FEEDBACK

MLA – FOSTERING PROSPERITY

WINTER 2026

mla
MEAT & LIVESTOCK AUSTRALIA

Cover: Liz Heggaton runs a multifaceted sheep and cropping enterprise at Kojonup, WA. Turn to page 6 to discover how Liz is driving change from the paddock up. Image: Astrid Volzke

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MLA acknowledges the Traditional Custodians of the lands on which we live, work and care for. We pay our respects to Elders past and present, as we recognise their history, culture, connection to land and water, and share in their commitment to caring for Country.

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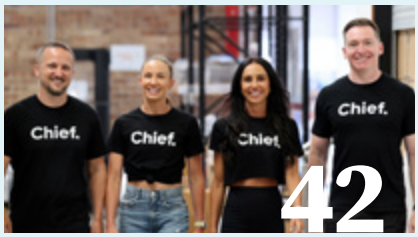

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A note from the MD

Welcome to the winter edition of *Feedback* magazine.

The past few months have presented significant supply chain challenges for the Australian red meat industry, driven by ongoing conflict and instability in the Middle East.

Every red meat business in the country has felt the impact of higher input and logistics costs. For many, these pressures have been further compounded by dry conditions.

MLA continues to work with industry stakeholders – including Peak Industry Bodies, the Australian Government and other Research Development Corporations – to ensure our members remain informed and equipped to navigate these challenges. Visit **mla.com.au/fuel-fertiliser-resources** for more information.

Impact to trade

Despite disruptions to major trade routes and operational pressures from elevated oil and freight costs, Middle Eastern markets remain open to Australian red meat.

With innovative solutions, product is making its way into the market avoiding the Strait of Hormuz. This comes at a cost, however our exporters are working with customers in the region to meet the demand.

Governments across the region are prioritising food security and actively working to keep trade flowing and supply chains intact.

While there was a sharp dip in Australian red meat exports to the region in March – due to the ongoing conflict, shipping route changes and reduced flight availability – exports began to recover through April and May as alternative routes were established.

Diversified markets

Red meat exports remain resilient despite geopolitical tension, tariff shocks, safeguard measures and ongoing protectionism – Australia had record exports in 2025 and strong volumes in early 2026. Learn more about this on **page 4**.

The US remains the largest destination for Australian beef, lamb and goat exports. Trade with the UK accelerated following the implementation of the Australia-UK FTA, while South-East Asia continues to emerge as a key growth region.

I've just returned from a visit to key South-East Asian markets, which was a timely reminder of the opportunity for Australian red meat, right on our doorstep. This region is growing at close to 10% per year and in 2025 took 160,000t of beef and 60,000t of sheepmeat. Ongoing investment and trade support will lead to further opportunities and growth for the Australian industry.

South-East Asia also remains our largest and most valuable live export market for cattle. I attended the recent importer/exporter meeting in Jakarta which is jointly hosted by the Indonesian Beef Cattle Industry Association (GUPUSPINDO) and the Australian Livestock Exporters Council (ALEC). It was a great opportunity to discuss our Live Export Program plans (jointly funded with LiveCorp) and reaffirm our long-term commitment to the trade.

Australia's diversified export footprint has helped absorb product displacement from regional disruptions and spread risk more effectively – learn more at **mla.com.au/overseas-markets**

Domestically, MLA's community sentiment research shows that more Australians are increasing, rather than reducing, their red meat consumption due to health and nutrition reasons. This is a great news story for our industry and one we will continue to build on in our marketing programs.

You can see how we're growing demand for red meat in Australia and around the world at **mla.com.au/marketing**

MLA's *Annual Investment Plan* for 2026-27 outlines initiatives to maintain favourable access conditions, improve access to high value markets, reduce technical trade barriers, and promote Australian red meat and livestock. Visit **mla.com.au/aip** to read more.

Domestically, MLA's community sentiment research shows that more Australians are increasing, rather than reducing, their red meat consumption due to health and nutrition reasons. This is a great news story for our industry and one we will continue to build on in our marketing programs.

Strategic goals

Capitalising on demand for Australian red meat by expanding existing markets and creating and capturing new market opportunities is one of the priorities set out in MLA's *Strategic Plan 2030* – **mla.com.au/strategic-plan**

Guided by insights, driven by market demand and underpinned by innovation, the plan outlines the key priorities and partnerships needed to ensure Australian red meat red meat remains the world's premier choice – trusted, sustainable, and unmatched in quality.

By focusing on value creation and capture along the supply chain, we will deliver benefits that translate into profitability for the production sector. Learn more about MLA's efforts to support value-based marketing on **page 3**.

Value-based marketing will be one of MLA's priority areas on show at LambEx 2026 in Adelaide in July. If you're heading to LambEx, please come and say hello to the MLA team.

Michael Crowley – MLA Managing Director
I am always keen to hear MLA members' thoughts and feedback – please email me at **managing.director@mla.com.au**

Make your vote count

MLA's 2026 Annual General Meeting (AGM) on 24 November will be a hybrid event – online and in-person as part of MLA Updates in Townsville, Queensland.

In order to receive the correct voting entitlement and AGM documentation, please ensure your ABN(s) (as per your levy return form) and email address are up-to-date at **mla.com.au/mymla**

If you need any assistance with this, please contact MLA member services on **1800 023 100** or at **membership@mla.com.au**

Here's how we're investing in your industry

In 2026–27, MLA plans to invest $372.6 million in research, development, adoption and marketing activities across 17 program areas.

MLA's *Annual Investment Plan* (AIP) outlines the planned work program for the year ahead – visit **mla.com.au/aip** to read more.

Need support through live export phase-out?

A new WA Sheep Transition Hub has been developed by MLA to support WA sheep producers to transition away from live sheep exports by sea ahead of the 1 May 2028 deadline.

The hub offers a central source of information, bringing together clear and consistent guidance on the transition timeline, available support and emerging market opportunities. It responds to the need for a single place to access practical, up-to-date resources, rather than producers having to navigate multiple sources and mixed messages.

Designed to support business-led decision making, the hub focuses on what producers need to know now and into the future – including production system options and market insights. It's intended as a live resource, evolving as the transition progresses leading up to and beyond May 2028.

Producers and supply chain participants can access the WA Sheep Transition hub at: **mla.com.au/wa-transition**

Catch up with MLA at LambEx

If you're going to Adelaide, SA, for LambEx 2026 in July, come and say hello to the MLA team. As a platinum sponsor of LambEx, MLA will have a strong presence at the event from 7–10 July:

As part of the LambEx26 AMPC Carcase Showcase:

- Sarah Strachan, MLA's General Manager – Research, Development and Adoption, will provide a market and consumer lens to the importance of quality and consistency.
- Dave Packer, Program Manager – Carcase Value, will unpack the showcase findings, trends and insights.

On the exhibition floor:

- MLA staff will be on hand to share the latest industry research and innovation, as well as our marketing, communication and insights activities.
- Check out tools, resources and information on upcoming events to increase the productivity and profitability of red meat and livestock businesses.

Sign up to MLA's e-news *The Weekly* to stay informed: **mla.com.au/enews**

For details on other events MLA is running or supporting visit: **mla.com.au/events**

BeefEx strikes gold

This year's BeefEx Conference will be held from 22–24 September at the Gold Coast Conference and Exhibition Centre, Queensland. The event will feature the latest on the grainfed beef industry and provides networking and learning opportunities. As well as hosting a trade stand, MLA staff will be presenting at BeefEx.

Register at: **beefex.com.au/tickets**

How does value-based marketing deliver value to producers?

Every producer makes decisions that shape the value of the livestock they turn-off, from genetics and nutrition through to sale timing and market choice. But understanding exactly what different markets reward, and why, is not always straightforward.

MLA's Value-based marketing (VBM) initiative helps producers capture more value from every animal.

VBM means translating consumer demand drivers into price signals, so that value is created and captured at each point in the chain.

In practice, it ensures producers understand which livestock traits and management practices align with consumer demand drivers in target markets, and the upside for producers and the value chain.

A key challenge has been getting these market signals back to producers in a clear, consistent and useful way, something VBM helps address. By improving the flow of information, producers can make more informed decisions to better match their livestock to market requirements.

Doug McNicholl, MLA's Group Manager – Value Chain Adoption, said VBM is a key priority under MLA's *Strategic Plan 2030*, which focuses on enabling value creation and capture through measurement of value traits, connected data and clearer market signals that better align production with consumer demand.

"Genetic selection, land and livestock management and market conditions all impact the value producers capture from their livestock," Doug said.

"VBM is about giving producers clear market signals, so they can grow the value of their livestock."

VBM on-the-ground

Several initiatives across the red meat industry are already demonstrating VBM in practice.

JBS Australia is the first beef processor approved by AUS-MEAT to use MEQ Solutions' cold carcase grading camera across multiple sites. Developed in collaboration with MLA, AMPC and MEQ Solutions, the technology supports more consistent measurement of marbling, eye muscle area and other carcase traits.

In the feedlot sector, research and development is underway with MEQ Solutions to predict live animal performance, using an ultrasound device, against market specifications to inform feeding regimes and cattle turn off. Read more on page 40.

What is value-based marketing?

Value-based marketing is translating consumer demand drivers into price signals, so that value is created and captured at each point in the chain

Translation
Turning the drivers into clear specifications and incentives the value chain can act on

Price signalling
The price offered for specific, desired product attributes

Value creation
Products deliver the attributes consumers and customers recognise and will pay for

Value capture
Those attributes are rewarded through higher prices, stronger demand and better margins

Value shared
Benefits flow to producers, processors, brands and customers through aligned commercial models and incentives

Gundagai Meat Processors' Gundagai Lamb program has also embraced VBM, rewarding suppliers for attributes valued by consumers.

Premiums are paid for lambs that meet specifications and suppliers receive carcase feedback via a dedicated dashboard. Producer workshops focused on nutrition and genetics further connect producers with consumer demand drivers and help inform on-farm decisions that grow livestock value.

KS7 – a world-first lamb product graded at 7% intramuscular fat (IMF) and above – is another standout example of the value VBM can unlock. Developed by Kinross Station and Endeavour Meats with MLA, KS7 sets a new benchmark for eating quality. By translating superior eating quality into a premium market outcome, KS7 demonstrates how aligning production with consumer demand can create value right along the chain.

Matching the right product with the right buyer

With improved insights into which types of livestock suit particular markets, producers are better equipped to make confident business decisions.

For example, a heavy carcase may not deliver the same value as one that also meets eating quality specifications for marbling targeting a specific market, such as high end steak houses.

Conversely, lean meat trimmings can be a key value driver in some product categories such as burger patties in the US. Decisions around genetics, land and livestock management all influence how livestock align with different customer and consumer requirements.

VBM is about making those connections easier to act on repeatedly with a clear and meaningful price signal.

Access to carcase and animal health data through MLA's producer feedback platform, myFeedback, supports producers to have more targeted and productive conversations with processors and value chain partners.

It allows them to identify which traits create value, understand trade-offs between traits and match livestock to the most appropriate markets, to ultimately grow and capture more value. ■

TOOLBOX

- Check out MLA's *Strategic Plan 2030*: **mla.com.au/strategic-plan**
- Learn more about myFeedback: **mla.com.au/myfeedback**

Doug McNicholl
dmcnicholl@mla.com.au

Australian beef and cattle exports remain strong despite second-half uncertainty

Australian beef exports entered 2026 in a strong position, supported by high production, elevated slaughter, solid grainfed turn-off and resilient demand across key export markets.

However, conditions for the second half of the year are more complex. As Australia approaches safeguard quota thresholds in China and Korea, exporters, processors and customers are likely to face increasing pressure from tariffs, pricing shifts and changing market access. These pressures are compounded by disruptions linked to Indonesia's import permit allocations and conflict-related disruption in Arabian Gulf markets.

Australian beef exports are tracking above last year's record, with calendar year-to-May volumes up 16%. The United States (US) remains Australia's largest export market, while China, Korea and Japan complete the top four. Canada is up significantly as the fifth largest market, with increases also seen in Vietnam, the United Kingdom and Thailand.

Exports to China have been particularly strong this year in response to the new safeguard quota.

Looking ahead, the key factor for the second half of 2026 is not just customer demand but also market access constraints across certain key markets.

Impact of Australian beef meeting quota thresholds

China

Once Australia's China country-specific quota is filled, any additional exports are subject to an additional 55% tariff. Notably, both Australia and Brazil – two of China's largest suppliers – received quotas significantly lower than their 2025 export volumes. Australia is expected to reach the safeguard volume before the end of June 2026, at which point the tariff will shift from 0% to 55%.

While the impact of the additional tariff will vary by product type, it is ultimately expected to significantly affect total trade flows. Of note, Australia accounts for less than 10% of China's total imported beef market, but is the leading origin for imported chilled beef, making this product less easy to substitute.

Korea

Korea presents a different safeguard mechanism, but with somewhat similar challenges.

Under the Korea Australia Free Trade Agreement, Australian beef incurs a 5.3% tariff. However, a safeguard tariff can be applied once imports exceed an annual volume quota, with the tariff jumping to 24% in 2026. Korean demand for Australian beef has also been strong in 2026 – up 33% year-to-date – and the safeguard is expected to trigger by late July.

Australian beef maintains a strong market position in Korea, but the tariff will reduce relative profitability against competitors. This impact may be partly moderated by constraints on domestic beef supply in the US, which could limit the extent to which US suppliers can capitalise on this advantage.

Middle East

The continued conflict in the Middle East Gulf region sees ongoing restrictions on shipping through the Strait of Hormuz and reduced flights due to travel advisories deterring tourism.

Australian exports into the Middle East have declined, with shipping disruptions and softer foodservice demand linked to reduced tourism and hospitality activity – offset somewhat by stronger retail demand.

In terms of balancing the volumes across the markets with headwinds, Japan, US, Canada and South-East Asia in addition to the domestic market will likely take on the additional volume displaced from China and Korea depending on price signals and product mix availability.

The US is expected to remain a key market. With tight domestic supply and import demand continuing at record levels, it remains the largest export market for beef, lamb and goat. ■

Live cattle holds firm, on strength of Indonesia partnership

Red meat plays an important role in Indonesia's protein landscape, and Australian live cattle are essential as a reliable source of supply.

More than 580,000 cattle were exported to Indonesia in 2025, valued at AUD$689 million. Despite global challenges in fuel supply increasing shipping costs, live cattle continue to deliver on the food security needs of one of Australia's closest neighbours.

The strength of this relationship was recently highlighted at the annual Indonesian Beef Cattle Industry Association and Australian Livestock Exporters Council meeting in Jakarta, where 71 representatives from Indonesia and Australia discussed trade priorities, collaboration and future investment.

At the same time, increased investment in market development by commercial parties is creating growing opportunities to add value to Australian livestock in-market, including through new branded beef products using Australian cattle. This highlights the potential for further innovation, value creation and supply chain development in Indonesia and across the region.

MLA and LiveCorp's collaborative Livestock Export Program continues to support this downstream investment by improving eating quality, consistency and branding across the supply chain.

MLA market reports: **mla.com.au/prices-markets** MLA trends analysis: **mla.com.au/trends-analysis**

ON FARM

RESEARCH IN ACTION

Seasonal action plan

» Liz Heggaton, pictured with her late son James, runs a multifaceted sheep and cropping enterprise at Kojonup, WA. Turn to page 6 to discover how Liz is driving change from the paddock up. Image: Astrid Volzke

Northern

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Dial up livestock performance with data-backed decisions

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Learn how rest-based grazing is powering a Pilbara enterprise

Southern

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Fine-tune management to get more lambs from ewe lambs

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Breed low-methane beef without compromising productivity

Driving change from the paddock up: one woman's fight for her flock, family and farmers

When Liz Heggaton steps into the lambing paddocks on her family's WA property, the work feels both familiar and newly weighted.

For nearly 40 years, she and her late husband, Dr Craig Heggaton, built a life around sheep – weaving together veterinary science, reproduction technology and practical stockmanship into a genetics program that now reaches producers across the country.

Now, two years after losing Craig to suicide while he was undergoing androgen deprivation therapy (ADT) for prostate cancer, Liz's resilience, determination and love for the industry have enabled her to continue that work on her own.

Balancing the scales

With a commercial flock, seedstock business and cropping, Liz has spent the past couple of years balancing a lot of scales.

She manages two separate flocks across the 14,000ha property. One caters to the Heggatons' BreedersBEST Genetics and Genstock artificial breeding work (artificial insemination and embryo transplant), while the other operates as a commercial flock supplying to Western Australian Meat Marketing Co-operative (WAMMCO).

"It may seem like a full-on sheep operation, but sheep are only about 15% of what we do," Liz said.

"It's our cropping that takes up the majority of our production – spanning 12,000ha.

"However, when Craig and I built each of these businesses, we integrated them into one system that allows each of their day-to-day requirements to fit seamlessly together.

"We were a really good combo. Craig was a veterinarian and I come from a family that has a long farming history that stretches back to the 1830s.

"I think it was that foundation we set together that has enabled me to continue even though he is gone."

Today, it is Liz who runs the sheep from start to finish, while her late son James – who sadly passed away in May – was managing the cropping enterprise.

Fitting into your good genes

WAMMCO's customers, ram buyers, and semen and embryo importers all have high expectations when it comes to the quality of products from the Heggatons' farm, which is why genetics are at the forefront of Liz's on-farm decision making.

Her clientele has expanded over the past few years, meaning she now has to meet the genetic needs of buyers from throughout WA, up to Darwin, and across to the east coast.

"Data is the driver of our management strategies on farm," she said.

"Every stud lamb – close to 3,000 a year – undergoes genomic testing.

"This provides Australian Sheep Breeding Values (ASBVs) which are used alongside the animal's on-farm records and physical appearance."

Targeting growth, muscle, fat and eating quality traits, Liz's breeding objectives aim to deliver on-farm productivity that translates to off-farm profitability.

"Many of the traits we target aren't just crucial to ensuring a product fit for market, they're crucial to animal survivability, productivity and overall health on-farm," she said.

» Liz Heggaton. Image: Astrid Volzke

SNAPSHOT

LIZ HEGGATON –
'Heggaton Farm',
Kojonup, WA

AREA
14,000ha

ENTERPRISE
9,000 commercial ewes, 3,000 stud ewes (maternal Kojak, Prolific, terminal Sherwood Poll Dorsets and White Suffolks)

PASTURES
Improved pastures, ryegrass and clover

SOILS
Loams and gravel

RAINFALL
525mm

» Liz with sheep at 'Heggaton Farms'. Image: Astrid Volzke

Liz's late son James, pictured on their Kojonup farm. Image: Astrid Volzke

Liz targets growth, muscle, fat and eating quality traits in her flock. Image: Astrid Volzke

"Reproduction is also an important trait we're constantly working to improve.

"Our embryo recipient program has a 70–75% success rate and requires ewes with really good reproductive traits.

"WA is also quite hot and our climate can often be incredibly harsh, so we look to target twin-bearing traits rather than triplets – ensuring ewe productivity and lamb survival."

According to Liz, even with data underpinning her decisions, the reality of WA's harsh climate – and its effect on the paddocks – is what ultimately sets the timing of her management choices.

With a late autumn break and minimal spring rainfall, Liz works to make the most of a short wet season.

"We preserve fodder in the autumn by confinement feeding all stock up to a couple of weeks prior to lambing," she said.

"Post-lamb marking, we then commence rotational grazing, utilising clover and ryegrass improved pastures – this ensures maximum nutritional needs are met.

"We also maintain separation between our two flocks during this time, with our seedstock flock lambing in May–June and our commercial flock lambing in July.

"In July, we reopen our rested paddocks that have clover and ryegrass, which last all the way through to weaning in spring.

