uses the app which interfaces seamlessly with the web-based system, meaning consignments can be started in the office and finished in the yards on a mobile phone or tablet.

"Our business creates around 30–50 NVDs a year. Moving information into a digital form through this app was essential for us to improve accuracy and data transfer," Will said.

"It really needs to happen faster across the industry, to add layers of integrity faster and with accuracy."

The eNVD app provides simple one-step completion for other forms, including:

- Livestock Production Assurance NVDs
- Meat Standards Australia (MSA) Vendor Declarations
- National Health Declarations
- National Feedlot Accreditation Scheme forms.



✓ Queensland beef producer and former AgForce president, Will Wilson, ditched paper NVD forms and shifted to the web-based eNVD system as soon as he could.

## SNAPSHOT

**WILL WILSON**, 'Calliope Station', Mount Alma, Queensland



**AREA**  
40,000ha

**ENTERPRISE**  
Breeding and backgrounding cattle

**PASTURES**  
Predominantly native pastures planted with legumes

**SOIL**  
Ranging from alluvial undulating coastal to heavy wetlands

**RAINFALL**  
1,000mm

## Tap into eNVD app benefits

- 1 Create a myMLA account and link your integrity system accounts.
- 2 Download the eNVD app from the App Store (Apple phones) or Google Play Store (Android).
- 3 Ensure your receiver and transporter are ready to receive eNVDs.
- 4 Create and submit an eNVD through the app, including your receiver and transporter details.
- 5 If you are offline, you can transfer the consignment through the generated QR codes. Generate a unique set of QR codes within your app, and have your transporter scan them through their app – this will sync the information.
- 6 The transporter completes their details and declaration via their own eNVD app.
- 7 On arrival at the destination, the transporter transfers the consignment to the receiver. If they are offline, they will do this via the QR code system.

### Did you know?

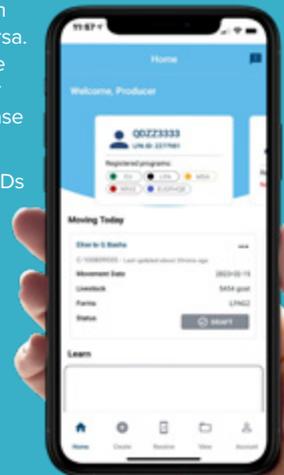
You can easily switch between the eNVD website platform and the mobile app – new consignments created on the website will be available in the app, and vice versa. If transferring your consignments through the offline QR code system, the data will automatically transfer to the Livestock Production Assurance (LPA) database once you're back in range.

If you would still like to keep hard copies of your NVDs the consignments submitted via the app or online platform can be printed at any time. However, receivers of NVDs – such as saleyards, processors and live export facilities – can increase efficiencies by transferring data immediately and directly to their online databases through the eNVD system.

Download the eNVD app for free from the [App Store](#) or [Google Play Store](#).



✓ The app can provide a full summary of your consignment information, which can be shared online and offline.



### The swap to digital

Will, who is a past president of AgForce Queensland, said the app has increased workflow efficiencies on-farm. He can now load cattle first, and then use the app to finalise the consignment details, a process which ensures the correct details are logged in real time.

“If the NVD is completed after loading, we know the number on board is accurate. This has eased the problem of having to fill out documents at the start of the week or before a work cycle begins,” Will said.

To save more time, regular consignment templates can be created in the app, removing repetition.

“As we develop templates in the app it is really easy to use, as long as I take the time to check the dates and numbers for the transactions are updated and actual,” Will said.

“The app is self-explanatory for first-time users. It leads you through the process to be set up and ready to go so long as you have logins and reception.”

### Offline functionality

Internet connectivity, or the lack of it, has prevented many producers from capitalising on the eNVD system and the associated benefits it offers industry. These benefits include:

- securely stored information that will not be lost
- round-the-clock availability
- reduction of incomplete eNVDs through autofill and no-response sensing
- response population across multiple forms – meaning you only answer questions once

- simplified LPA audits by having all your documentation in the one place
- a \$30 discount on LPA reaccreditation.

The eNVD app has removed these connectivity issues. It uses QR codes to transfer consignment details from producer to transporter, or from feedlot to processor – even without reception.

This offline functionality is a game-changer and Will sees enormous potential as technological advancements continue to streamline industry processes.

### Industry-wide solution

The app was developed after extensive supply chain consultation and its success hinges on it being adopted by each part of the value chain – including transporters, feedlots and processors.

Before getting started with the app, producers are encouraged to check in with their transporter and final destination, including saleyards and agents, to ensure they are ready to receive digital consignments.

While Will's experience with the app has been positive, he acknowledged that like any new product, there is always room for fine-tuning in future releases.

“We need to be patient with this new system. We need to work with what we have so it can evolve over time and add real benefit for what we are trying to achieve – this system can really improve our industry,” he said. ■

# Fertility formula for more kids

**P**reliminary findings from Kids+, the largest goat industry research project ever undertaken in Australia, have flagged key issues for goatmeat producers to consider when addressing herd fertility.

The five-year, \$3.7 million project is being funded through the MLA Donor Company in partnership with the University of Queensland (UQ). It aims to improve reproductive performance in goats to increase productivity and profitability on-farm.

Producers in Queensland and NSW are contributing to the project, providing data from a mix of production systems – extensive, semi-intensive and intensive.

### Findings to date

The project is led by Louw Hoffman, Professor of Meat Science, Centre for Nutrition and Food Sciences within the Queensland Alliance for Agriculture and Food Innovation at UQ.

Louw said from data gathered so far and talking with participating producers, three key issues had emerged as impacting herd fertility.

“What's clear now is that the body condition score and then nutrition of does before they get mated and during pregnancy, is definitely playing a role in fertility,” he said.

“Data shows if the body condition scores are good, it results in an average of 2.4 to 2.6 kids per doe.

“Another key issue is buck fertility.

A producer decided to do a fertility evaluation of semen on the bucks before mating, and the testing found four of the 24 bucks they were going to use were infertile.

“That raises the question, why are people buying goats and not asking for a fertility certificate for a buck? Cattle and sheep producers ask for it, so why don't goat producers?”

“I'd like to see a more aggressive seeking of information from a potential buyer. It's such a core role in your productivity.”

Buck-to-doe ratio and potential overuse of bucks has emerged as another issue.

“Producers talk about putting a buck-to-doe ratio of anything from 1:30 to 1:50. If you have a breeding season and you monitor the activity, a buck will jump the same doe three or four times, but each time they do, they are decreasing the number of sperm that are mature.

“That raises the question – using this ratio, which comes from extensive systems where bucks are in with does the whole time, are we not overusing our bucks? If I talk to some producers who have a six or five-week mating period, some of the later born kids have abnormalities, but it's not genetics causing that, it's the sperm causing that.” ■

📍 To meet some of the producers involved and learn more about the project, visit [mla.com.au/kids-plus](http://mla.com.au/kids-plus)



Goats in the stock lifter which researchers are using in the Kids+ project to collect data. Image: Louw Hoffman.

## FEEDBACK

New features and enhancements to the eNVD app will be routinely released in response to feedback. To submit your feedback to the ISC eNVD team, email [envd@integritysystems.com.au](mailto:envd@integritysystems.com.au)

📍 For resources and information on the eNVD app, visit

[integritysystems.com.au/envd-app](http://integritysystems.com.au/envd-app)

✉ Will Wilson [will@calliopestation.com](mailto:will@calliopestation.com)

✉ Sheree Young [syoung@integritysystems.com.au](mailto:syoung@integritysystems.com.au)

✉ Louw Hoffman [louwrens.hoffman@uq.edu.au](mailto:louwrens.hoffman@uq.edu.au)

✉ Melanie Smith [msmith@mla.com.au](mailto:msmith@mla.com.au)

# Eye in the sky informs pasture management

**Seeing the complete picture of what's happening across your property's feedbase to better plan for profitable pasture has become easier with the Australian Feedbase Monitor (AFM).**

Since the AFM was launched last year by MLA and Cibo Labs, more than 1,857 accounts have been created by producers around Australia.

Based on satellite-fed data, the AFM objectively measures pasture growth, biomass and ground cover using a 30-day rolling average. This enables producers to make informed decisions about the state of their pasture.

The tool is free for MLA members who have linked their Livestock Production Assurance (LPA) accounts to their myMLA dashboard, or can be accessed by non-members via Cibo Labs' paid subscription service.

## A tool for everyone

The AFM is designed to allow producers to become more objective in how they manage their feedbase.

Cibo Labs National Extension and Adoption Manager, Alastair Rayner, said producers can use it to assess long-term averages and inform pasture management strategies.

"This is a great tool for everyone. The AFM will help you make decisions based on widespread data, as well as in-field assessments, to help make earlier decisions when it comes to the actuals of your pasture quantity and quality," Alastair said.

"You don't have to be a major landholder to use it – whether you run 100ha or one million hectares, you'll be able to

use it and get a view of what is happening across your country.

"This tool allows you to see where your pastures are responding well during different seasonal conditions, and where they are not, so you can make more informed decisions for the health of your stock and land."

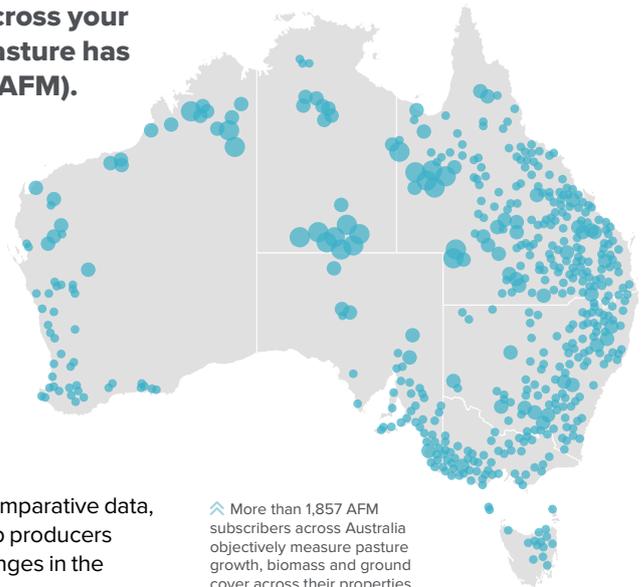
The AFM also provides comparative data, as far back as 2017, to help producers recognise trends and changes in the distribution of pasture.

## On-farm planning

Grazing advisor for Range IQ, Dionne Walsh, said the main way her clients used the AFM on a day-to-day basis was to check if the feed supply was likely to support the herd size and production targets for the year ahead.

"Producers usually know from experience what numbers they will allocate to their different paddocks. The AFM data can provide reassurance for these plans or highlight where these plans might need to be tweaked," she said.

Dionne said the AFM is particularly powerful for producers who cannot get across all their land easily – such as extensive pastoral enterprises – as well as producers who are not familiar



More than 1,857 AFM subscribers across Australia objectively measure pasture growth, biomass and ground cover across their properties.

with the feedbase history of recent property purchases.

"The AFM is also good for people who are just starting out in feed budgeting or fire management and want objective data for their planning," Dionne said.

"The imagery in the AFM clarifies what's happening on different parts of your property and can help you pinpoint areas where you should go and have a closer look so you can make more informed decisions for future planning.

"For example, there may be parts of your property that the imagery suggests are not responding well to rainfall and may need more time to recover. So, the AFM helps identify those areas and inform your management plans." ■

## How to access

The **Australian Feedbase Monitor (AFM)** is free for MLA members.

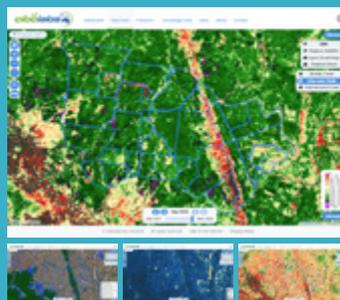
### Already an MLA member?

Access the AFM for free by signing in to myMLA and link your Livestock Production Assurance (LPA) account at [mymla.com.au](http://mymla.com.au)

### Need an MLA membership?

Apply for free MLA membership or update your membership details at [mla.com.au/membership](http://mla.com.au/membership) or call 1800 023 100.

Non-members can access the AFM through Cibo Labs' paid subscription service at [cibolabs.com.au/products/afm](http://cibolabs.com.au/products/afm)



## SEASONAL ACTION PLAN

Access the AFM to start monitoring your feedbase: [mla.com.au/afm](http://mla.com.au/afm)

Use the AFM in conjunction with MLA's feedbase budgeting tool: [etools.mla.com.au/fbrp](http://etools.mla.com.au/fbrp)

Optimise feedbase management: [mla.com.au/feedbase-hub](http://mla.com.au/feedbase-hub)

# Four ways to set a genetics target – and hit it

**S**pring ram sales are just around the corner, bringing new opportunities to grow and improve flocks.

Here, Nick Linden from Agriculture Victoria (AgVic) shares his tips for how producers can inject improvements into their business using genetic tools such as flock profiling and targeted breeding objectives.

His advice to producers is simple: set a direction.

“You can’t assess your performance unless you have a target to aim at,” Nick said.

Here are four tips to stay on your genetics course.

## 1 Pick the target

Nick is delivering an MLA Producer Demonstration Site (PDS) focusing on breeding objectives, in collaboration with Jason Trompf, founder of the Lambs Alive producer training program and the Lambs Alive producer group.

Lambs Alive highlights the importance of balancing performance and resilience traits to drive production, limit costs and labour, and maintain flexibility within the system.

When it comes to finding this right balance of genetics, developing a breeding objective is critical.

🔗 **Learn more about how to set a breeding objective at [genetics.mla.com.au](https://genetics.mla.com.au)**

### Flock profiling tool

The PDS is demonstrating the impact of genetic benchmarking and breeding objectives for flock improvements, using a flock profiling tool developed as part of the Sheep Cooperative Research Centre (CRC) for Merino enterprises.

Tissue samples are collected from 20 sheep and tested to provide a benchmark of the flock’s genetic potential for key production traits.

Producers can use this data in conjunction with breeding objectives to identify what traits need to be improved to reach their goals.

Nick said the flock profile addresses two key questions producers should be asking:

- I know how I want my sheep to perform, but what is their current level of performance?

- What are their strengths and weaknesses?

“You might not have all the answers, so the flock profile becomes a really important tool to make sure that your sheep have the right genetics for your priority traits,” Nick said.

“The flock profile process is quick and the results are easy to respond to. This tool is user-friendly, easy to interpret, and built for the real world.”

🔗 **Learn more about the flock profiling tool at [sheepdna.com.au](https://sheepdna.com.au)**

## 2 Redefine performance

While this profiling tool is a great step to benchmark a flock’s genetic potential against the breeding objective, it’s also beneficial for producers who want to get back on target.

It’s recommended flock profiling is completed at lamb marking.

Sampling early is important to:

- avoid double handling the flock
- identify genetic issues before the next joining
- assess the most recent genetics used in the flock.

As an example of how intervention can change direction, Nick points to one producer who changed his ram battery, only to find out – through the profiling tool – that their progeny would be more susceptible to parasites given a reduced genetic propensity for resistance to worms.

“If he hadn’t done the flock profile, he wouldn’t have found this out until those sheep were older, which would have been a setback.

“By setting your breeding objective and then understanding genetic potential through the flock profile, you can chart your direction. Even if you do get off-target, you can correct through strategies such as what ewes are retained or rams are purchased.”

🔗 **Visit [makingmorefromsheep.com.au](https://makingmorefromsheep.com.au) for useful flock management resources.**



## 3 Respond through management

After setting breeding objectives and analysing flock data, use this information to make effective management decisions.

Other measurements can also be taken to further analyse performance, including:

- pregnancy testing for multiples
- scanning for liveweight, eye muscle depth and C-site fat.

Place the highest importance on ram purchases and breeding plans.

“The legacy of a good ram purchase is incredible,” Nick said.

“That’s the beauty of self-replacing enterprises – your decisions carry on over generations of progeny.

“If there’s something you need to change, you can target the appropriate rams that will align with your commercial objectives. You can fill in the gaps by quickly responding to information from the tool.”

🔗 **MLA’s updated BredWell FedWell program helps producers develop breeding objectives to target improvement: [mla.com.au/bredwellfedwell](https://mla.com.au/bredwellfedwell)**

🔗 *Continued next page*

Continued from previous page

**“By setting your breeding objective and then understanding genetic potential through the flock profile, you can chart your direction.”**

#### 4 Get the best out of ram sales

When preparing and attending spring ram sales, compromise is key.

“Heading into ram buying season, it’s important to remember it’s a very rare case when you can have it all,” Nick said.

“It’s really hard to find that one ram that has the best reproduction, the best growth rates, or the best of every other trait – and if he is in the sale, there will be plenty of people bidding on him.

“You need to find a team of rams that can direct the flock.”

Factors include:

- When are you selling lambs?
- Do you have spring or autumn lambing?
- Are you putting your lambs through a grain finishing system?
- What’s your production system and what traits can a ram bring to enhance it?

“Find the ram team with the traits which are the most important to you, and then you’re not competing with everyone at the ram sales. You’re focusing on finding the rams for your enterprise.” ■

Use the sale preparation tools at [genetics.mla.com.au](https://genetics.mla.com.au)

### SEASONAL ACTION PLAN

Set clear goals and objectives for your flock, particularly around performance and profitability: [genetics.mla.com.au](https://genetics.mla.com.au)

Find the best ram team that will fill the gaps in your flock. Scan this QR code to read *How to shop for a high-performing sire*.



PDS tools and resources: [mla.com.au/pds](https://mla.com.au/pds)

BredWell FedWell workshops: [mla.com.au/bredwellfedwell](https://mla.com.au/bredwellfedwell)

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Alana McEwan

[amcewan@mla.com.au](mailto:amcewan@mla.com.au)

# Data tests the decisions

Six years ago, Steve Hobbs crunched the numbers and realised the small Merino flock he ran on his farm in Kaniva, Victoria, was compensating for losses in the cropping side of the business.

His decision to increase his focus on genetic improvement became the driver for a new business direction.

He set clear genetic objectives, made the required changes to reach these goals, and tracked genetic performance moving forward.

The results have included increased liveweight in lambs, increased lambing percentage, labour saving through cleaner breeched sheep, and earlier growth and maturity.

“While a visual assessment of the ewes tells part of the story, when you know what individual animals have returned, that’s when you can get really excited about where the flock is headed,” Steve said.

#### Setting genetic objectives

Steve is involved in a local Lambs Alive group, run by Jason Trompf, and in late 2021 became part of an

MLA Producer Demonstration Site (PDS) with Agriculture Victoria (see story previous page).

The PDS focused on demonstrating the role of breeding objectives in setting the genetic direction of a flock and testing if the genetic potential of the flock aligned with the required traits.

“I don’t expect my sheep to be the best for any one trait, but I do want them to perform well across the board,” Steve said.

He was the first of six host producers in the PDS to undertake a flock profile – created from the DNA of 20 ewe lambs randomly selected at marking, prior to applying any selection pressure.

