

meatup FORUM

For the latest in red meat R&D

Wagga Wagga, 16 August 2022

Hear about locally relevant on-farm R&D

•

Hear from and network with leading producers

•

Gain insights into tools and programs to improve your business

•

Increase your productivity and profitability

About MLA

Meat & Livestock Australia Limited (MLA) delivers research, development and marketing services to Australia's cattle, sheep and goat producers. MLA has approximately 50,000 livestock producer members who have stakeholder entitlements in the company.



Program – Wagga Wagga, 16 August 2022

Time	Session
8.00am	Registration desk opens, tea and coffee available
9:00am	Session 1: Welcome (Joyes Hall)
	Welcome, housekeeping and forum schedule Georgia McCarthy Pinion Advisory and Lisa Anderson, NSW working Group Member
	MLA welcome and market update Michael Crowley, General Manager Research Development & Adoption, Meat & Livestock Australia
9.35am	Session 2: Setting the scene (Joyes Hall)
	The art of excellent farming Kate Burke, Think Agri
	Understanding the profit drivers of red meat businesses John Francis, Agrista
10.45am	Morning tea
	Session 3: Concurrent sessions
	Session 3A: Sheep updates (Joyes Hall)
	Session 3B: Beef updates (Convention Centre)
	The economics of pregnancy scanning and overview of the Sheep Reproductive Strategic Partnership Sue Hatcher, Sheep Reproduction Strategic Partnership
	Managing replacement heifers Alastair Rayner, Rayner Ag
	Optimising ewe lamb joining Henry Hickson, NeXtgen Agri
	Heifer selection and management of heifers up until second calving – producer panel Facilitated by Alison Hamilton, AJM Livestock Solutions Agri
	Meeting processor and consumer demands Will Barton, Gundagai Lamb
12.35 pm	Lunch
1.40 pm	Session 4: Carbon update (Joyes Hall)
	Getting the ball rolling with carbon neutrality Margaret Jewell, Meat & Livestock Australia
	Session 5: Virtual farm tour (Joyes Hall)
	Spicers Run virtual farm Tour Joe Mason and family, Spicers Creek
2.55pm	Afternoon tea
3.10pm	Session 6: Feedbase updates (Joyes Hall)
	Pasture manipulation and resowing Cam Nicholson, Nicon Rural
	Establishment of sub-tropical pasture systems in southern NSW Suzanne Boschma, Department of Primary Industries
	Stubble management in a mixed farm system David Holder, Mannamite Pastoral
4.25 pm	Session 7: Wrap-up (Joyes Hall)
	Wrap up, evaluation and networking drinks Georgia McCarthy, MeatUp NSW Event Coordinator, Pinion Advisory
5.00pm	Networking, canapes, and drinks
6.00pm	Close

Poll Everywhere

For audience participation, including submission of questions during MeatUp Forums, we will use Poll Everywhere.

Join via the QR code below. You may choose to download the app 'Poll Everywhere' when prompted.



PollEv.com/pinion

To join a presentation:

1. type the username: **pinion** (or via a web browser, type PollEv.com/pinion)
2. Click join
3. Insert your screen name that you would like to appear alongside your question/response
4. Throughout the event, you can return to your app, the site PollEv.com/pinion or the QR code to participate.

Contents

◆ Program – Wagga Wagga, 16 August 2022	3
◆ Poll Everywhere.....	4
◆ Welcome	6

Sessions

◆ MLA welcome and update	8
◆ The art of excellent farming and better returns	11
◆ The principles behind the key profit drivers of red meat businesses	14
◆ The economics of pregnancy scanning and overview of the Sheep Reproductive Strategic Partnership	20
◆ Meeting processor and consumer demands	25
◆ Optimising ewe lamb joining	29
◆ Managing replacement heifers.....	33
◆ Heifer selection and management of heifers up until second calving.....	37
◆ Getting the ball rolling with carbon neutrality	40
◆ Virtual Farm Tour	44
◆ Pasture manipulation and resowing.....	46
◆ Establishment of sub-tropical pastures in southern New South Wales	50
◆ Managing crop stubbles in a mixed farm system.....	53
◆ My take home messages and actions	56

Welcome

MLA's MeatUp Forums are held throughout southern Australia, delivering the latest in red meat R&D. They are developed by Regional Producer Working Groups that include members from the Southern Australian and Western Australian Livestock Research Councils, in collaboration with the MeatUp Coordinator (Pinion Advisory) and MLA.

MLA's MeatUp Forums have been developed to keep you informed about:

- ◆ what MLA can offer your red meat business
- ◆ new and completed R&D that is relevant to your region and enterprise
- ◆ the role and responsibilities of the livestock research councils
- ◆ opportunities to get involved in regional R&D and priority-setting
- ◆ practical tools and programs available to you
- ◆ opportunities to enhance your productivity and profitability.

Today you will be presented with clear and practical ideas, information, and tools that you can take home and put into practice on-farm. We thank the presenters on the program today for their involvement in MeatUp and encourage you to make the most of your time with them today.

Regional producer working group

We thank MeatUp Forum Regional Producer Working Group members from New South Wales for their contribution to MeatUp, including:

- ◆ Lisa Anderson, Wagga Wagga
- ◆ Tom Amey, Casino
- ◆ Roger Knight, Mendooran
- ◆ Kellie Penfold, Henty
- ◆ Christine White, Coolah
- ◆ Emma Thomas, Forbes

In addition we would like to thank:

- ◆ Andrew Morelli, Southern Beef and Sheep Adoption Project Manager, MLA
- ◆ Natasha Searle, MeatUp Forum Project Manager, Pinion Advisory
- ◆ Georgia McCarthy, MeatUp Forum Event Coordinator for NSW, Pinion Advisory.

If you are interested in joining our Regional Producer Working Group to contribute to the development of the 2023 events in NSW, please chat to a Working Group member, a member of the MeatUp Forum team or contact the MeatUp Forum Project Manager.

Contact

Natasha Searle, MeatUp Forum Project Manager, Pinion Advisory | P:1300 646 746 | E: meatup@pinionadvisory.com

Visit: mla.com.au/meatup

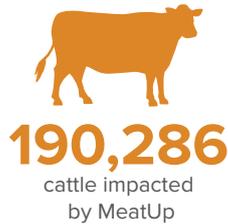
Launched in March 2021, MeatUp Forums are an opportunity for beef, sheep and goat producers to learn something new, stay up-to-date with the latest on-farm research and technologies and meet others working in the red meat industry.

Each forum is designed by producers from the local region through producer working groups to ensure topics, content and presenters are regionally relevant. MeatUp Forums demonstrate the value of implementing new practices or technologies on-farm. They also create awareness around other MLA activities, programs and projects that producers can get involved in to enable them to further build knowledge and skills.

Held predominantly throughout southern Australia, these forums introduce producers to the outcomes of MLA research and development projects and the next steps to drive profitability and productivity on-farm.



2021 at a glance



"[MeatUp] is an opportunity to reassess and realign our business and say 'are we heading in the right direction? Let's get some good information and make some good decisions!'"