"Most of our commercial ewes are twin bearing, so we want them lambing in the paddocks with the best nutrition and shelter supply.

"Currently, our commercial twin-bearing ewes have a 170–180% weaning rate – which is really great considering we have them lambing during the coldest and wettest time of year."

Kojonup and up

Liz describes the loss of Craig in July 2024 as both personal and practical.

"We lost Craig, not only as a husband and father, but as our vet too," Liz said.

"He's left behind a gap I feel every day, whether it be in our home or in our paddocks.

"As the on-farm vet, Craig shaped a lot of our reproductive work and took the lead in our artificial breeding programs.

"These jobs are now left to me to continue, and while his skillsets were probably better suited, I am not one to throw the towel in. I love the sheep industry – it's important for me to find a way to keep myself and my businesses going."

continued next page

"Many of the traits we target aren't just crucial to ensuring a product fit for market, they're crucial to animal survivability, productivity and overall health on-farm."

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According to Liz, this is where community and industry members come into play.

"James' integral involvement with our family operations has really enabled me to focus on our seedstock flock," she said.

"He's been really supportive in my decision to not only continue the operation of our three sheep enterprises, but the efforts I've been making to ensure their continued growth and profitability."

As part of this, Liz said she has employed the help of sheep consultant Jason Trompf for genetic selection guidance, hosted several client field days, and opened her farm gates to international Australian lamb ambassadors.

"I've focused quite heavily on my relationships with others during this time – especially our clients who are so critical to our business's success.

"Their support and ability to promote our businesses through word-of-mouth is so valuable.

"Last August, I had more than 50 clients attend our field day, and over the past two ram sales, I completely sold out.

"Along with James, I feel really proud of our efforts. It's been an incredibly hard period for me, but I've persevered, I've leaned on my support systems, I've put myself out there and, despite the challenges, I've bettered the profitability of my businesses."

Opening the farm gate

Liz has also participated in MLA's Lambassador program – hosting 16 international chefs, butchers and food influencers on-farm as part of the program's delegation celebrating 10 years.

"The Lambassador program utilises the skillsets and influence of international food professionals to further promote the consumption of Australian lamb in their home countries," she said.

"Our commercial flock supplies to international markets via WAMMCO, so when Rob Davidson – the WAMMCO Manager of Supply Development – raised the delegation with me, I felt it was a wonderful initiative I could get behind.

"I was able to show some of the hard work, passion and care behind the end product," Liz said.

"It was great to not only showcase my work, but also my husband's legacy – both things I'm proud to share."

The late Dr Craig Heggaton. Image: WAMMCO

Bridging the health gap for rural cancer patients

Medical isolation is not an unfamiliar concept to many Australian producers, and since Craig's passing, it's something Liz is looking to change.

"When Craig was diagnosed with cancer at 56, he underwent a radical prostatectomy and went on cancer-free for five years," she said.

"Unfortunately, the cancer then metastasised, so androgen deprivation therapy was the treatment recommended.

"At the time, I had no understanding of the potential mental health impacts of the treatment – or the 70% increased risk of suicide the cancer posed alone.

"It felt like every step of the way we didn't know until it was too late.

"I became very aware of the isolation we experience living on a property – especially from a medical standpoint – and I felt deeply that what Craig and our family went through is something I'd never want anyone else to experience."

Liz began serving as an advocate for rural families impacted by prostate cancer six months after Craig's death.

With the message that 'early testing ensures early intervention' driving her actions, Liz began speaking to journalists, members of Federal Parliament, and featured on *Australian Story* in 2025.

A large part of reducing the likelihood of mental and physical health deterioration and, more importantly, reducing the number of deaths related to prostate cancer is increasing accessibility to medical care for rural and remote communities – something Liz acknowledges that she can't do alone.

"Rural and remote Australians have poorer survival rates after cancer diagnosis," she said.

"This is all due to longer, and therefore more costly, travel to access specialised medical care, reduced access to clinical trials and substantial wait times when accessing a local GP.

"Prostate cancer in particular only receives about half the Federal funding as other major cancers – which could be why so many of the men who are diagnosed have to undergo a treatment with so many negative side effects.

"My hope through this work is to encourage and increase awareness, research funding and accessibility to healthcare services for rural and remote Australians.

"Protecting and ensuring the longevity of Australia's red meat industry is not just about genetics, pastures and animal management strategies, it's also about looking after the people behind it," Liz said.

"Because without them, our industry and its standards simply wouldn't exist."

*James Heggaton tragically passed away shortly before this edition of *Feedback* went to print. This feature is published with the permission of his family, as a tribute to his life and the legacy he leaves behind.

We extend our deepest sympathies to the Heggaton family for their loss – MLA's *Feedback* team.

TOOLBOX

If you or someone you know is doing it tough, head to our wellbeing hub to view and access mental health support services: **mla.com.au/mental-health**

To learn more about prostate cancer, treatment options and current research, get support or find out how you can help, visit the Prostate Cancer Foundation of Australia: **pcfa.org.au**

Scan or click the QR code to watch Liz's prostate cancer advocacy on ABC's *Australian Story*:

genetics.mla.com.au **lambassadors.com** Liz Heggaton **liz@genstock.com.au** Peta Bradley **pbradley@mla.com.au**

Opening the gate to new genetic tools

Combined LAMBPLAN is set to transform how Australian producers select, benchmark and improve their flocks – making genetic selection and breeding decisions clearer and more accurate.

It also supports the release of two new genetic selection products at LambEx in July.

The launch of Combined LAMBPLAN in August 2025 marked a major step forward for Australia's sheep industry. This world-first upgrade brought all terminal and maternal breeds into one genetic evaluation, making ram selection easier, clearer and more powerful for commercial producers.

LAMBPLAN is now enabling enhanced genetic selection tools including Flock Profile and Genomic Breeding Values (GBVs) for crossbred animals, which will be released at LambEx in Adelaide on 7 July 2026.

Marnie Hodge, MLA's Sheep Genetics Senior Development Officer, said Combined LAMBPLAN means producers no longer need to assess maternal and terminal sheep genetics separately.

"Many producers are incorporating desirable genetics – such as mothering ability and wool traits from maternal breeds and meat traits from terminal sires – into their flocks," she said.

"Being able to compare genetics using one analysis makes the process easier and more efficient."

Get ready for the spring ram sales

- Benchmark your flock with a Flock Profile.
- Talk to your stud breeder about the Combined LAMBPLAN.
- Review your breeding objectives and how new genomic tools fit.
- Discuss new ASBV interpretations with ram breeders.

Streamlining selection decisions

Combined LAMBPLAN gives all producers – whether they breed first-cross ewes, run terminal lamb enterprises or manage mixed flocks – one set of comparable Australian Sheep Breeding Values (ASBVs) for all terminal and maternal sheep.

Combined LAMBPLAN enables:

- producers to directly compare all non-Merino animals across breeds and flocks
- simpler, more efficient ram buying
- selection decisions to be backed up by more accurate, comprehensive genetic information.

Simple, easier comparisons

The ability to compare animals for their genetic merit across what were previously non-comparable evaluations when formulating breeding plans or making purchasing decisions is a turning point for industry.

It will make analysing this year's ram sale catalogues easier, as producers can assess ASBVs for maternal and terminal animals – regardless of breed – all in the same place, using the same benchmarks.

More than a merge

Marnie said Combined LAMBPLAN wasn't just a merge – rather, it represents a major improvement in the analysis and now links 4.2 million related animals.

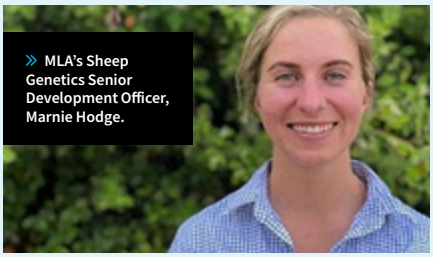
"This strengthens the accuracy of genetic evaluations and improves how we evaluate animals for their genetic merit," she said.

"Combined LAMBPLAN uses relationships between animals and performance data (phenotypes) more effectively to calculate more accurate ASBVs."

By unifying the data, Sheep Genetics has expanded its multibreed capability and dramatically improved cross-flock comparisons. This gives commercial producers more confident, reliable information when making breeding and purchasing decisions.

New genomic tools

This ram sale season, commercial producers can still use ASBVs to compare the genetic merit of rams across all flocks in the Sheep Genetics analysis for a range of traits.



» MLA's Sheep Genetics Senior Development Officer, Marnie Hodge.

In addition, Combined LAMBPLAN has enabled the release of commercial genetic selection tools for multibreed animals, resulting in faster rates of genetic gain and more accurate whole-flock decision making.

Previously, the separate genetic evaluations couldn't genetically benchmark terminal and maternal genetics.

The new commercial genomic selection tools for multibreed animals include:

- **Genomic Breeding Values:** These give commercial producers insights into the genetic merit of individual animals, helping them to identify superior animals, sooner. Producers can use GBVs to rank animals within their own flock. This gives producers who breed their own rams more accurate insight into the genetic merit of genotyped animals. For this product to be accurate, commercial producers will still need to purchase rams periodically from a stud that collects and submits performance and genomic data to Sheep Genetics.
- **Multibreed Flock Profiles:** For the first time, first-cross and second-cross producers can get a genetic benchmark for their flock. Producers submit DNA samples from 20 young ewes for analysis and receive a report showing how their flock compares to industry across key traits. This helps inform decisions on which rams will best lift their flock's performance. ■

TOOLBOX

Access genetics resources at:

- **sheepgenetics.org.au**
- **genetics.mla.com.au**
- **elearning.mla.com.au/library**

sheepgenetics.org.au/lambplan **lambex.org.au** Marnie Hodge **mhodge@mla.com.au**

GROW a stronger feedbase this season

A productive, resilient feedbase doesn't happen by chance. It's built on informed decisions about soils, pasture composition, feed demand and pest/weed control.

MLA's feedbase-related resource hubs bring trusted, practical information together in one place to help producers fine-tune their systems and lift performance. Here are four key areas producers can focus on heading into spring:

Get your soil tested

MLA's Healthy Soils Hub shows how soil testing helps identify physical, chemical and biological constraints that limit pasture growth. Using producer case studies, the hub explains how to use soil test results to guide targeted inputs and paddock management, supporting productive pastures and long-term sustainability.

mla.com.au/healthy-soils

Revisit your feed budget

The Grazing Land Management Hub connects producers to practical tools for managing feed supply and demand. A key resource is the 'Feedbase planning and budgeting tool', which helps plan grazing rotations, calculate pasture growth rates, test stocking rates and estimate how long paddocks will last. This tool supports more informed, cost-effective feed and grazing decisions year-round.

mla.com.au/grazing

Optimise your pastures with legumes

Legumes can lift pasture quality, improve animal performance and contribute valuable nitrogen to the system. The Legumes Hub provides information on selecting suitable species, establishment, management and persistence. It also explores how legumes fit into different environments and production systems, helping producers maximise their benefits.

mla.com.au/legumes

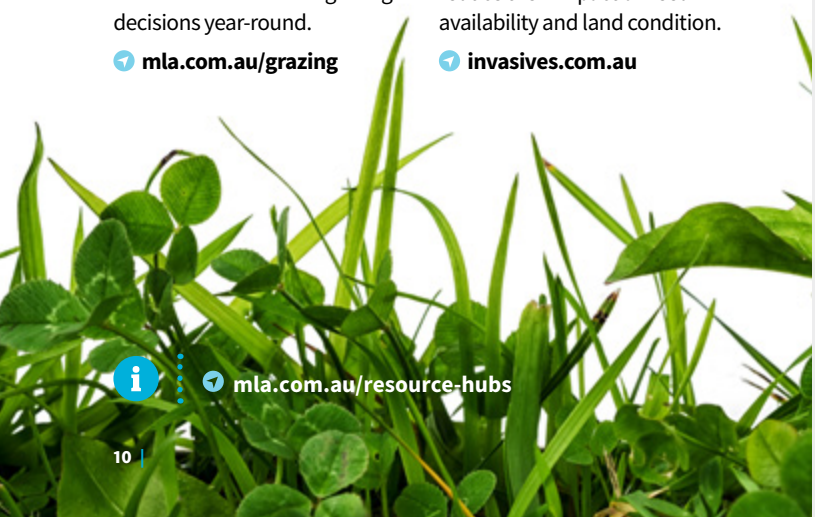
Weed out invasive species

Weed management: MLA's Weed Control Hub offers helpful tools and guides to help producers identify key weeds and apply effective, long-term control strategies that protect pasture productivity.

mla.com.au/weeds

Pest management: Through the Centre for Invasive Species Solutions, MLA supports best-practice management of priority invasive pests, helping reduce their impact on feed availability and land condition.

invasives.com.au



mla.com.au/resource-hubs

How to turn

Spring can deliver up to half of a grazing business's annual pasture production – but without the right feedbase decisions, the short window of opportunity can quickly slip away.

Grazing consultant Basil Doonan shared practical steps producers can take to make the most out of the spring season, as part of an MLA Productivity & Profitability (P&P) webinar.

Know when growth overtakes demand

A key starting point is identifying the pasture break-even date.

"Break-even is the day that your growth exceeds your demand," Basil said.

"Understanding when this point occurs helps producers determine whether they're still drawing down feed reserves or moving into a genuine surplus."

Basil emphasised that measuring pasture supply and demand regularly is more important than achieving perfect accuracy. Even rough estimates of pasture growth and animal demand can guide better decision making.

Without this information, producers can be tempted to add inputs such as grain or nitrogen just as the season begins to turn, potentially creating unnecessary and costly feed surpluses later.

Act quickly when surplus feed appears

Once pasture growth moves into surplus, managing excess feed quickly becomes critical to maintaining feed quality and maximising animal production.

Practical strategies include:

- speed up grazing rotations or increase paddock area offered to livestock
- lift residual pasture levels to increase animal intake and production
- rebuild pasture cover to extend the grazing season by rolling feed forward
- isolate surplus paddocks so they can be conserved or deferred.

Spring pasture is often extremely high-quality. Maintaining that quality relies on timely grazing, preventing plants from elongating and moving into reproductive stages where feed quality declines.

Consider the true cost of surplus feed

While having excess pasture can feel like a good problem to have, managing it poorly can become expensive.

Basil warned that 'induced surpluses' – created by unnecessary nitrogen fertiliser or supplementation – can significantly increase feed costs once conservation, wastage and feed-out are factored in.

Similarly, locking up feed reserves at the expense of animal production can carry a significant opportunity cost. In many situations, converting surplus pasture directly into liveweight gain can be the most efficient use of feed.

» Spring pasture growth presents a key opportunity to convert feed into livestock performance and profit through timely management decisions.

pasture into profit

PRODUCTIVITY & PROFITABILITY series

MLA's Productivity & Profitability (P&P) series has just relaunched as a podcast, to give beef, sheep and goat producers easy access to information to support on-farm decisions.

The refreshed podcast will deliver seasonally relevant and topical discussions for producers across southern Australia, on topics ranging from technical production and feedbase management to farm business performance, markets and people management.

The new series will be produced in partnership with neXtgen Agri, with experienced industry advisor Mark Ferguson hosting monthly episodes.

To listen to new episodes of the Productivity & Profitability Podcast, visit **buzzsprout.com/2197784**

Deferred grazing can also play a role in some systems. Allowing paddocks to accumulate standing feed that can be grazed later by dry stock can provide a low-cost feed source if managed carefully.

Protect pasture persistence

Spring management also has long-term implications for pasture productivity. As most pasture tillers only survive for around 12 months, the persistence of perennial species depends on ongoing reproduction.

Maintaining appropriate grazing intervals and allowing plants enough rest to replenish energy reserves helps ensure pasture systems remain productive.

Basil said protecting perennial pastures should be a priority.

"You can't afford to wreck a pasture," he said. "While renovation can deliver strong returns, preventing pasture decline is often far more cost-effective."

What to do when the season tightens

When spring conditions deteriorate or the season ends early, management priorities shift quickly from capitalising on surplus feed to protecting pasture and managing livestock numbers.

In these situations, Basil encouraged producers to apply a marginal economic approach to feeding and stocking decisions.

Destocking can often be a more effective tool than feeding large numbers of animals for extended periods.

Basil warned that avoiding problems early is usually always far more cost-effective than trying to fix them later.

Evaluating livestock mobs over short timeframes and prioritising animals delivering the strongest return on available feed can help producers protect both pasture and profitability. ■

» *Listen to the full webinar with Basil Doonan and catch up on past P&P episodes at **mla.com.au/pandp***

Spring pasture: seven steps to grow profit

1 Know your break-even date
Track pasture growth and livestock demand so you know when feed supply begins to exceed consumption. Check out the MLA 'Feedbase planning and budgeting tool' – **etools.mla.com.au/fbrp** and the Australian Feedbase Monitor – **mla.com.au/afm**

2 Measure feed regularly
Frequent, simple estimates of pasture availability can guide timely decisions and reduce costly guesswork.

3 Respond quickly to surplus feed
Adjust grazing pressure early to maintain pasture quality and maximise animal performance.

4 Keep pasture in the right growth stage
Graze plants before they elongate and become stemmy to preserve energy and digestibility.

5 Isolate surplus paddocks
Lock up excess feed early for conservation or deferred grazing later in the season.

6 Protect perennial pastures
Allow adequate rest between grazings to support tiller renewal and maintain pasture persistence.

7 Match livestock numbers to feed
If conditions tighten, prioritise the most profitable animals and consider destocking early. A useful tool is the MLA 'Stocking rate calculator' – **mla.com.au/stocking-rate-calculator**

mla.com.au/pandp Basil Doonan **bdoonan@pinionadvisory.com** Mitchell Plumbe **mplumbe@mla.com.au**

Connecting cultural responsibility and economic opportunities

Located on the floodplains and wetlands of North Queensland, 'Mungalla Station' has been cared for by the Nywaigi peoples for countless generations.

It was founded as a cattle station in 1882 by Irishman James Cassady and put on the map in 1957 by Monty Atkinson as the birthplace of the Droughtmaster breed. The station hit another key milestone in 1999, when ownership returned to its Traditional Custodians.

Today, it's managed by Jacob Cassady – one of the land's Traditional Custodians – who plays an integral role in shaping the future of the station.

Here's a look at how he's balancing ancient cultural responsibility with modern industry research developments to rebuild land capability and improve herd management.

"Like many producers working and living on the land, Mungalla is not just a beef cattle business but our home, our history and our responsibility to the future generations," Jacob said.

"I have been actively involved in managing and developing Mungalla for many years now, working across governance, tourism, environmental restoration and, more recently, improved herd performance."

All in on country

Mungalla Aboriginal Business Corporation was established in 2002 to help bring the Nywaigi peoples back onto Country in a meaningful and economically sustainable way.

"Currently, we operate as an agistment enterprise. Over the past decade, we have developed a strong tourism operation – sharing Nywaigi culture, history and land management practices with visitors from around the world," Jacob said.

"This has allowed us to maintain income and employment opportunities on-farm while we rebuild our land and business capacity, with the long-term goal of fattening our own cattle on Country."

Forging links with NB2

As part of their business improvement plan, the Mungalla team connected with Livestock Management Consultant and Northern Breeding Business (NB2) Group Facilitator, Ian Perkins.

"Over the years, we've completed workshops with Ian through the Indigenous Land and Sea Corporation (ILSC) – where we also connected with other skilled and knowledgeable producers," Jacob said.

"We got involved in the NB2 program under Ian's guidance in 2021 with the goal of improving our business management strategies on and off-farm, and building confidence and capability within our team."

NB2 is a peer-driven business improvement program that supports producers to lift productivity, sustainability and profitability through better decision making and data use.

