# FEEDBACK

MLA - FOSTERING PROSPERITY

JUNE/JULY 2021





#### FEEDBACK

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



Cover (page 5): Sharing a moment at Beef Australia 2021 are Deann Schwerin from Mondamaree Santa Gertrudis Stud, Allora, with her granddaughter Sarvanah Schwerin, Byac Santa Gertrudis Stud, Mungungo. Image: Jessica Howard



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

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

This magazine was printed on Sumo Offset Laser, an environmentally responsible paper manufactured under the environmental management system ISO 14001 using Elemental Chlorine Free (ECF) pulp sourced from sustainable forests. Sumo Offset Laser is FSC Chain of Custody (CoC) certified (mixed sources).

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### A NOTE FROM THE MD...



Welcome to the June/July edition of *Feedback* which includes our coverage of Beef Australia 2021, where we had boots on the ground demonstrating a variety of new technologies and tools to address today's challenges and future needs of the red meat and livestock industry (see pages 5–11).

Beef Australia brought our industry together – to share knowledge, to network and socialise, to promote trade and business, and of course to support each other.

This year, Beef Australia came at a significant time for our industry. With the challenges of recent times stemming from a global pandemic, geopolitical and trade tensions, natural disasters and drought and the subsequent rebuild – together as an industry we have again demonstrated significant resilience.

#### Red Meat, Green Facts

Australia's red meat industry is world leading. Collectively, we are the custodian for half of Australia's land mass and we play a vital – and sustainable – role in supplying the highest quality red meat to Australians and the world.

We have spent time building our network of export markets, developing relationships with global customers and consumers, and growing the value of our industry and its contribution to our economy.

However, we continue to see misconceptions, inaccuracies and criticisms of our industry gain traction – whether it is negativity around the red meat industry's environmental impact, animal welfare credentials or the importance of red meat's role in our diet.

Never has it been more important for us to counter this narrative with facts and through the shared values we have for animal welfare and the environment.

The reality is, our industry is leading the way in the challenge to lower emissions, to improve productivity and to constantly enhance animal welfare. In doing so, we produce a uniquely nutrient-dense and natural protein of the highest quality.

It is vital our industry is transparent and proud of its ongoing achievements in caring for our land, animals and products, with the evidence to back it up.

MLA has released a new resource – Red Meat, Green Facts – to do just that. We have attached a copy of this pocket guide to the cover of this edition of Feedback magazine. It brings together clear, evidence-based messages to empower Australia's red meat advocates on topics such as the environment, animal welfare, nutrition and plant-based fake meats.

For MLA, this work around red meat positioning forms a critical part of our current strategic focus. Our consumer and community insights continue to show that perceptions of the red meat industry are improving, as is knowledge of the industry among consumers in metropolitan Australia.

We want our industry to use this new pocket guide as a basis for engaging in conversations with their communities and networks.

So, let's get going, let's be on the front foot, let's be positive about what we do, let's be proud of what we produce, and let's be passionate advocates in the promotion of our industry.

For more information on *Red Meat, Green Facts* visit **redmeatgreenfacts.com.au** ■

#### Have a question for me?

#### Jason Strong

MLA Managing Director

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### Meet the latest lamb legends

MLA's autumn lamb campaign demonstrated the ease and versatility of cooking with Australian lamb.

The latest campaign continued the Lamb Legends series to celebrate everyday heroes and share their inspiring stories over easy and delicious lamb dishes.

The six-week campaign featured videos with MasterChef alumni Amina Elshafei and Melbourne chef and restaurateur, Jerry Mai, cooking up flavourful lamb recipes to thank their Lamb Legend.

The autumn Lamb Legends series featured Amina treating educator and autism specialist, Kerrie Nelson, to a lamb, date and apricot tagine, while Jerry cooked lemongrass braised lamb shanks for bestselling children's author and LGBTQI activist, Scott Stuart. ■



To watch the autumn Lamb Legends series and for more delicious lamb recipes, head to australianlamb.com.au



### Reporting back on sustainability

As a service provider to the Australian red meat and livestock industry, MLA is regularly asked about its sustainability investments and how it supports global and industry strategic objectives.

Included with this edition of Feedback is MLA's Sustainability update 2021. It outlines these objectives and captures in one place the significant level of MLA's investments in sustainability across the red meat supply chain. ■

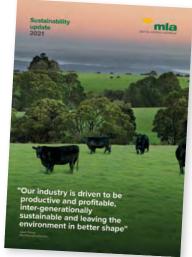


The Sustainability update 2021 can also be viewed online at mla.com.au/sustainability-update



The Australian Beef Sustainability Framework's annual update was recently released – see page 5.

> Turn to page 12 to learn about Australia's new Sheep Sustainability Framework.



### Australian beef goes for gold

MLA's new winter beef campaign, Everyday Greatness, launched in early June to reinforce beef's nutritional greatness.

at point of purchase in retail and independent butchers.



Find out more about the winter beef campaign at australianbeef.com.au/winterbeef

### Are you missing out?



Did you know MLA produces regular e-newsletters? As well as the weekly Friday Feedback – which covers seasonal topics, industry news, market information, weather, producer case studies and on-farms tools there are e-newsletters specifically about prices and markets, domestic and global red meat market trends, research updates, goat production, the feedlot sector and Meat Standards Australia.



To have the latest red meat and livestock industry news, events, research and marketing delivered straight to your inbox, sign up at mla.com.au/enews

### Red meat on show

MLA put the spotlight on Australia's world-leading red meat production systems at the Sydney Royal Easter Show in April, which attracted around 800,000 people.

The innovative and immersive Australian Good Meat Paddock to Plate 'igloo' video experience shared the stories of five beef and lamb producers, focusing on animal wellbeing, sustainability, biodiversity and innovation.

Surveys of more than 1,000 visitors showed 95% had a heightened level of trust in the industry after visiting the MLA site. ■



Australian Good Meat goodmeat.com.au



# A big week of beef

he Australian beef industry
was on show in Rockhampton
in May at Beef Australia 2021,
with MLA supporting the event as
a proud principal partner.

MLA's theme at the event was redefining resilience, with its presence aimed at equipping producers with the knowledge and tools to build future-focused and agile beef businesses.

MLA's trade site was a journey through the red meat value chain, covering programs and projects that address ongoing challenges, such as market access and productivity, as well as exciting developments and technology that aim to deliver sustainable growth for the red meat industry in the years to come.

Visitors to the site included Prime Minister Scott Morrison and Minister for Agriculture, Drought and Emergency Management, David Littleproud, who were given a tour by MLA's Managing Director Jason Strong.

Under the banners of redefining resilience in sustainability, producer innovation, value chain innovation, growing market opportunities and building community trust, MLA staff spent time talking with visitors about research insights and related adoption

activities and showcasing a diverse range of technologies.

Visitors to MLA's **digital farm** at Beef Australia's AgTech and Innovation Hub were shown the latest in new technologies that MLA is investing in. This included the HDT Drover WOLF, the unique autonomous all-terrain vehicle which attracted great interest as it was put through its paces — turn the page to learn more about the WOLF and turn to page 10 to check out more of the technologies on display.

The Australian Beef Sustainability
Framework (ABSF) released its annual update at Beef Australia 2021. This year's report, the fourth since the framework launched, highlights gains in producer global life satisfaction, awareness of animal welfare standards and the increased use of pain relief for cattle.

Attendees at MLA's Beef Australia seminars came away armed with new information, tips and resources to help address challenges and improve profitability on-farm:

 Fightback against dieback offered management and mitigation strategies for producers affected by pasture dieback. These included biosecurity measures, insecticides, biological controls and agronomy such as

- replanting affected pastures with legumes and other forages that are not susceptible to dieback.
- The DNA to dollars breakfast forum focused on genetic breeding values and the impact on herd performance. The seminar demonstrated the opportunity available to producers to accelerate productivity and breed more resilient, fit-for-country animals. With significant potential for greater use of genetic technologies in northern production systems, the call to action for seedstock producers in that region was to join MLA's genetics adoption initiative to accelerate genetic gain.
- The seminar on linking innovation with reproductive performance focused on the innovative on-farm practices and technologies that can address calf loss in the northern herd. Attendees received an update on the Northern Breeding Business (NB2) initiative and a producer panel discussed their experiences with technologies and innovation to improve their herd reproductive performance.
- The seminar on driving value through supply chain innovation provided an overview of how integrity systems, objective measurement technology and automated beef boning are creating a more efficient and traceable movement through the beef supply chain, backed by data. The seminar showed attendees the link between better and more accessible data and how this protects Australia's competitive global market position. ■



### Red Meat, Green Facts

MLA launched a new resource – *Red Meat, Green Facts* – at Beef Australia 2021. This pocket guide – included with this edition of *Feedback* – brings together clear, evidence-based messages and information to empower Australia's red meat producers and advocates on topics including the environment, animal welfare, nutrition and plant-based fake meats. Pictured launching the guide at MLA's Beef Australia site are MLA Chair Alan Beckett and Managing Director, Jason Strong.

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Read Red Meat, Green Facts at redmeatgreenfacts.com.au

MLA's Beef Australia 2021 seminar recordings are available at mla.com.au/beef-australia-2021

Find out more about the seminar topics at:

MLA genetics hub: genetics.mla.com.au NB2: mla.com.au/nb2 Integrity Systems:

integritysystems.com.au

# Around the ring at Beef

ore than 115,000
people passed
through Beef
Australia's
gates over the six-day
event – demonstrating the
enthusiasm of the industry
to come together in support
of each other, to share ideas
and celebrate all things beef.

After challenging years of drought, bushfires, floods and the global impacts of COVID-19, it was fitting that MLA's Beef Australia program focused on how the industry can redefine resilience, to see opportunity in adversity by equipping producers with the tools and resources to strengthen their businesses under any circumstances.

This means a focus on sustainable production, technologies and management practices that can make things easier on-farm, all underpinned with an emphasis on adoption.

Beef Australia was also a great opportunity to connect with the public about all aspects of the industry – here's a taste of some of the highlights. ■



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Read Red Meat, Green Facts at redmeatgreenfacts.com.au

If you couldn't make it to the Beef Australia 2021 seminars, recordings are available on the MLA website at mla.com.au/beef-australia-2021

Read more about the Masterbeef technology used in the ANZ National Beef Carcase Competition on page 40 of the March/April 2021 Feedback at mla.com.au/feedback

Learn more about MSA at

For more information about MLA's schools program, visit goodmeat.com.au



### Serving up Australian

# beef's versatility and flavour

Restaurants, food trucks, celebrity chefs and caterers kept visitors' tastebuds happy throughout the week, showcasing the versatility of the star ingredient – Australian beef – with 63 tonnes of beef consumed throughout the week.

MLA's corporate chef Sam Burke prepared menus and meals for key events with a focus on the nose-to-tail eating attributes and the everyday greatness Australian beef brings to tables at home and all over the world.

Prime and secondary – or masterpiece – cuts featured at the ANZ National Beef Carcase Competition awards dinner, with dishes such as the entrée of reverse-seared MSA rump, braised in master stock with a green papaya and herb salad and tapioca cracker. Mains featured an MSA-graded Australian beef duo of flame-grilled tenderloin, braised chuck ravioli, shiraz jus, sweet pommes potato brick, roasted green beans and parmesan crisp.

At the launch of *Red Meat, Green Facts* (see page 5), eight beef canapes were served up, featuring flavours from all over the world, such as salt and pepper MSA beef rump with crispy green chilli, garlic, nuoc cham dressing, beef empanada pastries with smoked tomato labneh, braised beef brisket burgers and Japanese beef katsu sando finger sandwiches.

Turn to page 47 or visit **australianbeef.com.au** for beef recipes to try at home. ■

### **Technology** with bite

One of the drawcards to MLA's digital farm located in the AgTech and Innovation Hub at Beef Australia 2021 was the HDT Drover WOLF, a unique autonomous all-terrain vehicle.

The HDT Drover WOLF is technology sourced from the US military, now being tested by MLA with government funding for applications on-farm. With a range of more than 1,000km and 4.5 tonne towing, the diesel electric vehicle is particularly suited to rugged country, with applications for remote feed and water filling, dispersion of fertilisers or transporting supplies to stock camps. For more of the technologies on display at Beef Australia, turn to page 10.





# **Australia**

### Benchmarking beef

Beef producers from around Australia had the rare opportunity to benchmark their product on a national level by entering the ANZ National Beef Carcase Competition, which was sponsored by MLA.

The competition format (which opened in May 2020 and closed at the end of March this year) enabled participating processors and producers to align their entries with peak turn-off periods in their region.

This year, with COVID-19 travel and movement restrictions, the committee adjusted the competition and used the Masterbeef mobile phone-based

grading technology, which enabled an image to be captured of every carcase in the competition.

The competition judged the carcase for meeting market specifications, lean meat yield, and predicted eating quality based on the Meat Standards Australia (MSA) index.

The ANZ Achievement Award Overall Champion carcase was awarded to an entry from Terry Nolan's Cooloola Blondes, Gympie, achieving a score of 94.54. Terry acknowledged the diversity of the Australian consumer, with the Blonde d'Aquitaine cattle's leaner meat attributes proving to be as sought-after as more marbled breeds.



### Curious kids

The Australian Good Meat live classroom in the Suncorp Kids Zone helped bring the story of how beef is produced to school children, with students hearing from producers about their experiences and how they remain resilient in the face of their challenges on the land.

The talks centred on the different ways producers care for their animals and

their land. For many of the students, this was their first time meeting a 'real' beef producer so naturally the questions came thick and fast about what the cattle eat, how old they are and how many live on the station.

The live classrooms were an extension of MLA's virtual classrooms that run throughout the school year, aimed at teaching students about where their food comes from and demystifying farming and food production.

# Beef Australia 2021: the numbers



A new attendance record was set with

115,866

through the gates of Beef Australia 2021



More than

800

producers attended MLA's four seminars



783

carcases from six states were entered in the MLA-sponsored ANZ National Beef Carcase Competition



4,980

entered across the carcase, commercial and stud competitions



63

tonnes of beef consumed throughout the week

## On the ground

haring knowledge, looking for ways to make things easier using technology and investing in equipment were hot topics at Beef Australia 2021 as producers move forward after some challenging years.

MLA's staff were on the ground and here's a taste of what they heard from producers about what they got out of Beef Australia and how they're building resilient businesses.

Images by Jessica Howard

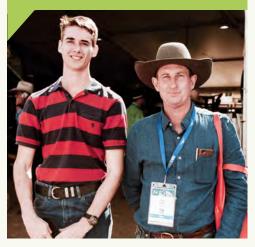


"I came along today to hear more about increasing reproduction rates, keeping calves on the ground it's a big issue. We had a run of dry seasons which has affected the number of calves we're having. We're looking to understand if other people are having the same experience. The research does sound very exciting and in a few years I will be interested to know what they found and how we can implement that."

Adam Hick, Camooweal, Queensland – beef producer Pictured at MLA's seminar on linking innovation with reproductive performance

"We've invested in ag tech in our operation to get better data for decision making and also help with resourcing. It can be difficult to get a reliable workforce, so we can solve some of those issues with tech."

