

FEEDBACK

MLA – FOSTERING PROSPERITY

SUMMER 2022



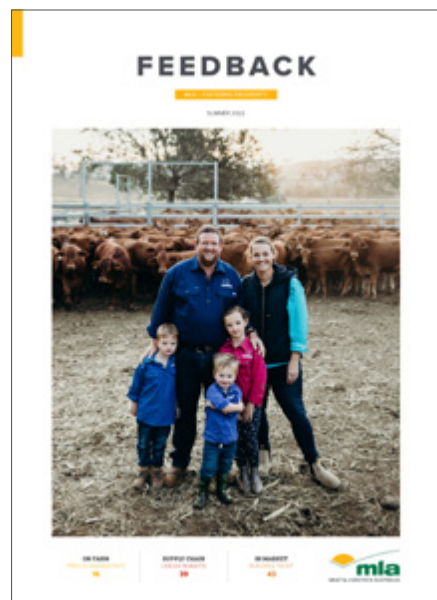
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FEEDBACK

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 14): Queensland Droughtmaster producers Don and Andrea McConnell, pictured with their children Stirling, Digby and Audrey, gleaned new management strategies from an MLA Breeding EDGE workshop.

Have your say!

We'd love to hear from you.

- ✉ info@mla.com.au
- ☎ 02 9463 9333
- 🌐 mla.com.au
- 📘 @meatandlivestockaustralia
- 🐦 @meatlivestock
- 📺 meatandlivestock

Feedback is produced and published by Meat & Livestock Australia Ltd (ABN 39 081 678 364).

MLA acknowledges the matching funds provided by the Australian Government to support the research and development detailed in this publication.

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A note from the MD

Welcome to the summer edition of *Feedback* magazine.

As we head towards the end of 2022, it's timely to reflect on a year marked by both significant challenges and enduring positivity.

Flooding and record rainfall have been challenging for many producers this year. Turn to pages 4 and 11 to learn more about the resources MLA provides for producers rebuilding after natural disasters such as floods and bushfires.

However, overall, conditions are vastly improved from recent years of drought and the national herd and flock is rebuilding. Across the industry, there are still plenty of challenges with rapidly rising input costs, but the overall story is positive and we saw solid prices across the red meat sector in 2022.

Against this backdrop, MLA supports new research for producers to make productivity gains. This edition looks at a new decision support tool to assess the economics of joining ewe lambs (page 12), how to make pregnancy scanning pay (page 16), tips to use electronic identification to refine flock performance (page 26), and feedbase strategies including fertilising northern pastures (page 20) and introducing saltbush (22).

Biosecurity

This year will be remembered for the heightened concern from foot-and-mouth disease (FMD) and lumpy skin disease (LSD) outbreaks in Indonesia.

The Australian Government is responsible for protecting Australia from these diseases and has implemented a range of increased biosecurity control measures at the border.

Border protection is just one part of the picture, and everyone has a role to play with biosecurity – turn to page 9 for insights on how to develop an on-farm biosecurity plan.

MLA is providing assistance in-country in Indonesia, with the objective to secure continuity of Australian live trade and assist in mitigating spread of the disease more broadly. Read more about the role of vaccines in managing exotic diseases on page 8.

These nearby biosecurity risks will require an ongoing commitment, but the joint threat of FMD and LSD is one that has seen tremendous cooperation across the industry this year.



Climate sustainability

There has been plenty of attention this year on climate sustainability, with COP27 in Egypt in November and the government's recent commitment to the Methane Pledge.

The message from MLA has been consistent and simple: red meat production is not the big climate problem it is often made out to be, it is actually part of the solution.

Recent figures indicate we have reduced emissions by nearly 60% since 2005, more than any other sector in Australia.

Carbon neutrality should not and does not need to come at the cost of livestock numbers or land productivity – turn to pages 18 and 25 to meet producers who are implementing practical sustainability measures, hand-in-hand with on-farm productivity.

CN30 is as much about building on-farm productivity and profitability, and intergenerational sustainability as it is about achieving zero net emissions from red meat production in Australia.

We will be looking to invest a further \$150m over the next few years with a focus on the development and subsequent adoption of new technology.

I reflected on these and other research highlights from MLA activities at the annual general meeting, where we welcomed the election of three directors – see report page 2.

On behalf of MLA, I would like to wish all our members a restful and well-earned Christmas break, hopefully with beneficial seasonal conditions to welcome in the new year. ■

- Jason Strong MLA Managing Director
- ✉ Have a question for me? jstrong@mla.com.au

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Industry remains positive after challenging year

A year marked by challenges and opportunities was acknowledged at the recent MLA annual general meeting (AGM), which was delivered in a hybrid format to broaden the accessibility among MLA's membership.

MLA Managing Director Jason Strong told red meat producers and industry representatives, who joined in-person in Sydney and virtually, that Australia's red meat industry had experienced generally good conditions in 2022 and the outlook remained very positive.

"Flooding and record rainfall has created significant challenges for many producers – but overall, the conditions are vastly improved from recent droughts, and the herd and flock is rebuilding.

"Prices have been strong and there is a burgeoning demand for Australian red meat from around the world. Our industry has an incredible reputation for delivering on eating quality, traceability, sustainability, food safety and taste."

Jason said the industry was also on the front foot with biosecurity, which had been a major issue in the spotlight in 2022.

"Exotic disease incursions have always been a concern for our industry, but their proximity in Indonesia highlighted the risk this year.

"MLA has been proactive in working with industry to communicate the issues with stakeholders and the public and we are also working on a range of practical steps to ensure Australia is prepared and that we can assist Indonesia with the outbreak.

"The Australian Government has also ramped up the border control response."

MLA Chair Alan Beckett also acknowledged the seasonal challenges which the industry faced over the past 12 months.

"Our thoughts are with all producers who are affected by the devastating floods across the country," he said.

"Cattle, sheep and goat producers are strong-willed and versatile, and we would like to thank them for their hard work over the past 12 months – they truly inspire the work we do at MLA." ■

Directors

MLA members voted to elect three directors to the MLA Board at the AGM.

The MLA Board is a skills-based board. Directors have complementary skills to make important decisions for the long-term benefit of the red meat and livestock industry.



John Lloyd was re-elected to the MLA Board, receiving 95.85% votes in favour. John has been on the board since 2019 and has a deep

understanding of the red meat industry and the research and development sector. He's a former CEO of Horticulture Innovation Australia.



Tess Herbert was elected to the MLA Board, receiving 97.76% votes in favour. Tess runs a farming business in central west NSW and

is a former President of the Australian Lot Feeders Association.



Jack Holden was elected to the MLA Board, receiving 92.42% votes in favour. Jack is a sustainability practitioner with more than 25 years'

experience in agriculture and natural systems and is General Manager – Sustainability for the Asia Pacific Region of Fonterra Group.

Highlights

During the AGM, MLA members heard about the impact of MLA activities during the 2021–22 financial year. Here are some of the highlights:

On-ground impact

The latest MLA Adoption Outcomes report highlighted that adoption activities delivered \$54.6 million in annual benefits to producers.

Over the past 12 months, more than 10,000 producers have been involved in MLA adoption activities.

Eating quality

Meat Standards Australia (MSA) continues to go from strength to strength. The recent MSA Outcomes Report highlighted that the program delivered about \$204 million in additional farm gate returns to MSA beef producers in the last financial year. This is a new record for the program, which has delivered more than \$1.6 billion in value over the past 10 years. Read more on page 6.

Consumer trust

MLA continues to strive for improvements in community sentiment, to win the hearts and minds of the community and consumers.

Highlights from the latest community sentiment research include:

- Three in five Australians feel good about the beef and lamb industry.
- Around one third of metropolitan Australians feel they are knowledgeable about the industry.
- More than 60% of metropolitan Australians have a strong level of trust in the Australian beef and sheep industries.



Communicating to community

Communicating the value and positioning of red meat is a team effort across MLA and the wider industry.

Recent MLA activities in this space include:

- developing and communicating engaging, fact-based content and information for stakeholders and community
- using social media and influencers, school programs, royal shows, networking, and other events to tell the industry's story
- marketing initiatives and promoting the role of red meat in a healthy sustainable diet to general practitioners and dieticians
- research initiatives into labelling, novel products and functional foods.

The road ahead for red meat

There was a strong number of attendees at this year's MLA Updates, with more than 350 industry stakeholders joining forces in Toowoomba to hear the latest from MLA's research and development investments.

MLA Group Industry Insights and Strategy Manager, Scott Cameron, presented at the Updates. Here are his insights on what's on the horizon for Australian red meat in-market.

What challenges will our domestic and international markets face over the next 12 months?

The biggest challenge will be growing global inflation and cost of living pressures. The implications for our industry at a consumer level will be determining how we can ensure Australian red meat delivers value. This could be through a superior quality, better eating experience or a suitable product to hit a certain price point or for a specific occasion – as well as

how we can ensure we stand out in comparison to other other proteins and competitors.

What are the opportunities for our domestic and international red meat markets?

When it comes to the domestic market, there are five key ways we can create opportunities for red meat, including:

- promoting the health and nutrition benefits of red meat, which are important drivers of consumption
- developing red meat solutions that capitalise on the evolving tastes of multicultural Australians
- putting beef and lamb at the forefront of midweek meal options – which represent 85% of retail volume – by offering convenient, nutritious, value-for-money solutions
- reminding Australians of the trusted flavour, quality and special nature of beef and lamb.

Industry's focus on sustainability and achieving carbon neutrality by 2030 (CN30) will ensure the long-term success of Australian beef and lamb, increasing market access potential and

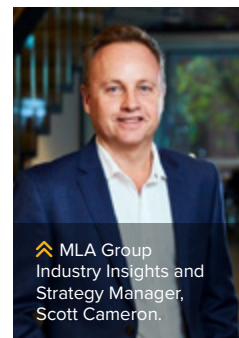
boosting consumer confidence that they are making healthy, environmentally friendly protein choices.

What's one of the findings from MLA's most recent market insights?

MLA recently undertook industry-first research into the consumer motivations that drive their choices for each eating moment throughout the day, from breakfast, lunch and dinner to snacks.

As part of this research, 50,000 images of consumers' meals were collected, which showed the overwhelming need for convenient solutions.

Currently, red meat is only consumed at 8% of eating moments (mostly dinner), so the room for growth is huge if we can show consumers how beef and lamb meets their needs. ■



▲ MLA Group Industry Insights and Strategy Manager, Scott Cameron.

m1a.com.au/marketing-beef-and-lamb m1a.com.au/cn30 [Scott Cameron scameron@m1a.com.au](mailto:scameron@m1a.com.au)

World-first tool for better grazing management

Australian red meat producers now have access to weekly information on their farm-level pasture status with the release of a new tool called the Australian Feedbase Monitor (AFM).

The AFM is a joint initiative between MLA and Cibo Labs – it was launched at the recent MLA Updates in Toowoomba.

This world-first tool provides producers with satellite-derived objective estimates of leading pasture growth, biomass and ground cover for their property.

It's free for MLA members who have linked their Livestock Production Assurance (LPA) accounts to their myMLA dashboard.

Removing the guesswork

The AFM helps take the guesswork out of grazing management, putting more precise information at producers' fingertips.

A survey by Cibo Labs showed:

- more than 85% of producers made regular pasture assessments
- 40% undertook a weekly assessment
- three quarters of these assessments were carried out using subjective visual assessments

- 28% of producers often had to make unplanned reductions in stock numbers in response to pasture conditions
- these forced reductions resulted in over 40% of producers identifying lower sale returns
- 46% identified a need to provide additional supplementary feeds at least twice in the past five years.

How it works

The tool's satellite maps are updated every five days, showing the variability in pasture biomass for a producer's entire farm at 1ha resolution.

The frequency of the updates will help producers to understand where the feedbase may be declining or responding to weather events over time.

Producers will also be able to generate graphs showing monthly changes in the feedbase since 2017, compare individual months to the same period in previous years and compare their farms to regional trends.

This will equip producers to make earlier, more informed grazing decisions to avoid forced stock reductions or unplanned supplementary feeding programs.

How to access the AFM

MLA members can access the AFM for free through the myMLA portal with these two steps:

- Link your LPA account to your myMLA dashboard.
- Click 'Access the tool' from the myMLA dashboard to receive secure, private and ongoing access to weekly updates on your feedbase for any registered PIC.
- If you want high resolution and more frequent information, or if you are not an MLA member with a linked LPA account, there is also a paid subscription service available via cibolabs.com.au/mla. ■



m1a.com.au/afm For more information on the Australian Feedbase Monitor, visit m1a.com.au/afm

Carbon 101 eLearning module

Learn the basics of carbon farming, greenhouse gases and more with the new Carbon 101 module now available on MLA's free e-learning platform, The toolbox.

Producers who complete this module – the first of four carbon eLearning modules to be released by MLA – will build their carbon literacy to better understand the language of carbon.

The module covers:

- what greenhouse gases are, and how they are produced and cycled in a farming system
- what the difference is between carbon farming, carbon neutral and climate neutral
- how to start to improve carbon performance on-farm.

▶ Visit elearning.mla.com.au/courses/carbon-101



Recovering from floods?

MLA has compiled resources for producers recovering from the impact of floods, including information on managing livestock health and pastures.

▶ Find out more at mla.com.au/flood-recovery



New P manual for northern beef producers

MLA will soon release an updated version of the *Phosphorus management of beef cattle in northern Australia* manual to help producers:

- decide whether they should feed phosphorus (P)
- work out if they have a P deficiency amongst their herd
- manage P supplementary feeding.

The manual also includes producer case studies to provide insights into the practical considerations and real-life benefits of an effective P supplementation strategy.

For many regions in northern Australia, P deficiency is a serious nutritional issue for beef herds and can cause major losses in productivity and profitability. P deficiencies arise in the north due to low available soil P compared with soils in southern Australia. This means there's often insufficient P in the pasture to meet animal nutritional requirements.

Research demonstrates that adequate P intake can:

- increase steer growth rates
- increase breeder live weight over a wet season lactation
- increase weaning rates
- produce heavier calves at weaning
- reduce mortality.

▶ To learn more about P supplementation and download the soon to be released copy of *Phosphorus management of beef cattle in northern Australia* visit mla.com.au/phosphorus



Interactive and improved livestock market reports

Have you subscribed to MLA's enhanced interactive market reports?

MLA's National Livestock Reporting Service (NLRS) is the leading provider of livestock market data and insights in Australia, including saleyard market reports covering more than 60 livestock auctions in approximately 50 regional locations every week.

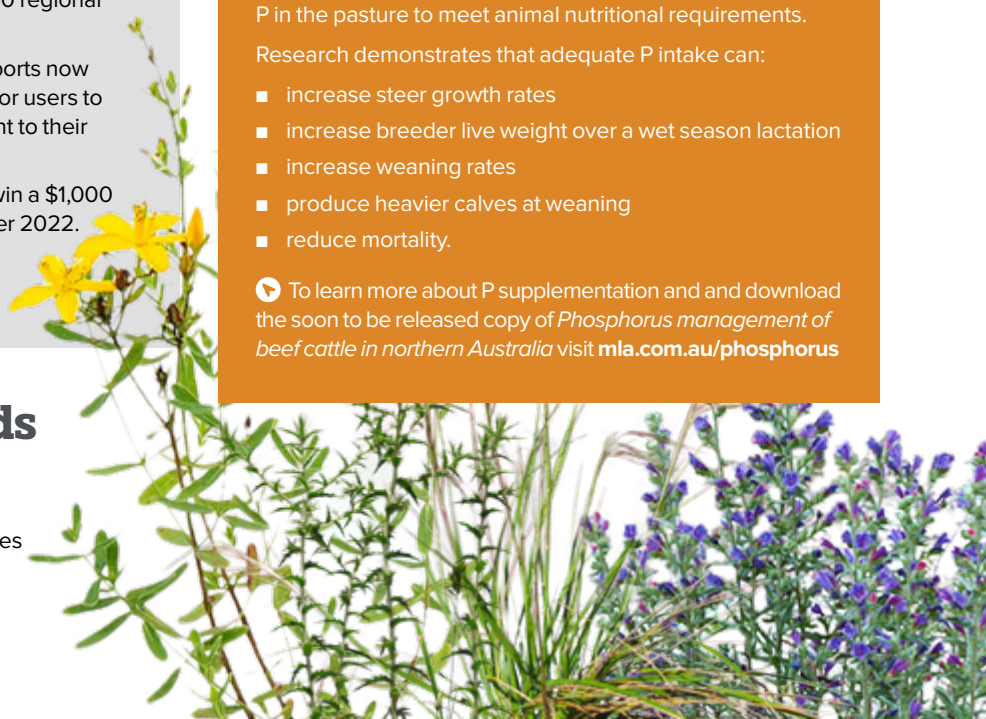
The new range of interactive online NLRS reports now have greater functionality and more options for users to generate customised data that's most relevant to their livestock business.

All new subscribers have the opportunity to win a \$1,000 fuel card if they subscribe before 31 December 2022.

▶ Subscribe to the NLRS email service at mla.com.au/prices-markets/subscriptions

Wise up on your weeds

Visit MLA's weed control hub – mla.com.au/weeds – for tips to get your management plan up to scratch. The new *Weed fast facts* guide provides information on 15 common weeds to support management decisions.



2021–22 annual report highlights

Here are some highlights from major projects MLA led, managed or contributed to in 2021–22. Read the full annual report at mla.com.au/annualreport



The red meat industry has reduced its greenhouse gas emissions more than any other sector in Australia, with emissions **down by almost 60%** since 2005.

Australian Lamb's annual summer campaign achieved the highest cut-through in five years, with this year's ad scoring the top spot as the

#1 trending video on YouTube




MLA launched the cattle industry's first-ever Live Export Price Indicator (LEPI), **NLRS** responding to the need to provide greater coverage of pricing trends for supply chains in northern Australia.

MLA's new legumes hub,  **14,845** times as of 30 June 2022.

launched to help producers harness legumes to boost productivity, drought resilience and sustainability, has been viewed



The MSA beef program delivered an estimated

\$204 million

in additional farm gate returns in 2021–22.

The program has returned

\$1.66 billion

to the farm gate since 2011.

With six DEXA systems

now installed at processors across the country, approximately

half of Australia's annual lamb slaughter

is being measured for Lean Meat Yield.



The use of feed additive Bovaer® (3-NOP) was found to reduce methane production in feedlot cattle by up to

90%



Australian Good Meat's sustainability-focused animations have proven extremely effective in sharing our industry's story with

>4.1 million impressions and >400,000 video views



The Australia–United Kingdom Free Trade Agreement has been signed,

by both governments and ratified by the Australian Government. Once ratified by the UK Government, Australian producers will be better placed to supply the UK with high quality beef, sheepmeat and goatmeat.



Producers who participated in MLA adoption programs between 2015 and 2022 received an

annual net benefit of \$54.6 million



MSA delivers another record year



Australia's world-leading eating quality grading program, Meat Standards Australia (MSA), continues to deliver significant benefits and value to the red meat industry, from the farm gate through to the consumer's plate.

In 2021–22, the MSA program delivered a record \$204 million in estimated additional farm gate returns to MSA beef producers. This is a significant increase from the estimated \$157 million delivered in 2020–21, and more than the previous record high of \$198 million in 2018–19.

MSA-graded cattle continue to represent more than half of the national adult cattle slaughter at another record of 55% in 2021–22, up from 53% in 2020–21. More than 3.25 million cattle were MSA graded through 39 Australian beef processors in 2021–22, with an equal highest national MSA compliance of 95.5%.

Meeting consumer expectations

MSA Program Manager at MLA, David Packer, said the latest *MSA Annual Outcomes Report* demonstrated the red meat and livestock industry's growing commitment to eating quality and meeting consumer expectations.

"The record \$204 million in estimated additional farm gate returns is a result of the year-on-year growth of the program, greater use and value extracted from MSA-graded carcasses which now underpins 193 beef and 22 sheep brands, and improved on-farm performance towards better MSA outcomes," David said.

"While there was a slight decrease in the number of cattle graded compared to the previous financial year, it reflects an overall reduction in slaughter numbers as producers take advantage of generally favourable seasonal conditions across many production regions to rebuild herds."