While NB2 is open to all northern cattle producers, a dedicated Indigenous group was established during the program's pilot phase to better reflect the governance, cultural and operational realities of Indigenous-owned enterprises.

Today, the program brings together 12 Indigenous-owned properties across more than three million hectares – placing strong emphasis on creating culturally appropriate learning environments, supporting employment and training pathways, and strengthening connections between Indigenous and non-Indigenous producers.

Reading the country, responding with confidence

Intense wet seasons – often with flooding – followed by unpredictable dry periods means the team at Mungalla deal with significant climate variability.

Growing industry expectations around sustainability and traceability also bring their own separate challenges.

"A lot of Indigenous-owned enterprises have little historical access to industry extension or peer networks," Jacob said.

"We saw NB2 as an opportunity to overcome these challenges and improve on-farm productivity and profitability in a way that incorporates our cultural values."

SNAPSHOT

JACOB CASSADY –
'Mungalla Station',
Ingham, Queensland

AREA
880ha

ENTERPRISE
Between 400 (dry season) and 1,000 (wet season) agisted Brahman cattle

PASTURES
Native pastures, pangola, variable introduced species

SOILS
Variable – ranges from clays in wetlands to sandy soils

RAINFALL
2,120mm

Through NB2, Jacob and his team assessed their current operation to identify gaps in knowledge, skills, capacity and/or capabilities.

They determined four focus areas:

1. **Review paddock condition and grazing pressure**

The team assessed paddock condition across the property to gain a clearer understanding of how different areas respond to seasonal conditions, flooding and grazing pressure.

2. **Introduce more structured planning around stocking and livestock movement**

They began planning stocking rates and cattle movement more deliberately, with the aim of better matching stock numbers to carrying capacity and seasonal conditions.

3. **Improve monitoring and record-keeping systems**

Greater focus was placed on monitoring pasture condition, water points and overall land condition, alongside improving

record-keeping to support more consistent, data-informed decision making.

Strengthen governance and reporting processes

For the community-owned corporation, this included clarifying roles, strengthening internal reporting and improving accountability for more effective operational and business decisions.

While still early in the process, these changes have already delivered tangible outcomes.

"The biggest value of NB2 has been the practical, on-ground learning," Jacob said.

"Being able to work directly with experienced industry mentors and apply what we're learning straight back into our own operation has made a real difference.

"We have a far better understanding of our land's carrying capacity and how different parts of the station respond.

"It's improved our planning capabilities and given our staff and leadership more confidence in the decisions we're making."

Governance support has been a particularly valuable component of the NB2 program for the community-owned enterprise.

"The decisions we make need to reflect both cultural authority and business responsibility, and NB2 has helped us strengthen systems that are transparent, sustainable and aligned with our long-term vision."

Think tradition, think technology

For centuries, storytelling has been central to how knowledge is shared within Indigenous communities.

This traditional teaching approach was reflected with the rollout last year of virtual and augmented reality tools as part of phase two of the NB2 program. These were designed to deliver practical, on-farm learning for Indigenous cattle producers in a culturally relevant and accessible way.

Developed by immersive technology provider Think Digital, the tools use virtual farm tours, 'campfire' style discussions and interactive simulations to support learning around herd health, biosecurity and decision making.

Training can be accessed via mobile phones, laptops or virtual reality headsets, enabling producers to engage no matter the distance.

» Mungalla Station experiences high seasonal variation with approximately 80% of their annual rainfall occurring during their wet season, from December–April.

» Hosting 20 fellow NB2 participants on-farm earlier this year, Jacob shared insights on the new Blue Carbon project the station is beginning to embark on – explaining how they will incorporate their extensive water systems into the trials.

Working together

Jacob said peer-to-peer learning was one of the most powerful parts of the program.

"NB2 did an amazing job at enabling that with the creation of a culturally safe space where we could speak openly about our current challenges and future aspirations," he said.

"Building a network of producers from different places facing similar challenges has also been incredibly valuable in helping us realise that we're not working through these issues alone.

"We learned practical grazing and business strategies from others, but also different approaches to managing land in challenging environments.

"In return, we shared our perspective on cultural land management, holistic thinking and the importance of long-term stewardship over short-term gain."

Connection is culture

Earlier this year, Jacob hosted 20 NB2 participants at Mungalla – bringing together Indigenous and non-Indigenous cattle producers. Producers toured the station and its surrounding wetlands, gaining insights into Mungalla's land management, tourism and cultural programs, and strategic direction.

"It was a proud moment for us to have everyone on Country and share the work we have done – not just as a cattle operation, but as a cultural and community-driven enterprise," Jacob said.

"It was also a great opportunity for Indigenous and non-Indigenous producers to connect and learn from each other – something I see as essential if we're going to continue to lift land management standards across the industry."

Building the future

For Jacob, education, land conservation and strong community connection are central to good stockmanship and a sustainable future for the land.

Through initiatives such as the Silver Lining School, Mungalla is supporting rural secondary students – particularly Aboriginal and Torres Strait Islander – by reconnecting learning to Country, culture and real-world opportunities.

Alongside this, the station is building pathways for young Indigenous adults to develop practical stockmanship skills and land management knowledge, with training designed to lead directly to meaningful employment.

The goal, Jacob says, is to enable young people to live and work on Country in ways that are both culturally grounded and economically viable – strengthening communities while building the next generation of skilled land managers.

"Beyond productivity and profitability, producers – Indigenous and non-Indigenous – have a shared responsibility to care for the land in ways that sustain it for future generations.

"We also have a responsibility to teach and empower our next generation of landowners, ensuring the hands that carry our industry forward are both competent and caring."

mla.com.au/nb2 Jacob Cassady **manager@mungallastation.com.au** Tony Parker **tparker@mla.com.au**

Tips, targets and tools for more lambs from ewe lambs

Joining ewe lambs has long been recognised as an opportunity to increase flock productivity, but success relies on getting the management right from the outset.

New work through the 'More lambs from ewe lambs' MLA Producer Demonstration Site (PDS) shows when ewe lambs are prepared and managed well, producers can achieve strong reproductive performance while improving both ewe and lamb survival.

The six-year PDS across western Victoria, southern NSW and south-east South Australia is demonstrating how best-practice management can lift conception rates, lamb survival and re-joining performance during a ewe's first two years of life.

According to PDS facilitator Dr Jason Trompf, improving outcomes from ewe lambs represents a major opportunity for the Australian sheep industry.

"With the national flock at a 100-year low, joining ewe lambs to lamb at 12–15 months provides producers with an opportunity to increase the number of lambs produced from their existing ewe base," he said.

"Research has shown lamb survival from ewe lambs can be improved by around 10–20%. In twin-bearing mobs, that can translate to a 20–40% lift in marking rates, which is a significant productivity gain."

Setting ewe lambs up for success

The PDS is demonstrating a range of practical management strategies across nine commercial farms, including:

- meeting critical joining weight targets
- maintaining nutrition throughout pregnancy
- vaccinating for key reproductive diseases
- reducing lambing mob sizes to support survival outcomes.

Jason said best practice starts well before lambing.

"Managing ewe lambs successfully is about proactive rather than reactive management," he said.

Current research suggests ewe lambs should ideally weigh around 45kg or more at joining, then gain approximately 10–15kg during pregnancy, reaching 60kg by pre-lambing treatments.

"It's critical to develop the ewe lamb early so she reaches an appropriate joining weight and continues to grow during pregnancy. Doing the hard work early sets her up to get pregnant, deliver a viable lamb and recover well enough to perform again at the next joining."

Lambing management makes a difference

Alongside nutrition and growth, lambing management is another key focus of the project.

Ewe lambs can be particularly sensitive to lambing conditions, with research showing smaller mob sizes can significantly improve survival outcomes.

"Ewe lambs benefit from greater privacy at lambing," Jason said.

"When mob sizes are reduced, there's less confusion around lambing events and fewer disruptions between ewes and their lambs. Across the research work, we've seen consistent improvements in lamb survival when mob sizes are smaller."

The project is also highlighting the importance of monitoring growth during pregnancy to ensure ewe lambs continue developing while supporting the growing foetus.

Encouraging early results

Across the demonstration sites, producers adopting these best-practice approaches are already reporting positive results.

Jason said better preparation and nutrition are helping take much of the stress out of ewe-lamb lambing.

"One producer recently told us that after improving management and meeting weight targets, lambing ewe lambs has become far less demanding," he said.

"They're seeing stronger lamb survival and healthier ewe lambs, which is delivering both productivity and welfare benefits."

The project is also reinforcing that the success of ewe-lamb programs extends beyond the first lambing.

"It's not just about getting them pregnant," Jason said.

"Success means the ewe lamb conceives, successfully rears a lamb and then goes on to perform well at her next joining."

Confident decisions

By the end of the project, the aim is to give producers clear evidence-based guidance to help them decide whether joining ewe lambs suits their system, and how to do it successfully.

Jason said simple practices such as weighing ewe lambs before joining and monitoring growth during pregnancy can make a major difference.

"If there's one thing we'd like to see more producers doing, it's measuring their ewe lambs," he said.

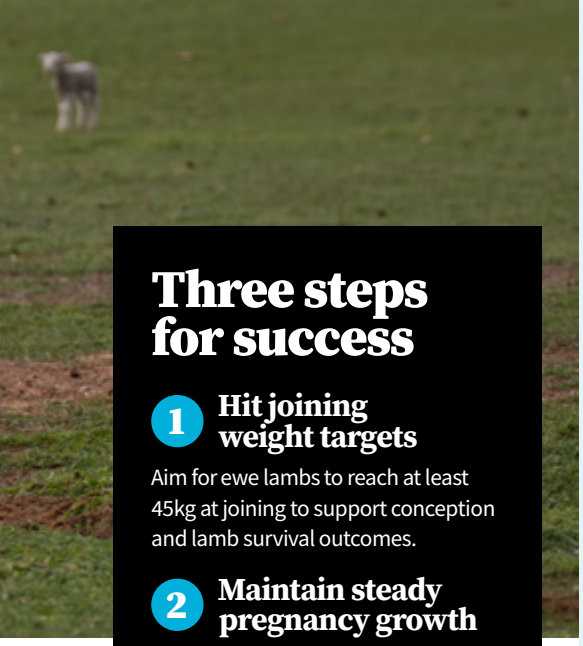
"When producers weigh animals and track their progress, they can make better decisions about which ewe lambs to join and how to manage them during pregnancy."

With the right preparation, ewe lambs can become a valuable contributor to flock productivity.

"When managed well, ewe lambs can deliver more lambs, improve genetic progress and help rebuild flock numbers," Jason said.

"It's about setting them up properly and giving them the best chance to succeed."

"Research has shown lamb survival from ewe lambs can be improved by around 10–20%. In twin-bearing mobs, that can translate to a 20–40% lift in marking rates, which is a significant productivity gain."



Three steps for success

1 Hit joining weight targets

Aim for ewe lambs to reach at least 45kg at joining to support conception and lamb survival outcomes.

2 Maintain steady pregnancy growth

Plan nutrition so ewe lambs gain around 10–15kg during pregnancy, ensuring they reach adequate weight by lambing.

3 Reduce lambing mob sizes

Smaller mobs can help improve lamb survival by reducing disruption and allowing ewe lambs greater privacy at lambing.

Check out these tools:

- Making More From Sheep: **makingmorefromsheep.com.au**
- Sheep producer resources: **mla.com.au/sheep-producers-resource-guide**
- Lifetime Ewe Management: **wool.com/ltem**

TOOLBOX

Learn about these ewe lamb Producer Demonstration Sites:

- More lambs from ewe lambs: **mla.com.au/ewe-lambs-pds**
- Ewe lamb joining made easy: **mla.com.au/joining-made-easy-pds**
- Optimising ewe lamb joining outcomes: **mla.com.au/lamb-joining-outcomes-pds**
- Scan or click the QR code to watch Jason Trompf's 'More lambs from ewe lambs' webinar:
- Sign up to receive regular PDS updates at: **mymla.com.au**

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Alana McEwan
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Higher joining weights lift ewe lamb performance

For south-west Victorian producer Nick Baulch, improving the performance of ewe lambs has been less about pushing production and more about building consistency across his flock.

Nick runs 8,500 Highlander-composite ewes at Branxholme alongside his brother Charles, who manages the business partnership while working off-farm.

Nick is no stranger to joining ewe lambs, but had found the results varied significantly from year to year.

"Consistency was the biggest challenge," he said.

"We could usually get them pregnant, but the results were all over the place depending on the season and the group."

Historically, scanning rates ranged from about 106% to more than 150%, and their dry rates could be anywhere from 10–31%, depending on the year.

On average, the Baulchs' system has been sitting around 130% scanning with 15% dry. Reducing that spread has become a key focus.

"That sort of variability makes it hard to plan," Nick said.

"You want to know what those ewe lambs are going to deliver each season."

Raising the bar on joining weights

Nick became involved in MLA's 'More lambs from ewe lambs' Producer Demonstration Site (PDS) after working with project lead Dr Jason Trompf on other research – see story previous page.

It prompted Nick to reassess one of the key drivers of ewe lamb performance: joining weight.

Previously, he had been relatively flexible with the lower weight threshold for joining ewe lambs, aiming to maximise the number of animals contributing to the flock rebuild.

"We were probably a bit relaxed on that bottom end and letting the ram do the drafting for us," he said.

"In the past we'd join ewe lambs from around 36kg."

Nick Baulch at Branxholme, Victoria.

SNAPSHOT

NICK AND CHARLES BAULCH – 'Audley', Branxholme, Victoria

AREA
1,200ha

ENTERPRISE
8,500 composite ewes, 200 Angus cattle

PASTURES
Predominantly phalaris and clover pastures, 150–200ha brassica forage crops

SOILS
Rolling volcanic clay loams

RAINFALL
~650mm

continued next page

continued from previous page

» Nick is focusing on more targeted, structured management of his ewe lambs.

» Large mobs are managed across the Branxholme property, supporting efficient handling and timely management of ewe lambs throughout the production cycle.

After reviewing the project research, Nick made an immediate change.

With mature ewes sitting at 65–70kg, he now aims to have ewe lambs reach around 65% of mature weight at joining, with continued growth through pregnancy.

"We lifted the cut-off weight straight away – first to about 38kg, and this year we've pushed that up to 40kg, with the aim of getting the average weight closer to 45kg before the rams go in."

The shift means fewer lighter ewe lambs are joined, but Nick believes it will deliver better long-term outcomes.

"It takes those lighter animals out of the system," he said.

"They often struggled to recover properly, and it affected their performance when they came back for their second joining."

Managing recovery

The timing of lambing and recovery is another critical consideration in Nick's system.

His mixed-age ewes begin lambing in mid-July, while the ewe lambs start about a month later in mid-August.

To ensure the ewe lambs have time to recover before coming back into the main lambing cycle, lambs are weaned early at around eight weeks of age.

Ensuring adequate recovery time has been a key lesson.

"Getting them back around again can be just as much of a challenge as getting them pregnant the first time," he said.

Start with best ewe lambs

Nick's advice for other producers considering joining ewe lambs is simple: focus on the best animals first.

"Start with your top half," he said.

"Don't even worry about the bottom half initially. Do a really good job with your better ewe lambs and get them performing consistently."

Once that group is performing well, producers can then look at gradually improving the remainder of the mob.

"If you try to push everything at once, it's a lot harder to manage," he said.

"Get the top end right first and lift the rest over time."

Setting up for success

Beyond first lambing, Nick is focused on how ewe lambs transition into the main flock.

"We want those ewe lambs to go on and perform as two-tooths and beyond," he said.

Management decisions – including early weaning and maintaining growth – are all geared toward ensuring ewe lambs recover well enough to rejoin successfully.

"The goal isn't just getting them pregnant once," he said.

"It's about setting them up to be productive ewes long term."

Data backs better system

By combining improved measurement, clearer targets and more structured management, Nick is building a ewe lamb program that delivers more predictable outcomes.

"Having those weight targets and tracking performance gives us a lot more confidence in what we're doing," he said.

As the PDS progresses, Nick expects further refinements to help optimise both productivity and survival.

"It's about understanding what's driving the results and making decisions off that," he said. ■

LESSONS LEARNT

- Joining weight is a key driver of ewe lamb performance and future reproductive success.
- Removing lighter animals from the joining group can improve overall flock consistency.
- Early weaning helps ewe lambs recover in time for the next joining.
- Starting with the best animals allows producers to refine management before scaling up.

SEASONAL ACTION PLAN

Lift minimum joining weights

Set a clear minimum joining weight to ensure ewe lambs are developed enough for reproduction.

Prioritise recovery after lambing

Wean lambs early to give ewe lambs adequate time to regain condition before their next joining.

Focus on the top-performing ewe lambs

Start by managing the best animals well before expanding the program to the full mob.

> **"We lifted the cut-off weight straight away – first to about 38kg, and this year we've pushed that up to 40kg, with the aim of getting the average weight closer to 45kg before the rams go in."**

Sign up for PDS updates through myMLA **mla.com.au/mymla** Dr Jason Trompf **jason@jtagrisource.com.au**
Nick Baulch **nickbaulch@bigpond.com** Alana McEwan **amcewan@mla.com.au**

» Ewes and lambs at 'Hills Park', Yerong Creek, NSW.

Joining ewe lambs moves from challenge to confidence

For NSW producer Andrew Hunter, ewe lambs were once the 'poor relation' in an otherwise high-performing sheep enterprise.

"We were pretty good at getting ewe lambs in lamb," Andrew said.

"But we weren't getting the results where it counts: lamb survival and how those ewes performed afterwards."

Running a self-replacing maternal composite flock at 'Hills Park' near Yerong Creek, Andrew had long focused on turning off heavy lambs. However, that often meant his ewe lambs received less attention during critical growth phases.

Proactive management

After joining the 'More lambs from ewe lambs' MLA Producer Demonstration Site (PDS), Andrew reassessed how ewe lambs were managed across the system – learn more page 14.

The biggest change has been a shift from simply achieving conception to actively managing for survival and performance.

"We've put a lot more focus on getting ewe lambs up to a minimum joining weight and then keeping them growing right through to lambing," he said.

Previously, lighter ewe lambs were still joined, relying on the flock's natural fertility.

"We knew they'd get in lamb, but we weren't managing them to actually perform," Andrew said.

This shift reflects recent research, with the PDS demonstrating in practice that joining weight and continued growth are critical drivers of lamb survival and ewe performance.

Gains where it matters

While conception rates at Hills Park were already strong, the real gains have come at lambing.

"Where we've seen the difference is in survival, particularly in our twin mobs," Andrew said.

Twin lamb survival has moved from just over 100% to now nudge 150%. In addition, Andrew has seen reduced ewe losses and hardly any prolapses.

Reducing pressure at lambing

Beyond the numbers, improved management has changed the on-farm experience during lambing.

Previously, lambing ewe lambs had become increasingly difficult.

"It was getting to the point where we were questioning whether we should even join ewe lambs – that's probably been the real quantum shift," Andrew said.

However, improved preparation has transformed that period.

"It just took a real weight off our shoulders knowing we're doing the right thing."

Learning through involvement

Over the years, Andrew has been involved in other MLA-led projects, working closely with advisors to test and refine management practices on-farm.

He said participating in the PDS has helped sharpen decision making and reinforce the fundamentals of ewe lamb management.

"We've always learned a lot from being involved, it's been quite important to the management of our business," he said.

Simple fundamentals, strong results

For Andrew, the biggest takeaway has been the importance of getting the basics right.

"It comes back to understanding what they need and managing them differently," he said.

For ewe/lamb survival, this includes:

- setting clear minimum joining weights
- maintaining growth through pregnancy
- prioritising ewe lambs within the feed system.