– Producer Gus Whyte, Broken Hill MeatUp

2 OUT OF 3 ATTENDEES
PLANNED TO MAKE CHANGES
FOLLOWING MEATUP

Setting the scene

MLA welcome and update



Michael Crowley

General Manager for Research Development and Adoption, MLA

About Michael

Michael was raised on a beef cattle property at Barraba in northern New South Wales, where his family run a stud and commercial beef cattle operation. He holds a Bachelor of Rural Science from the University of New England (UNE) and has a Post Graduate Certificate in Business Administration from Queensland University of Technology (QUT).

Michael joined MLA in February 2009 to manage the Meat Standards Australia program. In 2012 he moved with his family to Brussels taking on the role of International Business Manager for EU and Russia with Meat & Livestock Australia (MLA). He returned from Brussels in 2015 as the Program Manager – Meat Standards Australia and joined MLA's Executive Team in 2016. He is now General Manager Research, Development and Adoption (RD&A). This business unit is responsible for investments in RD&A across the supply chain including livestock genetics, on farm productivity, eating quality, sustainability innovation, automation, objective measurement, market access science and product innovation.

Prior to joining MLA, Michael ran his own business marketing livestock, running beef processing for branded beef exporters and he held his own meat export license. Michael has held a range of commercial positions in the meat and livestock industry including livestock procurement, processing plant quality assurance, supply chain management, sales and marketing.

Session summary

MLA General Manager Research, Development and Adoption, Michael Crowley will provide the welcome address for the MeatUp Forum, where red meat producers can hear the latest regionally relevant insights from research, development and adoption (RD&A) programs funded by MLA. Michael will also provide a market update and discuss MLA's strategic priorities and the Lamb MSA initiative. Lastly, he will cover the producer designed MeatUp program, including the MeatUp Forum New South Wales producer working group.

Relevant tools and resources

◆ **MLA membership application**

MLA membership is free to levy-paying producers of grass or grain fed cattle, sheep, lambs and/or goats

Benefits of membership include:

- participation and voting rights at the MLA Annual General Meeting (AGM)
- discounts for a range of MLA products and services, ordered via the myMLA catalogue
- invitations to local MLA events
- free subscription to MLA's regular member magazine Feedback
- free subscriptions to MLA suite of e-newsletters
- free access to up-to-date publications and information tools
- eligibility to apply for funding via MLA's Co Marketing Program



◆ **MLA market trends and analysis**

MLA's Market Information analysts examine and interpret developments in, and prospects for, the Australian domestic market, key export markets and major competitors, producing a wide range of publications.



◆ **MLA's 2020-21 Producer Adoption Outcomes Report**

The 2020–21 Producer Adoption Outcomes Report outlines the depth and breadth of adoption projects and programs that MLA delivered for the 2020–21 financial year and how read meat producers benefited from their involvement in them.



◆ **Subscribe to MLA e-newsletters**

MLA e-newsletters to be delivered direct to your inbox at <https://www.mla.com.au/news-and-events/enewsletters/>



The art of excellent farming and better returns



Dr Kate Burke

Managing Director, Think Agri Pty Ltd

E: kateburke@thinkagri.com.au

M: 0418 188 565

About Kate

Dr Kate Burke is an agri-strategist, author and keynote speaker with specialist knowledge in the science and strategy of broadacre farming and direct investment in farmland. Kate connects the dots between people, productivity and profit to build better farmers, better farms and healthy thriving families and communities.

Kate recently published *'Crops People Money and You, The Art of Excellent Farming and Better Returns'* and regularly contributes to The Guardian Newspaper, Rural Network and Rural Business Magazine. Kate was the 2021 recipient of the Grains Research Development Corporation (GRDC) Seed of Light award.

Session summary

Excellent farming is an art form mastered by effective passionate people who optimise productivity with a profit focus and who build a robust, risk tolerant business. Excellent farmers are excellent choice makers.

Excellent choices and astute decision making are enhanced when:

- ◆ The profit drivers for the farm business are known (not assumed).
- ◆ The farm is viewed as a whole system and the interactions between production, profit and people are understood
- ◆ The decision makers understand biases they may be prone to.
- ◆ Reliable information is used to validate gut feel.
- ◆ External advice is used to moderate the impact of stress on decision making.
- ◆ The habit of scenario analysis is built into operational, tactical and strategic conversations to improve both insight and foresight.

Kate will demonstrate these principles with case studies and examples from broadacre farming in southern Australia and will explain how the same principles apply to a livestock business.

Key take home messages

- ◆ Highly effective and profitable farms are good at optimising productivity, are profit focused and good at managing themselves and others.
- ◆ Informed decision making begins with self-awareness.
- ◆ Quality information is essential for validating gut feel when managing uncertainty.

Relevant tools and resources

- ◆ **Crops People Money and You - The Art of Excellent Farming and Better Returns, by Dr Kate Burke**

The Art of Excellent Farming starts with making first-rate choices about yourself so that you can make the best decisions about crops, people and money.



- ◆ **People in Agriculture**

People in Agriculture is an exciting initiative that provides all the latest information about working in the industry. The easy to use website features information on employment law, news, career management and professional practice. It is a free resource built for all employees and employers within the Agricultural industry.



The principles behind the key profit drivers of red meat businesses



John Francis

Director, Agrista

E: john@agrista.com.au

M: 0427 259 005

Twitter: agrista_au

About John

John Francis is the owner of Agrista, an agricultural consultancy business based in Wagga Wagga in southern NSW. Agrista provides consulting and benchmarking services to corporate and family farm asset owners and managers, the rural finance sector, government and industry bodies and the agricultural services sector. John's expertise generates value for clients via one-on-one consultancy, group consultancy, industry-driven project work, workshop content development and delivery and public speaking engagements and industry presentations.

Session summary

The aim of this presentation will not be to deliver the principles of the key profit drivers of red meat businesses - rather it will deliver the key productivity and profitability drivers in red meat businesses.

While this may seem a relatively insignificant change to the words as they appear on the page, it is a monumental change in terms of the context and meaning of these words.

The reasons that it is important to distinguish between profit and profitability are as follows:

- ◆ Profit is an absolute dollar figure which can be presented simplistically, but simplicity can be deceptive.
- ◆ Profitability is a financial efficiency ratio used to measure profit, relative to the value of the financial resources required to generate that profit. In other words, it is a measure of how efficiently the millions of dollars tied up in land, livestock and plant and equipment has been utilised to generate profit. The more profit from the same value of assets, the higher the level of profitability.

Table 1: Production system B generates more production with a greater margin so delivers a higher profit per DSE

Measure	Production system A	Production system B
Production (kg/DSE)	20	22
Cost of production (\$/kg lwt)	\$1.80	\$1.60
Price received (\$/kg lwt)	\$4.00	\$4.20
Margin (\$/kg lwt)	\$2.20	\$2.60
Operating profit (\$/DSE)	\$44	\$57

Table 1 provides a summary of some key performance measures of two production systems A and B. This data clearly shows that the system driving more profit per DSE is system B. It does this by producing more liveweight per DSE at a greater margin on every kilogram produced.