Jackson and Craig Radel, Lawgi Dawes, Queensland – beef producers





"We are already doing some of the (genetics) things already, but now it's about expanding on that, which is exciting. It was great hearing from the producers that are already getting the depth of information on marbling and the meat quality and seeing it in their figures. It's reassuring."

Richard and Victoria Moffatt, Marlborough, Queensland - beef producers Pictured at MLA's DNA to dollars seminar



'We're especially interested in MLA's work on pasture dieback, which is probably we're facing in the next little while. We'll be accessing the MLA seminar recording to watch in our own time which will be useful. It's also good to hear from other producers about how they are managing

Reade and Jill Radel, Injune, Queensland — beef producers

for them.



with me was the change to a focus on of top down, it's workshopping with producers to understand what they want answers to, then developing the something that is

Michelle Lyons, Campaspe, Queensland – beef producer



"Beef Australia's a great eye opener to meet other producers from different parts of Australia and find out what they're doing, to exchange ideas."

Martin and Rosie Walker, Flinders Island, Tasmania – beef and sheep producers





# Innovation supports greater returns



ew England
beef producer
Bill Mitchell
has always been
forward-thinking –
so much so that he
won MLA's Producer
Innovation Award at Beef
Australia 2021 for his
innovative approach to
increasing productivity.

This award, which recognises producer-led excellence in accelerated adoption of innovations to improve on-farm performance, was for an in-paddock weighing system, Optiweigh, developed by Bill.

Bill and his wife Jacqui, along with children Sophie and Henry, run a grassfed backgrounding and finishing operation for weaner and yearling heifers. They have made improvements to their land, pastures and infrastructure all in the name of greater returns.

"For us, the opportunity has been to increase productivity per hectare, per millimetre of rainfall, through improving our pastures and grazing management strategies, helping us achieve our goal of having a sustainable farm that generates a satisfactory return on capital invested in it," Bill said.

To achieve this, the Mitchells have transformed their property, 'Glenbrook', from a typical New England native pasture system to an improved winter perennial system that drives increased dry matter, palatability and digestibility for faster turn-off and more sustainable grazing.

"We're in a renowned area for poor winter growth, but because it's advantageous for us to finish our stock over the winter months, we needed to develop a system that would support winter growth," Bill said.

"This has involved improving our soil fertility through fertiliser plans and our farm infrastructure including fences, water and fodder storage.

"As a result of these improvements, we've been able to shift our system by implementing new grazing mixes of higher-energy species with high winter activity, such as Brome grasses, clovers and herbs."

The combination of improved pastures and strong grazing management enables the Mitchells to buy weaners at around 250kg in the autumn and sell them during the following autumn—winter period at around 550kg.

Bill said the improvements have also strengthened their capability to consistently turn-off grassfed cattle to meet their market requirements, even in drought years.

#### Innovation

To support the improvements they've made at Glenbrook, the Mitchells knew they needed to develop a system that could provide real-time data on the performance

of their cattle by assessing weight gain. This was the inspiration behind developing the Optiweigh system.

Born out of the walk-over-weighing concept, the portable scales require no animal training and work in any environment to record cattle weights without the need to bring stock into the yards.

Bill said the ability to receive weight data from the system to his phone multiple times a day informs stronger grazing management and allows him to assess the condition of his paddocks based on animal performance.

"Our operation is focused on meeting target weights for target markets, which is why assessing weight gain is so critical," Bill said.

"Having the unit in the paddock feeding data to us means we can assess our cattle every day, delivering up to \$70 more per head going out the gate in every truckload because we're better at meeting sale specifications and avoiding overweight penalties.

"The constant weight updates also help to monitor paddock condition so you can rotate your stock at the right times, rather than waiting until they've started going backwards."

Optiweigh has now been successfully commercialised, with more than 90 units deployed on cattle enterprises across Australia.

#### **SNAPSHOT:**

Bill and Jacqui Mitchell,

'Glenbrook', Armidale, NSW



**Area:** 1,625ha

Enterprise:

Grassfed backgrounding and finishing cattle

Livestock:

British breed weaner and yearling heifers

Pasture:

Improved perennials including Brome grasses, clovers and herbs

Soil:

Loam and heavy loam

Rainfall: 850mm



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Find out more about Optiweigh at optiweigh.com.au

MLA has resources for productive pastures at mla.com.au/healthy-soils

Visit

mla.com.au/seasonal-hubs for seasonal on-farm resources



Turn to page 5 for the Beef Australia 2021 report.

# Four tools to tap into on-farm resilience

he latest digital technology and data-driven products were on display for producers to explore at MLA's digital farm during Beef Australia 2021 in Rockhampton.

The digital farm – an extension of MLA's redefining resilience showcase – was part of the AgTech and Innovation Hub and featured technologies to

manage water, soil and livestock, as well as asset infrastructure tools to assist with on-farm productivity and profitability.

MLA General Manager – Research, Development and Adoption, Michael Crowley, said the hands-on approach of the digital farm gave producers the opportunity to explore the technology available to help build their businesses' resilience. "MLA's digital farm illustrated the difference digital technology and data could make to production, demonstrating new tools to assist producers with decision making that may improve productivity and their bottom line," Michael said.

"There are some really exciting opportunities emerging in the digital space for red meat producers and there's something for everyone."





Here's four ways producers can use the technologies on display in MLA's digital farm to make data-backed decisions on-farm:

#### 1. Monitor water levels remotely

Farmo's Water Rat Sensor provides an innovative way to remotely monitor water supplies, reducing the time and expense spent manually checking tanks and troughs.

The Water Rat is a floating tank and trough water sensor that tilts over when water levels run low, sending an alert to the producer's phone or computer to inform them of low water supplies.

The unique floating design of the Water Rat means it doesn't require permanent installation in the water supply – it can just be placed on top of water.

As the sensor isn't fixed to the trough or tank, it's not affected if nudged or moved around by livestock and can be rotated between different troughs or tanks.

#### 2. Assess pastures from the sky

Cibo Labs' PastureKey service is a forage budgeting tool that analyses 10 metre resolution satellite imagery against producer observations of total standing dry matter (TSDM) to deliver within-paddock estimates of pasture biomass in kg/ha to producers via a mobile app.

PastureKey provides objective estimates of feed-on-offer for each paddock, so producers can make informed decisions about seasonal stocking rates.

The PastureKey service can be accessed through the PastureKey mobile app, which also provides information about pastures and land condition.

#### 3. Keep an eye on electric fences

The OutcomeX electric fence monitoring sensor allows producers to remotely monitor voltage levels of electric fences on-farm, reducing time and expense spent manually checking fences.

Once installed on an electric fence, the OutcomeX sensor sends voltage



readings back to the system's Farmdeck dashboard, so producers can check fence voltage levels in real time from their smartphone, tablet or computer.

If the sensor detects an unusual voltage reading from the fence, it sends a warning notification via email and SMS.

Multiple sensors can be used along the same fence line to monitor different sections, so producers can check the section which has recorded a fault rather than having to inspect the entire fence.

#### 4. Optimise carcase performance

The CattleAssess3D system aims to provide assessments of hip height, fat, muscle and therefore body condition of live cattle in real time up to 100 days before slaughter, to enable producers and feedlots to make informed decisions to optimise carcase performance and profitability.

By combining the results of live cattle assessments made using three-dimensional camera technology with nutritional and genetic information provided by an in-built decision support tool, CattleAssess3D may allow producers and feedlots to make objective predictions of:

- P8 fat
- carcase weight
- · lean meat yield percentage (LMY%).

The final CattleAssess3D product will be the result of extensive research co-funded by MLA and the NSW Department of Primary Industries, in partnership with the University of Technology Sydney. The product's development is ongoing and additional assessment capabilities may be integrated into the system following further testing.

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For more information about these technologies, check out:

Farmo Water Rat sensor: farmo.com.au

Cibo Labs PastureKey service: cibolabs.com.au

OutcomeX electric fence monitoring sensor: farmdeck.com/feature/electricfences-monitoring

CattleAssess3D system: thegate.org.au/project/ incubation/3d-cattle-scan

For more information on MLA's activities at Beef Australia 2021, visit mla.com.au/beef-australia-2021

ORBBEC

This camera forms part of the CattleAssess3D system, which was on display at MLA's Digital Farm at Beef Australia. Image: Jessica Howard

# Step forward in sustainable sheep production

n a world-first for the sheep industry, Sheep Producers
Australia and WoolProducers
Australia have launched the
Australian Sheep Sustainability
Framework (SSF).

The SSF was initiated by Australia's sheep industry leaders to demonstrate its sustainable practices, identify areas for improvement, and better communicate with customers and consumers.

Australian Wool Innovation and MLA provide funding, strategic advice and secretariat support for the SSF.

The framework lists 21 priorities across four themes:

- · caring for our sheep
- enhancing the environment and climate
- looking after our people, our customers and the community
- · ensuring a financially resilient industry.

The SSF was developed by an industry-led Sustainability Steering Group and follows a year of close consultation with industry stakeholders and the broader community.

Sheep Producers Australia Chair Chris Mirams said there were significant opportunities available to Australia's sheep industry as a result of the growing global interest and demand for sustainably produced food and fibre.

"Increasing access to markets and investment, building confidence in the integrity of sheepmeat and wool products, enhancing community trust and better rewarding industry are some of the opportunities we have as a result of this growing consumer interest," Chris said.

"The Australian Sheep Sustainability Framework has been designed and developed so our sheep industry can best harness these opportunities."

WoolProducers Australia President Ed Storey said consumer trends and demand meant there was opportunity for Australia's sheep industry to better articulate its sustainability story, and improved transparency was a critical factor.

"To me, being transparent is the key to the Australian sheep industry seizing our opportunities and maximising the benefits," Ed said.

"This industry-led framework means that we will provide an open and honest picture of our high standards of practice and performance using the most appropriate and robust data available."

The SSF Steering Group Chair and Holbrook, NSW, wool and prime lamb producer, Professor Bruce Allworth, said the industry acknowledged there were challenges linked to the many available opportunities.

"For the industry to seize these opportunities, we need to ensure we address challenges such as ensuring businesses are financially sustainable, avoiding land degradation and biodiversity loss, managing climate risk and water scarcity, meeting expectations on animal welfare, and protecting human rights in the global supply chain," he said.

"Across the 21 priorities there are relevant indicators and metrics so we can measure and track industry performance year-on-year.

"This evidence base will help ensure continued access to markets and capital for Australian sheep businesses. It will also support continuous improvement across the industry."

The framework will be implemented through a three-year strategy with annual plans that will engage industry stakeholders and experts to tackle sustainability challenges for the industry.

A consultative committee of industry and external stakeholders will ensure the framework's vision to sustainably produce the world's best sheepmeat and wool, now and into the future, is achieved.

One of the first steps is to capture baseline data for metrics that were not available when the SSF was launched in April.

The SSF will be a living document, subject to review and refinement so that it remains relevant and meets the expectations of all stakeholders. ■

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For more information about the Sheep Sustainability Framework,

sheepsustainabilityframework.

To learn about the Australian Beef Sustainability Framework, visit sustainableaustralianbeef.com.au



# ON FARM

RESEARCH IN ACTION



REPRODUCTION EFFICIENCY



# Lamb survival down to the wire

eri and postnatal lamb mortality is estimated to cost the Australian sheep and wool industry more than \$500 million a year.

To address this, an MLA Producer Demonstration Site (PDS) aross four properties in the Willaura and Lake Bolac areas of western Victoria used temporary fencing to reduce mob size, resulting in 4.8% higher lamb survival.

The PDS compared survival rates across paddocks stocked with twin-bearing ewes. One of the paddocks was divided in half with temporary fences, to halve the mob size but maintain the stocking rate to reduce lamb mismothering.

- "Temporary fencing isn't a silver bullet in improving lamb survival, but it's something producers can look into for increased profitability, providing they're ticking all of the major management boxes first," project leader Dr Steve Cotton of Dynamic Ag said.
- "For each of the four farms participating in the project, the number of lambs surviving is what drives the profitability of the enterprise, and while there was variation in the results, each saw some kind of benefit from this PDS."

The trial across the PDS yielded a 'worst case' return of \$2.70 for every \$1 invested in fencing materials and construction.



Dr Steve Cotton E: s.cotton@dynamicag.com.au



For more information on the PDS program and how to apply visit mla.com.au/pds

### Five ways to fence for lamb survival

Here, Dr Steve Cotton of Dynamic Ag, who led the Producer Demonstration Site (PDS), shares his tips for improving lamb survival using temporary fences.



#### 1. Get the basics right first

Producers should already be applying the fundamentals to improving lamb survival before considering additional methods.

"If you aren't already scanning for multiples, setting pasture targets, condition scoring ewes and lambing in sheltered paddocks, then don't consider temporary fencing yet, as there's still a lot of low-hanging fruit that can be picked first," Steve said.



#### 2. Ensure paddocks are suitable for lambing

When splitting a paddock with temporary fences, ensure the new sections are suitable for lambing.

- "Shelter is one of the biggest improvers of lamb survival, perhaps even more so than feed-on-offer," Steve said.
- "When dividing paddocks with temporary fences, ensure each area has adequate shelter, feed and access to water."



#### 3. Don't worry about having a perfect fence

Temporary fences only need to be in place for the duration of lambing (5–6 weeks), so Steve said producers shouldn't be overly concerned with their durability.

"You can use the cheapest materials you have available on-farm, such as steel posts and plain wires, to produce an effective fence," Steve said.

- "The fence also needs to be powered, so having a good solar unit and a battery if you're lambing in the winter months is recommended.
- "The majority of mismothering occurs in the first 48 hours after birth, so this is where temporary fences and smaller mobs can be really valuable, but it means you don't need to dump huge amounts of time or finances into them for such a short period of use."



#### 4. Small mobs are best

Although this PDS didn't set out to establish an optimum mob size, Steve said they observed that the smaller the mob, the better the results.

- "Lamb survival decreased by 3.4% for every additional 100 twin-bearing ewes in the paddock at lambing.
- "My advice is to stock as small as is practical for your operational and infrastructural allowances."



#### 5. Adapt – every operation is different

The variables in each operation differ, so take this into account.

- "If you're trialing temporary fencing, pay attention to what works and what doesn't.
- "You might need to run another wire for a stronger fence or split a paddock differently for feed and shelter requirements.
- "Start small and as you get a feel for the best method relating to this, you can go out and do more of it, and see the extra percentages it can bring."

# Temporary fencing delivers long-term benefits

amb survival rates at the western
Victorian mixed livestock and cropping property 'Wirrinourt', Lake Bolac, have significantly improved in recent years on the back of a suite of new management strategies.

Installing temporary fences before lambing is one of the changes livestock manager Matt Charles and owners, Rowly and Nick Paterson, introduced to the business after attending an MLA Producer Demonstration Site (PDS) field day.

"We're constantly going to field days and if we find something valuable, we'll try to implement it into our operation," Matt said.

### Smaller mobs, smaller paddocks

Before introducing temporary fencing, Wirrinourt ran big lambing mobs, with as many as 300 twin-bearing ewes lambing on a 35ha paddock.

- "Now, most of our twinners won't lamb on a block bigger than 10ha, and we have a maximum of 10 ewes to the hectare on those blocks,"
- "Adding temporary fences and splitting up our mobs at lambing time has massively

increased survival rates, with nearly a 20% improvement in the mobs we split over the first two years."

