LambEx 2024 report pages 4–9

FEEDBACK

MLA – FOSTERING PROSPERITY

SPRING 2024

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MEAT & LIVESTOCK AUSTRALIA

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: From paddock to plate: NSW sheep producer Jenny Bradley catches up with MLA's Corporate Chef Sam Burke and Retail Corporate Butcher Doug Piper at LambEx. Read our LambEx report, starting page 4, and Jenny's case study on page 8.

Have your say!

We'd love to hear from you.

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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 spring edition of *Feedback* magazine.

It was great to catch up with stakeholders from across the red meat supply chain in Adelaide recently, for LambEx 2024. Following hot on the heels of Beef Australia, this exhibition of 'all things lamb' returned with a bang following a COVID-hiatus and was attended by 1,500 people.

I was privileged to have the chance to share MLA's strategic direction on the LambEx stage. As I lead the development of MLA's next five-year strategic plan – coinciding with the half-way point of the wider red meat industry's strategic plan *Red Meat 2030* – it's an opportunity to make investment judgements through the lens of the whole value chain, from producer right through to consumer. Keep an eye on MLA's communication channels for how you can get involved in developing the new strategic plan. MLA also had a strong presence as a LambEx sponsor – check out our report, which starts on page 4, for details of mouth-watering lamb dishes, new tools for producers and other highlights.

Practical tools

As I travel across the country, the seasonal variability facing producers is evident – for those in areas challenged by drier-than-average conditions, turn to page 15 to read some practical strategies to keep livestock and feedbase on track through spring.

With spring ram and bull sales in full swing, make sure you're getting the best from your genetic investment. MLA supported the development of a powerful new genomic tool for northern beef producers – see page 10. For sheep producers, find out how to use genetic tools to select for traits such as worm egg count on page 18.

With the welfare of animals always top of mind for red meat producers, it's exciting to see new research providing solutions for challenges such as polled cattle (page 31) and calf survival (page 34) as well as benchmarking on-farm strategies (page 26). Transport operators also have some tips for maintaining the health and wellbeing of livestock during transport, starting on page 28.

Innovation

Sustainability and innovation remain guiding principles for our industry. In this edition we visit a North Queensland station (page 22) that's blending traditional land management with new technologies to drive community capacity-building. It's pleasing to see the goat industry also commit to building its credentials by initiating the development of a sustainability framework, learn more on page 13.

I recently had my first overseas visit as Managing Director, to Indonesia and Vietnam. Along with MLA Chair Alan Beckett, we joined the Australian Livestock Exporters Council (ALEC) and LiveCorp for a supply chain tour and an annual importer-exporter meeting. Our industry's partnership with Indonesia is incredibly valuable for both sides and one that MLA continues to prioritise and support through R&D and marketing investments. Learn more about how MLA is investing in R&D for live export by harnessing innovative technologies such as virtual reality and artificial intelligence on page 38 and 39.

Connecting with consumers

MLA has released our annual consumer sentiment survey results – see page 3 – which reinforced how metropolitan Australians are more likely to eat red meat if they're knowledgeable about the industry. We play a crucial role in educating consumers through the Australian Good Meat platform – check out page 43 to see how MLA is connecting with millions of people by partnering with social media influencers.

Save the date

As we head towards the end of 2024, there are two key MLA events on the calendar.

MLA Updates will head west this year, to Perth on October 10. I encourage you to attend this day of presentations, displays and demonstrations to showcase how MLA and the Integrity Systems Company are creating value across the supply chain. The MLA Annual General Meeting will then be held in Tamworth, NSW, on 20 November. I look forward to catching up with members at both events. ■

Michael Crowley MLA Managing Director

Have a question for me? **mcrowley@mla.com.au**

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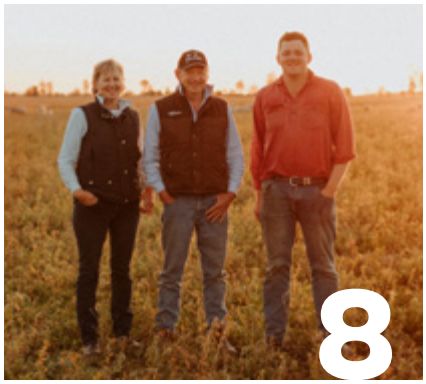

This season...

Test
your herd's DNA to power up production:
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legumes to bridge feed gaps:
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Host
a BredWell FedWell workshop:
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MLA Updates heads west

MLA's flagship event, MLA Updates, will be hosted in Perth, WA, on Thursday 10 October 2024.

Following the success of previous MLA Updates events in Toowoomba in 2022 and Bendigo in 2023, Perth promises to be an exciting day for red meat producers to be updated on MLA's investments in research, development and marketing.

MLA Updates will feature presentations and displays for producers and the broader industry along the red meat supply chain. It will also feature a range of practical demonstrations from MLA's Research & Development, Adoption, Marketing and Integrity Systems Company teams.

Key industry and government figures will also be invited to participate in the showcase and will provide information to participants on the wide range of services available to industry stakeholders.

Mark the date in your calendars and keep an eye out for more detail on the event later this year at updates.mla.com.au or sign up to our *The Weekly* e-newsletter at mla.com.au/enews

Tamworth hosts AGM

MLA's 2024 Annual General Meeting (AGM) will be a hybrid event, taking place on 20 November in Tamworth, NSW.

For more information, visit mla.com.au/agm

Be on the front foot for bushfires

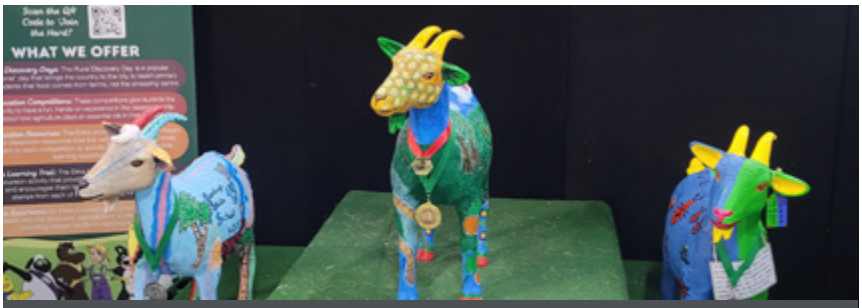
With bushfire season on the horizon, make sure you're on the front foot to protect your family, livestock and property. MLA's research has found that compared with producers who are unprepared, those who have a farm fire plan and appropriate equipment and training lose fewer livestock or suffer less infrastructure damage and can get back to business sooner after a fire.

MLA's bushfire hub has resources to help you prepare for bushfire season, learn what to do during a fire and resources to assist with recovery: mla.com.au/bushfire

Taking stock of RD&A

A stocktake of MLA's research, development and adoption (RD&A) projects completed or in-progress during July 2021 to June 2023 is now available at the MLA website. It includes outcomes from MLA's investment into projects from the RD&A, Integrity Systems Company (ISC) and international marketing (R&D) portfolios. Links to full reports and/or details required to navigate the website's R&D search function have been provided.

View the RD&A stocktake: mla.com.au/rda-stocktake



Australian Good Meat's Ekka stand featured the best from the G.O.A.T (Greatest Of All Time) Competition for Queensland school students. Entrants submitted designs which showcased what makes their local region 'the greatest of all time' – the 19 finalists brought their concepts to life on fibreglass goats.

Ekka-cellent journey from paddock to plate

The recent Royal Queensland Show – better known as the Ekka – was an opportunity for MLA's Australian Good Meat initiative to teach a largely metro audience about red meat production.

Australian Good Meat is an online platform created by MLA to provide important information about red meat production, focusing on animal welfare, the environment, and health and nutrition.

More than 4,500 visitors to the Australian Good Meat stand were equipped with virtual reality (VR) headsets where they could watch the Australian Beef and Lamb Paddock to Plate Experience. The VR video provided an immersive and interactive tour through their choice of the lamb or beef supply chain.

Throughout the nine-day show, 2,270 surveys were collected of people's experience after watching the paddock to plate journey. Of those, 85% of attendees said they had a greater understanding of the Australian red meat industry after viewing.

MLA Red Meat Ambassadors also attended the Ekka to answer visitors' questions about the red meat industry.

Learn more about Australian Good Meat on page 43 and Red Meat Ambassadors on page 44.

Australian Good Meat: goodmeat.com.au

Knowledge drives hunger for red meat

New research from MLA has shown metropolitan Australians who are knowledgeable about the red meat industry are likely to be eating more red meat.

The Community Sentiment Research is conducted each year to inform MLA's investments in community communication and marketing to drive better understanding of red meat production and nutritional benefits for everyday Australians.

The latest research surveyed 1,501 Australians aged 18–64 who reside in the five main capital cities in Australia.

Positive perception

According to MLA's Group Manager – Community Communications and Events, Samantha Jamieson, the research indicates a positive perception of the Australian beef and lamb industries by the urban community.

"Community perceptions of the industry remain steady, with 63% having a positive perception of the beef industry and 60% having a similar perception of the lamb industry," she said.

"A further 27%–29% have no concerns, with the remaining 16%–18% either not knowing or having some level of concern, the lowest level over the past three years, and similar to levels over the past decade."

Vital to economy

Notably, most Australians see the red meat industry as vital to the Australian economy and job creation, especially in regional areas.

Of those surveyed, 71% also have confidence in Australian beef and lamb producers to provide safe, nutritious and sustainable food.

"Nearly two-thirds of Australians also said they trust the red meat industry to do what is right, and farmers are trusted nearly as much as engineers, teachers and scientists," Samantha said.

"The research demonstrates Australians' positive perceptions and understanding about the important role red meat producers play in feeding the nation."

Importance of education

The high level of trust in the red meat industry centres around education and knowledge of the Australian beef and lamb industries.

While a third of Australians consider themselves knowledgeable about the industry, more than half want to learn more. In addition, 73% think children should be learning about the industry in school.

"Importantly, the correlation between higher levels of industry knowledge and better perceptions about the industry have been seen again in this year's survey," Samantha said.

"For Australians who have knowledge about the industry, 72% said they believe Australian cattle are raised humanely, which compares to 55% of metro Australians without this knowledge.

"A similar trend applies for the environment. As understanding of the industry increases, so does the sentiment that people believe producers care for the environment.

"This demonstrates that the more you know about the industry, the more you like about it, which is encouraging to see."

This research highlights the importance of community engagement and educational investments through initiatives such as MLA's Australian Good Meat school educational resources, the Red Meat Ambassador program, and working with social media influencers.

Healthy influence

"One of the big recent influencer trends is around health, where there is a growing understanding of the importance of protein," Samantha said.

"MLA continues to play a big role in arming social influencers with right information and language to have an engaging discussion with the community."

The community is interested in learning more about:

- animal welfare (45%)
- nutrition benefits (40%)
- carbon neutrality (39%)
- environment initiatives (35%).

Sustainability also ranked as a key consideration for metro Australians – 91% cited it as important to them, while 56% said they would think more positively about the red meat industry knowing that the industry has an ambition to reduce net greenhouse gas emissions to zero. ■

Turn to page 43 and 44 to see how MLA is connecting with consumers.

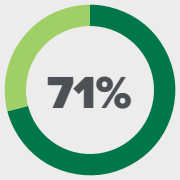
Of those surveyed:

79% believe the red meat industry is an important part of the Australia economy

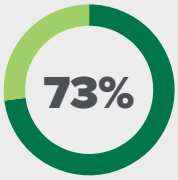
top-of-mind topics about red meat production are

- 41% animal welfare
- 26% sustainable practices
- 24% use of additives

68% believe red meat producers contribute positively to Australian society



have confidence in Australian beef and lamb producers



think children should be learning about the red meat industry in school

3.7% are 'true' vegetarians/ vegans

DOWN FROM 4.3% (2020)

mla.com.au/consumer-sentiment-research Samantha Jamieson **sjamieson@mla.com.au**

Photography by Brenton Edwards – Stories Well Told

The MLA stand at LambEx.

The best of LambEx 2024

Adelaide recently swapped its title of 'City of churches' to become the 'City of lamb', when more than 1,500 people from the sheep and wool industry descended for a three-day celebration of all things lamb.

It marked the return of LambEx – the world's biggest sheep, lamb and wool forum – after a six-year hiatus. The three-day event, held in Adelaide from 7–9 August, drew a record-breaking crowd from across Australia and overseas.

LambEx provided an opportunity for MLA to share the latest research and innovations with producers and other industry stakeholders. As a major sponsor, MLA participated in the conference and was among the more than 80 exhibitors in the trade show.

Here are some of MLA's highlights from LambEx 2024. Turn to page 8 to meet one of the producers who spoke at LambEx.

MLA on the ground

MLA maintained a strong presence throughout the three days, actively engaging in various roles, from presenting to hands-on activities.

During the Schoolies Hour of Power, MLA and Integrity Systems Company (ISC) staff hosted education sessions for more than 180 South Australian high school students, promoting the Australian sheep and lamb industry as a future career pathway.

The 'Inspire. Advocate. Innovate.' conference saw MLA Managing Director Michael Crowley presenting the essentials for the industry going forward.

The AMPC LambEx Feedlot Carcase Competition session included insights from Meat Standards Australia (MSA) Program Manager David Packer, who delivered findings and industry comparisons from the competition results.

Alongside MLA staff guiding attendees through the latest programs and research, MLA's Corporate Chef Sam Burke and Retail Corporate Butcher Doug Piper took to the exhibition stage, transforming trends into menus.

MLA's Managing Director Michael Crowley was a keynote speaker at LambEx, where he mapped out a strategy of innovation for the red meat industry.

SA sheep producer Alistair Michael, 'Leahcim', Snowtown, featured on the cover of the special LambEx edition of *Feedback*. Read his story in the winter 2024 magazine at **mla.com.au/feedback**

MLA's Doug Piper and Sam Burke breaking down a carcase as part of their Cuts to Cuisine segment during the LambEx lunchtime program.

MSA Program Manager David Packer congratulates Marni and Ricky Luhrs, Mooralla Merinos, Victoria, who won the title of 'Australia's top performing lamb producer' at the LambEx AMPC Feedlot Carcase Competition.

Sustainable scorecard

The Sheep Sustainability Framework's *Annual Report 2024* was released at a LambEx luncheon, revealing the broadest range of data to date. Key figures included:

- Producers using carbon accounting or another process has risen by 6.9% since 2022, to 9.9%.
- Baseline data showed 72.6% of producers are undertaking deliberate activities to measure, maintain or enhance biodiversity.
- The percentage of wool declared as non-mulesed has increased to 18.6% for Merino (from 15.8%) and 47.1% for non-Merino (from 40.1%).
- Access to labour in both sheep production and shearing remains a key challenge for the industry.

Visit sheepsustainabilityframework.com.au or scan this QR code to read the full report.

The Sheep Sustainability Framework (SSF) board, launching the *Annual Report 2024* (from left): Steve Harrison, WoolProducers Australia; Bonnie Skinner, Sheep Producers Australia; Ben Thomas, Sheep Producers Australia; Angus Gidley-Baird, SSF Independent Chair; Jamie Heinrich, Sheep Producers Australia; Brett Smith, WoolProducers Australia; Jo Hall, WoolProducers Australia; Courtney Nelson, Sheep Sustainability Framework manager.

Professor Daniel Brown, Principal Scientist at the Animal Genetics and Breeding Unit, UNE, and Peta Bradley, Manager of Sheep Genetics, following the announcement of the updated Flock Profile.

Sheep Genetics Flock Profile updated

The MLA Sheep Genetics team announced a suite of new updates to the popular Flock Profile, which Merino producers use to benchmark the genetic merit of their flock.

The new update includes the addition of new MERINOSELECT Indexes and additional traits of weaning rate and condition score.

"Developed by the leading research scientists at the Animal Genetics and Breeding Unit based at the University of New England (UNE), these updates will give sheep producers a much more thorough interpretation into how their flock fares against the broader industry for these important traits and indexes," Manager of Sheep Genetics Peta Bradley said.

Scan this QR code to find out more about the updates.

The relaunch of Making More From Sheep

The Making More From Sheep (MMFS) online resource, the one-stop shop for sheep producers, was relaunched at LambEx, featuring updated information and tools to maximise sheep production.

MMFS offers resources, videos, apps, technologies, podcasts and fact sheets on best practice husbandry and management.

MLA General Manager, Research, Development and Adoption, Dr Jane Weatherley, said the MMFS relaunch came at a timely moment in the Australian sheep industry.

"With the Australian sheep and wool industries facing a number of big changes in coming years, the relaunch of this program will help keep producers up to speed on the latest technologies and knowledge in order to keep producing happy and healthy sheep," Jane said.

Check out the MMFS resources at makingmorefromsheep.com.au

MLA's Southern Beef and Sheep Adoption Project Manager, Andrew Morelli, and Australian Wool Innovation's (AWI) National Extension Manager, Emily King relaunched the Making More From Sheep resource.

LambEx

More than 1,500 attendees devoured an estimated 1.4 tonnes of lamb during the three-day event

New lamb co-product compendium

LambEx attendees were the first to see the new *Lamb co-products compendium*, showcasing the range of opportunities for sheep and lamb co-products.

With co-products like offal, bone and skins often accounting for more than 50% of the sheep carcase, the export value of the co-products market was estimated at $113 million in 2022.

"Sheep and lamb co-products comprise a significant proportion of the returns from animal processing, and proper utilisation of co-products will generate greater value for each carcase through the supply chain," MLA's Group Manager for Science and Innovation Michael Lee said.

"The *Lamb co-products compendium* highlights the potential for significant improvements to the current value of lamb co-products. We can now share that knowledge for industry to enter the co-products value-adding sector."

Scan this QR code to view the latest *Lamb co-products compendium*.

Fired up by lamb

***Feedback* was on the ground at LambEx, chatting to industry representatives from around the country – we asked what 'blew their minds' at LambEx. Here's a taste of what inspired and fired them up.**

Scott and Amanda Michael

Sheep producers, 'Carriewerloo Station' – Port Augusta, SA

"It was good to hear from analyst Brett Stuart of Global AgriTrends – going forward, the future of the lamb industry is positive. His insight into markets and trends has inspired us to make a change by introducing more composite sheep into our enterprise."

Jack Cresswell

Annalara White Dorper stud, 'Dungary' – Dubbo, NSW, and founder of Farms Advice Podcast

"To see all the sheep and wool producers coming together – the knowledge sharing is the best thing. It's exciting to see all the technology from other industries and how we can roll it into the sheep industry, as well as all the research going into educating consumers about the industry."

Tayla Blight

Pinion Advisory – Clare, SA and project officer for the Agricultural Institute Australia's 2024 Student Compendium.

"It's been amazing to just see the passion in the industry and how hard everyone works to promote lamb in Australia – it's incredible."

Candy and Errol Brumpton

Toowoomba, Queensland, formerly of Well Gully Poll Merino stud – Mitchell.