More registrations

In 2021–22, another 2,157 cattle and sheep producers became MSA registered, taking the total number of registered MSA producers to 47,188.

To aid in improving on-farm performance, 2,502 producers used the myMSA

feedback system to understand grading results and look for opportunities to improve, and 1,425 participated in MSA education activities.

Sheepmeat

Steps continue to be taken towards the commercialisation and rollout of an MSA cuts-based sheepmeat model.

"Working with supply chains across Australia, MSA continued carrying out benchmarking activities to understand the range in eating quality of the commercial flock through these supply chains," David said.

"This has helped to deliver the value proposition of the MSA sheepmeat cuts-based model, which will ultimately allow for processors and brand owners to apply sophisticated eating quality segregation within their supply chains.

"The aim is to commercialise the model in the 2022–23 financial year."

In 2021–22, more than 2.1 million sheep followed MSA pathways through 15 MSA-licensed processing facilities across NSW, Victoria and WA. This represented 10% of the total lambs processed in Australia and, of these, 84% were trademarked MSA.

Throughout 2021–22, 469 audits were conducted on MSA licensees from saleyards and processors, through to retailers, wholesalers, independent boning rooms, supermarkets and foodservice outlets.

In addition, MSA also conducted more than 100 integrity checks with MSA-licensed processors to support their continued success in utilising the MSA Standards.

"Overall, these results indicate the MSA program continues to grow and plays an essential role in the Australian red meat industry's goal to double the value of Australian meat sales by 2030," David said. ■

55% 

of the national adult cattle slaughter graded MSA, representing 3.25M cattle



MSA delivered a record estimated \$204 million in additional farm gate returns to beef producers

95.5% 

compliance to MSA minimum requirements for beef



2,157 producers became MSA registered

2.1M 

sheep followed MSA pathways, representing 10% of total lambs processed in Australia



2,502

producers used the myMSA feedback system 16,963 times

57.37 

national average MSA index

193 beef brands 

22 lamb brands

now MSA licensed

13,600 consumers participated 

in taste testing more than 82,000 meat samples as part of eating quality research

1,425 

beef and sheep producers received MSA education



ON FARM

RESEARCH IN ACTION

Seasonal action plan

Northern

14

Fine tune breeder management to improve weaning rates

20

Put the foundations in place to make fertilising sown pastures pay

Southern

12

Assess if joining ewe lambs is right for your business

22

Take a closer look at how saltbush can plug the feed gap

How investing in vaccines helps protect our industry

MLA Managing Director Jason Strong looks at the role of vaccines in managing exotic diseases.

Foot-and-mouth disease (FMD) has always been on the radar of the Australian livestock industry.

This year, that attention heightened with the confirmation of FMD and lumpy skin disease (LSD) in Indonesia.

At MLA, we have been working to communicate the issue to industry through a range of channels and partnerships, including a series of industry webinars over the past few months.

One of the common questions asked at these webinars – and face-to-face with the MLA team – is about vaccinating our livestock for FMD.

It's a great question and I would like to outline the steps MLA and the industry are taking.

Understanding the risk

Industry has been preparing for the risk of FMD for many years. Australia has been free of this disease for more than a century and the scientific modelling shows it is highly likely Australia will stay free of FMD.

In August, the University of Melbourne's Centre of Excellence for Biosecurity Risk Analysis modelled the current risk at an 11% chance of incursion, up slightly from 9% where the risk had been static since 2021. This increase is mostly associated with the diagnosis of FMD in Indonesia.

However, even with this low level of risk, many people are asking the question: why are we not vaccinating livestock now?

There are two parts to the answer.

The first is that there is no reason to vaccinate animals in Australia in the absence of an outbreak.

The second is that using vaccines poses a major risk for our export markets when it comes to the disease-free status of our country. Australia is officially recognised as a country which is free from FMD without the use of vaccination, which is the most favourable status.

However, we have plans for accessing vaccinations quickly through a vaccine bank stored overseas should we need them. These vaccines these vaccines can be supplied in bulk to Australia in seven to 10 days.

Even if there is an incursion, this does not mean vaccinating all livestock is the best solution.

The decision to vaccinate animals in the event of an outbreak depends on several factors. These include the size of the outbreak, its location and the species that is affected. There would be other considerations too, such as the logistical requirements of a vaccination program, the likely spread of the disease and animal welfare considerations.

Guided by the AUSVETPLAN, the decision on what approach to take in the event of an outbreak is made by the Consultative Committee on Emergency Animal Disease (CCEAD). The CCEAD is a coordinating body providing the technical link between industry, the Australian Government,

and state and territory governments for decision making during animal health emergencies.

In broad terms the response to an FMD outbreak will have multiple components including movement restrictions, stamping out through destruction, disposal and decontamination, and, where appropriate, the strategic use of vaccines.

It's likely that any outbreak of FMD in Australia would be detected and controlled quickly and the use of vaccines for control of the disease would not be necessary.

mRNA vaccines

We are also investing in cutting-edge science to boost industry's preparedness, having selected a vaccine for LSD as the first topic for research into mRNA vaccines. We are working with a range of research partners on this initiative.

The basic premise of an mRNA vaccine is that it uses a small piece of genetic material (the mRNA) from the pathogen, to generate the response. This makes the vaccine quick to produce and does not have any possible chance of causing the disease itself.

It is important to note that a new vaccine would need to go through regulatory approvals.

In the future, this may be able to expand to investments to do the same for FMD. The use of these vaccines in the event of an outbreak would be considered as part of the national strategic response, overseen by the Federal Government through the Department of Agriculture, Fisheries and Forestry. ■

The decision to vaccinate animals in the event of an outbreak depends on several factors. These include the size of the outbreak, its location and the species that is affected.



Visit mla.com.au/fmd-and-lsd for resources on FMD and LSD, including recent industry e-newsletters and webinar recordings.

Rob and Melinee Leather.

Here's how to boost your biosecurity

SNAPSHOT



ROB, MELINEE, ADAM AND CHLOE LEATHER, Banana and North Burnett, Queensland



AREA

17,500ha

ENTERPRISE

Breeding and finishing cattle for EU and organic markets, as well as for Teys' Grasslands beef program

LIVESTOCK

5,000 head Brahman-based herd

PASTURES

Buffel, bluegrass, stylos

SOIL

Varies between properties

RAINFALL

600mm

SEASONAL ACTION PLAN

- 📌 Create or update your farm biosecurity plan – download a farm biosecurity template from integritysystems.com.au/biosecurity
- 📌 Access the FarmBiosecurity app and other tools at farmbiosecurity.com.au
- 📌 Record pest animal activity in your local area by downloading the feralSCAN app: feralscan.org.au

Melinee and Rob Leather use biosecurity as a tool to protect their own CQ beef business, as well as contribute to the integrity of the whole industry.

The Leathers take a measured approach to preventing disease, managing pest and weed threats, and practising animal welfare to protect access to markets.

“Our markets demand biosecurity – without it, nothing else really matters. Biosecurity affects the health of our livestock, our environment, even our people, and it’s everyone’s responsibility,” Melinee said.

“The latest outbreak in Indonesia of foot-and-mouth disease and lumpy skin disease really highlighted that if we don’t make sure these things stay out, our market access potentially is at risk.”

With their son Adam and his wife Chloe, Rob and Melinee produce cattle for EU and organic markets, and Teys’ Grasslands beef program.

Cattle are bred at ‘Four Mile’ and ‘Hazeldean’, North Burnett, and finished at ‘Barfield Station’ near Banana. Barfield is also home to a small organic breeding operation.

Careful livestock movements

Operating strict biosecurity measures is paramount to ensure movement of cattle between properties does not introduce pests or weeds, and to maintain their organic accreditation at Barfield.

This commitment to avoiding the spread of pests underscores the importance of the mindset that biosecurity begins at home – it’s not solely concerned with safeguarding against the incursion of exotic diseases.

“It’s essential to never underestimate the importance of biosecurity,” Melinee said.

“We’ve consistently made it an everyday part of our business and have never had problems with diseases, pests or weeds being introduced onto our properties.”

Harnessing technology

Biosecurity plans and animal health procedures (including using pain relief for husbandry practices) form part of staff induction and training, along with other workplace health and safety processes.

Melinee said establishing effective property biosecurity plans doesn’t have to be time consuming.

“We use the feralSCAN apps to record the number of pigs and wild dogs quickly and easily on our properties,” she said.

“We use the app nearly every day across the three properties because we’ve got a big incursion of pigs and wild dogs at the moment.”

She also uses Animal Health Australia’s farm biosecurity plan template and relies on the FarmBiosecurity app to keep records of weeds, store photos and information about each property.

Melinee said as well as making sense from farm biosecurity and animal health perspectives, their stringent policies support annual auditing to maintain their Grazing Best Management Practice, EU, organic, Teys’ Grasslands program and LPA accreditations. ■

The Leathers’ biosecurity strategies include:

✔ **Quarantine:** all incoming cattle spend a minimum 21 days in a quarantine paddock before entering the main grazing paddocks. This also helps cattle settle and adjust to the new environment, water and feed.

✔ **Surveillance:** cattle are checked daily during the quarantine period for any health issues.

✔ **Buying cattle:** purchased cattle must have animal health statements and up-to-date vaccinations, and bulls must also be backed by soundness tests.

✔ **Visitors:** visitors can bring vehicles as far as the house – only farm vehicles are allowed to move around the rest of the property.

✔ **Vehicle hygiene:** visiting vehicles, including contractors’, must be cleaned and washed down before entry to the property. The Leathers also wash down their own vehicles when moving between properties.

✔ **Signage:** biosecurity signs on gates provide contact numbers for visitors to call before entering.



✉ Melinee Leather melineeleather@gmail.com ✉ Michael Laurence m Laurence@mla.com.au

» Craig and Tamara Corby.

On top against the odds

After persevering through devastating bushfires, NSW beef producers Craig and Tamara Corby know a thing or two about the highs and lows of managing a livestock business.

The Corbys were on the Cobargo property they lease, 'Belmont Park', when the 2019 New Year's Eve bushfires hit the region.

They lost 25 stud bulls, pregnant cows, a large portion of their machinery and nearly all their pasture.

Faced with the enormous challenge of rebuilding, Tamara said their first, immediate step was to take a pragmatic approach to recovery.

While it proved crucial to their ability to overcome the adversity, the Corbys acknowledged not everyone may have the capacity to do the same.

"We just tried to make rational decisions in irrational times," Tamara said.

For example, while an immediate thought might have been to offload stock as there was no pasture, Tamara and Craig paused to consider the implications.

"Craig and I tried to think more laterally about how we could take advantage of the changing industry. Investing in trade cattle ended up being a really good recovery strategy."

"We thought, we can't sell our cows, because we'd be selling them for less than what we paid for them. They're our bread and butter that we'd been feeding through the drought."

Taking stock

The couple's quick thinking to put a firebreak around their hayshed before the fire hit meant they had hay on hand and could feed their herd while they considered their next move in the days and weeks following the fire.

"We didn't have many fences left to contain the cattle, but even if they got out, there was nothing for them to eat as everything had been burnt – so as long as we kept feeding them hay, they just stayed where they were," Craig said.

The break around the shed also provided a biosecurity benefit, as they didn't have to deal with weed management issues from introduced feed. When they did access donated hay for additional feed, the Corbys were strategic in where they placed it – such as avoiding water drainage areas to prevent weed incursion.

Getting a hand

The Corbys' fellow Limousin producers rallied around and provided emergency agistment and fodder to the couple immediately after the fires.

"We were very fortunate to have a close-knit Limousin community around us and we got a couple of loads of hay from different

SNAPSHOT



CRAIG AND TAMARA CORBY,
Cobargo, NSW



AREA
200ha

ENTERPRISE
Limousin stud and commercial
Angus herds

LIVESTOCK
80 cows and calves, 25 stud bulls

PASTURES
Kikuyu-based pastures with
winter pasture crops

SOIL
Dark heavier loam, basalt

RAINFALL
800mm

breeders, who gave it off their own backs," Craig said.

"One breeder was so generous they sent a load of hay to us and also took 40 of our cows to continue joining them for us, free of charge."

Towards a healthy herd

Before they sent livestock off-farm, the Corbys completed a full health inspection on their herd – including checking for burnt udders and pregnancy assessments.

This assessment paid dividends for their recovery.

“It was initially a tough call as to whether we needed that extra expense, but we found that going to the effort of health inspecting every animal individually really helped inform our management decisions moving forward,” Tamara said.

Taking the chance

When their cows were moved, the Corbys turned their focus to the 80 weaners remaining on-farm.

The Corbys yarded the calves and fed them pellets, but the seasonal conditions meant it soon became apparent agistment was the most cost-effective solution to retain their weaners.

“Post the drought, there was cheap agistment because many people had sold cattle, and we got agistment for them in western NSW,” Craig said.

Capitalising on the conditions to find cost-effective agistment for the weaners also led to an opportunity that has helped fast-track their enterprise’s recovery.

“As time went on and the drought broke, we could see cattle prices were starting to go up – so we took the opportunity to buy some calves and diversify our business by developing a trade operation,” Tamara said.

“Craig and I tried to think more laterally about how we could take advantage of the changing industry. Investing in trade cattle ended up being a really good recovery strategy.”

Onwards and upwards

The Corbys accessed MLA’s ‘Back to Business’ program, which connected fire-affected producers with local farm business consultants, and said it was a significant help as they rebuilt their enterprise.

The Corbys were assigned Alastair Rayner from Rayner Ag as part of the program, who worked through strategies as well as short and long-term goals for their business.

“It gave us a great sense of relief, having a third party who was able to give us clarity and focus on the high-level context to keep us moving forward,” Tamara said.

“He also taught us skills around financial management and marketing that would go beyond the recovery.”

Looking back on 2019, the Corbys are grateful for the support provided by the broader community, which they credit as essential in helping them get back to business – especially Need for Feed, BlazeAid, the Army, South Coast Rural Relief and Local Land Services.

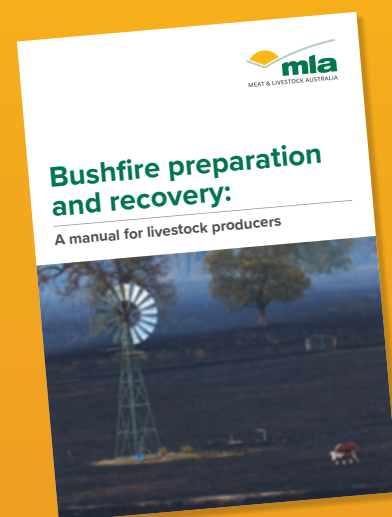
“It’s these first responders to communities who really make a difference – the early intervention is such a relief and it’s so important that the deployment of services is really quick,” Tamara said. ■

LESSONS LEARNT

- ✔ Health inspect your herd prior to putting them on agistment, especially if they’ve been through a natural disaster such as a bushfire, to maximise the cost-benefit of agisting livestock.
- ✔ Take advantage of the opportunities that come with a constantly changing industry.
- ✔ Early provision of hands-on support after a natural disaster is key.
- ✔ Consistency is vital to maintain good biosecurity.
- ✔ If using donated hay, be strategic in where you place it for weed management.

SEASONAL ACTION PLAN

- ! If you’re impacted by bushfires, access recovery tools and resources at mla.com.au/bushfire-recovery
- ! Use MLA’s seasonal hubs to manage livestock and pastures: southern producers – mla.com.au/summer, northern producers – mla.com.au/wet-season



Prepare and recover from bushfires

An MLA-funded project has delivered a practical resource, *Bushfire preparation and recovery: A manual for livestock producers*.

Being prepared for fire is not something producers should do once a year or just at the start of summer. This manual helps producers to achieve the best way to prepare for fire, which is to do a reasonable amount of work regularly, throughout the year, every year.

The ‘black summer’ bushfires of 2019–20 affected farms across six states of Australia and had a significant impact on the agricultural community, with thousands of farms affected by livestock losses.

MLA quickly responded and formed a collaborative project with Ausvet, University of Sydney and the University of Melbourne to investigate the impacts of bushfires on the health and welfare of livestock and provide mitigation strategies to reduce impacts in future years. These are all covered in the manual.

The manual includes a template to help producers create a farm fire plan for their property. Compared with producers who are unprepared, those who have a farm fire plan and appropriate equipment and training lose fewer livestock or suffer less infrastructure damage and can get back to business sooner after a fire. ■

📄 Download a copy of *Bushfire preparation and recovery: A manual for livestock producers* at mla.com.au/bushfire-recovery

📄 Back to Business: mla.com.au/back-to-business
✉ Tamara Corby tamaranraig@bigpond.com 📞 Sharon Dundon sdundon@mla.com.au



Decisions for more dollars from ewe lambs

Joining ewe lambs can increase profitability by up to \$57 per ewe lamb joined – and a new tool will soon be available to help producers make informed decisions to maximise gains from the practice.

Developed by Murdoch University, Farming Systems Analysis Service and neXtgen Agri with funding from MLA, the tool will provide guidance on the cost-effectiveness of joining ewe lambs as well as management strategies to maximise profitability from ewe lambs joined.

Project lead and Murdoch University's Associate Professor of Animal Science, Andrew Thompson, said the tool would enable producers to put a dollar value on joining ewe lambs within their flock.

"Joining ewe lambs is not something for everyone – current adoption levels are around 5% in Merino and 30% in maternal flocks. Whether it's actually cost-effective to do will vary from farm to farm and season to season," Andrew said.

"It does give you more lambs to sell, but you've got to keep an eye on costs."

Double the decision support

The tool has two separate functions to support decision making around joining ewe lambs at each step of the journey – all starting with whether a producer should join ewe lambs in the first place.

"The first aspect of the tool just helps producers decide if they should be joining ewe lambs at all," Andrew said.

Producers can enter details such as number of lambs weaned from their adult and hogget ewes and commodity prices, and the tool will advise if ewe lamb joining is something they should consider.

The second aspect of the tool is for producers who have been joining ewe lambs for a while. They can enter information and current targets around seven key factors identified to influence the performance of ewe lambs, such as the liveweight and age of the animal when mated.

"The tool then provides the producer with a dollar figure estimate of how much extra they could make by shifting their management of specific factors towards what the tool has modelled as the optimum for their specific operating environment."

A third aspect of the tool is also currently in development to inform tactical decision making. It will enable producers to optimise

"The detailed economic modelling available through this tool will give producers confidence that joining ewe lambs will be profitable for them or, alternately, identify situations in which it's not profitable."

Should I join my ewe lambs?

When deciding whether to join your ewe lambs or not, consider the following factors:

Are the ewes I already join performing?



If weaning rates within the ewes you currently join aren't meeting your targets, investment in condition scoring, pregnancy scanning for multiples, and nutritional management to boost lamb survival and marking rates in your older ewes may deliver greater returns than joining your ewe lambs.

Does my flock have the right genetics?



Selecting sires with the right genetic background will improve reproductive success when joining ewe lambs.

If you have selected sires with Australian Sheep Breeding Values (ASBVs) that positively influence ewe fertility, reproductive rates within ewe lambs joined will be higher. Look for Weaning Rate (WR) in Merinos, Yearling Conception (YCON), Litter size (YLS), Ewe Rearing Ability (YERA) and weaning rate (YWR) in Maternals, and Post Weaning Weight (PWT) for both Merinos and maternals.

What's the season and feedbase like?



Ewe lambs can be joined from seven months of age, provided they have quality feed to continue to grow after joining through pregnancy to lambing.

The quantity and digestibility of feed needs to be high to support the growth of the young ewe and its unborn lamb. Feed intake and lamb growth are highest on green pasture with about 1,500kg DM/ha. Young green pasture is most digestible, but legumes can be used to increase palatability and digestibility – a minimum 30% legume content is recommended in pastures for growing lambs.

If feed quality is insufficient, supplementary feeding may be required.

“This means we can provide advice that’s much more than generic advice – it’s actually specific to the scenario of the individual producer using the tool.”

their management of ewe lambs based on the conditions of that specific season.

Keeping it specific

With a complex range of factors affecting ewe lamb performance when joined, the tool will use a unique method to provide the specific, tailored advice producers need to drive productivity gains.

“What’s so innovative about this tool is that we have integrated whole farm economic modelling with machine learning,” Andrew said.