Table 2: Production system A generates greater profitability due to greater feed utilisation

Measure	Production system A	Production system B
Stocking rate (DSE/ha)	17	10
Production (kg/ha)	340	220
Profit (\$/ha)	\$748	\$572
Asset value (\$/ha)	\$20,145	\$18,850
Profitability (ROAM)*	3.70%	3.00%

* return on assets managed

Table 2 presents additional information about the same production systems shown in Table 1, but now the metrics seem to stack up in favour of production system A. That is, production system A has generated far more production per hectare, delivering higher per hectare profit.

The question is - what changed and which Table should I focus on? Table A focuses on financial performance per DSE only, while Table B focuses on financial performance per hectare. Information in Table B can be used to derive some of the information in Table A, while none of the information in Table B can be derived solely from information in Table A.

Which table should the focus be on? The answer is that both tables deliver value as they provide different insights into the business. Given land represents approximately 80% of the value of assets under management in southern Australian livestock systems, it seems logical to give high priority to the per hectare metrics.

A key measure in this business that is omitted but can now be calculated from the information in Table 2, is the land value per DSE. The land value of production system A is \$1,185 per DSE (calculated by dividing the land value/hectare by the stocking rate in DSE/hectare). The land value of production system B is \$1,885 per DSE which is 60% higher than that of production system A.

This occurs because fewer livestock units are managed in production system B, relative to production system A. The lowering of the asset value per productive unit is achieved by optimising the number of productive units managed.

This is a key concept in financial management of livestock systems.

Feed utilisation and systems

A key driver of productivity and profitability in commodity meat production businesses is feed or pasture utilisation. Low levels of feed utilisation deliver low production, resulting in resource inefficiency while excessive feed utilisation results in high levels of production, but at an excessive supplementary feeding and pasture renovation cost. The sweet spot is optimum feed utilisation.

The single most under-rated means of delivering optimum feed utilisation is the design and implementation of the livestock production system. A well-designed livestock system delivers efficiency by optimising feed, labour, capital and environmental resources. Of these, the feedbase and the matching of feed supply with feed demand is possibly the most critical element in driving productivity.

MLA situation analyses have shown efficient livestock systems delivering high levels of feed utilisation result in greater levels of per hectare production which drive higher levels of profitability.

A well-designed livestock system:

- ◆ ensures the highest energy demands coincide with the period of highest pasture growth. While it is difficult to be prescriptive, this usually means lambing or calving in spring (not winter) in wool and beef systems and lambing in winter in prime lamb systems.
- ◆ sells the majority of trading livestock prior to the typical time of feed energy decline.
- ◆ allows for combining of multiple key operational activities to minimise handling.

These systems produce more meat per hectare, thereby driving higher income and delivering cost efficiencies. Consuming a large proportion of the spring feed is critical to achieving high levels of feed utilisation and this is completely dependent on the design of the livestock system.

How do you design a productive and profitable livestock system?

- ◆ **Step 1.** Start by understanding the feed supply curve. The feed supply curve for each farm is unique. It consists of the weighted average pasture growth rate for all crop and pasture types by the proportion of the area of the same. The curve is formed by linking the points representing the average daily pasture growth rate by month. The MLA Feed Demand Calculator is a great starting point for this as it has a list of pasture growth rates based on localities.

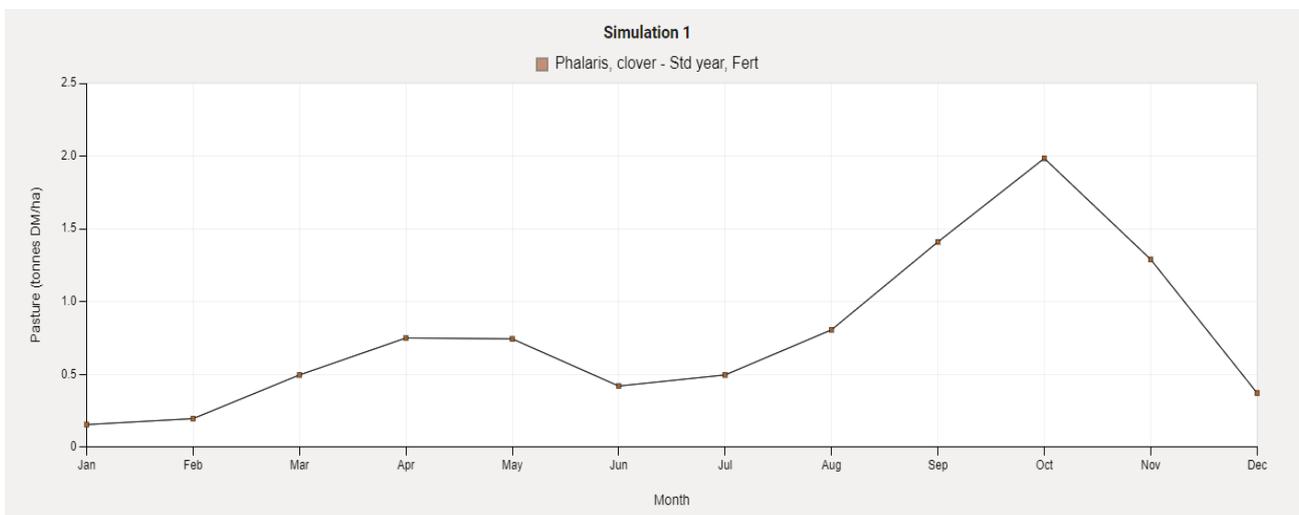


Figure 1: A Phalaris, clover pasture curve for the SW slopes of NSW generated from the MLA feed demand calculator

- ◆ **Step 2.** Study the shape of the curve. Establish the times of the year where the majority of feed is produced and focus heavily on this.
- ◆ **Step 3.** Generate a table of livestock numbers by class of livestock by month (see below for a beef system example).

Table 3: A feed demand curve can be produced by recording livestock inventory by class by month multiplied by DSE rating.

Livestock class	DSE/hd	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total/Av
Dry cow	9	40	427	427	427	427	427	427	427	427	427	427	427	2,302
Early lactating cow	15	0	0	0	0	0	0	0	0	500	500	500	0	1,875
Late lactating cow	17	460											460	1,303
Heifers - retained	8.5	98	83	83	83	83	83	83	83	98	98	98	98	759
Heifers - sale	8.5	127	127							127	127	127	127	541
Weaners	6.5		460	460	460	460	460	460	460					1,744
Steers	8.5									225	225	225	225	639
Bulls	10	12	12	12	12	12	12	12	12	12	12	12	12	120
Stocking rate (DSE)		10,216	8,741	7,659	7,659	7,659	7,659	7,659	7,659	11,452	11,452	11,452	12,132	9,283
Stocking rate (DSE/ha)		12.8	10.9	9.6	9.6	9.6	9.6	9.6	9.6	14.3	14.3	14.3	15.2	11.6

- ◆ **Step 4.** Multiply livestock numbers per month by DSE rating per head and sum to give enterprise total DSE by month. This provides the shape of the feed demand curve that can then be compared with the feed supply curve to establish whether it is a good fit. Replicate the process for alternative systems with different times of lambing/calving and different times of progeny turnover.
- ◆ **Step 5.** Compare the shape of the feed supply curve with the shape of the feed demand curve and establish which one is most likely to utilise spring feed.
- ◆ **Step 6.** Establish the annual feed supply by multiplying the monthly average pasture growth rate by the number of days in the month and adding them. For example, pasture growth for January of 6.5 kg DM/ha/day x 31 days per month = 200kg DM for the month. Do the same for all months and calculate to get annual pasture growth.
- ◆ **Step 7.** Establish the optimum stocking rate. Multiply total annual pasture growth by 50% (a reasonable feed utilisation rate) and divide by 292 kilograms of dry matter. This equates to the approximate annual intake per DSE per year. For example, 50% utilisation of eight tonnes of dry matter grown equates to four tonnes of dry matter available for livestock intake. Divide this by 292 kilograms of dry matter (intake per DSE per year) = 13.7 DSE per hectare.
- ◆ **Step 8.** Change the numbers of livestock in the chosen system to match the stocking rate that delivers optimum feed utilisation.