"We came to LambEx to keep up to speed with all the innovation taking place – it's a fast-moving world. In particular, the progress in sheep genomics makes a very big future for our industry. Not only in meat tenderness and intramuscular fat, but importantly in doing ability, lamb survival and early turn-off, to feed a demanding world. We also enjoyed the session with MLA's chef and butcher on how we present lamb to the public and how we've got to be creative with different cuts to lift consumption and be competitive against other proteins."

ON FARM

RESEARCH IN ACTION

Seasonal action plan

Northern

10
Harness genomics to power-up your herd

16
Learn the secrets of successful weaners

Southern

15
Keep pastures on track this spring

18
Tackle worms with genetic tools

Finding room to move in the sheep industry

While the recent LambEx event brought industry expertise from across the world, you don't have to go far to find masters of their field in Australia.

NSW sheep producer Jenny Bradley was one of more than 30 speakers at LambEx – held in Adelaide in August – who brought her experience to the table to explore the industry's future.

If you don't measure, you can't improve

Jenny runs a mixed farming business and 'New Armatree' Border Leicester stud alongside her family at Armatree.

For the Bradleys, data is king.

"Our business strives to achieve management best practice, which extends to the records we collect," Jenny said.

"We select on a lot of traits, and good record-keeping shows the variation within the stud animals for us to make selection decisions.

"Over the past 10 years, we've decreased our mortality rate within our commercial ewes, and increased lamb survival."

As well as the good performers, data reveals what may not be performing in the business.

"We keep paddock lambing performance records to identify paddocks which aren't performing well and how we can improve lamb survival."

With strong on-farm data, Jenny wants to source more from the supply chain.

"Hook tracking in the abattoirs is the missing link for producers, and processors are struggling to implement and provide data back to the producer," Jenny said.

"We're doing a lot of work to improve our seedstock, but we get very little feedback from the processors with our commercial lambs going over the hook, which is limited to fat score and carcase weight.

"In 35 years, very little has changed. We have the opportunity with hook tracking and eID to obtain more feedback on individual animals."

Jenny believes the added information could help to produce better lambs.

"Feedback is a point within the industry which could be revolutionary for lamb in the national and international markets."

Maximising value from genomics

As long-time Sheep Genetics clients, the Bradleys use LAMBPLAN to evaluate their seedstock.

Genomics have been the advancement required to breed better lambs without processor feedback.

"Genomics have allowed us to examine and select rams and their progeny on the things which we can't measure or see unless they're slaughtered."

» Jenny Bradley sits on several boards and committees in an effort to build better outcomes for producers.

SNAPSHOT

JENNY BRADLEY –
Armatree, NSW

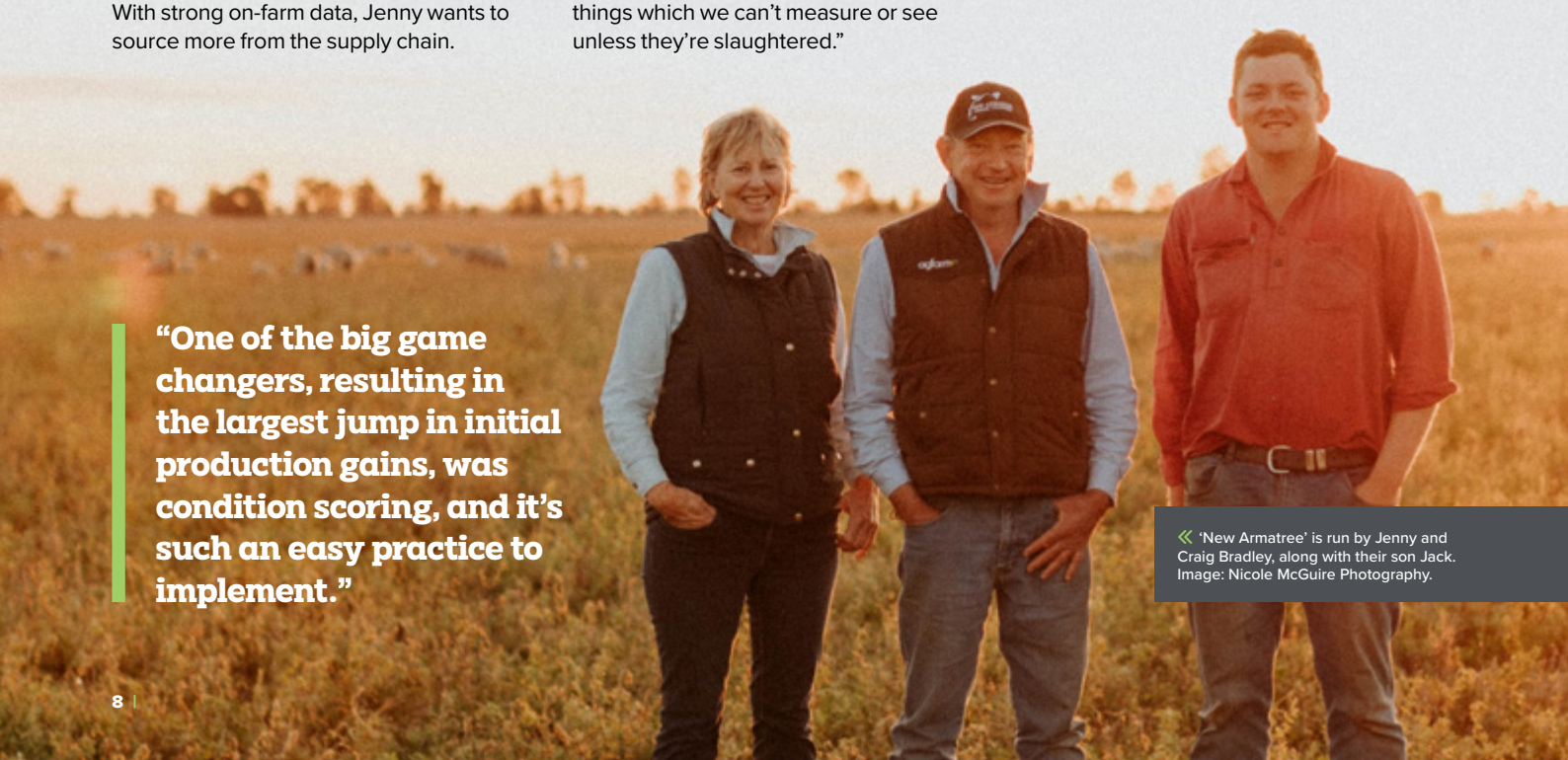
AREA
1,800ha

ENTERPRISE
Winter cropping, commercial first-cross ewe and wether production, seedstock rams

PASTURES
Variable

SOILS
Grey clay, sandy loam and self-mulching grey clays

RAINFALL
520mm



"One of the big game changers, resulting in the largest jump in initial production gains, was condition scoring, and it's such an easy practice to implement."

« 'New Armatree' is run by Jenny and Craig Bradley, along with their son Jack. Image: Nicole McGuire Photography.

New videos to lift your genetics game

MLA has released new video resources to give sheep and beef producers simple, practical advice on how to accelerate their business using new genetic tools.

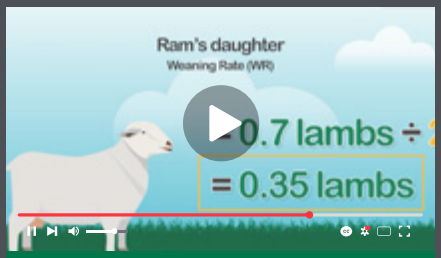
The videos, which are available on MLA's Genetics Hub, provide up-to-date information to guide ram and bull purchasing decisions.

The new videos cover an overview of sheep and cattle genetic tools, as well as a more in-depth look at topics such as:

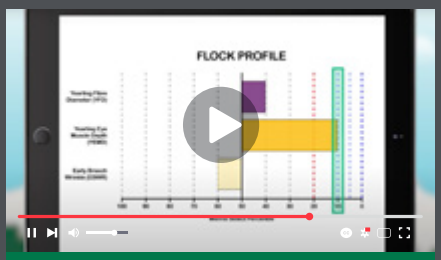
- how to set breeding objectives
- the new beef Genomic Breeding Value (see page 10) and herd profiling tools
- navigating BREEDPLAN
- how to use Estimated Breeding Values (EBVs)
- how to use Australian Sheep Breeding Values (ASBVs)
- sheep reproduction traits
- flock profiling.

The videos reflect new traits and indexes and enhancements in genetic tools, to ensure livestock producers are equipped with practical, accessible resources to guide purchasing and management decision.

Visit genetics.mla.com.au to watch the videos and access other genetics resources.



Sheep reproduction traits:
Scan the QR code to watch on YouTube.



Flock profiling tool:
Scan the QR code to watch on YouTube.

The information has allowed the Bradleys to make decisions earlier than ever.

"We're genotyping a large selection of ram lambs to become potential sires at weaning," Jenny said.

"We join them when they're six-and-a-half months of age, to shorten generational interval and increase the rate of genetic gain. We also genotype all maiden ewes retained within the stud."

Every improvement counts

At New Armatree, no approach goes untrialled, as the Bradleys constantly look to new tools and research.

"There's so much you can do within your business. We look at both genetics and the practical side of lambing for lamb survival," Jenny said.

Improvements have led to 87–90% lamb survival across all litter sizes.

Some of those ideas come from free resources, including MLA and AWI's Making More From Sheep program, which was relaunched at LambEx.

"One of the big game changers, resulting in the largest jump in initial production gains, was condition scoring, and it's such an easy practice to implement.

"At four times of the year, we condition score the ewes and then make management decisions to achieve our production goals."

Taking to the stage

Working towards continual improvement is what brought Jenny to LambEx's panel on the future of the lamb industry, informed by both her on-farm experience and her role on several boards and committees, including the Sheep Producers Australia (SPA) Policy Council, and as Vice Chair of the NSW Farmers Sheepmeat Committee.

Alongside other industry representatives, Jenny discussed the need for a better producer-to-processor relationship, both to improve carcase feedback and stability within the industry.

"It's a reactive industry at the moment – the processors and the producers never know what's coming," Jenny said.

Compliance and sustainability were also key to Jenny's discussion, where she noted the increasing effort for producers to stay compliant with industry standards and regulations.

"At the moment, I have three or four different compliance avenues which I have to keep up to date to meet national and international standards, and they're all very similar.

"Compliance is such an important aspect of all our businesses as it underpins our entire trade. It's important to create a process which is both simple and takes everyone along for the ride." ■

LESSONS LEARNT

- Focusing on conception, litter size and ewe rearing ability has seen improvements in lamb survival.
- Actively reviewing patterns in data can be a useful tool to identify both solutions and challenges.
- Using genomics has increased efficiency in identifying Australian Sheep Breeding Values (ASBVs) earlier in life enabling a shorter generation interval.

TOOLBOX

- Read more about how to make more from sheep: **makingmorefromsheep.com.au**
- Learn about genomics: **sheepgenetics.org.au/resources/genomics**
- Subscribe to the latest updates from Sheep Genetics: **sheepgenetics.org.au/updates/news**

Read the rest of our LambEx report, starting on page 4.

Jenny Bradley **jenny@newarmatree.com.au** Daniel Forwood **dforwood@mla.com.au**

New genetic tool opens the box for improved profitability

An MLA-funded project has delivered the first genomic-only tool for tropical and tropically adapted breeds of cattle.

« UQ researcher Ben Hayes obtains a DNA marker sample from an animal's tail hair.

The RePRO BI tool, which is now available to producers, will enable northern beef enterprises to improve heifer and cow fertility.

University of Queensland genomic researcher Professor Ben Hayes said the project was initiated to allow producers to select for better fertility, weight gains and parasite resistance in their herds.

"Fertility has a really big impact on the productivity and profitability of northern beef enterprises," Ben said.

"However, selecting for fertility, particularly in commercial northern beef herds, has traditionally been challenging.

"But, with the help of 60 collaborator herds and 36,000 genotyped and trait-recorded heifers and cows from across northern Australia, enough DNA has been collected and analysed to make fertility improvement both accessible and easy."

Behind the tool

By utilising DNA from heifers within those collaborator herds, the researchers were able to develop accurate DNA-based predictions for not only the animal's fertility traits, but also for its breed composition and genetic merit.

"From a simple tail hair or ear punch sample, RePRO BI will be able to provide producers with the genomic value of each tested animal – fortifying on-farm decision making with regards to breeding, selling and culling," he said.

Genomic company Black Box Co is the exclusive provider of RePRO BI. The results provided by Black Box Co to determine the value of each tested animal include:

- poll/horn traits
- breed composition
- Genomic Breeding Values
- age at puberty
- ability to conceive while lactating (P4M)
- incidence of flystrike
- tick burden
- weight
- hip height
- body composition score
- temperament.

"When producers get back their reports from Black Box Co on their herd's genomic profile, there will be two bits of key information indicating how well their herd is performing," Ben said.

"The first section will tell the producer where they benchmark compared to all the reference herds across northern Australia that contributed genotypes and phenotypes to the project.

"This will tell them if their herd is in the top 20%, the bottom 20%, or sitting within the average range.

"The second section will include the independent Genomic Breeding Values for each tested animal – which, along with the breeding value scores, will also indicate where the animal ranks as an individual compared to other cattle across the northern region."

Key traits

When it comes to key traits, Ben said the project zeroed in on two fertility traits which offered the greatest indicator of an animal's lifetime productivity.

"Age at puberty and ability to conceive while lactating are traits which will provide great economic gains if improved," Ben said.

"There's a lot of evidence demonstrating heifers that go through puberty earlier tend to produce more calves over their lifetime.

"If we pair early puberty with the ability to fall pregnant four months after calving year after year, we're very likely to end up with significant improvements in reproduction and profit."

Figure 1: Locations of the initial 60 collaborator herds from across northern Australia

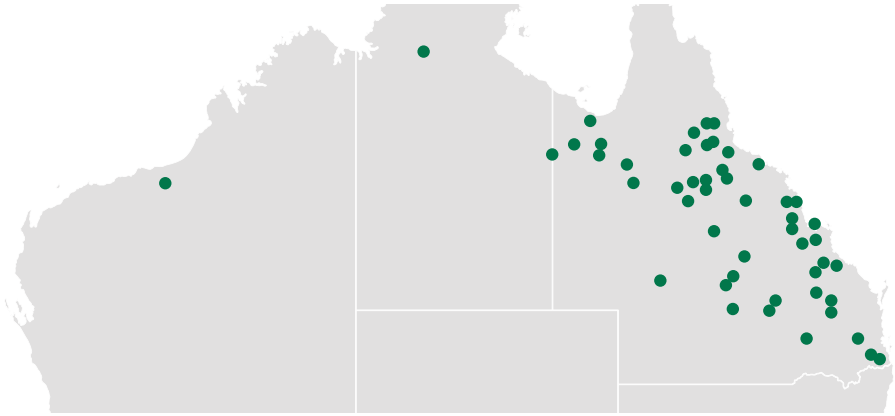
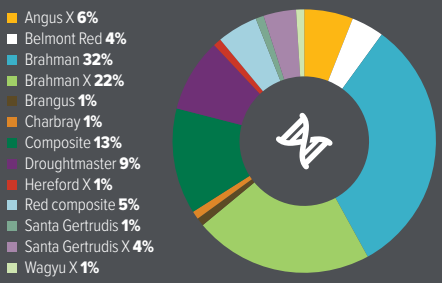


Figure 2:
The percentage of each northern cattle breed recorded in the genomics project



Production gains

Once the results are in and producers start using them to aid decision making, Ben said he expected to see a steady increase in pregnancy rates.

"A big indicator we saw during the project trial was improved pregnancy rates, especially for females in their first lactation," he said.

"For one of our collaborators, this improvement equated to an average increase of $40,000 in income – which shows a great long-term return on investment with RePRO BI's genomic testing costs sitting at $65 per head.

"In addition to a growth in annual income, a number of producers involved in the project during its research phase underwent a massive shift in where their herd ranked.

"One collaborating producer has now got the majority of their heifers sitting in the top 20% as individuals within both fertility traits (age at puberty and ability to conceive whilst lactating) – something we hope all northern beef producers who utilise this new tool will be able to achieve." ■

Turn the page to read about a producer who is using the tool.

TOOLBOX

Visit MLA's Genetics Hub for more information on Genomic Breeding Values (GBVs) and Estimated Breeding Values (EBVs): **genetics.mla.com.au**

Find out what your herd's Genomic Breeding Value is, using Black Box Co's RePRO BI genomic tool: **blackboxco.com.au/genomics-store**

How to use RePRO BI

Here, Black Box Co's Chief Executive Officer, Shannon Speight, gives the run-down on how to access and make the most of the RePRO BI tool, developed through an MLA project.

STEP 1

Collect your DNA samples using a tissue sampling unit (TSU)

TSU test kits and tools are available for purchase online at **blackboxco.com.au/genomics-store**

To obtain a DNA sample, simply use the TSU and applicator on the animal's ear.

Make sure to record each animal's visual ID and NLIS number alongside the barcode on the TSU containing its DNA sample.

STEP 2

Submit your request online and mail your DNA samples to Black Box Co's lab partner

Create your free Genomics Portal Account via **blackboxco.com.au/genomics-store**

Here, you can upload the IDs, NLIS and corresponding TSU barcodes.

Select which tests you want covered for your samples and pay securely via your online account.

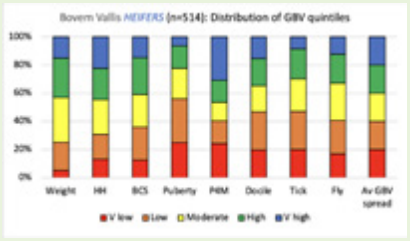
Once completed, you can mail your samples to Black Box Co's partnered lab – they will keep you updated on how your samples are tracking via your portal as soon as the lab receives them.

STEP 3

Receive your results online via your genomics portal

Your portal includes an interactive dashboard which can be utilised in time to compare your herd's genomic data with phenotypic outcome.

Black Box Co will provide you with an animal's genetic potential, but external factors such as nutrition, disease control and herd management can play a role in whether this potential is achieved.



TOP TIPS

For producers looking to record and improve their heifers' genetic profile, Shannon recommends obtaining samples from 50 heifers selected at random.

"Don't choose your best-looking breeders and don't choose your worst-looking ones either," she said.

"By selecting 50 breeders at random to test, you're allowing for a more accurate reading of your herd's average value."

For producers aiming to use the tool to understand the genetic merit of their bulls that do not currently have EBVs, Shannon's advice is to test them all.

"Bulls have the biggest genetic impact, and that impact can stretch across multiple generations for more than 20 years," Shannon said.

"So, if you're looking to improve your herd's productivity beyond fertility, we will always suggest producers test every single bull in their herd."