The genetic potential of these lambs was assessed against key production traits and compared with all animals within the MERINOSELECT database – generating a report outlining flock ranking in relation to percentile bands.



Samples are collected from individual sheep to provide a benchmark for the flock’s genetic potential.

## SNAPSHOT



**STEVE AND HELEN HOBBS,**  
‘Yarrook Farms’,  
Kaniva, Victoria



**AREA**  
800ha

**ENTERPRISE**  
Self-replacing Merino ewe flock, prime lambs

**PASTURES**  
Native, perennial and mixed species/  
cover crops

**SOIL**  
Highly variable

**RAINFALL**  
340mm



Steve Hobbs has changed his ram battery and now alternates between Merino and Dohne-Merino sires.

### Making changes

Steve has already taken action to improve his flock.

His changes included:

- a complete change to his sire battery identifying new sources of rams
- using electronic identification tags (eID) and Australian Sheep Breeding Values (ASBVs) to track progeny and better understand desired genetic traits
- swapping to variable rate stocking and culling low performers to match carrying capacity of the property during times of extreme weather.

Steve has completed testing on this year’s ewe lambs (born in 2022), which were all sired by new rams, and is pleased they’re on the right track.

“Every year since we started, we’ve been able to see results,” he said.

“We’ve had earlier maturity, we’ve been getting up to weight quicker, we’ve refined our flock and, overall, just made managing them a lot easier.

“I think I’m as excited as ever to be in the sheep industry right now.”

Improvements include:

- 15–20% increased growth rate
- lambs are on average 10kg heavier overall
- lambs are heavier earlier

**“The ability to pin key data points to individual animals has been one of the biggest changes to our business in recent years.”**

- improved profit per ewe
- reduced wrinkle and cleaner breech, with less crutching.

“We were mostly looking to increase growth and early maturity, and it looks like we’ve been able to do that,” Steve said.

“Our sheep are comparing favourably against our flock profiles and MERINOSELECT database.

“We’ll go back through all the scanning results and make a full assessment of how the singles and twins compared for each group, but based on what we have already seen, I’m really happy with the results.”

### Monitoring performance

When making any change, monitoring performance is critical to determining the success and impact.

For Steve, changing his ram battery could only be deemed a success if the data showed improvement for key traits.

Using eID has been a significant part of simplifying data collection, with the added benefits of reducing workload.

“The ability to pin key data points to individual animals has been one of the

biggest changes to our business in recent years,” he said.

“Understanding the genetic potential of our sheep ensures that we pick the right sires going forward. Following that up by working through the data for liveweight measurements and pregnancy scanning, we can really start to test if our decisions have been the right ones.”

➔ Turn to page 18 to learn more about eID and how it can fit into your business.

### Looking ahead

Now he’s established the baseline genetic potential of his flock, Steve is looking to monitor changes over time and see how far he can drive genetic improvement to better meet his breeding objective.

“Thanks to the flock profile, we’ve got a good picture of where we sit,” Steve said.

“I’m really happy that our sheep are performing well for growth and have a good amount of fat – there is no doubt that this lines up with our ram selection choices.

“Heading forward, we can probably increase our focus on reproduction, so it will be interesting to see what sort of change we can get in that area.” ■



# Genetics a stalwart driver of progress

**F**aced with a challenging climate and the myriad of variables involved in breeding cattle, Queensland seedstock producers Tom and Marie Copley are leveraging genetics to map out a productive path for their herd.

Certain in the knowledge that their genetic inputs are entirely within their control, the couple has made gains with a data-driven focus on fertility at their property, 'Salty'. The result is a robust, well-adapted herd, capable of thriving in harsh conditions with minimal inputs.

Here's a look at how the Copleys' astute use of functional analysed genetics and dedication to the long game have been key to achieving their breeding objectives.

## Prioritising fertility

Fertility is the cornerstone of their breeding strategy.

"We have a fertility focus to create an efficient and productive cow herd," Marie said.

"We have a tight joining with all heifers joined and required to calve every year. Unproductive females are culled, no exceptions.

"The breeding herd will eat more than 70% of the annual grass budget, so we need a herd that's productive and fertile with minimal inputs."

Despite fertility requiring more time and effort to influence compared to a trait such as growth, which can be altered within a couple of generations, Tom and Marie have persisted with a fertility-first strategy and a balanced approach to growth.

The result is a low maintenance, tropically adapted and highly fertile herd. Their cattle don't require fly or tick management, a strategy which has reduced input costs.

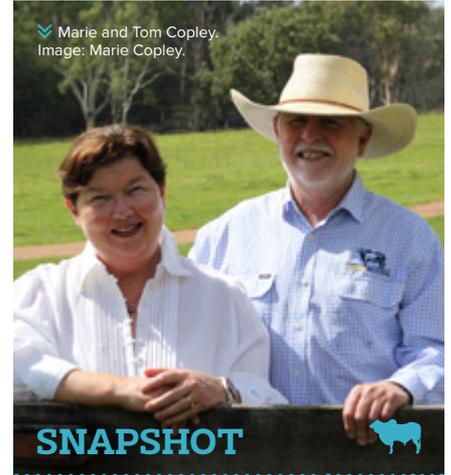
"You need a consistent and measured long-term view as the gains are incremental," Tom said.

"In northern Australia, where the environment is harsher, the more important the fertility traits are.

"We're looking for data that demonstrates cow families with evidence of maternal success meaning numbers of generations of calves."

## Making the most of their data

As early adopters of BREEDPLAN, the Copleys have fine-tuned their selection decisions over time.



Marie and Tom Copley.  
Image: Marie Copley.

## SNAPSHOT

**TOM AND MARIE COPLEY, 'Salty',**  
Anduramba, Queensland



**AREA**  
4,000ha

**ENTERPRISE**  
1,000 Brahman breeders

**PASTURES**  
Forest grazing

**SOIL**  
Granite soils

**RAINFALL**  
640mm



The Copleys join 1,000 Brahman females annually. Image: Marie Copley.

"The breeding herd will eat more than 70% of annual grass budget, so we need a herd that's productive and fertile with minimal inputs."



The couple put their entire herd onto BREEDPLAN and conducted extensive genomic testing.

They use HerdMASTER to transfer their data through to BREEDPLAN with genomic data and then review the herd's estimated breeding values (EBVs), plot the genetic gain across various traits, maintain quality assurance and review maternal performance.

EBV targets:

- Days to Calving – bulls with lower Days to Calving will produce daughters that conceive earlier in the joining period
- Scrotal Size – this is correlated with early puberty in bulls and thus in their sisters and daughters
- Moderate, Early Growth – for low maintenance, fertile females.

### A perfect match

It was important for the Copleys to work with a seedstock producer who also uses BREEDPLAN, has a fertility focus, and operates under a similar management criterion.

“We’re not after pampered cattle. With the seedstock bulls, we’re looking for a lot of analysis, rather than bulls fed lots of grain so they look good,” Tom said.

They attribute much of their success to finding a seedstock producer who analysed their herd, was able to influence and understand their system, and had the data to demonstrate they were making progress.

“Selecting your seedstock producer is almost more important than selecting your bulls,” Marie said.

“Once you have the right seedstock producer, they will have the range of genetics available to you to meet your breeding objectives.”

### Long-term gains

This data-driven approach has certainly paid off. The Copleys contributed cattle to the MLA and University of Queensland Northern

Genomics Project – analysis of their heifers showed strong fertility, well above industry average. More than 60% of the Copleys’ group of heifers which were genotyped were in the top 40% for puberty and body condition score while being moderately framed.

The first group of bulls the Copleys measured in 1986 had an EBV of -1.5 for Days to Calving – which is close to the current breed average (-1.9). The Copleys have seen this plummet to -19.1 for their 2022 bull team – a testament to their breeding strategy.

### Record keeping

These impressive results would not have been possible without Tom and Marie’s dedication to extensive data collection and documentation.

“If you don’t have data, it’s just an opinion,” Tom said.

“Good management and good record keeping go hand-in-hand.” ■

## LESSONS LEARNT

- ✔ Work with your seedstock supplier to clarify your breeding objectives – make sure you plan for long-term gains.
- ✔ When purchasing bulls, analyse the \$Index to rank bulls in terms of their value to your business.
- ✔ Your seedstock producer can help you use estimated breeding values (EBVs) to inform your bull purchasing decisions.
- ✔ Be forearmed with your data before the sale, so you can focus on individual reviews and visual analysis on sale day.
- ✔ There is no one perfect bull who will provide all your desired genetics – take a team approach. The Copleys use about 30 bulls to join annually.

## Be on the front foot for sale season

Here are five tools and resources to help you make the most of this year’s sale season.

### 1 MLA’s genetics hub: [genetics.mla.com.au](https://genetics.mla.com.au)

MLA’s series of short, ‘how-to’ animations demystify breeding values and show how to select desired traits, navigate BREEDPLAN and purchase high-performing bulls.

### 🔍 Tropical beef: [genetics.mla.com.au/tropical](https://genetics.mla.com.au/tropical)

### 🔍 Temperate beef: [genetics.mla.com.au/temperate](https://genetics.mla.com.au/temperate)

Scan this QR code to read *A BREEDPLAN guide to interpreting EBVs.*



Watch a video of the Copleys as they share their genetics approach:



### 2 Herd profiling: Understand where your herd sits so you can move towards your breeding objective using Herd Profile. Contact Elise Dodd [e.dodd@uq.edu.au](mailto:e.dodd@uq.edu.au)

### 3 BredWell FedWell: A practical, one-day workshop on how to improve productivity and profitability through breeding and feeding: [mla.com.au/bredwellfedwell](https://mla.com.au/bredwellfedwell)

### 4 BULLCHECK: Ensure your potential bull purchase is healthy and fertile – scan this QR code to learn more:



### 5 Bull buying guide: MLA’s *How to shop for a high-performing sire* guide provides step-by-step advice on setting breeding objectives, selecting EBVs, navigating sale day and keeping your new sire performing at his best: [genetics.mla.com.au/contacts-and-resources](https://genetics.mla.com.au/contacts-and-resources)



# Get set for climate-smart farming

**P**roducers are better equipped to adapt to and mitigate the impact of future climates through the NEXUS project, which explored the links between on-farm productivity, profitability and greenhouse gas (GHG) emissions.

Researchers used climate modelling for 2030 and 2050 at 10 sites across Australia. They identified how producers could implement adaptation strategies – such as supplementation, changing lambing dates and planting trees – to move towards more profitable and environmentally sustainable production systems.

The project was a collaboration between MLA, the University of Tasmania (UTAS), University of Melbourne, University of Southern Queensland, CSIRO, the Department of Primary Industries and Regional Development in WA, and many other partners.

UTAS Associate Professor Matthew Harrison said a key aim was to help producers understand how they could adapt to potential impacts of extreme weather events and climate change for their region.

“We assessed profitability, productivity and social aspects of proposed adaptations, as future farm systems not only need to ensure food security, they also need to be economically competitive and socially acceptable,” Matthew said.

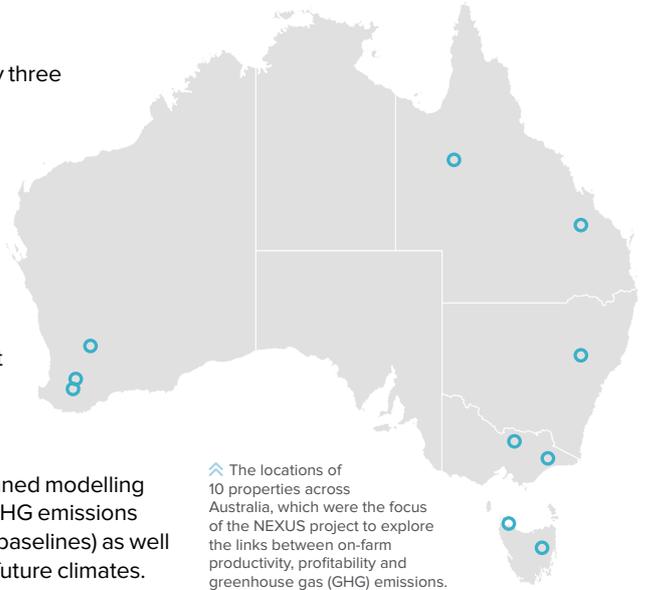
## Adapting for the future

The project was guided by three questions:

- What would the future climate look like in any given region?
- How would this change the way the farm operates?
- What should future research, development and extension for livestock farming in Australia address?

These questions underpinned modelling of carbon footprints and GHG emissions under current conditions (baselines) as well as several adaptations to future climates.

“We chose case study farm locations across Australia, ranging from the Midlands of Tasmania to North Queensland, as we wanted coverage of different agro-ecosystems to reflect the diversity of climate zones and enterprise mixes,” Matthew said.



⤴ The locations of 10 properties across Australia, which were the focus of the NEXUS project to explore the links between on-farm productivity, profitability and greenhouse gas (GHG) emissions.

“The proposed changes were co-developed with the producers to ensure their farming systems would be better adapted to future climates and were reflective of their day-to-day practices.”

## Six steps to future-proof your farm

Here are some practical steps producers can take now, to be on the front foot for future climate scenarios.

- 1 Examine how seasonal conditions have historically affected your production system.  
[bom.gov.au](http://bom.gov.au)
- 2 Explore climate change projections for your region.  
[climatechange.environment.nsw.gov.au/projections-map](http://climatechange.environment.nsw.gov.au/projections-map)
- 3 Match feed supply to feed demand by seasonally adjusting stocking rates.  
[mla.com.au/stocking-rate-calculator](http://mla.com.au/stocking-rate-calculator)
- 4 Examine opportunities to restore productivity to degraded paddocks, such as planting saltbush, fencing off riparian zones or creating shelter belts.  
[mla.com.au/trees-on-farms-tool](http://mla.com.au/trees-on-farms-tool)
- 5 Aim for high soil organic matter, which is beneficial for drought resilience, carbon storage and improved pasture production.  
[mla.com.au/tools-calculators](http://mla.com.au/tools-calculators)
- 6 Research what future opportunities exist for your business. If you reduce carbon emissions today, you may be in a better position to access future market opportunities – such as premiums for carbon neutral products – or respond to legislation changes.  
[mla.com.au/get-CN30-ready](http://mla.com.au/get-CN30-ready)

### Practical steps

NEXUS helped producers understand and prioritise alternative scenarios to reduce emissions, improve current practices and production efficiencies, and explore new opportunities in changing markets.

Researchers used a range of models to assess single adaptations through to packages of individual interventions which were stacked together. For example:

- feeding seaweed (*Asparagopsis taxiformis*) to reduce methane emissions
- planting trees
- changing lambing dates
- changing stocking rates
- renovating pastures to improve growth
- altering enterprise balance and type.

“Simple changes producers can do which are reasonable and easy to implement was a core part of the modelling,” Matthew said.

“Our research found there are few interventions that are win-win-win in terms of productivity, profitability and GHG emissions.

**“However, simple actions like shifting lambing and calving time forward by two weeks, having spatial and climatic diversification in your property locations, and genetic improvement in animal feed conversion efficiency were among the most beneficial to improved productivity and profitability.”**

Matthew said producers should start planning now.

“Producers should be thinking about climate change adaptations which are reversible and can be made easily – once these short-term changes are made, longer-term changes aimed at strategic mitigation/adaptation can be made.

“For example, maximum carbon sequestration rates from trees won’t happen until 10–20 years after they’re planted.

“During this time the climate will be changing, so more nimble changes – such as renovating pastures with productive, digestible legumes – can be made. In this way, producers are tactically adjusting towards a longer-term goal,” he said. ■

➤ Read the next story to meet some of the producers involved in NEXUS..

- 📍 NEXUS project: [mla.com.au/nexus](http://mla.com.au/nexus)
- ✉ Matthew Harrison  
[matthew.harrison@utas.com.au](mailto:matthew.harrison@utas.com.au)
- ✉ Melanie Smith [msmith@mmla.com.au](mailto:msmith@mmla.com.au)

# A passion for change overcomes challenges

**V**ictorian sheep and cattle producers Jen and Brad Smith are no strangers to adaptation – it’s part of their response to a changing and challenging environment.

The 10 years since they took over the family business have been some of the most challenging for their business and landscape, with the management required to weather an already variable climate compounded by natural disasters.

The Smiths’ Gippsland property was one of hundreds burnt out in the 2020 fires – an event sandwiched between drought and floods.

Against this backdrop, the Smiths were keen to participate in the MLA-supported NEXUS project (see story opposite). NEXUS explored how sheep and beef enterprises can adapt to the changing climate – in their case, warmer temperatures with less winter and spring rainfall and higher rainfall variability – and reduce greenhouse gas emissions.

“Taking part in the NEXUS project was about getting the resources to baseline our emissions and establish a starting point and a system of measurement that could help us grow,” Jen said.

“This helped us understand the state of our business, establish benchmarking and work towards identifying some clear guidelines of where we could improve.

“We know our climate is incredibly variable, we know we need to modify our practices in response to this, so this was just the next step in the process.”

### A changing climate

The Smiths worked with the University of Melbourne to model how their practices could change in response to the impacts of climate



✓ Brad and Jen Smith on their property at Clifton Creek.

## SNAPSHOT

**JEN AND BRAD SMITH**, Clifton Creek and Tambo Crossing, Victoria



**AREA**  
890ha over two properties

**ENTERPRISE**  
Angus cattle and maternal composite sheep

**PASTURES**  
Cocksfoot, phalaris, brassica crops, annual ryegrass

**SOIL**  
Sandy loam, steep slopes

**RAINFALL**  
800mm

change in their region, with simulations projected for 2030 and 2050.

Jen said their business’ existing pathway to continuous improvement – such as changes in stock, pasture and property – aligned with the options presented as part of the NEXUS project.

“We’ve improved our pasture renovation strategy to involve one to two years of cropping, followed by permanent pasture so we can have pasture in years where we aren’t getting reliable rainfall,” Jen said.

The Smiths have also adjusted livestock breeds to better suit their environment,

➤ Continued next page

◀ Continued from previous page

swapping their historical large-framed Hereford herd to a more moderate-framed Angus herd, and transitioning from Merinos to a maternal composite flock.

As well as these adaptations, which were suggested by NEXUS but already implemented on-farm, the project suggested purchasing land in a different climatic zone to improve resilience in response to extreme weather events.

“We were already thinking about expanding, but the concept of buying land further away was often ruled out due to logistics,” Jen said.

“However, when it was identified in the study, we embraced the opportunity to expand and ensure we were more resilient in our future production.”

#### Toward carbon neutral

Jen and Brad believe standing still is not an option when dealing with climate variability or emerging market trends towards carbon neutrality and green credentials.

Jen said the strategic decisions they, and other producers, make today will affect their opportunities in future markets.

“There’s plenty of data that identifies the benefits of different types of investment and how it can make your business more sustainable,” Jen said.