Splitting up lambing mobs has also delivered other benefits.

- "Using temporary fences and moving to a split joining has meant we can target the better paddocks twice over a year and intensify grazing of those smaller areas," Matt said.
- "Where the fences have worked really well, we've followed up and added permanent fencing in those areas."

#### Factor in land types

Matt said while temporary fencing has been successful, it's been a learning curve and they've adapted accordingly.

"We've learnt since starting that you've got to fence according to your land types.

"If you have an undulating paddock or one with a hill in it and you halve that, all your sheep will just sit on the high ground and you'll end up with uneven grazing, so fence the high and low ground separately," Matt said.

### Take the time to train your sheep

According to Matt, it's also important to train sheep onto the fences so they're familiar with the infrastructure.

"The first year we started doing this we had all the sheep in the paddock, then came in and split them just before lambing. They showed the fence no respect at all, walking straight through it across the whole paddock as they were doing the two weeks before the fence was up.

"Get them used to the fences for a few weeks before lambing first. Once they've lambed, keep checking your fences are running to avoid lambs chewing the wires."

#### More to it than fencing

As well as adding temporary fences, Matt has introduced other practices which have improved lamb survival rates, including containment feeding over summer.

"The containment pens have helped us stay on the ball with our ewe nutrition from pre-joining right through their pregnancies," Matt said.

As a result, pastures are in better shape for lambing and the ability to monitor and manage ewe condition score for joining has contributed to increased scanning percentages.

Below: Livestock manager Matt Charles trialled temporary fencing after attending an MLA-supported Producer Demonstration Site field day. Image: Steve Cotton

#### SNAPSHOT:

Matt Charles (livestock manager), Rowly and Nick Paterson,

'Wirrinourt', Lake Bolac, Victoria





#### Area:

5,100ha, comprised of 4,000ha cropping and 1,100ha pastures

#### Enterprise:

Sheep and cropping

#### Livestock:

8,000 Merino ewes, 1,300 composite ewes, 7,200 hoggets and wethers

#### Pasture:

Perennials (phalaris base), annual ryegrass, DS Bennett<sup>()</sup> wheat, Moby<sup>()</sup> barley

Soil: Clay loam

Rainfall: 550mm



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Michael Laurence E: mlaurence@mla.com.au



Find out more about MLA's Producer Demonstration
Sites at mla.com.au/pds



FEEDBASE W

# The fine art of producing better beef

rainfall, stable temperatures and naturally fertile soils set the scene for the Bruce family's productive Tasmanian beef enterprise, but careful management is the key to truly reaping the rewards of this natural bounty.

The four generations of the family currently involved in Western Plains Beef have that down to a fine art.

Located just north of Stanley, on a peninsula jutting out into the Bass Strait, Western Plains Beef produces high quality grassfed beef for national and international markets.

lain Bruce said although selling cattle into the high-end market through Greenham Tasmania's Cape

to receive financial rewards above commodity markets, it hasn't changed the family's operating philosophy.

- "Even if we were selling a commodity product, we would still do what we are doing," lain said.
- "But with Greenham, we have more purpose with it.
- "We're loyal Greenham suppliers because they are using the beef the way that it should be used – it's not just beef anymore, it's a lot more than that. It's a story.
- "They're able to sell a large amount of it into places like America because of what the producers do, and how we look after our animals, our pastures and the environment that we farm.
- "The customer is seriously wanting to know that and is prepared to pay for it."

Prior to COVID-19

Greenham's customers, with lain's father, John, taking visiting chefs, restaurateurs and red meat marketers through the property to see just what goes in to producing their beef.

Visitors were given an insight into the carefully balanced elements of the enterprise.

While lain describes his father as 'the boss', in the five years since lain left a full-time agronomy role to work in the family enterprise, he has introduced detail to feed budgets to tweak the long-standing approach at Western Plains Beef.

- "We have a mature business as far as our stocking levels go," lain said.
- "We have traditionally run a cow-calf operation. For a long time, we have bought weaners in as well.

"The area of the farm that we breed on hasn't got

increased the number of cows dramatically, but we have started to improve pastures. We've added a bit of land and added some irrigation to our finishing areas.

"Buying in weaners and steers adds to the mouths to eat that extra feed."

#### Bridging the feed gap

John established lucerne pastures 27 years ago as the first step in filling the summer feed gap on the farm.

They also use prairie grass in their pasture mix throughout the property as they have found it regrows quickly after winter grazing – a strategy developed by lain's grandfather, David, during his time as a Department of Agriculture agronomist.



The farm now runs a winter stocking rate of 23 dry sheep equivalent (DSE)/ha.

"We're also using some of the newer cocksfoot varieties in combination with ryegrass and legumes to use the summer and autumn moisture," lain said.

"We're irrigating some land to help with that, with about 10% of the farm under irrigation."

#### **Grazing strategies**

Cattle are rotated through paddocks at a rate determined by the leaf emergence rate – this rotational grazing principle has become the foundation for every decision the family makes within their production system.

Coming out of summer, the rotation slows down and cattle are supplemented with silage and hay as required. This enables cattle growth rates to be maintained while the slower rotation enables the pastures to grow.

Nitrogen is applied strategically during autumn to build a winter feed wedge in line with rainfall and pasture growth.

"If we get good rains through autumn, we will speed the

rotation up, then slow down again over winter when it's colder and grass grows more slowly," lain said.

"Our feed supply/
demand break-even
date is around 20
September and
we're lucky here
that we can rely
on this timing
consistently
each year."

The annual calving cycle is timed to fit in with the pasture growth cycle, with calving in late winter and weaning in late February.

Cows are pregnancy tested at weaning, and dry cows and cull cows receive a few weeks of priority feed to ensure they are Meat Standards Australia (MSA) compliant and then are sold in April – targeting Greenham's Vintage Beef brand.

In late December, the Bruces weigh steers and divide them into heavier and lighter mobs. The goal is to finish the heavier mob by early September and the lighter mob for late September or

early October. The heifers are also managed to be sold in late September or early October.

This marketing strategy lines up with the start of spring.

"We feel getting them off the place to give that spring grass to the next year group has given us the ability to provide cattle with the same weight in September that we used to sell in December," lain said.

It also enables them to turn-off stock at a time when the market is short.

lain is passionate about the beef industry and gives back to it as a producer member of the Southern Australia Livestock Research Council, which develops the regional research and development (R&D) priorities which feed into MLA's R&D investment.

He also chairs Tasmania's annual Red Meat Updates this year's event is on Friday, 23 July.

"Red Meat Updates has proven to be a successful way to engage with producers, network and learn.

"The time that I give, I get a personal benefit from it in terms of my own networking and learning," lain said. ■

## LESSONS LEARNED

- > Match grazing pressure to available feed to optimise productivity.
- > Prioritise feed to younger stock so they can be finished earlier.
- > Target the high-end branded beef market when possible, to receive better return for effort.

#### **SNAPSHOT:**

#### Bruce family,

Western Plains Beef, Stanley, Tasmania



#### Area:

625ha

#### Enterprise:

Grassfed beef

#### Livestock:

350 Angus and South Devon breeding cows, 80 replacement heifers preg-tested in calf, 450 weaner calves, 120 mixed-age heifers, 385 yearling steers, 15 Angus bulls

#### Pasture:

Native and improved pastures; some lucerne and cocksfoot under irrigation

#### Soil:

Volcanic clay loams

#### Rainfall:

810mm

#### $\bowtie$

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Andrew Morelli E: amorelli@mla.com.au



Check out MLA's resource hubs for management tips and tools:

Weed management: mla.com.au/controlweeds Soils:

mla.com.au/healthy-soils Learn more about the Red Meat Updates 2021 at redmeatupdates.com



BUILDING CAPABILITY

# Is your business missing the toolbox?

ave you seen MLA's new eLearning platform, the toolbox?

The toolbox is a collection of digital resources for red meat producers featuring training packages, tools and calculators, with links to MLA's adoption initiatives.

The toolbox is available to use anytime and anywhere, providing users with practical opportunities to further their knowledge and skills.

It's a useful reference for on-farm decision making across a range of topics, such as:

- animal health and welfare
- sheep genetics
- beef production and productivity
- healthy soils and pastures.

The toolbox is home to new training

packages which have been compiled by MLA's adoption team with the support of industry experts. They feature the latest research and best practice information for people working in the red meat industry.

The toolbox presents new opportunities for training, with courses at several levels, for business owners, managers and staff.

Training packages are self-guided so participants can work through them at their own pace. The interactive modules, which include slideshows, quizzes, images and videos, are designed for a range of learning styles and take 5–20 minutes to complete.

The platform is readily accessible and easy to navigate.

To access the resources, all that is required is a computer, tablet or smartphone with internet

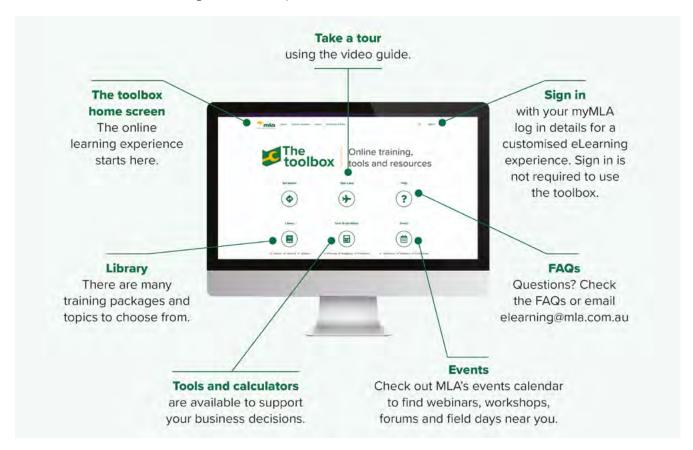
connectivity. The toolbox can be integrated with your MyMLA account for a more personalised experience.

The toolbox library will continue to expand as new tools and training packages are updated. ■

For more information or support on using the toolbox, contact MLA's adoption team at elearning@mla.com.au

Check out the toolbox at elearning.mla.com.au – you can take a tour and access instructions for using the platform.

Look out for the toolbox logo on the MLA website to find related resources – the logo will also accompany articles in Feedback which have an eLearning component.



Above: Here's a look at how producers can use the toolbox for information and resources.



# Five ways to check your soil condition

ealthy soils are fundamental to ensuring productivity and sustainability on-farm — and winter through spring is a good time to have a look in the paddock to see what's happening.

Producers can access practical tips to maximise their soil health and drive pasture performance with a new, three-part video series.

The Visual indicators of soil condition videos are available on MLA's healthy soils hub. They are presented by Southern Farming Systems research and extension officer Jess Brogden.

Each episode focuses on a different aspect of soil management:

- soil health in the paddock
- plants and pasture
- soil surface and clover roots.

The first episode of the series provides producers with simple strategies to identify soil condition in pasture paddocks.

According to Jess, the five key visual indicators of soil condition in the paddock include:



# 1. Dark green urine patches and paler green pasture

Green patches of high grass growth and other, paler green patches with shorter growth in a paddock are likely to be urine patches. Urine contains high amounts of nitrogen, potassium and some sulphur, which increases plant growth.



### 2. Increased pasture growth around dung

Increased pasture growth around manure pats and shorter paler growth elsewhere is a sign of a nutrient deficiency or selective grazing, as stock will avoid pasture near dung for up to three months while odour remains.



### 3. Yellowing or paler green pastures

Sometimes pastures will look yellow or pale green across the whole paddock or in large areas. This could be due to:

- a deficiency in potassium, nitrogen, sulphur or trace elements like molybdenum
- waterlogging
- · winter grass flowering
- plants dying due to insect attack.

If this is a nutrient problem, there will be an abundance of low-fertility weeds such as onion grass, silver grass and sorrel, and an absence of high-fertility weeds – which may include capeweed, barley grass and marshmallow – in these areas.



# 4. Increased growth and high-fertility weeds around stock camps

Nutrients are concentrated in the areas where stock congregate and therefore high-fertility weeds are likely to be present in these areas.

## WWWW

#### 5. Patchy growth

It's worth investigating areas with patchy growth or where plants that were previously established are dying out – use soil testing to determine the reasons for poor pasture.

Jess said the best time to look for signs of nutrient deficiency in pastures is in the late winter or spring, when some nutrients may have been used up due to wet conditions and nutrient demands by plants are increasing.

It's also important to note that if pasture has adequate nutrition, the grass present will grow fatter and longer leaves, not more leaves.



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Watch the *Visual indicators* of soil condition webinars at MLA's healthy soils hub, mla.com.au/healthy-soils

This hub contains other tools and resources, including producer case studies, tips to take a soil test, soil phosphorus resources and a soil condition pocket guide.



If you want to dig deeper into healthier soils, MLA has a healthy soils and pastures eLearning course. Visit elearning.mla.com.au for details





# Taking a science-based approach to pastures

management research, it's no surprise SA beef producer Michael Cobiac looks for information based on science.

He's a strong advocate for programs such as MLA's More Beef from Pastures, Profitable Grazing Systems (PGS) Pasture Principles and MLA Producer Demonstration Sites (PDS) and has relied on their data-backed guidance to manage pastures since he returned to the family farm, 'Chelestan', at Reedy Creek in 2010.

In 2014, Michael and his partner Cath Bell purchased Chelestan. They were running sheep and cattle but three years ago sold the flock and started increasing cattle numbers.

Michael purchased another property, 'Gumlea', two years ago, increasing the total grazing area from 600ha to 1,100ha. Over the past four years he's gone from joining 250 Angus breeders to joining 900.

Cath works off-farm and their young children, William and Zoe, are in primary school, leaving Michael as the sole labour unit – a factor which plays into his finely-tuned approach to management.

#### **Production targets**

Michael carefully manages pastures to maximise kilograms of beef produced per hectare.



His production targets have evolved as his enterprise mix has changed, and are currently:

- 80% or higher conception rate in a six-week (two cycles) joining
- less than 5% dystocia (difficult birth) rate in heifers
- more than 95% weaning rate from animals born
- 450–500kg live weight for turn-off in October or November of the year after animals are born.

"These are initial targets, rather than 'stretch' targets, because I've had quite a change in my production system over the past three years and have been focused on herd expansion," Michael said.

"When I'm comfortable we're achieving these targets, I'll increase my expectations of conception and weaning rates."

#### Seasonal challenges

The biggest seasonal challenge each year is managing animal nutrition in autumn and early winter, when paddock feed is least available.

Seasonal variability also throws a curve ball, such as when they receive lower-than-average spring rain – which results in less dry carryover feed for summer and autumn – and above-average winter rain. The farm is flat and can become boggy, leading to low pasture growth, and soil and pasture damage through pugging.

"Seasonal variability in recent years has mostly involved lower winter rainfall and that has generally been beneficial, as we haven't had those challenging, very wet winters," Michael said.

### Strategic pasture management

Michael's management program is based on trying to fit all major animal management activities into periods of good pasture

## LESSONS LEARNED

- > Rotational grazing provides good feed availability throughout the growing season, but don't start rotational grazing until you have the infrastructure in place: solid fencing, reliable water points, and yards big enough to handle the mob sizes you're going to run.
- Analyse your business performance, which may result in you moving to optimise production per hectare, not production per animal.
- > Be prepared to change habits of a lifetime if it results in less work or more profitability.

growth, and he uses some 'non-negotiable' targets to achieve this.