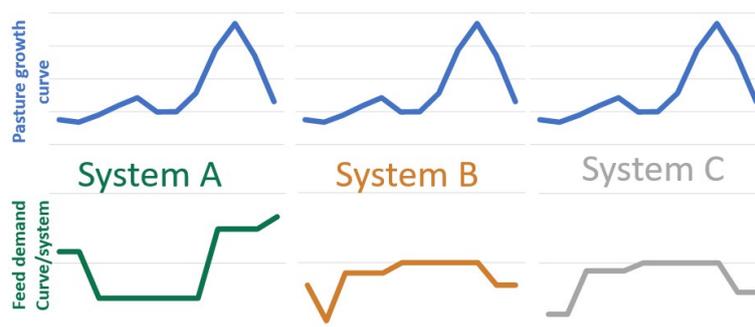


Figure 2: Line up feed supply curves with feed demand curves to establish which system fits supply best

The human element

While the design of a livestock system that matches feed supply with feed demand is an important component of a profitable livestock business, it is of little value without decisive and competent implementation. The role of a skilled manager who understands the vulnerability of the system to shocks and acts quickly to prevent the cost of their impact cannot be overstated.

Like most things in agriculture, high levels of profitability require compromise.

A highly productive and profitable commodity livestock system is not a glamorous business. Livestock and pastures look far from picture perfect during the coldest months and there is not a day in winter when you aren't willing spring to come sooner. A week between diagnosis of a problem and action is not a luxury afforded to the most productive, as livestock thrift and resilience are already at their limits. The need to act instantly is usually etched into the mind from previously hard-learned lessons.

One of my old bosses had a saying which went along the lines of – good looking pastures, good looking livestock and good looking profits – now choose one because you can't have all three. The point being made was that agriculture is full of compromises.

To generate high levels of profitability you must give up a lot - and - that is not the life for everyone.

Key take home messages

- ◆ Profit is an absolute dollar figure which can be presented simplistically, but simplicity can be deceptive.
- ◆ Profitability is a financial efficiency ratio used to measure profit, relative to the value of the financial resources required to generate that profit. In other words, it is a measure of how efficiently the millions of dollars tied up in land, livestock and plant and equipment has been utilised to generate profit. The more profit from the same value of assets, the higher the level of profitability.
- ◆ Take the time to develop a feed supply curve and feed demand curve and to understand optimum stocking rate. Match the curves to ensure maximum feed utilisation in spring.
- ◆ A well designed livestock system that matches feed supply with feed demand is an important component of a profitable livestock business but it is of little value without a skilled manager to react quickly to unexpected changes.

Relevant tools and resources

◆ Business EDGE workshop – Wagga Wagga, 6-7 September 2022

A comprehensive two-day workshop for owners and managers of grazing enterprises. Designed to enhance financial management and improve financial literacy, business efficiency and profitability. Participants will also develop strategies to determine if their business can fund future growth, how to reduce debt and how to plan for retirement and succession.



◆ EDGE Network

EDGENetwork (EDGE) provides tailored, comprehensive, practical learning opportunities in business management, breeding, grazing management and nutrition through workshops across Australia.



Sheep updates

The economics of pregnancy scanning and overview of the Sheep Reproductive Strategic Partnership



Sue Hatcher

Sheep Reproductive Strategic Partnership

E: sue@makinoutcomes.com.au

M: 0407 006 454

About Sue

Sue is the Director and Principal Scientist at Makin Outcomes, a research and development consultancy based at Orange in the NSW Central Tablelands. Sue is originally a city girl from Perth, and after completing an Agricultural Science degree and a PhD in Applied Genetics and Wool Biology at The University of Western Australia, she has spent her entire career working in the sheep industry. She cut her teeth in a Woolgrower Communications role for Australian Wool Research and Promotion/International Wool Secretariat after finishing her PhD and moved to Orange about 25 years ago. There she worked as a Research Scientist with NSW Department of Primary Industries where her research portfolio included wool biology, applied genetics and sheep reproduction. Sue started Makin Outcomes five years ago and now works for a wide range of clients from Research Development Corporations to sheep producers. One of Sue's current roles is the Program Coordinator for MLA's Sheep Reproduction Strategic Partnership.

Session summary

Pregnancy scanning is a key tool for sheep producers seeking to improve the reproductive performance of their flock. Scanning provides vital information to:

- ◆ understand current flock performance and identify areas for improvement
- ◆ manage breeding ewes according to their nutritional requirements
- ◆ generate additional income and save feed by selling empty ewes, and
- ◆ identify the best replacement ewes for the breeding flock.

Pregnancy scanning to identify multiple-bearing ewes, single-bearing ewes and empty ewes is profitable across agricultural regions and flock types. The average increase in farm profit from scanning for multiples was \$5.75 per ewe scanned. Based on a typical scanning cost for multiples of \$1.17 per ewe, this represents an average return on investment of 400%.

For a self-replacing Merino enterprise as part of a mixed farming system (40-50% crop) in a medium rainfall (500-600mm) production environment with an autumn lambing, scanning for multiples generates an additional \$7.80 of

farm profit per ewe scanned. When scanning occurs prior to the main feed deficit, about 49% of that increase in farm profit was due to removing empty ewes from the breeding flock. Running empty ewes as a separate mob allows them to be provided with lower quality feed. This frees up feed for pregnant ewes whose energy and protein requirements begin to increase relative to empty ewes from mid-pregnancy. By late-pregnancy, single-bearing ewes require 39% more energy and 50% more protein than empty ewes. Twin-bearing ewes need 76% more energy and 85% more protein than empty ewes. These differences relative to empty ewes continue to increase into lactation.

About 21% of the increase in farm profit came from improved allocation of lambing paddocks. This involves allocating single-bearing ewes to lambing paddocks with lower feed availability (to avoid ewe and lamb mortality from difficult births and dystocia) and less than ideal shelter (as single-born lambs are more resistant to the impact of bad weather during lambing) at larger mob sizes. Multiple-bearing ewes should be allocated to the best lambing paddocks in terms of available feed and shelter at lower mob sizes.

Optimal nutritional management of single-and twin-bearing ewes to meet their greater nutritional requirements, combined with the improved lifetime progeny wool production resulting from the better nutritional management of their dams, equally contributed to the remaining increase in farm profit.