“We are confident that whatever the framework, we can adapt our farming practises to suit it.” ■



Angus cattle grazing at the Smiths’ Tambo Crossing property.

#### LESSONS LEARNT

- ✔ Select genetics to improve feed conversion.
- ✔ Choose pasture species with a high legume content for fertiliser efficiency.
- ✔ Plant marginal areas of farm to local species of trees.



• Jen and Brad Smith  
• [smithgraziers@gmail.com](mailto:smithgraziers@gmail.com)  
• Melanie Smith [msmith@mla.com.au](mailto:msmith@mla.com.au)



# Three ways eID helps producers harness the power of data

**S**ince it was introduced nearly 20 years ago, electronic identification (eID) has delivered a clear return on investment for producers who tap into the productivity-boosting data it generates.

MLA investments in eID research provide support for producers to collect and use information about flock health, biosecurity and reproductive performance.

Now, with the 2025 mandate for sheep and goat producers to implement eID on the horizon, MLA is funding projects to fast-track resources for producers to make the switch.

These projects cover the three main ways eID can be incorporated into red meat businesses:

- 1 **Collecting lifetime flock data** – for genetic planning, pregnancy monitoring and flock health.
- 2 **Using data to boost your business** – through interpreting data, understanding potential benefits and implementing best practice.
- 3 **Integrating data through the supply chain** – to meet national standards and increase connectivity.

Here’s a look at some of MLA’s eID research projects and the insights they’re delivering for producers.





## Collecting lifetime flock data

Developing a flock breeding and health plan relies on an understanding of business goals and flock performance – which in turn, requires thorough data.

Producers can use eID to select ewes and rams for optimised reproduction and lamb survival.

### The **Genetics of reproduction and lamb survival Producer Demonstration Site (PDS)** project focuses on

collecting individual genetic information on performance and breeding so producers can confidently select ewes and rams to match their production needs.

To identify and retain ewes with proven reproductive performance, the **Pregnancy scanning in extensive sheep flocks PDS** project shows how eID can track data on:

- foetal number
- foetal age
- wet and dry numbers
- lamb survival
- net reproduction rate.

After joining, monitor pregnant ewes for adequate nutrition, water and overall health, with a focus on identifying and managing any in poor condition.

The **Using eID to improve ewe performance PDS** has shown that using eID to collect information on weight, nutrition and other health factors gives producers improved confidence around ewe management decisions.

Producers can use eID to manage the health of an entire flock, for example by using the data collected to diagnose health issues.

The **Managing trace element deficiencies in sheep PDS** project is exploring appropriate practices to collect and identify trace element deficiencies – including blood tests, liver samples and biopsies for copper.

Collecting flock data can also highlight the effect of certain grasses on mineral status, as a tool to optimise pasture management.



## Using data to boost your business

It's one thing to collect all this data, but the next step is understanding how it can benefit your business. How you use it will depend on your business needs, so seek advice and conduct your own research to maximise your data's potential.

Many MLA projects aim to provide producers with the skills to interpret their data, develop value propositions, and make good decisions for profitability, productivity and sustainability.

These projects include:

- **Lamb survival in south-east Queensland rangelands PDS**
- **Realising benefits from sheep eIDs PDS**
- **Effective rangeland eID decision making systems PDS**
- **Integrating dual-purpose crops and eID into mixed farming systems PDS**
- **Maximising the value of eID technology for sheep producers**

These projects explore a range of eID benefits, such as:

- enhancements in traceability, biosecurity and risk management through scanning and movement tracking
- individualised data on health, reproduction and performance
- time and labour savings
- increased information flow along the supply chain
- ability to compile multiple forms of data in one place
- ability to benchmark performance and health using a central database
- collection of information to enhance genetic improvement.

Researchers are also looking at other technologies, such as remote objective weight or walk-over-weighing, as data produced by these technologies can be used hand-in-hand with eID.



## Integrating data through the supply chain

The incoming 2025 eID mandate for sheep and goats comes from a need to heighten biosecurity, traceability, best practice and animal health in the wake of worldwide disease incursions.

Electronic tags will be vital to trace livestock movements to identify contact points in the event of a biosecurity incursion.

Sharing information generated by eID can help the industry improve biosecurity, together.

The **eID enabled – stimulating the information supply chain** project supported the creation of extension products and data-sharing systems. This empowered value chain participants with skills, knowledge and tools to use eID to generate improvements in productivity and business performance.

Scan these QR codes to access resources developed in this project including:

- Agricultural Victoria Shortcuts (sheep animal health series, YouTube)
- Agriculture Victoria – learning courses



In SA, the **Red Meat and Wool Growth Program** – supported by MLA – is helping producers build better insights and resilience through eID technology, to drive adoption of data-based decision making to improve quality and efficiency throughout the SA livestock industry.

▶ Turn the page for producer insights on how to successfully incorporate eID into a sheep and rangelands goat enterprise.



Scan the QR code to learn more about animal identification tags ✉ Melanie Smith [msmith@mla.com.au](mailto:msmith@mla.com.au)



# On the banks of technology

**F**or south-west Queensland producers Duncan Banks and Gerry Grant, the transition to electronic identification (eID) brought accuracy, reliability and a chance to rebuild low flock numbers.

Thanks to the help of their fellow producers, the change didn't have to be a hard one.

Duncan and Gerry wanted to make eID easy in their Dirranbandi Merino and rangeland goat enterprises – so they looked to an MLA Producer Demonstration Site (PDS), managed by Sheepmatters director Anthony Shepherd.

“We think of eID as an animal resumé, storing information we use to make decisions.

“It helps us rank sheep by value, so we only include information with value that can contribute income to the business,” Anthony said.

## Maintaining production

Duncan and Gerry were keen to reduce inaccuracies in their flock records.

“We'd heard people using eID had achieved close to 100% accuracy – never losing track of sheep or records,” Duncan said.

“When you're doing it manually, you have to accept a certain amount of error, and so we wanted to reduce that error, even if it's only 2–3%.”

However, it wasn't until they were rebuilding after drought that Duncan and Gerry realised how big an impact eID could have on their business, when they had to forgo their targeted breeding just to maintain flock numbers.

“Thanks to the information that was kept in the tags, we identified our top performers from our second-class citizens. The technology helped us get back to performance levels while still maintaining the integrity and numbers of our entire flock.”

Duncan and Gerry used eID-generated targeted data to understand the performance of individual breeders in areas such as:

- fleece weight
- micron
- body weight
- pregnancy rate
- lamb survival.

Duncan found that while his flock would often lose visual tags while grazing on saltbush shrubs, there was a higher eID tag retention rate, which maintained traceability.

## Sharing is caring

While Duncan said their transition to eID was smoother thanks to drawing on expert

## SNAPSHOT



**DUNCAN BANKS AND GERRY GRANT,**  
Dirranbandi, Queensland



**AREA**  
4,000ha

**ENTERPRISE**  
1,000 Merino ewes  
1,000 rangeland goats

**PASTURES**  
Oldman saltbush

**SOIL**  
Black flooded country with coolibah and lignum, claypan with false sandalwood, soft box and pine sand ridges

**RAINFALL**  
450mm

advice, he acknowledges it can be a learning curve and does carry a cost.

“Being a goat producer, I understand the worries people have – the number of tags is a legitimate concern, especially for rangeland goats. But if you can make it work, there's always ways to make money.”

One solution to ease costs is to share equipment with nearby producers.

Tips for this include:

- choose Bluetooth equipment which doesn't require installation
- plan separate data collection times
- have backups available.

## Looking ahead

Duncan and Gerry are keen to try new technology that will bring better production and profitability to their business. They've been testing water monitoring systems, auto-drafters for classing and weighing, and walk-over-weighing.

“I think if you can use good technology to make a bit more profit in your business, you should. With eID, using our data effectively and removing low-performing stock accurately is important so we can keep improving performance,” Duncan said. ■



✉ Duncan Banks and Gerry Grant [dunwold@bigpond.com](mailto:dunwold@bigpond.com) ✉ Anthony Shepherd [anthony@sheepmatters.com.au](mailto:anthony@sheepmatters.com.au)

✉ Alana McEwan [amcewan@mla.com.au](mailto:amcewan@mla.com.au)

# Ahead of the tide

**I**nnovative NSW beef producers, Steve and Liz Binnie, have come out on top thanks to an unswerving forward focus and a good dose of grit, in the face of the COVID-19 tsunami and its aftershocks.

Identifying opportunities to adapt and diversify their business amid a volley of setbacks has kept this young family and their premium Wagyu beef brand, 'Binnie Beef', in good stead for the future.

It's a future built on legacy. Steve and Liz started their married life in 2004 at 'Mirannie Station', which has been in Steve's family for four generations, with each making its mark over 130 years.

Steve and Liz added their own twist to the Mirannie story.

"Back in the day it was a draft horse stud, primarily servicing the horse-drawn brewery industry – then it became a Hereford stud for 97 years," Liz said.

"One day somebody asked us, 'Why Herefords?' We looked at each other and realised we couldn't answer that, except to say that we were honouring what Steve's father had done."

## Embracing change

The time for change came after successive roadblocks impacted the viability of their business.

"First there was the live export ban, followed by two missed wet seasons in the north, which led to an oversupply of cattle into the southern markets – we just couldn't sell our cattle," Steve said.

"It became apparent that honouring those who had gone before us wasn't going to pay the bills, so we made the leap into Wagyu."

They researched other breeds, but Wagyu emerged as the best choice for their business.

"Wagyu have early sexual maturity, the meat tastes great and we recognised an upward trend with strong demand," Steve said.

## COVID-19 challenges

Soon after setting out to build the genetics of their Delta Wagyu stud, the couple faced the backbreaking drought of 2016–2019, followed closely by the outbreak of COVID-19.

After an initially strong start exporting their Wagyu beef to China, the high costs of getting a container of product every month and needing a backlog of cattle to do so, took its toll.

"It takes about three years of shelling out money hand over fist to deliver a premium product to dinner plates, so minimum margins for full sets by the container was hardly inspiring. When COVID-19 closed all export markets to China, it was the perfect time to make a strategic change," Liz said.

"All our supply chains dried up and we were at a point where all the stock we'd had on feed for 400 days had no buyer."

While hunkering down with their four children during COVID-19 lockdowns and export restrictions, the Binnies found themselves with a heap of product they couldn't sell.

## SNAPSHOT



**STEVE AND LIZ BINNIE**, 'Mirannie Station', Mirannie, NSW



**AREA**  
2,832ha

**ENTERPRISE**  
Wagyu beef production, stud bull breeding, semen and embryo sales

**PASTURES**  
Summer: paspalum, Rhodes, setaria and kikuyu. Winter: rye, clover and native herbs.

**SOIL**  
Clay-based

**RAINFALL**  
1,000mm

It made sense to help their community. A local church kitchen was only too happy to take the large lumps of product off their hands at cost pricing.

"We moved a container load of product from Casino down to the Hunter Valley and knew it would only go off if we didn't sell it or give it away," Liz said.

➤ *Continued next page*

✓ 'Mirannie Station' has been in the Binnie family for four generations – it started as a draft horse stud and today is home to a Wagyu herd.

**"When COVID-19 closed all export markets to China, it was the perfect time to make a strategic change."**

◀ Continued from previous page

“We’ve donated enough beef for more than 30,000 meals to feed the homeless and support charity fundraisers throughout the Newcastle region. It’s helped bring us a lot of joy, goodwill and customer loyalty.”

### The birth of Binnie Beef

As Liz reflects, necessity is the mother of all invention. The couple decided to back themselves and launch Binnie Beef – slaughtering their cattle, selling their own beef and building their own brand in one of the toughest beef selling climates on record.

The Binnies began to move away from selling whole carcasses to individual cuts tailored to market requirements, then to selling directly into the domestic space.

With a background in marketing, Liz was instrumental in launching their paddock-to-plate enterprise.

Their brand emphasises the sustainable, high-welfare provenance of their product and is backed by a reputation for exceptional eating quality, with low melting point, fine-marbling genetics and 100% DNA traceability to Japan.

The fact the brand is locally owned and operated resonates with consumers, who have a taste for the honest reflection

of the entire Binnie family’s hands-on, passionate involvement.

“Our kids are working in the yards and in the strategic side of the business. We look forward to a day when they will surpass our talents and abilities,” Liz said.

### Diversifying against risk

The Binnies’ journey required stamina, a strong focus on relationship building and the ability to learn on the go.

From a starting point in exports, they diversified to domestic and other international spaces after their abattoir was excluded by China.

“We had a few leads through MLA and Austrade and met some contacts through AUS-MEAT’s non-packer exporter course. Often those conversations led to other introductions – we did many trips to Shanghai, Beijing, Singapore and Korea, some of which resulted in transactions and then regular repeat business,” Liz said.

“It was about rolling back the sleeves and being available for conversations at any and all hours of the day or night.”

“We got a huge updraft of support and now hold a fairly large market share in

Newcastle, Hunter Valley and Sydney restaurants,” Liz said.

Offshore markets are now more heavily diversified too, with exports to Singapore, Thailand, Vietnam, Hong Kong, Oman and Taiwan, amongst other destinations.

### Widening their market

Keen to keep their fingers in a number of pies, they’ve expanded beyond the traditional premium Wagyu market.

“We’re not hoity toity – our beef goes into pies, burgers and sausages as well as to high-end restaurants. Our local butcher has come up with an incredible recipe for sausages,” Steve said.

Liz said it’s been exciting to see the appetite for Binnie Beef.

**“Our kids are working in the yards and in the strategic side of the business. We look forward to a day when they will surpass our talents and abilities.”**



◀ Liz and Steve Binnie with their four children, (left to right) Benny, Willber, Adelaide and Campbell.



✓ Binnie Beef Wagyu. Image: Binnie Beef.

## LESSONS LEARNT

- ✓ Read your market – be flexible and take hold of opportunities when they arise.
- ✓ Be open to trying new approaches – back yourself.
- ✓ Strong relationships with your community and customers will help you ride out the tough times.

## SEASONAL ACTION PLAN

- 📌 Visit MLA's genetics hub: [genetics.mla.com.au](https://genetics.mla.com.au)
- 📌 Shore up your feedbase: [mla.com.au/feedbase-hub](https://mla.com.au/feedbase-hub)
- 📌 Attend a BredWell FedWell workshop to boost your herd's productivity with effective breeding and feeding strategies: [mla.com.au/bredwellfedwell](https://mla.com.au/bredwellfedwell)
- 📌 Sign up to FutureBeef's e-bulletin for announcements about the fertility and tropical heat-tolerance research the Binnies are funding and driving with Newcastle University: [futurebeef.com.au](https://futurebeef.com.au)

"Our meat pies and burgers can be enjoyed at major McDonald Jones Stadium (Newcastle) events, including the recent Elton John concert, and they'll soon be available at the Sydney Cricket Ground and Sydney Football Stadium," she said.

### Keeping up the home front

The Binnies have solidified their domestic market footprint with the addition of a sales team and a second wholesale retail outlet. The soon-to-open shopfront in Killara, Sydney, will join their existing Newcastle outlet.

"The retail outlets aren't a heaving business, rather a lovely opportunity to sell direct to households and spread the word. I find the best way for building a chef/restaurant into a loyal supplier relationship is to start at the grassroots, and when their own customers ask for our beef on the menu it speaks volumes," Liz said.

"Two years ago, the abattoir we process through got a retail-ready packaging system, so we shave a bit off the side and bring retail-ready product into both our shopfronts. It's a bit of a secret that's gathering its own cult following.

"Wholesale is our breadwinner, but we've got scotch fillets, porterhouses, burger patties, minces, T-bone, tomahawks, and the odd fun thing for sale to the general public too."

### Strategic adaptation

The forward-focused couple are investing in cutting-edge genetics, technology and expertise, and are making impressive gains with tropically adapted and polled Wagyu.

"We focus on eating quality, which is a function of marbling, and the fineness of that marbling. We also focus on carcase weight and fertility. These are the three biggest drivers of profitability," Liz said.

A tight hold on both ends of the supply chain with genetics and semen trading under Delta Wagyu, as well as Wagyu beef sales through Binnie Beef, has built resilience into the business.

"It looks like we've lurched from one disaster to the next, but in reality, it's been very strategic, with the occasional adaptation to circumvent unforeseen challenges," Steve said.

"Now, 10 years on from our Wagyu inception, we've a firm hand on both ends of the supply chain, from genetics through to restaurants."

The Binnies have about 2,000 registered Wagyu cattle at Mirannie, and a few hundred in feedlots at all times. They sell semen and embryos worldwide and have a strong market share across Europe and Africa, as well as to Uruguay, Brazil and South Africa.

With more of their bulls being sold into the tropical north of Australia, the Binnies are driving a research project in partnership with Newcastle University to develop a PCR test that determines whether a bull will throw damaged semen as a result of heat exposure.

"We follow a philosophy of sharing genetics, intellectual property and industry learnings, because the Wagyu community is particularly open with intellectual property, innovation and support for fellow breeders, and because this was the lead set by our forebearers," Liz said.

Looking to the future, the Binnies hope to continue their strategic approach to risk.

"We're doing well, and we've survived some extremely unusual and unforeseen challenges – now it's time to thrive. We want to be on the front foot when the next disaster/opportunity arrives," Liz said. ■



**"We follow a philosophy of sharing genetics, intellectual property and industry learnings."**

Binnie Beef received initial co-funding from MLA for early brand development. To learn more about MLA's beef and lamb marketing initiatives, visit [mla.com.au/marketing-beef-and-lamb](https://mla.com.au/marketing-beef-and-lamb)



✓ Cattle at the Marks family's Clermont property, 'Winvic'.

# NB2 gate opens up productivity-boosting ideas

**F**or the Marks family, MLA's Northern Breeding Business (NB2) program hasn't only helped to improve productivity in their Central Queensland business – it's also broadened their connection to the industry, to tap into new ideas.

Darren and Alice Marks took over the reins of their four properties – a beef breeding business made up of family-owned land and purchased country – in 2015.

The family joined the NB2's Burdekin producer group in 2021, motivated by the desire of their two eldest daughters – Natalie and Olivia – to become more involved in their business.

"It's a great opportunity for the girls to learn from producers who might be facing different challenges or combating similar situations with different techniques," Alice said.

"The fact that it was a producer-driven program was also a big motivator in getting involved.

"The feeling of being heard and continuing face-to-face connections are so important for those living in rural, and often isolated, areas."

## Producer focus

Natalie said the ability for producers in each NB2 group to focus on what was important to their business was valuable.

"The program is a three-year commitment, so we made the decision, as a group, to meet quarterly each year for a two-day period, with each member taking turns to host," she said.

"Collectively, we decide on what topics we want to cover during each meet-up,

and where we want to focus our learning before the next quarterly visit.

"While we do have the staff from the Queensland Department of Agriculture and Fisheries and MLA aiding us throughout the process, the producer-driven aspect of the program has been really good in building trust between all involved parties and allowing producers to feel heard.

"Hosting producers also have the option of choosing a guest speaker to help address their individual business concerns, which we've found helps encourage us to consider other management opportunities."