"We join animals in late spring, so the females have good body condition because of good pasture availability," he said.

"We calve in winter onto green feed – we're only 20km from the coast and get pasture growth all winter – which provides good nutrition to the cows.

"We sell animals late in their second spring when their weight gains are maximised.

"The challenge is that I wean in autumn, when there is little pasture, so I have to supplementary feed. Usually it's hay, but this year I'm also providing pellets via a lick feeder."

His 'non-negotiables' are:

Restrict grazing at start of the season: Opening rains start in late April or May, and Michael holds animals in as few small paddocks as possible until there is about 2,000kg dry matter a hectare (DM/ha) across the ungrazed paddocks – usually in June.

#### Rotational grazing targets:

When rotational grazing begins, he moves cattle to the next paddock when pasture drops below about 1,500kg DM/ha.

The whole property is measured monthly, during the growing season, with a plate meter. Grazed paddocks are measured as required, when pasture amount declines towards the minimum desired.

- "The key point with rotational grazing is that you must allow pastures to grow to their appropriate stage for example, third-leaf stage in ryegrass before you begin grazing," Michael said.
- "Half of the pasture will grow in the last one-third of the rest period. If you only leave it for half, or even two-thirds, of the rest period, you're just sacrificing so much potential pasture growth."

#### Body condition score:

Michael targets a body condition score above 2 throughout the year – ideally in a range between 2.5–3.5. If this goal can't be achieved with pasture, he supplementary feeds.

#### **Breeder performance**

Michael was profiled in Feedback in 2017 – at the time, his goal was to maximise breeding herd fertility. This focus has intensified with the switch to a pure beef enterprise and emphasis on herd expansion.

- "Part of maximising fertility is achieving body condition score targets," he said.
- "I've moved from autumn to winter calving to calve down on green feed and re-join in late spring, also on green feed.
- "I've also introduced larger mobs 150 cows plus calves and increased grazing pressure. With the 20% increase in stocking rate I have achieved, more calves are now born due to an increased number of breeders per hectare."

Bull selection has also been critical, with Michael selecting sires with the genetic ability to produce easier-calving heifers.

- "Three main criteria need to be above average: scrotal size, body fat and calving ease," he said.
- "I've been purchasing bulls with those features for several years and I'm really starting to notice some differences.
- "Calving difficulty in my heifers is down from 10% to less than 5%, which I attribute to changing the timing of calving, and sire selection."

While he reckons the current conception rate of 80% is acceptable for a six-week joining period, especially while his whole production system is evolving, Michael does have his sights set on an eventual target of more than 85%.

#### A well-stocked toolbox

As well as participating in More Beef from Pastures and PGS Pasture Principles – which he reckons is one of the best courses he's ever done – Michael is currently participating in a 'Reproductive health and management techniques for beef heifers' Producer Demonstration Site (PDS), run

by the University of Adelaide.

He's also involved in a benchmarking group of producers from south-east South Australia and draws on the expertise of a private advisor who provides an independent, farm advisory board service.

#### $\bowtie$

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Find out more about the programs and tools Michael uses at:

More Beef from Pastures: mla.com.au/mbfp

Profitable Grazing Systems: mla.com.au/pgs

MLA's healthy soils hub:
mla.com.au/healthy-soils
MLA tools and calculators:
mla.com.au/calculators
MLA eLearning toolbox:
elearning.mla.com.au
MLA genetics hub:

genetics.mla.com.au



Turn to page 19 for tips for managing soil health through winter and spring. Read how another southern producer is managing pasture on page 16.

#### **SNAPSHOT:**

Michael Cobiac and Cath Bell, 'Chelestan', Reedy Creek, South Australia



#### Area:

1,100ha of grazing land across two properties and a 230ha block of heritage bush

#### **Enterprise:**

Self-replacing, winter-calving Angus beef breeding herd producing feedlot-entry offspring

#### Livestock:

Calve 700 cows and heifers each year – total numbers on-property range from 1,400 to 2,000 throughout the year

#### Pasture:

Winter-active annual ryegrass and sub-clover pastures, plus perennial phalaris and fescue pastures

#### Soil:

Grey sandy loam over sheet limestone; Chelestan – red gum flats, Gumlea – pink gum flats

#### Rainfall:

600mm, winter-dominant



BUSINESS MANAGEMENT



# An eye for detail underpins

perating an extensive beef enterprise in the remote west Kimberley region of WA is not without its challenges, but Anne Marie Huey and her partner Mike De Long are making incremental changes to improve their bottom line.

Anne Marie and Mike run 'Dampier Downs Station', a 265,000ha cattle property geared to the live export market.

Anne Marie credits participating in MLA's Business EDGE course with helping her to improve her business skills to drive the profitability of the business.

Business EDGE is a two-day financial and business management training workshop for producers who want to improve the efficiency and profitability of their business. "Mike and I are really focused on the cattle side of our business and I also have a strong background in natural resource management, but we needed to strengthen our business management skills," Anne Marie said.

"By attending MLA's **Business EDGE** course we were able to better focus on the profit drivers of our station and make changes to maximise our bottom line."

#### **Transport costs**

The first thing Anne Marie did after attending the Business EDGE course in Broome was to reorganise their financial statements to drill down and work out where the money was going in and out.

"Through this process I realised that a few days spent realigning a small section of our main trucking road would enable us to send an extra trailer of sale cattle out at a time.

"While this had always been on the to-do list, the business analysis highlighted how a small outlay now will save time and money in the future."

#### **Objective decisions**

Anne Marie also came away with an understanding of the importance of calculating the real operating costs of their business.

- "I realised I needed to allocate myself and Mike a wage in order to work out the true profitability of the business," she said.
- "This is something we've never done but will focus on going forward so we can have an objective view of the business and make informed decisions rather than going on gut feelings."

#### **New opportunities**

As Anne Marie started to focus on the business side of their beef enterprise, she saw the opportunity to develop an off-farm income.

- "I spent days sorting our financial statements, the reports from our bookkeeping program and the templates we'd received from the course into a format that made sense to our business.
- "I thought to myself, I'm sure there are a lot of businesses that either don't have the time or skills to do this.
- "So, I'm in the process of launching my own business to help small to medium-sized livestock enterprises that need admin and office support but don't have enough scale to justify a full-time employee."

Below: Anne Marie Huey and her partner Mike De Long (pictured above right) run Dampier Downs Station, WA.



# profitability

#### **SNAPSHOT:**

## Anne Marie Huey and Mike De Long,

'Dampier Downs Station', west Kimberley, WA





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To find out more about MLA's EDGE network, visit mla.com.au/edge

To see if there's an MLA EDGE event coming up near you, check out mla.com.au/events

Learn more about how MLA is driving the profitability of northern beef businesses at mla.com.au/nb2



Turn to page 24 for practical business tips from advisors around the country.

LEARNED



Area: 265,000ha

#### **Enterprise:**

Beef production for live export

#### Livestock:

Brahman and Brahman-cross

#### Pasture:

Ribbon grass, perennial sorghum, spinifex with areas of curly bluegrass along drainage lines

#### Soil:

Predominantly pindan, deep red sands

#### Rainfall:

523mm average

# LESSONS

- Have well-organised, easily accessible financial information.
- Objectively analyse financial data and work out where the money is really going (as opposed to where you think it is going).
- > Understand what's really driving the profit in the business – this allows you to focus your efforts on strategies that will return the greatest benefit.

# Four drivers of a profitable northern beef business

Here are four areas Anne Marie Huey and Mike De Long focus on to drive the profitability of their WA beef enterprise to achieve their production goals, which include:

- managing the breeder herd by optimising calving periods
- breeding better quality cattle
- reducing mortality by implementing a targeted spaying program and culling aged cows
- managing for the environment.

#### 1. Managing breeders

- "Tightening our calving window to make sure calves are born during the wet season is a priority," Anne Marie said.
- "This is obviously a challenge as we continuously-mate and our extensive enterprise doesn't lend itself to controlled mating.
- "Instead, we pregnancy test our breeders and segregate according to calving windows. The earlier in the season we can do this, the more options we have for our out-of-season calvers.
- "We're also planning on implementing a targeted heifer management plan we hope to control mate the heifers, setting them up to have their first calf around the break of season.
- "This will give them the best opportunity to remain in sync with the seasons and allow us to identify sub-fertile females."

#### 2. Breeding better cattle

Although their main market is live export, Anne Marie and Mike send cull cows and other out-of-spec animals to a local abattoir. Using this as a marketing option has allowed them to selectively spay lower quality females, to drive genetic improvement in their herd.

They use estimated breeding values to select all bulls, and target key characteristics such as fertility and growth traits.

#### 3. Reducing mortality

Spaying aged cows not only improves overall herd genetics but also lowers mortality rates.

- "Reducing mortality is a key profit driver for our business," Anne Marie said.
- "Phosphorus supplementation also plays a critical role in reducing mortality we're severely phosphorus deficient and addressing this is arguably the best investment we make on a yearly basis."

#### 4. Managing for the environment

Wet seasons are variable, but limited marketing options means Anne Marie and Mike can't significantly vary herd numbers based on seasonal conditions.

- "If we do have an above-average year, we don't have enough mouths to eat the grass and are presented with a larger fire risk the following dry season," Anne Marie said.
- "It's important to have a well-managed fire regime so I'm always keeping an eye on the Bureau of Meteorology to monitor conditions.
- "With our approach to management we're constantly monitoring our pastures to ensure we're moving stock to another area if a paddock starts to look overgrazed.
- "Therefore, we move the cattle based on the condition of the pasture rather than looking at the condition of the cattle to prevent them from losing weight."



MLA genetics hub: genetics.mla.com.au MLA phosphorus hub: mla.com.au/phosphorus **BUSINESS MANAGEMENT** 



# Strategies to sharpen your

LA's EDGEnetwork offers practical learning opportunities to help producers gain knowledge and develop skills necessary to improve their livestock enterprises.

One of the programs is Business EDGE – a two-day workshop to enhance producers' knowledge and skills in basic financial and business management to improve business efficiency and profitability.

Improving financial and business performance is particularly important given the continued climate of declining terms of trade, increasing land prices, tightening credit, and rapid national and global economic and policy influences affecting beef enterprises.

Here, five Business EDGE deliverers from around the country share their practical tips to strengthen red meat businesses.

Alana Boulton

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Find out more about MLA's EDGE network at mla.com.au/edge

MLA supports a range of other programs to support productive, profitable livestock businesses. This includes partnering with the Agri Business Development Institute to develop the Lender Ready Program for producers to hone their business skills, refine a business plan and prepare a structured proposal to take to their preferred lender. For more information visit abdi.com.au

### 10 years of Business EDGE

It's been 10 years since the first Business EDGE workshop was held in Roma in 2011. Here are some of the highlights of the past 10 years:



Business EDGE workshops, including eight Young Guns events



of these workshops were held across northern Australia (Queensland, NT and WA)



workshops were held for southern producers in NSW, Victoria, Tasmania and SA



attendees from 870 businesses



Ian McLean

Bush AgriBusiness, Director Delivers Business EDGE in Queensland, NT and northern WA

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#### What can producers do now to put their business on the front foot?

Establish and maintain good herd records, and I don't mean just in a notebook in your pocket.

It can be a simple system but use a spreadsheet or software to capture information about what you started and ended the year with. Accurate herd data is essential to calculate income, kilograms produced, total animal equivalents run, and mortality and reproduction rates.

Introduce a good financial system. Businesses already prepare business activity statements, annual tax returns and information for meeting their financial institution and accountant.

However, the financial system, combined with data about the herd, feedbase and other aspects of production, should primarily provide the business managers with accurate and timely information to manage their business. So, put yourself at the top of the list of people who require information about your business.

Accurate data gives you an understanding of your business position. With accurate livestock records and a good financial system, budgeting will be easier, which is especially important during recovery after drought. Drought recovery can be a juggling act of cash flow, land condition and stocking numbers so it's important to set goals and budget forward.

#### What can hold producers back in business?

The belief that they're better off paying interest than tax. Tax is a sign of a healthy business – cash flow alone is not an indicator of business performance, so look beyond the cash balance and establish clear business goals.

Another misconception is that the purpose of financial and business information is to be able to provide it to the bank, accountant or the Australian Taxation Office when they ask for it. With some small tweaks, this information is enormously powerful for making business decisions.

#### What should producers have in their business toolkit?

- · Good stockflow.
- A good financial system.
- Good indicators of business performance.

"Business EDGE gives producers a better understanding of business principles and concepts, applied to agriculture, to increase their financial literacy and business skills."

# business



John Francis
Agrista, Director
Delivers Business EDGE through
southern NSW

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### What can producers do now to put their business on the front foot?

Dedicate time in your calendar for financial management and business planning. The operational components of the business are important but shouldn't be prioritised over business management.

Own your numbers. It's okay to outsource some bookkeeping responsibilities but you must take ownership of management accounts and production performance — it's part of the process of accepting accountability.

Review your business strategy – question why you do what you do.

#### What can hold producers back in business?

Some business operators aren't interested in the accountability that goes with assessing farm business performance because they're concerned they may be shown to be performing poorly.

In my experience, the willingness to change is more important than how you're performing.

The worse you're performing, the greater the opportunity because it typically means the 'low-hanging fruit' – or low-cost gains – of the business are still available.

Once these gains are achieved, the business can go on to focus on the next level of opportunity for improvements in performance.

#### What should producers have in their business toolkit?

- Time set aside specifically for crunching the numbers and assessing business performance. Investing time into understanding the numbers helps to build skills. It might be best to do this off-farm to avoid the operational distractions.
- A livestock trading schedule with livestock numbers listed by class. This simple tool tracks livestock movements through the year so gross profit and livestock asset values over time can be calculated.
- Investment analysis tools to help answer questions around the best way to invest capital, such as:
  - Which of the investment options is best?
- What is the highest priority investment?

"Business EDGE delivers the motivation to invest more time working on, rather than in, the business."



Simone Parker
Bush AgriBusiness, Associate
Delivers Business EDGE through
northern Australia

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### What can producers do now to put their business on the front foot?

Review your chart of accounts – a well-drafted and logical set of categories is a simple step but can provide you with so much information, including a good overall picture of the cost structure of the business.

Get a handle on livestock numbers – be able to reconcile the herd or flock over a year, from opening numbers in each class of animal through sales, purchases, births and deaths to closing numbers.

Develop a budget – a projection of your income and expenditure gets you in touch with your own financial information and helps develop a plan. The aim is not for it to be perfect but be a good estimate that can be compared with what actually happened.

#### What can hold producers back in business?

A common misconception is that the real work only happens in the paddock.

As owners and managers of multi-million-dollar businesses, there needs to be a balance and strong links between what happens out in the paddock and in the office or around the meeting table.

This includes accurate herd/flock numbers – the insights into your business that can be gained from having this information is well worth the pain of setting up and maintaining it.

The system of updating numbers from the paddock or yards to the office doesn't have to be elaborate or tech-driven, just simple and consistent.

#### What should producers have in their business toolkit?

- A good team or network of people in your corner this could include consultants, advisors, banks and accountants.
- Well set-up financial and business systems including consistent practices and processes, as well as appropriate software.