For a Maternal (composite) enterprise, in the same production system lambing in autumn, an additional \$5.80 in farm profit per ewe scanned was generated by scanning for multiples. For maternal flocks, the largest increase in farm profit (approx. 42%) was due to improved allocation of lambing paddocks, as there is a greater proportion of multiple-bearing ewes in composite flocks. This was followed by identifying and removing empty ewes from the breeding flock (approx. 35%).

The Sheep Reproduction Strategic Partnership (SRSP) is a sheep industry initiative that seeks to profitably and sustainably increase lamb production by increasing weaning rates and decreasing mortality. The SRSP builds on existing research development and adoption (RD&A) to increase impact and scale by:

- ◆ focusing on and promoting on-farm best practice management
- ◆ working with producers to apply R&D in a way that is practical, economical and works for different business models
- ◆ testing and demonstrating supporting technologies
- ◆ identifying and filling gaps in RD&A.

The pregnancy scanning project is a great example of what the SRSP is trying to achieve. Scanning for multiples is a technology that enables on-farm best practice to reduce ewe mortality, increase lamb weaning rates and increase farm profit. There are many other projects in the RD&A portfolio that will increase the profitability of sheep enterprises by providing producers with solutions across the entire reproductive cycle that will generate cumulative sustainable increases in farm profit.

Key take home messages

- ◆ Pregnancy scanning to identify multiple-bearing ewes, single-bearing ewes and empty ewes is profitable in all agricultural regions and flock types.
- ◆ The average increase in profitability is \$5.75/ewe scanned, based on long-term prices for the period 2004 to 2020. For a 2,000 head ewe flock, this is a profit of \$11,500.
- ◆ The return on investment for scanning for multiples averages 400%.

Relevant tools and resources

◆ **Sheep Reproduction Strategic Partnership (SRSP)**

Building on existing industry research, development and adoption (RD&A), the SRSP will increase impact and scale by:

- focusing on and promoting on-farm best practice management
- working with producers to apply R&D on farm in a way that is practical, economical and works for different business models
- testing and demonstrating supporting technologies
- identifying and filling gaps in R&D.



◆ **Lifetime Ewe Management**

A twelve-month course designed for producers to improve skills in managing ewes across their reproductive lifetimes.



◆ **Lifting Lamb Survival – PGS package**

A six-month training program for producers to gain greater control over lambing and reproduction outcomes.



◆ **Lifetime Wool**

Resources for condition score targets for merinos.



◆ **Lifetime Maternals**

Improved guidelines for managing non-merino ewes.



◆ **Making More from Sheep**

This module provides the framework and guidelines to set in place all the important management steps to improve flock reproduction rates and lamb survival to weaning



◆ **Bred Well Fed Well**

Bred Well Fed Well is a practical, one-day workshop highlighting the key production benefits of superior genetics, plus feed management for improved reproductive performance and livestock productivity.



◆ **Towards 90 (T90) program**

The Towards 90 (T90) program is an adoption program all about sheep reproduction. The T90 program is funded by MLA. It aims to accelerate the adoption of sheep reproduction best-practices. The T90 brand reflects the aspirational targets of achieving 90% and beyond in lamb survival across single and twin-bearing ewes.



Meeting processor and consumer demands



Will Barton,

Chief Executive Officer, Gundagai Meat Processors

M: 0419 470 077

E: wbarton@gmpgundagai.com.au

Instagram: gundagai.lamb

About Will

Will Barton has been the Chief Executive Officer at Gundagai Meat Processors (GMP) since 2014.

Will is passionate about shaping the future of the lamb industry and has been an active member of various committees including the Sheep Sustainability Steering Group, National Agricultural Labour Advisory Committee and the Objective Measurement Adoption and Commercialisation Committee. He was also part of the Red Meat Memorandum of Understanding Taskforce in 2019.

In 2020, GMP established Gundagai Lamb, a new and exciting lamb brand, backed by the Barton family's 100+ years of meat industry experience. Gundagai Lamb is revolutionising the lamb supply chain with innovative approaches to the producer/processor relationship.

Prior to joining GMP as CEO, Will was a Founding Director of CBRE Agribusiness where he specialised in the valuation of post farm gate processing assets as well as large scale agribusiness portfolios in the forestry and horticultural sectors.

Session summary

Central to Gundagai Lamb's approach is their desire to create a lamb brand which is constantly improving via an open feedback loop to increase value for the consumer and profit for the producer and processor.

Gundagai Lamb's unique approach is made possible by the technologies and methods established at GMP over the last three years which include:

- ◆ **DEXA (dual-energy x-ray absorptiometry):** an objective measurement tool to assess lean meat yield, bone and fat composition of each carcass.
- ◆ **Meat Eating Quality (MEQ) Probe:** a needle probe that uses spectral imaging to measure the amount of intramuscular fat (IMF) in lamb carcasses.
- ◆ **Health 4 Wealth:** a standardised approach to the collection and feedback of animal disease and defect data to producers.
- ◆ **RFID (radio frequency identification) hook tracking:** embedded in processing gambrels which are read to provide individual carcass tracking and sortation.

- ◆ **GLQ Score Grading:** a proprietary algorithm designed by GMP which uses intramuscular fat, lean meat yield (LMY) and animal health data to score individual lamb carcasses. The result of which is a Better, Cleaner, Fairer lamb product:
 - BETTER – IMF graded for guaranteed eating quality.
 - CLEANER – LMY graded to reduce excess (wasteful) fat production and animal health reporting to reduce disease burden over time.
 - FAIRER – building trust via transparency, paying producers for quality.
- ◆ **Feedback to producers:** systems which communicate the performance of individual animals in the consignment against the target specification.

Key take home messages

- ◆ Low IMF poses as great a risk to future profitability, as the opportunity created by high IMF – Gundagai Lamb is using the GLQ score to recognise the importance of this market dynamic.
- ◆ Consigning to a plant which provides Hot Standard Carcase Weight (HSCW), lean meat yield (LMY) and IMF measures will be critical for producers who want to be on the right side of this trend.
- ◆ Gundagai Lamb measures all three measures and provides feedback in an easy to digest format for analysis and benchmarking.

Relevant tools and resources

◆ Meat the Market

With a whole of supply chain focus, this Profitable Grazing Systems Supported Learning Package trains producers in improving lamb processing compliance and lifting meat eating quality.



◆ MLA Improving Lamb Lean Meat Yield

A technical guide for the Australian lamb and sheep meat industry. This technical guide has been written as a reference for the lamb meat industry to explain Lean Meat Yield (LMY%) and the factors that influence it.



◆ **MSA Meat Science course**

This course explains the scientific factors affecting the eating quality of red meat, from production through to the consumer with a focus on beef and sheepmeat.

The topics covered throughout the course include meat eating quality attributes, biochemistry and muscle structure, growth and development of body tissue, fat partitioning and fatty acid composition, pre-slaughter nutrition, production influences on eating quality, processing impacts on eating quality, marbling and eating quality, chilling, ageing and packaging methods, cook methods and eating quality, and grading systems.

Facilitated by Dr Graham Gardner from Murdoch University and Dr Peter McGilchrist from the University of New England, the five-day course is suitable for processors, producers, lot feeders, stock agents, traders and industry consultants.