The producer group process began with an introductory course which guided producers through the different NB2 templates available. It was followed by foundational training which helped equip producers with the necessary skills and tools to collect and understand data.

## Business analysis

The Burdekin group spent 12 months collecting data which was used to generate a business analysis that identified areas for improvement.

The business analysis used data from the past three years to analyse herd, business and feedbase performance.

"It was helpful to build our confidence in understanding data and acting

✓ Alice and Darren Marks.



## SNAPSHOT

**MARKS FAMILY,**  
Clermont and Clairview,  
Queensland



## AREA

10,073ha across four properties

## ENTERPRISE

2,500 beef cattle and cropping

## PASTURES

Clermont: buffel, native pastures, leucaena, bambatsi and desmanthus. Clairview: improved tropical pastures, sertaria, Mekong, urochloa and pangola.

## SOIL

Clermont: black and red cracking clay. Clairview: sandy clay loam

## RAINFALL

Clermont: 530mm  
Clairview: 950mm

**“Now, with what we’re learning through NB2, we’ve found ourselves moving towards a position where we have a feedbase that’s productive all year round – for the first time in years, we feel like we could buy more cattle.”**

as the first step towards greater productivity,” Natalie said.

“The business analysis reports we each received were great in allowing the group to come together and identify common areas that need addressing.”

Currently, the Marks are integrating their feedbase program with their herd data and are using the MLA-supported Australian Feedbase Monitor tool to ensure their stocking rates match their carrying capacity.

To further understand their herd productivity, the Marks are also using Black Box Co (a cloud-based software program that links data captured along the beef supply chain) to help interpret herd fertility rates and carcass feedback.

“Looking back on charts from past years, we could see where we missed opportunities to make the most of our feedbase simply because we weren’t as competent with data collection and analysis,” Alice said.

“Now, with what we’re learning through NB2, we’ve found ourselves moving

towards a position where we have a feedbase that’s productive all year round – for the first time in years, we feel like we could buy more cattle.”

**The next steps**

The next step for the Burdekin NB2 producer group, as it enters its second year, is to focus on how they use the group budget, which is funded 50/50 by producers and MLA.

“We postponed using the budget as we wanted the data and the education to ensure we’re spending money on the right things,” Natalie said.

“It’s important everyone feels as though their money is being spent on something worthwhile, so we definitely needed that first year to understand and communicate our business goals.

“Now, entering our second year, I feel as though we have built enough trust in each other to start making choices on where to direct our budgets.”

The Burdekin group will start directing their budget towards data collection in June.

Later in the year, they plan to look at investing in education on herd nutrition and business management.

**Getting involved**

Not long after the Marks signed up to become a part of the NB2 program, the role of producer coordinator for the Burdekin group became available.

Natalie, 20, threw herself headfirst into the program and took on the producer coordinator role for the group of seven producer families.

She juggles the role with her full-time, online study to complete a Bachelor of Psychological Science with a major in Regenerative Agriculture through Southern Cross University.

“With university being as busy as it is, it would have been easy for me to take a back seat or not involve myself in NB2 at all, but it’s led me to have a greater understanding and involvement in our family’s business decisions,” Natalie said.

“I’ve met a lot of knowledgeable people within my coordinator role, and I feel the NB2 program has really provided for young people, such as myself, who’d like to further their knowledge and stay connected to the industry we love.”

She hopes to bring psychology back home at the completion of an honours and masters degree to further help those in the Burdekin region while also using her regenerative agriculture major to pair with the NB2 program and help continue the family business. ■

**How NB2 gives northern producers an edge**

**Northern Breeding Business (NB2) is a joint initiative of MLA and the North Australia Beef Research Council (NABRC).**

NB2 aims to improve the long-term viability of the northern Australian beef industry by:

- enhancing breeding herd performance through improved systems and interventions
- optimising feed production and supply for the breeding herd
- exploring issues in rangeland management and the long-term sustainability of the industry
- turning R&D outcomes into practice change on-farm.

Find out more at [m1a.com.au/nb2](http://m1a.com.au/nb2)

**How it works**

Seven regionally diverse producer groups across northern Australia have been established to provide insight and direction.

Supported by a producer coordinator and an experienced facilitator, groups work together over two years to better understand and explore production, environmental and financial opportunities for their businesses. Producers work on their own business management plans, with the benefit of using fellow group members to exchange ideas.

Any producer who currently operates a beef breeding business in the northern Regional Beef Research Committee regions is welcome to apply for NB2.

**SEASONAL ACTION PLAN**

Use the Australian Feedbase Monitor to understand and manage feedbase productivity. MLA members can access it for free through their myMLA account – learn more at [m1a.com.au/afm](http://m1a.com.au/afm)

Scan this QR code to learn more about production efficiency through NB2’s herd pillar.



Scan this QR code to restock your herd management toolbox with MLA’s Northern beef producers’ resource guide.



Register for the next NB2 program in your region at [m1a.com.au/nb2](http://m1a.com.au/nb2)

# Are you docking to the right length?

**T**ail docking of lambs is a common practice for producers as it often plays a role in ensuring animal welfare. However, if done incorrectly, it can pose a risk to lamb survival.

Veterinarian Dr Joan Lloyd from Joan Lloyd Consulting Pty Ltd said while tail docking is a longstanding practice to reduce lifetime susceptibility to flystrike in sheep, it can have the opposite effect if the tail is cut too short.

Other potential impacts on health because of a too-short tail include:

- slower rate of healing after docking
- greater susceptibility to infection that increases the risk of arthritis
- increases the risk of rectal and uterine prolapse
- makes animals more susceptible to tail cancer (squamous cell carcinoma).

“When tails are docked to the recommended length, sheep are able to lift them – reducing both dag accumulation and the risk of breech flystrike,” Joan said.

## When to dock

The ideal age for tail docking lambs is 2–8 weeks.

“Younger lambs are easier and safer to handle, meaning docking can be done faster and with less stress for both lambs and the operator,” Joan said.

“They also have smaller tail circumference, providing less sensitive tissue which results in a smaller wound.

“If docking is delayed until after eight weeks of age, healing will be slower and the risk of infection will increase.”

Lambs being sold for slaughter prior to high-risk flystrike or dag periods may be exempt from tail docking.

## Best practice

Tail length recommendations were developed from studies conducted by the CSIRO in the 1930s and 1940s and remain relevant today.

“These studies included more than 10,000 Merino sheep across five properties in eastern Australia and gave results that suggested

docking tails either medium-long or long gave significantly better protection and healing quality than medium or short tails,” Joan said.

“In fact, leaving the tail undocked provided better protection against breech flystrike than docking to give medium or short tails.”

Best practice for tail docking involves:

- docking at a minimum of three, preferably four, palpable joints – non-mulesed lambs should have their tails docked no shorter than the fourth
- keeping the caudal folds (flaps of skin that attach the underside of the tail to the lamb’s body) intact
- for ewes, ensure the healed tail covers the vulva.

Figure 1 provides an example of correct tail docking length.

Joan recommends either a gas-heated knife or the Numnuts® device is used. However, tail-docking rings such as those used with the Numnuts® device do not remove the woolly skin on the tip of the tail.

“The lamb-marking knife is not a best practice method for tail docking and using mulesing shears is unacceptable,” Joan said.

“They create a higher risk of bleeding, infection and misshapen deviated tails, so it’s important producers use the right tools to ensure the right results.”

For aftercare following tail docking, Joan advises the following:

- Gently release the lamb onto clean grass so it lands on its feet.
- Return lambs to their mothers as soon as possible – well before dark.
- Check lambs daily (without disturbance which could cause mismothering) for 10 days after docking.
- Yard or catch and restrain any lambs which appear abnormal and treat any complications early. ■



## Pain relief for tail docking

Tail docking is a surgical husbandry procedure which can cause acute pain to the lamb if no form of pain relief is utilised.

Pain caused by routine husbandry procedures is a great concern for producers and consumers alike, which is why providing the best form of pain relief is an essential part of the process.

There are listed pain relief options available for both methods of removing a lamb’s tail.

With the traditional gas knife removal method, a local anaesthetic injected at the site, and/or a nonsteroidal anti-inflammatory drug (analgesic) is advised.

An analgesic gel formulation is available, which is deposited between the teeth and inside of the cheek, as a substitute to other analgesics given via subcutaneous injection.

It’s recommended both a local anaesthetic and an anti-inflammatory are used when possible; however, for this method, the local anaesthetic must be prescribed, and the injection method taught, by a veterinarian. (If a local veterinarian is not available, some may provide a phone consultation and prescription.)

Alternatively, producers may prefer Numnuts®, as the device facilitates the targeted delivery of local anaesthetic to the site of an elastrator ring application.

The anaesthetic delivered by the device has shown to be effective for 40–60 minutes post-marking and can be immediately followed up with a nonsteroidal anti-inflammatory drug.

For both methods of tail docking, the initial dose of a local anaesthetic is important for a lamb as it facilitates standing, moving and mothering up after the procedure.

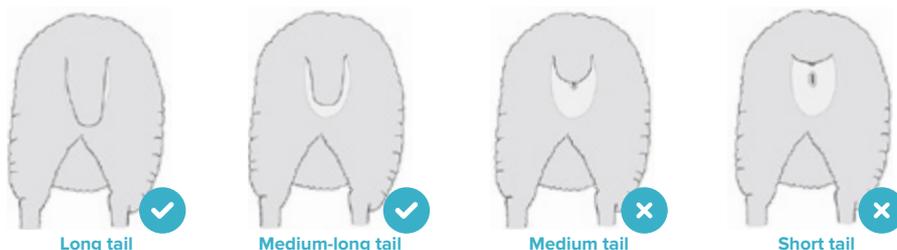


Figure 1. Best practice tail length when docking lambs.

Visit [mла.com.au/sheep-husbandry](http://mla.com.au/sheep-husbandry) to read *A producer’s guide to sheep husbandry practices* to learn more about Numnuts® and tail docking.  
Joan Lloyd [joan@joanlloydconsulting.com.au](mailto:joan@joanlloydconsulting.com.au) Michael Laurence [mлаurence@mла.com.au](mailto:mлаurence@mла.com.au)

# Delivering a sustainable future

**MLA has released our *Sustainability Impact Report 2023* to highlight significant outcomes and impacts from our investments in 2022–23.**

This report outlines our commitments to a sustainable red meat and livestock industry and our part in the wider commitment to a global sustainable future. It is a clear, transparent demonstration of our environment, social and governance commitments to our industry's customers and stakeholders.

#### **Livestock sustainability investment**

The red meat and livestock industry is custodian to more than half of Australia's natural resource base. They're also more exposed to the vagaries of drought, extreme weather and climate change than most other sectors.

Against this backdrop, our sustainability investments in 2022–23 focused on our livestock and our environment.

Positive impacts from our livestock and environment investments, have contributed to a more productive and resilience industry, have protected our biosecurity and market access and opportunities and supported the needs of our customers, consumers and community.

This, in turn, builds our stakeholders' business resilience for future generations.



▶ Turn the page to see how we delivered outcomes with impact over the past 12 months. For MLA's full *Sustainability Impact Report 2023*, visit [mla.com.au/sustainability-hub](https://mla.com.au/sustainability-hub) or scan the QR code.

# Livestock sustainability *impacts* in 2022-23

For sustainability investments to be impactful and valued by our stakeholders and their supply chains, they must improve the financial performance of livestock businesses, environmental outcomes, and the resilience of our industry to the impacts of climate change and extreme weather events.

Here's how we achieved this impact over the past 12 months:

**The Australian red meat and livestock industry has lowered its greenhouse gas (GHG) emissions by 64.8% since 2005 (baseline year).**

Current emissions have dropped from 145.8Mt CO<sub>2</sub>e to 51.3Mt CO<sub>2</sub>e pa. This means that the industry's contributions to national emissions have dropped from 22% in 2005 to 10.3% in 2020.



Australia remained free of all exotic diseases in 2022-23 and escalated its responsiveness to foot-and-mouth disease and lumpy skin disease threats.

68.52% of Australian natural resource management regions are above healthy ground cover thresholds, protecting soil health and ecosystem services.



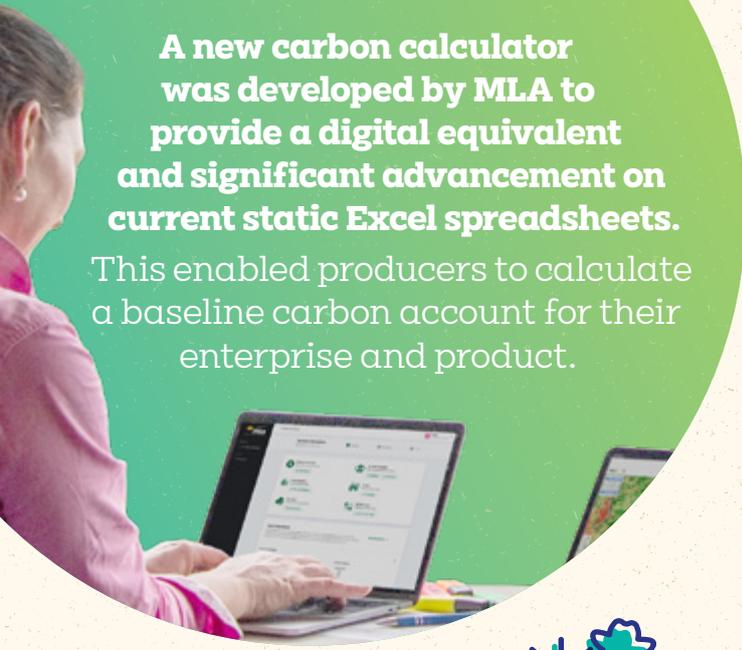
The Australian Beef Sustainability Framework is now reporting with data on 96% of its indicators and the Sheep Sustainability Framework is reporting with data on 90% of its indicators.



**The Australian Beef Sustainability Framework set a blueprint for the sustainability credentials of processor Greenham, with the release of the Greenham Beef Sustainability Standard.**

**A new carbon calculator was developed by MLA to provide a digital equivalent and significant advancement on current static Excel spreadsheets.**

This enabled producers to calculate a baseline carbon account for their enterprise and product.



New and improved MERINOSELECT Indexes were developed to incorporate key sustainability traits.



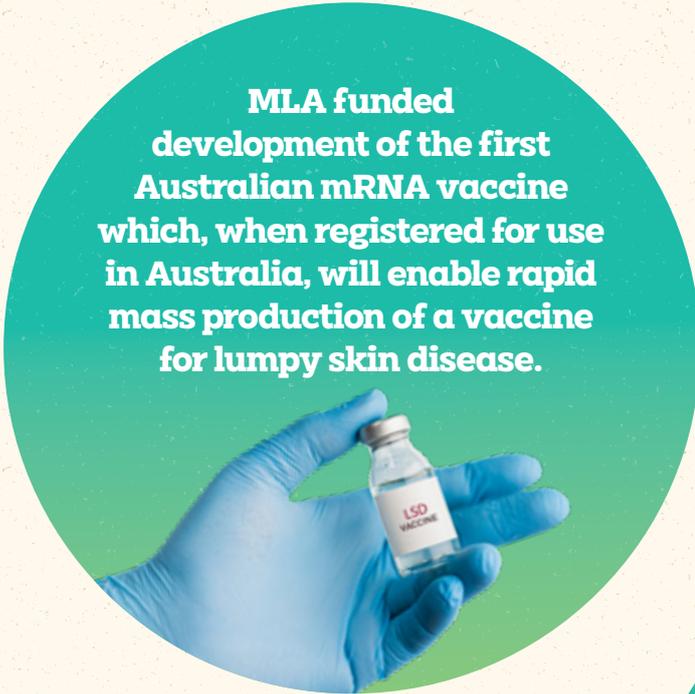
**Integrity Systems Company (MLA's subsidiary) developed the eNVD Livestock Consignment app.**

It defied connectivity barriers to enable the transfer of livestock consignment information to be captured digitally and seamlessly, independent of location and connectivity.

New Carbon eLearning modules were developed to boost producers' understanding of carbon accounts and markets.



**MLA funded development of the first Australian mRNA vaccine which, when registered for use in Australia, will enable rapid mass production of a vaccine for lumpy skin disease.**



MLA partnered with leading supply chain partners to demonstrate practical ways for industry to achieve CN30 – the five partners have completed their carbon baselines.

Bioenergy overtook onsite coal use as the third largest source of energy in the Australian red meat processing sector.



**Cibo Labs and MLA partnered to develop the Australian Feedbase Monitor.**

This game-changing tool enables producers to accurately measure their daily and seasonal feedbase status and adjust their carrying capacity and grazing management practices in response to feed availability and seasonal changes.



Read how Australian red meat producers, processors and other industry stakeholders are taking sustainability actions in their own businesses. Scan the QR codes to learn more or visit [mla.com.au/sustainability-hub](https://mla.com.au/sustainability-hub)



### Sustainability pathways to meet market demand

The *Australian Beef Sustainability Framework* sets the blueprint for the development of Victorian-based processor Greenham's *Greenham Beef Sustainability Standard*, in response to escalating market demand for robust and transparent environmental credentials.



### Enhanced livestock traceability

The new eNVD Livestock Consignment App overcomes connectivity issues for livestock producers. For NSW sheep producer Tom Marriott, the eNVD app has improved livestock consignment processes, giving him the ability to transfer documentation from phone to transporter to processor without the need for internet connectivity or reception.



### Resilient grazing management systems

Combining trees with cattle production is delivering a more resilient and sustainable grazing system for Central Queensland grassfed cattle producers, Adam and Jacynta Coffey. They are participating in MLA's CN30 Steak 'n wood project to gain a better understanding of how to combine trees with pasture and cattle production for financial and ecological benefits.



### Real-time feedbase data to prepare for changing seasons

The Australian Feedbase Monitor tool provides producers with valuable current and historical feedbase data to guide more informed decisions on carrying capacity and grazing practices in harmony with feed availability and seasonal conditions.