“This means we can provide advice that’s much more than generic advice – it’s actually specific to the scenario of the individual producer using the tool.”

According to co-founder and Director of neXtgen Agri, Mark Ferguson, the tool’s use of machine learning will allow it to provide cost-benefit analysis and optimum management strategies for more than 500 million possible scenarios.

“The beauty of machine learning is that we can enter 2,500 farm system scenarios into the tool and then it trains the algorithm to fill in the gaps between the scenarios – so it can model something very similar to your scenario in just a fraction of a second,” Mark said.

“It allows you to weigh up all the ‘what ifs’ with more precision than just doing a few numbers on the back of an envelope.”

Looking both ways

Farming Systems Analysis Service’s John Young also played a key role in the tool’s development and said the tool would offer a breadth of decision support that’s second to none.

“We’ve incorporated the whole picture – not just the production side, but the costs and profitability as well,” John said.

“Joining ewe lambs can have a significant effect on a producer’s business because if they’re not joined, they have a low feed requirement, and if they are joined, they can have the highest feed requirement on-farm. This competition for feed can affect the productivity of other livestock.

“The detailed economic modelling available through this tool will give producers confidence that joining ewe lambs will be profitable for them or, alternately, identify situations in which it’s not profitable.”

Time to talk

Before making the decision to join their ewe lambs, neXtgen Agri’s Mark Ferguson recommends producers make sure of the tools and support already available to maximise the success of their breeding season.

“Even if it looks profitable on paper to do, there’s a few things you need to do well when joining ewe lambs. I encourage producers to talk to a consultant, join the Towards 90 (T90) Program or talk to someone who’s already joining their ewe lambs to learn a few tricks,” he said. ■

SEASONAL ACTION PLAN

! The joining ewe lamb tool will be available at [mла.com.au/tools-calculators](http://mla.com.au/tools-calculators)

! Find more information, tools and tips for success with joining ewe lambs in the ‘Joining ewe lambs’ module at towards90.com.au/t90-modules

Can I put in the extra time and cost?



Ewe lambs that are joined have a high feed requirement and also require high-intensity management to ensure ewe and lamb survival.

Ewe lambs will be in oestrus for a shorter period than older ewes and will also not seek out rams to the same extent. This means a range of additional management strategies such as introducing a higher proportion of rams (minimum 2%), or using only experienced rams, may be required.

! Visit sheepgenetics.org.au and genetics.mla.com.au for more information. The Towards 90 (T90) Program is all about sheep reproduction best practice. Visit towards90.com.au to find how to get involved in T90 for greater reproductive success.



Testing and timing for better weaning rates

Keeping joining short and sharp while maintaining a consistent pregnancy testing program are just two of the latest tactics Queensland producers the McConnells have put in place to keep weaning rates high in their Droughtmaster herd through the seasons.

Together with his mother Carli and wife Andrea, Don McConnel runs a commercial Droughtmaster herd alongside their stud business, Mt Brisbane Droughtmasters, on their property near Esk, Queensland.

To manage risks in their varied environment, the family is always looking for ways to maximise calf survival through to weaning. MLA's Breeding EDGE workshop was one of the latest places where they picked up new strategies.

"We went to a Breeding EDGE workshop because you can always pick up handy little things at those courses," Don said.

"Your business can be going really well, but there could be someone there with a different idea or approach that can help you.

"We knew that we had a slight issue occurring in our herd in the interval between pregnancy testing and weaning, so we were keen to figure out what was going on."

Knowing the cause

For the McConnells, the workshop reinforced the importance of pregnancy testing as a tool to not only identify breeders that weren't performing, but to also understand why this was the case.

"Pregnancy testing is so important," Don said.

"We're very fortunate that we have a very good vet who comes out to do our testing and if he spots a problem with a test, he'll take a blood sample straightaway so we can get an answer on it."

For example, the McConnells have been on the watch for hydatids, so doing pregnancy testing and then any blood testing needed has helped them check their herd status to ensure they're healthy.

"We're sitting on around a 91% pregnancy rate across the whole herd, and we cull any cows that are dry or who are losing calves between pregnancy testing and weaning so we can make sure our herd keeps performing."

Joining time

Keeping joining within a short time frame is another method the McConnells use on Mt Brisbane to boost the reproductive efficiency of their herd, with the strategy paying dividends for productivity.

"We only give our replacement heifers an eight-week joining period," Don said.

"We've found that by shortening that joining period up, we've gotten a far better pregnancy test rate – we've achieved a 95% pregnancy rate after those eight weeks.

"This is because our heifers only have eight weeks of calving and then they've finished calving a month or so before the bulls are even out.

"This gives them plenty of time to start cycling again so when the bulls go out, they're ready to get straight back into calf."

Moving with the times

Adjusting their joining date to reflect shifting seasons has also enabled the McConnells to maximise weaning rates within their herd.

"You've got to look at the nutritional requirements of cattle and adjust what you're doing in line with how the seasons are going," Don said.

"We usually aim to start calving in the middle of August, but we've stretched it a little bit further out because our green date has moved.

"We used to be able to count on having our first fall of rain in late August or September, but now we're not getting our first decent rain until October – so we've pushed back that calving period to make sure they've got better nutrition during calving.

"Since we've been doing that, we've definitely been seeing better results at weaning time."

Similarly, by bringing weaning forward, the family ensure their breeders can recover to peak condition ready for a successful next calving.

SNAPSHOT



THE MCCONNELL FAMILY, 'Mt Brisbane', Esk, Queensland



AREA
4,046ha

ENTERPRISE
Beef cattle

LIVESTOCK
2,000 Droughtmaster cattle including 450 commercial breeders and 50 head as part of a stud herd

PASTURES
Native – black spear grass, kangaroo grass

SOIL
Rich alluvial creek flats up into steeper, rockier country, and loam soils

RAINFALL
850mm

LESSONS LEARNT

- ✔ A regular pregnancy testing program is key to maintaining a healthy, productive herd.
- ✔ Keeping joining to an eight-week period gives breeders time to start cycling again after calving, ensuring pregnancy rates can be maintained.
- ✔ Adjusting joining dates in line with feed budgets and seasonal conditions can help breeders recover condition faster after weaning.

"We know that because our grasses are predominately summer grasses, once the frost hits, the nutritional value in our grasses disappears pretty quickly," Don said.

“With this in mind, we’re trying to move the weaning forward earlier so when the cows are still drying off, they can access better feed and get condition back on them quicker.”

What’s next?

Always striving for constant improvement, the McConnells have already got their next few tricks up their sleeve to ensure maximum reproduction within their herd.

“With this year being a really wet year, a lot of the minerals have actually leached out of the soil – so we’ll be relying more on our supplements this year to keep our breeders in condition,” Don said.

“We’re also going to set up some of our yards so we can start getting much more data on our cattle using National Livestock Identification System (NLIS) tags.

“Using these tags, we’re going to follow all the calves right through their life and see which paddocks we should be putting them in for the best performance we can get.” ■

“We’ve found that by shortening that joining period up, we’ve gotten a far better pregnancy test rate.”

SEASONAL ACTION PLAN

1 Find out more about MLA’s Breeding EDGE and sign up to a workshop to access practical ways to boost your herd’s reproductive efficiency this season and beyond: mla.com.au/edge-network

2 Complete MLA’s free e-learning package, *Managing northern heifers pre-joining*, to pick up tricks for getting your herd set up for success at next joining: elearning.mla.com.au/courses/managing-northern-heifers-pre-joining

3 Read MLA’s weaner management manual for tips and tools for managing weaners to maximise condition and reproduction – **scan this QR code.**

4 Join a Northern Breeding Business (NB2) group to exchange ideas with other producers around herd performance and reproduction: mla.com.au/nb2



Goat guide for better biosecurity

In an industry first, a practical guide to help Australian goat producers recognise and manage goat diseases and ultimately boost biosecurity systems is now available.

Supported by MLA, *Goat Diseases - The Farmers’ Guide* is a comprehensive, easy-to-read guide available in hard copy and digital format.

The guide was principally developed as part of a broader co-development team in the Goat Innovation Platform pilot group in SA.

The innovation group belonged to a producer-led surveillance research initiative, part of the Foot-and-mouth disease (FMD) Ready project, which aims to strengthen surveillance and preparedness for an emergency animal disease outbreak using FMD as a model.

Improved livestock surveillance

CSIRO Research Scientist Dr Barton Loechel said supporting producers in improving livestock surveillance on-farm for endemic and emergency animal diseases was the catalyst for the guide.

“We engaged with producers directly about biosecurity surveillance and it was clear they wanted an easy-to-use reference guide specifically about goat diseases and pests,” Dr Barton said.

“The cause, clinical signs, diagnosis, treatment and prevention for a comprehensive list of diseases is set out clearly and concisely in the guide.”

Comprehensive guide

The guide provides tips and tools to help producers establish an on-farm biosecurity plan, what to watch out for, how to manage a biosecurity incursion, and where to get help.

It also includes information relating to general animal health including drenching, vaccination, foot paring, kidding, body condition scoring and fit to load guidelines. ■



Scan this QR code to access the goat diseases guide.

Joe Gebbels
jgebbels@mla.com.au



➤ Don and Andrea McConnel with children, Stirling, Digby and Audrey, in the main yards at ‘Mt Brisbane’ with weaners.

MLA’s EDGE network: mla.com.au/edge-network

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

Don McConnel donmccannel@hotmail.com

Harriet Bawden hbawden@mla.com.au

Pregnancy scanning pays

Pregnancy scanning can add value onto each ewe joined, by driving decisions around nutrition and ewe management for productivity gains – and it more than pays for itself, with research identifying a **400% return on investment**.

Increasing the adoption of pregnancy scanning to deliver these gains has been the focus of a recent project completed by MLA and Australian Wool Innovation (AWI), which aimed to generate a 10% increase in the use of pregnancy scanning by 2032.

Breaking down barriers

By strengthening the business case for pregnancy scanning, working with scanning contractors to enhance the accuracy and use of technology, and tackling other barriers to adoption, the project sought to increase lamb marking percentages to deliver an extra 700,000 lambs nationally each year.

Project lead and University of Adelaide Associate Professor, Forbes Brien, said the research shows pregnancy scanning was a reasonably low-cost but high-profit tool that could aid in reproductive management.

“The average profit from pregnancy testing of all the scenarios we’ve analysed is close to \$6 per ewe scanned, which averages out at a return on investment of 400%,” he said.

“We’ve also found that by not adopting this technology, producers face a risk of increased lamb and ewe deaths as producers aren’t able to tailor ewe nutrition according to litter size.

“Protein and energy requirements vary greatly between pregnant and empty ewes, as well as single-bearing and multi-bearing ewes – and so producers need to

know which is which in order to manage each of these groups appropriately and ensure greater lamb survival.”

Highly accurate

Further supporting the project’s efforts to boost adoption of pregnancy scanning was the result of research conducted into the accuracy of the technology.

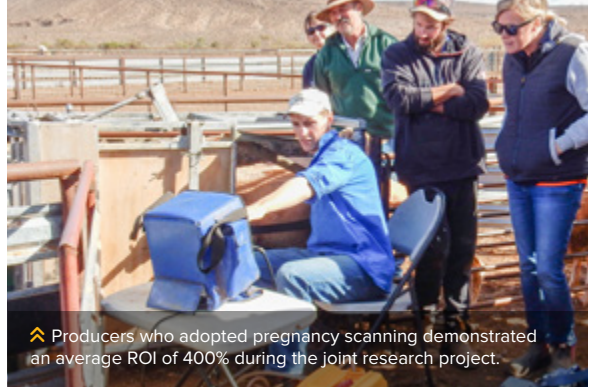
“Producers have been submitting scanning data as well as data around lambing time in the Sheep Genetics database to improve genetic evaluations of reproductivity – so we used that data to evaluate the accuracy of scanning,” Forbes said.

“From the 68,000 records analysed, we found pregnancy scanning had a 98–99% accuracy rate for determining pregnancy status, while the correlation between number of lambs born and number of fetuses scanned was 86–87% accurate.”

Spreading the word

The project produced a range of resources, including fact sheets and online workshops, so scanners and their clients can see the profitability of pregnancy scanning for themselves.

Tools to assist scanners to conduct pregnancy scanning accurately – such



as a video imagery library of real-time assessments – have also been developed and distributed to scanners around the country to improve accuracy and benchmarking when using the technology.

With the project now complete, Forbes said all signs were pointing to a general upswing in the use of pregnancy scanning across the country, for pregnancy status and litter size.

“However, still only 30% of sheep producers nationally are scanning for multiples and only 25% are managing their single-bearing ewes separately to their multiple-bearing ewes,” he said.

“This means there’s still a sizeable opportunity for producers to take up scanning and use that data to improve ewe nutrition and, consequently, increase lamb survival.” ■

✔ Profit in \$/ewe scanned for multiples

		Time of lambing			
		Autumn	Winter	Spring	
Winter rainfall	High	Merino	7.20	10.60	3.80
		Merino x Terminal	6.40	8.80	6.00
		Maternal	7.50	8.80	5.40
	Medium	Merino	7.80	2.80	5.50
		Merino x Terminal	9.80	5.20	3.70
		Maternal	5.80	4.00	4.20
	Low	Merino	4.60	4.60	1.20
		Merino x Terminal	5.20	4.70	1.90
		Maternal	8.40	3.50	6.50
Summer rainfall	Merino			3.85	
	Merino x Terminal		7.52	7.06	
	Maternal	2.01	1.74		

SEASONAL ACTION PLAN

📌 Call your scanner now to book in for a late summer scanning if you’ve just joined your ewes.

📌 Complete the Towards90 module on pregnancy scanning to see the benefits it can provide your business at towards90.com.au

📌 Get involved in this PDS to see how pregnancy scanning can boost your flock’s reproductive performance – use the PDS search tool at mla.com.au/search-pds or scan the QR code.



Revamped parasite tools at your fingertips

Summer conditions provide the ideal environment for a real parasite party – but no one wants to be invited.

It pays for producers to know about parasites and their management, to take a preventative approach.

The recently revamped ParaBoss website has brought together all the tools, information and treatment guides for flies, lice, ticks and worms in sheep, goats and cattle all around Australia.

Not sure where to start? Here are four tools on the ParaBoss website which can help prevent a parasite party on your property.



Complete a worm egg count to guide management decisions

When it comes to worms in sheep and goats, it's useful to do a worm egg count (WEC).

A count of more than around 200–500 eggs per gram (depending on region, class of stock and species of worm) indicates sheep are losing production and may require a drench.

WECs also indicate if sheep and goats are pumping out eggs into an ideal environment for larval development, compounding the problem for future months.

These animals may not look unwell until they get very high egg counts, so a quick WEC can help make an early drenching decision in a risky period.

When you've got a WEC result, use the revamped ParaBoss website to:

- source advice from a ParaBoss accredited advisor on how to manage the worm burden
- use the online drench decision guide tool
- learn about a longer term, integrated regional program adapted for your property.



Personalise your flystrike plan

A flystrike plan of attack is essential throughout the warmer months, along with careful monitoring of flocks and treatment of struck animals.

The online FlyBoss Compare Management Tool incorporates data from your local weather station – enter information relating to your sheep and time of shearing and crutching to see how different options for chemical prevention over the season can influence flystrike risk.



Find out withholding periods for lice treatment

Lice presents an animal welfare and economic challenge, requiring treatment.

Lice numbers in cattle naturally decrease as cattle's winter coat is shed, particularly in the warmer weather.

However, lice management in sheep requires careful planning and chemical application. It's important to rotate chemical families, particularly bearing in mind products with dual label claims against fly and lice.

The new ParaBoss website has a useful tool to help plan chemical use. Use the Product Search function to search for any species, or any targeted parasite, based on factors such as withholding periods for meat or wool, wool length and length of protection, and look at the known resistance profile of the active ingredients.



Shoo flies away this summer

Forecasts are for a season where nuisance flies and Buffalo Fly may trouble cattle across a wider area than generally seen.

It's also important to keep an eye out for ticks on stock, including cattle tick (in the endemic tick zones of northern Australia), bush tick and paralysis tick.

In the area outside of the tick zones, cattle tick is notifiable and, in all areas, preventative measures for flies and ticks are warranted before numbers build.

The ParaBoss website has guidelines on how to do this, specific for your area – under 'regional programs' on the main menu. ■

SEASONAL ACTION PLAN

1 Check out all the parasite control tools available at paraboss.com.au/tools

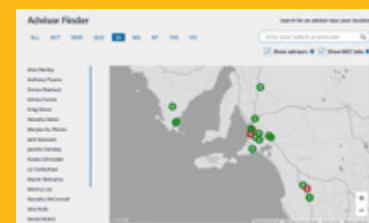
2 Find a ParaBoss-accredited advisor or provider at paraboss.com.au/find-an-advisor

3 Subscribe to the ParaBoss e-newsletter at paraboss.com.au/register

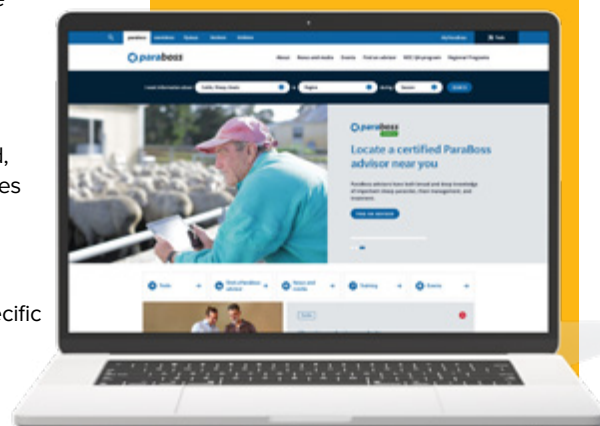
Tap into new ParaBoss features

The redevelopment of the ParaBoss suite of websites focused on making information easier to find.

The features of the new website, which launched in October, include condensed information, improved search results, improved sign-up functionality, an interactive 'find an advisor' map and a calendar of events.



4 Visit paraboss.com.au for a one-stop-shop of information, tools, treatment guides and more for parasite control.



Some of Stellar Livestock's commercial Angus herd.

Carbon data for double the benefit

SNAPSHOT



JULIAN CARROLL,
Mudgegonga,
Victoria



AREA
540ha

ENTERPRISE
Seedstock and commercial Angus cattle

LIVESTOCK
100 registered Angus calves produced
a year, 300 commercial breeders

PASTURES
Phalaris, ryegrass, clover

SOIL
Clay/loam and some lighter
granitic country

RAINFALL
980mm

CURRENT CARBON POSITION
2021–22 total emissions: 750t CO₂e
2021–22 total sequestration: 76t CO₂e

TREES
17% of farm area currently under trees
(average tree age is four years)

Caring for the environment is a top priority for Victorian beef producer, Julian Carroll, and it hasn't come at the cost of his herd's productivity.

Julian and his family operate an Angus seedstock business, Stellar Livestock, alongside a commercial herd at Mudgegonga.

The business has consistently focused on genetics for many years, to breed bulls for maternal efficiency and carcase merit, and produce commercial steers for the high-marbling feedlot market.

In recent years, however, sustainability has also come to the fore.

"We really started to invest in this area when Dad handed over the reins to the business around 10 years ago," Julian said.

"I started repairing riparian zones, putting in shelter belts and other work to build our natural capital on-farm."

Creating a carbon account

When given the chance to create a carbon account for his business through Agriculture Victoria's Livestock Farm Monitor Project (LFMP), Julian took the leap to investigate the potential benefits of tracking emissions produced and carbon sequestered on-farm.

"I was always fascinated by the developing conversation around carbon accounting,

and we were presented with a very easy path to carbon accounting through LFMP," Julian said.

"Agriculture Victoria had the foresight to realise the bulk of the farm data required for carbon accounting is the same data that needs to be collected for business benchmarking.

"They just had to ask me three more questions about the area, age and type of trees we had on-farm, and then we had a carbon account as well as an understanding of our business's performance."

Benchmarking benefits

Creating a carbon account while benchmarking his business is something Julian recommends other producers explore to maximise the benefits to their enterprise.