Ben Hayes **b.hayes@uq.edu.au** Shannon Speight **shannon@blackboxco.com.au** Sarah Day **sday@mla.com.au**

« CAP Genomics run about 2,000 head of cattle in the Somerset region of south-east Queensland.

Genetics set the baseline for improved production

Five years into developing an internal genetics program to complement their northern commercial beef production goals, CAP Genomics Pty Ltd has found good genetics to be the baseline for creating a cohesive and efficient supply chain through to market.

CAP Genomics was a collaborating herd in MLA's Northern Genomics Project, serving an integral role in the trailing and initial development of a genomic tool, known as RePRO BI. The tool is now commercially available to northern beef producers through Black Box Co – learn more on page 10.

CAP Genomics Managing Director Chris Simpson said leveraging advanced genomic and genetic tools enabled the company to effectively set, target and improve their herd's Genomic Breeding Values (GBVs) and Estimated Breeding Values (EBVs) to better their overall production.

Putting genetics first

According to Chris, CAP Genomics' genetic program aims to enhance the productivity of tropical composite breeds, with a specific emphasis on integrating African-derived *Bos taurus* cattle.

"We currently run just under 2,000 animals, but over the years we've genetically profiled more than 3,000," Chris said.

"While our genetic strategy is still in the development stage, we've found through our involvement in the Northern Genomics Project that developing a strong genetic base through data collection, integrity and science is fundamental in optimising other facets of the beef production process."

Chris said the project enforced the necessity of a strong selective breeding program.

"During the formative years of our internal genetics program, we applied stringent processes to our production system, such as providing minimal nutritional support and implementing an agnostic natural joining program," Chris said.

"This approach was designed to 'stress-test' our system, allowing us to identify the most resilient and high-performing genetics, as well as poorest performing genetics under challenging conditions.

"By enacting these tests early on, we were able to not only see how our benchmarked traits identified through genomic profiling held up in practice, but also how important genetics are to continued herd productivity despite poor seasonal conditions."

He said, as a result, they determined:

- production levels above 75% were significantly influenced by good nutrition
- good genetics were crucial to optmise calf survival and productivity when environmental conditions and nutritional supply were less than ideal.

"We've discovered that through improving fertility and adaptability to harsher climates, our herd's genetics can set a strong foundation for us to establish a robust production system which supports long-term sustainability and profitability."

Analysing the data

Chris has seen a clear value from integrating advanced genomic tools into their breeding program as a result of their involvement in the Northern Genomics Project.

The RePRO BI tool provided information which they could use to immediately identify sire lines with sub-par performance – critical for an enterprise which breeds its own bulls.

"Sires have the biggest genetic impact on the herd and this early identification of weaknesses enabled us to make informed decisions about which sires to retain or cull, thereby improving the overall quality of the herd," he said.

» CAP Genomics Managing Director Chris Simpson.

SNAPSHOT

CHRIS SIMPSON, CAP GENOMICS –
Somerset region, Queensland

AREA
4,500ha

ENTERPRISE
2,000 cattle

PASTURES
Variable native pastures

SOILS
Variable soils

RAINFALL
1,200mm

In the longer term, the continuous genetic profiling with the RePRO BI genomic tool has enabled them to record GBV increases and analyse them alongside sire EBV and dam production data.

"With the tools' aid, we have been able to identify and report the uplifts we saw on the GBV results of our sires and their respective progeny cohorts," Chris said.

"Our success in analysing a sire's average GBV quotient has been reflected through one of our sire selections, acquired off the Maynard Cattle Company, who has produced an average GBV increase of more than 25% on 100% of his progeny.

"These GBV increases reflected the benefits of targeted breeding, demonstrating the effectiveness of our strategy to cull underperforming cattle and focus on enhancing key traits such as fertility and growth."

To better analyse and record herd performance, they overlayed EBVs and dam production data with GBV outputs.

"Combining and analysing GBV outputs, EBVs on sires and dam production data helped us clearly identify top contributors for our embryo donor program – which is aimed at expediting genetic gains from the original GBV benchmarks," he said.

"The outcome of integrating genetic data with a traditional phenotypic analysis is enhanced decision making.

"Both data sources provide a comprehensive understanding of an animal, to make better informed breeding and culling decisions – ultimately leading to a more productive and more resilient herd."

CAP Genomics is an early adopter of the RePRO BI tool, developed with MLA funding.

Opening the doors to collaboration

As CAP Genomics continues to adapt and develop their internal genetics program, Chris said the next step will be to open the doors for collaboration and contributions from other producers.

"We are currently in the process of building an open-source platform (available within 12 months) which outlines our breeding and genetic systems," he said.

"Through this initiative, we hope to foster connections, innovation and continuous improvement to northern beef herds – as we are all in this together." ■

LESSONS LEARNT

- Data collection is the key to informed decision making.
- A good genetic foundation will aid long-term productivity when there are periods of nutritional deficiency.

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Sarah Day **sday@mla.com.au**

Goats to build their own sustainability framework

Australia's goat industry is set to follow the lead of the beef and sheep industries in building on its sustainability credentials to help access premium domestic and international markets.

Applications to develop a plan for a Goat Industry Sustainability Framework are currently being reviewed by the Goat Industry Research, Development and Adoption Committee (GIRDAC).

The Australian Beef Sustainability Framework and Sheep Sustainability Framework have developed world-leading strategies since they were launched in February 2017 and April 2021 respectively. They use evidence-based metrics to measure industry performance against priorities such as animal care, environmental stewardship, consumer and community wellbeing, and financial resilience.

It is anticipated that a Goat Industry Sustainability Framework will follow a similar approach.

Australia has a 31% volume share of global goatmeat exports. Domestically, the industry includes rangeland harvested and conventionally farmed goatmeat, fibre and dairy.

With domestic meat production growing 38% year-on-year in 2022, the goatmeat sector is well-positioned to accelerate industry growth while simultaneously building on foundational sustainability credentials.

Goat productivity

The framework is one of two research, development and adoption (RD&A) priority areas GIRDAC has identified for the industry.

The other priority is an analysis to identify future RD&A investments at domestic and international levels relevant to Australian production systems.

This study will encompass R&D activities in the goat productivity sector that achieve outcomes in line with the priorities of GIRDAC.

The MLA Goat Productivity program provides services and best practice information to help Australian producers secure a future as innovative, profitable and resilient world leaders in goat production. The program delivers a range of resources, tools and engagement opportunities for goat producers to equip them with knowledge to improve their business. ■

mla.com.au/goats-hub
Daniel Forwood **dforwood@mla.com.au**

Lamb finishing trials harness pastures to reduce emissions intensity

New research has investigated if sheep producers can have it all, using pastures to boost growth rates while lowering emissions intensity.

The recent study explored what was until now only anecdotally supported – whether multi-species pastures bolster lamb growth and, in turn, reduce emissions intensity.

Both summer and winter grazing trials were conducted at the Gippsland Agricultural Group research farm near Bairnsdale, comparing multi-species pastures with annual ryegrass single-species pasture in winter, and with a forage brassica single-species pasture in summer.

Each pasture was grazed by 50 lambs, with lambs weighed at regular intervals, and results used to estimate total greenhouse gas emissions and emissions intensity of production through the MLA Carbon Calculator.

Project leader Brendan Cullen from the University of Melbourne said the results were promising, despite climate challenges that restricted complete evidence for the summer trial.

"In the winter trial, we found that the lambs growing on the multi-species grew 330g a day on average, compared to 260g/day on the annual ryegrass single-species pasture," Brendan said.

"Within the trial, you could see the lambs were actually selecting a diet from the range of species that were there.

"Being able to select the diet seems to have helped them to have a higher growth rate."

When the emissions were calculated after more than a month of grazing, it was found the emissions intensity was lower on the multi-species pastures because more live weight was produced, so the emissions per kilogram of lamb was lessened.

"If we can grow lambs to their target weight and finish them earlier, then we can reduce the emissions," Brendan said.

Locally, the trial gave confidence to producers who wanted to improve their environmental efforts.

"Following the trial, some producers were talking about changing what they do with their pastures to incorporate more diversity into the mix," Brendan said.

Brendan said it's likely the success of multi-species pastures wouldn't be exclusive to the Gippsland region.

"I think the findings are quite relevant across the regions. The specifics of the trial were constrained around the climate conditions during that time, but producers from other regions have said the results support observations on their own properties."

Tip for success

When incorporating multi-species grasses, be strategic about what species to include in the mix and why.

"Including cereals in the mix with grasses will support early growth, but they also balance out fibre in the diet. Then there's the highly digestible species, like legumes and herbs which you can include in the mix," Brendan said. ■

> **"Following the trial, some producers were talking about changing what they do with their pastures to incorporate more diversity into the mix."**

A multi-species pasture being enjoyed in East Gippsland.

Five tools to manage carbon in your sheep enterprise

1. **Calculate your emissions with the MLA Carbon Calculator:**
   carbon-calculator.mla.com.au
2. **Attend a CarbonEDGE workshop:**
   mla.com.au/carbon-edge
3. **Learn more about pastures at the Feedbase hub:**
   mla.com.au/feedbase-hub
4. **Use the Pasture improvement calculator:**
   mla.com.au/pasture-improvement-calculator
5. **Find more tools to improve your sheep:**
   makingmorefromsheep.com.au

The study drew east Gippsland producers who were eager to learn new ways to consider their on-farm emissions.

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Southern seasonal update for feedbase management

As many producers continue to navigate ongoing dry conditions, SA agronomist Felicity Turner from Turner Agribusiness has some practical advice to help manage pasture resources and promote growth this spring.

Feliciy has more than 25 years of experience in sustainable farming practices, crop and pasture agronomy, livestock production and precision agriculture. Here, she shares how to make the most of your feedbase despite the late break this year.

Maximise potential growth

According to Felicity, producers should aim to maximise potential pasture growth as soon as September starts.

"September generally offers a peak pasture production period for much of southern Australia with the growth period extending into October in the higher rainfall areas, so it's a great opportunity to utilise these seasonal benefits to capitalise on your pastures growth," she said.

"Maintaining green leaf area and maximising light interception over the coming months will assist in providing opportunities for as much bulk as possible to be grown across your feedbase given the rainfall that occurs."

Felicity said the key steps to managing pasture during spring for maximum growth and productivity include:

- optimising the quality of feed through good weed and pest control
- ensuring adequate base soil fertility
- understanding the potential growth patterns of different pasture species in different regions under different rainfall conditions – see this article's 'toolbox' for useful resources
- plan an appropriate grazing system which incorporates rest and recovery.

"No matter where your property is located in southern Australia, your perennial pastures are going to benefit the most from late spring and summer rainfall events," Felicity said.

"So, it's important that these pastures in particular are looked after and not overgrazed.

"However, if managed right, all pastures can have great production potential through spring which is why I recommend accessing local workshops and sourcing resources and learning modules to aid you in understanding how to optimise the productivity of your property's pasture types."

She recommends Modules 7 and 8 of Making More From Sheep, and Modules 2 and 3 of More Beef from Pastures.

"These modules will also touch on the importance of avoiding overgrazing during the spring period as it can deplete the plant reserves and root biomass," Felicity said.

The MLA and EverGraze websites have more resources and tools on managing paddock stocking rates, planning a rotational grazing system, and calculating pasture growth.

Containment feeding

While a feedbase which supports livestock requirements throughout spring and into summer is the ideal, Felicity said it's worthwhile feed budgeting early and securing a supply of grain feed and additional fodder, should pasture growth be reduced due to low rainfall.

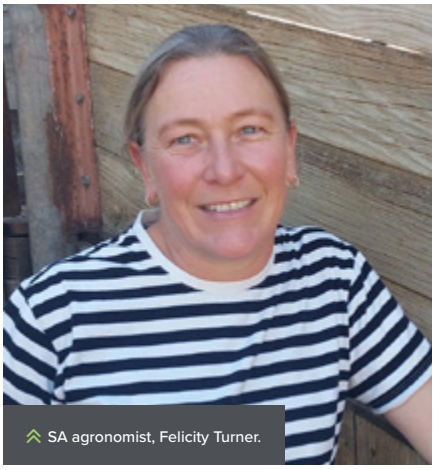
"If southern producers don't have the opportunity for much growth over the next few months and don't have an adequate availability of stubbles, containment feeding will be the next step – especially in annual systems," she said.

"So, if you haven't already, it's a good idea to explore appropriate grain feed supply opportunities, the infrastructure required to hold stock in smaller areas including feed and water infrastructure, and an appropriate site to stock – this may mean picking a sacrifice paddock.

"It's also worthwhile noting if you may need to supplement your grain feed with hay and/or minerals to ensure your livestock's nutritional needs are continuing to be met."

Final advice

When it comes to ensuring continued pasture productivity year-round, Felicity said it really comes down to planning strategies to combat seasonal challenges ahead of time.



SA agronomist, Felicity Turner.

"We're becoming more and more efficient at planning ahead and adapting to variability within seasonal conditions," she said.

"Despite the lack of rainfall, the vast majority of southern producers have done an amazing job at maintaining the condition of their land, and they've done that by planning ahead and then implementing those planned strategies as soon as they're needed.

"If this event happened 10 years ago, I don't think we would have managed it as well as we have this year so I think producers should be kind to themselves as they work through these seasonal challenges because they are doing a good job.

"In line with being kind to themselves, I would also advise producers to seek help from nutritionists, agronomists and financial advisors," Felicity said.

"Sometimes, in order to lighten the load, it's worthwhile getting some guidance and insights from someone with a bit of expertise in a specific area – because what they have to say may end up saving your pastures, your stock and your money in the long term.". ■

TOOLBOX

- Scan this QR code to listen to Felicity's episode on the MLA Productivity and Profitability podcast.
- Use MLA's feed and pasture tools and calculators: **mla.com.au/tools-calculators**
- Check out more tools and calculators: **evergraze.com.au**
- Read these containment feeding resources: **mla.com.au/containment-feeding**

Felicity Turner **felicity@turneragri.com.au** Mitchell Plumbe **mplumbe@mla.com.au**

After branding, Lakefield's weaners are turned out into small paddocks with access to trace element blocks, molasses, hay and pellets. Ten days of tailing before branding means weaners are easier to handle. Image: Chelsea Riggs.

Lakefield's weaner success floats on targeted management

Since purchasing 'Lakefield Station' on the Sturt Plateau, NT, in 1999, the Riggs family has developed it into a thriving cattle operation with the help of award-winning land management and conservation strategies.

Along with their children Tahlia, Chelsea, Kirra and Hayden, Garry and Michelle Riggs have transformed what was once a bare block with only boundary fences on three sides, into a productive station running 7,500 Brahman cattle (including a small composite herd). The family developed clear management plans and ticked off their goals ahead of schedule, such as developing:

- 26 paddocks
- three sets of yards
- 68km of laneway
- 42 fenced dams with 18 on solar water-pumping infrastructure
- 14 bores (10 solar)
- 1,300ha of conservation area
- a 600-tree mango orchard.

They can now utilise most of their grazing country, with 90% of Lakefield within 3km of a watering point, and the remaining 10% within 5km.

"Moving forward, we will continue to enhance our livestock management program and improve our property with native and improved pastures, along with maintaining our environmental values and a carbon neutral environment," Garry said.

Matching stock to capacity

Lakefield currently runs about 2,300 breeders with an average weaning rate of 74–76%. The Riggs family recently reduced numbers by 600 head to better match carrying capacity – this resulted in significant improvements in pasture condition as well as production, with higher weaning weights and percentages. They drew on carrying capacity assessments conducted by NT Government and Charles Darwin University (CDU) scientists.

Markets

From 2014–2023, the Riggs family have increased the polled rate in weaners from 60% to 92%. They have strong local demand for their polled breeders and bulls. Bulls that don't meet their criteria – which includes conformation and temperament – are directed to the live export market, along with feeder steers.

Supplementation

The Riggs family have trialled different supplementation programs to develop a strategy with the best return. Through the wet season, all cows and weaners have access to phosphorus (P) – they use Kynofos 21, which contains 21% P.

"Phosphorus has had one of the most positive impacts on production out of all of the management strategies I've tried," Garry said.

In the early dry season, cows get Beachport Liquid Minerals (BLM) White Cap until July/August, then they are switched onto a urea and phosphorus loose lick to provide them with protein in the late dry season when pasture protein levels decline. The loose lick intake target is 50g/head/day – the correct amount of supplement is distributed in lick tub tyres and diligently checked once a week to ensure consistent supplementation and limit wastage.

SNAPSHOT

GARRY AND MICHELLE RIGGS – 'Lakefield Station', Sturt Plateau, Katherine, NT

AREA
56,600ha

ENTERPRISE
7,500 cattle, predominately polled grey Brahmans with a small composite herd

PASTURES
Native pastures with some improved pastures

SOILS
Loamy red earths with gravelly red and yellow earths and lithosols

RAINFALL
788mm (over past 100 years has ranged from 287mm–1,579mm)

"By investing more time out in the paddock on lick checks, we can monitor cattle and land condition more intensively," Garry said.

Feeder steers are given BLM Green Cap (added to their water) 10 days prior to trucking to reduce shrinkage during transport.

Breeder management

Cows are control mated for six months, with bulls put in on 7 January. This results in a first peak of calving in October/November and a second in January.

This controlled mating window means foetal aging is not required at preg-testing, as calves are born within a known timeframe and breeders can be managed accordingly.

Pregnancy data is recorded into a Tru Test XR5000 which stores each cow's full reproductive history.

Using this data, the Riggs family cull:

- heifers that are not pregnancy-tested-in-calf (PTIC)
- cows that are pregnancy tested empty more than once
- cows that are frequently PTIC but do not rear a weaner.

Breeders receive annual vaccinations of Bivalent botulinum vaccine and 7-in-1 at the preg-testing muster. Herd bulls receive annual Bivalent, 7-in-1 and Vibrovax vaccines.

The Riggs family aim to keep cows in a minimum body condition score of 2.5–3, which results in about 65% of cows re-conceiving while still feeding a weaner.

Weaning

"Around 12 years ago we were at about a 60% weaning percentage, but with careful selection for fertility we are now constantly achieving weaning percentages in the mid-70s," Garry said.

Here's a look at how the Riggs family manage their weaners.

First-round muster

First-round mustering commences the week after Easter when the first peak calves are about six months old and an average of 160kg. A helicopter is only used for this muster, to ensure all weaners follow their mothers into the trap yards. Six breeder paddocks are mustered individually, and each mob is walked down the laneway to the yards by one person on a quad bike. Calves that weigh more than 100kg are drafted for weaning. Calves under 100kg are tagged, branded, males are castrated using rings, and horned calves are dehorned using hot-iron dehorners. These calves are mothered up in the paddock they came from.

Feeding, vaccinating and tailing

The first cohort of weaners are kept in the yards for up to 10 days, with access to mixed grass, cavalcade, sorghum hay, beef weaner and shipper pellets, Copra meal and fresh, clean water. The average weight of first-round weaners is 155–160kg. Any animals in the lower weight range or that look like they need extra attention are drafted into a separate yard to reduce feed competition and bullying.