## Sustainability toolkit

Check out these sustainability resources and tools:

### Industry resources

Red Meat 2030 Strategic Plan  
[rmac.com.au/red-meat-2030](https://rmac.com.au/red-meat-2030)

MLA's Strategic Plan 2025  
[mla.com.au/strategicplan](https://mla.com.au/strategicplan)

MLA's sustainability hub  
[mla.com.au/sustainability-hub](https://mla.com.au/sustainability-hub)

Carbon Neutral by 2030 (CN30)  
[mla.com.au/cn30](https://mla.com.au/cn30)

CN30 Roadmap  
[mla.com.au/cn30-roadmap](https://mla.com.au/cn30-roadmap)

Carbon neutral catalogue of products and services  
[mla.com.au/cn30-catalogue](https://mla.com.au/cn30-catalogue)

### MLA carbon accounting resources

Carbon Calculator  
[carbon-calculator.mla.com.au](https://carbon-calculator.mla.com.au)

Carbon 101 eLearning modules  
[mla.com.au/elearning-carbon101](https://mla.com.au/elearning-carbon101)

Carbon accounting training  
[piccc.org.au/education/carbonneutraltraining](https://piccc.org.au/education/carbonneutraltraining)

### Industry sustainability frameworks

Australian Beef Sustainability Framework  
[sustainableaustralianbeef.com.au](https://sustainableaustralianbeef.com.au)

Sheep Sustainability Framework  
[sheepsustainabilityframework.com.au](https://sheepsustainabilityframework.com.au)

### Grazing management and feedbase management resources

MLA Australian Feedbase Monitor  
[mla.com.au/afm](https://mla.com.au/afm)

MLA grazing land management hub  
[mla.com.au/grazing](https://mla.com.au/grazing)

MLA feedbase hub  
[mla.com.au/feedbase-hub](https://mla.com.au/feedbase-hub)

MLA soils hub  
[mla.com.au/healthy-soils](https://mla.com.au/healthy-soils)

MLA legumes hub  
[mla.com.au/legumes-hub](https://mla.com.au/legumes-hub)

Feedbase planning and budgeting tool  
[etools.mla.com.au/fbrp](https://etools.mla.com.au/fbrp)

Pasture improvement calculator  
[mla.com.au/pasture-improvement-calculator](https://mla.com.au/pasture-improvement-calculator)

Feedlot resources  
[mla.com.au/feedlot](https://mla.com.au/feedlot)

Stocking rate calculator  
[mla.com.au/stocking-rate-calculator](https://mla.com.au/stocking-rate-calculator)

Pasture health kit  
[mla.com.au/persistentpastures](https://mla.com.au/persistentpastures)

### MLA livestock management and animal wellbeing resources

MLA genetics hub  
[genetics.mla.com.au](https://genetics.mla.com.au)

Sheep Genetics  
[sheepgenetics.org.au](https://sheepgenetics.org.au)

Pain relief resources  
[mla.com.au/pain-relief](https://mla.com.au/pain-relief)

Animal welfare  
[mla.com.au/animal-welfare](https://mla.com.au/animal-welfare)

### MLA integrity resources

eNVD Livestock Consignment App – download from App Store and Google Play Store

National Livestock Identification System (NLIS)  
[integritysystems.com.au/nlis](https://integritysystems.com.au/nlis)

Livestock Production Assurance (LPA)  
[integritysystems.com.au/lpa](https://integritysystems.com.au/lpa)

Livestock Data Link (LDL)  
[integritysystems.com.au/ldl](https://integritysystems.com.au/ldl)

National Feedlot Accreditation Scheme (NFAS)  
[ausmeat.com.au/services/list/livestock/nfas](https://ausmeat.com.au/services/list/livestock/nfas)

### MLA community resources

Australian Good Meat  
[goodmeat.com.au](https://goodmeat.com.au)

Red Meat. Green Facts  
[redmeatgreenfacts.com.au](https://redmeatgreenfacts.com.au)

MLA Healthy Meals  
[mlahealthymeals.com.au](https://mlahealthymeals.com.au)

# Leading the field

## Nuffield Scholar, leadership coach and consultant Tammy Kruckow knows a thing or two about leadership.

The 15 years she spent leading teams on northern pastoral properties – plus another six in recruitment and training – set her in good stead for her current role coaching others on how to make the most of their teams and, importantly, become leaders that people want to work for.

Her MLA Profitable Grazing Systems (PGS) course, 'Lead with Certainty', does just that, with each participant gaining valuable insights into who they want to be as a leader and how their personality and communication style meshes with those of their team members.

### Changing times

During her time in the northern pastoral industry, Tammy often witnessed leadership styles which were the result of a lack of training and a tendency to stick with traditional approaches.

"If we don't know any better, we tend to lead like the leaders before us – and a lot of leaders weren't given leadership skills, which has a flow-on effect such as burn-out and poor staff retention," she said.

"Upskilling your team to have a good mindset, self-awareness and awareness of others before they enter leadership positions will set them up for success, not only in the workplace but for life in general."

### Thinking above the line

Tammy introduces the PGS course participants to the concept of thinking 'above and below the line'.

"Thinking below the line is our unresourceful thinking, for example when we are in blame, denial and making excuses," she said.

"Above the line thinking is our resourceful thinking which includes taking ownership and responsibility and being accountable."

Tammy believes 80% of success is mindset.

"The mindset of your team can make or break your business. Sometimes it only takes one person to be below the

line to bring your whole team culture down, causing a flow-on effect of teams being unproductive and even causing an increase in workplace incidents."

### Finding the right fit

When it comes to hiring staff, the remoteness of the northern beef industry presents a challenge as most interviews are online or over the phone. This can make it hard to get to know the people you're hiring.

Tammy's recruitment tips include:

- start with a good mindset
- be well prepared – have a written position description
- know the skills and character traits you require
- use good quality questions which aren't only skill-based.

Focusing solely on practical skills can be a missed opportunity.

"Ask what motivates them – have a chat, so you get a general idea of who they are and their background. This will help you read between the lines and know whether they'd be a good fit," Tammy said.

Creating workplaces where people feel valued, respected and have a clear career path can increase staff retention and ultimately, business productivity.

Part of this is also recognising the industry's generation gap, and that older and younger team members like to lead, and be led, differently.

"The more awareness and acceptance we have for everyone around us, the better we can work together," Tammy said.

### Leading effectively

Key to being a great leader is knowing leadership isn't a 'sometimes affair' – you can't turn it on and off as you please.

"There's a lot of pressure on leaders in the northern beef industry. Not only are they



Leadership coach and consultant, Tammy Kruckow.

looking after a large cattle enterprise, they generally have large teams to lead as well.

"When we have inexperienced leaders who aren't equipped with a good mindset and self-awareness, decisions are often reactive instead of proactive, which can cause a lot of uncertainty in the team," Tammy said.

An effective leader:

- communicates clearly and calmly
- listens to hear and not only to respond
- is empathetic and emotionally fit
- is self-aware. ■

➤ Turn to page 32 to read about an effective approach to leadership on an NT property.

### Profitable Grazing Systems (PGS)

PGS takes small groups of like-minded producers who want to improve their whole-farm performance and matches them with a deliverer who builds their knowledge, skills and experience through hands-on training.

🔗 Find out more at [mla.com.au/pgs](http://mla.com.au/pgs)

### Lead with Certainty PGS

Participants will:

- undertake DISC personality profiling and understand how this informs their leadership style
- assess their team culture and its strengths and weaknesses
- identify their values and goals.

The course can be tailored to a range of participants, including farm owners and managers as well as more junior leadership roles in a pastoral business.

Richly biodiverse pastures at 'Andado' nourish 8,000 Droughtmaster and Angus cattle. Image: Raquel Costello.

# Building a strong team in the bush

## A strong workplace culture is crucial on expansive enterprises such as the family-owned and managed organic beef operation, 'Andado Station'.

It's one of five Crown Point Pastoral properties, which collectively span four million hectares (40,000km<sup>2</sup>) of the NT, and for the past decade has been home to Raquel and Peter Costello.

They've fostered a supportive workplace for their small team of station hands, domestic workers and a governess for their children, Beau and Charlotte.

Andado's remote location, five hours from Alice Springs, requires staff to live and work together full-time. This has necessitated a leadership style which caters to each team member's communication style, personality, career goals and wellbeing.

Taking part in MLA's Profitable Grazing Systems (PGS) professional development course, Lead with Certainty, has bolstered the Costellos' confidence as leaders and provided welcome advice for facing their challenges. (Turn to page 31 to read more about this course).

"It inspired us to endeavour to keep our workplace positive and productive – somewhere our team is happy to call home," Raquel said.

Hand-in-hand with this sentiment is the importance of building – and retaining – a team which is both self-reliant, and can be relied on.

Raquel and Peter attended Lead with Certainty alongside Pernille Nielsen, leading hand at Crown Pastoral's 'New

Crown Station', and Raquel's brother, station hand Kurt Eldridge. They came away with practical insights to instil this across different teams in the business, at all levels of leadership.

"These sorts of courses can be confronting for people from the bush, and we wondered if it would be relevant to the whole team, but our coach Tammy Kruckow pitched it to a range of levels and tailored it specifically to our situation," Raquel said.

"She created a comfortable environment, and I would recommend it to anyone wanting to grow in this area."

### Showing up, every day

A goal Raquel set for herself before the course was to better understand leadership and what it really means day-in, day-out.

"Something which hit home for me during the course was that you can't switch it on and off. Tammy instilled in us that being a good leader is not just when you feel like it, it's 90% of the time, and that can be challenging at times," Raquel said.

Increased self-awareness of her own and her team's personalities and communication styles through the course's DISC profiling activity has given Raquel insights into how team members can better relate, particularly in times of stress. Learning how to manage unhelpful thinking has been valuable.

## SNAPSHOT



**RAQUEL AND PETER COSTELLO**, 'Andado Station' (Crown Point Pastoral), Alice Springs, NT



**AREA**  
1 million ha

**ENTERPRISE**  
8,000 organic grass-fed Droughtmaster and Angus cattle

**PASTURES**  
Mixed land systems include gibber plains, sandhill country and Finke River floodplains

**SOIL**  
Clay, sandy

**RAINFALL**  
150–200mm

"Tammy emphasised being aware of how long we're engaging in negative thinking patterns. It means letting yourself be in that zone but giving yourself a time frame for how long you remain in that mindset. Am I going to spend the whole day feeling like this?" Raquel said.

Pernille also came away with insights into creating a positive team dynamic.

✓ Raquel and Peter Costello with their children Beau and Charlotte. Image: Raquel Costello.



## “We’ve changed the way we conduct our interviews by asking more quality questions to ensure they are a good fit for the team we are creating.”

“It gave me some great, practical tools on leadership and teamwork and how to improve communication, productivity and conflict management in the workplace,” Pernille said.

### A stronger team

Raquel and Peter have enacted some positive changes since attending the course.

“We better recognise the importance of team culture and have gained confidence as leaders,” Raquel said.

“During recruitment, we now focus on soft skills like personality and communication styles.

“Getting skilled workers can be difficult out here, sometimes we find shifting the focus to hiring on attitude and personality can be effective. You can ask them about their hobbies and be attentive to how they talk about themselves.

“We’ve changed the way we conduct our interviews by asking more quality questions to ensure they are a good fit for the team we are creating.”

She said team building is key.

“We believe keeping the team connected is really important. We often catch up with

them after work on a casual basis to get a gauge on how everyone is going, and we also make sure we go to as many district get-togethers as we can. If there’s a town rodeo, we aim to fit in their time off around those events,” Raquel said.

### Staff retention

Andado’s remote location means no matter how great the culture, people will inevitably have their own plans for how long they want to stay. It can often be an experience many wish to tick off their list.

“Many will stay for a year or a season and then move on. Some station hands will stay two to three years which is fantastic – rehiring can be a constant part of the job,” Raquel said.

One strategy to streamline the process for training new staff has been to develop manuals and induction resources.

Offering career development is also important.

“We want to get better at mentoring staff – we try to upskill them while they’re here. If they show an interest in a particular area, we’ll help them focus on that and send them to courses if they show potential. It helps them and it helps us,” Raquel said. ■

### LESSONS LEARNT

- ✓ Consider the mix of ages and personalities when hiring, particularly on remote stations.
- ✓ Effective leadership is consistent leadership – you can’t pick and choose when to be a good leader.
- ✓ A focus on social wellbeing boosts morale.

### SEASONAL ACTION PLAN

- ! Use quiet times during the year to update induction resources, such as operating manuals.
- ! Plan for staff shortages by starting recruitment well in advance.
- ! Get on the front foot by setting out a professional development schedule for the coming months.

### TO DO



- 📌 Sign up for a Profitable Grazing Systems course: [m1a.com.au/pgs](https://m1a.com.au/pgs)
- 📌 Attend an EDGenetwork practical workshop in business management, breeding, grazing land management or nutrition: [m1a.com.au/edgenetwork](https://m1a.com.au/edgenetwork)
- 📌 Access extension, training and tools: [m1a.com.au/extension-training-and-tools](https://m1a.com.au/extension-training-and-tools)





# Hot tips for top heifers

Participants in the heifer management PDS practice condition scoring during one of the project's skill-building sessions. Image: Meg Bell.

**B**eef producers in the high rainfall zone of SA's Limestone Coast region are making headway in improving breeder reproduction rates from heifers through to their second calving.

More than 30 producers – representing 19 beef businesses which collectively run 18,000 breeders across 50,000ha – are involved in a three-year, Producer Demonstration Site (PDS) with MacKillop Farm Management Group (MFMG) and the University of Adelaide. (This is a producer co-contributor PDS funded by MLA and MLA Donor Company).

They're developing and adopting best practice management systems to reduce reproductive losses and boost the health, nutrition, welfare and profitability of their herds.

The PDS involves expert-facilitated peer learning sessions at participants' properties, assisted by a team of researchers, veterinarians and agronomists.

The PDS project facilitator, livestock consultant Elke Hocking, said the on-farm sessions were an important source of peer learning, and drove adoption of more investigative approaches to solve reproductive issues.

"Producers are comfortable discussing the 'good, bad and ugly' and learned a range of skills including body condition scoring, pasture assessment, genetics and bull selection to meet breeding objectives, pregnancy scanning and more," Elke said.

Here, Elke shares seven insights from the project.

## 1 Monitor to measure

Elke's number one tip to improve heifer reproductive outcomes is to monitor and measure from the start – know the mature weight of your adult cows to set realistic target joining and calving weights for heifers.

"Continual monitoring of body condition score and liveweight throughout their reproductive cycle will help inform management decisions and demonstrate whether you're achieving objectives," Elke said.

In 2021, the PDS participants joined a monitor mob of 2020-drop heifers, which calved down in 2022. They collected liveweight and feed on offer measurements at weaning and joining, as well as pregnancy status, animal health and subsequent calving results through to their second calving in 2023. Results will be available for analysis by the end of 2023.

## 2 Weigh to go

As some producers were not regularly weighing cattle, and many didn't know the reference weight of their adult cows, Elke said this information is important to set realistic targets for joining.

The recommended heifer joining target is 60% of mature cow weight. For example, this will be 330kg for a herd with 550kg mature cows, whereas in a herd with 700kg cows, the target is closer to 420kg.

"Reference weight is best obtained two weeks after mature cows' calves are weaned, preferably at body condition score (BCS) 3," Elke said.

"Each additional BCS is worth about 70–100kg (depending on breed) so you'll need to adjust your reference weight back to what they'd be at BCS 3."

## 3 Don't overlook pasture

Meeting breeders' nutritional needs requires good skills in pasture assessment and the ability to calculate supplementary feeding rates to meet shortfalls.

It's important to test and measure pasture and feed availability.

"This ensures nutritional requirements are met during pregnancy so you're able to reach growth rate targets," Elke said.

"Poor joining and reproductive rates can be due to a lack of energy in pasture. Know your feed on offer."

## 4 Get the balance right

Generally, the higher the body weight, the higher the reproduction rate. However, within different calving systems, some pasture and liveweight targets are more critical than others.

"For a late spring joining with a winter calving, liveweight at the start of joining is not as critical due to high growth rates from the increased flush of high quality spring feed available," Elke said.



Farm consultant Tim Prance demonstrates pasture testing and assessment to the group. Image: Meg Bell.

Table 1: Calving system management calendar. This table represents timelines for three of the most common systems amongst the project participants.

Season	J	F	M	A	M	J	J	A	S	O	N	D
Autumn		Calving			Joining		Preg test					Wean
Winter	Wean					Calving		Joining			Preg test	
Spring		Preg test	Wean					Calving			Joining	

“However, liveweight becomes more critical for autumn calving systems with a May/June joining as there’s usually lower pasture availability and low growth rates of livestock during winter months.”

## 5 Focus on fertility

The PDS has been linked into a University of Adelaide project aimed at optimising heifer development and management (see article on right on right).

A key metric within this is ‘wet and pregnant early’ (WAPE), a measure which describes a heifer successfully getting in calf, raising a calf and getting back in calf within the first six weeks (two cycles) of joining. Once WAPE is achieved, heifers tend to be productive and robust as mature cows.

While pregnancy scanning for wet/dry can be done from six weeks after bull removal until one month prior to calving, fetal aging is a tool that can drive reproductive efficiency to achieve WAPE.

Fetal aging can be done 14–15 weeks from the start of joining and can identify heifers that got pregnant in the first cycle and those who took an additional cycle to conceive.

“Some group members are preferentially retaining these early fertile heifers and either selling the ‘lates’ or calving them down as a separate mob for easier management during calving,” Elke said.

For examples of energy requirements for different livestock classes see Table 1 in the *More Beef from Pastures online manual*.



## 6 Bulls matter

Fixed-time AI condenses calving and allows heifers more recovery time before second joining. It’s a cost-effective way to attain top genetics, however it’s labour intensive and still requires back-up bulls to be used.

Producers should check bulls for fertility and reproductive diseases prior to joining.

“There’s nothing worse than a dud bull shooting blanks. Once cows are through their second pregnancy, they’re pretty bullet proof – any issues are likely due to either the bull or disease,” Elke said.

Clear breeding objectives and selecting bulls based on estimated breeding values (EBVs) for desired traits will deliver results. The EBV most closely associated with getting heifers in calf early is Days to Calving.

Scan this QR code to read how another PDS used fixed-time AI to improve heifer productivity.



## Putting research into practice



✓ Davies Livestock Research Centre director Professor Wayne Pitchford and PDS project facilitator and consultant Elke Hocking. Image: Meg Bell.



✓ Veterinarian Sean McGrath provided advice on reproductive health issues during the project.



Streamlining the delivery of research outcomes to producers was one of the key factors behind the decision to link this PDS to the University of Adelaide’s ‘*Optimising heifer development and management to increase whole herd productivity*’ project.

The project is led by Dr Michelle Hebart and falls under the university’s Davies Livestock Research Centre.

“It’s two-way, we’re getting access to research results hot-off-the-press and simultaneously, producers are informing researchers how they want findings delivered. Having researchers on the ground is truly collaborative – it’s one of the most exciting parts of the project,” PDS facilitator Elke Hocking said.

Producers are testing a calculator being developed by University of Adelaide’s Darren Koopman to determine the economic impact of various reproductive rates and management decisions.

Once finalised, it will help answer whether increasing heifer conception rates to 88–90% will translate into increased profitability. The calculator is due to be released in late 2023.

**“Having researchers on the ground is truly collaborative – it’s one of the most exciting parts of the project.”**

Veterinarian Dr Sean McGrath has been instrumental in investigating how animal health, husbandry and welfare issues impact reproductive performance. At each session he’s answered producers’ animal health questions around monitoring and testing for worms, trace elements and reproductive diseases, bull testing, managing dystocia and ‘when to call the vet’.

Sean oversaw calf post-mortems to identify causes of death and advocates for an investigative approach in preventing problems. Producers have increasingly sought more accurate diagnostic procedures – with access to project funding for blood testing and Sean’s expertise invaluable.