"Carbon accounting can be more than purely just figuring out your carbon intensity – there's so many benefits from the business benchmarking you can do alongside it.

Creating a carbon account: a checklist

Collect data on your:

- livestock sales – including quantity, class, age, live weight and value of animals sold
- inventories – such as fodder reserves and stocking rates at the start and end of each financial year
- inputs – such as fertilisers, fuel, electricity and livestock purchases
- trees on-farm – area, species type, soil type.

"I can watch how our business performance changes from year to year, assess some of the aspects of my business I'm considering making changes in, and compare the business to other similar businesses in the area."

Capitalising on carbon

By creating a carbon account, Julian also hopes to stay ahead of consumer and market demands around sustainability.

"If there's an opportunity to turn our carbon position into a market advantage, we'll be set," Julian said.

“In the coming years, I expect producers will need to account for the carbon that went into producing many of the livestock sold direct to brand owners.”

While the process of creating a carbon account can be daunting at first, Julian said it can be straightforward with solid systems for collecting farm data.

“The first time you do it is the worst time, as you’re learning what data you need to collect and you’ve got to look in many different places to get it together,” he said.

“By the time you’ve done it a few times, you actually have a good system in place to track all your data.”

Keeping track

Julian looks to software as the solution for collecting the data needed to benchmark his business and update its carbon account.

“To create and maintain our carbon account, we need to provide a pretty detailed breakdown of all of our livestock sales, alongside changes to our inventory and inputs,” Julian said.

His record-keeping process is:

1. Details of cattle sold (live weight, sale value and marketing component cost) is entered into a spreadsheet.
2. This spreadsheet is then used down the track for benchmarking and carbon accounting.
3. Other inventory, such as fodder at the start versus fodder at the end of the financial year, is similarly recorded.

Facing the future

While Julian expects there to be challenges along the way to lowering his carbon intensity on-farm, he recommends producers create a carbon account as a solid first step towards bolstering the sustainability of their business in the long term.

“It’s great that the industry has made a commitment to being carbon neutral in 2030,” Julian said.

Four carbon accounting tools

1 Calculator

Together with the University of Melbourne and Integrity Ag and Environment, MLA has developed the Sheep & Beef Greenhouse Gas Accounting Framework (SB-GAF).

This free tool calculates emissions from livestock inventory and major purchased farm inputs, as well as total carbon sequestered in trees on farm.

To calculate a value for carbon stored in the feedbase and in soils – and to include it in your SB-GAF – producers can access the free Full Carbon Accounting Model (FullCAM) tool.

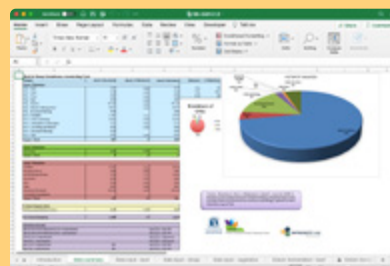
Dedicated carbon accounting tools have also been developed for goat producers and feedlot operators by the University of Melbourne.

👉 Start creating your carbon account at piccc.org.au/resources/Tools

2 eLearning

MLA’s new Carbon 101 eLearning module provides clear information about carbon farming, to empower producers with the key knowledge required to make decisions around carbon farming and improving their carbon performance on-farm.

👉 Access MLA’s Carbon101 eLearning module at elearning.mla.com.au



3 Carbon accounting manual

MLA’s *Carbon accounting technical manual* provides free help with carbon accounting, including:

- background information on livestock-related GHG emissions
- a step-by-step guide to creating a carbon account using the SB-GAF tool
- tree and soil carbon storage on-farm
- practical opportunities to reduce GHG emissions, store carbon and offset emissions.

👉 Scan this QR code to access the manual.



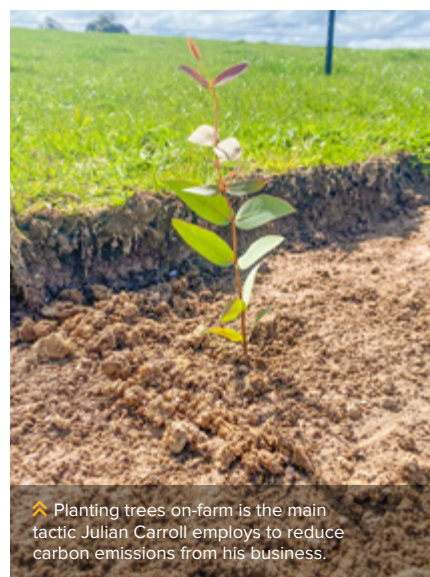
4 CarbonEDGE

MLA’s CarbonEDGE training package will be piloted in 2022–23 as a further addition to these carbon resources.

This package will provide hands-on workshops to teach producers how to use carbon accounting tools, create carbon accounts and harness innovations such as additives and pasture mixes to boost sustainability and productivity.

“For us, we’re most excited about using carbon storage on-farm to our advantage.

“There’s so many benefits to building natural capital on a farm, from boosting the health of waterways to providing shelter for cattle and sheep – and these remain the best outcomes from doing environmental work on your farm.” ■



👉 Planting trees on-farm is the main tactic Julian Carroll employs to reduce carbon emissions from his business.

LESSONS LEARNT

- 👉 Business benchmarking and carbon accounting require similar farm data, so doing both at the same time streamlines the process and maximises the benefits.
- 👉 Spreadsheets are a great way to track livestock sales and other data needed to create your carbon account.
- 👉 Creating a carbon account could give you a marketing advantage for your livestock in the future.

📍 CN30: mla.com.au/cn30 📧 Find out more about the virtual or face-to-face carbon accounting training available through the University of Melbourne’s Carbon Neutral Agriculture program by emailing carbon-neutral-agriculture-training@unimelb.edu.au
 📧 Julian Carroll julian@stellarlivestock.com.au 📧 Margaret Jewell mjewell@mla.com.au

Five steps to make fertilising sown pastures pay

A group of northern producers looking to improve property productivity used an MLA Producer Demonstration Site (PDS) to see if it's economical to fertilise sown pastures – the results show it can be, with the right steps.

Fertilising sown pastures isn't a common practice in northern Australia, but as land and animal values increase and the productivity of older pastures decreases, there's growing interest.

"The PDS found fertilising rundown pastures produced, on average, double the yield of that in unfertilised paddocks, regardless of season," the PDS Coordinator Jill Alexander said.

"Fertilised pastures stayed green for up to a month longer than control paddocks and crude protein levels were consistently higher in the fertilised pasture throughout the year.

"The PDS concluded sown pasture fertilising is economically worthwhile on the Western Darling Downs. Using fertiliser prices paid during the project period (2018–21) fertilising was a good investment and a more economically sound option than planting forage sorghum."

How to make it pay

Jill said before producers start fertilising pastures, they need to rule out that grazing management isn't an issue and ensure there's a level of rest for each paddock during the growing season.

With this foundation, follow these tips to optimise management.

1 Get a soil test

Engage an agronomist to do full profile soil testing to assess if nutrient or subsoil constraints limit pasture productivity across different areas.

"You can't manage what you don't measure," Jill said.

"For example, the most economical fertiliser might be the more expensive one per tonne but has a higher proportion of the nutrient you are lacking, and therefore you need to apply less of it to correct your nutrient deficiency or imbalance."

2 Prioritise paddocks

"You will achieve the best 'bang for your buck' by focusing on deep, high water holding capacity soils such as clay loams and clays because those soils will store and hang on to nutrients better than shallow or sandy soils," Jill said.

Prioritise paddocks which have the highest density of desirable species but show signs of chronic rundown, to reinvigorate what's there as opposed to trying to establish more species.

Signs pasture needs fertilising are:

- lower than expected yield for rain received
- discoloration such as yellowing of the pasture and 'burning off' along the tips and centre of older leaves
- poor flowering and low viable seed production
- poorer than expected animal performance (lower live weight gain for the yield).

Remember – there's no point fertilising if you can't use the extra feed produced.

3 Get your equipment in order

It's important to secure access to the equipment you need to apply the fertiliser because more volatile fertilisers, like urea, are best spread onto pasture as close to a rain event as possible.



PDS Coordinator Jill Alexander.

4 Select which fertiliser application strategy

Producers should work with their agronomist to decide when to apply fertiliser and whether to do split applications or bigger applications up-front.

For example, if there's a dry start to the growing season, it's worthwhile splitting the recommended application into two – half to go on in spring after some rain, the other half in mid-growing season (but if there isn't enough rain you might hold off).

5 Crunch the numbers

With fertiliser input costs at an all-time high, the PDS found producers can still get a return on their investment.

"In these wetter years, even if the prices are higher, the PDS found producers would break even, but it takes a longer payback period," Jill said.

"When there's plenty of subsoil moisture, it's the availability of nutrients that typically limits pasture growth."

As land prices increase, fertilising existing pasture provides a relatively quick way to increase scale of operation.

"Producers can either increase their carry capacity by buying more land, improving the condition of the land they currently have by increasing the density of palatable species (which takes time and good wet seasons), or by fertilising to increase the yield of the existing palatable pasture," Jill said. ■

✔ Cattle grazing a paddock as part of the PDS – this Bisset creeping bluegrass is pictured two years after it was fertilised with 100kg/ha single superphosphate and 100kg/ha urea in the first year, and 250kg/ha SuPerfect® Pot 1 and 100kg/ha urea in the second year.



« Producer Sam Haig participated in the PDS because he wanted to boost production without buying more land.

Fertilising pastures boosts production

SNAPSHOT



Q ueensland beef producer Sam Haig has reaped the benefits of fertilising his pastures – including doubling carrying capacity – as a result of participating in an MLA Producer Demonstration Site (PDS).

The PDS (see story opposite) also gave him the confidence to make changes to his ongoing pasture management strategies.

Sam and his wife Kate both work off-farm, so they became involved in the PDS as they were looking for ways to boost production in their cattle trading enterprise without buying more land.

“We just weren’t growing enough feed for ground cover, and we were also getting a lot of soil erosion,” Sam said.

“During 2018 and 2019 it was pretty dry with only erratic rainfall and the country became really rundown and we were spending a lot of money on buying in feed.

“Feeding your stock all the time takes an emotional toll too.”

Previously, Sam would plant a forage crop to give the pasture a spell, but because of the dry season it was hit and miss as to whether he would get it planted at the right time.

“We’d spend a lot of money on fertiliser and maintaining the forage crop, but we weren’t seeing the return on investment,” he said.

Increased ground cover

While the production gains from the PDS fertiliser trial – including average weight gains of 130kg per adult equivalent/year – were pleasing, Sam was also impressed to see ground cover and water retention improve.

“We used to have to get three or four falls of rain to get a good growth response, but now every fall above 10mm we see the pasture respond.

“The pasture seems a lot more resilient and during cold periods it’s still green.

“This pasture improvement has allowed us to almost double our carrying capacity.”

The paddock where Sam hosted the PDS was light red loam soil which had been historically

cropped. Despite man-made contours, water would run straight through – something Sam no longer sees.

“I’ve been here 20 years and I haven’t seen it in this good of a condition – we’re not losing anything with run-off.”

Soil testing essential

One of Sam’s key takeaways from the PDS was the importance of soil testing.

“The key was to get soil testing done to know what nutrients we need to add,” Sam said.

“There’s no point fertilising a paddock by just throwing everything at it, you need to know what specific nutrient is missing and address that.”

Sam now plans on soil testing every few years to identify imbalances which are visually apparent.

He’s also going to focus more on pasture quality – another outcome of the PDS.

“I now let the pasture recover for a longer period so it’s more resilient. I move my cattle more often to utilise the best quality feed.”

Building confidence

Sam found participating in the PDS very rewarding as he watched paddocks which once only had ankle-high ground cover now grow ground cover “so high you can barely walk through it”.

“Every time you get a result like that it builds your confidence,” he said.

“Before we did the PDS there was limited information on fertilising pasture for northern producers, so after seeing the results it has really boosted my confidence.” ■

“This pasture improvement has allowed us to almost double our carrying capacity.”

SAM AND KATE HAIG,
‘Oakland’, Jandowae,
Queensland



AREA

605ha

ENTERPRISE

Beef cattle

LIVESTOCK

110 breeding females, 65 agistment cows/calves

PASTURES

Improved pastures including Rhodes grass, creeping bluegrass, bambatsi, green panic, some native grasses

SOIL

Light brigalow/bottle tree scrub to spotted gum/ironbark forest

RAINFALL

600mm

LESSONS LEARNT

- ✓ Soil testing is key to ensuring a return on your investment.
- ✓ Spell pastures after first rainfall in spring to allow adequate growth and recovery from winter.
- ✓ If you’re new to fertilising pastures, collaborate with like-minded producers to build your confidence and share successes and challenges.

SEASONAL ACTION PLAN

📄 Scan this QR code to read more results from this PDS.

📄 Visit MLA’s Healthy soils hub to get your soil into shape at mla.com.au/healthy-soils



- 📄 MLA’s PDS program gives producers an opportunity to see research in action, testing different strategies to increase profitability and productivity on commercial properties. Learn more at mla.com.au/pds
- ✉️ Jill Alexander jillalexander@bigpond.com
- ✉️ Sam Haig oakland410@gmail.com
- ✉️ Alana McEwan amcewan@mla.com.au

Super saltbush plugs feed gap

Saltbush not only enhances livestock nutrition to bridge feed gaps – new research is showing how nitrogen can super-size growth of this reliable performer in non-saline and sandy soils.

Producers will see gains from either strategic nitrogen application or by incorporating adapted annual legumes to fix nitrogen in soil.

CSIRO's saltbush research, funded by MLA and Australian Wool Innovation (AWI), continues to deliver valuable insights into how this drought-tolerant super shrub can help carry producers in Mediterranean and low-rainfall mixed farming systems through the autumn feed gap.

Long-term research

The old man saltbush research began in 2007, under the auspices of the Future Farm Industries Cooperative Research Centre (2007–14).

Researchers honed in on the saltbush variety Anameka™ for its ability to be productive in non-saline and sandy soils, and its responsiveness to nitrogen fertilisers.

The CSIRO-led team are progressing research to develop seed lines from the nutritious and palatable cohort of plants that delivered the Anameka variety to market.

Sheep taste-testers

CSIRO project leader Dr Hayley Norman said livestock played a key role in selecting Anameka.

“Anameka was identified as the best plant from 60,000 individuals – the national

research team relied on the sheep themselves, who consistently chose the shrubs with the highest nutritional value,” Hayley said.

“There was no way we could put 60,000 plants through a laboratory, and the innate ability of the sheep to select saltbush varieties for optimum energy and nutrients that best met their needs was a unique facet of our study.”

On-farm benefits

After commercialisation in 2015, Anameka saltbush has been a hero, offering a solution to the balancing act that producers in Mediterranean and low-rainfall mixed farming systems face during the autumn feed gap, when livestock rely on crop stubble and supplementation to carry them through.

With saltbush providing key nutrients including protein, sulphur, minerals and Vitamin E during this challenging period, costly and time-intensive supplementation can be delayed, and grazing of new pastures following the late autumn rains can be deferred.

Saltbush can remain productive for decades on a range of soil types that are marginal for crops and its evolution in semi-arid parts of Australia makes it incredibly tolerant of low-rainfall seasons once established.

RESEARCH UPDATE

WHAT'S IT ABOUT?

To find economical, drought-tolerant shrub solutions to bridge seasonal nutritional gaps.

WHY IT MATTERS

Anameka saltbush is a palatable, nutritious addition to livestock enterprises and is helpful in filling the feed gap, providing antioxidant vitamin and mineral supplements, and supporting deferred grazing.

WHERE'S IT UP TO?

Ongoing (to March 2023)

WHO'S INVOLVED?

MLA, CSIRO, Australian Wool Innovation

Nitrogen key to saltbush vigour

Saltbush likes nitrogen, and knowing how much, under what conditions is an aim of CSIRO Research Scientist Dr Sarah Rich.

After seeing a growth response to nitrogen in field research sites in Dongara and Baandee, WA, she moved to the glasshouse, growing 100 plants under 15 different treatments of nitrogen and salt.

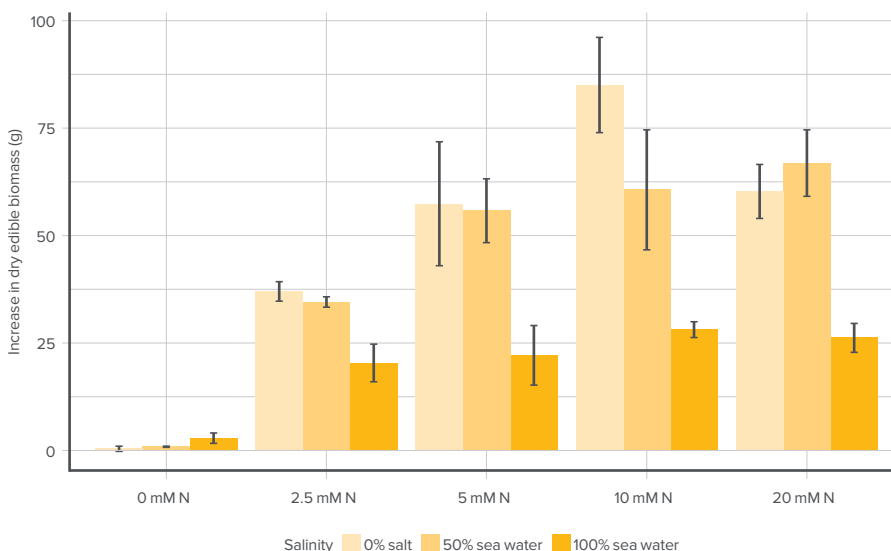
Figure 1 (left) shows an up to 40 times increase in biomass production when plants were watered with 10mM nitrogen in fresh water. Even when plants were watered with 50% sea water salinity, adding nitrogen above 2.5mM produced an up to 25 times increase in biomass.

“We know Anameka likes nitrogen as it uses nitrogen compounds to osmoregulate (deal with salt and moisture stress), and we can clearly improve growth rates with it,” Hayley said.

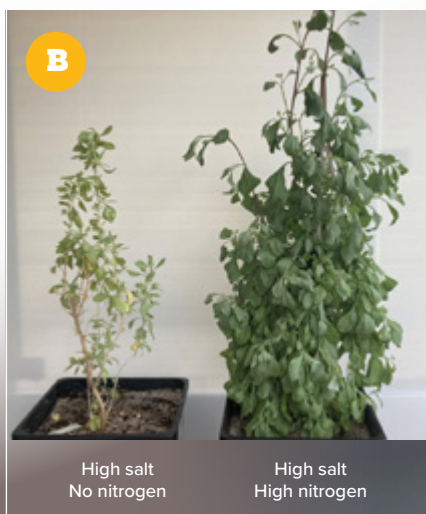
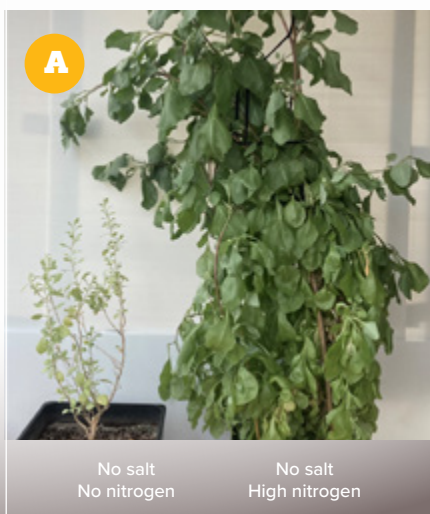
“Our results in the field will help us know how we can use nitrogen to strategically boost biomass production and the most cost-effective ways producers can supply it.

“Nitrogen fertiliser is expensive, so we are exploring companion pasture legumes to boost nitrogen.”

✔ Figure 1: Changes in dry edible biomass of Anameka saltbush from differing nitrogen and saline treatment levels (presented as sea water salinity equivalents).



📌 Comparative growth of Anameka saltbush shrubs after nine weeks' treatment at differing nitrogen and salinity levels.



Saltbush Q&A

? Can saltbush be grazed by sheep and cattle?

Yes, when given options in summer/autumn and access to fresh water, both species chose to eat roughly one-third saltbush as part of a diet. Cattle are less tolerant to salt than sheep so ensure they have access to fresh water.