"Expect to come away from Business EDGE with a deeper understanding of your own business and the confidence to put yourself in the driver's seat to make informed decisions."

#### **BUSINESS MANAGEMENT**



#### Strategies to sharpen your business continued



**Simon Vogt** Pinion Advisory, Agribusiness Consultant Delivers Business EDGE in SA

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#### What can producers do now to put their business on the front foot?

Understand the current level of productivity and profitability within your business through benchmarking or sourcing an independent farm performance report for your business.

Use this report to identify where there's opportunity to increase profitability from the resource base you currently manage. The opportunities will be situational to each business.

Implement the planned changes and monitor business performance on an ongoing basis to track progress.

#### What can hold producers back in business?

The self-limiting belief that primary production is high-risk and low-return. Top 20% farm businesses can generate strong returns within a low to moderate risk profile across the long term. This is achieved by driving high levels of productivity in a cost-effective manner. There's significant internal capacity on most farms to generate higher levels of profitability from their existing resource base.

Another aspect which can hold producers back is unnecessarily investing energy into things which they can't control, such as markets and weather, rather than focusing most of their energy on the many things which are within their control, such as stocking rate, grazing management, nutrition, infrastructure development and responsiveness to seasonal variation.

#### What should producers have in their business toolkit?

- A farm performance report that captures management profit each year.
- The Business EDGE discounted cash flow tool to objectively assess capital investment opportunities and identify projects that generate >15% as an internal rate of return.
- An 'abundance mentality' to assist with planning ahead, sharing ideas, continuously learning, setting goals, embracing change, operating from a transformational perspective and having a sense of gratitude.

"Business EDGE provides a higher level of financial literacy and awareness, an excellent understanding of the key profit drivers in red meat and wool businesses, and some great tools, including the Business EDGE discounted cash flow tool to objectively assess capital expenditure opportunities."



#### **Paul Blackshaw**

Meridian Agriculture, Director and Farm Business Consultant Delivers Business EDGE in Victoria and Tasmania

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#### What can producers do now to put their business on the front foot?

Get a proper understanding of the real financial performance of your business. Don't just rely on your tax return – it will have some significant limitations.

Count your stock. Many producers don't know exactly how many animals they have.

Start to develop a strategic plan that articulates personal and business goals. This will start to give you a roadmap for where the business is heading. It provides focus and an understanding of what's important and what's not.

#### What can hold producers back in business?

The belief that your bank account at the end of the year is how to measure success, and thinking that having multiple enterprises will reduce risk.

#### What should producers have in their business toolkit?

- Financial key performance indicators for your own business (tracked over time).
- A cash flow budget.
- · A good accountant who understands you, farming and your business.
- A financial management system that you understand and which tells you what you want to know about your business.

"Expect to come away from Business EDGE with less fear of the financial side of your business and some really good tools to assist with decision making, investment and growth. Business EDGE explains some finance terms you might have heard, but never knew what they meant. It also provides better understanding of what measurement will be important for your business."





# Advocating for a brighter industry future



he Livestock Leaders is a professional development workshop, supported by MLA, aimed at equipping current and future industry professionals with the skills to advocate for Australian livestock production.

Here, we meet one of the Livestock Leaders who proves distance is no barrier to telling the real stories of Australian agriculture.

Hugh Dawson is head stockman of the one million hectare 'Beetaloo Station' near Elliott in the NT.

Participating in the Livestock Leaders workshop didn't just offer Hugh the chance to learn positive industry promotion, but was also an opportunity to strengthen his own communication skills.

Hugh was keen to address the opportunities he saw for agriculture in northern Australia and to share the story of livestock production to the public.

"I think that, broadly speaking, agriculture in Australia hasn't promoted itself as well as it can to this point to attract young leaders to the industry," Hugh said.

"I really want to share my own experiences, the opportunities I've been exposed to through working in agriculture, and the skills I've attained along the way.

"There's a bright future for every young Australian in agriculture if they choose that path. I want to become the best advocate I can be to ensure they consider it as a viable career, which **Livestock Leaders** helped me to do."

Hugh also saw the workshop as a chance to address common misconceptions about the industry and share these with the public.

"It's disappointing that a lot of Australians don't recognise

animal welfare being at the front and centre of what we do in this industry," he said.

Everything hinges on healthy and happy animals, and we need to keep actively promoting this to the rest of Australia and even the world."

Hugh said the workshop helped him develop his communication skills to drive these points home to the public, steering clear of industry jargon and using simple language to ensure consumers aren't intimidated, but the message about sustainable livestock production is still heard.

#### **On-farm skills**

The Livestock Leaders workshop also gave Hugh valuable skills to become a better leader and manager for his team at Beetaloo Station.

"I work with a team of seven other staff on Beetaloo, and we're constantly working with external industry professionals too," Hugh said.

"The workshop taught me that when leading you need to be able to remove yourself from a situation and put yourself in someone else's shoes to understand what they're going through.

"Gaining that appreciation has been invaluable for me as a leader, and it's helped us move forward as a team much more effectively."

#### **Building an industry** profile

Hugh also appreciated the opportunity to meet other like-minded individuals who are passionate about the industry and build his own industry profile to further develop his career.

#### **SNAPSHOT:**

Hugh Dawson, head stockman at 'Beetaloo Station' – owned by Barkly Pastoral Company, Elliott, NT



#### Area: 1,050,000ha

Enterprise: Breeding cattle

#### Livestock: 80,000 head

#### Pasture:

Mix of open Barkly country with Mitchell grasses and timbered areas

40% black soil country, 60% mixture of red soils

#### Rainfall:

550mm

#### $\bowtie$

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For more information about Livestock Leaders, visit thelivestockcollective.com.au

Hugh recently featured in MLA's Good Meat virtual classroom program, which educates school students on how red meat is sustainably produced. Teachers can register for virtual classrooms at keteacher.com/event/ goodmeat

BUSINESS MANAGEMENT



## Down the track

In this series, Feedback catches up with producers profiled in previous editions, to see how their business is evolving in response to new challenges and opportunities.



### **Looking back**

In 2013, Victorian beef producers Georgia and Bill Wilson saw the inaugural MLA Challenge advertised in Feedback. The challenge offered six producer families the chance to utilise MLA's tools, resources and advice to transform their farming business over the course of a year. They applied, were selected, and began a journey which continues to this day.



Visit mla.com.au/feedback to read more about the Wilsons' MLA Challenge experiences on page 9 of the August 2014 Feedback.

### **Looking ahead**

or Georgia and Bill Wilson, participating in the MLA Challenge in 2013-14 gave them the opportunity and skills to move their breeding business into more positive territory.

At the time, the first-generation producers had just bought a block of land and moved, with their three young children, about four hours away from family and friends.

- "From the outside it looked like we were doing okay," Bill said.
- "But from the inside, it looked pretty ordinary."

They had a good foundation, as their north-eastern Victorian farm 'Riverglen' is highly productive, creating scope to utilise it to greater advantage.

Resource utilisation was a central focus of the MLA Challenge. Bill and Georgia credit their mentor, Bill Hoffman, and their consultant, Sam Newsome, with opening their eyes to the prospects.

"Bill Hoffman saw opportunities at different times of the year to increase our pasture utilisation by trading," Bill said.

"Lambs weren't necessarily on our radar then, but I spoke to another mentor, John Keilor, who encouraged us and gave us good advice."

At the outset, Bill and Georgia found the idea of transforming the business daunting.

They were encouraged when Sam Newsome pointed out that, on balance, their foundations were solid. He told Bill and Georgia that going from a 2% to a 4% return on equity would require some tweaks but wouldn't involve any dramatic changes.

"Turns out we weren't doing anything wrong in particular, we just needed to be better at what we were doing," Bill said.

#### **Diversification**

To improve their pasture utilisation, the Wilsons branched out from a pure breeding operation to trading lambs and cattle.

They had been moving their cows and calves regularly to maintain pasture quality but were frustrated by the amount of feed left on the ground, especially in the region's wet springs.

The MLA feed calculator allowed them to gauge how much more they could be getting out of their pastures, and trading provided them with a solution.

"We now use the MLA feed budget tool and rotation planner, as well as the stocking rate calculator. They've been so handy," Bill said.

"We know the rate at which the pasture should be growing at a particular time of year, and we can comfortably go out and buy 500 lambs to run behind the cows."

#### **Adjusting calving**

Another change the Wilsons made to their business was to condense calving.

"Initially, we were more concerned about having calves on the ground to help pay the mortgage than we were about having an efficient herd," Bill said.

However, over the past five years, they've pulled calving back about six weeks and believe there's scope to improve it further.

They now use artificial insemination for all their heifers to ensure a tight calving window and to improve the genetic base quickly.





"It doesn't seem that long ago that the MLA Challenge finished – in that time we've shifted our focus from potential sales at weaning to having a line of cattle that is much more saleable.

"That seems a small thing, but it's been such a big thing."

#### Measure to manage

Since the MLA Challenge, Bill and Georgia are much more discerning, ensuring what they're measuring is relevant to their business.

They've always recorded cattle weights, but they weren't previously using that data to inform business decisions. Bill Hoffman challenged them to think about why they were recording it and how it could be used.

They now use electronic ear tags to record cattle weights straight from the scales to a database, and then use this data to support decisions regarding bull selection, and where they see their target market if they're selling weaners.

#### **Acting decisively**

The importance of strategic decision making to the Wilsons' business turnaround is obvious.

By Bill's own admission, his decision making used to be "horrendous". He would take up to six months to make a decision, then worry afterwards whether it had been the right one.

Bill Hoffman counselled them to be more decisive, advising them to make a decision and move on – don't revisit it.

Georgia said this philosophy now informs the way they operate.

"We've become efficient at decision making," she said.

"When we're trading, we decide we'll sell when the market is good and we're happy with the price.

"If the price goes up the next week, we never say, 'I wish we'd sold this week instead'. We'll be happy with the profit we've made."

#### Goals

Increasing the size and the efficiency of their home operation has been a key goal – it's allowed Bill to scale down his contracting sideline and minimise disruption to the family.

Georgia and Bill have purchased two neighbouring properties, increasing the size of their operation from their original 180ha to 550ha, plus leased country.

They remain focused on cost

of production and while this has improved in the years since the MLA Challenge, Bill said there are still areas they could make gains.

They invested heavily in the newer properties through fencing, pasture improvement and new water infrastructure – doubling the area under irrigation.

"Our costs have been quite high, but we see that as an outlay for a long-term return," Bill said.

One of their strategies for cost efficiency is to avoid having capital tied up in a piece of equipment that may sit idle for most of the year – for example, they produce bulk silage in pits and hire a feed mixer when they're weaning calves.

Prior to the MLA Challenge, the Wilsons hadn't considered succession planning, but are now focused on ensuring their business includes a range of options, for them and their children.

Georgia said part of this is to involve their children in decisions around the farm.

"Whether they want to be involved in ag or not, to be able to make a decision and be comfortable in making a decision will serve them well, whatever field they go into," she said.

#### **SNAPSHOT:**

#### Georgia and Bill Wilson,

'Riverglen' Edi, Victoria





#### Area:

550ha owned plus 120ha leased

#### Enterprise:

Predominantly breeding Angus cattle (some Speckle Park)

#### Livestock:

600 cows plus opportunistic trading of sheep and cattle

#### Pasture:

Phalaris and ryegrass base with some sub-clovers and lucerne. Some winter and summer fodder crops

#### Soil:

Ranging from loamy river flats to rockier hill country

Rainfall: 950mm



Georgia and Bill Wilson E: georgiaandbill@bigpond. com

Andrew Morelli E: amorelli@mla.com.au



MLA tools and calculators: mla.com.au/calculators

## LESSONS LEARNED

- If you're thinking about making a change, do your research. If you're happy about it, go for it.
- > Build a good team around you.
- > Develop your networks.



# A new tool in the fightback against dieback

new pasture dieback management guide has been released, to bring together the latest information on underlying factors and management strategies.

Pasture dieback: a management guide for producers and agronomists was developed in close consultation across the red meat industry to respond to the on-farm challenges presented by pasture dieback.

The guide contains images for producers and agronomists to detect early symptoms of the condition, what grass species are affected and recommends a range of management strategies including the importance of maintaining property biosecurity and biological controls.

The guide was developed in consultation with Applied Horticultural Research, Queensland University of Technology, Queensland Department of Agriculture and Fisheries, University of Queensland and AgForce.

This project is jointly funded through MLA and the Australian Government's National Landcare Program. ■

Felice Driver
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For a digital copy of Pasture dieback: a management guide for producers and agronomists and more information and resources to identify and manage pasture dieback, visit mla.com.au/pasturedieback

The guide was launched at Beef Australia 2021, where MLA hosted a pasture dieback seminar – visit mla.com.au/beef-australia-2021 to watch the seminar recording.

Find out what pasture species are most susceptible to pasture dieback in the March/April 2021 edition of *Feedback*, page 13: mla.com.au/feedback

#### Five signs of pasture dieback to look out for

'Dieback' is a broad term referring to areas of plants dying without an obvious cause.

Here's a visual guide from the new *Pasture dieback: a management guide for producers and agronomists* of what to look out for when checking pastures for signs of dieback.

Leaves become yellow and/or red, often starting from the tips of the older leaves



Root systems are stunted and lack fine feeder roots



Symptoms progress until the plant dies, becoming grey, brittle and easily pulled out



Dead patches appear and spread, particularly where grass has grown thickly, such as ungrazed or



D.
Broadleaf weeds
colonise the areas of
dead pasture





Mealybugs may be visible on the plant leaves and/or in







# Four ways to bite back at parasites

arasite prevention, control and lost value of products costs the sheep and goat industry hundreds of millions of dollars a year, but appropriate management strategies can save producers time and money.

ParaBoss, which is funded by MLA and Australian Wool Innovation and coordinated by the University of New England with industry oversight, provides practical information for producers to guide their approach to parasite management.

The ParaBoss website, paraboss.com.au which incorporates WormBoss, FlyBoss and LiceBoss – includes tools, recommendations and resources for parasite management, as well as decision support tools for producers to assess their situation and make informed management decisions.

Incorrectly using preventative and control measures can lead to ongoing parasite problems and negatively impact animal health and welfare. For example, improper use of chemical treatments can contribute to the development of chemical resistance among parasites.

When it comes to parasite control, there's no 'one-size-fits-all' approach, but here are four actions to take now for better parasite control.

#### 1. Take a DrenchTest

The transition from autumn to early winter is a good time for producers to conduct a

DrenchTest ahead of the strategic spring period, to accurately assess the level of drench resistance on their property and help make decisions for the rest of the year.

An effective drench should reduce the worm egg count by 98% or more.

#### Want to know more?

WormBoss, which covers both sheep and goats, has a more in-depth guide to conducting WormTests and DrenchTests including how to do a quick check on the effectiveness of a particular drench.

There are also strategies to minimise the reliance on chemical treatments, such as breeding for worm resistance, managing worm populations through grazing management, or improving nutrition to boost immunity.

#### 2. Be on the front foot with flies

Flies may be less active at the moment, but it's a great time to develop or review your annual flystrike management plan.

Use the FlyBoss toolkit, especially the Flystrike Risk Simulator, to optimise shearing, crutching and treatment times for maximum protection and review options for breeding for resistance.