SNAPSHOT

ANDREW AND JANE HUNTER –
'Hills Park',
Yerong Creek, NSW

AREA
1,200ha

ENTERPRISE
4,000+ self-replacing maternal composite ewes

PASTURES
Improved pastures including lucerne and tropical grasses

SOILS
Red-brown earths, lighter granite-based soils

RAINFALL
575mm

Setting ewe lambs up for life

A key insight from the project has been the long-term value of getting ewe lamb management right from the start.

"If they're well grown for that first lambing, they're much easier to manage afterwards," Andrew said.

Well-prepared ewe lambs are now:

- easier to return to condition
- more consistent as a group
- better able to perform at their second joining.

"The aim is for them not to be a burden on the system," he said.

"With the right management, they can perform much closer to mature ewes."

mla.com.au/ewe-lambs-pds Dr Jason Trompf **jason@jtagrisource.com.au** Alana McEwan **amcewan@mla.com.au**

Data takes goats a long way at Longreach

When Central West Queensland goat producer, Georgia Whip, first moved with her husband Toby to his family cattle property south of Longreach in 2019, goats were little more than a means to manage timber encroachment – particularly the mulga and gidgee scrub creeping across the country.

However, Georgia found herself increasingly drawn to the goats.

It wasn't long before she was actively managing what had previously been an unstructured, largely unmanaged herd. She introduced tagging, regular handling and drafting routines, and laid the groundwork for data-based decision making across the mob.

Her growing passion led her beyond the property boundary when she was encouraged by another woman in the goat industry to show her improved Rangeland goats at the Springsure Show.

There, she was introduced to a network of like-minded producers and University of Queensland (UQ) researcher Professor Louw Hoffman.

By the time Georgia and Toby purchased their own property just outside of Longreach in 2023 – a red-soiled, mulga-rich block she describes as "goat heaven" – she was ready to take the next step.

The same week they purchased the property, she phoned Louw and put her hand up to join MLA's KIDS+ project, eager to contribute to and learn from the largest research initiative ever undertaken for Australia's goat industry.

Commitment to data

KIDS+ is a five-year MLA–UQ initiative designed to benchmark goat reproductive performance across Australian production systems, and demonstrate practical management changes that lift productivity, profitability and welfare.

KIDS+ captures data from more than 15 commercial properties located within Queensland and NSW. Georgia chose to enrol her entire nanny herd in the project, rather than a small mob like many of the other participating producers.

"I saw the project as my opportunity to establish key herd management and data collection strategies – under the guidance of experts – that would ultimately shape the future productivity and profitability of our herd," she said.

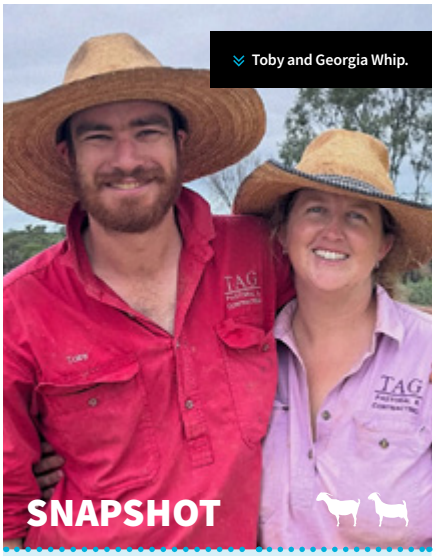
The Whips run an average of 4,500–5,000 nannies. Throughout the project, they've made a point of capturing key metrics every time they came through the yards.

They captured data on:

- liveweight
- condition score
- sex
- estimated breeding value
- seasonal performance indicators tied to joining and weaning.

"We tracked them via individualised tags, and recorded both broad observations and consistent composition data that would help inform reproductive decision making," Georgia said.

"Over time, we settled into a rhythm that aligned with our reproduction cycle – recording weights and condition scores of our nannies at the start of February before joining, and again at weaning in November."



Toby and Georgia Whip.

SNAPSHOT

GEORGIA AND TOBY WHIP –
'Leander',
Longreach, Queensland

AREA
8,000ha

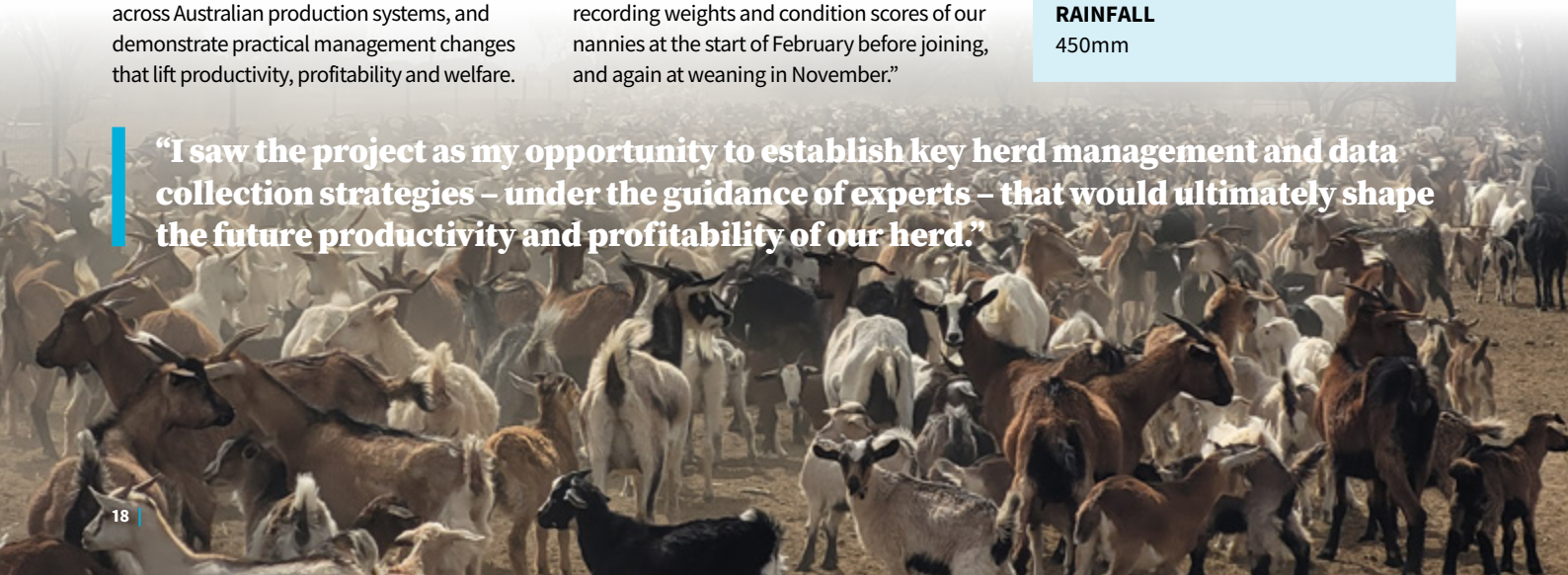
ENTERPRISE
4,500 rangeland nannies, bred with Boer billies, 30 Wagyu cows

PASTURES
Gidgee and mulga scrub, and Mitchell grass

SOILS
Red sands, pebbles and black soils

RAINFALL
450mm

> **"I saw the project as my opportunity to establish key herd management and data collection strategies – under the guidance of experts – that would ultimately shape the future productivity and profitability of our herd."**



Aerial shot of 'Leander'.

Georgia describes the red-soiled, mulga-rich block as "goat heaven".

KIDS+ has helped the Whips uncover insights on breed performance.

The Whips have also started tracking weaner weights for their does right up until their first joining, to build a comprehensive understanding of how they perform on their own, without their mum. This data helps identify potential issues early and informs future reproductive decisions.

Investment in time pays off

Investing the extra time to weigh animals came with an immediate additional benefit, as it provided Georgia with the opportunity to observe her goats more closely and record any visual defects.

"When you're doing a manual draft – which is what we'd been doing before this project – you're basing your future herd on split-second decisions," she said.

"Now, while we're collecting weights and we've got the goats in a crush, we've found ourselves able to get a really good look at their condition.

"We can look at their teeth, check their teats to see if any are missing or deformed, and see their conformation better – all factors that can impact productivity.

"When we record this information alongside key metric data, we've got a clear guide that ensures our decisions are confident ones."

Going ahead in leaps and bounds

Within three years, Georgia said KIDS+ has taken her herd productivity leaps and bounds beyond what she could have hoped.

"The project showed me not only how to collect the data, but how to interpret it," she said.

"Before, all we knew were our overall herd numbers. Now, we can filter animals by age, weight range or performance history – it's transformed our planning.

"I can look at the data and be able to determine with confidence an estimate of how many weaners I can sell and when."

In addition to an improved reproduction performance, KIDS+ has also helped uncover insights on breed performance within Georgia's environment.

One year, when they weaned earlier than usual due to the weather, they noted a difference in how the purebred and crossbred goats responded. They tracked weaner rates and, when they reviewed the data, found the crossbreeds performed better on average than the purebreds during that tougher climate period.

"We haven't explored genetics much yet, but I would really love to look at targeting more drought-tolerant traits – using our data paired with genomic testing to further inform reproductive decisions and determine if a crossbreed herd may be better suited to our environment."

Georgia also looked at her billy goats that were intended for market and, with the support of Louw, implemented a castration comparison trial to see if this would open up new markets.

Last weaning, they castrated approximately 200 males to see if there was a return on investing that extra time and resources.

The data showed a huge difference in average growth rates, with billies recording an average daily gain of 70-80g, whereas the wethers averaged 120g/day, with some gaining 200–270g/day.

"Unlike billies, wethers don't look to mate, which means they focus purely on eating – allowing them to hit our target market weights of 35kg much quicker."

KIDS+ part of the equation

Beyond productivity, the project has helped strengthen the Whips' day-to-day operations.

The discipline of weighing, tagging and data collection encouraged Georgia and Toby to rethink how their property was set up.

This coincided with significant infrastructure investment in more than 60km of fencing, and a shift to rotational grazing. This has supported improved animal welfare, pasture utilisation and drought preparedness.

But for Georgia, one of the greatest benefits has been the partnership with researchers who respect and value producers' lived experience.

"It's been really great to work with the team from UQ and MLA, their ongoing collaboration ensures that insights are not only collected, but translated into meaningful, practical change," she said.

"The project has ultimately left me with a greater sense of confidence, and an increased desire to continue taking those leaps of faith to try something new."

mla.com.au/goats-hub Georgia Whip **georgiawhip@gmail.com** Daniel Forwood **dforwood@mla.com.au**

Breeding low-methane beef no barrier to productivity

The beef industry is one step closer to breeding highly productive cattle that produce lower methane emissions thanks to a collaborative research project.

Since 2022, researchers have recorded the methane emissions and key performance traits – including growth and fertility – of more than 5,000 animals from the Southern Multibreed Project and Angus Sire Benchmarking Program herds.

The recent release of genomic Research Breeding Values (RBVs) for methane emissions marks a key milestone in the project. It will soon enable producers to perform multi-trait genetic selection to maximise their herds' productivity while reducing their methane emissions.

Long-term reductions

The 'Low methane beef (LMB) project' is a joint initiative between the University of New England (UNE), NSW Department of Primary Industries and Regional Development (DPIRD), Angus Australia and MLA.

Measurements of methane were taken from steers at UNE's Tullimba feedlot during feed intake and performance testing, while their sisters were monitored on pasture using GreenFeed emissions systems.

Researchers and participating producers collected genetic data right throughout the animals' lives, from birth to processing. They recorded performance traits such as carcase quality, growth, fertility, eating quality and yield.

The new methane RBVs are designed to work in combination with other traits currently available in BREEDPLAN.

UNE researcher, Professor Sam Clark, sees this as a key requirement for industry-wide adoption and the potential for lasting impact.

Dr Tom Granleese from NSW DPIRD. Image: Tom Granleese

Professor Sam Clark of the University of New England. Image: Sam Clark

"Genetic change is long term, permanent and cumulative – we can essentially improve herd genetics with each generation to increase productivity and efficiency for methane traits," Sam said.

Dr Tom Granleese from NSW DPIRD is excited about the win-win for both producers and the environment.

"We're still a little way off from making industry-wide impact, but the most exciting part of this research is that like at Oprah Winfrey shows, everybody gets a prize," Tom said.

"The environment benefits from lower methane emissions and producers benefit from more efficient, productive cattle."

Measuring for methane

At the paddock level, the project has uncovered insights that will inform future emissions reduction projects.

When animals enter the GreenFeed units voluntarily to feed, sensors monitor the carbon dioxide levels in their breath.

"At the start of the project we had a 60% visitation rate to the GreenFeed systems in the paddock," Tom said.

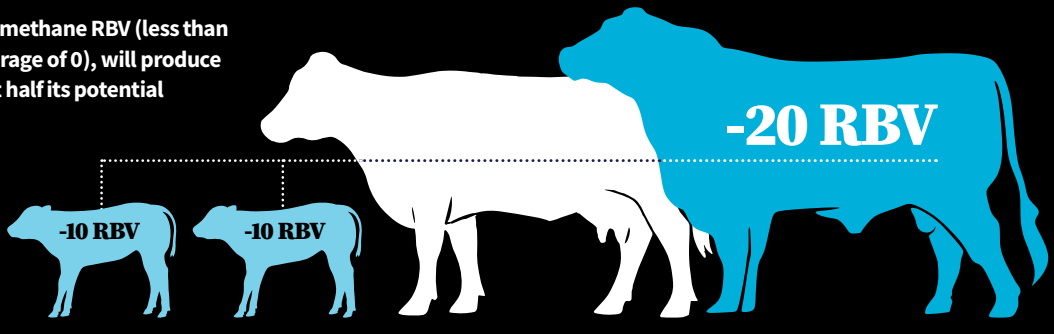
"The machines are competing for the cattle's attention with other attractions such as watering points and trees to play with.

How methane Research Breeding Values (RBVs) work

A sire passes on 50% or half of his genetic information to his offspring.

A sire with a negative methane RBV (less than the current breed average of 0), will produce offspring with at least half its potential to emit less methane.

For example, a sire with an RBV value of -20 grams per day (g/day) will produce offspring with a -10g/day RBV.



Over time, selecting for reduced methane emissions in conjunction with overall performance will make a significant and cumulative impact on the national herd's overall methane emissions to the effect of 2.8–12.4 million tonnes of carbon dioxide equivalent (Mt CO_2e) by 2050 or 5–20% reduction in CO_2e.

» Sam and Kirsty White collected methane data from their cattle for the low-methane beef genetic research project. Image: Struan Pearce

Meet the producers breeding for a lower emissions future

NSW Angus cattle and sheep producers, Sam and Kirsty White, are passionate advocates for a more sustainable red meat future, so supporting MLA's 'Low methane beef' genetic research project was an easy decision (see story previous page).

The project's focus on creating genomic tools to equip producers to balance methane-reducing traits with those that drive productivity fit neatly with the Whites' productivity-first business approach.

"Every decision we make needs to contribute to profitability and efficiency, so the fact the researchers are now looking at developing a methane trait was very attractive to us," Sam said.

"Being able to select for methane emissions in combination with other key productivity traits will make it a valuable addition to the genomically enhanced Estimated Breeding Values (EBVs) we currently use to make our breeding decisions."

The Whites have a seedstock operation as well as a commercial herd – with steers produced by their stud bulls – so the project was doubly relevant to their business.

"The project is about developing EBVs for industry to use. We're measuring mature breeding females and the idea is that we are trying to develop a methane EBV," Sam said.

SNAPSHOT

SAM AND KIRSTY WHITE – 'Bald Blair', Guyra, NSW

AREA
2,200ha across four properties

ENTERPRISE
400 stud and 400 commercial Angus cows, 1,000 ewes

PASTURES
Predominantly perennial pastures, including phalaris and fescue

SOILS
Red and black basalt

RAINFALL
850mm

continued next page

"The environment benefits from lower methane emissions and producers benefit from more efficient, productive cattle."

"We trialled different measures to encourage them to use the machines and were able to increase visitation up to 80%.

"The cost of the project doesn't change whether you get 100% visitation or none, so maximising visitation is important."

A whole-of-system approach

The project is one of the largest of its kind internationally. Sam sees it as just one part of a larger body of work to move the whole production system towards greater efficiency and sustainability.

"Producers manage methane indirectly by optimising the time it takes to get an animal to market," Sam said.

Culling dry cows, getting cows to calve at two years of age instead of three, and selecting bulls for optimised productivity and lower emissions are the fastest ways to make long-term changes to the national herd. Feed additives and pastures may also have their place in future.

Producers are expected to have access to the new methane genomic breeding values via BREEDPLAN from 2027–28.

There are new investments in collaboration with the Zero Net Emissions Agriculture CRC, UNE, Animal Genetics and Breeding Unit and the Global Methane Hub to continue collecting the required methane data to build on this project to routinely deliver methane breeding tools to the Australian red meat industry.

TOOLBOX

- BREEDPLAN: **breedplan.une.edu.au**
- MLA's Genetics hub: **genetics.mla.com.au**
- MLA's Sustainability hub: **mla.com.au/sustainability-hub**

Professor Sam Clark
sam.clark@une.edu.au
Dr Tom Granleese
tom.granleese@dpird.nsw.gov.au

continued from previous page

"A lot of other participants and ourselves are working together to contribute the data so the scientists can go on to develop this EBV."

Feed efficiency points to lower emissions

Sam has long held the view that feed efficiency may be linked to lower methane emissions.

He's pleased the research is investigating this and points to the business and environmental benefits that could be realised from a national herd that makes better use of available feed while emitting less methane.

Until now, breeders could select for feed efficiency, but methane itself remained unmeasured.

"Now, we have the opportunity to measure for methane – this significant global research is good for us to be a part of," Sam said.

"In the short to medium term we will have an EBV we can use to select for low methane-emitting livestock.

"If an animal can be more feed efficient and emit less methane, then it's worth it for us."

Sam explains that if producers can identify productive animals that also emit low methane early in their lives, they can replicate them through breeding.

Producers can then combine this strategy with other methane-reducing management decisions such as feed additives (e.g *Asparagopsis*).

Harnessing technology

Sam said they did run into some challenges during the data collection phase of the project. He acknowledged the expertise and assistance of the researchers who were quick to respond to any issues he faced using the technology.

"The GreenFeed machines are amazing, but like any technology, the practical realities of measuring cattle in paddock conditions were far more complex than at a feedlot, where animals are confined in one space," Sam said.

Encouraging all animals to use the machines, which measured their methane emissions while consuming feed inside the machine, was tricky at times.

"This was in part due to dominant animals preventing others from accessing the machines, so we removed these individuals which helped.

Even feeder orientation mattered – a machine facing west had low usage, but once rotated to the east, animals were more willing to use it.

Sam and the Bald Blair team conducted daily checks, feed top-ups and frequently communicated with the researchers.

"These records will be part of ongoing data collection all around the country to be part of the development of the methane EBVs."

Forefront of genetic science

Looking ahead, Sam and Kirsty are realistic about the timeline required before methane-related EBVs will be reliable enough and available more widely for routine selection.

"We don't have data that we can rely on just yet for methane decisions, but by participating in research, we can be part of the policy and research development in this space, rather than being at the receiving end with no input," Sam said.

Sam continues to use a full suite of genomic tools, indexes, MateSel and genomically enhanced EBVs to steer his breeding program.

"We utilise all available technologies, but we wanted to dig a little deeper and see what contribution we could make – we think it's fundamentally important research," Sam said.

"These records will be part of ongoing data collection all around the country to be part of the development of the methane EBVs."