? How much saltbush can sheep eat?

As saltbush contains oxalates and is high in sulphur and salt, it shouldn't be more than one-third of a sheep's diet. It's best to think of it as a protein, mineral and antioxidant supplement, not the entire diet. Sheep and cattle will balance their diets if offered some low-salt alternatives such as crop stubbles, hay or understorey.

? What is the nutritional value of saltbush?

Saltbush provides antioxidants, crude protein, vitamin and mineral supplements for livestock. It has low to moderate energy levels. Anameka was selected for higher energy with an organic matter digestibility of 64%. It's rich in vitamins E and A, zinc, copper, sulphur, manganese and selenium, which may contribute to pathways that reduce oxidative stress. This is particularly important when there is no green feed, it's hot and when animals are reproducing.

? How hard can I graze saltbush?

Once established, saltbush is very resilient and can be grazed to bare sticks as long as it's given some time to recover (it's best in a crash grazing system and not heavily set-stocked). In the year after planting, young plants need time to establish a strong root system. During establishment, if plants are above knee height and you cannot pull them out of the ground, they are ready for the first graze but don't remove more than half of the biomass. If mainly used in autumn to fill a feed gap, it can survive even when grazed hard.

Future research

While it's known to thrive in saline environments, Hayley said saltbush also loves clays and is happy in sandy soils.

"The seedlings thrive on land types marginal for cropping, except waterlogged soils so it's best to avoid those.

"New research is exploring the shade and shelter value of these shrubs on unproductive land."

Other research is also focusing on new saltbush genotypes potentially grown from seed, and investigating commercial options for a *Rhagodia preissii* variety.

There's also been progress in expanding Anameka production into NSW with a collaboration between Chatfield's Tree Nursery (an Anameka licensee) and Tulla Natives.

Seeds key to widespread adoption

Until now, producers have largely relied on purchasing cuttings (for Anameka) or seedlings (for other varieties).

The CSIRO research team is keen to widen the options to include direct seeding of elite lines and are investigating how to overcome current barriers.

"Supply of seedlings, planting equipment and good advice regarding establishment has been an issue, especially in areas where there are few farm tree nurseries," Hayley said.

"Demand for trees for carbon farming is going to put even more pressure on the industry so direct seeding remains a research goal.

"Unfortunately, while mature saltbush is incredibly tough, saltbush seeds are tiny and pretty pathetic during establishment, so direct seeding is hard, especially in areas with low summer rainfall.

"The seeds don't have a lot of energy reserves and seedlings get eaten by bugs and struggle if roots are not established before a hot, dry summer."

Progress has been made in removing the woody bract (the structure surrounding the seed) without damaging the seed and in understanding soil temperature and moisture requirements for germination and establishment.

Sarah is working with Simone Pedrini and Kingsley Dixon from Curtin University to explore the use of seed coatings with growth promotors and insecticides to improve success rates – they have seen promising results and are going to test a range of elite seed lines next season. ■

SEASONAL ACTION PLAN

- 📌 Plan ahead and budget to secure Anameka cuttings as this variety of saltbush cannot be grown from seed as yet.
- 📌 Don't forget the understorey – especially legumes. It's easier to plant it before the shrubs go in. Don't forget to inoculate legumes.
- 📌 Lay out plantings to optimise stock visibility, movement and shelter, and to avoid areas with waterlogging.

👉 Turn the page to meet a producer who is using saltbush to fill the feed gap.

📞 Contact Chatfield's Tree Nursery for info on Anameka™ cuttings: chatfields.com.au 📺 CSIRO Saltbush for grazing livestock video: vimeo.com/733868413 📧 Hayley Norman hayley.norman@csiro.au 📧 Joe Gebbels jgebbels@mia.com.au

‘Indestructible’ saltbush earns its place

WA sheep producer Rex Luers’ involvement with saltbush research has given him a first-hand experience with the reliable and nutritious Anameka™ variety, which is now a stalwart in his grazing strategies.

Rex has grown saltbush at his Kellerberrin property as part of an MLA/Australian Wool Innovation-funded, CSIRO-led research project since 2019 (see previous page).

Despite being in a low-rainfall region (L3 zone), Rex grazed 2,000 dry sheep equivalent (DSE) on one Anameka stand planted as part of the study.

Plugging the feed gap

Anameka lines have proven to be high-value feed gap fillers, particularly in September and October, prior to grazing harvest stubbles and from April to June, before opening rains.

The highly productive variety has produced from 1–3.5kg of edible dry matter (EDM) per shrub each year, almost 1t EDM/ha. This complements the annual legume and ryegrass understorey.

Making gains

Saltbush has been a profitable addition to the Luers’ family grazing system and Rex is very happy with the outcome of the trials.

“We expect our plantations will give us 8,000 grazing days of good feed,” Rex said.

As part of the study, Rex grazed the saltbush over summer and autumn 2022 and was able to double the stocking density to 29.3 ewes/ha, with ewes on the plots for 35 days (1,025 grazing days/ha).

Despite intending to use saltbush primarily for maintenance, he’s seen pleasing weight gains this year, with pregnant ewes gaining 231g/head/day, and modest improvements in condition score.

While saltbush cannot be 100% of a diet, Rex was able to reduce supplementation – an added bonus.

“We’ll use it for a confinement feeding area after the season break and also for a quick graze during summer, especially with young sheep, for vitamin E supplementation,” Rex said.

Given the lack of understorey (1,225kg/ha by autumn) and high-salt diet, the ewes were offered a supplement of 1,100kg of export oaten hay (232g/head/day) and approximately 200kg of barley grain (42g/head/day).

Testing the limits

Confining sheep in saltbush stands while waiting for winter pastures to establish after a late seasonal break is a common tactic but it results in shrubs being completely defoliated to sticks.

Current experiments at the property are working out whether there’s any benefit in excluding shrubs from grazing in order to generate more biomass availability the following season.

Researchers are testing the ‘use it or lose it’ principal, with some of the shrubs isolated from grazing in exclusion cages. Research at other locations has shown that saltbush copes well with severe defoliation if given time to recover and there’s little benefit in deferring grazing for more than a year.

Rex has earmarked two more areas on the property for saltbush plantings and has been surprised at how hardy the plants are.

“I learnt that saltbush can be grazed very hard – I thought I’d killed them on a few occasions, but they returned very well,” Rex said. ■

SNAPSHOT



REX LUERS,
Kellerberrin, WA



AREA
2,400ha

ENTERPRISE
Merino sheep

LIVESTOCK
900 ewes, 200 hoggets, 1,050 lambs

PASTURES
Medics, natural pastures and sown pastures of oats and barley

SOIL
Loam/clays and loams

RAINFALL
325mm

LESSON LEARNT

✔ Once established, don’t be afraid to graze saltbush hard – it is remarkably resilient.



✔ Shrubs at Kellerberrin in exclusion cages as part of a grazing management experiment. Photo: Hayley Norman, CSIRO.

SEASONAL ACTION PLAN

- 1 Sheep are ready for a vitamin and mineral top-up from saltbush after grazing crop stubbles.
- 2 Saltbush should be a third of the diet – open gates to stubbles and consider supplementary feed when the understorey has been exhausted.
- 3 When getting ready to graze saltbush in summer, ensure troughs are clean and there is plenty of cool, fresh water.

Natural capital grows on-farm productivity

Susan Newey is drawing on research insights to manage the natural capital on her Armidale cattle property.

The opportunity to bring new sources of high quality on-farm data into decision making is driving a game-changing research project underway across Australia. Red meat producers will be among the first to benefit from this work.

A passion for the Australian landscape is in Susan Newey's genes.

She grew up on the northern Queensland cattle station 'Myrrlumbing' where her amateur botanist mother and ornithologist father, Judy and Sandy Hunt, instilled in her a love of the land and Australian flora and fauna.

Just as importantly, they also taught her about the importance of caring for the land to their farm's commercial success.

Now running her own cattle at 'Olmo', north of Armidale, Susan's passion for continuing to learn about her property and how to best care for it was the driver to sign up for the pilot phase of Farming for the Future.

MLA is a partner in this multi-year study – the biggest of its kind in the world – which aims to conduct research at thousands of Australian farms to quantify the contribution of different types of natural resources – the 'natural capital' – to their profitability.

With this insight, producers will be able to make more informed decisions than ever before about how to best manage their land for both its health and farm profit.

Data backs up assumptions

While producers have long known a farm's natural capital will influence productivity and profitability, this relationship has yet to be properly quantified at scale.

Farming for the Future is looking to change that, through research and the

development of tools for producers to bring their natural capital onto their farm balance sheets.

The ability to audit her property over time to ensure it was moving in the right direction to be more diverse and resilient was a leading motivation for Susan to participate in the project.

"Farming for the Future is an unbelievable opportunity to have the natural capital on our property scientifically measured, rather than just working with gut feel," she said.

"Having natural capital figures of our property is beyond exciting."

Planning for the future

Susan also has one eye on the future for both her property and her family's connection with the land.

"We also know that new revenue streams are opening up to producers, particularly in the carbon credits space," she said.

"Tapping into these additional revenue streams might give our family more options when thinking about how we pass Olmo onto the next generation, particularly if not all of them want to stay on the land."

At a high level, the research process involves scientists taking measurements and records at multiple points in time across the property. Assessments of plant and bird species using approaches being tested by the La Trobe University's

SNAPSHOT



SUSAN NEWEY,
Armidale, NSW



AREA
880ha

ENTERPRISE
Breeding cattle

LIVESTOCK
160 predominantly Angus breeders (rebuilding up to around 250)

PASTURES
30% mix of exotic species, including fescue and white clover, 70% native

SOIL
Blue granite and scattered basalt

RAINFALL
800mm

Farm-Scale Natural Capital Accounting project have already taken place at Olmo, with soil and insects the next areas of particular focus.

"Joining the ecologists and other scientists while they have undertaken their work at Olmo has been an amazing experience," Susan said.

➔ Continued next page



➔ The landscape at 'Olmo', where scientists are taking measurements and records at multiple points in time across the property.

Continued from previous page

“The work they do is to a rigorous scientific standard. In spending time with them, I’ve learnt a lot about Olmo, such as discovering plant species I had no idea existed on our property, which has been so rewarding.”

Next steps at Olmo

Susan is now keen to see how the project interprets the data from Olmo with the support of tools and experts.

“I’m keen to understand how our approach to farm management stacks up against others, learn from other producers and, ultimately, make better and more informed decisions at Olmo.”

Play a part

For other producers who are thinking of participating in the Farming for the Future research, Susan’s advice is to get involved – see project contact below.

“Most producers are passionate about the land, and this project is an opportunity to understand where there are better, easier and more profitable ways of managing land than the high-input system we have slipped into.

“In doing so, we can ensure that our children take over sustainable farming businesses with high levels of natural capital that will support them well into the future.” ■

LESSONS LEARNT

- ✓ Understanding a farm’s natural capital enables producers to make more informed decisions about how to best manage their land.
- ✓ Rigorous, scientific data will be beneficial as carbon credit revenue streams open up to producers.
- ✓ Farming for the Future is an opportunity to understand where there are better, easier and more profitable ways to manage land.



Farming for the Future is a research and change program which aims to provide the business case that producers need to incorporate natural capital as part of the foundation of their farming businesses, and to activate the supply chain to encourage and reward that shift. MLA is a key partner of Farming for the Future. Learn more about the project at farmingforthefuture.org.au

✉ Susan Newey gwydir7@hotmail.com

✉ Hilary Connors hconnors@mla.com.au



✓ Nala Agribusiness’ Lachlan Sutton works with producers across the rangelands to help implement eID technology.

How eID helps refine your flock’s performance

While the traceability benefits of electronic identification (eID) are well known, the technology’s ability to deliver more effective fertility data to guide flock management decisions hasn’t been as recognised – but that’s set to change.

Ahead of eID becoming mandatory in Australia from January 2025, NSW rangelands producers are putting the technology through its paces in an MLA Producer Demonstration Site (PDS).

The PDS coordinator, Lachlan Sutton from Nala Agribusiness, said although the project was in its early stages, it’s provided insights into how eID technology could capture and store individual animal data to inform management practices and optimise productivity.

“We already see the benefits of eID for productivity and traceability, especially in a time of high biosecurity risks,” Lachlan said.

“We have some high-performing producers, and we thought this research could take them to the next level, pushing their use of eID to further their data-leveraging capability.”

Individual measurements

Unlike traditional mob-based scanning – which only identifies group performance – eID allows for individual animals to be monitored throughout their life for specific traits.

Producers involved in this PDS are recording individual measurements for:

- body condition score
- conception rates
- maternal traits, such as wet and dry (during lamb marking)
- correlations of grazing pressures
- conception of new lambs, with a focus on shedding breeds.

This long-term fertility data can be collected and stored for later use, creating a basis for breeding plans to maximise production and quality.

Other relevant performance data can be used to inform management strategies, including culling poor performers and retaining high performers – ultimately increasing a flock’s efficiency.

“It highlights where the gaps are in our production system,” Lachlan said.

“The sheer amount we can understand using the technology and databases makes it easier to put together management strategies without sacrificing potential performance.

“But more than that, it’s a tool that can help to fix physical issues producers are having, not just push productivity.”

There are other benefits of eID, including labour efficiency, with infrastructure such as electronic gates and autodrafters to scan and sort sheep reducing time and labour requirements.

Breaking down adoption barriers

While there are some challenges to adopting eID – especially in extensive enterprises – Lachlan encouraged producers not to dismiss the benefits and capabilities it can bring to their business.

“Sometimes understanding the system can be challenging, and the scale of operations and distances can cause logistical difficulties, but so much of the technology is applicable to this area and can make producers’ lives so much simpler,” he said.

The data producers collect on their livestock is paramount to the success of their enterprise, as every trait has the potential to change the potential of the future flock, with long-term fertility as a critical trait.

“Recording, analysing and understanding this information, however, can be a difficult task with traditional means,” Lachlan said.

“By taking the steps to utilise available technology, your process can be simplified, your information can be clear, and your valuable data will not be lost.”

Using the data

The wealth of information which can be collected through eID can be used in breeding and fertility programs, resulting in a superior flock that suits your profit drivers and production needs.

“The data we collect is intuitive, but there is a massive amount of it, and making the right decisions based on that data is critical,” Lachlan said. ■

SEASONAL ACTION PLAN

📌 Understand the core profit drivers of your business, including performance traits you wish to increase and maintain. Learn more at genetics.mla.com.au

📌 Research what eID equipment best suits your enterprises and production goals.

📌 Draw on advisors – including agents, vets and genetic providers – to assist with decision making.

Tips for adopting eID

The process for implementing eID doesn’t have to be complex. Lachlan has some simple tips to start the journey.

“First, don’t over-complicate the start – focus on your core profit drivers so you can work on maximising what is important to you,” he said.

“Second, leverage what you’ve got around you. You can make a lot of informed decisions without spending a lot of money on your technology.”

Technology

Using eID requires:

- a wand reader to scan and read the information within the tags
- scales to correctly weigh sheep
- autodrafter to draft the flock automatically, based on specific weights or other recorded traits
- computer to record and view sheep trait information
- data management system with correct software, secure storage and internet connectivity to safely handle data.

Lachlan said many of these items could be found at reasonable prices. More information on brands and technology is available at your local farm supplies store.

Regional input

Another tip from Lachlan is to not go at it alone – rather, recognise and utilise the businesses, workers and specialists in the rangeland areas to ease your workload and maximise how data is used.

“Whether it’s stud breeders, agents, consultants or vets, there are so many people that can help you crunch numbers and offer quick insights,” Lachlan said. ■



What info can eID collect?

eID tags can hold vast amounts of information which can be used to fine-tune breeding programs including:

- 📶 body condition score
- 📶 conception type
- 📶 conception timing
- 📶 lamb/s reared
- 📶 growth rates
- 📶 fleece weight
- 📶 veterinary treatment
- 📶 joining groups.



◀ Livestock such as this Angus bull and Hampshire Down rams are part of a carefully planned breeding program at South Killanoola. Credit: Pandy Films

Caring for people, livestock and land ensures lasting legacy

A focus on wellbeing within the prism of innovation and astute business management has ensured ongoing success for sixth generation SA beef, sheep and cropping enterprise, ‘South Killanoola’.

The Seymour family emigrated from Galway, Ireland, in 1841 and firstly settled at Mount Barker, SA. Pioneer Henry Seymour, a successful lawyer in his previous career, along with wife Eliza and their nine children, then moved on to Bool Lagoon in south-east SA, where they founded Killanoola Station in 1847.

In 1905 the property was split up equally between their sons. Charles and Thomas ran their two-thirds as Killanoola, while Robert named his third ‘South Killanoola’. The Killanoola homestead and land was eventually sold out of the family, while South Killanoola expanded.

Today, the 3,000ha property is owned by Robert’s descendant, Robert Seymour, with his son Digby positioning himself to be the sixth-generation at South Killanoola. Here’s a look at the property today, as Digby builds on this legacy.

People power

Prior to returning to the property with his wife Anne and three children Oscar, Charlie and Phoebe, Digby was a domestic and international pilot. He credits this experience as giving him with valuable skills and insights to apply on-farm – especially when it comes to matching people’s unique skill sets with the right jobs.

“I know I can’t compete with someone who’s been working full-time as a manager – it’s just good business to have the best person doing the best job,” Digby said.

The right people for the right jobs

Farm manager Dean Eastwood and his wife Jenny have lived at South Killanoola for nine years.

They’re supported by four full-time employees – regular catch-ups such as

morning meetings and daily informal check-ins ensure staff are able to raise any issues and feel connected.

“The one thing that’s important with people employing me and with my own staff is that we care about them. The Seymours do that – our family is a priority and we’re made to feel welcome within their families as well,” Dean said.

Having the right people in the right jobs is an approach which extends to off-farm support, such as South Killanoola’s agronomist Phil White, of Ag Diagnostics, who has been key to boosting the feedbase.

“We’ve had Phil here for nearly six years and he’s been a real game changer,” Dean said.

The property’s feedbase strategy includes a rotational grazing system over phalaris and sub-clover-based pasture.

They are renovating this back to permanent phalaris-based pasture, about 100ha/year. There’s about 300ha in the system at any one time, with livestock either grazing brassica crops or annual ryegrasses which are used to clean the pastures, before reverting back to generally a phalaris-based pasture.

Paddock management has also been aided with the introduction of a dung beetle nursery. The colony has spread across the property, digging down manure and reducing the worm burden and reliance on drenching.

Timed calving

Joining at South Killanoola occurs in mid-May for a mid-February, six-week-long calving. Heifers calve first – about a month before cows – to save labour and time.

“We use shorter gestation-length bulls, so our heifers start calving about 10 days ahead

SNAPSHOT



DIGBY SEYMOUR AND DEAN EASTWOOD, ‘SOUTH KILLANOOLA’
Bool Lagoon, SA



AREA
3,000ha

ENTERPRISE
Cropping, beef and sheep

LIVESTOCK
980 Angus, Hereford and Black Baldy cows, 7,600 maternal composite ewes

PASTURES
Phalaris and sub-clover-based pasture

SOIL
Sandy loam, sand and black clay

RAINFALL
600mm

of their start date anyway, but we’ve kept it going because it gives the heifers more opportunity to get back in calf,” Dean said.

“For a breeder to stay she must rear a calf and get back into calf.”

They aim to sell steers above 330kg into the feedlot or grass finisher market, and retain 90–95% of the heifers, which are joined when they are around 14 months old.

“Numbers give us options if we want to grow the herd to fill a land acquisition,” Dean said.

Knowing they have a certain number of heifers calving early means feed can be manipulated to ensure there’s enough available for the next mob.

EBVs favoured for South Killanoola's AI bull program:

- ✓ Top 10% for 400 day
- ✓ Top 10% for 600 day
- ✓ 1 or 2 for birth weight
- ✓ -10 for gestation length



EBVs favoured for South Killanoola's cow program:

- ✓ Top 20% for 400 day
- ✓ Breed average for 600 day
- ✓ Breed average for milk
- ✓ Positive for rib and rump
- ✓ Breed average for IMF
- ✓ Birth weight 5–5.5



Rams purchased for the commercial side of the flock are selected for:

- ✓ Top 20% for weaning weight, birth weight and adult mature weight (capped at 15)
- ✓ Positive for fat
- ✓ Top 10% for muscle depth



The property's weaner production system sees the bulk of calves sold from November–January, so prioritising feed availability for heifers is a strong focus.