Weaners are given their initial vaccinations (Longrange botulism, 7-in-1 and an injectable parasite treatment) straight away. The yard period ensures these vaccines are effective before weaners are branded and turned out into the paddock.

Weaners also go through an education and training process in the yards, conducted by Michelle.

During this, they are:

- introduced to people, horses and working dogs
- tailed in smaller yards, progressing to bigger yards and water squares
- quietly worked on foot through the pound and race, with a few 'free' runs through the crush.

Processing

After they are vaccinated and tailed, the 100kg+ weaners receive management tags, non-polls are dehorned using hot-iron dehorners, and males which won't be kept are castrated with rings. All castrated males are given Metacam pain relief.

Weaner nutrition out of the yards

Next, weaners are boxed together and turned out into fresh weaner paddocks with ad-lib access to molasses, trace element blocks, Adelaide River shipper pellets, hay in feeders and BLM Green Cap in their water. The Riggs have used molasses for five years – they buy it as concentrate and mix it in large lick tubs – and are impressed with the benefits they've seen. Weaners are then allowed into larger paddocks and introduced to weaner stock lick starting at 10% urea and gradually increasing to 20%.

The average daily gain of first-round weaners is 0.26kg/head/day over the dry season and 0.36kg/head/day in the wet season.

The average cost to produce a weaner at Lakefield, inclusive of feed, supplements and vaccinations is $500/head.

Second and third-round musters

Second-round mustering begins in late July. To take the pressure off cows, the Riggs family wean down to 80kg in this muster, with the rest of the process being the same as the first round.

"It's cheaper to feed weaners than to try and increase a cow's condition score while she is feeding a calf," Garry said.

The third-round muster, in December, is to wean any calves that were too small in the second round, but need to be taken off before the first round the following year. Supplementation out of the yards is the same for second and third-round weaners as it is for first-round. ■

The correct amount of supplement (g/head) is calculated and distributed in lick tubs and diligently checked once a week to ensure consistent supplementation and to limit wastage. Image: Chelsea Riggs.

TOOLBOX

- Look out for the updated manual, *Weaner management in northern beef herds*, soon to be released on the MLA website.
- Tools and resources for northern cattle producers: **mla.com.au/northern-cattle**

Learn more about the Riggs' management – including how they are addressing weaner mortalities and the cost of supplementation – in their full case study in the updated *Weaner management in northern beef herds* which will be launched later this year.

Garry and Michelle Riggs **lakefieldstation@bigpond.com** Sarah Hassall **shassall@mla.com.au**

Genetics deliver long-term solution to worms

Are worms a burden on your flock? You can take advantage of genetic selection this sale season to tackle this productivity challenge.

Worm burden can have a significant impact on flock productivity – and while chemical and management solutions to reduce the impact of worms within the flock are effective measures, producers are looking for a more long-term answer.

Genetic selection for a higher resistance to worms can see permanent and cumulative results when used as a tool to combat worms.

WEC breeding value

Australian Sheep Breeding Values (ASBV) are a tool used to describe the genes an animal will pass onto its progeny for a range of traits. They can be used when purchasing rams to make more informed decisions about how a ram's progeny will perform.

ASBVs are available for a wide range of traits and extend to traits that might otherwise be difficult to assess, including worm egg count (WEC).

The WEC trait has been available as an ASBV for more than 20 years.

It's used by ram breeders and commercial sheep producers to identify animals with a higher level of worm resistance. This can be used with other forms of internal parasite management as part of an integrated pest management (IPM) approach.

WEC backs healthy, productive flock

Genetics have helped manage worms for Victorian sheep producer Elise Kealy, who operates Curlew Merinos at Edenhope along with her parents and brothers.

The family, who operate seedstock and commercial flocks, face worms as a production challenge in their high-rainfall environment, where they receive an average rainfall of 500mm/year (winter dominant).

Elise completed a WormBoss workshop, where she identified major production losses in their business from worms, through reduced lactation, wool production, growth rates and fertility.

Because they do not run any cattle and cropping is only a small percentage of the business (3.5%), other management options are limited – so Elise turned to genetic selection to get the results she was after.

For the past 15 years, Elise has bred for more worm-resistant sheep. The WEC ASBV is an integral part of her breeding objective when selecting sires, and it has delivered tangible and direct results.

"We have been able to reduce our drenching program to one drench per year on average – most sheep producers in our area would drench four or more times a year with many using long-acting drenches," Elise said.

Drench resistance

In 2008, the family conducted drench resistance tests, and found some combination drenches were only 57% effective for their flock.

Since then, with heavy emphasis on genetic selection for WEC within their breeding objective, Elise is now able to use any drench on the market.

This means she does not have to rely on newer, more expensive drench products for efficacy.

"This gives us confidence that selecting for worm-resistant sheep has practical and economic benefits for our business," she said.

No compromise

Elise hopes the industry can move toward more worm-resistant sheep, to reduce labour requirements and on-farm chemical use – she plays her part by educating her seedstock clients on selecting for WEC.

She encourages her clients to develop balanced breeding objectives, noting that selection for WEC has very little negative impact on other production traits.

Victorian producer Elise Kealy.

SNAPSHOT

ELISE KEALY, CURLEW MERINOS –
Edenhope, VIC

AREA
2,600ha

ENTERPRISE
Seedstock and commercial Merinos

PASTURES
Phalaris and clover

SOILS
Sandy loam on clay

RAINFALL
500mm

This means that genetic gain can be made in WEC without compromising gain in other traits.

"WEC is one of the most important traits to select for in our environment," Elise said.

"It doesn't matter what your ASBVs are for fleece weight or reproduction, if you have a flock of sheep that are constantly burdened by worms, you will have higher mortality, and produce less wool and lamb. Healthy sheep are productive sheep." ■

How to use ASBVs

ASBVs are best used when comparing two or more animals. For example, if you were going to purchase one of the two rams below, you can use their ASBVs to help choose the best ram for you.

	Weaning weight (WWT)	Yearling Worm Egg Count % (YWEC)
Ram 1	**6**kg *Acc 71*	**-10** *Acc 64*
Ram 2	**16**kg *Acc 71*	**-50** *Acc 64*

ASBVs are used to predict the performance of progeny. So, using WWT as an example, how do you expect the progeny of these two rams to differ in performance based only on genetics?

1. Identify what trait you are looking at and the units this trait is in: WWT is in kg.
2. Calculate the difference between the ASBVs of the two rams: 16kg - 6kg = 10kg.
3. Rams contribute only 50% of their genetics to their progeny (the rest comes from the dam) so divide the above answer in half: 10kg/2 = 5kg

This means at weaning, you would expect, on average, the progeny of Ram 2 to be 5kg heavier than Ram 1's progeny when joined to the same type of ewes.

This process is the same for all ASBV traits.

You can go through the same process with WEC:

1. YWEC is expressed as a percentage (the percentage resistance to worms).
2. (-10) - (-50) = 40%
3. 40%/2 = 20%

So, you would expect, on average, the progeny of Ram 2 to be 20% more resistant to worms than Ram 1's progeny at yearling age.

Elise Kealy selects for WEC ASBVs to main a productive flock.

genetics.mla.com.au sheepgenetics.org.au
Kate Rummery **krummery@mla.com.au**
Elise Kealy **info@curlewmerinos.com**

Mixed farms benefit from $2.1m partnership

MLA and the Grains Research and Development Corporation (GRDC) have launched a $2.1 million, four-year pilot project designed to put more dollars in the pockets of producers with mixed farming businesses.

The joint project targets businesses producing both livestock and grain, to show producers how new or alternative management practices, along with key learnings from scientific research and development, could benefit commercial mixed farming operations.

The partnership will see the development of six producer demonstration sites (PDS), to provide producers with a hands-on and guided experience to implement research on-farm which highlights profitability and productivity benefits to drive practice change.

MLA's Project Manager for Producer Demonstration Sites, Alana McEwan, said partnering with GRDC was a critical and collaborative step in delivering better outcomes for mixed farmers.

"The close linkages between MLA's PDS program and GRDC's National Grower Network in delivering impactful, on-farm, locally relevant projects created an opportunity to develop a partnership demonstration site program targeted towards mixed farming systems," Alana said.

"This partnership program will support groups of producers to demonstrate, adapt and validate the benefits of integrating new management practices, research and development outputs, and associated skills within the context of their commercial production systems."

GRDC's Senior Regional Manager South, Stephen Loss, said the project was an important opportunity for industry collaboration that would help support on-farm practice change and peer-to-peer learning, and deliver production and profitability gains.

"We know it can be challenging for producers to translate R&D into actionable practice change in the context of their local environment and farming system," he said.

Preliminary PDS applications are open and close on Wednesday, 25 September. ■

Scan this QR code to access information on applying for a PDS.

Visit mla.com.au/pds to sign up for MLA's quarterly *PDS update* and access the PDS search tool and other producer resources.

GRDC GRAINS RESEARCH & DEVELOPMENT CORPORATION
mla MEAT & LIVESTOCK AUSTRALIA

Brothers Kawane (far left) and Jon Motlop attended Geoff Niethe's session on necropsy at an NB2 workshop held at 'Malbon Vale', Mount Isa. Image: Tim Gentle – Think Digital Studios.

NB2 builds lasting business resilience in the north

MLA's Northern Breeding Business (NB2) program has made significant headway in its goal to promote lasting business resilience in Australia's northern beef industry.

The program is based on a capacity-building model which puts business owners in the driver's seat.

The NB2 program encompasses a collective area of two million hectares and 83,500 cattle across Queensland and the NT, and aims to promote education and employment within the communities it works with.

Of the 73 beef businesses involved in NB2 (either finished or just starting the program), 12 are Indigenous-run cattle enterprises.

This is testament to the program's success in facilitating networking opportunities, where knowledge, insights and skills can be shared with fellow participants and businesses, as well as the wider industry.

Through a series of on-property workshops, industry specialists cover the latest best practice on-farm management strategies with a particular focus on calf survival and breeder reproduction. Other key elements include biosecurity training, the development of business skills and how immersive reality tools can be used for training.

Lasting change

NB2 group facilitator Ian Perkins works closely with participating Indigenous businesses to coordinate workshops and activities such as benchmarking and data analysis for their cattle herds.

"It's working really well and despite it being very hard to demonstrate change over a short time as we are still in the early days of collecting data for benchmarking, group members are implementing a whole lot of management practice change which will start showing results over the coming years," Ian said.

Participating businesses are involved in a range of initiatives including a breeder culling program where non-producing cattle will be identified and sold.

"The reproduction rate at one business we're working with is poor compared with other industry benchmarks so it will take time to record results," Ian said.

Building capacity

Beyond livestock productivity improvements, career development, training and employment are big focuses for NB2.

What is NB2?

NB2 is a strategic research, development and adoption partnership which aims to improve the long-term viability and sustainability of the northern Australian beef industry by:

- improving calf survival and breeder reproduction
- improving the financial viability of northern beef enterprises i.e. by increasing the body weight of cattle sold
- increasing the adoption of proven management practices and technologies.

NB2 was initiated by the North Australia Beef Research Council and MLA, and is co-funded through the MLA Donor Company (MDC). Funding for the Indigenous NB2 groups has been provided by the Indigenous Land and Sea Corporation and Animal Health Australia.

"One of the main impacts we've seen is the increase in awareness of what research, training and education is out there. The training delivered by NB2 is bridging a gap in access to mainstream training opportunities. Tailoring training to each Indigenous business we work

NB2 training snapshot

A range of capacity-building business development and on-property training sessions have been conducted with participating business to date:

Deliverer	Topic
Megan Willis	■ Grazing Fundamentals EDGE workshops: **mla.com.au/edgenetwork**
Bush AgriBusiness and the Queensland Department of Agriculture and Fisheries	■ business management ■ spreadsheet use ■ data collection, management and analysis ■ benchmarking
Industry specialists Geoffry Fordyce, Ian Braithwaite and others	■ breeder management ■ supplementation and nutrition ■ weaner management ■ bull breeding and selection ■ methods of artificial breeding
Doug Humann (Landcare Australia) and Steve Murphy (Conservation Partners)	■ opportunities available in management for environmental outcomes
Rob Barwell (Animal Health Australia)	■ biosecurity ■ emergency animal disease (EAD) awareness
Think Digital	■ artificial and virtual reality (AR and VR) tools e.g. a farm biosecurity web tool ■ current development of an AR tool to identify emergency animal diseases in cattle

with and delivering it on-site is boosting participation and engagement," Ian said.

A recent two-day residential workshop at 'Delta Downs Station' (see story page 22), covered the implementation of a breeding management program. Group participants appreciated the chance to access networks and insights from Delta Downs.

"The other Indigenous cattlemen look up to Delta as they have an excellent record, employ a lot of people and they're happy to network with other Indigenous organisations," Ian said.

People focused

The Indigenous Land and Sea Corporation (ILSC) has been delivering positive change in its near 30-year history. It does so through the establishment of strategic partnerships with First Nations communities to unlock the social, cultural, economic and environmental advantages that come with managing and owning Country.

Programs – such as the NB2 program – are important pieces in the larger puzzle to create opportunity that can unlock advantages for Indigenous peoples.

ILSC Chief Operating Officer, Matthew Salmon, said the ILSC's goal was to create pathways of opportunity for Australia's Indigenous communities, empowering them towards greater self-determination.

"Ultimately, we want First Nations peoples to control their own future and deliver on their own aspirations," he said.

"We firmly see our role as a facilitator – one that can help remove obstacles and pave the way for opportunities. Through programs like NB2, we help to create genuine pathways for Indigenous peoples."

ILSC's involvement in the NB2 program aligns closely with its values and priorities. These include a focus on Indigenous enterprise and business development, Indigenous employment, training and learning, networking opportunities to enable sharing of knowledge, transformational change, self-determination and partnerships which promote peer-to-peer learning. ■

TOOLBOX

- Northern Breeding Business (NB2): **mla.com.au/nb2**
- Access seasonal tools and resources for northern cattle enterprises at MLA's Spring hub: **mla.com.au/spring-hub**
- BredWell FedWell training: **mla.com.au/bwfw**
- Indigenous Land and Sea Corporation: **ilsc.gov.au**

This NB2 training workshop at 'Malbon Vale', Mount Isa, detailed how to conduct a necropsy. Image: Tim Gentle – Think Digital Studios.

Ian Perkins **ian@lpmqld.com.au** Rob Barwell **rbarwell@animalhealthaustralia.com.au**
Chris Martin **christopher.martin@ilsc.gov.au** Tony Parker **tparker@mla.com.au**

Delta Downs Station.
All images unless otherwise specified:
Tim Gentle – Think Digital Studios.

Community, country and cattle are intertwined at Delta

Run by the Kurtijar Aboriginal Corporation, 'Delta Downs Station' is so much more than one of Australia's most successful Indigenous-owned and run pastoral enterprises.

As Kurtijar Elder and one of the traditional owners of Delta Downs Station Fred Pascoe reflects, the station – north of Normanton in Far North Queensland – is also a treasured place of cultural significance which provides an abundant source of bush foods and hunting grounds for its custodians.

Home to a spectacular array of wildlife, its thriving wetlands brim with fish, turtles and migratory birds. Its wide range of landscapes include ridge and forest country and coastal areas which provide prime cattle country for its 45,000 head of predominantly red Braham cattle.

Delta's well-established and ongoing business success acts as a richly fertile incubator for Indigenous self-determination, employment and social cohesion.

Established in 1889, it took almost 100 years for Delta to become Australia's first cattle station run by Traditional Owners. Delta now employs 35 local Indigenous people and since 2021 has been an active participant in MLA's producer-led Northern Breeding Business (NB2) program.

Business development

Co-funded by the Indigenous Land and Sea Corporation (ILSC) and Animal Health Australia, NB2 is a capacity building program which engages participants in peer-to-peer learning, business analysis and skills development (see story page 20). The ILSC's participation in the program aims to create opportunities for Indigenous-owned pastoral enterprises by encouraging and funding their involvement.

NB2 has a specific focus on supporting businesses to implement strategies to improve calf survival and breeder reproduction. Ample networking opportunities and a delivery model based on respect and community-led decision making are central to the program's high level of buy-in from a growing number of Indigenous pastoral groups.

"Being part of NB2 is a good way for Delta to share its knowledge and experience with other Indigenous groups newer to the industry. It's been worthwhile learning from other participants as well as from mainstream industry," Fred said.

By working together and strengthening networks with other Indigenous-led businesses, Fred said NB2 has opened up a range of positive outcomes to explore.

These include:

- branded beef opportunities
- helping people get established with breeders
- agistment opportunities
- getting involved in other markets
- bulk marketing and bulk purchasing.

"Being able to sit down and have a cup of tea and talk about what other groups

Chairman of Morr Morr Pastoral Company and Kurtijar traditional owner Fred Pascoe.

SNAPSHOT

'DELTA DOWNS STATION' – Normanton, Queensland

AREA
Three properties totalling 404,685ha: 'Delta Downs', 'Magieville Outstation' and 'Karumba Downs'

ENTERPRISE
40,000–45,000 primarily red Brahman cattle with a portion crossed with Droughtmasters

PASTURES
Native grasses including black spear grass, bull Mitchell grass, marine couch and pockets of perennials, also forest country with tea tree

SOILS
Includes saline, clay loamy, black soil

RAINFALL
1,000mm

are doing in terms of carbon farming and managing for biodiversity is another benefit we see from the program," Fred said.

Building links for lasting benefits

NB2 has given Delta access to the latest evidence-based on-farm practices to boost productivity specific to northern cattle enterprises, as well as the opportunity to meet in-person with specialists from the wider red meat industry.

NB2's support and facilitation of networking events, including residential workshops and on-farm training sessions at Delta is something Fred would like to expand on going forward.

"We want to get a wider range of employees out to the residential workshops and meetings we hold here at Delta. We get access to technical and financial advice from industry experts which has been very useful," Fred said.

Building business skills

Fred sees the business management training side of the NB2 program as being particularly advantageous in the current economic circumstances.

"In today's environment the cost of everything needed to run a business has gotten higher – it's not in-line with what it costs you to run it anymore. You need to be on the ball to be profitable," Fred said.

Boosting productivity

Breeder management at Delta includes pregnancy tests and culling dry cattle, and benchmarking is now being implemented through NB2.

"In two years, we should be seeing improvements in our productivity. The technical training has been good – benchmarking is helping us see how we're travelling compared to the rest of the industry," Fred said.

Culling dry cows and increasing calving rates offer benefits beyond a more fertile herd and improved pasture utilisation.

"By getting rid of dry cows we'll have a smaller, more productive herd, so we'll still be able to employ more people. The land will also benefit with less cattle numbers – it's a win-win.