Angus cattle at 'Bald Blair'.

mla.com.au/sustainability-hub **genetics.mla.com.au**
Sam and Kirsty White **kirstywhite@baldblair.com.au** Julia Waite **jwaite@mla.com.au**

Stop cyber criminals in their tracks

In recent years, Australia's red meat industry has embraced online platforms, data-driven systems and automated technologies to streamline operations, improve productivity and meet regulatory requirements.

From digital record-keeping to remote monitoring and smart machinery, these innovations are transforming the industry. However, as farms become more connected, their exposure to cyber threats increases.

With the potential to disrupt business, compromise sensitive data and threaten compliance, cyber attacks pose a significant threat to both large enterprises and small family-run operations.

TOOLBOX

- Visit the Australian CyberWardens website for more information: **cyberwardens.com.au**
- What's your risk level? Take this cyber health check to find out: **cyber.gov.au/cyberhealthcheck**
- Read the Agribusiness Cyber Security Guide for more information and steps you can take to protect your business: **cyberwardens.com.au/agri-guide**

It's essential that everyone within the red meat sector – from owners and managers to workers and contractors – understands not only the risks but how to avoid falling victim to cyber criminals.

Cybersecurity is a business imperative

Julian Moorhouse, Integrity Systems Chief Technology Officer, said attackers had a number of ways to gain access to your systems.

"Cyber criminals are becoming increasingly adept at using deceptive emails or messages to trick staff into revealing passwords or clicking on malicious links – often creating a sense of urgency that may cause the receiver to act without their usual caution," he said.

"These messages will often look like they're from your usual bank or service provider, or they might even appear to be from a friend or family member. You should always be wary of any message which demands an immediate payment or asks you to click on unfamiliar links."

Once they've gained access to your systems, it's easy for attackers to access, steal or leak sensitive information, such as livestock records, financial accounts, personal details and compliance documents.

Julian said cyber criminals can also use ransomware to lock you out of your data or equipment – potentially halting your operations, causing financial loss, or damaging your reputation until a ransom is paid. ■

» *For assistance with securing your LPA or NLIS accounts, please email* ***info@integritysystems.com.au***

Seven easy steps to reduce your online risk

As Australian red meat producers continue to adopt digital tools and technologies, cybersecurity must be a priority for everyone involved. By understanding the risks and taking practical steps to protect your business, you can reduce the likelihood and impact of cyber attacks.

1 Strengthen your passwords

- Do not use the same password for different accounts or services. If one service experiences a data breach, that stolen password could allow criminals to access any other service you use.
- Use strong, unique passwords for all accounts and devices.
- Utilise a password manager (most web browsers have one built in) so you don't have to remember every password anymore.
- Enable multi-factor authentication wherever possible.
- Limit access to sensitive systems to only those who need it.

2 Keep software and devices updated

- Regularly update operating systems, applications and firmware.
- Install security patches promptly to close any vulnerabilities.

3 Educate staff and contractors

- Train yourself and your staff on how to recognise phishing attempts and suspicious activity. With cyber criminals now using AI to craft sophisticated phishing emails which are virtually indistinguishable from legitimate communications, it's become even more important to exercise caution.
- Encourage reporting of unusual emails or system behaviour.

4 Back up your critical data

- Schedule regular backups of important records and files.
- Store backups securely, offline, or in a trusted cloud service.

5 Develop a response plan

- Prepare a clear plan for responding to cyber incidents, including who to contact and what steps to take.
- Test the plan periodically to ensure everyone knows their role.

6 Secure connected equipment

- Change default passwords on all devices.
- Disable unnecessary features and services.
- Monitor network activity for signs of unauthorised access.

7 Engage trusted IT support

- Work with reputable IT providers familiar with agricultural operations.
- Seek advice on best practices and tailored solutions for your business.

Triple management delivers double benefits

Producers are putting practical management strategies to the test to increase the survival rate of multiple-bearing ewes and their lambs – delivering a double benefit of welfare and productivity outcomes.

Reproductive rates across Australia's sheep industry have steadily increased over the past decade, leading to more multiple-bearing ewes being identified at pregnancy scanning.

While research has largely targeted lifting scanning percentages and identifying triplets, focus is turning to what happens next: ensuring those ewes and their lambs survive.

A MLA Producer Demonstration Site (PDS), 'Improving survival of triplet dams and their lambs', is equipping producers with information and tools to better manage triplet-bearing ewes from scanning through to lambing.

Opportunity and challenge

According to sheep consultant Dr Jason Trompf, increasing reproductive performance across the national flock means more producers are now encountering triplets within their flocks.

However, the aim of the project is not to encourage producers to focus on triplets as a breeding strategy. Instead, it focuses on helping producers recognise when they already have triplets and manage them more effectively.

"Triplets can provide a production opportunity, but they are also more challenging to manage than twins," Jason said.

"With the right management, producers can capture the production benefits of triplets while improving survival for both ewes and lambs."

Building confidence

The project is showcasing management approaches at demonstration sites across north-east and south-west Victoria and south-east South Australia.

There is also a focus on training and extension to upskill producers and pregnancy scanners, through field days, workshops and other activities designed to build skills and confidence in identifying and managing triplet-bearing ewes.

For many producers involved, one of the biggest benefits has simply been raising awareness by sharing experiences with triplets and highlighting opportunities to improve outcomes.

Practical strategies

The PDS demonstrates a range of management practices to improve outcomes for triplet-bearing ewes. These include:

- maintaining appropriate ewe condition at lambing
- ensuring adequate nutrition during late pregnancy
- reducing mob sizes during lambing.

Triplet-bearing ewes face greater nutritional and management challenges than single- or twin-bearing ewes, particularly in late pregnancy and around lambing.

One of the biggest risks is pregnancy toxaemia, which can occur when ewes carrying multiple lambs are unable to meet the increased energy demands of late pregnancy.

By identifying triplet-bearing ewes at scanning and applying targeted management practices through pregnancy and lambing, producers can improve productivity and animal welfare outcomes.

"If triplet-bearing ewes aren't identified and managed appropriately, their higher energy requirements can put them at risk," Jason said.

Lamb survival is also more vulnerable in triplet litters. Triplet lambs tend to have lower birthweights, which can affect their ability to survive the critical first days of life. At the same time, the ewe must successfully bond with three lambs instead of one or two.

This makes the lambing environment particularly important.

Research supporting the project shows that triplet-bearing ewes are highly sensitive to mob size at lambing. Smaller mobs provide greater opportunity for the ewe and lambs to bond, reducing confusion and improving survival outcomes.

Demonstration sites are also assessing the impact of targeted grain feeding in late pregnancy and semi-intensive lambing systems, such as lambing very small mobs with access to shelter during the first days after birth.

Importantly, the project focuses on the outcome that matters most on farm – the number of live ewes and lambs at marking – rather than scanning results alone. ■

Six tips to manage triplet-bearing ewes

1. **Scan to identify triplets:** separating triplet-bearing ewes allows targeted feeding and management.
2. **Maintain ewe condition:** aim to meet condition score targets and avoid weight loss through pregnancy.
3. **Manage nutrition in late pregnancy:** triplet-bearing ewes have significantly higher energy requirements.
4. **Reduce mob sizes at lambing:** smaller mobs improve ewe–lamb bonding and survival.
5. **Consider shelter or semi-intensive systems:** shelter is particularly important during the first few days after birth.
6. **Focus on survival, not just scanning rates:** success is measured by live ewes and lambs at marking.

Scan or click the QR code to find out more about the triplet and dams survival project:

Dr Jason Trompf **jason@jtagrisource.com.au** Alana McEwan **amcewan@mla.com.au**

« Identifying and managing triplet-bearing ewes separately can help improve survival and overall flock performance.

Turning triplet awareness into action

Rather than seeing triplets as simply a by-product of higher reproduction, Victorian producer Will Johanson views them as a distinct management challenge and opportunity.

Will and his wife Georgia run a prime lamb enterprise near Euroa in north-east Victoria, managing about 4,300 composite ewes across a mix of owned and leased country.

They are involved in MLA's 'Improving survival of triplet dams and their lambs' Producer Demonstration Site (PDS) – see story opposite.

A key message from the PDS is that improving outcomes for triplets starts with measurement, and Will is already well placed to see that firsthand.

"We treat them as a higher-need class of stock from the day they're identified," he said.

Measuring what matters

As well as running his own flock, Will operates a contract pregnancy scanning business. This gives him a valuable insight into how widely triplets are identified across the industry.

"Less than 10% of the sheep I scan would be scanned for triplets," he said.

That lack of visibility can mask the true scale of losses.

"You don't know what your survival is unless you're scanning for them," he said.

"A lot of the losses are essentially invisible if you're not separating them out."

For Will, the PDS has reinforced a simple principle: if you don't measure it, you can't improve it.

Managing high-risk ewes

Once identified, triplet-bearing ewes in the Johansons' flock are managed differently from the rest of their ewes. They are prioritised for feed, handled first during key husbandry operations and allocated the best available paddocks.

"They're the highest-risk cohort on the farm," Will said.

Maintaining ewe condition through pregnancy is a key focus, reflecting the project's emphasis on nutrition as a driver of survival.

At lambing, mob size becomes critical.

In favourable seasons, Will aims to lamb triplets in smaller mobs, ideally around 25 ewes, to improve ewe–lamb bonding and reduce mismothering.

To achieve this, the Johansons use temporary electric fencing to subdivide paddocks and create smaller lambing mobs within their existing infrastructure.

"Reducing mob size and using paddocks with more shelter and privacy makes a big difference," Will said.

Seasonal conditions can limit what's achievable, but the principle remains: more targeted management leads to better outcomes.

From scanning to survival

The Johansons' system closely reflects the core aim of the PDS, to shift focus from scanning results alone to the number of ewes and lambs that survive to marking.

On their property, twin lamb survival averages around 85%, while triplet survival has reached up to 70% in favourable seasons. Ewe mortality is also higher in triplet-bearing ewes, highlighting the importance of targeted management.

For Will, involvement in the project has reinforced that success with triplets comes down to detail.

By identifying triplets early and managing them accordingly, he sees ongoing opportunity to improve both productivity and welfare outcomes, turning a challenging cohort into a more reliable contributor to the business.

He also has his sights set on continually refining how triplet-bearing ewes are managed, particularly through further reductions in mob size and maintaining ewe condition through pregnancy.

"Scanning is the starting point," he said.

"It allows you to allocate your feed, labour and best paddocks to the animals that need it most."

» Georgia and Will Johanson.

SNAPSHOT

WILL AND GEORGIA JOHANSON –
Euroa, Victoria

AREA
1,100ha

ENTERPRISE
4,300 composite ewes for prime lamb production

PASTURES
Sub-clover base with phalaris and annual ryegrass, cereal crops for fodder and pasture management

SOILS
Mixed – ranging from heavy clay to lighter sandy loams

RAINFALL
500–550mm

By focusing attention on this higher-risk cohort, producers can improve both survival and overall flock performance, ensuring triplets contribute positively to the bottom line rather than becoming a hidden source of loss. ■

Scan or click the QR code to access MLA resources for improving dam and triplet survival:

Will Johanson **wjohanson86@gmail.com** Alana McEwan **amcewan@mla.com.au**

Rest-based grazing lifts herd and pasture performance

Managing grazing pressure is an essential part of pastoral businesses across the west Pilbara region of WA – here's how it's being used on one station to improve breeder and pasture performance.

Through the Pilbara Extension Network (PEN), the team at 'Wyloo Station' in the Ashburton River region is exploring how a rest-based grazing system can improve the management of heifers and second calvers while ensuring optimal pasture availability and improved land condition.

Rest-based grazing systems centre on allowing country time to recover between grazing events.

Instead of cattle remaining in the same paddock for extended periods, livestock are moved so plants can regrow, rebuild root reserves and set seed before being grazed again.

In rangeland environments where vegetation can respond quickly to rainfall but decline rapidly under sustained grazing pressure, these recovery periods play an important role in maintaining pasture condition and ground cover across the landscape.

How it works at Wyloo

The system being tested at Wyloo centres around a five-paddock grazing structure designed to move cattle through paddocks in a planned sequence while providing defined rest periods for pasture recovery.

This project was implemented within the $60,000 budget allocated through PEN.

Location: The first stage of the project involved identifying and surveying the areas considered most suitable for the system. Once these areas were selected, infrastructure work began to support the grazing design.

Fencing: Strategic fencing was installed to create the five paddocks. Several water points were upgraded to ensure adequate water supply and enable cattle to utilise paddocks more evenly across the system.

Technology: Monitoring sites were established using the Gascoyne Pilbara Rangelands Initiative Rangelands Monitoring Tool to track pasture condition and land health indicators over time. An Optiweigh unit was also installed to provide real-time information on animal performance.

Controlled mating strengthens herd

A key component of the system is the continuation of controlled mating for specific classes of cattle, particularly heifers.

Managing these heifers separately allows Wyloo's management team to make strategic decisions as the season progresses.

Shannon Thompson and her husband Clint own and manage 'Wyloo Station'.

SNAPSHOT

SHANON THOMPSON –
'Wyloo Station',
Ashburton River region
(west Pilbara), WA

AREA
200,000ha

ENTERPRISE
Droughtmaster cattle

PASTURES
Native perennial grasses and spinifex systems

SOILS
Open plains, rocky ridges, alluvial river flats

RAINFALL
280mm (highly variable)

'Wyloo Station' Co-Manager Shanon Thompson and PIP Project Officer Jardine Macdonald assessing plants at the Pilbara property. Image: Paul Bell, Feral Films

The work underway at 'Wyloo Station' is helping build practical knowledge around how grazing systems in the Pilbara might continue to evolve while maintaining productive and resilient rangelands.

Producers leading change

An 18-month pilot in the Pilbara, WA, is proving what's possible when producers lead the way in research and development.

The Pilbara Extension Network (PEN), delivered through the Pilbara Innovation Partnership (PIP), supports seven pastoral stations to design, deliver and evaluate projects that matter to their business.

Each station nominates a project lead who shapes a project around a challenge specific to their operation, which can generate insights to benefit the northern beef industry in the long-term.

Wyloo Station is one of the businesses involved in the initiative.

Round Two of PEN has begun, with expressions of interest submitted and candidate vetting now underway.

The collaboration between PIP, funding partners WA Department of Primary Industries and Regional Development, MLA, Rio Tinto and producers ensures investment flows into locally identified priorities, aligning people, skills and leadership with improved landscape conditions and long-term productive capacity.

Cattle using Optiweigh. Image: Shanon Thompson

The first cohort of 210 heifers was inducted into the system in March 2025. They weighed an average of 390kg. Seven bulls were joined to the heifer group for a 60-day mating period.

Monitoring to manage

Monitoring how cattle respond to the grazing system is another important component of the project.

Wyloo Station is incorporating Optiweigh technology – a fully portable weigh system used in the paddock. Animals are enticed into the unit using an attractant which allows cattle weights to be recorded automatically.

Optiweigh data provides real-time information on animal performance, without the need for animals to be yarded.

Importantly, the technology is not being used in isolation, but as one tool to help make management decisions. Animal liveweight data is cross-referenced with paddock observations and pasture monitoring to understand how cattle performance is responding to pasture availability across the system, as well as how the pasture itself is responding to grazing and rest.

Round she goes

Once inducted into the system, the mob of heifers move through the five paddocks in sequence.

Movement decisions are based on a combination of paddock observations, pasture monitoring data and Optiweigh information.

This combination of observations and weight data allows the station team to assess how well the grazing system is supporting both animal performance and pasture recovery.

Where necessary, carrying capacity can be adjusted by shifting or selling preg-tested empty (PTE) heifers to ensure grazing pressure remains appropriate for the available feed.

Building data into decisions

Another aspect of the project is the opportunity to collect more detailed reproductive performance data across the herd.

With tighter mating periods and clearly defined cohorts, the station team can identify animals which may not be performing as well reproductively, and make more informed decisions about which females remain within the breeding herd.

Practical insights for others

In a region where rainfall, pasture growth and cattle performance can vary widely from season to season, management systems that allow both livestock and country to respond to these conditions are increasingly important.

The work underway at Wyloo Station is helping build practical knowledge around how grazing systems in the Pilbara might continue to evolve while maintaining productive and resilient rangelands.

By combining rest-based grazing, controlled mating, infrastructure development and performance monitoring, the project is exploring how these tools can work together to improve the management of heifers and second calvers while supporting pasture recovery.

This PEN project has also opened pathways to further research, with a new project underway at Wyloo in conjunction with Dr Kelsey Pool that investigates the impacts of heat stress on cattle health, productivity and reproductive performance.

LESSONS LEARNT

- The Rangelands Monitoring Tool makes data collection and comparison simple where ecosystem management is concerned.
- Starting with one area of land, or one age group on-station removes the 'where do I start' question.
- Early weaning helps ewe lambs recover in time for the next joining.
- When poor seasons arise, utilising a system like this provides more levers to pull. For example, knowing which breeders will calve, when calves will drop, and when they can be mustered.

TOOLBOX

- Learn more about the Rangelands Monitoring Tool: **gpri.org.au/rmt**
- Check out Optiweigh at: **optiweigh.com.au**
- Visit the PIP page to learn more about this and other Pilbara projects: **pilbarainnovationpartnership.com.au/pen-rest-based-grazing-system**

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» SA sheep producer Richie Kirkland.

Flock performance driven by data

Improving reproductive performance was a key driver behind Richie and Nikki Kirkland's decision nearly a decade ago to adopt electronic identification (eID) technology in their prime lamb enterprise in SA's Lower South East.

The system has contributed to a 15% increase in lambing rates, with this stronger performance backed by more twin-bearing ewes and fewer dry ewes.

Rather than collecting data for its own sake, Richie said the focus has been on using information in practical ways to improve management decisions.

Business management

The Kirkland family has been farming at Furner since moving to the district through the soldier settlement scheme in the 1950s. Their 2,500ha property 'Kirklands' is now managed by Richie and Nikki and their two children.

As well as their flock, the Kirklands crop about 700ha of broad beans, wheat, barley and canola, of which about 20% is retained on farm for feed.

Paddock sizes range from 30-50 ha and are serviced by laneways.

Sheep are run in large mobs of 800–2,000 for most of the year, with mob size being reduced to as low as 50 during lambing for ewes with multiples. Grown ewes are mated from January, with scanning in March. Dry ewes are rejoined soon after, along with ewe lambs, and are scanned a second time in May. Any remaining dries are sold.

The Kirklands introduced eID in 2017 as part of a broader focus on improving reproductive performance, lamb growth and feed efficiency in their flock of 9,000 maternal composite ewes.

Their goals were to:

- improve reproductive efficiency
- keep track of ewe lambs born as twins
- ensure more efficient use of available feed for ewes
- identify best performing paddocks for lambing
- achieve fast growth rates in lambs
- enable easier animal handling
- streamline how they record stock movements.

To achieve these improvements, the Kirklands collect individual animal data including pregnancy scanning results (triplets/twins/singles/dry), condition score, lamb weights and marking and weaning (as well as opportunistically at other times), birthing difficulties and paddock of birth.

The right data for the job

The Kirklands selected their eID equipment based on its capability for data collection and lifetime storage capacity (up to 100 pieces of information for each animal).

Their decisions were also informed by speaking to other producers, and their own experiences with eID equipment.

They use:

- a Tru-Test XR5000 weigh scale indicator integrated with a Te Pari HD3 autodrafter/handler based at the main yards
- a wand reader to collect data in the paddock – for example, with ewes displaying health concerns
- a custom-made portable race reader unit, which incorporates a Tru-Test XRP2 eID reader with twin panel antennas, in satellite yards.

They currently use data from the indicator to guide real-time drafting decisions based on weight, birth status or pregnancy status.