Sean identified intestinal worms and trace element deficiencies (copper, cobalt and selenium – common in many southern Australian regions) as the main health issues impacting reproduction efficiency – the main effect being heifers not reaching target weights. He advises proactive testing and supplementation for any deficiencies and watching egg counts in young stock post weaning after the autumn break. Well-timed use of treatments will keep stock on track.

“Preventative plans and using strategic control points such as summer drenching or appropriately timed trace element supplementation, can ensure heifers are getting to target weights for joining and calving,” Sean said.

## 7 Combat dystocia

Rethinking how to combat dystocia, a common cause of reproductive loss, led the PDS group to some new genetic insights.

“No-one wants to pull calves – it’s hard work and a significant factor in cow and calf mortality,” Elke said.

“For many producers, selecting for shorter gestation and calving ease EBVs has been key to reducing dystocia in heifers, along with low to moderate birth weights.

“Limiting feed in heifers prior to calving to reduce birth weights to help prevent

dystocia can backfire with heifers lacking energy to push calves out.

“Heifers need adequate nutrition throughout late pregnancy to sustain their growth rates and milk production, in addition to growth of the fetus,” Elke said.

It’s equally important that heifers grow well prior to joining and in the first half of pregnancy.

This means they don’t have to catch up during the second half of their pregnancy when there’s the risk of nutrition increasing calf size.

Continued next page

Continued from previous page

## Four ways to target heifer productivity

- 1 To achieve 85% conception rate in six-week heifer joinings, aim for pre-joining liveweights of 60% of mature cow weight.
- 2 To optimise re-conception, the target liveweight for heifers leading into their first calving is 85–90% of the mature cow reference weight. BCS of 3 and high quality feed on offer will also contribute to re-conception success.
- 3 Heifers are still growing so they have specific nutritional requirements – measure feed availability accordingly. Keep them on track to reach growth-rate targets before joining.
- 4 Test and measure rather than guess – blood tests will identify any mineral deficiencies or animal health issues.

### SEASONAL ACTION PLAN

- Shore up your feedbase to provide optimal nutrition for reproductive success: [mla.com.au/feedbase-hub](http://mla.com.au/feedbase-hub)
- Upskill in heifer nutrition for reproductive success at a Heifers for Profit PGS workshop: [rist.edu.au/heifers-for-profit](http://rist.edu.au/heifers-for-profit)
- Develop an annual health plan with your vet. Scan this QR code to see ParaBoss's worm control calendar or visit [paraboss.com.au](http://paraboss.com.au)



### TO DO

- Access Producer Demonstration Site (PDS) resources – including the e-news, the PDS search tool and how to get involved: [mla.com.au/pds](http://mla.com.au/pds)
- Understand estimated breeding values (EBVs): [genetics.mla.com.au/temperate](http://genetics.mla.com.au/temperate)
- Scan this QR code to read how another project participant has improved reproductive efficiency at 'South Killanoola' in the summer 2022 edition of *Feedback*, page 28.
- Listen to a podcast on this project: (season 2, episode 2); [mackillopgroup.com.au/the-prosperous-farmer](http://mackillopgroup.com.au/the-prosperous-farmer)
- Visit MLA's new grazing land management hub: [mla.com.au/grazing](http://mla.com.au/grazing)



- Scan the QR code to learn more about this PDS.
- Elke Hocking [elkehocking@gmail.com](mailto:elkehocking@gmail.com)
- Sean McGrath [smcgrath95@gmail.com](mailto:smcgrath95@gmail.com)
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- Alana McEwan [amcewan@mla.com.au](mailto:amcewan@mla.com.au)



# Robust herd benefits from new insights

**D**arcy Bateman and his father Chris have a tried and tested approach which achieves strong fertility and productivity outcomes in their south-east SA mixed enterprise – but they're open to new ideas.

Their involvement in a local Producer Demonstration Site (PDS) project looking at reproductive health and management practices for beef heifers (see story page 34), informed some potentially profitable tweaks to their breeding strategy.

#### PDS a timely refresher

Darcy, who recently returned home after almost a decade studying and working as a project manager in the construction industry, was keen to join the PDS to brush up on his skills.

He said hearing from other producers about their different management styles and production systems was valuable.

"We also had access to a range of presenters who spoke about economic modelling of different herd compositions and reproductive and metabolic diseases," Darcy said.

For example, veterinarian Sean McGrath facilitated animal health testing to investigate possible contributors to some animal health issues in their herd – blood tests taken from heifers with lower condition

scores revealed markers pointing to kidney damage resulting from plant toxicity.

"We gave the heifers a drench and improved their nutrition – we moved them to a paddock with more food on offer which was of better quality," Darcy said.

#### Breeding strategy

The Batemans run a self-replacing herd of Hereford/Simmental-cross and Angus/Black Simmental cows. They use Angus bulls in the top 30% for the Calving Ease estimated breeding value (EBV) over heifers, while Hereford and Simmental bulls are used over mature breeders.

Their established crossbreeding approach to derive hybrid vigour (heterosis) has yielded strong results, with progeny exhibiting greater size, growth rates and fertility than their parents.

"It's interesting to see bull EBVs translate into our bullock carcass data – our Simmental-cross bullocks consistently achieve higher Eye Muscle Area (EMA) values, while our Hereford-cross and Black Simmental-

## SNAPSHOT



**DARCY AND CHRIS  
BATEMAN**, 'Cheverton',  
Furner, SA



### AREA

1,400ha

### ENTERPRISE

500 Hereford/Simmental-cross cows  
and Angus/Black Simmental cows

### PASTURES

Perennial pastures (phalaris, subclover  
and strawberry clover base)

### SOIL

Grey sand over clay, black cracking clay

### RAINFALL

670mm

## LESSONS LEARNT

- Continually monitor heifers to meet their nutritional requirements throughout their reproductive cycle.
- Key profit drivers correlate to different management tools, such as managing stocking rate throughout the year, timely preg-testing and selecting bulls for required genetics.
- Peer-to-peer discussions enabled sharing of experiences around what worked and what didn't work in each other's businesses.

## ENTERPRISE CALENDAR

- Joining:** Bulls in with heifers 5 May 2023.
- Pregnancy scanning:** This varies depending on season – however scanning will occur at six weeks after bulls come out (differs when fetal aging is required).
- Condition scoring:** Continuous monitoring at every handling in yards and in paddock.
- Calving:** 15 February 2024 for six weeks.
- Weaning:** Mid-December 2024 (subject to seasonal conditions).



Darcy Bateman and his Hereford-cross heifers with their first calf at foot by an Angus bull. Image: Darcy Bateman.

Angus bullocks achieve better marbling scores," Darcy said.

The Batemans grow bullocks out to target 340kg dressed weight to meet Grasslands/PCAS specifications at 18–21 months. One of their bullocks recently won reserve grand champion carcass at the annual Southern Grassfed Carcass Classic at Lucindale.

### Stringent standards

The Batemans wean in December.

Heifer weaners are generally run on perennial pastures and receive supplementation (such as ryegrass/clover hay) through autumn until after mating.

Heifers are joined at 14–15 months, and the Batemans' management has resulted in a long-term average pregnancy tested in calf (PTIC) rate of 85%.

"We pay stringent attention to any structural or temperament issues and meticulously cull heifers after preg-testing if they don't meet required standards," Darcy said.

### Trialling new management

Previously, they used a six-week joining. However, Darcy aims to adjust his joining schedule this year – moving to a split joining of four weeks, with a one to two-week break followed by another three-week joining – resulting in two calving periods.

"Our mob sizes vary a bit at joining, but bulls are generally run at approximately 3–4% in cows and 2.5–3% in heifers. The ratio will remain unchanged at this stage.

"We trialled this in 2022 in a different mob sold as PTIC every year and found that 65% of retained heifers from the second joining had calved within the first week of the due date.

"Providing we get a favourable preg-scanning result, we'll retain as many heifers in the first calving cycle as possible to tighten up the spread in calf phenotypes as they're marketed," Darcy said.

### Rethinking EBVs

Throughout the PDS, Darcy has followed a 'monitor mob' of heifers, from weaning age to turning off their second calf.

Body condition score (BCS) and weight were recorded during different periods to determine what relationship exists between BCS and conception rates.

"It's been interesting reviewing scanning results and identifying their relationship to BCS and percentage of mature cow weight (MCW) at joining," Darcy said.

The PDS learnings have seen Darcy branch out from initially prioritising Calving Ease and Scrotal Size EBVs when considering fertility in bulls. He now also considers Days to Calving – rather than lower birth weights – to ensure calves' eventual size at maturity is not compromised.

He's also drawing on the data generated by the PDS to investigate the heritability of conception rates, particularly out of leaner-type bulls. ■

**"We pay stringent attention to any structural or temperament issues and meticulously cull heifers after preg-testing if they don't meet required standards."**



- Producer Demonstration Site (PDS) news, resources and to get involved: [mla.com.au/pds](https://mla.com.au/pds)
- Genetics hub: [genetics.mla.com.au](https://genetics.mla.com.au)
- Shore up your feedbase: [mla.com.au/feedbase-hub](https://mla.com.au/feedbase-hub)
- Darcy Bateman [darcy.bateman@gmail.com](mailto:darcy.bateman@gmail.com)
- Alana McEwan [amcewan@mla.com.au](mailto:amcewan@mla.com.au)

# Powering up pastures after drought

**P**roducers on the NSW Northern Tablelands have new productivity-boosting strategies to improve pastures following drought.

An MLA-funded Producer Demonstration Site (PDS) is being run by the Northern Pastures Group and the Glen Innes Natural Resources Advisory Committee (GLENRAC) to guide producers to develop pasture improvement plans.

The project is run by Lu Hogan of the University of New England and Alex Ball of Rural Analytics. As local producers themselves, they have a first-hand understanding of how previous droughts have left many pastures in the region severely degraded or beyond recovery.

“We could see how pastures had changed in terms of productivity and performance, and we were two of many producers wondering how we were going to restore our feedbase,” Lu said.

“The need to have a pasture plan which not only improved the current state of our on-farm productivity levels, but was also cost-effective was paramount.”

## Weeds and soil constraints

An early focus of the PDS, which began in 2021 and runs for six years, was weed control and, in some cases, soil constraints.

“For many of our producers involved in the program, spraying out old pastures and fodder cropping has proven to be effective for managing weed control,” Lu said.

“It’s often thought that a long period of fallow and weed control with no financial return is required prior to sowing pastures in the New England. However, we found this preparation phase can provide greater economic returns than originally thought.”

See case study below for more details about the return on investment of pasture management strategies.



✓ Corn silage sown at Bridgewater before harvest.

## Corn silage provides cost-effective fodder

**F**ollowing the drought that stretched across the NSW Northern Tablelands in 2018–2019, many producers in the region went on the hunt for cost-effective ways to replenish and improve pasture conditions.

John and Caroline Chappell, who were among those impacted by the drought at their Dundee property, found the answers when they hosted an MLA Producer Demonstration Site (PDS), run by Northern Tablelands Pastures Group – see story above.

In 2020, a 23ha paddock sown with lucerne and brassica on their property,

‘Bridgewater’, was chosen for the PDS, with plans to re-sow the area with lucerne.

However, the following spring, Chilean needle grass was discovered in the trial paddock, and the need to control it became just as important as replenishing fodder reserves.

“After seeking advice from an agronomist, we made the decision to sow corn for

silage as it provides a range of options for chemical control of broadleaf weeds and grasses pre and post-emergence – that would not have been possible if lucerne had been sown,” John said.

## Harvesting rates

Prior to sowing, feedlot manure was spread across the paddock at a rate of 22t/ha and glyphosate was sprayed twice.

After sowing in November, DualGold® and PrimeextraGold® were applied for post-emergent weed control.

“Unfortunately, we saw 452mm of rainfall during the summer of 2021–2022 which made the weed control less effective,” John said.

“As a result, approximately 2ha of the paddock could not be harvested.”

Contractors harvested the corn in late April 2022 before delivering it to the on-farm silage pit, where it was rolled and inoculated.

This process:

- improves fermentation
- reduces the chances of major spoilage
- prevents nutritional loss
- keeps silage fresh for as long as possible in the pit
- significantly reduces secondary fermentation (heating) when the silage is fed out.

### Winter action

Lu said winter is the ideal time for producers to start considering a pasture plan in preparation for spring.

Here are her three tips for this time of year:

1. Use the winter period to take soil samples and analyse the current state of your pastures.
2. Seek advice from your local agronomist about weed spraying and soil preparations – this is an essential part of planning before you commence a pasture improvement program.
3. Consider your livestock production goals as well as future climatic impacts – especially those which are likely to occur in spring – when choosing pasture species.

### Monitor forecasts

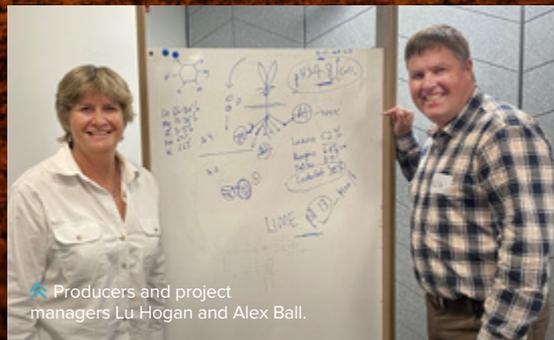
Last year, the PDS host farms experienced extremely wet conditions following the

drought – this resulted in weed control becoming ineffective, and seed loss due to waterlogging.

“When it comes to planning your program, keep an eye on the medium to long-term weather forecast,” Lu said.

“If producers are heading for a prolonged dry period, they need to ensure they’ve got adequate soil moisture before sowing.

“If a wet period is predicted, producers will need to consider holding off on spraying and sowing until a dry window appears.” ■



Producers and project managers Lu Hogan and Alex Ball.

### SEASONAL ACTION PLAN

Take soil samples to assess what’s happening under the surface of your paddocks [mmla.com.au/healthy-soils](http://mla.com.au/healthy-soils)

Monitor seasonal forecasts to help determine sowing times with [bom.gov.au](http://bom.gov.au)

Seek advice from your local agronomist, vet or livestock advisor to determine what your pasture needs.

### Crunching the numbers on corn silage

The total cost of silage delivered to the pit at ‘Bridgewater’ was \$67/t wet and \$168/t dry assuming 40% dry matter. Here’s a closer look at the economics of producing the corn silage.



Growing costs	\$/ha
Feedlot manure – spread	\$648
Pre-crop glyphosate x 2	\$115
Disc paddock x 2 (contract)	\$132
Seed, sowing and post-emergent chemical	\$522
<b>Subtotal</b>	<b>\$1,417</b>

Ensiling* costs	\$/ha
Plastic	\$99
Fuel	\$106
Chop, transport and roll	\$818
Inoculant	\$159
<b>Subtotal</b>	<b>\$1,181</b>

<b>Total cost per ha</b>	<b>\$2,598</b>
<b>Total cost per wet tonne ensiled</b>	<b>\$67</b>
<b>Total cost per estimated dry tonne ensiled</b>	<b>\$168</b>

\*The process of preserving fodder

### Yield

The Chappells harvested 900t of corn silage, which represented a wet yield of 39t/ha over the area sown.

Corn silage can yield up to 22 tonnes of dry matter per hectare (t DM/ha) at 40% moisture – this paddock yielded 15.6t DM/ha.

Following harvest, the paddock was sprayed with glyphosate and direct drilled with annual ryegrass, brassica and clover as a short-term fodder crop.

### Feedbase potential

Although John and Caroline’s corn silage has not been feed tested, as a rule of thumb, corn silage:

- normally provides 10MJ/kg DM of energy and 7.5% crude protein
- is high in phosphorus and potassium which:
  - › builds bones
  - › metabolises fat, carbohydrates and protein
  - › increases feed intake
  - › improves reproductive performance.

The corn feed will be tested this winter period when more of their herd begin grazing on it. ■

### SNAPSHOT



**JOHN AND CAROLINE CHAPPELL**, ‘Bridgewater’, Dundee, NSW



**AREA**  
1,400ha

**ENTERPRISE**  
320 Angus cattle and 2,000 Merino ewes

**PASTURES**  
Native and improved fescue, ryegrass, cocksfoot and clovers, plus some fodder cropping with lucerne, brassica, ryegrass, oats and corn silage

**SOIL**  
Range of granite soils

**RAINFALL**  
825mm

- Find more information on active and completed Producer Demonstration Sites (PDS) at [mmla.com.au/pds-search](http://mmla.com.au/pds-search)
- Applications for the PDS program open annually in April. Scan this QR code to sign up to the PDS e-newsletter.
- Lu Hogan [lhogan22@une.edu.au](mailto:lhogan22@une.edu.au) John Chappell [arkhaven@bigpond.com](mailto:arkhaven@bigpond.com) Alana McEwan [amcewan@mmla.com.au](mailto:amcewan@mmla.com.au)



✔ These Angus cattle are part of Argyle's beef cattle herd management project.

# Productive herds deliver a greener bottom line

This is the second article in a series on Argyle Carbon's initiatives in this space – read the first article in the Autumn 2023 edition of Feedback at [mla.com.au/feedback](https://mla.com.au/feedback)

**Argyle Foods Group (AFG), a vertically integrated pastoral company and parent to Argyle Carbon, aims to make impactful environmental change across its grazing properties in NSW and Victoria.**

Improved cattle productivity and a focus on reducing emissions are firmly aligned with Argyle's overall business goals – an approach which has set them up for lasting success and ongoing benefits to their land and its management.

Argyle received support under MLA's Co-Innovation program, which supports capability building to solve the big challenges facing the red meat industry.

With this support, it registered two carbon sequestration methodologies (reforestation and soil carbon sequestration) and an emissions avoidance methodology centred on improved beef herd management with the Clean Energy Regulator.

AFG General Manager Naomi Leahy said Argyle is not in this for the short game and aims for lasting environmental impact.

"We're focused on improving the land and health of our soils across our properties to capture carbon and increase biodiversity, while enabling our operation to become more drought resistant in a changing climate.

"We chose methods we thought worked with our production system and would help us reach our business goals. It's a symbiotic relationship and not just an added chore."

## Transitioning management

Argyle's existing grassfed system ensured a smooth transition to undertaking the beef cattle herd management method.

"Calculating our emissions under the method fits in with our day-to-day operations," Naomi said.

"We own our livestock through the whole supply chain, so we've identified an opportunity to measure – and over time, reduce – our emissions to make our beef products more sustainable. The program is one way of helping us achieve this."

Argyle is working towards the goal of marketing its branded beef as carbon-reduced, without the need to purchase external offsets.

"We're focused on a holistic approach to improving our sustainability, and reducing livestock emissions is a key component of this strategy," Naomi said.

## Year-round turn-off

The company operates a year-round turn-off to domestic and international markets, including Taiwan, Hong Kong and the US. Argyle's network of more than 40 properties across NSW and Victoria gives it the advantage of being adaptable to seasonal variability – as well as achieving the goal of reduced emissions.