This tool estimates the risk of flystrike based on local climate data and predicts the impacts of treatment and prevention strategies to help develop an effective management plan.

#### Want to know more? On

FlyBoss, sheep producers can also explore the various options for managing flystrike risk, including breeding against flystrike susceptibility, breech and tail modification, and use of preventative chemical treatments.

#### 3. Keep an eye on lice

Take the opportunity to implement and test your lice biosecurity plan before shearing.

Regularly checking for lice and using an effective treatment tailored to each farm will reduce the risk of a lice infestation and increase flock profitability.

#### Want to know more?

LiceBoss provides information and tools to help develop a lice biosecurity plan that is specific to your property. It takes into consideration unique risk factors, to provide effective and practical ways to address them.

#### 4. Stay informed

The collective ParaBoss tools are accompanied by a free, twice-monthly newsletter to keep producers informed about which parasite management actions are most needed and when. Sign up to receive newsletters at paraboss.com. au/subscriptions

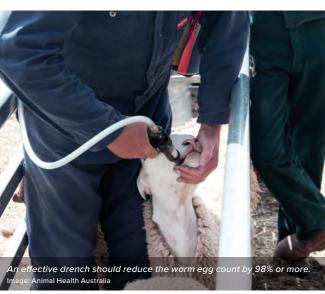
Join ParaBoss on Facebook at facebook.com/paraboss. com.au for weekly posts on flystrike, lice and worm control. ■

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WormBoss, FlvBoss and LiceBoss - under the umbrella of ParaBoss promote best practice on-farm management of sheep and goat parasites, developed by a community of veterinary experts and parasitologists from across Australia, and supported by industry. Check them out at paraboss.com.au

A parasite management tool for beef producers was launched at Beef Australia 2021. For more information visit paraboss.com.au





# Carbon management makes g

dam and Jacynta Coffey are not interested in carbon sequestration to make a quick buck on their Central Queensland property. They're not even that motivated by the social licence or consumer credibility which comes with it. For them, good carbon management is good business sense.

"Increasing soil carbon goes hand-in-hand with increasing productivity," Adam said.

The Coffeys appreciate that soil carbon baseline and follow-up measurements are required to confirm soil carbon increases.

They've recently signed on to an Emissions Reduction Fund soil carbon sequestration project as many of the practices they're employing to build soil health increase the potential for soil carbon to increase as well.

"We're continually trying to improve our enterprise and every time we increase environmental gains in terms of more ground cover, less erosion and better water management, the more infiltration and (potentially) soil carbon we have up our sleeve.

"It's not money in the bank but it feels the same," Adam said of the increased sustainability and productivity of healthier soils.

Five years ago, the Coffeys moved to Central Queensland after running a cattle station near Katherine, NT. The new property had previously been used for investment scheme timber plantations, which left 40,000 10-year-old trees (grown specifically for wood chip) on 400ha.

After the trees were removed, paddock redevelopment was their first priority.

The Coffeys grow mostly improved perennial pastures and maintain a good legume content consisting of different secas, centros and Agrimix Progardes® desmanthus. They have also installed reliable water infrastructure (including sinking bores with solar-powered pumps).

"When we first arrived, heavy rains would fall and the water would virtually run straight off the place," Adam said.

"By focusing on soil health, we now see the moisture soak straight in and then fill the creeks.

"That showed us the power of looking after your soil."

The Coffeys have benchmarked their livestock production from day one on the new property and felt carbon accounting was a natural extension of this.

Last year, they participated in MLA's pilot Carbon Neutral by 2030 (CN30) carbon accounting training.

"We've had exposure to a big carbon offset project in the past, and now we want to manage carbon to improve our business first and foremost," Adam said.

The main challenges Adam found with the carbon accounting process was around entering data into the spreadsheet.

"We have all the data but the seasonal time frame used in the spreadsheet is not the way we run our business," Adam said.



The primary driver of the pilot workshops was to undertake market research on the carbon accounting process and tool to inform refinement and upgrades.

MLA and various research organisations have already invested in improving the carbon accounting tool used in the workshop process (SB-GAF). Including more options for how data can be entered is a recommendation for future upgrades of the carbon accounting tool.

The Coffeys now know how they can improve carbon mitigation but say all options must be profitable solutions and subject to business analysis before being implemented.

#### **SNAPSHOT:** Adam and Jacynta Coffey, Miriam Vale, Queensland





Area: 2.500ha

Enterprise:
Breeding and trading cattle

400 breeders and trading up to 700 steers a year, backgrounded for feedlots

Livestock:

Pasture:

Grasses (blue, signal, Rhodes and native spear) and legumes. Trialling new legumes including stylo, centro and Progardes® desmanthus **Soil:**Dark clay
loam to light
gravel ridges

Rainfall: 1,100mm

## ood business sense



#### **LESSONS** LEARNED

- > Carbon management strategies must meet profitability and productivity targets.
- > Soil health is king and lifting soil carbon improves productivity while making environmental gains.
- > Evaluate if the information is science or a sales pitch.
- Adam and Jacynta Coffey E: coffeycattle@hotmail.com Margaret Jewell E: mjewell@mla.com.au
- For more information on the Australian red meat and livestock industry's target to be carbon neutral by 2030 (CN30), visit mla.com.au/cn30

#### Three actions to reduce emissions

Adam and Jacynta Coffey have identified three focus areas to potentially support reductions in their net greenhouse gas emissions. These are:



**1. Soil health** supported by high levels of ground cover, species diversity and well managed rotational grazing. The couple have purchased a disc seeder for renovating pastures while maintaining ground cover and for sowing opportunity fodder crops.



mla.com.au/healthy-soils



#### 2. Lifting cattle productivity

by removing non-performers and seeking genetic traits for growth while keeping reproductive traits is the first priority. These herd management practices enable fewer livestock to be in paddocks, producing methane for a shorter amount of time, while retaining the same level of productivity. This means emissions generated per kilogram of live weight are reduced and productivity is optimised.



genetics.mla.com.au



3. Dedicating larger areas for tree planting which can help to offset emissions and can also increase productivity by providing livestock shade and shelter. They're also investigating leucaena in some paddocks using the Redlands variety.



mla.com.au/leucaena

## New tool to map vegetation

The Australian Beef Sustainability Framework (ABSF) recently launched a new mapping tool which will, for the first time, allow industry to analyse trends in woody vegetation and ground cover at a regional level on an annual and seasonal basis.

The Balance of Tree and Grass Cover Dashboard is an interactive vegetation mapping and reporting tool which integrates more than 30 years of satellite data.

Chair of the Sustainability Steering Group which drives the ABSF, Tess Herbert, said the dashboard and its agile reporting system was a direct result of extensive consultation with scientists and industry and would improve transparency and accessibility of information.

- "The Australian beef industry now has direct access to the same information that regulators and governments have on vegetation management and can use the data to help drive improvements in environmental management," Tess said.
- "The Australian beef industry plays a major role in landscape management.
- "This dashboard shows the scientific truth that vegetation on agricultural land is increasing, and producers are skilled at land stewardship and committed to sustainability, and making a positive contribution towards actions against climate change."

The ABSF will use the dashboard to better track and measure the beef industry's effect on vegetation to create a science-based measure to help separate fact from fiction.



✓ Jacob Betros

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The Balance of Tree and Grass Cover Dashboard is available from sustainableaustralianbeef.com.au





# Annuals underpin productive perennials

nnual forages have helped to fill the winter feed gap for a group of Victorian producers who achieved a mid to late-winter increase in dry matter production of up to 70% in an MLA Producer **Demonstration Site (PDS).** 

The PDS was hosted by the Perennial Pasture Systems (PPS) group, which includes farm businesses across central Victoria and the southern Wimmera.

PPS Project Manager Rob Shea said the high production annual forage in perennial systems PDS was an important undertaking to strengthen perennial pasture systems in the region for long-term success.

"Because of the importance of perennials for farming systems in low to mid-rainfall zones in Victoria, producers have started looking at improvements they can make to their feedbase to preserve these, particularly as perennials don't grow well in early winter and suffer if grazed over this period," Rob said.

He said producers were looking to annuals such as ryegrass and cereals, dry sowing early in the year and producing good feed to fill the gap.

The PDS demonstrated the value of this practice and tested various annual forages in different regions to provide information on preserving perennials, filling feed gaps and increasing production.

#### **Production and profit**

In the guest to show the benefits of annual forages and increase their establishment in perennial grazing systems, the PDS results included:

- annual ryegrass pastures increased dry matter production in some areas by more than 70% when compared with winter-dormant phalaris pastures
- growing annuals allowed for more strategic use of perennial varieties to build feed wedges and assist in the persistence of perennial grass species
- grazing cereals in lamb and wool production systems have the potential to fill winter feed gaps – one farm involved in the PDS recording 315g/day lamb weight gains
- · where seasonal conditions allowed grazing cereals to be harvested for grain or hay, gross margins in excess of \$1,000/ha were achieved.

As a result of the PDS, in 2019 nearly half of PPS members dry-sowed annuals to complement their perennial systems.

Rob Shea

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Find out more about MLA's

Producer Demonstration Sites at mla.com.au/pds

To read the final report from this PDS, visit mla.com.au/pds\_1708

Learn more about Perennial Pasture Systems at perennialpasturesystems.com.au

Read story opposite to see the results on one of the PDS sites.

#### RESEARCH UPDATE

#### WHAT IT'S ABOUT

How adding annual varieties can increase overall production in perennial pasture-based grazing systems

#### **WHY IT MATTERS**

Adding annuals to a perennial system can address winter feed gaps, build feed wedges and spell perennial pastures during poor growing months

#### WHERE IT'S UP TO



Finalised

#### WHO IS INVOLVED

MLA and Perennial Pasture Systems

#### Be on the front foot

The PDS identified strategies for producers to optimise the use of annuals in their own perennial systems - start this winter to be on the front foot for next year's crop.

Annuals can be dry-sown without the need to wait for the autumn break, but paddock preparation is still essential. A weed-free seedbed will produce the best results, as herbicide interventions after establishment will slow growth.

"You should plan to dry-sow annuals in March or April before the autumn break, which means preparing paddocks and eradicating weeds as early as the spring or winter before for the best growth results," Rob said.

# Ryegrass triple treat



ntroducing annual ryegrasses has delivered a triple win for central Victorian sheep producer Lachie Green, by filling the winter feed gap, preserving perennial pastures and supporting quicker lamb turn-off.

When Lachie took over 'Mokepilly South' at Lake Fyans in 2012, he faced the challenge of growing sufficient dry matter over winter in paddocks which had been overgrazed and under-fertilised.

Lachie hosted an MLA Producer Demonstration Site (PDS) to investigate high-production annual forages in perennial systems (see story opposite).

He originally added annuals into the mix as an experiment to see if he could produce more bulk, better quality feed, increase livestock weights and protect his perennials through the mid to late-winter period. To his delight, annuals ticked all the boxes.

"I knew if I could get some higher-producing annuals into the system, then not only could I address the initial challenges I'd seen with the place, but I could also let these annuals compete with less desirable annuals like silver grass for a more productive enterprise," Lachie said.

#### **PDS** results

For the PDS at Mokepilly South, annual ryegrass varieties were sown over three seasons from 2017 to 2019, using both a conventional rate (16kg/ha) and a double rate (32kg/ha). Applications included monoammonium phosphate (MAP) fertiliser, urea and nitrogen.

The PDS demonstrated that large increases in dry matter (DM) production were possible, with a 154% increase in DM recorded in August 2017 in the pastures seeded at the higher rate.

In 2019, the PDS produced an increase of 1,060kg DM/ha for the higher seed rate with applied nitrogen, compared with the conventional seed rate without nitrogen.

When the numbers were crunched, higher seeding rate returned a gross margin of \$21/ha more than the lower seeding rate, due to the higher stocking rate it could support.

"Although there was an extra cost associated with double sowing, it did give us more dry matter to play with at a time when we've had a feed gap in the past," Lachie said.

The PDS also reflected the benefits associated with early sowing ahead of the autumn break, which in the region typically arrives around ANZAC Day.

Due to unforeseen circumstances Lachie was unable to sow until May in one of the PDS years – the result was decreased DM production and reduced flexibility in pasture utilisation.

#### Faster turn-off

Lachie has seen a benefit to stock and perennial pasture turn-off from the PDS.

"We're able to turn lambs off on the annuals faster compared with other feed during that period," Lachie said.

"It's also given us a chance to give the perennials a rest over the winter period when they typically don't grow well and respond poorly to grazing – now they're performing really well come spring and summer.

"Ultimately, a well-managed perennial system is where I'd like to go with my pastures, and having the annuals is allowing me to better pursue this."

The annuals have also provided a risk-management strategy, giving the flock access to feed at critical times. This is important as the enterprise has moved away from prime lambs toward trading lambs - a tactic to better match the property's carrying capacity and manage risks.

"You need to have relief valves in your system and introducing the annual ryegrasses is one of mine, as I can better match pasture production and stocking rates." ■

Lachie Green E: lachiegreen@gmail.com

**SNAPSHOT:** Lachie Green, 'Mokepilly South', Lake Fyans, Victoria





Area: **Enterprise:** 830ha Lamb trading

Livestock: 1,600 Merino ewes joined to White Suffolk rams, trading 2,000-3,000 lambs depending on the season

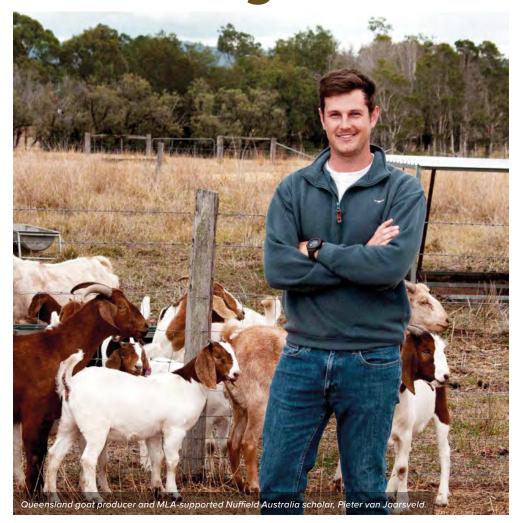
#### Pasture:

Perennials (phalaris, clovers, lucerne, cocksfoot, plantain), annual ryegrasses

Soil: Sandy loam Rainfall: 450mm



# Looking over the hill to better goatmeat



#### ueensland goat producer Pieter van Jaarsveld, can't wait to help fellow producers breed more profitable goats.

Pieter was awarded a 2021 Nuffield Australia Farming Scholarship, supported by MLA, to guide his research into how cross-breeding rangeland and Boer goats can increase meat production and drive greater productivity in the industry.

Pieter manages Sunset Hill Boer Goats, a Boer and rangeland goat enterprise on the family farm, 'Delamira', at Gore in south-east Queensland.

He currently runs commercial and stud Boer goats alongside rangeland goats, using a breeding flock of 600 does to produce meat goats that are supplied to local abattoirs.

As well as managing his goat enterprise, Pieter is currently completing his honours in animal production science at the University of Queensland.

His studies and on-farm experience will inform his research into the goat industry to be undertaken this year as part of the Nuffield program.