Cattle in the yards at Delta Downs Station. Image: Rob Barwell.

"We have a duty to employ local Indigenous employees – we're one of the largest Indigenous employers in this region but the more people you employ, the less profit you make. At the end of the day business needs to be profitable, however our profits are directed straight back into the community," Fred said.

Protecting wetlands a priority

Delta's lush wetlands are highly valued by the community which simultaneously cares for and is nurtured by them. Protecting it from impaction from livestock and the effects of invasive animals such as feral pigs is an ongoing priority.

"We have a rolling program where we fence off the wetlands so we can reduce the havoc feral pigs cause to native animals. They destroy the magpie geese nests and decimate turtles," Fred said.

"The wetlands are a haven for birds – we're on a migratory bird route and have a role to play in protecting them. By doing this our community also benefits through access to plentiful bush tucker and fish."

More than just a cattle company

Fred provides insight into his community's perspective on its ownership of Delta Downs – and it's one centred around custodianship rather than a utilitarian approach.

"When we got our property, we didn't just get our cattle company. We got land that our people now have access to for hunting and fishing and reinvigorating culture. We take our old people out to be buried on our land – it's a hell of a lot more than just a cattle company," Fred said.

Delta also provides a flourishing and continually replenishing food bowl for local Indigenous people – many of whom rely on it as a significant supplement to their overall diet.

"On the weekends we get 20 to 100 people coming out to hunt and fish – the majority of them are from a low socioeconomic background so it's really a supermarket where they can stock their fridges," Fred said.

Self-determination

In its facilitation of networking and business development opportunities, NB2 aims to act as a catalyst for ongoing success.

"Our 40-odd year history of success drives self-determination in our community. We are good cattlemen and horsemen, and we need to convince the wider industry that we are also good businessmen," Fred said.

"Delta is an example of a thriving, Indigenous-run business which supports its community and shares its knowledge with our Indigenous colleagues." ■

Moving cattle in the yards at Delta Downs Station.

Kurtijar Aboriginal Corporation **kurtijaraboriginalcorporation.com.au/home**
Fred Pascoe **fred@greatrust.com.au** Tony Parker **tparker@mla.com.au**

TOOLBOX

- Tools and resources specific to northern cattle producers: **mla.com.au/northern-cattle**
- Scan the QR code to download the *Northern beef producers' resource guide*

Tassies tap into legumes

New MLA research is digging into how Tasmanian producers can realise more potential from their pastures.

Dr Rowan Smith is researching how to improve the productivity of grazing systems using perennial grasses and legumes.

Pasture surveys conducted by the Tasmanian Institute of Agriculture (TIA) found only around one-third of Tasmanian pastures have the right species composition to approach their productive potential – and that's even before management, fertilisation and biomass are considered.

Dr Rowan Smith leads the Feedbase and Environment Cluster within the TIA's Livestock Production Centre. His research focuses on improving the productivity of grazing systems using perennial grasses and legumes.

"When we looked at the feedbase across Tasmania, we saw a big opportunity to increase red meat productivity," Rowan said.

"If we could improve those pastures, we could make some significant gains in weight gain, turn-off time and potentially stocking rates as well."

Rowan and his team also noted the proportion of legumes within these pastures was low. The reasons are varied.

"In the high-rainfall/intensive grazing zone, we've tended to follow a management style similar to dairy, where we've relied on synthetic nitrogen," he said. "In the lower rainfall zone, we've been quite reliant on existing sub-clover, and don't have many perennial legume options apart from lucerne."

Improved establishment

The TIA research has examined ways to advantage legumes at establishment through different methods of sowing and oversowing. Legumes, particularly perennials, are often slower to establish and can be outcompeted by grass species.

"If our target is to increase the legume component in pastures, we need grasses which are complementary, or to lower the sowing rate of the grass so there are fewer plants for the legumes to compete with," Rowan said.

"Recommended seeding rates for grasses can be quite high, so reducing them a little and increasing the legume rate can advantage the legume component."

Another option is to sow the legumes in the first year, then oversow the grass later.

"Oversowing with annual ryegrass or perennial ryegrasses works well in the medium to high-rainfall zone," he said.

"In the lower rainfall environment, we've tried various approaches, such as separating the grass and the legume in alternate rows. The legumes appear to establish better, but so far we're not seeing a benefit in overall yield."

Rowan said another option is to spread the seed on the surface, particularly in a cultivated seedbed that is then rolled.

"For small-seeded legumes, if you cultivate to get a fine tilth seedbed, you can end up with a very good result. Weed control prior is critical and this approach can be risky for producers in low-rainfall areas and where irrigation can't be used during establishment. For these producers, direct drilling and trying to maximise soil moisture is still the most reliable method."

Sound investment

Rowan said while these are long-term investments, producers who get it right should be able to get 15–20 years out of the pasture in the low-rainfall environment.

"The end result is heavily reliant on that first season, the amount of rain received and how tough it is for those plants to get established," he said.

While most of the research in this project around the pasture establishment work has been done, Rowan still wants to hear from producers, particularly those from low-rainfall areas, who would like to take part in an 'Involve and Partner' demonstration site.

"We provide the seed and work with the producer on the best method for establishment, then follow through to measure its success," he said. "We are documenting what's working and what's not, trying to get that out to other producers and let them come on a learning journey with us." ■

SEASONAL ACTION PLAN

- **Be well prepared.** Begin thinking about renovating pastures one to two years out and have a fallback position, such as putting another crop in, if conditions aren't suitable.
- **Select the right legume species for your region:** red and white clover for the high-rainfall zone, and strawberry clover for both high and low-rainfall zones. Strawberry clover can survive high-rainfall and flooding and is more resilient than white clover in a low-rainfall setting.
- **Control pests in the establishment phase.** Slugs and red-legged earth mites will preferentially go for legumes. Once the pastures are established, some productivity losses will occur but the pests won't kill the plants.

mla.com.au/feedbase-hub Rowan Smith **rowan.smith@utas.edu.au** Joe Gebbels **jgebbels@mla.com.au**

Pasture mix makes headway to fill feed gap

As irrigation expands across Tasmania's midlands, so is the area sown to pasture and fodder crops for intensive grazing, in rotation with other cash crops – and producers like Chris and Claire Headlam are looking for ways to gain value from their irrigated pasture mix.

The Headlams have 450ha of centre pivot irrigation on their Woodbury property, to grow poppies, barley and fodder brassicas for prime lamb production.

They aim to extend the grazing phase of their cropping rotation to compensate for a reduction in poppy area and provide a longer rest period for soils.

The challenge is to find a long-term irrigated pasture mix which can improve lamb weight gains without the risk of animal health issues.

Chris has earmarked diversity in his forage mix to help fill the feed gaps throughout the year.

Multi-species forage

The Headlams were involved in a project co-funded by the Tasmanian Institute of Agriculture (TIA) and the MLA Donor Company – see story opposite – which looked at how to grow red meat productivity through perennial legumes. The researchers sowed a diverse forage mix into a trial paddock on the Headlam property in spring 2022.

After harvesting poppies from a 90ha pivot circle, Chris planted a forage brassica/oat mix in February 2022, which was grazed during autumn/winter. The paddock was sprayed out, multi-disced and drilled to a multi-species forage mix, including 2kg/ha chicory, 3kg/ha lucerne, 8kg/ha red clover, 2.5kg/ha phalaris and 2.5kg/ha of cocksfoot.

Chris ran his own trial alongside the TIA trial, which included 1.5kg/ha chicory, 6kg/ha lucerne, 2kg/ha red clover, 2kg/ha white clover, 1kg/ha plantain, oats 15kg/ha and leafy turnip at 0.75kg/ha.

Phalaris and cocksfoot were added to increase the longevity of the TIA trial pasture, compared with Chris's mixed trial, which contained cereals. Over time the chicory and red clover numbers in the TIA trial will likely decline, leaving a stand of phalaris, cocksfoot and lucerne. This mix will be highly responsive to summer irrigation, but also resilient in times of water stress.

The Headlams aim to extend the pasture phase of their cropping rotation while maintaining feed quality, as with annual fodder crop options. Samples from 2023 and 2024 showed that during the relatively warmer months of January and September, feed quality, particularly metabolisable energy (ME) and dry matter digestibility (DMD) are greater, compared to June (winter) – see Figure 1, below.

Feed test values for February 2024 were only marginally better than June 2023, which was attributed to the reproductive stage of the pasture.

While Chris doesn't have hard data yet, he said the new pasture mixes have resulted in reasonable weight gains and fewer metabolic disorders, such as pulpy kidney and red gut.

"It gets a diverse mix of bugs working in their gut," he said.

"The TIA trial had phalaris and cocksfoot, and we currently don't have any perennial grasses in another mix we are trialling. It's been a good test to see what the grasses do year-round.

"We're looking for a species which produces well in spring and will fill the autumn-winter feed gap. It's about improving our grazing management and we always strive to do that," Chris said.

"Getting grazing period and rest periods right, while leaving adequate dry matter for pastures to regrow." ■

Tasmanian producer Chris Headlam.

SNAPSHOT

CHRIS AND CLAIRE HEADLAM –
'Ratharney',
Woodbury, Tasmania

AREA
1,820ha

ENTERPRISE
5,500 Merino breeding ewes and first-cross lamb production. 450ha of centre pivot irrigation, growing poppies, barley and fodder brassicas for prime lamb production.

PASTURES
Phalaris, cocksfoot, lucerne and sub-clovers

SOILS
Sandy loams

RAINFALL
430mm

Figure 1: A comparison of the feed quality of the Headlams' pasture at different times of the year

Sample month	DMD % (Dry matter digestibility)	NDF % (Neutral detergent fibre)	CP % (Crude protein)	MJ ME/kg DM (Megajoules of metabolisable energy per kg of dry matter)
January 2023	73.0	33.0	29.3	11.4
June 2023	64.0	43.0	21.8	9.6
September 2023	78.0	27.0	29.2	11.9
February 2024	66.7	40.3	22.0	10.0

LESSONS LEARNT

- Trial smaller areas to mitigate against economic loss if it doesn't work.
- Ask others in your district to see what species and approaches are working for them.
- Use extension officers to get involved in local pastures trials and gain knowledge.

mla.com.au/feedbase-hub Chris and Claire Headlam **office@headlamag.com.au** Joe Gebbels **jgebbels@mla.com.au**

Benchmarking backs cattle welfare

An MLA-supported project has developed and trialled a tool to benchmark the animal welfare performance of grazing beef cattle.

Validation and testing of the system took place at Pattison Farms' property 'Minmi' during the project. Image: Caroline Lee.

Benchmarking is a well-established tool used by producers to assess and improve their on-farm productivity and profitability.

A joint MLA, CSIRO and NSW Department of Primary Industries (DPI) project, 'Welfare benchmarking and management for the beef cattle industry', responded to producer demand for a validated tool to provide customers with assurance about the welfare status of their product.

The project developed a welfare benchmarking platform which was tested by 20 volunteer producers from enterprises across a range of Australian locations and property sizes.

Project lead, Dr Caroline Lee of CSIRO, said the red meat industry needs to demonstrate high welfare standards across the supply chain and be able to show continual improvement – to maintain market access and prevent a potential $3.9 billion downside risk if consumer confidence is lost.

"To achieve this, industry needs welfare metrics to indicate the status quo, identify areas for improvement and quantify change over time," Caroline said.

"The welfare benchmarking project was established to do just that, in a way that was relevant and suited to Australian production conditions."

Dr Linda Cafe, NSW DPI co-project lead, said using reliable and practical welfare measures is the first step towards developing an Australian welfare certification scheme.

"We want producers to be aware we're developing a system for Australia – we've tested it, and it works," Linda said.

"The volunteer producers who tested the platform have helped us refine it, and feedback has been that they found it useful. Some have reported unexpected learnings and side-benefits from delving more deeply into the welfare of their stock."

Welfare indicators

The project validated a suite of reliable animal welfare indicators and developed a system for managing these data to benchmark welfare performance against comparable beef enterprises.

Areas assessed include stock, feed and water, resources, facilities, stockpeople, animal monitoring, health, routine husbandry, breeding, risk management and animal handling.

The tool provided participating producers with feedback on three key aspects:

1. Alignment with *Australian Animal Welfare Standards and Guidelines for Cattle*
2. Benchmark welfare performance of an individual enterprise over time and against comparable enterprises
3. Industry-level welfare reporting to demonstrate continual improvement over time.

Collective improvements

For individual producers, having access to data from a range of welfare indicators could deliver immediate business benefits.

While the framework is still in the development phase, measuring themselves against other enterprises and the wider industry could give producers insights into how they can make further welfare improvements on-farm.

These could include using the welfare benchmarking framework to:

- manage their own information on livestock welfare status
- identify options available to improve their performance
- provide customer assurance of the welfare status of the red meat they consume.

Figure 1: This is an example of how the project uses a traffic light system to demonstrate compliance with the cattle welfare standards and guidelines and report the associated welfare risk back to producers

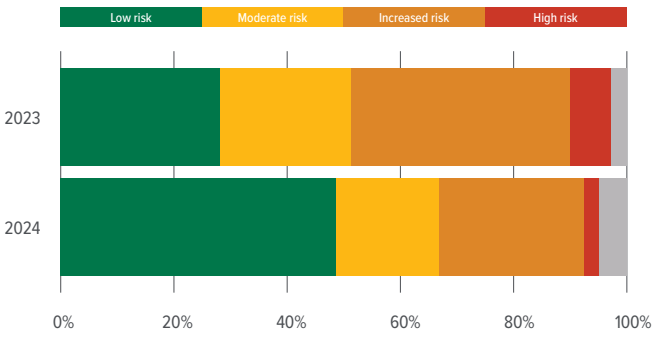
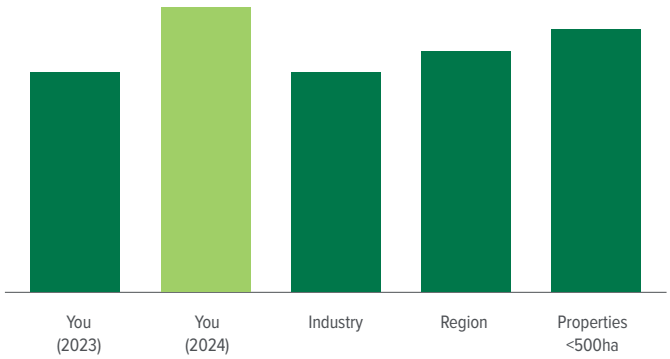


Figure 2: Individual benchmark reports provide feedback to producers on various aspects of their animal welfare performance over time, and compare it to the wider industry, region and other similar properties



Sharing gives bigger picture

Chris Main was one of 20 pasture-based beef cattle producers involved in trialling an animal welfare benchmarking platform on his cattle property 'Retreat', Cootamundra, NSW.

The two-year trial was part of the 'Welfare benchmarking and management for the beef cattle industry' project led by MLA, CSIRO and NSW DPI (see article opposite).

Collecting on-farm data on a range of validated animal welfare measures provided Chris with valuable insights into how his property's animal welfare performance aligned with other participants in the project and the wider industry's welfare standards and guidelines.

Peer-based learning

Chris found the chance to see how he compared to others in the group a worthwhile process.

"It was interesting to see what other people were doing and where I sit with that. A few producers were using different mustering techniques – on foot, or on horseback – I find that sort of thing valuable," Chris said.

To build on the benefits of the project's data-sharing capability, Chris suggested group members discuss management practices they'd had success with and how they had overcome welfare challenges on-farm.

In his case, this included focusing on buying bulls with good calving ease traits.

"I buy bulls from a breeder who is very focused on making sure his numbers are right. I haven't had a single problem in the past four or five years with calving – a big part is the genetics I'm choosing," Chris said.

Access to data

Participants were provided with a comprehensive report of their own on-farm data and analysis of how they were tracking in relation to other participants and the wider industry.

This benchmarking process gave Chris a welcome chance to stop and take a look at the bigger picture of how his enterprise was performing in terms of both productivity and welfare.

"I reckon this sort of stuff is really good, because you get so stuck in the day-to-day work, so to be able to take a step back and think about what you're doing and why you're doing it is really good," he said.

"The questions I was asked during the project were a good way to make me think about why I was doing some things. If my answers jumped out as being glaringly different to everyone else, it made me think about why that was."

Welfare standards on-track

Chris' involvement in the project confirmed his existing on-farm practices fulfil industry best practice animal welfare guidelines.

Some of these practices include:

- using products containing meloxicam as pain relief while applying identification methods to cattle
- using Buccalgesic pain relief while castrating cattle
- having a clear plan in place for deciding when calving assistance is required
- providing staff with relevant training, for example in low-stress stock handling.

Chris said he plans on continuing his benchmarking journey if the opportunity presents itself – despite some of the data input being a little time-consuming. ■

» Chris Main took part in the MLA-supported welfare benchmarking project at his property 'Retreat'. Image: Rachael Lenehan.

SNAPSHOT

CHRIS MAIN, PINCHGUT CREEK PASTORAL COMPANY – 'Retreat', Cootamundra, NSW

AREA
932ha

ENTERPRISE
Breeding enterprise, 500 mostly Poll Hereford cattle

PASTURES
A mix of native (wallaby grass, red grass, microlaena) and improved pastures (phalaris, lucerne, cocksfoot, clover etc.)

SOILS
Red clay

RAINFALL
730mm

Learn more about Chris' genetic strategies in the Spring 2023 edition of *Feedback*, page 16: mla.com.au/feedback-spring23

"Welfare is a continuum from good to bad, and the benchmarking approach avoids the use of pass/fail or score-based assessments of welfare, instead allowing producers to identify areas which can be improved," Caroline said.

Future use

Linda said feedback from project participants pointed to positive industry uptake if the tool is launched.

"The biggest benefits we heard from participating commercial producers who tested the system was the ability to stop and take stock of what they're doing, identify areas of risk and learn from others," Linda said.

Linda and Caroline hope the conceptual change in the approach to welfare embraced by this platform would enable industry to engage in ongoing improvement of practices that impact animal welfare.

MLA's Animal Wellbeing Project Manager, Sharon Dundon, said discussions around possible integration of the tool into schemes such as Livestock Production Assurance are underway. ■

TOOLBOX

Scan these QR codes to access:

- Australian standards and guidelines for cattle welfare
- Integrity Systems Livestock Production Assurance – Animal welfare program requirement
- MLA's animal health and welfare resources: **mla.com.au/animal-welfare**

Caroline Lee **caroline.lee@csiro.au** Linda Cafe **linda.cafe@dpi.nsw.gov.au** Sharon Dundon **sdundon@mla.com.au**

The real cost of poor stock handling

The way you handle livestock can have significant long-term impacts on animal health and performance, as well as the bottom line, according to North Australian Pastoral Company (NAPCo) Supply Chain Manager Rick Young.

Rick works with transport companies, truck drivers, livestock agents, feedlots and managers to improve livestock handling techniques and raise awareness of the production effects.