Programs such as MLA's BredWell FedWell have given valuable insights into Estimated Breeding Values (EBVs).

"The EBVs used for the artificial insemination (AI) program and the cow program aren't a lot different – the difference is they'll be better figured bulls in the AI program that, as a commercial breeder, we can't afford," Dean said.

Split lambing pays off

South Killanoola's Hampshire Down Stud is the oldest registered stud in Australia – its iconic sheep even featured in the film, Babe.

The maternal composite flock produces 7,000 prime lambs, with 1,900 ewe lambs retained.

Five years in LambPlan has seen all composite lambs tagged at birth. The breeding strategy focuses on selecting for positive fat and lower birth weights and has been developed in response to the requirements of clients, particularly those who join ewe lambs and need ease of lambing.

A split lambing strategy helps increase use of paddocks which have high lamb survival, to better feed ewes and achieve lamb survival targets of 95% for single lambs, more than 85% for twins, and more than 65% with triplets.

South Killanoola's split lambing strategy is:

- scanning to separate flocks as single or multiple bearing

- round one lambing for 17 days starting in mid-June
- 25-day break
- round two lambing for 17 days
- ewe lambs (joined end of February) start lambing about the same time as the round two ewes.

"We're trying to target a ewe lamb joining at nine months of age – we'd like to see her better than 55kg. It works and we're going to keep persevering with it," Dean said.

Lamb survival rates, rather than lamb weaning rates, are the priority.

"Weaning rate is important however in our business our greatest lamb loss is between scanning and marking. Loss at lambing could be reduced by 10–15% versus lamb marking to weaning loss of less than 2%. Both are important – you can't let anything slip through your fingers," Dean said.

Condensed stocking rates

Portable electric fencing is used to split up paddocks to 20–50ha, with stocking rates around 11–15 ewes/ha.

Single-bearing ewes lamb in mobs of 400, twin-bearing ewes are in mobs below 100 and triplets are in mobs below 30.

"It shows we can push them fairly tight into a small area and have high survival – this year we had about 52 lambing sites, we put up about 52km of portable electric fencing and about 500 electric fence posts and they stay up for about six weeks," Dean said.

Infrastructure improvements have also seen a new set of sheep and cattle yards built this year. ■

SEASONAL ACTION PLAN

📌 Check out our summer hub for resources to fill the feed gap such as containment feeding tips: m1a.com.au/summer and visit m1a.com.au/calculators for pasture budgeting tools.

📌 Condition score stock to determine their nutritional requirements – scan this QR code for more information on condition scoring.



📌 Pregnancy scanning all females as soon as possible allows you to manage/cull based on pregnancy status – turn to page 16 for more information.

Technology driving decision making



eID tags: Inform selection pressure on ewes – composite ewe lambs are tagged annually and sorted for sire group, early/late and twin/single.



Sheep handlers: Reduce labour and strain when handling composite ewes during drenching and vaccinating.



Stick readers: Increase efficiency – used for preg scanning heifers and allow herd to be split up for calving.



Water monitoring technology: Used to manage pumps – text messages alert staff of issues.



★ Farm manager Dean Eastwood with owners Robert and Digby Seymour, at South Killanoola. Credit: Pandy Films

- 📺 Watch South Killanoola's virtual farm tour here: m1a.com.au/meatup
- 📺 Access workshops, calculators and courses at elearning.m1a.com.au and m1a.com.au/tools
- ✉ Digby Seymour southkillanoola@activ8.net.au ✉ Dean Eastwood djcs.southkillanoola@gmail.com
- ✉ Andrew Morelli amorelli@m1a.com.au

Plugged in to profits

How connectivity is driving on-farm efficiencies

If you've ever wondered how ag-tech can really add value to a red meat business, MLA's Digital Agriculture Program is delivering the answers by putting technology and devices through their paces on-farm.

The program, which began in 2018, tests ag-tech using a demonstration farm model to provide important data for on-farm decision making and management.

Collaborative projects with Carwoola Pastoral Company and Romani Pastoral Company, both in NSW, provided a pathway and opportunity for technology service providers to demonstrate to red meat producers what connectivity platform options were available, which Internet of Things (IoT) devices could operate off these, and where further investment in research and development (R&D) is needed.

Darryl Heidke, MLA's Digital Agriculture Program Manager, said there were some important early learnings from the process.

"You can't just get an IoT device and get the benefit from it unless you have reliable, cost-effective connectivity," he said.

"Within reason, however, no matter where you are in Australia, technically you can connect to and use IoT devices."

A move to co-funded partnerships

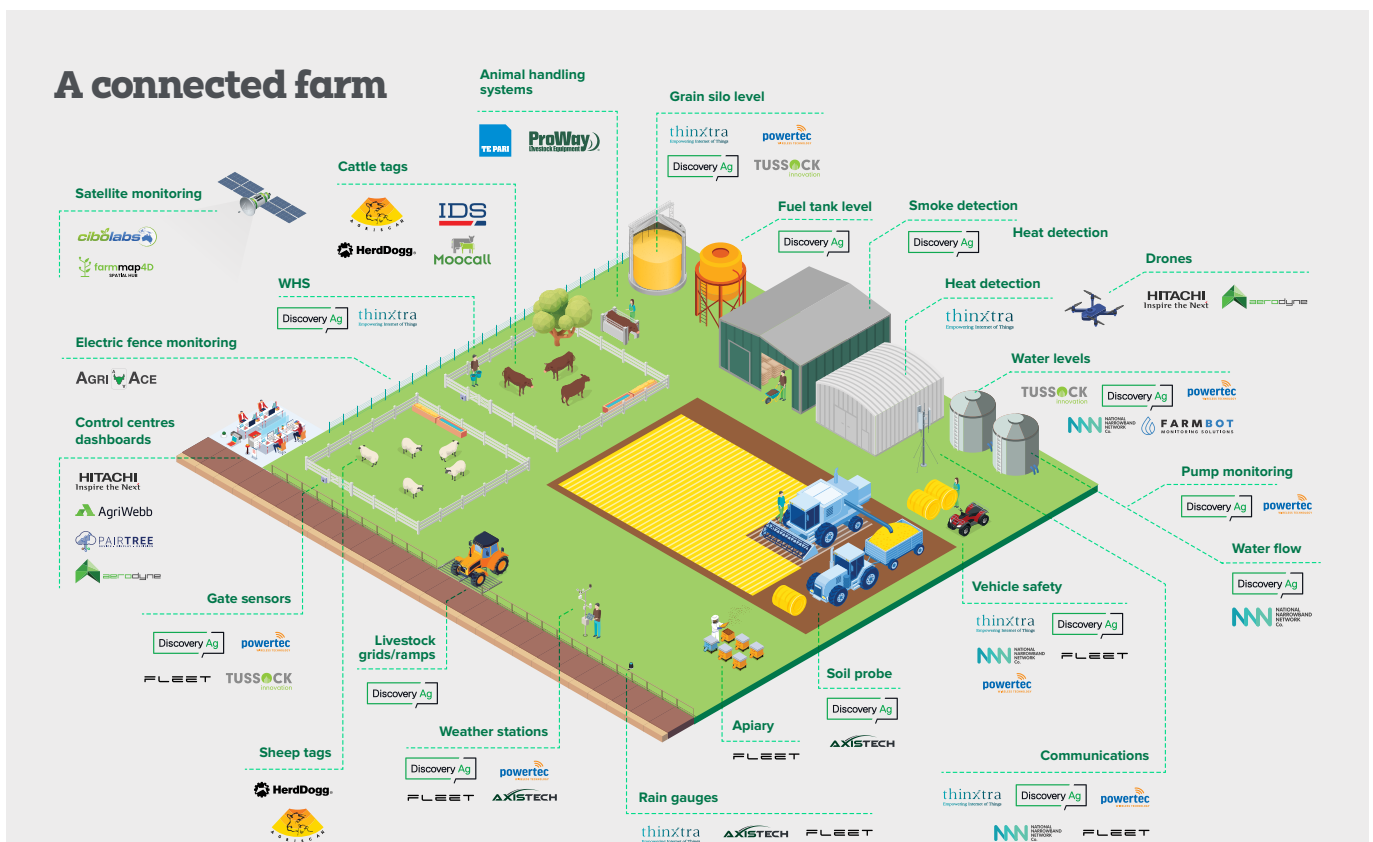
Following on from this demonstration farm approach, the Digital Agriculture Program has now moved to co-funded MLA Donor

Company (MDC) partnerships aimed at providing solutions to producer-identified problems, improving connectivity and enabling data-driven decision making.

Ease of use key to adoption

MLA's Digital Agriculture Project Manager, John McGuren, believes the key to unlocking benefits from digital technologies lies in simplifying the user experience to enable producers to more easily adopt fit-for-purpose solutions which offer strong value propositions.

"Digital agriculture offers enormous opportunities to increase the productivity



The MLA Digital Agriculture partnership with Carwoola Pastoral Company involved installing 700 ag-tech devices on-farm:

- 📶 weather stations
- 📶 soil moisture probes
- 📶 water and fuel sensors
- 📶 animal tracking hardware and software
- 📶 human safety devices
- 📶 integrated security devices
- 📶 autonomous land and air platforms (drones and automated guided vehicles)
- 📶 other IoT devices commercially available on the market.

“Digital agriculture offers enormous opportunities to increase the productivity and sustainability of Australian red meat systems and value chains,” John said.

and sustainability of Australian red meat systems and value chains,” John said.

“To achieve this though, producers need access to data-enabled decision support tools that are useful and usable to make sense of multiple data sources and gain key production, marketing and sustainability insights into their operations for faster, better decision making.”

An example of this approach in action is the Australian Feedbase Monitor – see page 3.

Developed in partnership between MLA and Cibo Labs, this new service – which is free to all MLA members – provides producers with monthly satellite updates of their pasture growth, dry standing matter and ground cover.

In a world first, the Australian Feedbase Monitor puts objective up-to-date data in

the hands of producers, to support grazing decisions and allow greater planning and responsiveness to seasonal challenges.

“Initiatives such as the Australian Feedbase Monitor also greatly enhance the digital literacy and capability of Australian red meat producers to engage in digitalisation of their businesses more broadly, keeping Australia at the forefront of sustainable production of the highest quality red meat and red meat products,” John said. ■



Testing drones for livestock mustering

An MDC partnership initiative led by 2022 Nuffield Scholarship recipient, Luke Chaplain, aims to demonstrate the viability of drones as a livestock mustering tool. It will inform best-practice industry adoption of this emerging technology and compliance with existing regulations.

Technology to be tested over various land types will include:

- infrared cameras
- object detection
- virtual reality
- large display screens/monitors.

Mapping will take place using a variety of drone platforms with various power sources, flight times, ranges and connectivity. A series of industry workshops will disseminate technical insights into applying this technology for specific mustering activities.

Focus areas of co-funded MDC partnerships

1 Leverage co-investment

Solve specific producer problems, provide economic assessment for value proposition and drive adoption (such as Producer Demonstration Sites and the EDGE network: mla.com.au/pds, mla.com.au/edge-network)

2 Satellite/terrestrial-based digital connectivity

Develop an affordable (around \$20), small GPS chip/module (direct to satellite) to enable cost-effective remote connectivity of IoT devices, including integration into livestock ear tags.

3 Remote sensing data

Enable producers to objectively measure, manage and report on natural capital and accurately define relevant spatial boundaries – delivering property/paddock level mapping/remote sensing decision support tools.

? What does it all mean?

Internet of Things (IoT)

The billions of interconnected objects whose technology i.e. sensors, allows them to share data with other devices and systems across the internet.

Return on Investment (ROI)

A formula to work out whether you've made your money back on an investment or if it has saved you money through increased efficiencies.

Interoperability

How well devices and technology can connect and share data with each other in a seamless way without you needing to do too much.

Connectivity

The ability of a piece of technology to connect with the internet or with other devices.

Ag-tech ROI calculator on the way

MLA is working with KPMG and other service providers to develop an online tool for producers to assess the return on investment (ROI) for their business for a range of devices. This tool will be available later in 2023.



Forging productivity into backgrounding chain

Increasing the production capacity of WA's beef backgrounding value chain by 12% is the aim of the MLA-supported BeefLinks backgrounding project.

Backgrounding is a tool to better utilise feedbase resources to finish cattle more consistently, in better condition and for higher value markets, enabling producers to better cope with increasing climate variability and high stock prices.

However, transporting cattle from WA's northern pastoral zone to southern backgrounding properties can result in weight and productivity losses – a challenge this project aims to mitigate.

Although there's typically enough feed available across this supply chain, it's often not used effectively or available where it's currently needed – so the project team hopes to overcome this challenge by linking producers who have available feed with those who have cattle that need it.

value of collecting regular weight gain data and improving the feedbase at backgrounding properties.

“Through creating a data feedback loop between producers, backgrounders, transportation networks, feedlots and abattoirs, we can determine what strategies will boost productivity,” she said.

With many producers not weighing animals when they leave the station or arrive at the backgrounding property, there's a gap in understanding of how effective management can prevent these losses and, if that's not possible, how to get them back on track as fast as possible.

“Having access to data will help them make longer-term, more accurate decisions,” Erin said.

Data is king

Erin O'Brien, Beef Industry Development Officer at West Midlands Group, is keen to drive productivity throughout the entire supply chain by showing the

Decision support

Project participants can see how their cattle are doing in comparison to other participating properties and are given data on which animals aren't gaining weight.

This informs decision making around which animals to sell off and how to optimise feed utilisation.

Erin said this data has shown cattle often perform best in the later part of the year.

“Factors that push them forward include good nutrition on the backgrounding property and similar conditions on station and backgrounding property,” she said.

“It's a varied system, as producers have very different production targets.”

Insights available to participants include how:

- different mobs of cattle perform each month
- animal size determines weight gain
- feedbase variation and particular paddocks affect weight gain
- rainfall affects cattle performance.

RESEARCH UPDATE

WHAT'S IT ABOUT?

Developing practical and robust management practices to improve the transition of animals from the pastoral zone into backgrounding systems, to underpin year-round supply of in-specification cattle.

WHY IT MATTERS

This project aims to increase the production capacity of WA's beef backgrounding value chain by 12%.

WHERE'S IT UP TO?

Part-way through (due to be completed in January 2023).

WHO'S INVOLVED?

MLA, The University of Western Australia and the West Midlands Group.

SEASONAL ACTION PLAN

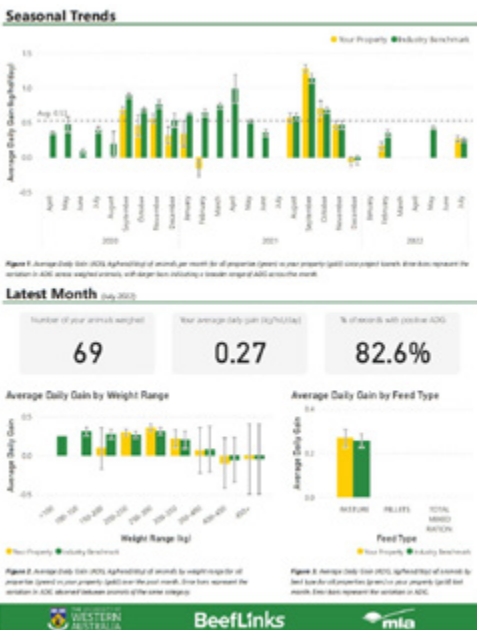
- 📌 Summer perennials can help to extend seasonal green feed production.
- 📌 Pasture quality can be improved through over-sowing annual legumes such as serradella.
- 📌 Over-sowing with cereals over winter can help improve winter production.
- 📌 Do a pasture budget to understand your feed production and seasonal carrying capacity.

Year-round feedbase

Results since the project began in 2020 indicate that introducing perennial pastures on backgrounding properties can significantly increase the length of growing season and amount of weight gained for backgrounded cattle.

Traditionally, cattle have relied on a summer feedbase of annuals, including wheat, barley and oats that have hayed off, leaving the sandy soils of the region vulnerable to erosion.

By planting perennial pastures in tandem with annuals, producers have been able to shore up their year-round feedbase and get cattle back to optimum weights as soon as possible. ■



👉 As part of the project, this supply chain dashboard report is personalised for each producer to show animal performance over the previous month in comparison with the benchmark.

- 📍 BeefLinks: [mла.com.au/beeflinks](http://mla.com.au/beeflinks) 📍 West Midlands Group BeefLinks Backgrounding project: wmgroup.org.au/cattle-backgrounding
- 🔗 Access feed and pasture tools and calculators: mла.com.au/calculators
- ✉ Erin O'Brien BeefOfficer@wmgroup.org.au ✉ Lindsey Perry lperry@mла.com.au



Beef Industry Development Officer at West Midlands Group, Erin O'Brien, has been working with the Greys on the BeefLinks Backgrounding project.

Feedbase key to easing transition into backgrounding

Murray and Adele Grey have been in the backgrounding business for almost 20 years, originally supplying cattle and now as owners of a backgrounding property at Yathroo, WA.

The Greys background cattle brought from their family station in the Pilbara, purchased stock and cattle under contract.

Getting on board with the BeefLinks: Growing WA backgrounding through adoption project (see story opposite) has further solidified their business model, with customers returning year after year to take advantage of the productive, well-managed enterprise.

The keys to their success include maintaining a quality year-round feedbase and moving cattle through a matrix of smaller paddocks under a structured rotational grazing system.

Precise pasture management

The Greys have implemented a rotational grazing system, underpinned by forward planning and structured grazing charts to ensure optimum paddock productivity.

“We’ve been able to increase our stocking density by putting in place faster paddock rotations which allow for better feed recovery and higher rates of production,” Murray said.

Looking after the sandy soils at his property has also been important, with Murray and his father-in-law, Colin Crane, working hard to establish year-round ground cover to prevent soil erosion events.

Fine-tuning the feedbase

Ensuring year-round feed supply is a balancing act between utilising annual and perennial paddocks as well as matching stocking rate to carrying capacity.

Species at the property include the deep-rooted perennial tagasaste, subtropical perennials, sown winter pastures and natural pastures.

Annuals flourish predominantly in late autumn and into early spring at the property. Perennials primarily cover summer into early autumn, however in the

Greys’ region, the majority of perennials are active year-round.

Murray has experimented with over-sowing cereals on previously established perennial pastures, which has helped ensure green feed availability year-round and has supported the increase in stocking rates in recent years.

Over the last two years, he’s tried mixed species cover crops including barley, triticale, clover and vetch.

Walkover weighing

Investing in walk-over-weighing technology has paid off for the Greys, saving time and providing accurate data on how cattle are performing.

Three significant benefits of the weighing system include:

- cattle don’t need to be put through the yards each month
- cattle aren’t losing weight walking to and from the yards
- real-time feedback on animal and pasture performance is provided.

Well-managed transition essential

Murray believes good communication and creating clear contracts are vital to running a successful backgrounding operation, as well as allowing cattle to adjust to the new environment.

“Putting some time into training cattle before they make the journey to us can ease the transition and reduce stress. Get them accustomed to things like electric fences – you can’t just expect them to respect the fencing,” he said.

Another consideration is that pastoral cattle coming down onto fresh winter green feed won’t immediately put on weight. Changes in climatic conditions and feed type, as well as high water content of green grasses in early winter, require focused management by backgrounders. ■

SNAPSHOT



MURRAY AND ADELE GREY, Yathroo, WA



AREA

Three linked farms: 1,911ha and 1,527ha (the Greys’) and 1,200ha (Colin Crane’s)

ENTERPRISE

Backgrounding cattle

LIVESTOCK

Beef cattle

PASTURES

Developed with a mix of perennials and annuals

SOIL

Deep white sand and sand over gravel

RAINFALL

527mm

LESSONS LEARNT

- ✔ Invest in portable weighing systems to save time and minimise weight loss from moving cattle to and from yards.
- ✔ Always look out for ways to improve.
- ✔ Stay organised – plan grazing charts over the year/season.