◆ **MLA DEXA fact sheet**

DEXA is an objective measurement tool which measures meat, fat and bone in a carcass (carcass composition). This information can help the entire red meat value chain make more informed business decisions to improve on-farm and processing efficiency and deliver a product which is preferred by consumers.



◆ **Meat Standards Australia (MSA)**

MSA was developed by the Australian red meat industry to improve the eating quality consistency of beef and sheepmeat. MSA supports MSA program participants through creating opportunities for businesses to adopt eating quality principles.



◆ **Intramuscular fat and eating quality**

MLA factsheet



◆ **Lean meat yield and eating quality**

MLA factsheet



Optimising ewe lamb joining



Henry Hickson

neXtgen Agri

E: henry@nextgenagri.com

M: 0499 237 985

About Henry

Henry is a Livestock Breeding Consultant for neXtgen Agri based out of Wagga Wagga, NSW. He completed a Bachelor of Agriculture and Bachelor of Business degree at the University of New England before progressing into farm consulting and benchmarking at Agripath. As part of his current role, Henry is working with both commercial and seedstock producers to assist with making better breeding decisions. A large part of Henry's role consists of data collection, management and analysis to help producers maximise genetics and profitability.

Session summary

Joining ewe lambs can increase lamb production over the animal's lifetime with no effects on ewe longevity (up to five years old (% culled)). The success of ewe lamb joining is determined by several genetic (e.g., high weaning rate and high post-weaning weight genetic traits) and management factors from the time of birth.

Critical live weight targets of 45-50kg and age of eight months at joining will optimise ewe lamb joining rates. Other factors that will increase the success of ewe lamb joining include the use of teaser rams prior to joining and liveweight gain over the joining period of 100-150g/day. A liveweight gain in ewe lambs of 100g/day has shown to increase reproductive rates by 20%.

The Ewe Lamb Decision Support Tool has been developed as a collaborative project between Murdoch University, Farm Systems Analysis and NeXtgen Agri, funded by MLA. The tool will allow producers to make informed decisions around the joining of ewe lambs.

Using the tool

The Ewe Lamb Decision Support tool uses economic modelling to incorporate all of these factors to determine the profitability of joining ewe lambs. There are three different ways that you can use this tool. Each of these will be explained in the presentation using an example.

1. Production properties

If you are considering whether it would be worthwhile to start mating ewe lambs, the first tab called 'Production properties' allows you to determine whether it would be more profitable to mate ewe lambs or to invest in increasing reproduction in your two-tooth and adult ewes.

2. Strategic management

If you are currently mating ewe lambs, this tab allows you to assess the profitability of your current mating strategy compared with the optimum management. It provides guidance on the areas that are likely to provide the greatest improvement in profit.

3. Tactical management

The tactical management aspect of the tool is designed to help you decide whether you will mate ewe lambs in a given season. It will help you to optimise the profitability of mating ewe lambs (or not mating ewe lambs, depending on the scenario), taking into account the seasonal conditions.

Key take home messages

- ◆ Ewe lamb joining is complex – make sure your management is the best it can be and utilise resources such as the Ewe Lamb Decision Support Tool.
- ◆ Heavier and older ewe lambs = more lambs produced
- ◆ Aim for 75% of mature liveweight for joining ewe lambs
- ◆ Liveweight gain of ewe lambs during joining will result in an increase in reproductive rates
- ◆ Using teaser rams on ewe lambs will optimise joining rates
- ◆ Know the genetic potential of your ewes

Relevant tools and resources

- ◆ **Lifetime Ewe Management**

A twelve-month course designed for producers to improve skills in managing ewes across their reproductive lifetimes.



- ◆ **Towards 90 (T90) program**

The Towards 90 (T90) program is an adoption program all about sheep reproduction. The T90 program is funded by MLA. It aims to accelerate the adoption of sheep reproduction best-practices. The T90 brand reflects the aspirational targets of achieving 90% and beyond in lamb survival across single and twin-bearing ewes.



- ◆ **MLA Lifting Lamb Survival – PGS package**

A six-month training program for producers to gain greater control over lambing and reproduction outcomes.



◆ **Lifetime Maternals**

Improved guidelines for managing non-merino ewes.



◆ **Unlocking the keys to ewe survival**

This project sought to quantify the rates and causes of maternal ewe mortality. Mean cumulative ewe mortality over the lambing period was 2.0% in 2020 and 2.5% in 2019. The most common causes of ewe mortality across both years were septicaemia, primary dystocia, and trauma.



◆ **More lambs, more profit**

Reproductive efficiency is important to the profitability of all sheep flocks and this booklet brings together a complete set of best practice management strategies to improve sheep reproduction.



◆ **Winning with weaners**

This workshop is aimed at lifting the lifetime performance of Merino ewes through the improved management of weaners. Winning With Weaners assists participants in understanding the key issues affecting weaner survival, the impact of weaning weight on the survival of weaners to first joining and guides you through developing targets for growth individual to your flock to set up your breeding ewes for lifetime performance.



◆ **Lambs Alive**

Lambs Alive is a training program to help lift production rates and yield more profit and better welfare for the animals and you. The focus of the coaching program is on implementing the practical applications that will have the biggest impact on your farm.



Beef updates

Managing replacement heifers



Alastair Rayner

Principal, Rayner Ag

E: alastair@raynerag.com.au

M: 0427 102 317

Twitter: @alrayner302

Facebook: @alraynerag

About Alastair

Alastair operates RaynerAg, an agricultural consultancy business in NSW that services the red meat sector with a focus on beef production. Alastair established RaynerAg in 2013, following a 17 ½ year career with NSW DPI as a District Livestock Officer (Beef Products). Since commencing operations as an independent advisor, Alastair has established a strong client base in NSW, Queensland and South Australia.

RaynerAg offers a full range of on farm services including livestock management and selection, nutrition and drought management, breeding herd performance and as of 2020, clients can also use Alastair as a licensed Stock and Station Agent. Alastair is well known for his skills in training and delivery and works closely with a number of organisations to deliver practical and tailored on-farm training courses and workshops. He also contributes to Beef Central in weekly columns as the Genetics Editor.

Session summary

Herd fertility has been demonstrated to be one of the greatest profit drivers for beef businesses. Research presented in the Australian Beef Report 2020, suggests a 5% increase in herd fertility will translate to a 7% increase in farm income. As a selection trait, fertility is less heritable than other traits. While producers can include fertility as part of their genetic selection, the impact of management and environment play a greater role in determining fertility levels within herds.

Heifer selection establishes the baseline for future production. Selection of heifers often focusses on phenotype and liveweight, however there are opportunities for both genetic selection as well as management structures that producers can embed in order to increase their fertility levels within heifers and across the larger breeding herd program.

Any breeding program must be centered on well-defined breeding objectives. These objectives not only set the basis for selection decisions, but also provided the structure for measurement and evaluation. Without measurable objectives, progress is difficult and may not necessarily be toward a more profitable and productive herd.