He's seen firsthand the value small improvements can add over a large scale.

"In large enterprises, it's evident how things multiply quickly," Rick said.

"If you're handling 100 or 1,000 head, you may not see the significance of a lot of things. When you're doing something 500,000 times a year, one cent here and there is just incredible."

Poor handling and gut health linked to huge losses

Being conscious of where your livestock are in the supply chain and what the next owner may need from them is important, according to Rick.

"Most performance and welfare issues are a direct result of handling or setting cattle up at some point, but most of the effects that we cause can't be seen for weeks or even months."

He stressed the importance of building your plans around the best outcomes for you and the people at the other end of the trip.

He recently presented data on the weight loss of two groups of steers moving from a backgrounding property to a feedlot. The first group was handled well and the second was not handled well.

On average, the first mob lost 19kg, or 5% of their bodyweight. The second lost 29kg, or 8% of their bodyweight. At the time, that led to a loss of $45/head in the second mob.

"For the number of cattle that we move each year, $45/head would equate to around $7 million," Rick said.

Managing gut health

"One bad handling or impact on their gut health could influence them forever," Rick said.

"We've had plenty of mobs where someone before us hasn't looked after them and they never really recover or perform.

"Poorly handled livestock will go off feed, then eat or overeat, then go off feed again and do what's called a 'fishtail' of up and down consumption."

Managing gut health through any situation is also crucial. Upsetting digestion processes can take from 10 days to several months for recovery, while some never recover to normal consumption.

The improvement in technology and availability of data means there is no question of the results – improving handling and managing gut health leads to better production outcomes, Rick said.

"There is so much evidence to say it has a real influence – it's long term.

"We've all got a job to do and sometimes handling cattle well includes putting pressure on them. You put them in situations they're going to experience again and teach them to handle it. They learn when they do the right thing, it's a good thing."

Small changes can lead to big benefits

One company Rick worked with has now halved their truck loading time and reduced their electric prodder usage.

"I let the operator go and load trucks how they normally would, and it took 16 minutes to load a truck.

"With a little bit of work, we got that down to 12 minutes and less stress. A little bit more work and we got it down to eight minutes.

"We put the pressure on down the back then got out of the way. They were up the truck and gone."

Rick said quite often, getting the little things right leads to significant benefits.

"You need to be conscious that what you do has a significant effect down the track. Your part in the journey doesn't finish when you shut the gate." ■

SNAPSHOT

RICK YOUNG, NAPCo – Supply Chain Manager – Wainui Feedlot, Queensland

AREA
5,000ha

ENTERPRISE
18,000-head feedlot

PASTURES
5,000ha dryland and irrigated farming

NAPCo Supply Chain Manager Rick Young at Wainui Feedlot.

"Most performance and welfare issues are a direct result of handling or setting cattle up at some point."

mla.com.au/transport-hub Sharon Dundon **sdundon@mla.com.au**

« Driver Graham Sharman, StockTrans – Glen Innes, NSW.

60 logbooks tell story of life on the road

Trucks and livestock have been part of Graham Sharman's life for as long as he can remember.

"I started out when we were kids. My twin brother and I grew up on our grandfather's dairy farm. We used to do a cream run with him, then I'd go in the truck with him as a four-year-old," Graham said.

Spending time with his tow truck-driving stepfather and life on the family place at Glen Innes meant Graham continued his involvement with trucks, cattle, sheep, horses and goats.

His career as a professional driver began in 1980, covering NSW and Queensland. He moved into livestock carting in 2000 for a company out of Casino.

Now on his 60th logbook, Graham joined the StockTrans team in 2005 and said he appreciates the well-maintained, clean fleet of trucks they provide.

Preparation essential

In his role with StockTrans, Graham covers northern NSW and southern Queensland. He loads and unloads an average of 300–500 cattle each week and covers between 3,000–4,000km.

Graham's tips for producers include making sure cattle are fit for the journey and yarded 10–12 hours ahead of the trip.

"Good preparation for transport is everything – it makes my job easy and it is best for the animals too."

He said cattle loaded straight from the paddock are a risk as they make a mess of themselves and the truck, and aren't as settled.

Experience counts

Respecting the driver's experience is also important when it comes to loading, he said.

"We load, unload and drive trucks as our profession," he said.

"Sometimes producers will say load it this way, and we say 'it's not going to fit, mate' or 'that won't work, that animal won't travel'.

"We do it virtually every day of the week, day in day out. It's about what is best for the animals and our clients."

Graham said the majority of people he deals with provide accurate weights and numbers at the time of booking the truck.

"Our office explains how many you can put on. Years ago, people would try and get an extra one in each pen – not anymore," Graham said.

Early decision making

Graham recalls times in the drought where producers would sometimes wait too long to sell cattle – this meant they weren't strong enough to load and travel.

Being on the front foot and making the necessary decisions early enough can be tough but is something producers can discuss with transporters.

"Call up the office and discuss the best preparation strategies with our operations team to get those animals strong enough for me to load and get them off your farm either to agistment, direct sale or processing," Graham said.

Keep calm and carry on

Getting on well with people, a professional attitude and keeping a cool head has led to a lot of repeat business and positive feedback to the office about Graham's performance.

"Every now and then someone will say 'you can send that bloke back here any time'."

Graham said continual improvements across livestock and transport facilities makes the job more comfortable and safer for everyone.

"Driving hours are better now. They've got satellite tracking in all our trucks and updated cattle crates with bigger pens that are safer for us to operate and better for the animals. I believe they load and travel better in the bigger pens," Graham said. ■

> **"Every now and then someone will say 'You can send that bloke back here any time.'"**

mla.com.au/transport-hub Sharon Dundon **sdundon@mla.com.au**

Shrinking the impact of transition

Travelling significant distances is an inevitability for cattle produced in northern WA, as feedlots, processors and backgrounding properties can be more than 1,000km away from where they were bred.

When unprepared, the change in climate and feed, and shock from travel can cause a lag in growth and weight loss in cattle.

For producers like Sean D'Arcy from the Gascoyne region, it's taken years of work to ensure this doesn't negatively impact productivity and profitability.

"Pretty much everything which goes for sale up here goes down to the Perth area – to live export, abattoirs and feedlots," Sean said.

Over the past decade, Sean has implemented strategies to prepare his stock for transporting and reduce shrinkage.

"We use stress-free stock handling methods to de-stress the cattle and make sure they're completely relaxed when they get to the other end," he said.

In 10 years, shrinkage for Sean's business – caused by transportation stress – has reduced from more than 5% to zero.

"We've found that if we rehydrate the cattle down the other end and weigh them the next day, the figures are the same as when they left."

Slow and steady

While Sean has successfully reduced shrinkage on his property, there were no short cuts to the end goal.

"It takes time for the de-stressing to flow right through your herd, because of epigenetics," he said.

Epigenetics refers to factors like diet, activity and stress level impacting the health of descendants.

"Some of the effect is generational, so if you've been handling your cattle badly, it's going to take a few generations to get that baseload level of anxiety out of them."

Something for the senses

Many of the approaches Sean has implemented on-property were learned from Bruce Maynard of Stress Free Stockmanship. These techniques delve beyond low-stress stock handling to incorporate behavioural, swarm theory and animal training research.

"Another strategy is to introduce assimilation techniques, so everything at the other end is familiar to the animals as well.

"Having the familiar sights, sounds and smell at both ends means they're putting weight back on straight away when they arrive, and they don't lose any productivity."

Get the gear

Part of identifying progress – or a lack thereof – is having the data on hand.

While producers on large stations often go months without seeing their cattle, monitoring weights is key to seeing what is or isn't working.

"That was a problem for us, but now we have the right equipment, good weighing gear and a crush up on scales," Sean said.

"We weigh the cattle just before transport and then at the end of the journey at the backgrounding property. If we sell them, we get the sale weights." ■

PDS links producers with transport solutions

Sean was one of five Gascoyne producers who participated in a MLA Producer Demonstration Site (PDS) to trial ways of reducing the impact of long-haul transportation on cattle. An additional 35 producers were involved through workshops.

This PDS formed a part of BeefLinks, a four-year research partnership which aims to drive an integrated and complementary research and development program for northern and southern production systems across WA to achieve profitable, consistent and sustainable beef yields matched to consumer expectations.

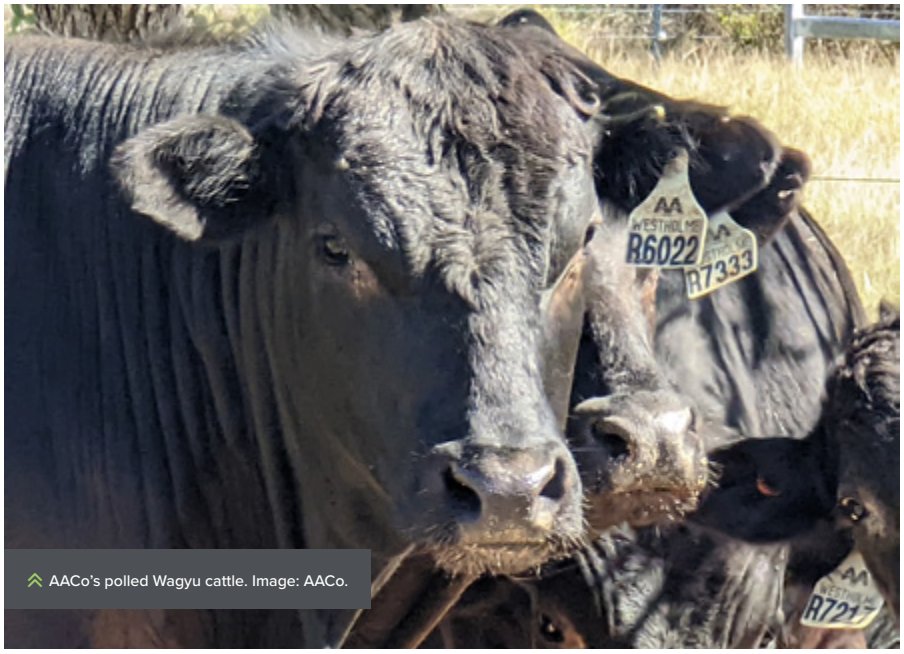
Learn more at **mla.com.au/beeflinks**

TOOLBOX

Download the *Is the animal fit to load* guide: **mla.com.au/fittoload**

Visit MLA's Transport Hub: **mla.com.au/transport-hub**

Check out these animal handling tips to minimise stress: **mla.com.au/animal-handling**



AACo's polled Wagyu cattle. Image: AACo.

Virtual clone sets stage for AACo's poll goal

Research into a modelling tool is propelling the Australian Agricultural Company (AACo) closer towards its goal of increasing the number of polled animals in its Wagyu herd.

The digital twin has been developed as part of the 'Horns and Health' project – funded by AACo and the MLA Donor Company (MDC), and run by the University of Queensland (UQ). The twin is being trialled to ensure it is fit-for-purpose and can balance a range of genetic priorities.

Dr James Copley, Geneticist at AACo, has been working on the project since 2023, taking up the reins from Dr Bailey Engle.

Rising to the challenge

The research team faces a range of hurdles in its journey. Within the Wagyu herd, the current rate of polled animals is low and there's an inherent lack of genetic diversity.

Selection for polled must be balanced with other traits. The optimal breeding program or combination of programs (including natural service, in-vitro fertilisation (IVF) and artificial insemination) must be found.

If these challenges can be met, the key question remains: how quickly can the herd get there? Can the goal be achieved in five years or is 15–20 years more realistic?

A balancing act

Being able to test out various scenarios reduces the financial and genetic risk of 'trial and error' on the herd.

Different breeding technologies must be balanced according to cost and feasibility. For example, using IVF to select purely on polled would achieve the desired aim rapidly but would come at a significant, and potentially unaffordable, financial cost.

Selecting only polled animals would also cause genetic gain for other traits to stall or potentially go backwards, and genetic diversity would be reduced – potentially leading to inbreeding depression and an increased rate of recessive genetic conditions.

The digital twin project aims to find the breeding program which strikes a happy medium between these competing priorities.

The digital twin is designed to avoid a 'crash' in the breeding program by working through the issues before the bulls are ever put out. The project aims to produce a robust and adaptable digital twin so in the future, a range of different breeding programs could be considered by simply entering the breeding objective, parental genotypes and breeding program type. ■

James Copley **jcopley@aaco.com.au** Sharon Dundon **sdundon@mla.com.au**

Digital twin model Q&A

What is it?

The digital twin tool is a highly accurate model of AACo's seedstock breeding program. Researchers have built a 'virtual clone' so they can troubleshoot different breeding strategies before implementing them on-farm.

What's it used for?

A digital version of the breeding strategy means changes can be fully simulated and therefore tested so that any issues are already identified and solved before they are ready to be implemented into AACo's breeding program.

How does it work?

The core of the digital twin is the genomic simulation software, developed by Kira Villiers at UQ. This allows the model to use real genotypes from animals in the herd and crosses them individually, producing simulated but genetically accurate offspring.

Why is it being developed?

Testing AACo's seedstock Wagyu breeding program ahead of implementation reduces the risk of mistakes and provides lessons which can be applied to increasing the polled proportion in the purebred Wagyu herd.

TOOLBOX

- Read about an innovative dehorning wound patch under development in the winter edition of *Feedback* (page 32): **mla.com.au/feedback-winter24**
- Scan this QR code to read *A guide to best practice husbandry in beef cattle: Branding, castrating and dehorning – 2nd edition*
- MLA's animal health and welfare page: **mla.com.au/animal-welfare**
- Visit MLA's Genetics hub for information and case studies relevant to northern cattle enterprises: **genetics.mla.com.au/tropical**

» Tessa Chartres is based in Deniliquin, NSW, with her family.

Zanda McDonald Award winners share their journey

This year marked the 10th year of the prestigious trans-Tasman Zanda McDonald Award, which recognises two young people – one from Australia, one from New Zealand – who are passionate about making a difference in agriculture.

As a major sponsor of the award, MLA aims to contribute to the success of the agricultural industry through emerging generations.

Meet the latest Australian winner, Tessa Chartres, and catch up with what last year's winner, Mitch Highett, is up to.

» Tessa Chartres was one of six finalists for the award in 2024.

Tessa Chartres

Tessa Chartres, Deniliquin, NSW, was named as the latest promising future leader within Australia's agriculture industry, alongside her New Zealand counterpart, Nancy Crawshaw.

Tessa is General Manager of Business Development at Murray Irrigation. She was raised on a mixed farm near Bathurst, NSW, and with stock and station agents for parents, agriculture was an inevitable pathway.

"I studied ag all through school, but I wasn't quite sure what my career should look like," Tessa said.

"Then I jumped over to an accounting degree because I had some pretty good advice from my boss who said if you're a good accountant, you can work in whatever industry you like. It's been some of the best career advice I've ever received."

After graduating, a career working with irrigation came as a surprise.

"Growing up, I didn't really understand the concepts of irrigated agriculture at all, so it's been quite a steep learning curve for me, but I love it.

"The irrigation sector supports all types of the ag sector. As an accountant, it's been interesting applying those theories to water accounting and the economics of it all."

At Murray Irrigation, Tessa is responsible for Commonwealth-funded projects, water policy, information and communication technology (ICT) transformation, and commercial business contracts.

Mitch has seen both business and personal growth since taking out the 2023 award.

Mitch Highett

A lot has changed for Mitch Highett and his farm management business, Bullseye Ag, since he received the 2023 Zanda McDonald Award.

"It's been a busy year, to be honest," Mitch said.

As part of the award, Mitch won a personalised mentoring trip across Australia and New Zealand, and up to $10,000 towards a professional development course to support his career path. Alongside other finalists, he also gained access to industry mentors and networking events.

When he wasn't engaging with his award through international tours or mentoring events, Mitch was tending to a rapidly expanding business.

"The exposure my business has gained through winning is unbelievable, and with that comes new people to work alongside to strengthen it even more," Mitch said.

"For me, a big learning opportunity was through the mentor trip, seeing how successful businesses got to where they are and being able to take some lessons out of that to apply to my business."

Mitch capitalised on the opportunity to gain expert advice on how to grow and strengthen his business, from learning potential debt structures to how to build a solid team.

While there's been big changes for his business, things look a little different for Mitch too.

"I've got a lot more consideration about how to support younger people coming into the industry and how to support them reaching their goals.

"We're a fair way past the old mentality that we're 'lucky' to have a job, so how do we make a job, a work environment, and a culture more supportive and development-based for the people within it?"

He said the award, now in its 10th year, makes a vital contribution to the industry.

"Being able to have mentors and see some of these businesses and how they're operating gives young people like me encouragement to go out and take some of those risks," Mitch said.

Mitch's top takeaways:

1. Say yes to the opportunities that come your way – often more will come from it.
2. Tell everyone you know what you're trying to achieve. People can't support you to reach your goals if they don't know what you're doing.
3. Find the thing that makes you enjoy the industry. If you want to start a business there will be long hours, so you'll want to enjoy it. ■

> **"I've got a lot more consideration about how to support younger people coming into the industry and how to support them reaching their goals."**

A big year ahead

The award includes a mentoring trip across Australia and New Zealand.

"The trip will be tailored to Nancy and me, so it's a pretty amazing opportunity," Tessa said.

"I'm interested to hear from people involved in all sectors of agriculture, how they interact with policy and how it is incorporated as part of their business.

"I'm also interested to learn about succession planning, leadership, and how to get the right people involved in agriculture and support them."

Tessa will also receive up to $10,000 to put towards a professional development course or further education to support her career path, and a one-year position as a judge of the award.

Tessa said she's most looking forward to the networking opportunities.

"It's been such a wonderful network and safe environment to share ideas and learn from some pretty incredible players in the ag sector.

"To have access to that knowledge and experience is pretty unparalleled as you come up through your career."

Opportunity of a lifetime

As a Zanda McDonald Award alumnus, Tessa plans to utilise the connections she makes throughout her career.

"This award isn't a finite opportunity. I want to continue building and creating those links so that as I continue through my career, I have established connections with people I can reach out to for support whenever I might need to call on it.

"Then, I can start giving that knowledge back and sharing it with the new alumni or people outside of the award in my own community." ■

> **"It's been such a wonderful network and safe environment to share ideas and learn from some pretty incredible players in the ag sector."**

zandamcdonaldaward.com

Sights set on fertility

Cow and calf mortality, driven by poor nutrition and environmental stress during pregnancy and calving, is a significant cost to the northern beef industry. Northern calf losses average 11–12%, with some properties experiencing up to 20%.

The Calf Alive project, funded by MLA through the University of Queensland (UQ), seeks to better understand the drivers of cow and calf mortality, and identify practices to improve outcomes. Now in its second year, Calf Alive is zeroing in on the impacts of the nutritional interventions.