SEASONAL ACTION PLAN

- 📅 Plug feed gaps.
- 📅 Develop a year-round feedbase by including perennials.
- 📅 Feed out barley straw in winter and early spring to add roughage.

- 📍 Feedbase hub: mla.com.au/feedbase-hub 📺 Online training at The toolbox: mla.com.au/elearning
- 🔍 Access calculators and tools such as a stocking rate calculator at etools.mla.com.au
- ✉ Murray and Adele Grey glenflorie@gmail.com ✉ Lindsey Perry lperry@mla.com.au

Bringing in the next gen

Ensuring a family business will look and operate into the future in the way the family wants it to is a complex process. *Feedback* covered the steps through succession planning in the past three editions. Here, succession planning expert and Proagtive General Manager, Jess Cavanagh, provides an insight into another important part of the journey to effectively transition the next generation into the business.

“Succession is extremely multifaceted,” Jess said. There are many elements which need to be considered in constructing and implementing a holistic succession plan.

“One of those elements is mentoring and coaching the younger generation so they can take on leadership and management roles within the family business. At the completion of a family’s succession planning meetings, Proagtive offers a service to assist families to implement the outcomes, by coaching and mentoring the younger generation into management and leadership roles.

“For while the next generation may be excellent producers, some may have not yet developed the skills required to run the business to achieve succession outcomes. The process includes coaching on business financials, managing staff, understanding industry trends and achieving effective communication between all members of the family.”

➤ **Read on to learn how Carly Marriott, a next-generation producer, used this support and coaching to drive her family’s business into its next profitable and productive era.**



✓ Kate, Tom, Jemima, Carly and Herbie Marriott.

Planning ahead for positive change

For Riverina producer Carly Marriott, getting ahead of the game was the key to creating and executing a succession plan that worked for everyone involved in the family business.

Carly is the fourth generation to farm at Barooga, NSW, where she operates a mixed cropping and sheep enterprise, ‘Carramar’, with her husband Tom and their three children.

Her great-grandfather farmed across the road, then her grandfather bought Carramar – this property was run by Carly’s uncle until 2012, when her father bought it and other farms in the region.

Carly moved back home and joined her father in the business. She and Tom were full-time employees until recently, when they bought Carramar. Carly’s parents – Chris and Jan Brooks – are now semi-retired but still live on the family farm.

Driving positive change

According to Carly and her family, handing the business over to the next generation has been a positive process for all involved thanks to the assistance of Proagtive’s succession planning experts.

“Running the business with Dad went very smoothly, but when Tom and I were about to have our third child, we realised we needed to figure out what we wanted for our future and for our growing family,” Carly said.

“I asked Dad if I could stress-test the whole business to find the best way forward for us all, and we got his blessing to do so because he knew it was on our minds and he cared about our future.”

They contacted Proagtiv after hearing succession planner Isobel Knight speak at a conference, and completed the succession planning process.

“While it was gritty and painful at times, we came out the other end with everyone in the family being happy with the outcome and remaining close as a family unit.”

Getting the lay of the land

Carly said the objective advice Proagtive provided on the family’s business model and future options proved crucial to their ability to reach a successful outcome.

“The Proagtive team took the whole business model and put it through the wringer, pointing out risks, weaknesses and things

“It helped us decide what we were trying to achieve, what it would cost us and how much time it would take – as well as what our own appetite for risk was.”

- Learn more about how Proagtive can support your succession planning at proagtive.com.au
- Visit mla.com.au/succession-planning for the three-part succession planning *Feedback* series.
- ✉ Jess Cavanagh jess@proagtive.com.au ✉ Carly Marriott carly@brooksfarms.com.au ✉ Josh Whelan jwhelan@mla.com.au

SNAPSHOT



CARLY AND TOM MARRIOTT,
'Carramar',
Barooga, NSW



AREA
800ha

ENTERPRISE
Cropping and Merinos

LIVESTOCK
700 Merino ewes – self-replacing flock

PASTURES
Ryegrass, clover, annual crops

SOIL
Red loam, brown clay, sandhills

RAINFALL
450mm

we've brushed over or just left because that's how it's always been," Carly said.

"They really help articulate what your viable options are – they show you exactly where you are right now, where you want to be in five, 10 or 15 years, and how you can reach these goals."

Carly said it was a good learning curve for her and Tom.

"It helped us decide what we were trying to achieve, what it would cost us and how much time it would take – as well as what our own appetite for risk was."

LESSONS LEARNT

☞ Start succession planning early so nothing is assumed and all family members understand the direction of the business/asset.

☞ Source outside advice to identify viable options – service providers like Proagtive can help spot risks or weaknesses in a business plan and identify solutions for improvement into the future.

Learning for life

While Proagtive's advice came as no surprise to Carly's father, Carly said the process was essential to her and Tom's own professional development and plans for the future.

"When we took their recommendations to Dad he laughed and said 'while I knew that's that they might say, you both needed to go through it and see the ins and outs of your options objectively,'" Carly said.

"This professional development had to happen in real life, in real time, for us to absorb those learnings."

Following their sessions with Proagtive, Carly and Tom purchased Carramar from Carly's family and began implementing the management decisions they had agreed on during the planning process.

"As we're in a growth phase, Proagtive encouraged us to apply for a Regional Investment Corporation (RIC) loan, which is already proving useful for these first five years of running the business where we really want to get established, make some repayments and get some efficiencies on-farm," Carly said.

They've also made some enterprise changes.

Drawing on Tom's sheep production background, the couple have adjusted the enterprise mix more towards sheep than crops.

Initially, they traded lambs as it was easier to turn sheep on and off rather than keeping them year-round, but are now breeding as they have seen the value in always having a supply of lambs.

"Tom, with his skill set in sustainable farming, has also been focusing on soil carbon and natural fertilisers, and has been able to implement his approach to managing the land."

The earlier, the better

For other families on the land, Carly recommended seeking the help of professionals to aid succession planning as soon as practical.

"Going and having a conversation with succession experts like Proagtive when everything is fine is actually the best option, rather than waiting until an event occurs or things get tense – because then you won't be in the right mindset to sort things out," Carly said.

"Proagtive helps you articulate what you're thinking and give you the confidence to tell your family members what it is that you want to pursue.

"If another family member has a different view, it then sparks the conversations you need to actually make progress towards a suitable outcome for everyone."

Trust in the process

Being able to be honest, while remaining constructive, is what Carly and her family believed made succession planning services worth the time and effort.

"Finding a service provider like Proagtive that you can trust and get everything out on the table with takes a load off your mind," Carly said.

"You can have a really honest, true conversation with someone who can help – and that's so powerful for farmers, no matter their age, their gender or what generation they are." ■

☞ Jemima Marriott, self-appointed lamb manager.



☞ Kate and Jemima Marriott in the yards.

Unlock the true carcass value

Producers can improve lamb processing compliance and lift meat eating quality to unlock the real value of a lamb carcass.

Jim Meckiff, a livestock advisor from JM Livestock, facilitated MLA's Profitable Grazing Systems (PGS) Meat the Market course which helped producers understand:

- where their red meat is processed
- who the customer of that processor is
- what the processor's expectations of that product is.

"Through the Meat the Market course we wanted to help producers understand what specifications of livestock should be on that truck and what the expectations of that product are to the processor's clients," Jim said.

Objective measurement is the key

Jim said true carcass value was made up of the three factors of the sheepmeat value chain:

- carcass weight
- meat yield
- eating quality.

"Producers need to get better at delivering the optimum carcass weight and fat score from their animals to deliver higher lean meat yield (LMY) percentages, which enables the processor to pay for more meat and less fat," Jim said.

As part of the Meat the Market course, producers had a tour of Gundagai Meat Processors (GMP). GMP has invested in objective measurement technology to measure key carcass traits.

"LMY can now be measured at chain speed with the introduction of a DEXA (dual energy X-ray absorptiometry) imaging system on the kill floor," Jim said.

"Combined with the MEQ probe which measures intramuscular fat (IMF) – which is correlated to eating quality



» Jim Meckiff from JM Livestock said true carcass value was made up of carcass weight, meat yield and eating quality.

and carcass weight – the carcasses are drafted based on carcass value into low or high value groups.

"This means we can measure the key traits and accurately define what the customer wants and provide feedback to the producer. Industry can now move towards the development of value-based pricing signals – and that's how we unlock the true value of the carcass."

Data to make on-farm decisions

GMP provides individual animal feedback on carcass weight, LMY and IMF measurements. Each carcass is also inspected for 21 different animal health conditions – this information is provided to producers within 24 hours of processing.

"This feedback allows the producer to understand if they are delivering a carcass that's meeting expectations from the processor, but also in terms of animal health and efficiency on-farm," Jim said.

"For example, producers can use this feedback to determine how their work with genetics is paying off over time."

During the PGS, producers also visited a seedstock producer to learn more about breeding objectives and the traits they should be focusing on when selecting for lean meat yield, eating quality and growth. ■

Eating quality grounded on objective information

Rob Lindon has set a breeding objective for his lamb production business to maintain high growth while increasing eating quality and weaning rate from a moderate frame ewe that's structurally correct.

To find out more genetic information about his ewe and ram sources, Rob – who manages 'Aberfeldy' at Holbrook, NSW – participated in MLA's Meat the Market Profitable Grazing Systems (PGS) supported learning package.

The Meat the Market PGS focuses on the whole of supply chain and was delivered in partnership with Gundagai Meat Processors (GMP) to work with producers on improving lamb processing compliance and lifting meat eating quality – see story at left.

High price tag on information

"We've put a high emphasis on objective measurement to meet both our and the supply chain needs, and we seek to obtain this at a cost-effective price," Rob said.

When they purchased Aberfeldy in 2019 on a walk-in-walk-out basis, the new owners inherited animals with little objective information available for their genetic merit.

Keen to benchmark these existing animals, Rob was thirsty for market feedback on factors such as:

- how desirable their product was to consumers
- what the market signals are now and what might they be into the future, and
- how this fits in with Aberfeldy's current farming system and ability to produce a premium product.

"We want to optimise the profitability of every kilogram produced on Aberfeldy."

With a long pasture growing season and several processors on his doorstep, Rob



was also keen to maintain market flexibility past the farm gate as seasons alternate.

Targeted approach to genetics

“The PGS provided an update of current market signals, and we were given a deeper understanding of tools such as LAMBPLAN, MateSel, RamSelect and how to target Australian Sheep Breeding Values (ASBVs) to our own flock and business objectives,” Rob said.

“Having a clear direction on what the market wants and how we can be paid for it means I can take a more targeted approach in terms of what rams are purchased and how my management of the lambs can get the best out of those genetics.”

Detailed carcass feedback

MLA and GMP have brought together a range of advanced objective measurement technologies to grade and sort lamb based on consistent eating quality, yield and health. These traits, when combined with hot carcass weight, will lead to a Meat Standards Australia (MSA) cuts-based eating quality prediction, once commercialised.

Some of the technologies include:



DEXA (dual energy X-ray absorptiometry): an objective measurement tool to assess

lean meat yield, bone and fat composition of each carcass



MEQ probe: a needle probe that uses spectral imaging to measure the amount of intramuscular fat

(IMF) in lamb carcasses.

“At GMP, their MEQ probe and DEXA scanning takes most of the guesswork out of lamb quality,” Rob said.

“We now have a definite approach to improving the eating quality of our animals, not just the carcass weight.”

GMP’s feedback reports also provide specific animal health information on carcass issues – for example, Rob found out some carcasses had sheep measles and is addressing this by ensuring station dogs are treated monthly for tapeworm and kept away from offal.

Reaping the rewards

Although it’s still early days, since participating in the PGS in 2021–22, Rob has either maintained or increased main production metrics such as weaning percentages, growth rates and Terminal Carcass Production (TCP) scores while also increasing:

- LAMBPLAN eating quality index score from 132 to 142 in a year
- LAMBPLAN lamb eating quality by eight points
- LMY at the same time as IMF.

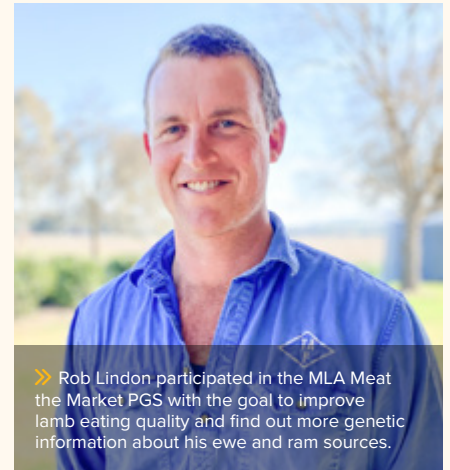
Valuable group discussions

Rob found group discussions with other like-minded producers in the course very valuable, such as learning about what pasture types gave the highest average daily weight gains on lambs at different times of year.

“The PGS enabled me to get a better understanding of what’s happening past the farm gate, and how our product is meeting market demands both domestically and internationally,” Rob said.

“Exposure to new technologies and allowing us to visit the GMP plant to demonstrate them, breeds confidence right from the start.

“It meant we had the transparency and confidence to spend time and money on making changes on-farm and will help us produce a more desirable product with more consistency for us and our customers.” ■



» Rob Lindon participated in the MLA Meat the Market PGS with the goal to improve lamb eating quality and find out more genetic information about his ewe and ram sources.

SNAPSHOT



**ROB LINDON,
MANAGER, OWNED
BY T. A. FIELD ESTATE,**
‘Aberfeldy’, Holbrook, NSW



AREA
1,770ha

ENTERPRISE
Lamb production

LIVESTOCK
7,500 composite ewes, 3,000 first-cross ewes, 200 trade cattle

PASTURES
Primarily phalaris/sub-clover and lucerne

SOIL
Alluvial creek flats and red loam soils

RAINFALL
700mm

LESSONS LEARNT

✔ It’s possible, in the near future, that prime lamb producers can be paid on meat eating quality not just carcass weight.

✔ Buying rams on ASBVs for productivity and eating quality is likely to be a good experience for both prime lamb producers and our customers.

✔ A lamb going backwards in condition at any point in its life can have a significant impact on eating quality.

» The PGS enabled Rob to get a better understanding of what’s happening past the farm gate, and how his product is meeting market demands both domestically and internationally.

Get set for MeatUp and BeefUp

MeatUp takes enterprise to next level

The last-minute decision to attend a MeatUp forum proved to be a smart one for SA producer Karl Zerner, who used the knowledge he gained from the event to guide his flock rebuild.



Karl runs a 1,000-head self-replacing Merino ewe flock across three properties near Eudunda – he attended the Gawler MeatUp forum in March 2021.

“It was an engaging event and I really enjoyed having the ability to pick sessions that were of interest to me and my business,” Karl said.

“The day was brilliant for networking and kickstarting discussions with other producers on topics that were covered.”

The MeatUp forum prompted Karl to make several changes on-farm that have increased animal welfare outcomes, increased lamb survival and therefore increased profit.

“Since attending the event I’ve started using Numnuts (pain relief for lamb marking) and purchased a grain trail feeder to feed ewes prior to and three weeks into lambing.

“I’ve also ceased my crossbred operation and gone into full Merino to increase the number of younger ewes in the flock.”

Karl has also focused on using electronic identification (eID) to scan ewes for single and multiple pregnancies and build the amount of data collected for their flock.

“I was also able to find further information on how to fill my knowledge gaps and I’ve gone on to complete a Lifetime Ewe Management course and accessed funding through the Department of Primary Industries and Regions Red Meat and Wool Growth Program to implement EID technology within our business.

“I’d highly recommend going to a MeatUp forum – you’ll get a lot out of it and learn where our industry is going in the future and how to take your livestock operation to the next level.” ■



▲ Karl Zerner

BeefUp’s regional focus drives innovation

Queensland producer Robyn Adams saw the value of networking when she attended a recent MLA BeefUp forum in Blackall.



“The local community are involved in the planning process for each event so BeefUp forums have a real regional focus with tailored information and presenters,” Robyn said.

“This is your industry event where you have the opportunity to learn something new – and I encourage producers to attend to have their say on what topics should be considered for future events.”

As well as presentations from experts, BeefUp forums provide the opportunity to network with other producers, MLA staff and livestock advisors.

“Networking with the breadth of experience in the room helps to refine your ideas and work out where you want your beef business to go,” Robyn said.

“The topics in the presentations kick-start robust and insightful discussion amongst the group.”

The events are also intergenerational, bringing a breadth of ideas and experiences.

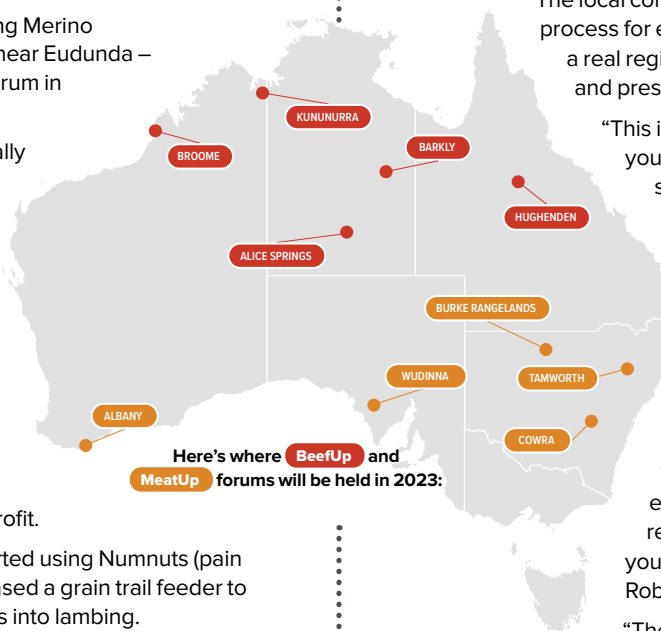
“At our event we had a range of producers from big corporates through to smaller operations, so you get a variety of opinions in a short amount of time.

“The discussions are forward-thinking and optimistic because there are enough open-minded people in the room so there is always someone ahead of you to ask questions and further your beef operation.

“The seasons are turning and we have a lot of options here – the BeefUp forums in 2023 will be a great way to progress your beef business and make the most of the strong seasonal and market conditions.” ■



▲ Robyn Adams



Here's where BeefUp and MeatUp forums will be held in 2023:

Live export delivers for north

Australia's live cattle export trade contributes \$1.4 billion to the national economy and employs 6,573 people, with more than 80% of direct value being contributed by northern Australia.

The northern region also contributes 74% of the farm gate value of the trade.

These latest insights into the importance of the live export industry to regional communities are from a study commissioned by the Livestock Export Program (LEP), a collaboration between LiveCorp and MLA.

The study focused on the benefits of live cattle exports to regions across the top of WA, NT and Queensland, where cattle production has been transformed to meet export requirements for South-East Asian markets.

The study found if Australia's live cattle export trade were to stop immediately, the beef industry would lose \$8.1 billion nationally over the next 20 years. Furthermore, an immediate cessation of the live cattle trade would see the value of grazing land in the NT decline by 34%.

Key regions

A deeper look into the regional value derived from the livestock export trade focused on 18 key regions. It identified that the Katherine, Barkly and Kimberley regions together contribute more

than 50% of the value of live cattle exports from northern Australia.

This edition of *Feedback* takes a closer look at two of the links in the export supply chain:

- **Producer:** Barkly station 'Newcastle Waters', which supplies cattle for live export out of the Port of Darwin – see below
- **Export facility:** Reid River Export Depot is a pre-export quarantine and cattle assembly facility at Charters Towers – see page 41.



Genetic changes open market options

The vast Barkly region in the NT is one of the biggest suppliers of Australian cattle for live export.

Composite calves at 'Newcastle Waters'.

One key producer is the iconic 'Newcastle Waters', owned by Consolidated Pastoral Company (CPC).

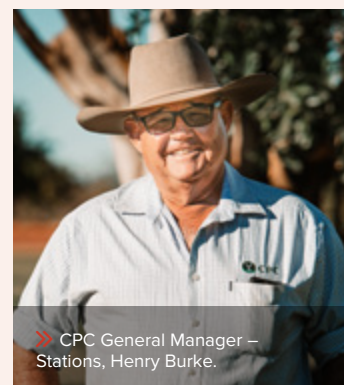
Newcastle Waters – the largest of the CPC's eight Australian cattle properties – supplies cattle to one of Australia's largest live cattle export markets, Indonesia.