Looking ahead, the Kirklands would like to learn to use more of the features available within the indicator to guide drafting based

SNAPSHOT

KIRKLAND FAMILY –
'Kirklands', Furner, SA

AREA
2,500ha

ENTERPRISE
Predominantly prime lamb enterprise running 9,000 maternal composite ewes and 2,000 ewe lambs, plus cropping

PASTURES
Phalaris, annual ryegrass, sub-clovers and balansa clover

SOILS
Variable – black flats through to sandy rises

RAINFALL
600mm

on multiple attributes to differentiate higher and lower performing individuals. However, at present, data is not managed with excel or other data management software away from the drafting race.

Limited data is also uploaded onto livestock management software, AgriWebb, to keep track of where stock are located.

Richie said the factors limiting more complex data management are time, cost and availability of producer-friendly software that can link to apps currently used on farm like AgriWebb and Lambplanner.

Turning data into decisions

This technology is helping the Kirklands achieve their livestock goals, through targeted flock management.

They use pregnancy data to maximise retention of ewes born as twins and twin bearing ewes, as well as to identify twice-dry ewes which are removed from the flock.

This has contributed to an overall 15% improvement in lambing percentage over the past several years.

The Kirklands use pregnancy scanning data to split ewes into management groups based on lambing status (single/multiple). This supports more targeted feeding and improved feed allocation across the flock. Smaller mob sizes for multiple-bearing ewes have helped improve lamb survival and reduce the risk of mismothering.

Richie believes these increases in reproduction could have been greater if they had not also been pursuing the expansion of their overall flock size during that time.

The desire to increase overall numbers of stock being run has led them to retain more single bearing ewes than they otherwise would have.

Despite this reduced ability to apply increased selection pressure for twinning, the number of ewes bearing twins has risen from about 50% 10 years ago to 75%.

One challenge has been balancing the reduced early growth rates of twins against higher target turnoff weights (which have increased from 20–22kg to 24–26kg in recent years). To achieve these processor specifications, the Kirklands weigh lambs as frequently as possible to monitor performance. This also provides insights around ewe performance and nutrition or health factors which could be impacting performance.

The Kirklands also collect data on:

- Condition score – to guide nutrition decisions in the lead-up to joining and during pregnancy, and to identify high performing ewes that rear twins with good weight gain and recover condition score quickly ahead of the subsequent joining.
- Paddock performance – to inform allocation of lambing paddocks based on the success of ewes in birthing/rearing lambs on a paddock-by-paddock basis.

Looking ahead

Future plans for the Kirklands include tracking ram performance for reproductive efficiency and lamb growth rates, and developing lifetime performance records for ewes to support more informed breeding and culling decisions.

They are also interested in using software to combine multiple traits, including reproduction, growth and condition score, to help rank animals and support selection decisions. Collecting health related data, such as dag score and worm egg counts, is another goal.

Down the track, they plan on investing in an in-paddock weighing system to streamline the process of collecting average daily weight gain data. ■

This case study was developed as an initiative of eID Advantage Program from the Government of South Australia, supported by MLA and AWI Extension SA.

The Kirklands began tagging ewe lambs with eID in 2017.

This technology is helping the Kirklands achieve their livestock goals, through targeted flock management.

LESSONS LEARNT

- Start out small: collect and use basic data.
- When it comes to equipment, a simple wand is a good start. Panel readers are more complex to set up to get good results.
- Consider using some borrowed or hired equipment to get a feel for how equipment works and what is involved with collecting and using data.
- Be prepared to teach yourself how to use the equipment – manufacturer support is in high demand and at times can be difficult to access.

SEASONAL ACTION PLAN

- **Pre-joining:** Condition score ewes and review performance data to guide nutrition and breeding decisions
- **Scanning:** Record pregnancy status, identify dry ewes and draft singles/multiples into separate mobs
- **Lambing:** Monitor lambing performance by paddock and adjust mob sizes to improve lamb survival
- **Weaning:** Weigh lambs and assess average daily gain to identify poor performers and nutrition issues

TOOLBOX

- Learn about sheep and goat eID: **integritysystems.com.au/eid**
- Check out precision sheep management tools and strategies (MLA/AWI co-funded levy investment): **precisionsheephq.com**

pir.sa.gov.au/eid Richie and Nikki Kirkland **richieandnikki@bigpond.com** Mel Smith **msmith@mla.com.au**

Watch out worms

As drench resistance continues to erode worm control effectiveness across Australia's goat industry, researchers are developing practical solutions for producers to combat declining chemical performance.

Dr Anne Beasley – a parasitologist and Senior Lecturer in Animal Science and Production at The University of Queensland (UQ) – is working to understand producer awareness and adoption of non-chemical worm control strategies, to identify where knowledge gaps and practical barriers are holding the industry back.

Leading the research behind an MLA-funded project – the Watch-n-Worm workshop series – Anne aims to take what is known about parasite management options beyond drenching and turn it into evidence-based, producer-ready resources.

Understanding the challenge

Anne said many goat producers – especially those in high-rainfall regions – are facing a loss in profit and herd productivity due to the impacts of anthelmintic (drench) resistance.

"Producers invest significant time and money into drenching as an important part of maintaining herd health and welfare," she said.

"But when resistance develops and drenches no longer provide the level of control producers expect, both the animals and the business feel the impact. Stock losses continue, and that investment of time and money is effectively undermined."

While alternative parasite management strategies do exist, Anne said adoption is often limited by a lack of clear, goat-specific evidence to support them. Many producers report they simply don't have enough information to feel confident using anything beyond drenches.

"A lot of the alternative strategies we have available – such as biological parasite controls, targeting parasite resistance traits or managing nutrition to support the immune system – are under-researched and under-tested in goats," she said.

"This is exactly why this project is focused on understanding what producers know, what they need, and how to better connect them with the evidence that does exist.

"However, despite these challenges, one of the most encouraging findings within this project so far has been the mindset of the producers themselves.

"From our producer survey, it's clear goat producers are motivated to help resolve this issue and are open to trialling new approaches on farm.

"They care deeply about animal welfare and they want to increase herd productivity – they're willing to be part of the solution, and that's incredibly important if we want this project to succeed."

What the project involves

To tackle the challenge, the Watch-n-Worm project is structured around four core objectives, each designed to build industry confidence, close knowledge gaps and ultimately give producers practical, evidence-backed options to work in place of, or complement, strategic drenching.

Alongside industry experts from UQ, University of New England, the University of Melbourne and leading goat veterinarians – and with the support of goat producers across Australia – Anne is working to address the following critical areas:

Review existing research: This includes a comprehensive review of existing research into non-chemical parasite controls – ranging from traditional pasture-based methods to more innovative tools such as biological controls,

Parasitologist Dr Anne Beasley is working to uncover practical, evidence-backed solutions that help goats, and producers, thrive.

targeted selective treatment and genetics. The review will highlight which strategies have been tested, which show promise, and where major research gaps remain, to form the foundation for future recommendations for producers and industry investment priorities.

Producer input: Through a national producer survey, the researchers are capturing how goat producers currently manage internal parasites, what barriers limit their adoption of non-chemical strategies, and where they turn for advice.

"Early responses suggest smaller, more intensive producers are often experimenting with a broader range of tactics than larger commercial operations – which emphasises that input from varying sized enterprises is vital to ensure extension materials are scalable and realistic across the whole industry," Anne said.

Producers who complete the survey can further participate in the project by volunteering for interviews with researchers.

Crunch the numbers: The project's third objective aims to understand the real-world cost of implementing different parasite management strategies.

"While drenches have clear upfront costs, many non-chemical approaches come with labour requirements, infrastructure considerations or time investments that aren't yet well defined," Anne said.

She said developing a preliminary cost comparison model will give producers a clearer picture of where different strategies may fit and what they might require in practice.

Producer workshops: While the research and result analysis behind the project is still ongoing, the project team has begun delivering series of Watch-n-Worm workshops and webinars to translate their findings into practical, usable knowledge for producers.

These sessions will cover parasite biology, monitoring tools, and how to combine chemical and nonchemical approaches into a balanced, evidence-based control program tailored to different production systems. All content will also be recorded and made available online.

Tips for managing parasites in goats

As the Watch-n-Worm project progresses, Anne said there are key parasite management strategies emerging from the research findings and producer insights.

"On mixed species or multi-enterprise farms, running cattle through goat paddocks – as part of a planned rotation – has been shown to reduce pasture larval contamination," she said.

"This is because most gastrointestinal nematodes are host specific."

Another non-chemical strategy showing success is the nematophagous fungus *Duddingtonia flagrans* (commercialised as BioWorma®), which is associated with reduced larval contamination on pasture.

The project team is also seeing value in combining strategic drenching with better diagnostics and monitoring – bringing faecal egg counts and FAMACHA scoring into routine decision making so drenches are used when they're most likely to add value.

"This approach has been an amazing one to see, as it's one that does sideline chemicals but also protects their usefulness by reducing unnecessary treatments and focusing effort where it counts," Anne said.

Potential of genetics and nutrition

Anne said genetic selection for parasite resistance and nutrition management remain promising levers for future research.

"Compared with the sheep industry, there is less data and resources available that support selective breeding in goats," she said.

"However, research is emerging and developments are being made to enable increased producer adoption for the targeting of more resilient traits.

"We are also looking at producers who are experimenting with nutritional strategies – particularly adequate protein supply to support immunity – and paying closer attention to browse species that may contain beneficial phytochemicals.

"The science base for this nutrition and browse effects in goats is still building, which is why producer engagement, the literature review and costing work are so important as we continue to work towards this shared industry goal." ■

GET INVOLVED

Scan or click the QR codes to:

- offer your insights by completing the survey
- attend a workshop or watch a webinar:

mla.com.au/goats-hub Anne Beasley **a.beasley@uq.edu.au**
Daniel Forwood **dforwood@mla.com.au**

Supplementation made easy with free calculator

Rangeland goat producers can manage feed gaps that occur with browsing diets with a free, online supplementation calculator.

The spreadsheet tool – developed by Dr Simon Quigley and colleagues from The University of Queensland, with MLA support – suits regions where environmental and seasonal factors impact the time required to reach production or market targets for rangeland goats.

"Goats are a resilient species and can thrive on a browsing diet," Simon said. "However, where feed gaps become a concern is when producers are looking to meet production and marketing liveweight targets at certain times, so they may consider supplementation."

Regardless of the production system, most goat processors mandate a minimum carcase weight of 10kg, meaning goats need to be a minimum of 24kg liveweight (lwt) to have commercial value.

The supplementation calculator includes liveweight gain responses of goats to cereal, legume (such as lucerne), by-products, protein and commercial pellet supplements to support producers in making informed decisions.

"Price of supplement and impact on liveweight gain are the two key drivers considered when looking to supplement a herd," Simon said.

"The calculator allows producers to strategically hold or increase the weight of their herd, ensuring the best outcome for processing."

Producers can enter their target weight for goats to calculate how much supplement to feed to reach that target over a period of time, broken down to the potential weight gain/day/supplementation type. It's capped at what researchers found to be the maximum weight gain within a series of 10-week feeding trials conducted with rangeland goat bucks less than 20kg lwt.

Scan or click the QR code to access the calculator:

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Know your interval: Why getting ESI wrong could cost you more than a sale

Livestock Production Assurance (LPA) audits have uncovered a recent pattern of on-farm animal treatment records being incorrectly completed, resulting in National Vendor Declarations (NVDs) which don't match on-farm records and Export Slaughter Intervals (ESI) being missed or misunderstood.

This has caused confusion and triggered investigations, with affected sheepmeat needing to be put on hold after processing.

Fortunately, the National Livestock Identification System (NLIS) allows nonconforming animals to be rapidly traced, enabling processors to take necessary to take necessary steps to maintain the integrity of our export supply chain.

Here's what every producer needs to understand to effectively manage treatment intervals.

The problem: losing track of time

It starts simply enough. An old ewe or a heifer is treated with a registered drench, a pour-on, or an antibiotic. She recovers. She looks well. The producer checks she's fit and sound, loads her onto the truck and sends her to the saleyards.

However, no one checked the treatment register to confirm the ESI had passed and the animal was safe for slaughter. The treated animal – which looks perfectly healthy – is now part of a consignment headed for an export-licensed abattoir.

Recent LPA audits have identified critical nonconformities (particularly in ewe flocks) where treatment records are incomplete or not maintained at all, and the consequences extend well beyond a single farm.

Elizabeth Bradley, Integrity Systems' Quality, Policy and Compliance Manager, said the audit findings are a clear signal that some producers don't fully appreciate there is a clear distinction between the meat Withholding Period (WHP) and the Export Slaughter Interval (ESI).

"Both are important, but overlooking an ESI (which can be much longer than a WHP) can have consequences that go far beyond the individual producer," she said.

Australia's red meat industry depends on every producer in the chain playing their part to maintain global market access – and the good news is, these issues are entirely preventable.

"It's simply a matter of reading the label to understand the time intervals which apply, and maintaining clear records you can refer back to before drafting any animals for sale," Elizabeth said.

"We want to work with producers to get this right, not catch them out."

Two intervals, two different purposes

One of the most persistent sources of confusion among producers is the difference between the WHP and the ESI (see Table 1).

While both WHP and ESI appear on chemical product labels and both are defined in days, they can differ in length.

Put simply, the WHP is what is required to meet Australian food safety standards while the ESI ensures we meet our export market requirements.

Australia's beef and sheepmeat exports are worth billions of dollars annually and importing nations set maximum residue limits (MRLs) that can be stricter than Australian standards.

When a producer consigns livestock to a saleyard without confirming the ESI has expired, they risk an abattoir purchasing residue-affected animals which can then enter the export supply chain.

A single residue detection in an export market can trigger audits, suspensions and long-term reputational damage to Australian red meat – threatening the market access which underpins our industry.

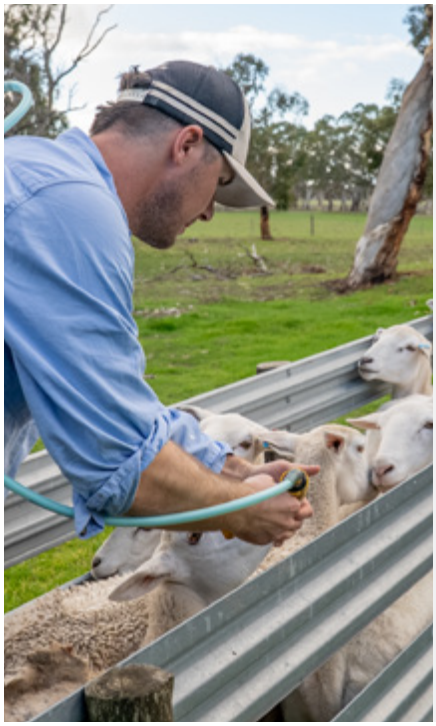

Table 1: ESI vs WP: Compliance requirements for livestock treatment

	Export Slaughter Interval (ESI)	Withholding Period (WP)
What it protects	Export market eligibility, ensuring compliance with maximum chemical residue levels in overseas countries	Domestic food safety, ensuring compliance with maximum chemical residue limits
Who sets it	Overseas markets and their governments	Australian Pesticides and Veterinary Medicines Authority (APVMA)
Find the information	Check the product label or APVMA website or confirm at point of purchase	Check the product label or APVMA website or confirm at point of purchase
Consequence of breach	Livestock rejected at export-licensed abattoirs Market access risk	Potential residue in meat sold domestically Food safety risk
Applies when	Livestock are destined for export processing	Livestock are to be processed for human consumption in Australia
LPA record-keeping	Must be recorded in treatment register Underpins NVD/eNVD declarations	Must be recorded in treatment register Required for NVD/eNVD completion

Your LPA record-keeping obligations

LPA is Australia's on-farm quality assurance program, and it sets clear, non-negotiable requirements around the recording and management of animal treatments. Under LPA, producers must:

- ☑ record all treatments at the time of treatment – not from memory days or weeks later
- ☑ record the product name, batch number, date of treatment, animals treated, dose rate, route of administration and product expiry date
- ☑ record both the WHP and the ESI for every treatment
- ☑ record the date on which the WHP and ESI will expire for the specific animals treated
- ☑ ensure records are legible, retained for at least two years, and available for inspection at audit
- ☑ cross-reference treatment records before completing any National Vendor Declaration (NVD)
- ☑ never send animals to slaughter (directly or via saleyards) before both their WHP and ESI have expired or without declaring it on the NVD/eNVD
- ☑ declare active WHP and ESI periods on the NVD/eNVD when selling or consigning livestock.

Why your cull ewes need closer attention

Cull ewes represent a particular risk point in the system.

These animals are often older, occasionally treated for conditions associated with age, and typically sold in mixed lots through saleyards rather than directly to processors.

The saleyard pathway creates additional complexity as the producer has no control over end destination once the animal leaves the property.

Buyers at saleyards include traders and processors, including export-licensed processors.

An animal dispatched to the saleyards with the intention of going to a domestic processor may end up in an export supply chain, depending on who buys on the day.

This makes pre-sale ESI verification even more critical for cull ewes.

The safe assumption is always that any animal could be purchased for export processing, and the ESI must have passed before that animal leaves the farm.

Common scenarios leading to nonconformity in ewe flocks include:

- treatments administered during pregnancy or lambing and not recorded
- drenching records kept informally (on a whiteboard, in memory) or missing information
- multiple people administering treatments on a property without a consistent recording system
- ewes drafted for sale shortly after a flock-wide treatment without confirming individual ESI status
- purchasing a new product without checking whether the ESI differs from the previous product used.

What producers can do right now

To protect both your business and the broader industry, you should ensure you understand and are adhering to the LPA requirements around ESI and WHP. Here are four steps to follow:

- Review your treatment records – are they current and complete, and do they include WHP and ESI dates for every treatment recorded?
- Check your chemical labels or the APVMA PubCRIS database to confirm the ESI for every product you currently use or hold in your shed.
- Before any sale, cross-reference your treatment records against the animals you intend to draft – don't rely on memory alone.
- If you're unsure whether the ESI has passed, don't sell the animal – hold it until you're certain. ■

If you require further assistance with understanding the requirements of ESI or WHP, you can speak with the Integrity Systems Customer Service team:

Chat with us
Chatbot available 24/7 via the website, myMLA or LPA account dashboard

1800 683 111
Mon–Fri/8am–7pm (AEST)
Sat–Sun/9am–5pm (AEST)

TOOLBOX

For up-to-date information on compliance with ESI, visit **apvma.gov.au**

integritysystems.com.au

Sheep pneumonia? Here's how to protect flock health

Sheep pneumonia continues to challenge producers across southern Australia, but MLA-funded research is helping uncover how widespread the disease is and what producers can do to better manage it – including minimising stress and managing environmental factors where possible.

Led by Dr Steve Cotton of Dynamic Ag and Dr Joan Lloyd from Joan Lloyd Consulting, the project aims to better understand the disease's prevalence, potential risk factors and strategies to minimise its impact.

Latest results

Steve said initial research findings were shared last year (check out the winter 2025 edition of *Feedback* at **mla.com.au/feedback**), but further sampling and analysis indicates the disease remains common, with prevalence varying depending on the season or year.

"In 2024, around 22% of tested sheep were positive for the sheep pneumonia pathogen *Mycoplasma ovipneumoniae*. More recent testing suggests prevalence has declined, with only 14.8% of animals testing positive in 2025," Steve said.

He noted this reduction may reflect improved seasonal conditions and reduced nutritional stress in some regions.

While occurrences vary between properties, the research confirms the bacteria continues to be widely present in west Victorian sheep populations.

The study sampled 750 ewes and wethers each year between 2024–25 and found significant variations within individual flocks. Pneumonia impacted between 7–93% of sheep in the affected flocks involved in the study.