The Calf Alive team – led by UQ Associate Professor Luis Prada e Silva – began nutritional interventions in spring 2022 and collected data throughout 2023. These interventions included increasing protein for six weeks, starting four weeks before calving.

They conducted DNA analysis of cows and calves to link each calf to its mother, which allowed them to assess the impact of interventions on calf weaning weight and overall live-weight production.

They also analysed nitrogen isotopes from the tail hairs of the cows to measure how well they metabolised nitrogen, which is important for animal performance when dietary conditions are poor.

Lifting fertility

The 2022 spring was very wet, with rainfall three times the average and exceptional pasture growth. Despite these very favourable conditions, implementing nutritional interventions resulted in an observed average 10% increase in cow fertility across the 10 properties involved in the project, compared to the cows in the control paddocks.

"Pregnancy rates while lactating was observed on average to increase from 65% to 75% across places working with heifers in the Calf Alive project," Luis said. "This addresses the issue of re-breeding heifers the next year."

Calves born early in the season are heavier at weaning than those born late – so in enterprises where all calves are weaned at the same time, early-season pregnancies measured by P4M (pregnancy within four months after calving) are highly valuable. Cows not pregnant within four months likely miss the next year due to an extended calving interval.

The nutrition intervention increased the average P4M rate from 45% to 60% across all properties.

"These are very big numbers and this faster reconception rate will have long-term benefits," Luis said.

Impact to calf survival

Interestingly, the better nutrition had no impact on calf survival. Luis wanted to see a few more years of data before he could draw any conclusions, but said reproductive disease and heat stress remain a concern.

The team is currently seeking to quantify the impacts of heat stress on the animals' behaviour via GPS tracking collars, which monitor behaviour such as shade-seeking and increased water intake.

While the team continues to seek more answers on the factors impacting calf mortality, they are beginning to see some benefits on properties implementing improved nutrition before calving.

In the first year of data, weaning weight increased by an average of 7kg, from 206kg to 213kg, and live-weight gain in cows increased by 10%, from 185kg to 205kg/cow/year.

"There is a benefit to improving the nutrition for the cow, and this project is demonstrating this benefit," Luis said. "You have a bigger calf at weaning, your fertility is better, so it's worth thinking about ways to give your pregnant cows a better diet and a better environment." ■

» Calf Alive Project Lead Dr Luis Prada e Silva.

SEASONAL ACTION PLAN

- Monitor the body condition of your cows (1 to 5 score). Mature cows should reach calving with a score of 3 and heifers with a score of 4 to optimise conception rates.
- Most producers understand better nutrition will improve performance and increase milk delivery – but it's hard to invest if you don't know the benefits. If you know a nutritional intervention will give you an extra 18kg of saleable live weight in your cows, you can quantify the cost of improving the nutrition of pregnant cows.
- Plan for supplementing heifers and first-lactation cows with a good quality protein lick during the peak calving period, as this will increase fertility.

TOOLBOX

- MLA EDGE workshops – Breeding EDGE and Nutrition EDGE: **mla.com.au/edgenetwork**
- Calf Alive: **futurebeef.com.au/resources/calf-alive-project**
- Scan the QR code to find out more about the CashCow project:

Luis Prada e Silva **l.pradaesilva@uq.edu.au** Ainsley Smith **asmith@mla.com.au** Tony Parker **tparker@mla.com.au**

» Frank Atherton with the Calf Alive research team, during pasture sampling for the project.

Chasing fertility boost

Queensland beef producers Frank and Tenille Atherton put their Atherton Pastoral herd under the microscope as part of the MLA-funded Calf Alive project (see story opposite) to see how they could boost reproductive performance.

They are one of 10 northern beef businesses involved in the University of Queensland-led project, which is examining the impact of improved nutrition in pregnant cows on calf survival and total liveweight production.

Project involvement

"We contributed 300 cows, which we have split into two mobs and put in separate paddocks for the supplementation period," Frank said.

"We record their DNA, weight, teat and udder scores, body condition scores and hip height. The research team also takes tail hair samples to analyse the animal's nitrogen metabolism."

After a three-month joining period, the bulls are pulled out of the paddock and the cows are pregnancy tested. Any empty cows are removed from the trial.

"The pregnancy-tested-in-calf (PTIC) cows are foetal aged so we can target the timing for the protein supplementation to get the best bang for our buck," Frank said.

Frank has noticed the cows on the high-protein supplement are in better condition but said there hasn't been much difference in calf survival so far. He believes another few years are needed to get a clearer picture.

"We've had two pretty good years in a row so it's hard to say yet. If we had a couple of hard years, it might have a bigger influence."

Because the soils on their Torrens Creek breeder blocks are so phosphorus-deficient, the Athertons have provided stock with wet and dry season supplementation for several decades. However, Frank thinks the economic considerations around the high-protein lick are worth examining.

Calf survival

He has noticed a small positive difference in calf survival with the treatment mob, but said the few calf losses they saw in the first year were from misadventure, rather than any factor related to the cow's nutrition.

"It'll be interesting to see the results after the third year," he said.

"Because we were already trying to do most of the things that are being implemented in the project, it would be difficult for our herd to have a big improvement in calf survival, cow weights or calf weaning rates. But if we could get another 4–5%, that would be magical."

Frank thinks the greatest gains are going to come from the research into nitrogen utilisation.

"We can play around with supplementation, but I think the biggest rewards will come out of these genetic gains. Being able to select animals that can maximise nitrogen utilisation and be highly productive in difficult conditions will be a game changer for this northern industry." ■

SNAPSHOT

FRANK AND TENILLE ATHERTON – 'Zara', Hughenden, Queensland

AREA
Three properties: 22,700ha, 20,000ha and 13,000ha

ENTERPRISE
Breeding and backgrounding Droughtmaster–Angus cross

PASTURES
Ranging from desert uplands to Mitchell grass plains and pulled gidgee–boree country, predominantly buffel and stylo

SOILS
Black soil around Hughenden and red desert upland country around Torrens Creek

RAINFALL
460mm

TOOLBOX

- MLA's phosphorus hub: **mla.com.au/phosphorus**
- Northern grazing management tools: **mla.com.au/grazing**

Frank Atherton **frank@athertonpastoral.com.au** Ainsley Smith **asmith@mla.com.au**

BredWell FedWell opens gate to business benefits

Breeding and feeding Angus cattle has been in the White family's DNA for more than a century, so it should come as no surprise their recent experience hosting a BredWell FedWell event proved to be a huge success.

NSW producers Sam and Kirsty White – together with their young sons Abbott and Arthur – are proud to continue the family tradition at 'Bald Blair', their New England Angus stud and commercial cattle enterprise.

These days, the Bald Blair Angus Stud is the enterprise's main profit driver, capitalising on the strong demand for bulls across the eastern seaboard, but Sam said this hasn't always been the case.

"We're always responding to the market forces at play in our business and, in 2019, the cost of feed saw us reduce our commercial herd by selling off the adult stock," Sam said.

"Our goal at the moment is to regrow our commercial herd as quickly as possible in order to rebalance the diversity of our income streams and reduce our risk exposure."

An opportunity to share and connect

Sam had attended a BredWell FedWell event previously and was impressed by the experience. The couple thought hosting their own event would be a great opportunity to get together with some of the people who had supported their business over the years.

"The BredWell FedWell program definitely takes a broad industry focus, but we also saw it as a chance to share really valuable information with some of our clients and let them see what we are doing in the business," Sam said.

A simple process

After responding to an expression of interest circulated by the Angus Society, the Whites were put in touch with Schuster Consulting who connected them with Nancy Crawshaw, a BredWell FedWell

BredWell FedWell demonstration in the yards at 'Bald Blair'. Image: Kirsty White.

Sam and Kirsty White hosted a BredWell FedWell workshop.

SNAPSHOT

SAM AND KIRSTY WHITE – 'Bald Blair', 'Kolora', 'Gatwood' and 'Aberfoyle Farm', Guyra, NSW

AREA
2,200ha across four properties

ENTERPRISE
Angus stud – selling 100+ bulls annually with 500 cows, commercial herd – 300 cows, 1,200 ewes

PASTURES
Predominantly perennial pastures, including phalaris and fescue

SOILS
Red and black basalt

RAINFALL
850mm

The Whites run a stud and commercial herd at Guyra, NSW.

accredited deliverer and extension officer with Angus Australia.

Sam liaised with Nancy prior to the event to get an understanding of what was required to prepare their animals and their property for the on-site demonstrations which would take place during the workshop.

"Nancy and Sam worked so well together on the day because they really respect each other's knowledge," Kirsty said.

"Nancy would ask Sam about his experience with different things and then he'd share his perspective which added a practical aspect to the theory. Then you'd get one of the more experienced commercial cattlemen adding their experience to the mix and it would generate a great discussion."

Expert facilitation

More than 20 producers attended the Bald Blair workshop – the Whites said they were all impressed by the quality of Nancy's presentation, as well as her ability to facilitate discussions on the different topics and deliver real peer-to-peer learning.

"It ended up being quite a diverse group, ranging from experienced to those just starting out. Some were owners, some were managers, and some were being managed," Sam said. "Everyone was at a different stage in their development, and they brought very different perspectives or experiences to the table." ■

Sam White presenting at BredWell FedWell. Image: Kirsty White.

LESSONS LEARNT

- Break your decision making down into realistic targets based on where your results are right now, rather than where you want them to be.
- Making genetic gains is about building slowly over a long period of time and incrementally improving every year.
- Rapid gains in your economics or profitability can be achieved through making the right management decisions or improvements.

BredWell FedWell
Breeding and feeding to maximise profit

Six reasons to host a BredWell FedWell event

BredWell FedWell is a hands-on, one-day workshop demonstrating how effective breeding and feeding strategies can improve on-farm productivity, with a particular focus on key profit drivers.

Schuster Consulting coordinates the events on behalf of MLA. The recently redeveloped program reflects an evolving understanding of best practice genetics and livestock nutrition.

Here's what you gain as a BredWell FedWell host:

1. Guarantee a workshop is run in your area and in conditions relevant to your production system.
2. Better understand your enterprise's profit drivers.
3. Build awareness of your business.
4. Connect and build relationships with other producers, and new or existing clients.
5. Expand your network by connecting with your local extension staff and service providers to promote your event more widely.
6. Help lift industry performance by sharing valuable learning opportunities with other producers.

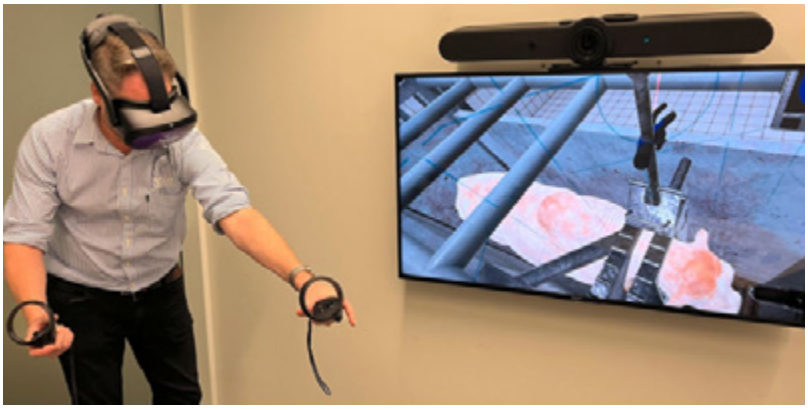
Scan this QR code to read the BWFW event host guidelines

Scan this QR code to register your interest in hosting a BWFW event

mla.com.au/bwfw **baldblairangus.com.au** Sam and Kirsty White **kirstywhite@baldblair.com.au**
Peter Schuster **peters@schusterconsulting.com.au** Mitch Plumbe **mplumbe@mla.com.au**

Virtual reality supports animal welfare

An innovative virtual reality (VR) tool has been developed by the livestock export industry to support animal welfare training in Indonesian and Vietnamese abattoirs.



It provides staff with an immersive and life-like virtual environment to learn best practices in stunning cattle. Users interact with the virtual environment through headsets and handheld controllers, gaining confidence and proficiency before transitioning to live animals.

As well as being taken in-market for testing and demonstrations earlier this year, the VR tool made an appearance at Beef Australia 2024. This offered attendees an opportunity to experience the technology firsthand and gain insights into in-market stunning procedures. It also prompted interest from Australia's processing industry and several big pastoral companies.

Best practice animal welfare

Funded by the Livestock Export Program (LEP) Research, Development and Extension Program, a collaboration between LiveCorp and MLA, this technology aims to improve training practices and support the best practice stunning of Australian-bred cattle in market.

Australian regulations require animal welfare standards be met throughout the export supply chain, prompting the industry to develop comprehensive training programs in key export markets. The industry also supports the delivery of training – last year, more than 3,000 participants were engaged in Indonesia alone.

In-market demonstrations of the VR tool sparked considerable interest among exporter staff, animal welfare officers, abattoirs and educational institutions. Its effectiveness has also been validated through practical application, being used during various training courses with more than 100 participants.

A notable demonstration was conducted for Forum AWO, a collective of animal welfare officers from Indonesian feedlots and abattoirs receiving Australian-bred cattle.

Forum AWO Chair, Pak Ismail Alim, was impressed by the VR training tool.

"This training system will give us the ability to familiarise trainees with the principles of effective stunning practices without the necessity of involving live animals. This makes it a very accessible and versatile tool for us to use as part of our training programs," he said.

Training tool

Wayne Collier, CEO of LiveCorp, said the presence of Australian exporters in market has allowed conversations on animal welfare over many years, which would not otherwise have happened.

"One of the outcomes is the significant use of pre-slaughter stunning, as well as improved animal handling and slaughter practices generally," he said.

"In Indonesia, for instance, more than 90% of the abattoirs processing Australian-bred cattle are using stunning, while Vietnam recently introduced animal welfare standards that promote stunning as best practice for local as well as Australian-bred cattle.

"Some abattoirs only process a few animals a day, so finding opportunities for training can be challenging. The VR training tool can be used for new staff, as well as checking and refining techniques for existing staff."

The integration of VR training is another milestone as the livestock export industry continues to embrace innovation to enhance animal welfare practices.

With its ability to simulate real-world scenarios and promote skill development in a safe and controlled environment, the stunning training tool is set to make a lasting impact on abattoir training practices in destination markets. ■

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Peter Dundon **pdundon@mla.com.au**

Counting cattle leaps forward with AI

A sophisticated counting and weighing system developed for the European pig industry has been successfully trialled in Australian livestock export facilities, with potential application including on-property, during transport, and in feedlots and saleyards.

The cutting-edge innovation leverages artificial intelligence (AI) which has been trained to recognise Brahman cattle as part of a project funded by the Livestock Export Program (LEP), a collaboration between LiveCorp and MLA.

In a recent trial at Broome, WA, the system counted cattle with 99% accuracy. The weight estimation also showed promising results, with an average of 93% accuracy.

The algorithm is expected to improve further as the AI learns more about cattle, different weight ranges and Australian conditions.

Accuracy important

When managing and moving large consignments of cattle in preparation for export, it's important to have accurate information about numbers. This technology removes some of the manual labour out of the process, providing greater efficiency and precision.

The ability to record the weight of individual animals at loading and at discharge off the boat has potential to provide additional insights into their wellbeing during voyages, as well as their performance.

It can also be used to measure weight change during time in pre-export quarantine yards and feedlots.

PigBrother is watching

A camera is installed in a race or a similar location to limit the number of cattle moving through the video at any one time.

This is connected to the AI interface, which is set up remotely by PigBrother, the company which developed the technology. The model can adapt to understand a site's specific conditions, and then it works offline.

The project is part of the LEP's Open Innovation approach to research, which takes advantage of the booming agri-tech sector. It aims to find existing solutions or technologies from other industries and other countries that could support improvements in the livestock export industry, and to pull them across into the sector through proof-of-concept trials.

Other trials

Two other trials are also underway:

- installing rubber flooring to support the welfare of livestock during loading and unloading
- using automated sensors to monitor gases and other environmental conditions on livestock export ships.

Rubber mats are already extensively used in stables, dairy farms and feedlots across Australia. The upcoming trials will assess their effectiveness in minimising the risk of slipping in areas such as ramps, corridors and hospital pens at pre-export quarantine facilities, as well as on a livestock export ship.

According to the mat provider, Numat, flooring for sheep is a previously untapped area for the company, and the trial is generating a lot of interest from producers.

The sensor technology being tested is currently used in the poultry industry. Monitoring environmental conditions is an important part of managing livestock welfare during export voyages, and data was collected during two shipments using advanced gas monitoring sensors created by Transport Genie.

The trials have focused on assessing the effectiveness of the sensors in monitoring ammonia, carbon dioxide, temperature and humidity levels on livestock export vessels.

The insights gained from these proof-of-concept trials will help the technology companies adapt and further develop their systems to provide robust and effective commercial solutions to support animal welfare and efficiency – not just for the livestock export industry, but other parts of the supply chain. ■

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Milking more accurate methane emissions

Knowledge and technologies to quantify the emissions from livestock industries are constantly changing and evolving – and new research demonstrates the equation currently used to account for enteric methane from feedlot cattle may be overpredicting emissions from the sector.

One of the goals for industry on the journey towards carbon neutrality by 2030 (CN30) is to minimise greenhouse gas (GHG) emissions from livestock.

This includes enteric methane, the by-product of the fermentation process which occurs in ruminant animals such as cattle and sheep.

The current equation

Currently, enteric methane emissions from the feedlot industry as part of the National Greenhouse Gas Inventory are calculated using the Moe and Tyrell (1979) equation.

These calculations are reported as part of Australia's obligations under the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement.

The Moe and Tyrell equation was developed using dairy cattle in North America in the late 1970s. It was chosen due to its reliance on the carbohydrate composition of each diet, offering the potential for customised estimates for different feedlots.

However, data collected from Australian feedlot cattle does not accurately reflect predicted methane emissions calculated using the Moe and Tyrell equation.

Clues from long-term data

In 2016, a project led by researchers at the University of Melbourne, funded by MLA, investigated the long-term total GHG emissions from beef feedlots.

This project involved collecting emissions data at two feedlots, one in southern Australia and one in northern Australia.

The methane, nitrous oxide and ammonia emissions of the whole feedlot ecosystem were measured over three years, using a tool called a low-resolution closed-path Fourier transform infrared (CP-FTIR) trace gas analyser.

Emissions data at both sites was compared to the national inventory quantification methods. It showed equations used to predict methane and nitrous oxide resulted in an overestimation of up to 30% and 80% respectively.

Deli Chen, one of the University of Melbourne researchers involved in the project, said he wasn't surprised by the findings, as it was a long-term measurement and, until now, limited long-term data had been available.

"The current inventory equation is based on short-term, smaller animal chamber measurements which had been extrapolated," he said.

While the northern feedlot was subtropical, the southern feedlot had conditions more like that of North America, where the Moe and Tyrell equation was developed.