Already, the challenges Pieter has faced in building a profitable goat enterprise at Delamira have given him a wealth of knowledge around goat production that will prove valuable to other producers in the industry.

#### Challenges

Prolonged dry conditions in the Traprock region surrounding Delamira have presented a significant challenge to producers in recent years.

Thanks to the hardy nature of goats and their ability to perform in low-rainfall areas, his business has been able to grow despite adverse conditions.

"The horrible seasons we've had – that's probably one of the big challenges, but even through all that, we've been constantly expanding," Pieter said.

Wild dogs are another serious threat facing producers in the region. However, exclusion fencing has managed to keep the wild dog population under control.

"It's just another line of defence," Pieter said.

"Everyone benefited from reducing those problems."

However, Pieter reckons the uptake of data is one of the biggest challenges – and greatest opportunities – facing the goat industry.

He has his sights set on encouraging producers to generate data about the value in goats, to drive productivity.

Pieter will use his Nuffield Scholarship – which supports recipients to travel and study an agricultural topic of their choice – to gather data on cross-breeding a range of goat breeds to determine how producers can breed goats to maximise profitability. "If we want to survive going forward, if we want to be a competitive industry on our own, we really need to start looking at having valuable data and considering our genetics, our performance and our production outcomes.

"This year, I'll focus on getting a picture of all this data and trying to establish a set of production outcomes that we should be looking for in the industry," Pieter said.

"This means looking at Boer goats and rangelands goats, to find out where along that cross line is the optimum production outcome for the market, internationally and domestically."

## **Building a sustainable business**

Information about optimal cross-breeding presents opportunities to improve the productivity of goat enterprises.

In Pieter's case, after he has identified the ideal cross line, he plans on harnessing this information to expand his own enterprise.

He said their expansion options could include breeding crossbred goats on-farm and then fattening the livestock on other properties to be purchased as part of the business, or establishing a cooperative with other goat producers.

Throughout it all, he's focused on ensuring his research can be used to assist other goat producers and industry stakeholders increase the profitability of their operations.



"My passion is the goat industry and to serve everyone in it."

Before the onset of COVID-19, Pieter originally planned to include an international research component to his study, to visit key importers of Australian goatmeat and learn more about the South African goat industry.

However, due to ongoing travel restrictions, Pieter will now conduct his research tour around Australia, speaking to producers and stakeholders involved in a range of operations across the domestic goat industry to gather insights to support his research.

"With an industry in its infancy, it's extremely important that we have some actual data backing what we do as an industry," Pieter said.

"We really need to have the right data about how to manage these animals accordingly to get the best out of them." ■

#### $\bowtie$

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Learn more about Pieter's enterprise at sunsethillboergoats.com

Applications for the 2022 Nuffield Australia Farming Scholarships open in June 2021. Visit the Nuffield Australia website for more

MLA delivers a range of workshops, tools and other resources for goat producers – for more

information: nuffield.com.au

## information visit mla.com.au/goats

Sign-up for MLA's quarterly Goats on the Move e-newsletter at mla.com.au/enews

#### **SNAPSHOT:**

#### Pieter van Jaarsveld,

'Delamira', Gore, Queensland





#### Area:

1,012ha

#### **Enterprise:**

Commercial and stud Boer goats, rangeland goats

#### Livestock:

600 does

#### Pasture:

Native deep-rooted perennials, mixture of native grasses and shrub

#### Soil:

Traprock

#### Rainfall:

650mm

# LESSONS LEARNED

- > Goats are ideal livestock to run in low-rainfall areas.
- > Goats and sheep within the same enterprise should have separate health management plans, rotational grazing management plans and other management decisions.
- > Data is essential to guide goat breeding and management decisions.



# An on-farm approach to processing

Southern producers are partnering with a mobile abattoir company, Provenir, to open the gate to on-farm processing. While this style of processing is niche and low-throughput, it's filling a gap. Here, meet some of the producers who are using this unique approach, then turn the page to learn more about how Provenir works.

# Instant feedback delivers value



SW producers Bill and Joy Wearn process 10–20% of their Angus beef herd through Provenir's mobile abattoir.

The Wearns started processing with Provenir in 2019, as their production goal of maximising the health and welfare of animals strongly aligns with the company's ethos to produce exceptional quality meat through high-welfare, on-farm processing.

"We're low-stress stock handlers and when you load your animals onto the truck, that's the last you see of your animals and you've lost control," Joy said. "The Provenir processing unit reverses into our yards and from there we're able to quietly walk our animal up the ramp and into the unit — we have complete control of the process.

"There's no stress on them or us."

#### Instant feedback

Another benefit for Bill and Joy is the information they receive about their animals.

"We receive instant feedback from Provenir's meat inspector, who is onboard the processing unit every day," Bill said.

"The valuable information they provide improves our on-farm management strategies."

For example, on one occasion Provenir processed cattle which the Wearns had only trucked in from another property a week before slaughter. Provenir's meat inspector provided feedback about how pre-slaughter management impacted carcase quality.

"This really reinforced the need to group the mob 2–4 weeks before slaughter to reduce stress on the animals."

## New market opportunities

Before using Provenir, the Wearns would process all their cattle with local abattoirs or send to feedlots.

"We focused on younger animals, getting them up to weight as quickly as possible and then getting them off to feedlots or a processor," Joy said.

"Provenir now provides a valuable market for our females, such as our older cows or those that turn up without a calf at foot or are preg-tested empty.

"We've developed a connection with these cows, they've been around for years so it really completes the circle – Provenir enables us to give this animal respect to complete her life cycle on our farm."

#### **SNAPSHOT:**

Bill and Joy Wearn,

'Little Billabong', Holbrook, NSW





#### Area: 6.800ha

#### Enterprise:

Beef, wool, lambs, agroforestry

#### Livestock:

1,500 Angus breeders 9,000 sheep (Merino, composite and Suffolk self-replacing flock)

#### Pasture:

Phalaris, ryegrass, sub-clovers, weeping rice grass, common wheat grass and wallaby grass

#### Soil:

Varied, silty loam creek flats, red granite to shale on hills

#### Rainfall:

675mm

Joy and Bill Wearn
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# Bred, raised and processed on-farm

eef producers John and Joanne **Lambert from** Molyullah in north-east Victoria aim to produce the highest quality beef using sustainable farming and high animal welfare practices.

The Lamberts have been processing their cattle with Provenir since September 2020.

- "Provenir, in our mind, is the gold standard in beef processing. They come to us and process finished steers, heifers and cows on our farm directly from our cattle yards," Joanne said.
- "The on-farm processing ensures minimal stress for the animals and the cattle we breed never have to leave the farm on a truck."

The Lamberts also see other benefits of on-farm processing, including:

- eliminating trucking costs
- avoiding carcase downgrades
- better carcase yields from a shorter curfew in a familiar environment.

In the past, although the Lamberts received a price premium for their cattle which met grid specifications through a processor's branded beef program, their culled cows didn't qualify for this program.

So, these cattle were trucked separately to saleyards and then on to the processor.

- "This created logistical headaches as we only had a handful of empty cows," Joanne said.
- "We don't like trucking our cattle, let alone over several trips with possibly longer curfew periods to reach an abattoir.
- "Provenir provided us with the ideal market not only for our empty cows, but all of our finished cattle by coming directly to us on-farm and processing the cattle in a way which respects our high animal welfare philosophies."

#### Pre-slaughter handling

An important element contributing to high eating quality performance is how cattle are managed on-farm prior to slaughter.

According to Meat Standards Australia (MSA) guidelines, the way cattle are mustered, their nutrition and temperament all impact meat quality.

Here's how the Lamberts who have been an MSA Top 100 Producer in eating quality – apply these principles on-farm to boost beef quality.

#### 1. Breed calm cattle

The Lamberts have a young breeding herd, established in 2017. They select bulls for temperament, ease of calving and performance on the heavy grass index.

#### 2. Low-stress handling

John and Joanne value a quiet herd that can be handled easily and herded on foot or using quad bikes calm cattle underpins handlers' safety and reduces animal stress.

#### 3. Grazing management

The Lamberts rotationally graze their cattle on a range of species to ensure the energy, protein and mineral needs of the cattle are met. They maintain a clean drinking water supply to cattle to reduce animal health issues.

Grazing is supplemented with hay when pasture growth is low and over winter periods to provide roughage and minerals.

Later-finishing steers and heifers are finished on forage brassica through summer.

#### 4. Pre-processing practices

The Lamberts draft cattle into their processing herd at least three weeks prior to slaughter to allow the animals to settle into that group.

These cattle are then sent to paddocks with the best feed. They are yarded the evening before processing, with plenty of room to lie down and access clean water.

Below: Joanne (pictured) and John Lambert understand that calm cattle contribute to a safe stock-handling environment.

#### **SNAPSHOT:**

John and Joanne Lambert, 'Willowmavin', Molyullah, Victoria





#### Area: 100ha

## **Enterprise:**

Beef cattle

#### Livestock:

70 Angus cows and 40 trade steers

#### Pasture:

Mixed species: phalaris, rye, clover, medic, kikuyu; brassica summer crop

#### Soil:

Sandy loam to light clay

#### Rainfall:

635-750mm



John and Joanne Lambert E: joanne.morshead@ gmail.com

#### **LESSONS** LEARNED

- > On-farm processing has financial and animal welfare benefits.
- Provenir provides us with improved awareness of animal health issues through instant feedback from offal examination.



# PROVENIR OPENS THE GATE TO

# LOWER-STRESS HANDLING

hat do you get when a producer/scientist, marketer, chef, barrister and vet put their heads together? Australia's first mobile processing unit that removes the need to transport livestock to meat processors.

Provenir is the collective brainchild of five founders who believe that to produce the best beef in Australia processing has to be done at the point of production.

Provenir was founded in 2017, with research and development components co-funded by MLA Donor Company.

While it's a simple concept, the innovative company has still faced its share of challenges, such as successfully lobbying to change Victorian law to permit abattoirs to be mobile and tackling the COVID-19 curve ball that hit the meat processing industry in 2020.

The company now processes beef on more than 30 farms in NSW and Victoria.

#### Here's how it works

Provenir co-founder and Chief Executive Officer Chris Balazs — a producer himself — said the process starts with how the mobile processing unit is integrated with the producers' cattle yards to minimise the stress on livestock.

"The cattle are in the yards they're familiar with, then we calmly walk them into the back of the processing unit," Chris said.

"From the time they're selected to come into the back of the unit to slaughter is within 90 seconds, which minimises the stress window." The beast then goes into a purpose-built knocking box where they are stunned.

"The mobile abattoir incorporates design elements from the research of Dr Temple Grandin – who has revolutionised meat processing by minimising stressors and increasing animal welfare."

Provenir has carefully thought out their approach to processing to improve meat quality and animal welfare – for example, the length of the stun-to-slaughter process has been minimised and animals are restrained across five points so the process is safe.

"We've put a lot of effort and design technology into being able to do

### The missing link

MLA Donor Company
(MDC) co-funded Provenir
to research, successfully
develop and commericalise
a new novel red meat
value chain incorporating a
mobile slaughter unit and
a centralised boning and
value-adding facility which
creates economic benefit for
Australian red meat producers.

This project developed the missing link that existed in the supply chain and directly addressed producers' desire for more accessible and convenient slaughter facilities and gain greater control over the red meat processing chain.

this in a safe and consistent way to ensure the highest quality beef," Chris said.

#### **Delivering value**

Chris and Provenir co-founder and Chief Marketing Officer, Jayne Newgreen, said their approach to meat processing was delivering value in three key ways.

#### 1. Full knowledge

As a producer, Chris was unhappy every time he loaded his cattle onto a truck because he didn't know where they would end up.

- "I'd put a lot of effort into raising these animals and I was personally invested in them, but I never knew who was going to eat my meat and worse, those eating my meat didn't know it came from my farm," Chris said.
- "Producers raise cattle for up to two years, or in the case of cows, they've been on-farm for 8–10 years so they've got a close connection with those animals.
- "Provenir closes the loop on the process and allows the producer to know their animals are looked after from farm to slaughter."

Jayne believes Provenir's first-hand knowledge of red meat production is vital to their approach.

"As a producer-created innovation, we hope Provenir is seen as significantly contributing to the overall industry drive to improve animal welfare," she said.

#### 2. Promoting provenance

A unique quick response (QR) code is added to the packaging on each piece of meat processed by Provenir, which connects the consumer with exactly what farm the beef comes from.

- "Producers like the collaborative approach Provenir provides with our traceability platform," Jayne said.
- "Consumers can use their smartphones to get a full farm description including how the beef was produced, the breed of cattle and what motivates the producer to produce the best quality beef."

#### 3. Direct feedback

A meat safety inspector is onboard the Provenir processing unit at all times, which enables valuable feedback directly to the producer.

- "We assess the internal health of the animal as we go through the abattoir process," Chris said.
- "We've identified on-farm issues around water supply and water quality which impacts the animal's renal capacity, and therefore on-farm productivity and meat quality."

Producers can take this information onboard to guide their on-farm management.

Turn to page 38–39 to meet some of the producers who supply Provenir. ■



#### $\bowtie$

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Joshua Whelan
E: jwhelan@mla.com.au
Andrew Morelli



Find out more about Provenir at **provenir.com.au** 

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MLA with co-funding from the Collaborative Marketing Program recently partnered with Three Blue Ducks Restaurant Group for a television series on Network 10, to showcase Australian red meat producers' world-class sustainable production practices and their high-quality products. Provenir featured in the Three Blue Ducks series — for more information visit goodmeat.com.au

# Provenir's profile



1,311

cattle processed on-farm since June 2019



14-16

cattle processed each day



33

producer partners



53

retail stores sell Provenir beef



18

restaurants serve Provenir beef

Below: Provenir is Australia's first mobile processing unit that removes the need to transport livestock to meat processors.



# One, two, three – counting sheep just got easier

n an industry first, automated sheep-counting technology capable of achieving 99.9% accuracy has been developed using artificial intelligence (AI).

It's a step forward for the livestock industry - especially for live exports as it automates an important but often tedious and demanding job.

The technology was developed by the University of Technology Sydney (UTS) for the Livestock Export Program (LEP), which is jointly managed and funded by MLA and LiveCorp. The LEP conducts research that benefits the entire livestock export supply chain, from producers through to abattoirs in international markets.

Loading livestock vessels at seaports is like a day at the stockyards. Operators, stockhands and, occasionally, dogs work together to load vessels, with up to 50,000 head coming through the port over a couple of days.

It falls on one person – the tally clerk – to count them, and getting the numbers right is critical to ensure that all parties agree on the number of sheep loaded onto the vessel.

So came the inevitable thought – there's got to be an easier way – which paved the way for the research into how AI technology could be used to count sheep.

Trials were carried out at the Fremantle Port, which annually loads more than 90% of Australian sheep destined for international markets.

Fremantle Port staff are experienced and the vessel loading operations are finely tuned, so the AI system had to prove it could deliver in this fast-paced environment, and deliver it did.

#### How it works

Industry's leading tally clerks regularly achieve 98% accuracy counting sheep being loaded onto a livestock vessel, so the challenge was to demonstrate the Al technology could top this and deliver at least 99.5% accuracy.

The UTS team previously used Al systems to count cars on roads, so they used a similar high-speed video camera-based algorithm system for a real-time count of sheep.