Importantly, the study found no clear links between pneumonia and breed, sex or geographic region.

Steve said early data suggested higher rates of infection in composite sheep, but this may be related to management factors such as joining ewe lambs at a younger age or more intensive feeding systems rather than breed itself.

The research also supports previous findings that infection can be widespread within a flock, with some animals acting as chronic carriers that spread the bacteria to lambs soon after birth.

Stress remains a key trigger

One of the strongest patterns emerging from the research is the link between stress and the development of pneumonia.

According to Steve, the number of times lambs are handled after weaning appears to increase the likelihood of infection, with the stress caused by normal on-farm activities such as mustering, yarding, shearing or drenching possibly allowing the bacteria to proliferate.

Environmental conditions can also play a role. Sudden changes in temperature, poor seasonal conditions or nutritional constraints may reduce feed intake and increase stress levels in animals.

"These bacteria are often present in sheep populations, but stress events can allow them to multiply and lead to respiratory disease," Steve said.

Dusty conditions can also irritate the respiratory tract and make animals more susceptible to infection.

Recognising the signs

The clinical signs of pneumonia can be subtle. Adult sheep may show coughing, wheezing, runny eyes or nose, laboured breathing after exertion, or reduced performance.

In lambs, signs such as coughing, nasal discharge, difficulty suckling and, occasionally, swollen knee joints can appear from one to two months of age.

Sheep pneumonia – what to look out for:

The clinical signs of pneumonia can be subtle – here are some of the signs to look out for:

Adult sheep

- coughing
- wheezing
- runny eyes/nose
- laboured breathing after exertion
- reduced performance.

Lambs

- coughing
- nasal discharge
- difficulty suckling
- swollen knee joints
- slower-than-expected growth rates.

However, in some cases, the disease may remain subclinical and be attributed to slower-than-expected growth rates.

Reducing the impact on farm

While treatment options remain limited, several management strategies can help reduce the risk of outbreaks.

These include minimising unnecessary yarding events, maintaining adequate nutrition and water supply (including ensuring clean trough water where possible), and avoiding overcrowding in feedlots or containment areas.

Monitoring lamb growth rates can also help identify animals that may be affected, and slower-growing lambs may require closer inspection or management adjustments.

Future research

Antibiotic therapy is currently the most common treatment when infection is detected, but researchers are continuing to investigate longer-term strategies to reduce reliance on antibiotics.

The current project is focused primarily on understanding the prevalence and risk factors associated with sheep pneumonia. As more data becomes available, the findings are expected to help inform future research and management strategies for producers. ■

Eight ways to reduce the risk of pneumonia in your flock

Producers can reduce the likelihood and impact of sheep pneumonia by focusing on practical management steps that minimise stress and support animal health.

- **Minimise unnecessary handling**
  Limit the number of times lambs are mustered or yarded after weaning where possible, and combine management tasks (e.g. weighing, drenching or drafting) to reduce handling events.
- **Manage stress around key husbandry events**
  Be mindful of stress during procedures such as weaning, shearing, crutching and transport (preparation for transport is critical), particularly during challenging seasonal conditions.
- **Maintain good nutrition and water supply**
  Ensure sheep have access to adequate feed and clean water, especially during periods of drought, poor pasture growth or high nutritional demand.
- **Avoid overcrowding**
  Follow recommended stocking densities in containment areas, feedlots or yards to reduce stress and disease transmission.
- **Monitor lamb growth rates**
  Identify lambs that are growing more slowly than expected, as reduced growth can be an early sign of respiratory disease.
- **Watch for early clinical signs**
  Look for coughing, wheezing, nasal discharge, runny eyes or laboured breathing, particularly in lambs from one to two months of age.
- **Seek veterinary advice early**
  If pneumonia is suspected, contact your veterinarian promptly to confirm diagnosis and discuss treatment options.
- **Review flock biosecurity**
  Consider the health status of purchased animals and monitor new stock to reduce the risk of introducing respiratory pathogens into the flock.

TOOLBOX

Click or scan the QR code for more information about pneumonia in sheep:

MLA's animal health resources: **mla.com.au/animal-wellbeing**

Dr Steve Cotton **s.cotton@dynamicag.com.au** Sharon Dundon **sdundon@mla.com.au**

Put a stop to liveweight loss on the road

Reducing liveweight loss during livestock transport starts well before animals step onto the truck – and there are two critical points when producers can take action.

New research supported by MLA has identified the key factors that determine how much weight cattle lose during transport are:

- the animal's starting body weight
- the total time it is off feed and water.

Researchers reviewed international studies on cattle transport and liveweight change across a wide range of conditions, breeds and journey lengths. Their analysis found that, despite many potential influences, time off feed and water and starting body weight were the only variables that consistently predicted weight loss during transport.

According to researcher Dr Elizabeth Parker, starting body weight is important because it reflects an animal's maturity and body composition.

"Larger, more mature cattle have a greater gastrointestinal fill and more body reserves," she said.

"Younger or lighter animals are less resilient to feed and water deprivation because they simply don't have as much digesta capacity (food undergoing digestion) or body reserves."

Feed and water are critical

For producers, the most practical takeaway is simple: minimise the time animals spend without feed and water across the entire supply chain.

"This means keeping cattle grazing on dry feed for as long as possible before loading or providing good quality hay and clean water in the yards for at least 24 hours," Elizabeth said.

Evidence shows that even small changes can make a significant difference. A US study found that allowing cattle to graze for just three extra hours before mustering reduced weight loss during a 16-hour feed and water withholding period by almost 50% compared with cattle that were removed from grazing earlier.

Providing good-quality hay before transport can also help. Research indicates that cattle fed hay retain more gut fill and water than animals fed high-grain diets, which can translate to heavier liveweights on arrival.

Importantly, this weight loss is largely related to gut contents rather than carcase tissue.

"Most of the weight loss during feed and water deprivation is simply gut fill," Elizabeth said.

"Studies show that even after extended periods without feed and water, carcase weight itself often doesn't change."

Transport time isn't the main driver

Interestingly, the research also found that transport itself was not the main cause of liveweight loss. When animals deprived of feed and water were compared with animals transported for the same period, there was no significant difference in weight change.

This reinforces earlier research showing that the key factor is the total time animals spend without feed and water – from mustering through to unloading or processing.

Practical steps for producers

Producers can take several practical steps to minimise liveweight loss:

- Keep cattle on dry feed (grass roughage and/or hay) for as long as possible before transport, ideally allowing them to graze during their natural feeding periods.

« Keeping livestock on feed and water for as long as practical before transport can help reduce liveweight loss, improve animal welfare and maximise sale weights at destination.

- Provide good quality hay and clean water in holding yards, ensuring adequate trough space so all animals can access feed and water.
- Reduce delays across the supply chain, including unnecessary time in yards (unless there is access to good quality hay) or lairage where animals are off feed and water.

These practices can deliver multiple benefits, including heavier sale weights, improved animal welfare and more resilient livestock during travel.

MLA resources such as the *Is the animal fit to load?* guide and the Livestock Transport Hub provide additional information on preparing cattle and sheep for transport.

Researchers are also exploring the development of a simple calculator that could help producers estimate expected weight loss based on starting body weight and time off feed and water.

Ultimately, the message from the research is clear: good preparation before transport pays dividends for both productivity and animal welfare. ■

TOOLBOX

Are your animals fit to load?
mla.com.au/fit-to-load

Your role and responsibilities transporting animals:
mla.com.au/transport-hub

Three tools to prepare livestock for transport

1 *Fit to load* guide

MLA's *Is the animal fit to load?* guide provides practical advice on assessing whether cattle and sheep are suitable for transport, including animal health checks, handling practices and welfare considerations. It also outlines recommended limits for time off feed and water, and other preparation steps to help livestock travel safely and arrive in good condition.

mla.com.au/fit-to-load

2 MLA Livestock Transport Hub

The MLA Livestock Transport Hub brings together key information on best practice livestock transport. Access guidelines on preparing animals before loading, managing rest stops and lairage, and understanding regulatory requirements across the supply chain.

mla.com.au/transport-hub

3 Nutrition EDGE resources

Nutrition EDGE tools and feeding guides help producers assess the nutritional requirements of cattle at different life stages. These resources can assist producers in selecting appropriate feeds and ensuring animals receive adequate nutrition before transport to support gut fill, hydration and resilience during the journey.

mla.com.au/edgenetwork

Elizabeth Parker **elizabethparker697@gmail.com** Tony Parker **tparker@mla.com.au**

« Siblings (left to right) Jack, Chris Jnr and Sarah manage 'Canning Downs South' alongside their uncle and feedlot owner, Chris Shaw (right).

How a splash of juice helped earn MSA honours

On a 40°C day in Queensland's Elbow Valley, the staff and cattle at Canning Downs South feedlot remain oblivious to the slap of heat hitting the roof of their sheltered enterprise.

With a commitment to animal health and welfare, the Shaw family have transformed their cattle station (purchased in 1998) to a 9,400 standard cattle unit (SCU) capacity covered feedlot and backgrounding enterprise that's been feeding 100% Wagyu since 2018.

Owner Chris Shaw – who manages the property alongside niece Sarah and nephews Chris Jnr and Jack Shaw – coordinated the construction of the feedlot's distinctive sheds with the family's decision to produce their own Elbow Valley-branded beef in 2019.

» Feedlot rations at 'Canning Downs South' include wheat, barley and silage, with a distinctive inclusion of fresh orange pulp and peel.

Now, coming off the back of a recent Meat Standards Australia (MSA) win for the 2023–25 period, the Shaws are sharing the behind-the-scenes tools, resources and strategies that earned them:

- an average MSA Index of 65.97
- a 99% compliance rate
- the Queensland Grainfed Producer Award for Excellence in Eating Quality.

Sheds for all seasons

Built by Entegra and modelled for high-airflow, the sheds that host Canning Downs South feedlot are designed to combat the harsh heat of summer and wet winds of winter on Queensland's Southern Downs – all without sacrificing fresh air and natural light.

According to Sarah, while the decision to build the sheds came from Chris' desire to improve animal welfare standards, the return on investment from building six sheds over the past seven years has stretched well beyond happy cattle.

"It's been a huge investment with ongoing costs involved to maintain safe and hygienic conditions for both animals and staff – but it's all been incredibly worth it."

With concave roofs that stretch beyond the footprint of the pen and bunks, open ridges and high concrete walls fencing the sheds' perimeter, conditions are comfortable and manure run-off is minimised at the feedlot.

"In summer, the concave roof and open ridge seem to encourage airflow and keep the heat away – creating an effect that often feels akin to having a fan on at times," Sarah said.

"In winter, we see an almost opposite effect occur. Increased rainfall and often windy days hit the region during our winters, yet the sheds help keep the pens and animals dry and warm."

SNAPSHOT

THE SHAW FAMILY – 'Canning Downs South', Elbow Valley, Queensland

AREA
1,350ha

ENTERPRISE
9,400 Wagyu feedlot

PASTURES
Improved pastures, Rhodes, fescue, phalaris and native grasses
Feedlot ration includes wheat, barley, silage and orange pulp/peels

SOILS
Deep alluvial soil, self-mulching soil types and lighter sandy loams

RAINFALL
680mm

Since establishing the sheds, the Shaws have seen significant benefits, from reduced panting and clean coats to improved animal health and wellbeing.

"It's been a game changer," Sarah said.

"Year round, our animals are calm, happy and productive – and by default, so are our staff."

One enterprise supplying the other

Another factor which helps keep cattle warm and dry in winter is the deep-litter composting bedding made from locally sourced sawdust which beds the feedlot. It's reapplied every 10–14 days and boosted with a probiotic every three weeks to maintain hygiene.

"Much like in composting systems, sawdust binds and neutralises volatile compounds and moisture, helping convert them into a stable nutrient-rich compost," Chris said.

This keeps odour – especially ammonia spikes – to a minimum and floors dry. The Shaws build up the beds for six to 12 months, before pulling it out to spread over pastures in backgrounding paddocks.

In addition to supplying compost, the shed roofs are used to capture rainfall which is stored and used for stock water.

"Our captured rainfall reduces the amount of water we take from our allocations," Chris said.

"It also provides a better sense of security during drier periods – it's a win-win."

A sweet point of difference

The Shaw family sources their feeder steers from one Queensland supplier.

Steers enter the program at about two years of age and approximately 380kg, with milk-to-four teeth.

Once on feed, cattle spend an average of 450 days in the program, progressing toward a target liveweight of about 800kg and a carcase weight of approximately 450kg.

Processing takes place just 20 minutes down the road at John Dee in Warwick, allowing animals to travel short distances and arrive with minimal stress – another deliberate choice that supports the family's animal-welfare focus.

From there, the beef is channelled into the Shaw's two premium brands – Sir Harry Wagyu and Chauvel Wagyu – which reach both domestic and global consumers.

While Chris considers his positive relationship with his suppliers and processor are pretty sweet, his consumers would argue it's the delicate flavour of the family's beef that's sweeter.

At Canning Downs South, feedlot rations are built on wheat, barley and silage which is grown on the family's nearby 1,000ha cropping block, with a distinctive inclusion of fresh orange pulp and peel.

The Shaws' beef is channelled into their two premium brands – Sir Harry Wagyu and Chauvel Wagyu – which pay homage to Sir Henry George (Harry) Chauvel, one of Australia's most distinguished military leaders and a former resident of the historic homestead the Shaw family lives in today.

Entegra sheds house the feedlot – as well as improving animal welfare, they offer sustainability benefits. The expansive roofs collect rainwater and enable bedding to last longer, which reduces inputs.

"The orange pulp and peel are byproducts of Grove Juice, which is 20km from us in Warwick," Chris said.

"We've been their offtake for their by-products since they opened 15 years ago, and we really value the role they've played in our feeding story."

According to Chris, lab testing citrus pulp in feed has shown a significant increase in lipophilic antioxidants such as α-tocopherol in cattle – an important E-vitamin and antioxidant that helps protect meat from fat oxidation and keep its colour brighter for longer.

"Higher vitamin E levels also support the body's ability to manage oxidative stress and, as many studies suggest, nutrient-dense food tends to deliver better flavour too," he said.

"Another component enhancing that flavour and tenderness is the reduction in fat melting point that orange pulp supplies.

"Wagyu fat normally melts at around 25°C, compared to 40°C for commercial beef fat, and the orange pulp lowers that even further."

The pulp and peel have also delivered health benefits, with Chris noting increased hydration and reduced Bovine Respiratory Disease (BRD) in their cattle.

"This may be a result of the sheds and orange pulp combined, but what's clear to us is when animals are healthy, hydrated and stress-free, everything else – growth, marbling, welfare and eating quality – simply falls into place." ■

TOOLBOX

- Find out more about Elbow Valley Beef: **elbowvalleybeef.com.au**
- Scan or click the QR code to read MLA's *Feedlot covered housing systems: Best practice design and management manual*:

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New objective measurement device takes guesswork out of feedlot sorting

At JBS's 46,000 head licence capacity Riverina Feedlot in Leeton, NSW, a few extra minutes in the crush is anticipated to improve efficiency at the other end of the supply chain.

According to JBS Feedlot Continuous Improvement Manager Kevin Jenkinson, the anticipated improvement is linked to a new objective measurement tool being trialled through an MLA-funded project with MEQ Solutions.

Known as MEQ Live, the handheld device is enabling cattle to be grouped more accurately in the feedlot based on objective marbling score.

This information is giving JBS greater confidence and flexibility when making feeding decisions, with the aim of delivering more consistent lines of cattle and supporting operationally viable carcase sorting at processing.

Removing variation

MEQ Live has been built into Riverina's induction for their short and mid-fed Angus cattle programs, with scanning fitting within their existing safe animal commercial handling practices.

The scan provides staff with an objective snapshot of the animals' marbling status at that point in time – which fits into one of three ranges determined by JBS.

"In the past, we were sorting cattle that came in based on weight and what learned experience told us about physical composition," Kevin said.

"But that sorting process still left a lot of variation in marbling outcomes in each feeding program."

That variation has flow-on effects across the integrated system, highlighting the opportunity for more targeted feeding decisions in the feedlot and greater consistency through to processing.

MEQ Live has been operating at Riverina for 18 months. The first phase of the trial focused on data collection and validation.

"Now in phase two, we're examining the outcomes of using that data to inform business decisions, and to assess whether the expected efficiencies can be realised on a commercially viable basis," Kevin said.

"Because animals are grouped into similar marble score ranges well before they arrive at the plant, there is less variability between carcases on the chain."

Kevin is quick to point out that MEQ Live is not a prediction tool.

"We're not scanning cattle to say what marble score they'll finish on," he said.

"It's an objective measurement of where an animal is at on the day.

"Those point-in-time scores are used to rank cattle at induction and draft them into groups accordingly, shifting some of the sorting task upstream and easing pressure at processing."

Kevin Jenkinson helping scan mid-program Wagyu cattle at Prime City.

Second scanner introduced

On 26 March this year, JBS introduced a second MEQ Live scanner at their 34,000-head licence capacity Prime City Feedlot near Griffith, NSW, beginning scans on Wagyu cattle.

However, unlike the Angus cattle scanned at induction at Riverina, JBS is scanning the Prime City Wagyu midway through the feeding program.

With their Wagyu typically fed for about 400 days, Kevin said timing was critical.

"For a longer feeding program, scanning later provides a greater accuracy in high-value Wagyu," he said.

"But leaving it too close to slaughter can disrupt social hierarchy, which can change animals' short-term behaviour and in turn can affect meat quality.

"Scanning at the midpoint allows us to gather objective marbling differences to be captured once they are clearer, while minimising disruption to cattle."

As with Riverina, MEQ Live is not being used to predict final outcomes.

Instead, the mid-program scan provides a point-in-time marbling score that allows cattle to be ranked and managed more deliberately through the remainder of the feeding program.

The first Prime City scan was supported on site by MEQ Solutions, who assisted with installation and staff training, with MLA also involved in observing the technology's performance in a commercial setting.

Kevin said JBS values the ongoing development of technology that can lift productivity across the supply chain.

"We're always looking for ways to do things better – for the cattle, our staff and our customers," he said. "If a tool strengthens productivity and profitability anywhere in the system, it's worth exploring." ■

meq-solutions.com/live Kevin Jenkinson **kevin.jenkinson@jbssa.com.au** Dean Gutzke **dgutzke@mla.com.au**

Championing red meat from station to ocean

MLA's corporate chef, Sam Burke, has dedicated his working life to showcasing the paddock-to-plate story of Australian red meat.

Beef short ribs served on cauliflower puree with enochi mushrooms.

As a young man, Sam considered a career as a truck driver – but after a stint in a McDonald's kitchen flipping burgers in the 1990s, he found his way, full circle, to a role at the other end of the supply chain.

From cruise ships to cattle yards, our industry's hands-on advocate has plenty to say about what goes into plating up the best possible product, in all its forms – from a humble chuck steak to a premium eye fillet.

A three-day visit to a Consolidated Pastoral Company (CPC) cattle station, 'Newcastle Waters', in the NT reinforced what Sam has shared for decades with the chefs, industry professionals and diners he engages with.

"A great steak comes down to each step in the supply chain – starting with how the cattle are bred, then fed, mustered, loaded and transported on trucks, processed and, finally, prepared and presented to the consumer on the plate," Sam said.

At CPC, Sam got a close-up view of the routines, management strategies and cooking techniques that produce tender, flavourful red meat, using the whole carcase.

"There's so much we can do with all parts of the animal, not only the high-end premium cuts – I worked with the station butcher and cook as they prepared a whole range of delicious meals that met the nutritional and practical needs of the workers," he said.