"We use our network of properties to reduce our turn-off time," Naomi said.

"Access to year-round supply of feed, particularly when seasonal conditions are tough, means we can focus on productivity and reducing emissions as much as we can control."

## SNAPSHOT



**ARGYLE**, operating across 40 properties in NSW and Victoria

**AREA**  
60,000ha

**ENTERPRISE**  
Vertically integrated grassfed beef supply chain – 30,000 head Angus and Angus-cross cattle, some *Bos indicus* cattle on northern properties and trade lambs at Harden

**PASTURES**  
Improved pastures, native pastures, cropping

## Nine steps to reducing beef herd emissions

Producers can reduce the emissions produced by beef herds by:

- bringing cattle to slaughter weight faster – this means fewer emissions are produced as their lifespan is shorter
- improving joining, calving and weaning rates – this creates a more productive herd, further reducing emissions.

These emissions reduction strategies can provide Australian Carbon Credit Units (ACCU).\*

**"Ensuring our herd is managed as productively as possible is symbiotic to our goals as a vertically integrated beef business."**

### Strategies for success

The methodology goes hand in hand with increased productivity.

“Ensuring our herd is managed as productively as possible is symbiotic to our goals as a vertically integrated beef business. We’re doing as much as possible to minimise the environmental impacts while maximising the productivity of each animal,” Naomi said.

She said reduced turn-off time was critical.

“By increasing kilos faster we’re able to reduce animals’ lifespans and, therefore, their emissions.”

### Results

Argyle is still in the first reporting period and doesn’t have a firm number of Australian Carbon Credit Units (ACCUs) earned at this stage, however Naomi is pleased with initial observations of liveweight increases and believes the productivity gains are there to be made.

“The project informs our purchasing and sales decisions. It’s now front-of-mind to us to not hold onto cattle for unnecessary time. We’re starting to balance the financial performance alongside the impact of cattle classes on our emissions,” Naomi said.



### Data consolidation

Three years of data is required to register a project using the beef herd method, so Naomi’s advice is to start collecting this data now if it’s not already being recorded.

“Producers wanting to get involved in a methodology need to be familiar with data requirements – they should get advice ahead of time,” Naomi said.

Essential data requirements include records of all purchases and sales, as well as entry and exit weights, which can be collected from weighbridges, invoices, kill weights or individual live weights.

Her tip is to set up data management practices early on, to ensure it’s easier to consolidate information collected throughout the year.

Argyle’s in-house carbon team manages data consolidation and saves time by aligning data across the company to the beef cattle herd management calculator’s requirements, available at the Emissions Reduction Fund website.

The Argyle team uses Excel and AgriWebb for data collection and analysis. Annual reporting periods have helped them reflect on the previous year’s management and performance, and plan goals for the coming year.

### Looking ahead

Argyle aims to continue refining its production systems to improve productivity and generate ACCUs.

“We’ll continue improving our modelling to inform our decisions and livestock purchases. We now model the potential ACCU returns of our operations alongside traditional financial data such as livestock sales to forecast our business returns,” Naomi said. ■

### Four essential requirements

The beef cattle herd management method’s essential requirements are:

- 1 Weigh all livestock on a designated assessment day (+/- six weeks) determined at the time of registering the project.
- 2 Annual reports must be audited at the expense of the livestock owner – the cost can be substantial and auditors must understand the method.
- 3 Beef cattle herd management is a fairly short, seven-year project, compared to 25 years minimum for soil sequestration or reforestation.
- 4 To register a beef cattle herd management project, producers need to have access to three years of historical data. Producers preparing to begin a carbon project are recommended to start working out how to capture weight by class of livestock on their farm as soon as possible.



View the recently launched Australian Good Meat *Meat the Makers* series – with Argyle Meats. Scan the QR code to watch on YouTube.



### TO DO



Fill your carbon management toolbox with these MLA resources:

■ Scan this QR code for Carbon management e-learning modules



■ Carbon Calculator: [carbon-calculator.mla.com.au](http://carbon-calculator.mla.com.au)

■ For carbon neutral FAQs – scan this QR code



■ Scan this QR code to read the sustainability special edition of *Feedback* magazine.



■ Learn about the Australian Beef and Sheep Sustainability Frameworks: [sustainableaustralianbeef.com.au](http://sustainableaustralianbeef.com.au) and [sheepsustainabilityframework.com.au](http://sheepsustainabilityframework.com.au)

Here are nine ways Argyle is reducing emissions from its beef herd:

- 1 Exploring innovative pasture mixes for both improved soil carbon and herd productivity
- 2 Implementing enhanced rotational grazing systems and trialling different paddock and mob sizes to best improve weight gain and reduce lifespan
- 3 Using smaller paddocks, so cattle eat more available feed and paddocks can be spelled more frequently
- 4 Introducing mineral feed supplementation to drive cattle growth
- 5 Working with neighbours and other landholders to share historical data and management practices and trial new strategies
- 6 Selecting better genetics
- 7 Culling cows as soon as they are unproductive
- 8 Moving from mob-based to individual cattle management to capture entry and exit weights (via AgriWebb)
- 9 Expanding its integrated supply chain through market diversification for more market options.

\*Regardless of whether credits are earned, reducing emissions delivers increased productivity, improved herd management and environmental benefits and contributes to the red meat industry’s carbon neutral by 2030 (CN30) goal.

- Scan this QR code to access beef cattle herd management method checklists, fact sheets, baseline emissions calculator and more.
- [mla.com.au/cn30](http://mla.com.au/cn30)
- [mla.com.au/sustainability-hub](http://mla.com.au/sustainability-hub)
- Naomi Leahy [naomi.leahy@argylefoodsgroup.com.au](mailto:naomi.leahy@argylefoodsgroup.com.au)
- Garry McAlister [gmcalister@mla.com.au](mailto:gmcalister@mla.com.au)
- Margaret Jewell [mjewell@mla.com.au](mailto:mjewell@mla.com.au)





✓ Central Queensland producer Hannah Murphy treats Parkinsonia with the bioherbicide, Di-Bak Parkinsonia. Image: Hannah Murphy.

## How powerful is your Parkinsonia control?

It's time to take a look at how effective your Parkinsonia management is. Read previous articles on Parkinsonia control in the winter and spring 2022 editions of Feedback at [mla.com.au/feedback](http://mla.com.au/feedback)

### Here, we check back in to see how producers can determine the success of their Parkinsonia treatment regime – especially on thick infestations.

The University of Queensland's Professor Vic Galea is a plant pathologist who specialises in fungal pathogens in plants.

He's researched dieback disorders of invasive woody weeds in the Australian landscape, and his work – supported by MLA – led to the development of the bioherbicide, Di-Bak Parkinsonia, and its accompanying delivery technology.

Vic said the level of Parkinsonia infestation should be one of the main determinants when selecting the best control method. For example, chemical herbicides are effective on light or scattered infestations, while the bioherbicide will provide superior results on dense infestations.

When it comes to treating dense infestation, here's how to determine if you've been successful.

#### Measuring success

After the bioherbicide has been applied, Vic said the speed of results will depend on climate and location. The treatment tends to work faster in hotter climates.

"People shouldn't be despondent if they haven't seen a result, because it does take time," Vic said.

"Typically, in a place such as the Barkly Tablelands, where the temperatures get

into the 40s and above, within 12 months you can see dead plants.

"In milder climates, such as Central Queensland, it can take two, to two-and-a-half years. Look closely at where you have treated plants, as successful infection starts with the appearance of a sunken wound at the implantation site.

"Di-Bak Parkinsonia takes a bit longer, but the beautiful thing about it is it's set and forget. It's just one treatment, then the fungi replicate. Then once it establishes, it just takes off."

Another benefit of the bioherbicide is that it doesn't just kill adult trees.

"This treatment will kill seedlings growing around the adult trees. It also affects the seedbank in the soil, so has a pre-emergent clean-up function where it eradicates the seedbank.

"If the seeds do germinate, they come up and the young plant develops the disease and then dies off. After a couple of germination events, it eventually reduces the population to almost nothing. It's a gift that keeps on giving."

However, if control fails, Vic recommends producers take a close look at their planning and treatment process to identify what might have gone wrong. ■

## Checklist for Parkinsonia success

**Did you map your infestation and the way the water moves across the landscape?** Remember, sometimes water moves overland in counterintuitive ways.

**Was the infestation treated from the outside in, and from the top of the catchment down?** This reduces movement outwards and encourages control to go downstream.

**Within the infestation, did you identify clumps – and within each clump, treat some of the biggest trees?** Larger trees have a bigger root mass and will be more likely to spread the pathogen to smaller trees.

**Did you target the control thinly over a larger area rather than try and hammer smaller clumps?** Once established, this disease can spread quickly.

**Did you use the right equipment and follow the manufacturer's directions for the equipment?** It's essential the bioherbicide capsules and plugs are used as advised.

**Was the product stored correctly?** The fungal bioherbicide is a living product and has to be stored in a refrigerated environment, a coolroom or fridge. The capsules have a shelf life of about 12 months, so don't over-order as you'll end up with a stockpile you can't use.

**Are you prioritising weed control, to prevent a few Parkinsonia plants becoming too many to manage?** Any effort put into weed management is going to be very productive. Although early intervention is best, it is never too late to start work on control.

## TOOLBOX

✓ [MLA weeds hub: mla.com.au/weeds](http://mla.com.au/weeds)

✓ [BioHerbicides Australia: bioherbicides.com.au](http://bioherbicides.com.au)

✓ [ADAMA Injecta Di-Bak technology: au.campaigns.adama.com/injectadibak](http://adama.com.au/campaigns/adama.com/injectadibak)

# Microwave scanner flicks switch for cheaper carcass measurements

**T**he red meat industry could soon have a new tool to predict lean meat yield, with the development of a microwave scanner.

Murdoch University's Advanced Livestock Measurement Technologies program (ALMTech) – supported by MLA – is applying microwave technology to enhance genetic selection, improve carcass feedback and optimise carcasses to meet market specifications.

“Using this device to measure fat and tissue depth is far more accurate than relying on the human-provided score where they palpate the live animal or carcass,” ALMTech’s chief investigator, Graham Gardner, said.

“Feedback from processors is crucial for producers, and better measurement technology will help provide that.”

## Carcass feedback collection

This microwave system has been targeted as a cheaper, alternative measurement technology to the Dual-Energy X-ray Absorptiometry system (DEXA).

While DEXA can determine full bone, muscle and fat measurement – beneficial information for processors – the microwave system measures fat depth at a single point to predict carcass composition and lean meat yield. This information is beneficial for other value chain members, particularly lot feeders.

“The microwave system isn’t as effective as DEXA, but it is significantly cheaper and doesn’t require the space needed for DEXA, which is often limited in processing plants,” Graham said.

“The idea is that we provide a slightly less accurate but far cheaper and easily deployable device for industry to access.”

The device has demonstrated success in measuring GR tissue depth, P8 and rib fat depth in live animals and carcasses. It will be most suitable for feedlot and abattoirs to provide carcass feedback to their suppliers.

There’s also potential for the scanner to collect information on condition score and maternal fatness in ewes – allowing producers to manage their ewe flocks to ensure optimal lambing rates.

“The outcome of a producer’s genetic selection will be informed by the feedback from this device,” Graham said.

“Focused producers are always tweaking finishing to enhance their compliance to carcass slaughter grids, so better, more transparent feedback will encourage them to trust their data to enhance their systems.”

## Challenges and next steps

The technology is currently at accreditation stage, but as the project’s lead engineer, Jayaseelan Marimuthu, explained, there have been challenges along the way.

After going through the lengthy process for accreditation to predict GR tissue depth in lamb, the team realised their devices were not equally calibrated – meaning that the carcass tissue depth predictions differed from device to device.

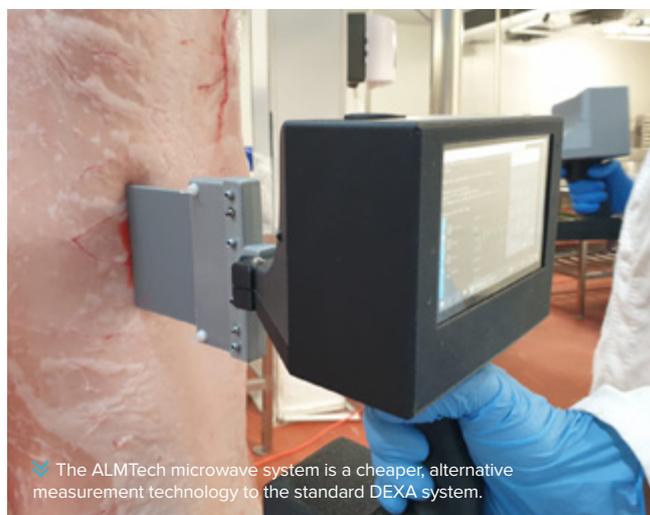
“We had to go back and reinvent our calibration method,” Jayaseelan said.

“This has made our measurements more robust and more transportable, meaning you can use any device anywhere in Australia and get the same answer. It was an early hiccup that we had to fix to ensure the accuracy of our product.”

He said while there are still several steps before full adoption of the device – including accreditation, user training and kill-chain implementation – he’s excited by the challenge of rolling it out to industry.

“The device itself is a fancy bit of electronics. You’ve got to treat it carefully, so we’re working with a couple of collaborators on a commercial road test. They’ll use it, work out the idiosyncrasies, tell us what the problems are, and then we can keep tweaking the physical design to make it more user-friendly and ready for commercial use.” ■

➔ Turn the page to meet a producer who is trialling this technology.



The ALMTech microwave system is a cheaper, alternative measurement technology to the standard DEXA system.



- Dr Graham Gardner [g.gardner@murdoch.edu.au](mailto:g.gardner@murdoch.edu.au)
- Dr Jayaseelan Marimuthu [jayaseelan.marimuthu@murdoch.edu.au](mailto:jayaseelan.marimuthu@murdoch.edu.au)
- Richard Apps [rapps@mla.com.au](mailto:rapps@mla.com.au)

# Tech delivers carcase insights before processing

**M**ichael Hughes focuses on maximising efficiency and meeting market specifications in his NSW Angus feedlot, so he was keen to try a new handheld device which could take the operation's carcase performance to the next level.

The system, which uses microwave signals to measure carcase composition, is being trialled on Michael's feeder cows in an effort to boost feed efficiency and carcase performance. It's an outcome of Murdoch University's Advanced Livestock Measurement Technologies program (ALMTech), supported by MLA (see story on previous page).

"At the moment, we're mainly using it to measure fat on the P8 (rump) of our feeder cows," Michael said.

"Our feedlot is unique in that we're putting older cows on feed for 60 days before turning them off, so we get cows coming into the feedlot in various conditions, from store condition to quite fat.

"We want to use the system to work out what body fat the animal is carrying at the time of entry, so we can tailor their feed ration.

"The system itself is very quick and simple – we just touch the device on the animal's body when they come into the crush and pull the trigger to take the fat measurement."

## Knowledge is power

Having this measure of carcase composition ahead of time could prove key to Michael's efforts – streamlining costs and helping meet market specifications.

"At the moment, our kill sheets indicate our cows have anywhere between 10–12mm to 45–50mm of P8 fat when processed, with 10–15mm the ideal measurement," Michael said.

"By using the system to measure fat on each individual animal, we can now adjust our management to keep within the 10–15mm ideal range.

"For example, we might elect not to feed animals that are already too fat and instead choose another option for them other than the feedlot, such as doing a grassfed kill.

"Similarly, it can help avoid overfeeding, as you can tailor rations to reduce the cost of investment in the animal."

Once the device is accredited for commercial use, Michael hopes processors will also reap the benefits of the technology.



Michael Hughes.

## SNAPSHOT

**MICHAEL HUGHES**, 'Kalawar' and 'Pinewood', Morago, NSW



**AREA**  
2,000ha

**ENTERPRISE**  
Self-replacing Merino flock, grainfed Angus cattle

**PASTURES**  
Clover, ryegrass-based pastures, mixed species, grazing cereals, canola

**SOIL**  
Varied – heavy black clays to red sandy country

**RAINFALL**  
325mm

"If we're not sending animals over that ideal 10–15mm fat measurement, processors will minimise the waste they create in the boning room through trimming," Michael said.

"Not only will this mean it takes less time to process the carcase, but they will also get more premium product."

## Food for thought

While the technology is still in the prototype stage, Michael is confident its functionality will continue to expand to make it well worth the investment.

"Once commercially available, we expect the system to provide an instantaneous, accurate reading of P8 fat. Into the future, we could even look at how it can help assess eating quality based on intramuscular fat," Michael said.

"The possibilities are exciting – and applications could exist not just for cattle, but for sheep as well." ■



"By using the system to measure fat on each individual animal, we can now adjust our management to keep within the 10–15mm ideal range."

# How to prepare your cattle for feedlot entry

**F**ailing to properly prepare cattle for feedlot entry can result not only in animal loss, but also financial loss to producers.

Here, Dr Enoch Bergmann from Swans Veterinary Services and Dr Paul Cusack from Australian Livestock Production Services, share the six items to check off your list before feedlot entry.

## Six steps

The key steps to preparing your cattle for the feedlot include:

- yard weaning calves
- castrating males
- vaccinating against bovine respiratory disease (BRD) and infectious bovine rhinotracheitis (IBR)
- treating stock for worms
- ensuring negative pregnancy tests for females
- familiarising stock with feed bunks and troughs.

## Stress and the immune system

Disease isn't the only factor which can suppress immune system function and cause a severe impact to cattle productivity in feedlots.

Other stressors which can contribute to immunosuppression if cattle are unprepared include:

- weaning
- transport
- processing
- bunk transition
- acclimatisation to people
- competition for food
- feed trucks
- pen mates.

Paul said minimising the stress levels of cattle prior to and during entry is essential to reducing mortality rates.

"It's important your cattle are prepared for the environment they're about to enter, so extending yard weaning time plays a big role in ensuring your livestock will be used to sharing a space with people, pen mates and trucks," he said.

"Additionally, if cattle have not previously been trained to eat concentrate feeds from feed bunks, it's going to take them longer to achieve stable intake which allows for positive energy and protein balance. These are essential for a well-functioning immune system."

Enoch said young cattle which have undergone nutritional stress in calfhood, or suffered failure of passive transfer due to inadequate consumption of colostrum, are often much more susceptible to the common stresses associated with transitioning from the paddock to the feedlot.

"Calves suffering failure of passive transfer have been shown to be three times more likely to develop respiratory disease at the feedlot," Enoch said.