"Feedlots are giving smaller total emissions than other areas of the cattle industry, such as dairy cattle, but the difference is the process is more intensive over a shorter term," Deli said.

"Due to the shorter term, there is more potential to be able to manage those emissions more than other areas.

"Large-scale, long-term measurement is essential. Continued investment and research into the emissions of the feedlot industry are important moving forward, to help find the most efficient way to not only record methane emissions but also how to mitigate other GHGs."

Other evidence

The findings of the project provided evidence to other researchers, including Fran Cowley, Associate Professor of Livestock Production at the University of New England (UNE), that there may be better ways to predict emissions from feedlot cattle.

Further research was conducted by UNE in 2020, as part of another MLA-funded project to measure methane emissions of Australian feedlot cattle influenced by 3-Nitrooxypropanol (Bovaer 10®).

The findings showed an overprediction of 60% by the Moe and Tyrell equation, which equated to 95.5g/day of methane.

"Although it was only a small control group, the data collected was high quality and supported the suspicion that the accuracy of the equation was not holding up for Australian beef cattle on a typical Australian feedlot diet," Fran said.

She said the Moe and Tyrell equation took into account a very different physiology.

"We're talking about an equation which is based on 50-year-old genetics, which may make it inappropriate to use the equation for dairy cows let alone for feedlot cattle – North American dairy cow diets are also very different to that of Australian feedlot cattle."

The future

When asked what this meant for producers and the industry moving forward, Fran said it was in part a future-proofing exercise, which provides support to grain feeding being a method of reducing the carbon footprint of beef.

"Being able to have a more accurate and, frankly, lower estimate of the emissions and carbon footprint of feedlots is going to ease potential issues accessing markets that require no or low-emission product."

Fran reinforced the importance of producers continuing to adopt best practices, especially feeding more efficiently to make sure every mouthful of feed cattle consume is being turned into more beef. ■

TOOLBOX

Scan these QR codes to read these final reports:

Long-term total greenhouse gas emissions from beef feedlots

Methane emissions of Australian feedlot cattle as influenced by 3-Nitrooxypropanol (Bovaer 10®)

mla.com.au/cn30-roadmap Matt Van der Saag **mvandersaag@mla.com.au**

« MLA's Kelly Payne and Kate Neath deliver the MSA workshop to customers in Japan.

MSA delivers an edge

Meat Standards Australia (MSA) solidified itself as invaluable to the industry long ago, with the world-leading grading system celebrating 25 years last year. Now, it's time to take things to the next level.

Through a series of activities, tools and workshops led by MLA's international Aussie Meat Academy (AMA), MSA has been working with customers and brands – both locally and internationally – to help drive home a key message: brands underpinned by MSA make a difference.

MSA Business Development Manager Kate Neath said these activities have taken the team into several markets, including Japan, the US and South-East Asia.

"We're working on a range of tools that will support brand owners, to help differentiate Australian product in all our key markets," Kate said.

In the past 15 years, the percentage of MSA graded cattle has grown from less than 20% of the national slaughter, to more than 50%.

"There's a lot more awareness of how significant MSA is in underpinning those brands for Australian exporters," Kate said.

"In the past, the key attributes of Aussie beef promoted in international markets were related to safety and traceability. Now, consistent eating quality is recognised as an important point of difference, and it's proving the significance of MSA in underpinning Australian beef exports."

US opportunity

Currently, the US is rebuilding their herd after a severe drought, leaving a significant gap in the market that Australia has been working to fill in the short term, and hold onto into the future.

"Across the world, including Japan, Korea and China, every single market is now looking to Australia," Kate said.

While importers and distributors are used to ordering their beef products by the standards and grading used by the US, the challenge lies in showing the world how MSA grading makes Australia more than capable of delivering above and beyond those quality and consistency demands, and translating our grading system.

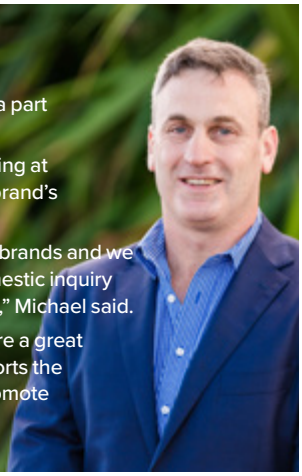
"That's where MSA comes in, working closely with Australian exporters and their brands, so we can analyse the data for them and provide them with a tool so they can reassure customers that the product is meeting their needs in terms of eating quality."

In current conditions, Australia is in a strong position to maintain the supply of beef into the global market, beyond the US rebuilding their herd.

"If those conditions change, it wouldn't be hard to lose the momentum we've gained because of how competitive beef is on a global stage," Kate said.

"I think what will cement Australian products in the market is building this understanding that to eat well, the product doesn't have to be grain-finished, it's not all about marbling, and Australia has a unique grading system which is custom to each brand." ■

JBS ramps up MSA usage



Australian meat processor JBS has been a part of the Aussie Meat Academy workshops.

General Manager of Feedlots and Marketing at JBS Northern, Michael Finucan, said the brand's involvement with MSA was increasing.

"MSA underpins some of our well-known brands and we continue to see growth through both domestic inquiry and interest from international customers," Michael said.

"The Aussie Meat Academy workshops are a great platform to communicate how MSA supports the brand's key attributes and to help JBS promote our brands to drive further growth."

TOOLBOX

- Learn about Aussie Meat Academy: **foodservice.aussiebeefandlamb.com/Aussie-Meat-Academy**
- Become a MSA accredited producer: **producer.msagrading.com.au**
- Subscribe to MSA's newsletter to hear updates through **mymla.com.au**

Kate Neath **kneath@mla.com.au**

Aussie beef proves a sweet match with salad

US foodservice operators are seeking to add variety to their protein menu and offer beef which consumers can feel good about ordering – they're turning to grassfed beef, and to Australia as a trusted supplier.

« US salad chain Sweetgreen introduced steak nearly two decades after the company was founded. The company was waiting for a product which matched their sustainability goals, and they selected Australian beef.

The large US salad-based chain Sweetgreen is one of several large quick-service restaurants (QSR) to add Australian beef to the menu, featuring it across their 200-plus restaurant locations.

MLA's Market Development Manager for North America, Sabina Kindler, said despite US companies sometimes being unfamiliar with Australian beef grading systems and product specifications, they're looking to Australia to find beef which meets those specific needs.

With such a wide selection of on-farm systems backing Australian brands, it's not difficult for an operator to find a brand with values aligned to their own.

"Sweetgreen has a goal to be carbon neutral by 2027 – they chose Australian beef as a trusted option when they added beef to the menu for the first time in their 17 years of operation," Sabina said.

"Australia's red meat industry has the target to be carbon neutral by 2030 (CN30), and our significant reduction in greenhouse gas (GHG) emissions since the 2005 baseline has helped us establish a shared value with companies who have similar goals."

Market demands

With the US market reportedly seeking out 'better for me' claims, such as 'no antibiotics ever', an increasing number of restaurants are looking for grassfed beef to meet these demands.

"Consumers ultimately want to be able to choose beef and feel they have made a healthy and sustainable choice," Sabina said.

CAVA, a Middle Eastern-inspired chain in the US, is meeting these consumer expectations by calling out their goal of using only antibiotic-free proteins, while well-known QSR Chipotle Mexican Grill uses Australian beef to support their promotion of traceable, grassfed beef, raised free of antibiotics or added hormones.

To help navigate the unfamiliar specifications and grading of Australian beef, including the MSA grading system and cut-by-cook model, MLA offers customised support through the Aussie Meat Academy education and inspiration platform (see page 41).

"We come in and deliver training, virtual or in person, and can help with everything from understanding raising claims, to Australian export labelling, through to menu ideation to meet the needs of the modern consumer," Sabina said.

B Corp Certification

The US is seeing an increasing interest in Certified B Corporations (or B Corp), with a growing demand for businesses with the high standards certification.

"Certified B Corporations are social enterprises verified by the non-profit organisation B Lab, which certifies companies based on how they create value for non-shareholding stakeholders, including employees, the local community and the environment," Sabina said.

The drought in the US has driven a significant increase in Australian beef exports to the US, including 138,181 tonnes of beef exported to end of May in 2024, a 91% increase from the first five months of 2023.

While this is expected to change when the US herd is rebuilt, the alignment of Australian beef with these demands will allow for a greater foothold in the market.

> **"Consumers ultimately want to be able to choose beef and feel they have made a healthy and sustainable choice."**

"Australian beef helps businesses to communicate they are listening to their consumers by sourcing from a trusted supplier who can tick all these boxes while producing grass-finished beef, which not a lot of US beef producers can replicate," Sabina said.

Australia's strong environmental credentials are supporting this recent uptick in grassfed beef being called out on QSR menus, providing an opportunity for Australia to retain this demand even once the US herd rebuilds and production stabilises. ■

TOOLBOX

- Subscribe to MLA's Global Markets Update newsletter: **mymla.com.au**
- Learn more about the Aussie Meat Academy: **foodservice.aussiebeefandlamb.com/aussie-meat-academy**
- Read about MLA's roadmap to Carbon Neutral by 2030 (CN30): **mla.com.au/cn30-roadmap**

mla.com.au/marketing-beef-and-lamb Sabina Kindler **skindler@mla.com.au**

Fairbairn brothers open farm gate to 19 million people

Social media stars, brothers Lachlan and Jaxon Fairbairn, returned to the farm this year, taking more than 19 million people along for the ride.

In partnership with MLA's community communications platform Australian Good Meat, the comedy duo behind 'Fairbairn Films' created a series of videos during their visits to several farms. They helped to share producers' stories and, in turn, shift perceptions of red meat production in a positive direction.

The brothers – who kickstarted their career from creating videos on their family farm at Murray Bridge, SA, as teenagers – offer a strong bridge between young people and red meat production.

Putting their own spin on it – which included singing to cattle, a failed trough-cleaning career and falling asleep while counting sheep – the Fairbairn brothers proved to be an effective vehicle to reach audiences outside the industry.

Power of influencers

MLA Community Communications Content Manager Heidi Brunker said the success of the campaign demonstrated the power social media influencers have to help engage the community and build trust in our industry.

"We can go out and talk about red meat on our own social media channels, but more than 70% of people will trust an influencer over a brand because it's a voice within their community," Heidi said.

"We want to talk about the fact Australian red meat producers care about the environment and their animals. Having social media influencers deliver this message as part of their content, whether it's comedy or through a recipe, is a way to get our message across through a trusted voice."

The Fairbairn brothers, who boast an impressive 1.7 million subscribers on YouTube and 1.8 million followers on TikTok, also gave Australian Good Meat access to the 'Gen Z' (those born from the late 1990s to early 2000s) audience.

"We wanted to reach a younger audience and we know humour really grabs people and stops the scroll," Heidi said.

The videos did just that, with more than two million 'ThruPlays' (watching the video for more than 15 seconds), which can be a difficult feat in the world of social media.

During the 60-day campaign across various social media campaigns, the 15–60 second videos received:

- more than 35 million impressions (number of times the content appears in people's feed)
- a cumulative reach of more than 19 million individual users across various platforms
- more than 300,000 engagements, including likes, shares, and comments.

As well as promoting the red meat industry, the campaign offered exposure to Australian Good Meat, which provides information and resources on animal welfare, the environment, and health and nutrition. The link to learn more about Australian Good Meat was clicked 69,637 times during the Fairbairn campaign.

For Australian Good Meat, this figure represents a promising interest from younger generations in what happens in the red meat industry, and an opportunity to share that information.

This year marked the third year of social media influencer campaigns to reach new audiences and share positive messages about red meat producers. ■

Brothers Lachlan and Jaxon Fairbairn (on right) with NSW producers Tim Eyes and Hannah Greenshields.

Good meat, better results

In the three years to June 2024, Australian Good Meat has shared stories from across the industry through:

- annual social media campaigns, including collaborating with LADbible in 2022, influencer 'changing perceptions' farm tour in 2023, and working with the Fairbairns in 2024
- ongoing social media influencer activity
- content creation including animations, infographics, 'face of the industry' videos and red meat ambassador content
- the Australian Good Meat website, including Red Meat Green Facts.

During 2022–24, Australian Good Meat has:

- filmed at **36** farms
- created and published **230** videos
- created **40** animations and infographics

and has achieved:

- cumulative reach of **65 million**
- **25 million** video views
- **136 million** impressions

@FairbairnFilms @lachlanfairbairn goodmeat.com.au Heidi Brunker **hbrunker@mla.com.au**

Meet two of our Red Meat Ambassadors

Across Australia, 400 people along the supply chain have become ambassadors for the red meat industry in their quest to share their love for what they do with their wider community.

MLA's Ambassador program offers participants professional training in community engagement, communication through media and social media, and building trust with consumers.

Here, two Red Meat Ambassadors share their story, and why they joined the program.

Jamie Pepper

Tahara, Victoria

Victorian producer Jamie Pepper has racked up an impressive CV during his career, sitting on boards, speaking at COP28 and as of 2022, adding a MLA Red Meat Ambassador hat to his collection.

While his love of agriculture has always been there, spreading it beyond the family farm came in his late twenties, when Jamie decided to return to study while working on the farm.

Why did you apply for the program?

I'd just joined my first board and I thought it would be a great way to upskill my communication and get a broader understanding of the sector and how I can best contribute.

How are you engaging with your community as a Red Meat Ambassador?

I'm deputy chair of Food and Fibre Great South Coast, where we work with producers on the ground, trying to evaluate how we can connect people and resources.

In my National Farmers' Federation (NFF) role as a member of the Young Farmers' Council, we talk to different organisations about issues affecting young farmers across all of Australia. More recently, I've been working with the World Farmers' Organisation – that's a more global discussion, representing a broad spectrum of members but also trying to get that Australian flavour.

How can others engage with their community about what they're doing?

I think traditionally, producers – broadly speaking – don't really tell the story of what they do. We're getting better, using things like TikTok and Instagram, but we need to learn to tell the story not only of what we're doing, but sharing why we do it is really critical.

I think that helps us share much more of our emotions and passion and is probably a much better way to sell a story rather than just 'these are the facts'.

What strategies do you use from the program?

Learning to use social media to help tell the 'why' was a big takeaway for me from the Red Meat Ambassador program. Being consistent in posting regularly was another great lesson.

Another learning curve was the mock media interviews we did. It was just dynamite in terms of learning what happens if an interviewer asks a couple of tricky questions, how to get back on topic and preparing speaking points. I've done quite a few interviews now and I always think back to the mock interview to prepare.

Find Jamie on LinkedIn: **jamie-pepper-2a2272181**

Cindy-lee Dowdell

Donnybrook, WA

For Cindy-lee Dowdell, working with animals was always a given – she just needed to work out what that would look like. After trialling vet nursing and dairy work during high school, Cindy-lee found her ideal career at a WA feedlot, working her way up to a management role.

Why did you apply for the program?

I've always wanted to do something extra for the industry. I had the opportunity to create a workshop series, 'Empowered by Agriculture', for women wanting to grow their confidence in the industry. After that experience, I wanted to continue supporting the industry I fell in love with.

Why are the ambassadors so important?

The more people we have share their story, our lifestyle and where the food on your plate comes from, the better.

How are you engaging with your community as a Red Meat Ambassador?

I'm using social media to show a real experience of what I do to overcome the stigma around lot feeding. I love cattle and their health and welfare is of utmost important to me, so being able to learn and use social media to share my story and connect with other people has been great.

I've also asked my son's school if I can go there and do a 'red meat day'. There are great resources available through MLA's Australian Good Meat education program.

What strategies do you use from the program?

Listening to others when voicing their concerns and focusing on a key message has really helped me get a point across.

The other thing is to be confident in what you know – the flip side of that is to always be open-minded, listen to others and take on as much knowledge as you can.

Follow Cindy-lee on Instagram: **@blueshedcattle**

TOOLBOX

- Contact **mlaambassadors@mla.com.au** for more information on the Red Meat Ambassador program
- Access Australian Good Meat resources: **goodmeat.com.au/resources**

Korean-style beef tacos

Taco Tuesday won't be the same with this flavoursome take on a family favourite.
Visit **australianbeef.com.au** for more delicious beef recipes.

Serves **4** Prep time **10 minutes** Cooking time **10 minutes**

INGREDIENTS

500g beef rump steak, fat trimmed, thinly sliced

1 tbsp vegetable oil

2 tbsp gochujang paste (see tips for more information)

1 small red onion, thinly sliced

1 ½ tbsp rice wine vinegar

12 small flour or white corn tortillas, warmed

300g finely shredded pre-pack coleslaw

2 small Lebanese cucumbers, finely diced

1/3 cup (80ml) mayonnaise

Toasted sesame seeds, coriander leaves, lime wedges, to serve

METHOD

1. Place beef, oil and gochujang paste in a large snap-lock bag and rub well to coat.
2. Heat a lightly oiled char-grill pan over medium-high heat. Cook beef, in batches, if necessary, for 2–3 minutes or until browned and cooked through. Set aside on a plate loosely covered with foil.
3. Meanwhile, place onion and vinegar in a small bowl. Toss to coat and set aside.
4. Divide coleslaw and cucumber between tortillas. Top with beef and onion and drizzle with mayonnaise. Sprinkle with sesame seeds and coriander. Serve with lime wedges.

TIPS

- Gochujang paste is a Korean fermented red chilli paste. It is readily available at supermarkets and Asian grocers. Substitute hot chilli sauce or sriracha sauce if unavailable.
- Beef mince or stir-fry strips would also be delicious in these tacos.
- Warm tortillas in microwave, char-grill/fry pan or oven.
- Use any leftover beef and coleslaw to make a lunchtime salad or sandwich.

MLA Updates

Creating value across the supply chain

A day of presentations, displays and demonstrations bringing livestock transaction levy-paying producers up to speed on MLA and ISC investments and progress against our *2025 Strategic Plan*.

heads west!

10 October 2024 | Perth

What's on offer at MLA Updates?

Showcase hubs

Find out what's happening with MLA's latest research, development and marketing investments, or visit the WA government and peak industry bodies to discuss policy issues and programs

Innovative ideas

Hear from some progressive WA producers as to how they have created value within their own business and along the supply chain

Insights

Join small group sessions to discover the latest in livestock genetics; putting research into action on-farm; supply, demand and marketing in our key markets, and what's next for our industry

Practical help

Speak to MLA staff to get support for a range of MLA and ISC products and services, including eNVDs, myFeedback and myMLA

Networking

Networking: Catch up with producers, stakeholders and MLA staff at our sundowner event, all while sampling delicious red meat canapés.

For more information visit updates.mla.com.au

MLA Annual General Meeting

20 November – Tamworth, NSW

Look for member voting packs in mailboxes soon!

mla
MEAT & LIVESTOCK AUSTRALIA

A hybrid (in-person and online) event.

For more information, including the online meeting guide, visit

mla.com.au/agm