The establishment of any breeding objectives should be considered in the context of SMART goals. These are:

- ◆ Smart
- ◆ Measurable
- ◆ Achievable
- ◆ Realistic
- ◆ Timely

As a framework, SMART goals provide producers the opportunity to shape selection and management decisions around their individual business profit drivers, and shape future decisions in response to the measurements and feedback they record or receive from market and supply chains.

In the context of heifer selection, producers should determine some specific goals for heifers such as:

- ◆ selected heifers to meet the benchmark of 65% of mature cow weight ahead of joining
- ◆ six week joining period
- ◆ 65 – 70% of calves are born in the first three weeks of calving (first cycle)
- ◆ Wean calves to a satisfactory weaning weight (for the herd benchmarks)

Producers can influence the success of these goals through their nutritional management of heifers, in both pre joining growth as well as on-going growth pre and post calving.

Given that cow energy requirements in late pregnancy and during lactation effectively double; nutrition has the greatest impact on both milk production, liveweight change and successful rebreeding. Many producers struggle to achieve high rebreeding rates because of poor post calving nutrition and its impact on return to oestrus.

The impact of joining and calving times is directly related to fertility. The combination of nutritional demands, combined with environmental effects such as excessive heat or cold can restrict energy consumption and subsequent body condition as well as impact on joining or lactation. Summer joining can impact bull fertility levels and reduce successful mating.

Producers seeking to make more informed decisions on the season, as well as setting SMART goals to improve their fertility levels can now access tools such as the Australian Feedbase Monitor or participate in programs such as Bred Well Fed Well or Building Better Breeders to structure their program more efficiently around their long-term breeding objectives.

Key take home messages

- ◆ Fertility is a trait to select for, but with low heritability, producers must factor in improved management and environmental control.
- ◆ Breeding objectives are essential in all breeding programs.
- ◆ Objectives should be SMART i.e., smart, measurable, achievable, realistic and timely.

Relevant tools and resources

◆ Building Better Breeders – PGS package

Building Better Breeders covers the A-Z of beef breeding in southern and temperate zones while supporting producers to introduce and utilise eID in their operation. It takes producers through every step required to improve the performance of their cattle enterprise.



◆ Bred Well Fed Well

Bred Well Fed Well is a practical, one-day workshop highlighting the key production benefits of superior genetics, plus feed management for improved reproductive performance and livestock productivity.



◆ MLA's More Beef from Pastures

More Beef from Pastures (MBfP) program aims to achieve a sustainable (economic and environmental) increase in kilograms of beef produced per hectare through optimal management of the feedbase. An online producer's manual is available online. Each module provides tools and information to enable southern beef producers to increase productivity and profit while minimising risk.



◆ Future Beef

An ally for the north Australian beef industry which shares the latest practical tools, scientific insights, and relevant, timely advice.



Heifer selection and management of heifers up until second calving – producer panel

Interviewer



Alison Hamilton

Managing Director, AJM Livestock Solutions

E: Alison@ajmlivestocksolutions.com.au

M: 0409 667 011

About Alison

With a strong rural background and a passion for the agricultural industry, primarily the beef industry, Alison hails from Crookwell in southern NSW and is a fourth-generation farmer. Alison is committed to helping Australian farmers improve the way they do business and reap the rewards.

Alison's home is now Wagga Wagga in the NSW Riverina where her time is spent between running her agricultural consulting and training business 'AJM Livestock Solutions', running a small breeding herd of angus cattle with her husband as well as raising a small family.

AJM Livestock Solutions was founded in 2008 and is Alison's platform for helping beef producers improve their efficiency. In particular, Alison helps producers better use technology within the daily management of their operation.

Alison was the NSW Runner up in the 2010 RIRDC Rural Women's awards; she was the 2011 NAB Agribusiness Cattle Council Rising Champion, is a graduate of the Australian Rural Leadership Program and the National Farmers Federation Diversity in Agriculture Leadership Program and has recently completed the Australian Institute of Company Directors course.

Alison is also an elected Director on the Riverina Local Land Services Board.

Session summary

Alison will facilitate an interactive panel interview between two Riverina beef producers, Maria Roache – Arden Angus and Will Onus – Woodside. With Alison, Will and Maria will discuss their beef breeding operation and the importance of clear breeding objectives within their business model.

Both Will and Maria will outline the key genetic traits they focus on to optimise their selection and management of heifers, the key management practices they each implement to ensure optimum fertility within their herd and the data they collect on their breeding herds including how they utilise this data to make informed strategic breeding management decisions.

Relevant tools and resources

◆ **MLA BredWell FedWell Beef workshop**

BredWell FedWell is a practical, one-day workshop highlighting the key production benefits of superior genetics, plus feed management for improved reproductive performance and livestock productivity.



◆ **Building Better Breeders – PGS package**

Building Better Breeders covers the A-Z of beef breeding in southern and temperate zones while supporting producers to introduce and utilise eID in their operation. It takes producers through every step required to improve the performance of their cattle enterprise.



Carbon update

Getting the ball rolling with carbon neutrality



Margaret Jewell

CN30 Manager, Meat & Livestock Australia

E: mjewell@mla.com.au

M: 0436 476 312

About Margaret

Margaret is MLA's Carbon Neutral 2030 (CN30) Manager and has driven the assembly of the portfolio of MLA's CN30 investments. These research, development and adoption projects aim to scale the implantation of on farm technologies and practices that will enable the industry to achieve the CN30 target.

With a background in Agricultural science and a PhD in agricultural genetics, Margaret has combined her experience in livestock science and agricultural markets with her passion for environmental sustainability and climate change mitigation in her role with MLA.

Margaret will provide attendees with an overview of what activities MLA has been leading in the CN30 program, as well as how producers can be involved.

Session summary

The Australian red meat industry has set a target to be carbon neutral by 2030 (CN30). This means that by 2030, Australian beef, lamb and goat production, including lot feeding and meat processing, aim to make no net release of greenhouse gas (GHG) emissions into the atmosphere.

MLA has assembled a portfolio of research, development and adoption investments to enable the wide-spread adoption of on farm technologies and practices that will drive industry's transition to a carbon neutral future.

This presentation will talk through how carbon flows in red meat production systems and the advantages of considering carbon as a business asset. Opportunities for how red meat producers can get involved in a range of different market opportunities so as to demonstrate reductions in net GHG emissions will be described, as will the existing practices and emerging technologies that will enable net emissions to be reduced.

Key take home messages

- ◆ Carbon use efficiency is an important business management measure.
- ◆ There are multiple existing and emerging market opportunities for red meat producers able to demonstrate a reduction in net GHG emissions.

- ◆ There are a range of existing and emerging technologies and practices to enable reductions in net GHG emissions, and the adoption of any or all of these is a business specific decision that should be made with business productivity and profitability in mind.