"Slow cooking, selecting the right cut for the right end product and having a 'no-waste' mentality are ways we can all bring red meat to life in all its forms."

"Slow cooking, selecting the right cut for the right end product and having a 'no-waste' mentality are ways we can all bring red meat to life in all its forms."

Sam Burke at Consolidated Pastoral Company's cattle station, 'Newcastle Waters'.

Taking customers on the journey

Sam collects insights from the wide range of businesses he works alongside and integrates them into the training and presentations he delivers to cooks, chefs and business owners across the globe.

"Knowing which cuts to use that fit into a budget and how to get the most out of each part of the animal is important in running a profitable business," he said.

"It's also important to know and share with customers the backstory of where the meat you're working with comes from."

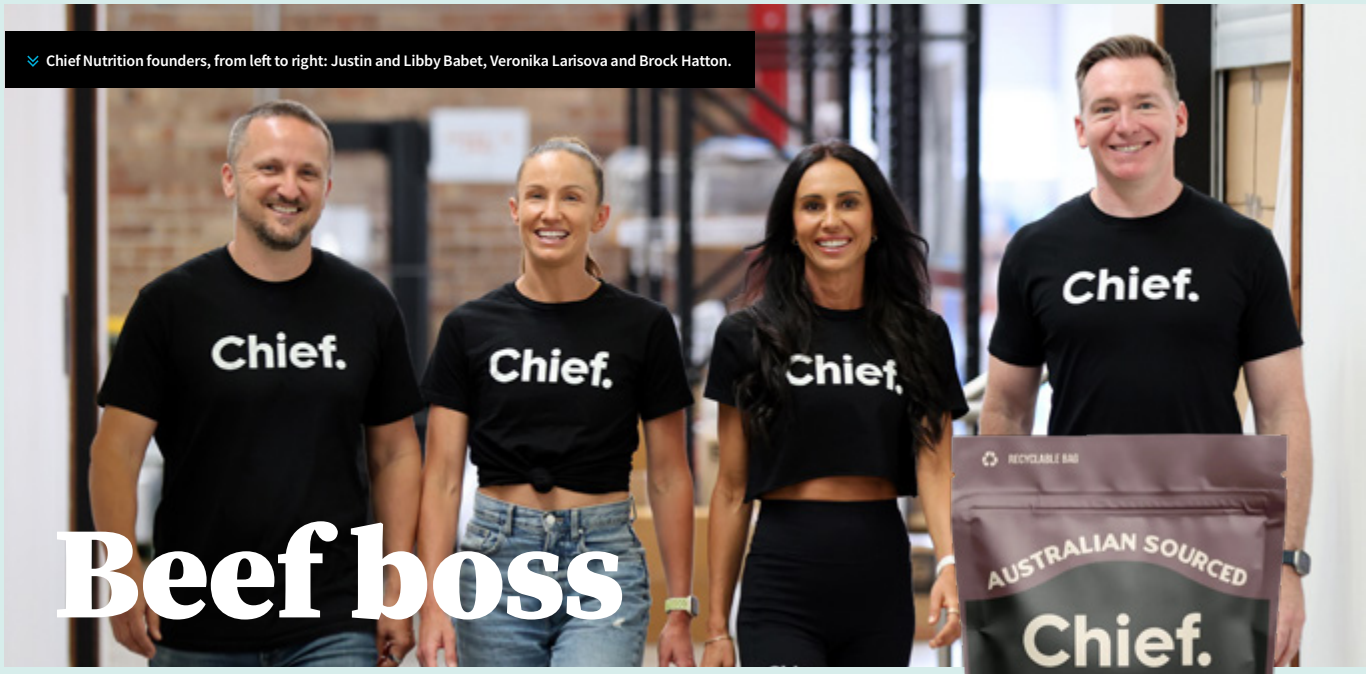
A recent trip to the US saw Sam demonstrate just how versatile Australian red meat is and how its provenance story and eating quality can drive demand. He presented at the Chef Culinary Conference at the University of Massachusetts and the Marriott Hotel Group's top chefs' conference in Washington, DC.

TOOLBOX

Click or scan the QR code to get a taste for life on 'Newcastle Waters' cattle station:

Click or scan the QR code to see Sam cook up a storm:

pastoral.com Sam Burke **sburke@mla.com.au** Sharon Dundon **sdundon@mla.com.au**



Chief Nutrition founders, from left to right: Justin and Libby Babet, Veronika Larisova and Brock Hatton.

Beef boss

Meet the innovators turning secondary red meat cuts into on-the-go nutrition.

You can find them on the shelves of an international pharmacy, in the health food aisle of major supermarkets and inside the backpacks of fitness influencers: a new generation of Australian beef products. Derived from secondary meat cuts, hides and offal, they are taking over the world's fastest-growing nutrition categories.

With a focus on health, sustainability and the key ingredient of high-quality Australian beef, the MLA Donor Company-supported brand Chief Nutrition has expanded far beyond its humble beginnings in a handful of independent NSW health food stores.

At Singapore retailer Little Farms, 'Australian made' is positioned as the key selling point for Chief Nutrition products.

Now, a decade after the development of their first Australian beef protein bar, Co-founder and CEO Brock Hatton shares insights on the growing demand for Chief Nutrition products, and the pivotal role Australian red meat plays in powering it.

High-protein, natural and sustainable

Chief Nutrition was born from the goal of Co-founder and Head Nutritionist, Veronika Larisova, to develop an on-the-go, high-protein product that was low in carbs and sugar, and made from whole-food ingredients instead of synthetic isolates.

"Coming from a background of working within the health food sector, I knew the easiest answer to achieving that goal was to use red meat," Brock said.

"When we looked at what the market already had on offer, we found that on-the-go red meat was really only offered as jerky.

"There was a clear gap in the market, we just needed to figure out how to fill it."

The Chief Nutrition co-founding team created their first savoury protein bars in 2015, using secondary cuts of beef and lamb. They harnessed freeze-drying technology to create a product which had a longer shelf life and could be transported and stored ambiently, but was still made from natural ingredients.

"We released a beef, cranberry and chilli bar, and a lamb, rosemary and currant bar," Brock said.

"Our bars were stocked on the shelves of Ampol Service Stations across Australia, and stood out amongst the sea of dessert-flavoured protein bars. Demand grew quicker than we expected."

Consumer input

Based on consumer surveys after their initial product release, the Chief Nutrition team found consumer expectations stretched beyond convenience and health to include a desire for sustainably sourced ingredients.

"We decided we needed to lean more into those points of interest, grow our knowledge on the Australian red meat industry and broaden our product range to build full carcase utilisation opportunities," Brock said.

"So, around the same time we began looking at the possibility of a bovine collagen bar, we reached out to MLA's Food Innovation Program manager, John Marten.

"With his support, we gained a better understanding of the supply chain, and insights on the challenges and value in commercialising a collagen product made from Australian red meat."

John connected Chief Nutrition with domestic and international retailers, which

> **"Within the US market, many consumers feel a lot of distrust towards 'big food' and large-scale manufacturing, so calling out that our collagen, biltong and nutraceuticals are made from Australian beef is a massive drawcard."**

highlighted that a lot of bovine collagen products in the market – including in Australia – were largely from South American countries and China. John also connected the team with processors, who highlighted a lack of domestic demand for offal.

"These insights made clear to us just how much untapped potential there was in parts of the carcase that traditionally left Australia with little to no value attached," Brock said.

"Once we understood the supply chain gaps, we realised we could do far more than just innovate a single product."

Armed with this knowledge, the Chief Nutrition team pushed beyond bovine collagen and began exploring the rising global demand for whole-food nutraceuticals – products that deliver micronutrients in their natural, bioavailable form rather than synthetic isolates.

"We started developing organ-based supplements – beef liver, heart and kidney – formulated with vitamin C to aid iron absorption," Brock said.

"This didn't just come about as a way to help reduce offal waste, but as a solution to a real problem.

"Synthetic iron can be really tough on the gut microbiome, but for individuals who suffer from malabsorption, experience heavy menstrual periods or are pregnant, iron supplements are often unavoidable.

"Today, we've got an average of 1,500 consumers per month who have essentially been prescribed our beef liver capsules by their health practitioner as a natural and more gut-friendly solution to increasing their iron levels – which is a really great form of feedback to receive."

Made with Australian beef

With product now on shelves across the globe, Brock said their most effective marketing strategy has been their simple package labelling of 'made with Australian beef'.

"No matter the country our product is being sold in, that line alone is a major trust cue for consumers," he said.

This trust from consumers is something Brock attributes entirely to what Australian producers and processors are doing right.

"The Australian red meat industry is known by international consumers for its high animal welfare standards, strong traceability systems, sustainable practices and consistent quality.

"Where it differs slightly between regions is how consumers prioritise those values.

"Within the US market, many consumers feel a lot of distrust towards 'big food' and large-scale manufacturing, so calling out that our collagen, biltong and nutraceuticals are made from Australian beef is a massive drawcard.

"US consumers also value Australia's ability to deliver consistent, grass-fed or grass-finished beef – something that's difficult to produce year-round in most American regions."

In markets such as Japan, Brock said a message from consumers has been to not localise packaging.

"Keeping it in English and clearly identifying it as Australian created a stronger value perception because it's seen as a premium imported product," he said.

Regardless of the market, Brock said it's what Australian producers are doing on-farm that underpins the brand's appeal, with product format and accessibility becoming secondary considerations to that consumer trust the Australian red meat has already globally established.

Growing demand

Today, Chief Nutrition's red meat-based snacks and supplements are available in 12 international markets.

Within Australia, the brand has expanded well beyond its service station roots and can now be found nationwide through retailers including:

- Ampol
- Coles
- Woolworths
- 7-Eleven
- Harris Farm
- Elite Supplements
- Go Vita
- Market Organics
- independent pharmacies and specialty health stores.

Behind that retail presence sits a significant and consistent demand for Australian red meat and red-meat-derived ingredients.

On a monthly basis, Brock said Chief Nutrition sources approximately:

- 20 tonnes of secondary cuts
- 12 tonnes of bovine collagen
- 170kg of offal powder.

"For us, it's not just about optimising carcase utilisation to deliver greater off-farm productivity and profitability for the industry," Brock said.

"It's also about highlighting the value of those once lesser-used components through premium products that reflect the high health, integrity and sustainability standards behind Australian red meat."

Chief Nutrition co-founder Brock Hatton (right) chats with producers Charlie Arnott (left) and David Marsh about beef supply chain systems.

wearechief.com Brock Hatton **brock@wearechief.com** John Marten **jmarten@mla.com.au**

Trendsetters: what's shaping global demand for lamb?

Ahead of LambEx kicking off in Adelaide, SA, on 7 July, we asked MLA's Manager – Global Market Insights, Miho Kondo, how Australian sheepmeat is enjoyed around the world.

Q. How would you describe the global environment for sheepmeat?

MK: There are many variables, but high-quality, healthy and enjoyable food is something people continue to seek out, particularly when times are tough. Australian sheepmeat aligns very well with those consumer expectations. When global economic uncertainty and volatility remain elevated – and the outlook less predictable – having a detailed understanding of what consumers value, and what they're genuinely willing to pay for, is increasingly important. We're keeping a close eye on key indicators such as consumer confidence, inflation and shifting protein preferences, to pick up any early signs of change in the market.

Q. Who is consuming Australian lamb around the world?

MK: The US remains one of the largest markets in both volume and value for Australian lamb. Demand in the US has been particularly strong in recent years, supported by tight domestic beef supply and a growing interest in lamb as a differentiated, niche protein. Our insights show that heavy lamb consumers in the US tend to be university-educated millennials and families, living in urban areas with higher household incomes.

When it comes to lamb and mutton combined, Mainland China remains a leading market for Australia. While mutton demand can fluctuate somewhat as a more price-sensitive market, lamb has seen a more consistent growth trend. Growing enjoyment of international cuisines is driving demand for Australia's high-quality lamb. It's increasingly appealing to young families and urban professionals seeking quality protein variety.

The Middle East and North Africa (MENA) region is another top export destination for Australian sheepmeat. In recent years, affluent United Arab Emirates (UAE) consumers have become more appreciative of premium red meat such as Australian lamb. This has been in large part thanks to exposure through non-traditional cuisines, especially in the fine dining segment, and wider availability in modern retail. This has enhanced consumers' understanding and appreciation of marbling/intramuscular fat (as distinct from outer fat) and its role in enhancing flavour, tenderness and juiciness.

This shift can also be observed in Saudi Arabia, where acceptance of packaged meat sold through modern retail is growing.

Figure 1: Year-on-year change in lamb and sheep production (head) and slaughter (carcase weight (cwt)) – 2026

Slaughter

Lamb ↘ **21.86** million head

Sheep ↘ **7.13** million head

Production

Lamb ↘ **537,000** tonnes cwt

Mutton ↘ **184,770** tonnes cwt

Q. How is Australia's supply position impacting key markets?

MK: MLA's latest sheep industry projections forecast a smaller national flock, driven by elevated lamb slaughter and a sharp increase in mutton turn-off in 2024 and 2025.

For 2026, lamb slaughter is projected to decline by 11%, resulting in a similar reduction in export volumes. Even with lower slaughter, 2026 is still expected to be the fourth-largest lamb production year on record.

As seasonal conditions across southern Australia become more favourable, lamb production is expected to gradually recover through 2027 and 2028. This is expected to further strengthen Australia's position in global sheepmeat trade. Australia is expected to remain the world's leading export supplier, particularly as production in other key exporting regions (e.g. New Zealand and the EU) continues to face structural long-term decline.

Q. How can Australian producers and exporters respond to rapidly changing consumer needs?

MK: The LambEx 2026 theme of 'Telling our stories' is so relevant to our industry. There's an opportunity for Australian lamb to build compelling stories, underpinned by growing global protein demand and our lamb's reputation for taste, natural production environment and strong animal welfare credentials.

However, those stories need to be told in a way that resonates with consumers.

Staying close to emerging trends, considering implications and translating them into actions, will be critical for us to remain competitive in an increasingly crowded global protein market. ■

TOOLBOX

Scan or click the QR code to read the latest sheep industry projections:

mla.com.au/trends-analysis **lambex.org.au** Miho Kondo **mkondo@mla.com.au**

Roast lamb shoulder with *cacio e pepe* butter beans

Share the Lamb
100% AUSTRALIAN

Give an Italian twist to a family favourite. This winter, try our airfyer roast lamb shoulder with *cacio e pepe* (parmesan and pepper) butter beans. For more delicious lamb recipes, visit australianlamb.com.au

Serves **4** Prep time **10 minutes** Cooking time **1 hour 30 minutes**

INGREDIENTS

Lamb:

1 lamb shoulder joint (approximately 1.3kg)
oil
salt and pepper

Beans:

1 leek, sliced
1 tsp freshly ground black pepper
2 tins of butter beans
1 stock cube (to make 150ml of stock)
25g butter
50g parmesan, grated (or veggie alternative)

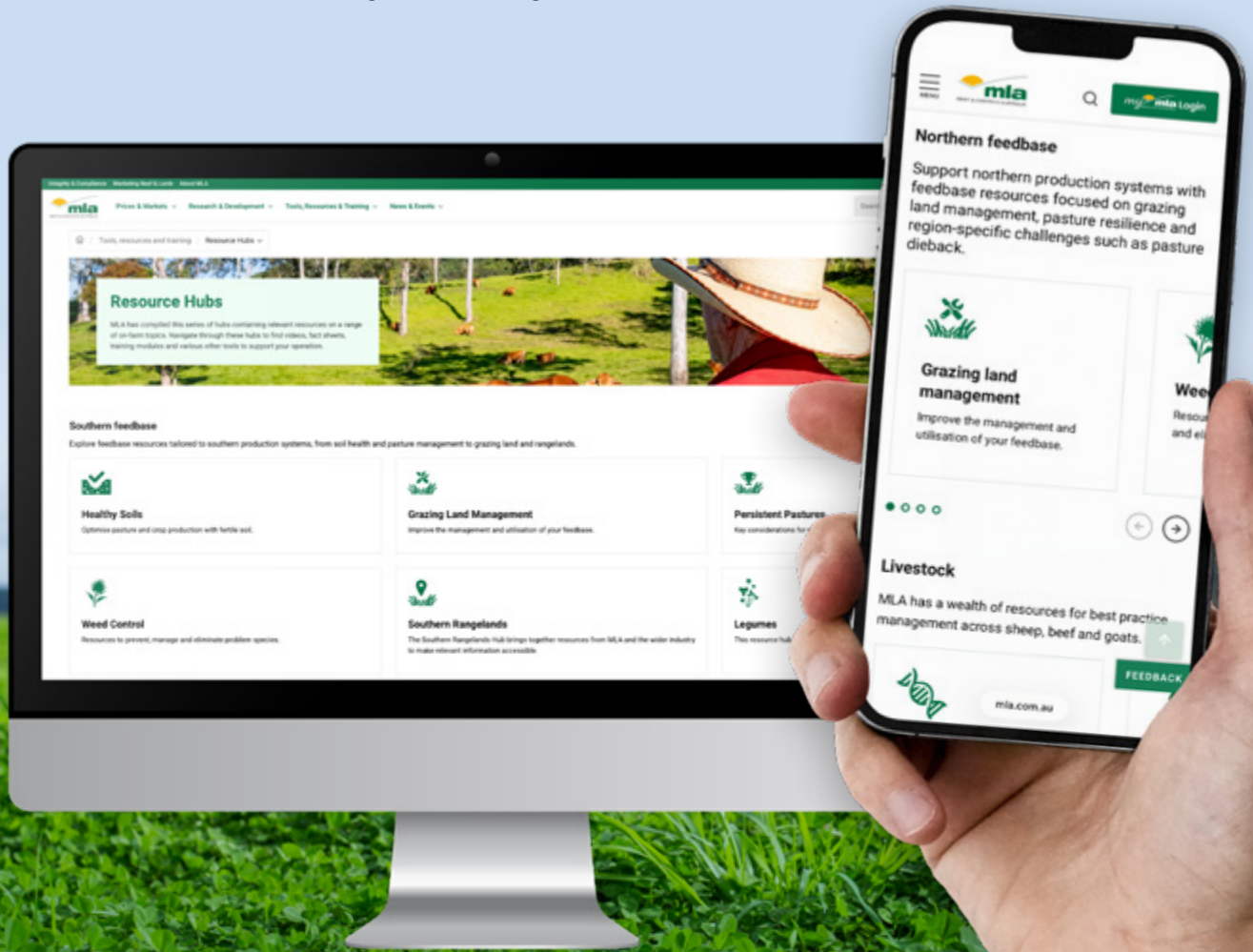
METHOD

1. Cover the lamb in oil and salt. Put the lamb into the airfryer at 160°C for around 30–40 minutes before flipping and repeating for another 30–40 minutes.
2. After one hour, take out and rest the meat.
3. Meanwhile, add a little oil to a frying pan, add the leek and soften for around 3–4 minutes. Toast the black pepper in a heavy-bottomed pan until it becomes fragrant, roughly 2–3 minutes. Remove and set aside before adding the leeks and a little oil. Soften for 3–4 minutes. Add the beans and stock and bring the mixture to a boil.
4. Let the mixture reduce to a thickness resembling a heavy cream coating the beans. If the beans begin to stick to the bottom, loosen with a tablespoon of water. Fold through the butter and take the pan off the heat.
5. Stir through the parmesan, black pepper and a drizzle of extra virgin olive oil. Serve under the lamb to get the lamb juices running through the beans.

MEAT & LIVESTOCK AUSTRALIA

Different regions, different challenges

MLA's Resource Hubs page now has dedicated northern and southern feedbase sections, making it easier to find the right tools and resources for your system.



mla.com.au/resource-hubs