Newcastle Waters and CPC's 'Carlton Hill Station' at Kununurra, WA, turn off a combined 60,000–70,000 head a year for live export from the Port of Darwin to two Indonesian feedlots.

CPC holds 90% interest in the feedlots at Lampung and Medan, which have a capacity of 28,000 head and 7,500 head respectively.

Investing in genetics

Over the past seven years, Newcastle Waters has transitioned its genetic base from 100% Brahman to a composite herd comprising Angus/Boran/Wagyu genetics, crossed with Brahman. (Boran is a *Bos indicus* breed originating from Kenya.)



CPC General Manager – Stations, Henry Burke.

Continued next page

Continued from previous page



CPC Group Manager – Barkly, Greg Dakin. Photo: Sophie Hancock.

SNAPSHOT



CONSOLIDATED PASTORAL COMPANY (CPC), 'Newcastle Waters Station', Barkly region, NT



AREA
1,033,101ha

ENTERPRISE
Producing feeder cattle for live export to Indonesia and for domestic markets, including feedlots. Breeding stud cattle to supply other CPC stations.

LIVESTOCK
75,000 head carrying capacity – Angus/Boran/Wagyu/Brahman-cross composite herd including 18,000 breeders

PASTURES
Mitchell grass and spinifex

SOIL
Open plains, flood country and timbered sand hills

RAINFALL
530mm

Economic impact

Newcastle Waters employs more than 40 staff at its peak, with a commercial stock camp, stud camp, boat camp and early weaning program team, in addition to bore runners, mechanics and other station staff.

For Henry and Greg, the live export industry is vital not only for northern producers but the entire Australian beef industry.

“While there are limited numbers going at the moment because of foot-and-mouth disease (FMD) in Indonesia, it’s critical we have access to live exports to hold the floor in the market, particularly for the northern-facing producers with *Bos indicus* cattle,” Henry said.

Greg said although the herd at Newcastle Waters was changing, they would still produce cattle suitable for live export.

“It’s a key market for us and it’s always going to play a big part of Newcastle Waters,” Greg said. ■

CPC General Manager – Stations, Henry Burke, said the aim was to maintain a *Bos indicus* influence of up to 50% in the herd, providing greater flexibility to meet a range of markets.

“In that genetic process, we’re looking to increase fertility, producing what we call wet re-breeds, so a cow with a weaner at foot and back-in-calf,” Henry said.

“From a market suitability point of view, the genetic mix gives us two options.

“We can export 320–340kg feeder cattle to the feedlots in Indonesia, or we can send them to ‘Isis Downs’ in Queensland for backgrounding to take them up to a 450kg animal suitable for Australian feedlots.

“The majority are exported to Indonesia. With our early weaning program, we can get weaners at 100kg, develop them to a minimum 150kg, then put them into the paddock and after the next wet season they can go to Indonesia at 320–340kg. That’s a total turn-off within a 12-month window.”

Wet season impact

Wet season rainfall dictates many of the management decisions at Newcastle Waters.

From October 2018 to April 2019, the NT recorded its driest and hottest wet season since 1992. As a consequence, the station was destocked down to just 8,000 head in 2019.

After the 2019–20 wet season, more than 20,000 head on agistment in the Katherine region were returned to the station.

CPC Group Manager – Barkly, Greg Dakin, said the station was still feeling the cumulative impacts of wet seasons that had not materialised.

“We normally run about 18,000 breeders, but we’re running about 14,000 at the moment,” Greg said.

“We don’t do rotational grazing, but we do spell and graze country as required. We haven’t really been able to do that because the country is still trying to recuperate.

“The station can carry about 75,000 head on a 75% capacity. However, we’ve only managed to maintain a herd of about 40,000 on average across the last five years, due to dry conditions.”

Having access to the feedlots in Indonesia also guides management decisions. Besides feeder cattle, all of the station’s cull herd bulls and cull pregnancy-tested empty cows can be exported to Indonesia.

They follow strict protocols to prepare cattle for live export, including applying insecticidal ear tags, backlining and relevant vaccinations.

Once they leave the station, cattle are kept in quarantine for three days at Santavan Export Yards, Darwin and Tri-Nations Export Yards, Kununurra, and must pass inspection by a Department of Agriculture, Fisheries and Forestry (DAFF) vet before being loaded onto a ship.

Any animals deemed not fit to travel are removed from the consignment.

Greg Dakin Greg.Dakin@pastoral.com Henry Burke Henry.Burke@pastoral.com

Prep for
export



Preparation key for export

Nestled between Townsville and Charters Towers in North Queensland, Reid River Export Depot sits at the heart of a live export regional hub that's crucial to a large swathe of northern Australia.

With capacity for up to 17,000 head of cattle, the depot is a bustling hive of activity all year round.

It plays a vital role in the industry, managing the preparation and certification of cattle exported from the Port of Townsville to markets in South-East Asia, including Vietnam, Malaysia and the Philippines.

The depot, owned by Paul and Kristy Heil, has prepared more than 250,000 head for export since it became operational in 2019.

Paul and Kristy, along with Logistics Manager Kate Anderson and Assistant Manager Trent Young, lead a team of up to 15 people who live on-site, many of whom have worked in the cattle industry throughout their careers, and at the depot since its establishment.

"The live export industry is our life and many people in the region depend on it," Paul said.

"Not having the industry here would be like having a shoe shop without any shoes.

"It's not just a job for the team here, we're more like a family. It's certainly not a 9am–5pm job – it's both a livelihood and a lifestyle."

Economic importance

The depot's economic ripple effect is significant. For example, about 80% of the cattle delivered for preparation come via trucking companies based in the Charters Towers region, and these local carriers also transport cattle from the depot to the port.

Shipper pellets and hay for the cattle are sourced from across Queensland, depending on availability.

"Cattle are consigned from across Queensland, the NT, and as far afield as NSW and SA at times, and they're generally at the depot for about 10 days before export," Paul said.

When they arrive at the depot, cattle are weighed before going to a processing area where any pre-export protocols that are required for the destination market are carried out.

"We draft the cattle into different weight categories and types, and they're penned based on that data to stop bullying in the feed yard and on the ship," Paul said.

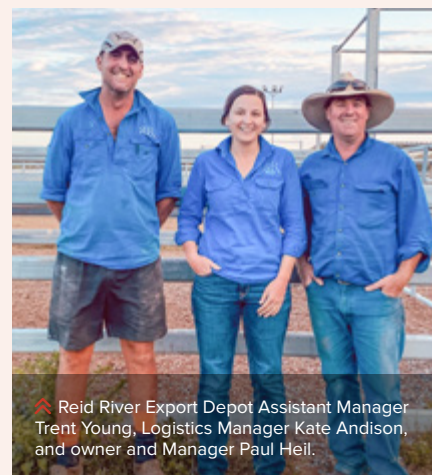
"They're fed a mixed ration of hay and shipper pellet and then transitioned to a full shipper pellet ration, to get them used to it so they eat well on the ship."

Minimising stress

The purpose-built, modern facility is designed to ensure high standards of animal welfare, enabling cattle to flow freely through the yards to minimise stress.

"Our stock people walk through the pens every day to monitor the health of every animal," Paul said.

"When we're 24 hours out from shipping, we walk through the pens with an Australian Government Accredited Veterinarian (AAV) from the exporter and remove any animal they deem not fit to travel.



Reid River Export Depot Assistant Manager Trent Young, Logistics Manager Kate Anderson, and owner and Manager Paul Heil.

"Once they sign off on a shipment, a government vet from the Department of Agriculture, Fisheries and Forestry (DAFF) will also inspect them with us and identify any animals they think should be removed before they sign off on a shipment.

"We do a truck plan which correlates with the shipping plan because cattle have to be loaded on to a ship in a certain order, depending on their weight. A time is then set to start loading."

While the logistics involved in operating the depot are immense, Logistics Manager Kate Anderson said the team draws great satisfaction from their work.

"I think everyone feels really proud at the end of a load out. Everyone stands back and feels like they have accomplished something really significant," Kate said. ■

➤ Keep an eye out in the next edition of *Feedback* as we continue following the live export journey.



Read *The economic contribution and benefits of the Northern live export cattle industry* report at livecorp.com.au or scan the QR code. ✉ Nicholas Baker nbaker@livecorp.com.au ✉ Peter Dundon pdundon@mla.com.au



Serving up a successful lamb brand

Launching a grassfed organic lamb brand is no easy feat, but Queensland-based Arcadian Organic & Natural Meat Co has chalked it up with MLA's support.

Here, their General Manager – Marketing, Branding and Communications, Paul da Silva, shares his recipe for a successful brand and how MLA's Collaborative Marketing (CoMarketing) Program was a key ingredient.

Arcadian considers themselves a pioneer in commercial certified organic red meat production.

"We have a portfolio of beef and lamb brands which are certified organic, Non-GMO Project verified and 100% carbon neutral," Paul said.

Arcadian started participating in the MLA CoMarketing Program in 2013 – the program supports brand owners to develop and implement effective marketing and business development strategies.

"We continue to be active participants in the program because it's an excellent tool for red meat brand owners," Paul said.

"Any activity we're contemplating – such as a trade show or social media promotion – the program is broad enough to anticipate that it's a worthwhile activity, so we're big fans of that."

Creating success from scratch

Arcadian used MLA's CoMarketing Program to help fund the development of their grassfed organic lamb brand, Warilba, which launched in 2019 and is available through butchers and foodservice outlets.

The CoMarketing Program helped fund:

- graphic design to create the Warilba logo
- professional imagery to support the brand
- execution of branding across social media, point of sale material and website.

A brand is a promise delivered

According to Paul, a logo is just the starting point – he views a brand not as simply a design, but as a promise delivered.

"You need to know who you're promising it to, what you're going to deliver and the things you need to make that promise happen," Paul said.

"A huge amount of resource goes into that so we're grateful for MLA's support."

Since the launch of Warilba, Arcadian has continued to use MLA's CoMarketing support to conduct ongoing marketing campaigns to drive brand awareness and sales.

"We have an 'always on' social media program and spikes in advertising activity at key times throughout the year," Paul said.

"The MLA CoMarketing support helps fund social media partners who provide expert advice on which audiences to target and

what kind of creative material we should use to target them.

"For the financial year 2021–22 we reached 633,379 people on social media which is valuable brand awareness for the Warilba brand."

Differentiation drives dollars

MLA's CoMarketing Program is geared towards industry priorities, providing further support for carbon neutral brands such as Warilba.

"The CoMarketing Program is an ideal mechanism to extract the maximum value out of the investments you've made in becoming carbon neutral," Paul said.

"To be successful you need to invest in differentiated brands and the activity you need to undertake to build a brand properly and to differentiate substantially takes a long time. It costs money, but ultimately that's the best route to long-term success." ■

"The CoMarketing Program is an ideal mechanism to extract the maximum value out of the investments you've made in becoming carbon neutral."



MLA CoMarketing Program comarketing.mla.com.au

Paul da Silva paul.dasilva@arcadianorganic.com.au



Warilba Organic Lamb warilbaorganic.com.au



Majella Fernando mfernando@mla.com.au

Trust key to industry support

MLA's Australian Good Meat program is kicking goals for the red meat industry, with a targeted and impactful social media outreach and suite of engaging online videos, animations and infographics.

Here's a closer look at how these community-focused strategies demonstrate how Australian red meat is a vital contributor to a healthy, balanced diet and is produced sustainably within high-welfare systems.

Connecting with Gen Z

Australian Good Meat is connecting with younger audiences to ensure they're aware of the red meat industry's green credentials.

A partnership with social media giant LADbible taps into its impressive audience.

LADbible's Australian dedicated channels have:

- 8.8 million Facebook connections
- 206,000 Instagram followers
- a direct communication channel with more than 73% of 18–34-year-olds in the country.

This strategy is gaining traction and has kickstarted lively discussions around what key climate terminology such as carbon neutral and climate neutral mean, and how producers farm sustainably.

LADbible's followers with agricultural backgrounds have engaged to answer queries like these – further building trust and support for the red meat industry.

New content launched via the LADbible partnership includes a news-style video on Facebook, an Australian Good Meat-branded article on the Australian LADbible's website and a three-part 'Let's talk about meat' series, featuring three popular social media influencers (see next page).

LADbible campaign stats September 2022

Audience reach: 6.2 million
Impressions: 7.5 million
Engagements (likes, comments, shares, clicks): 12,000
Video views: 1.025 million

The red meat industry is in a good place, with MLA-commissioned research showing most metro Australians trust the Australian beef and sheep industries (61% and 60% respectively).

Stopping the scroll

The Good Meat website has undergone a refresh with new animations and infographics delivering key messages in easy-to-understand, sharable ways.

New producer and industry videos are also gaining traction as they show the faces behind the facts and bring our messages to life.

Video stats September 2022

Audience reach: 2.7 million
Engagements: 340,000
Views: 1.3 million

Looking towards 2023

Australian Good Meat will build on these successful strategies to continue producing educational and engaging social content and working with influencers as they use their own voices to convey the good news about our industry.

To play a part in community engagement and share the great work our industry is doing in the environmental, sustainability and animal wellbeing arenas, connect with Australian Good Meat and share our socials with your networks.

➤ *Continued next page*

We're focused on reducing waste across the industry.

Red meat and the war on waste
With a long-term goal of 'zero waste discharge', here are five examples of what we're doing to reduce and reuse waste.

METHANE (10 YEARS) → **CO₂** → **H₂O**

PHOTOSYNTHESIS

This animation shows how the environmental impact of methane emissions from cows is fundamentally different to the carbon dioxide from fossil fuels.

The animals come first and foremost
At Smithfield Cattle Company, every staff member understands that animal wellbeing is the top priority.

➤ A range of new infographics, videos and explainer animations convey complex information in an engaging way.



Share the love with your friends and followers:

Australian Good Meat infographics, animations and videos:
goodmeat.com.au/resources

@ausgoodmeat
 @AUSGoodMeat
 youtube.com/AustralianGoodMeat

Scan the QR code to watch LADbible videos featuring our three influencers:



◀ Continued from previous page

Influencers for change

This year has seen MLA's Australian Good Meat platform join forces with LADbible (see story page 43) and social media influencers to open the door to a younger demographic keen to hear what these change-makers have to say about our industry.

Australian Good Meat's initial focus was on working with influencers from the health and fitness industries to showcase the nutritional benefits of red meat. This strategy was supported by research finding that enhanced nutrition is the main reason people decide to increase their red meat consumption.

The sustainability credentials of the red meat industry are also being championed as findings further revealed that more than half of those surveyed would feel more positive about the red meat industry if emissions were reduced to net zero by 2030.

Meet Joel the Butcher, Tim the Farmer and Shan the ex-vegetarian, who are delivering engaging, well-informed messages through short videos to connect with the target Gen Z audience.



Tim the Farmer

Grassfed and finished beef producer, NSW

Tim Eyes is a first-generation producer on NSW's Central Coast, who supplies grassfed and finished beef across the state. He's an advocate for the red meat industry's carbon neutral by 2030 (CN30) work being done, and explains in simple terms how producers are harnessing the natural ability of ruminant animals to lock away carbon via the carbon cycle.

"We're a huge part of the solution to the climate change emergency that's facing all of us."

"Producers have the potential to start bringing carbon back into our soils using those perfect animals that are designed to do so. Farms are the most amazing carbon sinks we could have," Tim said.

📍 @thefoodfarmau 🌐 thefoodfarm.com.au



Joel the Butcher

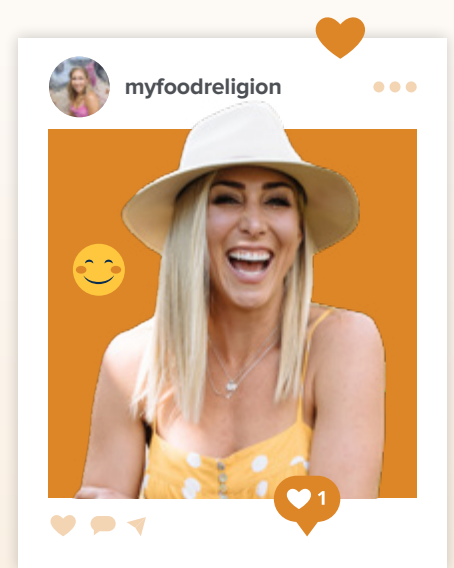
Owner operator of 3J's Butchers, VIC

Joel Young, owner and operator of 3J's Butchers, sources his meat from producers local to his Gippsland artisan butcher shop. With a firm commitment to traceability and paddock-to-plate marketing, his messaging is right on target with Australian Good Meat's sustainable farming focus.

"If our meat wasn't sustainable, there would be no longevity for myself or my business. I've been on these farms and I've observed the smarter farming practices that are being implemented there."

"We all want to feel good about the food we're consuming – talk to your local producer, talk to your local butcher, find out if your meat is sustainably produced."

📍 @joelthebutcher 🌐 3jsbutchers.com



Shan the ex-vegetarian

Founder – My Food Religion, Queensland

Shan Cooper, a health and wellness coach and a former vegetarian, has the unique ability to connect with vegetarians and particularly young women, who may be at risk of iron deficiency. Her frank discussions around the reasons she chose vegetarianism and why she later decided to reintroduce red meat are relatable and authentic, backed by her lived experience.

"From when I was about 16, I stopped eating red meat because I thought it was the healthy choice, but it led me to a lot of health issues over time."

"I reintroduced meat when I was about 30."

"I was really iron deficient and B12 deficient prior to that and actually have been since I was about 16 years old. Since incorporating red meat, I just feel so much better, my energy is better, my ability to put on muscle mass and perform at the gym is better. I just feel like I'm overall a much more well version of myself."

📍 @myfoodreligion 🌐 myfoodreligion.com

"We're a huge part of the solution to the climate change emergency that's facing all of us."

📺 YouTube: youtube.com/AustralianGoodMeat 🔍 Scan this QR code to watch the LADbible videos featuring Shan, Tim and Joel.
📖 Learn more about the role of red meat in a sustainable diet at mlahealthy meals.com.au 📧 Heidi Brunker hbrunker@mla.com.au



Breeze through mid-week meals this summer

Getting together this barbecue season? Try this quick, easy and delicious Thai beef salad, which is sure to please the whole family. Find this recipe and more as part of MLA's You're Thinking Beef campaign at australianbeef.com.au



Thai beef salad

Serves 4 Prep time 10 minutes Cooking time 10 minutes

INGREDIENTS

500g beef oyster blade steak, fat trimmed
2 tsp sesame oil
125g dried vermicelli noodles
80g mixed salad leaves
200g cherry tomatoes, halved
2 Lebanese cucumbers, halved lengthways, seeds removed, sliced diagonally

1 red onion, thinly sliced
1/4 cup coriander leaves
1/3 cup pre-made Thai salad dressing (see tips for more information)
Toasted peanuts, chopped, long red chilli, thinly sliced, lime wedges – to serve

METHOD

1. Rub steaks with oil and season. Preheat a large char-grill pan or barbecue over medium-high heat. Cook steaks for 3–4 minutes each side or until cooked to your liking. Transfer to a plate, cover loosely with foil for 5 minutes to rest.
2. Meanwhile, prepare noodles according to packet instructions. Rinse with cold water and drain well.
3. Place noodles, salad leaves, tomatoes, cucumber, onion, coriander and half the dressing into a large bowl. Toss well. Thinly slice steak across grain and add to salad. Drizzle with remaining dressing and gently toss again to combine. Divide salad among bowls, sprinkle with peanuts and chilli and serve with lime wedges.

TIPS

- Thai salad dressings are readily available at supermarkets and Asian grocers. Alternatively use a sweet chilli sauce or make your own Thai dressing – it will usually consist of lime juice, fish sauce, brown sugar, garlic, chilli and a little oil.
- Sirloin, rump, eye fillet or porterhouse steak would also be delicious in this recipe.
- Resting the steaks before slicing will ensure tender and juicy beef.
- Swap Lebanese cucumbers for baby cucumbers (qukes); add mint and/or Thai basil leaves to the salad, if desired.



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