This technology also had to withstand the port environment: high humidity, salt in the air and, when the wind is up, everything gets drenched.

The other part of the equation was developing the 'brains of the system' the algorithm.

Sheep vary in shape due to breed, age and other factors. As they move along a race together, they may twist and turn, jump up or get between the camera and other sheep.

So, the algorithm had to be 'taught' to identify sheep from the surrounding environment and learn all these variations – with the added complexity of factoring in the differences in light and shadows between day and night.

Training was also required to discern between a sheep, people and dogs – teaching the algorithm to distinguish between sheep with dark wool and a black and tan Kelpie was particularly challenging.

When the system was applied in a real-world scenario, it operated without causing any disruption to port operations and – when cross-checked with manual counts of the video - had 99.9% accuracy.

The system has also been used on unloading ramps at two sheep saleyards with 100% accuracy, demonstrating potential for application to other sectors.

This new counting system has the potential to reduce errors, cut costs, minimise disputes and reduce the labour-intensive process of sheep counting across numerous operating environments.

MLA, LiveCorp and UTS are identifying a commercial partner to further develop and commercialise the automated sheep-counting technology, and potentially develop it to count cattle and other species. ■

#### RESEARCH **UPDATE**

#### WHAT IT'S ABOUT

In an industry first, automated sheep-counting technology capable of achieving 99.9% accuracy has been developed using artificial intelligence

#### WHY IT MATTERS

It improves counting accuracy and reduces a labour-intensive process

#### WHERE IT'S UP TO



Finalised

#### WHO IS INVOLVED

University of Technology Sydney, MLA and LiveCorp

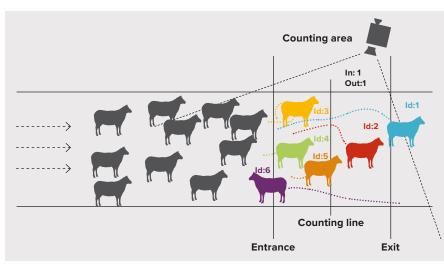


Sharon Dundon

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For more information on MLA's international markets, visit mla.com.au/international-markets



Above: The system identifies a counting area in the race and tracks each sheep through the counting area until they exit. If a sheep decides to head back down the race, the count is removed from the tally.



# The fight against red meat fraud

ood fraud is estimated to cost the global food industry around \$50 billion each year\* – but Australia's red meat supply chain has a new weapon to fight the escalating issue.

MLA partnered with food forensics company Oritain to scientifically distinguish Australian beef and lamb from red meat produced in other countries.

As well as providing a defence against fraud, it responds to increasing consumer demand for traceability and authenticated provenance claims.

The 'product of Australia' provenance endorsement is a fundamental element in red meat exporters achieving price premiums, and many red meat brands underpin their value propositions on the credibility of Australian provenance.

Substitution of Australian red meat in export markets with products from non-Australian origins is a substantial risk to the industry.

MLA's Manager for Market Access, Science and Technology, lan Jenson, said although Australia has strong livestock traceability systems, food fraud is a threat along the red meat supply chain.

"MLA has made considerable investments in the traceability of Australian red meat pre-slaughter through programs such as the National Livestock Identification System (NLIS) and Livestock Production Assurance (LPA).

"However, once the NLIS tags are removed, traditional traceability systems such as packaging, labels and barcodes have known limitations and weaknesses," lan said.

"Once the packaging is tampered with or removed, traceability is lost – leaving Australian red meat brands in export supply chains vulnerable to substitution."

The Oritain project is the next step to ensure the integrity of Australia's red meat supply chain by testing the actual product inside the carton or packaging.

"Australian red meat producers have worked incredibly hard to achieve the clean, green and safe reputation Australian red meat is renowned for across the globe – food fraud can potentially damage this reputation, taking the Australian market years to recover," lan said.

MLA's *Strategic Plan 2025* sets out to double the value of Australian red meat sales, and this project will play a role in protecting the red meat supply chain against food fraud to underpin Australia's position as the trusted source of the highest quality protein.

\*FIAL – The Food Innovation and Growth Centre, 2017

**Turn the page** to learn more about the MLA/Oritain project and other ways MLA is working to maintain the integrity of Australian red meat in global markets.

# Pointing the finger at red meat's origin

LA has joined forces with food forensics company Oritain to develop an 'origin fingerprint' for Australian beef and lamb.

Oritain's Regional Head of Client Engagement – Asia Pacific, Sam Lind, said the origin fingerprints bring a range of benefits to the red meat supply chain.

"Food fraud not only damages a company's brand or even a country's reputation, but if you have fraudulent product on the market then there's an artificial representation of the supply and demand curve with fraudulent product artificially decreasing demand," he said.

While Oritain has worked with meat exporters in New Zealand and Europe to validate the origin of red meat, it's the first time the technology has been applied to Australian red meat, and at such a scale.

#### Here's how it works

Chemical analysis of red meat samples from beef and lamb producing areas around Australia (see image below) are used to develop 'origin fingerprints'.

A sample of beef or lamb can be taken from any point in the supply chain or in-market and sent in tamper-proof packaging to one of Oritain's laboratories across the world.

This red meat sample is tested using Oritain's proprietary

algorithms and statistics to verify if the product is true to its claimed origin.

The origin fingerprint offers red meat exporters and others in the red meat supply chain the ability to simultaneously protect and promote their product, while providing independent evidence to back up their brand story.

"Oritain programs not only provide a means of detecting fraudulent activity, but act as a deterrent to dishonest behaviour," Sam said.

"Introducing a robust method of detecting fraud and communicating this to the supply chain drives compliance of truthful labelling.

"In doing so, customer and consumer confidence and trust towards 'product of Australia' and individual Australian brands can be both protected as well as further enhanced.

"The origin fingerprint isn't all about policing the supply chain by looking for fraudulent behaviour, it's about asking red meat exporters – what's the story you want to tell your customers or consumers, and how can Oritain back that up?"



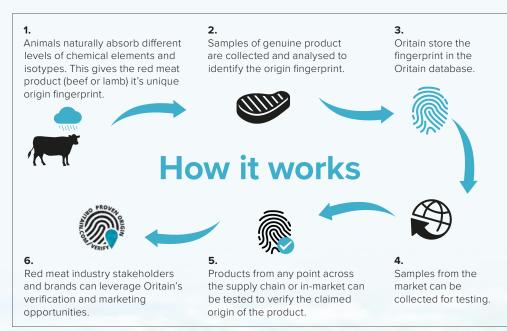
lan Jenson E: ijenson@mla.com.au Oritain E: info@oritain.com



Read the final report, Compositional traceability – origin fingerprints for Australian beef and lamb at mla.com.au/originfingerprints

Listen to Sam Lind discuss the origin fingerprint on episode 24 of the MLA *On* the ground podcast: mla.com.au/on-the-ground

Learn more about the red meat integrity programs delivered by MLA subsidiary Integrity Systems Company at integritysystems.com.au





# Keeping red meat on the plate around the world

Here's a look at how MLA promotes Australian red meat as the trusted protein in two international markets.

#### **North America**



**Rob Williams** MLA Regional Manager -North America

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Australia's integrity systems underpin market access to one of Australia's largest export markets, the US, which has some of the strictest requirements in the world when importing red meat.

"The US has a history of foodborne disease outbreaks caused by specific types of *E. coli*, amongst some other more common microorganisms, which is why they are very strict when it comes to food safety domestically and with red meat imports," MLA Regional Manager – North America, Rob Williams said.

"Australia is approved as a trusted system to export to the US with many of the requirements in Australia's export system built around the US Department of Agriculture (USDA) standards because of Australia's long history of sending product to the US.

"Australia's robust exporting system, which has a strict E. coli testing regime and quality assurance systems such as in-plant monitoring to ensure production is within the limits for certain microorganisms, has given the US confidence in the safety of Australian red meat."

Australia's integrity systems such as the National Livestock Identification System (NLIS), Livestock Production Assurance (LPA) and Meat Standards Australia (MSA) are a critical part of why Australia is trusted by the US. They underpin Australia's strong food safety and quality reputation, allowing Australian red meat to achieve a price premium in the US.

"MSA is actually approved by the USDA as an equivalent grading system to the US system," Rob said.

"This enhances the credibility of Australian MSA-graded product as the USDA shield can be used to make the same claims about tenderness, juiciness and flavor of our red meat.

"This is a major competitive advantage for Australian red meat as other countries (such as South America, Brazil and Uruguay) importing red meat into the US don't have these credentials."

#### Korea



Charlie Ko MLA Country Manager for Korea

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When Korean consumers are purchasing red meat, country of origin is the second most popular purchasing driver, after freshness – and Australia proudly holds the number one spot as Korean consumers' preference when purchasing imported red meat.\*

MLA Country Manager for Korea, Charlie Ko, said MLA ensures Australian beef remains the number one choice for Korean consumers by promoting its clean and safe attributes.

After conducting consumer research in 2017, the MLA Korea team identified an opportunity to align Australian beef with 'good nature'.

"Good nature doesn't just mean the good nature of Australia," Charlie said.

"It has a dual meaning of a clean environment and good personality, delivering the core traits of Australian beef being safe and clean (which are environmental factors), trusting and joyous (which are 'good natured' personality traits).

"Awareness of food safety is high in Korea as MLA continues to communicate messages of food safety, centered around Australia's integrity systems such as the National Livestock Identification System (NLIS) and Livestock Production Assurance (LPA)."

MLA's good nature marketing campaigns communicate these food safety messages in Korea across the True Aussie website, Facebook, media, foodservice, retail and ecommerce channels.

\*Kanstar MLA Aussie Beef Brand and Campaign Assessment Study, 2021



Learn more about MLA's livestock and red meat integrity programs at integritysystems.com.au and mla.com.au/msa

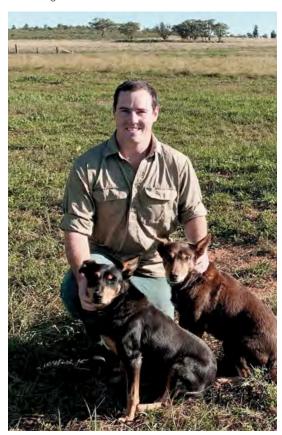
More insights into MLA's international markets, including True Aussie, are available at mla.com.au/international-markets



# Giving your stories a voice

ou may not have met Patrick Weston before, but if you're a regular reader of Feedback you'll certainly have heard from him many times.

Patrick, who hails from central west NSW, joined MLA in 2020 as a Communications Specialist, writing articles for MLA's range of publications, including *Feedback*.



Patrick Weston
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Read past editions of Feedback magazine at mla.com.au/feedback

Here, we turn the tables to find out more about Patrick and how growing up on the land planted the seed for a career telling producers' stories.

## Q:

#### Tell us a bit about yourself

I am originally from Nymagee in central west NSW, where my family have a mixed sheep and cattle enterprise. I completed my early schooling at home through the School of Distance Education followed by high school in Sydney. After school, I moved to rural England for a year to work. When I returned to Australia, I completed a media and communications degree at the University of Sydney, with the goal to become a writer.

## Q:

#### How did you end up at MLA?

I'm passionate about rural Australia. I grew up on the land and always felt connected to the red meat and livestock industry, so when I saw the opportunity with MLA to combine my interests in agriculture and writing, I threw my hat in the ring.

## Q:

## Tell us about a day in your

My job title is Communications Specialist but I think a better way to describe it is a 'content writer' – I'm constantly writing articles for MLA's publications, including Feedback.

When I'm not writing, I provide communications support to help MLA deliver information to stakeholders in an engaging and digestible way.

### Q:

#### Why is your job important?

Across the country, there are a multitude of producers and experts ready to share knowledge which could benefit others in the industry.

### I'm the middleman looking for those gems and getting what they know out there to have a positive impact.

It's important for MLA to engage with our stakeholders and demonstrate to levy payers where their funds are being spent – our written communications are one of the ways we can achieve this.

### Q

# What are the best parts of your jobs?

I enjoy the opportunity I have every day to speak with like-minded people either in the office or during an interview for a story. Producers, my colleagues and industry experts all have something to offer, so I'm always learning and hearing a new perspective.

## Q:

# What is your favourite red meat dish?

I'll take a home-grown barbecue lamb chop, potato bake and salad any day. ■

# One-pot wonder

Keep this tasty recipe up your sleeve for when you need a hearty meal to ward off the winter chill. It's one of the dishes featured in MLA's 2021 winter beef campaign. For more beef recipes and cooking tips, visit australianbeef.com.au

#### One-pot balsamic beef braise

Serves: 6 • Preparation: 15 minutes • Cooking: 1 hour and 45 minutes

900g chuck or blade steak, fat trimmed, cut into 4cm pieces

2 tbsp flour

2 tbsp olive oil

1 red onion, thinly sliced

2 celery stalks, roughly chopped

3 carrots, peeled, roughly chopped

1/4 cup (60ml) balsamic vinegar

1/4 cup tomato paste

2 tbsp brown sugar

11/2 cups (375ml) salt-reduced beef stock

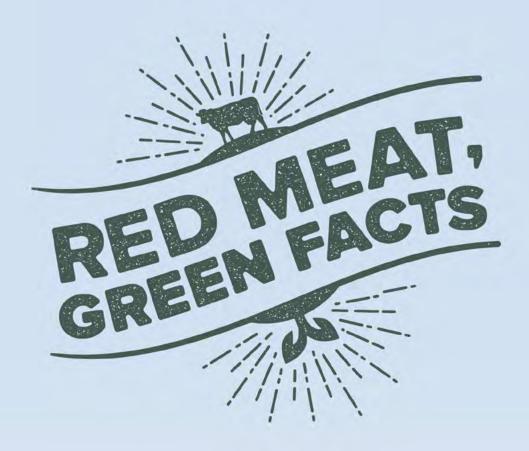
250g brown mushrooms, thickly sliced

1 bunch English spinach, trimmed, roughly chopped

Cauliflower rice, steamed green beans, parsley leaves, chopped, to serve

- 1. Place the beef and flour in a large snap-lock bag. Season and toss to coat. Heat half the oil in a large casserole dish over medium-high heat. Add beef and cook, in batches, for 3–4 minutes or until lightly browned, respraying the pan with oil, as necessary. Set cooked beef aside on a large plate.
- 2. Reheat the same pan over medium-high heat with remaining oil. Add onion, celery and carrots. Cook for 3–4 minutes then return beef to pan with vinegar, tomato paste, sugar and stock. Stir well, bring to the boil, reduce heat to low and cover. Simmer gently for 1¼ 1½ hours, adding mushrooms for final 30 minutes of cooking time and removing lid. Remove from heat, season and stir through spinach.
- 3. Serve beef braise with cauliflower rice, steamed beans and parsley leaves.
  - Gravy beef would also work well in this recipe.
  - Ask your butcher to dice your beef for you to save time.
  - This is a great meal to have in the freezer for winter nights when you
    are time poor. Simply reheat the braise and serve with your choice of
    mash, rice, pasta, cous cous or steamed green vegetables.





The red meat and livestock industry proudly produces healthy, nutritious, natural protein, is a world leader in animal welfare and is increasingly part of the climate solution.

Know your facts.

redmeatgreenfacts.com.au