## Risk of financial loss

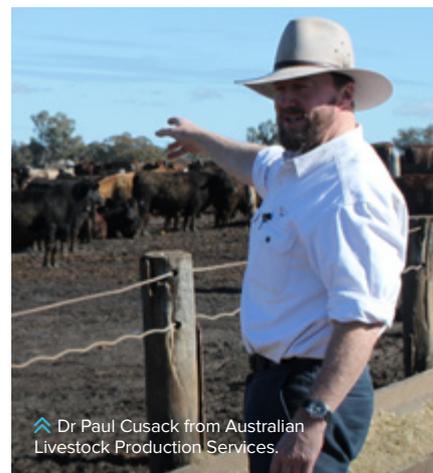
"Good welfare outcomes equate to good performance, which in turn equates to good profitability," Paul said.

Enoch recently worked with a producer whose experience supports this view.

"One of my best lot-feeding producers agreed to track both the morbidity and mortality of calves purchased through the saleyard (less likely to have been yard



Dr Enoch Bergmann from Swans Veterinary Services.



Dr Paul Cusack from Australian Livestock Production Services.

weaned or vaccinated) to those procured direct from producers," Enoch said.

"Remarkably, amongst those purchased through the saleyard, morbidity was six times worse (11.6% versus 1.6%) and mortality was seven times worse (2.5% versus 0.4%).

"Those that do a poor job preparing animals for the feedlot end up hurting the sale price of every animal sold into the lot feeding sector, as the lot feeder must discount enough calves to cover their losses.

"If we all work together, we can prevent a significant proportion of the production losses suffered at feedlots and we can all financially benefit from the proceeds." ■



**IN MARKET**  
**DOMESTIC MARKETING**  
INNOVATION

# Beef's easy answer for busy weeknight cooks



Italian meatball meal from Weeknight Cook.

**B**usy Beef's Jilly Tyler reckons she has the solution to save people time in the kitchen and provide healthy and wholesome beef and lamb meals – boosting red meat consumption along the way.

Jilly, who is based at Dalby, Queensland, has a background in grain and cattle – her family co-owned the Sandalwood Feedlot for more than three decades before they sold it in 2019.

Drawing on this feedlot experience, Jilly was inspired to promote sustainability through maximum carcass utilisation, and to connect smaller beef producers selling secondary cuts with consumers.

She developed Busy Beef – and its flagship 'Weeknight Cook' offering – with a focus on provenance. The brand uses Australian ingredients and suppliers to deliver a range of easily prepared meals that keep the cooking process quick and

leave the consumer feeling proud of what they've served.

"We're not a ready-made meal and we're not an ingredient-filled kit like HelloFresh – we sit in between the two," Jilly said.

### Listening to consumers

The Busy Beef journey began when Jilly was selected to attend MLA's Young Food Innovators program in 2018.

This gave her insights into global market trends, business start-up skills and value chain design.

During the program, she interviewed consumers about their needs, as she believed working backwards from the dining room table would give her

the best insight into developing a 'whole-of-chain' approach.

"I felt there was a real gap in the market when it came to 'quick cook' meals," Jilly said.

"There didn't seem to be an option for consumers who needed the convenience, but they didn't want to simply heat a packet meal up.

"A lot of people also described what they call 'mummy guilt' and felt that if they had just heated it up then they hadn't actually cooked for the family.

"I started with a focus on the busy family, but ironically I found key customers are the young professionals, specifically men, who don't like to cook but care

"We're a very consumer-led industry – what we do in the paddock doesn't matter if it's not ending up on people's plates, so it's important to hear what those buying the product are looking for."



Busy Beef founder Jilly Tyler with her husband Kelvin and their sons Nick (left) and Jack (right).

# What's on the menu?

## Here's how beef and lamb are hitting plates in 2023.

### Lamb shows it's Australian to love lamb

The results are in – 'The Un-Australian' Lamb campaign delivered a spike in lamb sales and was the most viewed summer lamb ad of all time.

This year's campaign was viewed more than 4.8 million times on YouTube and generated nearly 1,000 pieces of media coverage nationally. Activities included the launch of the Melbourne Cricket Ground's 'lamb paddock' at the Boxing Day Test, to serve fans lamb burgers and lamb snack packs throughout the cricket and AFL season.

About 250,000 new households purchased lamb during the summer campaign period – helping deliver sales value growth up by 7.9% which surpassed the 2022 and 2021 campaigns.

It doesn't stop at summer. The 'Say More With Lamb' campaign helps lamb be the star for key sharing moments throughout the rest of the year, such as Easter, spring and Christmas. This campaign focuses on broadening the appeal of lamb with younger consumers by showing off its diversity of flavour and different cuts.

### Beef season off to a great start

As 2023 National Rugby League (NRL) season kicked off, so did another round of Australian Beef's health-focused campaign, 'Beef at Your Best'.

The campaign, which reinforced beef as a great source of protein and iron, helped contribute to positive movements in consumer health perceptions and openness to red meat consumption.

Through an ongoing partnership with the Brisbane Broncos, the 'Australian beef burger' is available at Suncorp stadium, while a premium black Angus rump special is served at 112 ALH Hotels' venues throughout the NRL season.

Beyond sport, the 'You're Thinking Beef' campaign helps Australian households solve their daily dilemma of 'what's for dinner?' by highlighting the versatility of beef.

Australian Beef will also partner with food brands Dolmio's and Masterfoods across the two major supermarkets to ensure beef remains a core protein for Australian's dinners when ease and convenience are a must. ■

about what they're consuming from a health perspective."

Through her interviews, Jilly was able to pinpoint what consumers look for:

- a 15-minute cook time
- less clean-up
- the ability to cook to freeze
- variety in terms of health and nutrients
- something everyone will enjoy.

"We're a very consumer-led industry – what we do in the paddock doesn't matter if it's not ending up on people's plates, so it's important to hear what those buying the product are looking for," Jilly said.

### Keeping beef on the menu

MLA is now working with Jilly to use Weeknight Cook to put red meat on the everyday menu.

MLA Food Innovation Program Manager, John Marten, said there's an opportunity to draw on Weeknight Cook to convert consumers to viewing beef as an everyday meal.

"This project represents the next collaborative steps between MLA and Busy Beef to drive incremental value through utilising more of the carcase with those secondary cuts of bolar blade, chuck and intercostals," John said.

The Weeknight Cook project supports MLA's *Strategic Plan 2025* goal to deliver greater value to Australia's red meat producers through:

- investigating new, high-value usage occasions for red meat
- working with early adopters and value-adding companies to rapidly develop, test and evaluate opportunities
- providing producers and brand owners with data and insights to support diversification from commodity to high-value products.

"Weeknight Cook also aligns with MLA's goal of increasing consumer participation in beef and lamb consumption, by offering that more convenient 'quick cook' weeknight meal option for the busy modern family," John said.

### Other insights

Another insight from Jilly's interviews with consumers was that they needed some encouragement when it came to adding red meat to their weeknight meal.

"A lot of the research was showing that red meat was lagging behind chicken in terms of consumption," she said.

"However, when we asked consumers why they weren't purchasing red meat outside of steak and mince, they told us they didn't know how to cook with secondary cuts or felt they took too long to prepare.

"Taking the time out of the cooking seemed to be our best solution to supporting MLA's mid-week meals beef campaign."

Jilly is also using innovative practices, such as *sous-vide* technology and 3D printing.

"My son Jack – along with two of his classmates – created a meatball tray with 3D printing that we used in addition to the *sous-vide* technology to form the meatball shape and tenderise the meat before it went into the packs."

### Looking to the future

MLA supported the launch of the Weeknight Cook products through the Collaborative Marketing program during 2022–23. MLA co-funded the design of packaging, website, photography as well as the in-store launch activities.

The Weeknight Cook products became available at 14 Drakes supermarkets across Queensland in May.

Now, Jilly has turned her sights to launching the Busy Beef website, expanding stock availability at smaller and larger retailers, and broadening the list of smaller producers they source their meat from.

"People do want to know where their food comes from and I think Weeknight Cook can meet that demand, not only with it being a family-owned business, but with its connection to smaller Australian red meat producers," Jilly said. ■



Weeknight Cook meal pack.

Busy Beef's Weeknight Cook can be found on the shelves of 14 Drakes supermarkets in Queensland. [weeknightcook.com.au](https://www.weeknightcook.com.au) [mla.com.au/domestic-marketing](https://www.mla.com.au/domestic-marketing)  
Jilly Tyler [jilly@busybeef.com.au](mailto:jilly@busybeef.com.au) John Marten [jmarten@mla.com.au](mailto:jmarten@mla.com.au)

[australianlamb.com.au](https://www.australianlamb.com.au)  
[australianbeef.com.au](https://www.australianbeef.com.au)

✓ MLA's partnership with UMass creates the opportunity to influence consumers in North America, building awareness of Australian beef and lamb.



# A lesson in Aussie red meat for US students

✓ UMass serves more than 50,000 meals a day during the semester and has been ranked the USA's top university for best campus food.



## MLA's North American office has teamed up with a US university to promote Australian beef and lamb to the red meat consumers of the future.

The partnership with the University of Massachusetts Amherst (UMass) is providing insights around consumption and sustainability in the collegiate dining sector.

Aussie beef and lamb have been on the menu at UMass for years, thanks to their long-standing relationship with MLA and Australian red meat suppliers.

UMass serves more than 50,000 meals a day during the semester and has been ranked '#1 best campus food' by The Princeton Review for six consecutive years.

MLA's most recent collaboration aimed to increase awareness of Australia's sustainability credentials among UMass students, to pave the way for future eating habits involving Australian beef and lamb.

### Research into young US consumers

UMass research within this partnership indicated important trends surrounding young consumers, sustainability and US red meat consumption.

These included:

- dining habits in college carry over later in life
- grassfed beef and lamb consumption continues to rise in the US after COVID-19.

On the back of these trends, opportunity exists for the Australian red meat industry to promote its sustainability credentials, which will guide these consumers to trust, enjoy and seek out Australian red meat in the future.

This gives Australia an edge in the growing US market, and links to the industry's goal of doubling the value of red meat

sales and being the trusted source of the highest quality protein.

### Partnership plans

So far, two marketing events have been rolled out at UMass, with the themes 'dining for a cooler planet' and 'flavours of the world', giving thousands of students the chance to eat 16 Aussie beef and lamb dishes.

Other planned events and ongoing activities include:

- a UMass social media campaign promoting sustainability, drawing on Australian Good Meat's sustainability videos and infographics
- a student-voted limited time offer on the campus menu featuring Australian beef and lamb
- an Aussie Meat Academy event to highlight the features and benefits of Australian beef and lamb to food professionals from other US universities
- development of a collaborative marketing approach that can be scaled to other top 25 college and university culinary programs in the US
- research-backed promotions of the role of red meat in a sustainable diet.

This partnership with UMass creates the opportunity to influence the next generation of business and community leaders in North America, recruiting them as life-long loyal consumers of Australian beef and lamb.

It's just one example of how MLA's International Markets team work to drive awareness of and preference for Australian red meat to consumers around the world. ■



✓ UMass hosted a 'flavours of the world' event, where 16 Aussie beef and lamb-inspired dishes were served to thousands of students.

*"We're interested in Australian beef and lamb because of the producer practices. We've a lot to learn from Australians and look forward to telling their story and being an ambassador for the Aussie Beef and Lamb marketing program."*



**Chef Alexander Ong,**  
**Director of Culinary Excellence, UMass**

*"Australian grassfed beef and lamb fits our portfolio of healthy, sustainable and delicious food. We want to see and give our students the best quality available."*



**Ken Toong, Executive Director,**  
**UMass Auxiliary Enterprises**

## TO DO



Learn more about MLA's international marketing at [mla.com.au/international-markets](http://mla.com.au/international-markets)

Access Australian Good Meat red meat resources to share with your networks at [goodmeat.com.au](http://goodmeat.com.au) and [redmeatgreenfacts.com.au](http://redmeatgreenfacts.com.au)

# Red wine lamb shoulder

Share  
the  
Lamb  
100% AUSTRALIAN

Settle into winter with this perfect pairing of lamb and red wine. Discover more ways to cook lamb at [australianlamb.com.au](http://australianlamb.com.au)

Serves **6** Prep time **15 minutes** Cooking time **4 hours**

## INGREDIENTS

1.6kg lamb shoulder, bone-in, trimmed of excess fat	2 tbsp thyme leaves, finely chopped	¼ savoy cabbage, finely shredded
1 brown onion, halved, thinly sliced	¾ cup red wine	2 tbsp currants
3 cloves garlic, thinly sliced	375ml salt-reduced beef stock	½ cup frozen peas, blanched
¼ cup olive oil	500g kipfler potatoes, scrubbed, halved	¼ cup pecorino (or parmesan) cheese, finely grated
2 tbsp rosemary leaves, finely chopped		1 tbsp white balsamic vinegar
		¼ cup mint leaves

## METHOD

1. Preheat the oven to 180°C (160° fan-forced).
2. Arrange the onion over the base of a large roasting pan and place lamb on top of onions. Using a small, sharp knife make incisions over lamb and press garlic into holes.
3. In a small bowl, combine one tablespoon oil, rosemary and thyme. Drizzle marinade over lamb, season and pour wine and stock around the base. Cook lamb, uncovered, for 30 minutes.
4. Cover with foil and cook for a further 3–3.5 hours or until meat is tender and falling off the bone, adding a little more stock during the cooking time, if necessary. Remove from oven and rest for 20 minutes.
5. Spread potatoes onto a baking tray, drizzle with one tablespoon oil, season and toss to coat. Add to oven when lamb has 45 minutes cook time remaining and cook for 40–45 minutes, or until golden and tender, turning halfway.
6. In a large bowl combine cabbage, currants, peas, pecorino, remaining oil, balsamic and mint. Season and toss to coat.
7. Serve lamb with onions, cabbage salad and potatoes. Drizzle with pan juices.

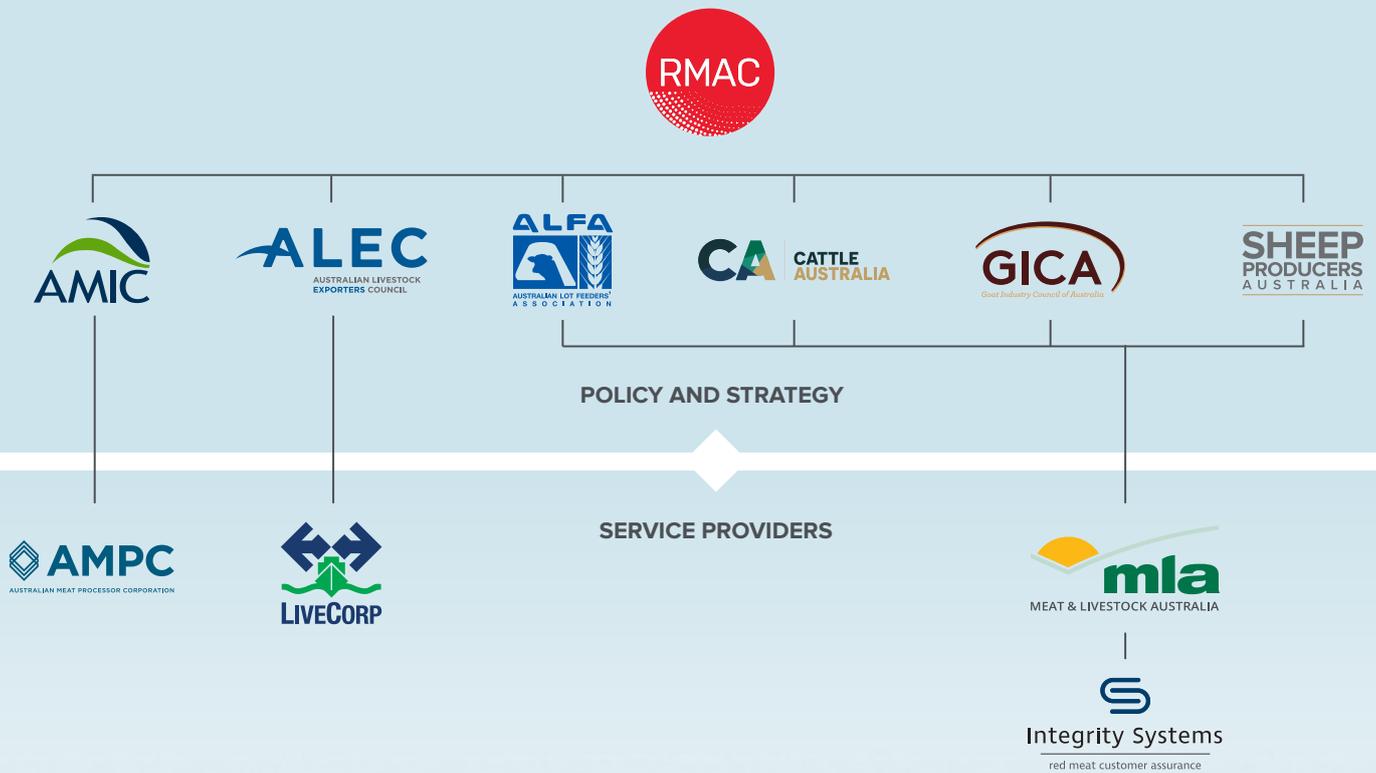
## TIPS

- Try swapping shoulder for leg of lamb for a tasty alternative – cooking time should be approximately half for a leg of lamb.
- Add brussels sprouts, carrots or parsnips to the potatoes for extra vegetables that can be used in a lamb salad the next day.
- Leftover lamb is delicious gently warmed to serve with your favourite pasta and sauce, in nachos, tacos (serve with lettuce, tomato, grated cheese and taco sauce) or shredded into a minestrone soup.



# Know your industry structure

The Australian red meat industry works collaboratively to achieve the goals set out in *Red Meat 2030*, the Red Meat Advisory Council's (RMAC) industry strategic plan.



## Representative bodies each have distinct roles to grow a strong and resilient industry.

Peak industry councils provide policy direction and advocacy on behalf of the red meat and livestock industry.

The peak industry councils that MLA serves directly are the Australian Lot Feeders' Association, Cattle Australia, Sheep Producers Australia and Goat Industry Council of Australia. Get to know your peak industry council:



Australian Lot Feeders' Association  
[feedlots.com.au](http://feedlots.com.au)



Sheep Producers Australia  
[sheepproducers.com.au](http://sheepproducers.com.au)



Cattle Australia  
[cattleaustralia.com.au](http://cattleaustralia.com.au)



Goat Industry Council of Australia  
[goatindustrycouncil.com.au](http://goatindustrycouncil.com.au)



MLA is the red meat industry's service provider to the grassfed cattle, grainfed cattle, sheepmeat and goat sectors. MLA's research and services aim to improve productivity and profitability for producers and ensure strong consumer demand through domestic and international marketing programs. MLA does not lobby or develop policy.

Learn more at [mla.com.au/about-mla](http://mla.com.au/about-mla)

The grassfed cattle industry is represented by Cattle Australia, operating through a national board directly elected by levy paying members. Cattle Australia is built upon a strong, regionally representative structure and provides grassfed producers with a national voice.

Find more about your peak body and how to get involved at [cattleaustralia.com.au](http://cattleaustralia.com.au)