Relevant tools and resources

- ◆ **Carbon Neutral 2030**

An overview of the Carbon Neutral 2030 target, including core activities and associated R&D reports

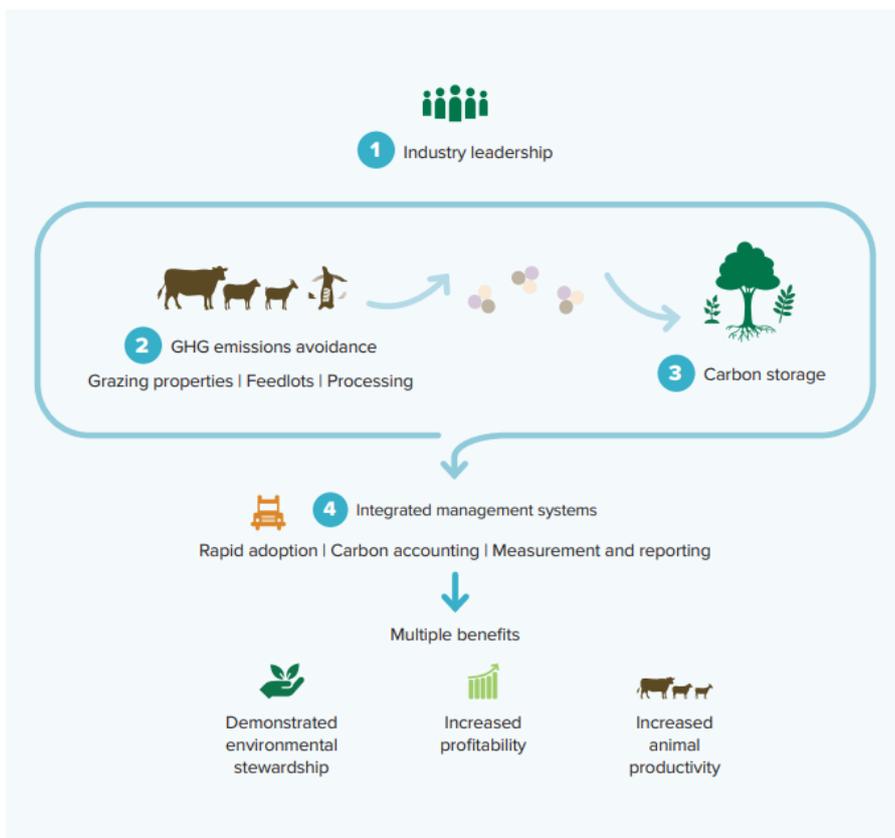


- ◆ **CN30 catalogue for producers**

This catalogue contains a list of products and services producers can use today or in the near future to make productivity-led emissions reductions and improvements in carbon storage on-farm.



The catalogue reflects the four work areas under the Australian red meat industry's Carbon Neutral by 2030 Roadmap (available at mja.com.au/cn30). These areas are illustrated below:



◆ **MLA CN30 Roadmap**

The Australian red meat industry’s Carbon Neutral by 2030 Roadmap (CN30 Roadmap) describes the technologies and practices required for industry to thrive in a carbon neutral future. The CN30 Roadmap is built with industry’s key national and global stakeholders in mind.



◆ **Making Australia’s red meat industry carbon neutral by 2030 (video)**

The Australian red meat and livestock industry can become the first red meat exporting nation to become carbon neutral as it is uniquely placed to do so due to its extensive grassland production systems. MLA is focused on ensuring the red meat and livestock industry meets changing customer and consumer expectations and addresses the growing trend of understanding food provenance and a commitment to low carbon diets.



◆ **Supporting carbon neutral red meat production**

This catalogue contains a list of products and services producers can use today or in the near future to make productivity-led emissions reductions and improvements in carbon storage on-farm.



◆ **Developing a carbon neutral brand**

An MLA ‘Tips & Tools’ factsheet for producers looking to develop a carbon neutral brand.



◆ **GHG Accounting Framework (GAF) for Australian Primary Industries**

The Primary Industries Climate Challenges Centre provides Greenhouse Gas Accounting Framework and calculator tools for sheep & beef, cropping, dairy and other primary industries.



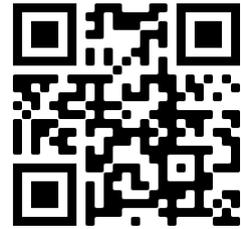
◆ **Technical manual: Moving towards carbon neutrality opportunities for the Australian feedlot industry**

Feedlots are an important part of the beef supply chain, providing a high level of production efficiency and lower greenhouse gas emissions per unit of feed intake than grazing cattle. The lot feeding industry is well positioned to contribute towards the industry’s goals of net zero emissions. This manual will review opportunities in the carbon neutrality space to assist lot feeding organisations and grainfed beef brand owners in decision-making and business planning.



◆ **Australian Good Meat**

Australia’s Good Meat is so much more than just good for you. The Australian red meat industry cares about our animals and wants to ensure they have a life worth living. We also care about the planet and having a positive impact on the environment, with the goal of being carbon neutral by 2030.



◆ **Red Meat Green Facts**

The Australian red meat industry is not just ‘green’ in our care for the environment – we are sustainable, we care for our livestock and play an important role in Australian communities and global nutrition.

The Red Meat, Green Facts website provides facts on the red meat and livestock industry using evidence-based information to inform the community on topics such as the environment, animal welfare, and nutrition.



Virtual farm tour



Joe Mason

'Spicers Run', Spicers Creek NSW

E: joelimason@hotmail.com

About Spicers Run

Spicers Run is a 3,800ha property at Spicers Creek, 30 kilometers north of Wellington. Spicers Run is owned and managed by the Mason family. Brothers Joe and Sam Mason manage Spicers Run together where they produce first cross ewes and prime lambs, along with cereal and oilseed grain production.

First cross ewe production is the major sheep enterprise for Spicer's Run with the enterprise consisting of approximately 9,000 cast-for-age merino ewes (bought as five year old classed breeding ewes from a regular circuit of producers around the Gulargambone and Walgett areas). These ewes are kept for two lambing seasons and two wool clips and are then sold as mutton. First cross ewes are then sold to a regular circuit of buyers (predominantly local producers) while wether lambs are finished and sold as first cross fat lambs. Spicers Run finishes approximately 11,000 lambs each year.

Ewes split lamb with half of the ewes lambing in autumn (March/April) and the other half lambing in late winter/early spring (July/August). Joe and Sam both feel that split lambing works well for their business model and grazing system. The rams are used twice over the year and the finished lambs provide a good spread of income across the year. Additionally, the split lambing works well to spread ewes and lambs over the farm, ensuring there is enough feed on offer to meet ewe nutritional requirements during pregnancy and lactation and turn off weights for fat lambs. Shearing occurs in January and the wool cheque makes up a large part of the sheep production income. The merino ewes are large framed, averaging 65-70kg and cut an average fleece of 21 micron.

40% (approximately 1,500ha) of the arable land at Spicers Run is cropped for cereals and oilseed (canola) and a large percentage of this dual-purpose. Cropping integrates with the sheep production enterprise well and the cropping cycle is usually four years, followed by improved pasture for six years. Lambs are often marked or weaned on to dual-purpose crops, with stubbles providing a good source of maintenance nutrition for dry ewes.

The Mason family have farmed at Spicers Creek for a long time. Joe and Sam also work closely with their cousin Matt Mason and have developed a separate business venture leasing land on the southern side of Wellington where they join first cross ewes produced at Spicers Run to Dorset rams to produce prime lambs.

Feedbase updates

Pasture manipulation and resowing



Cam Nicholson

Nicon Rural Services

E: cam@niconrural.com.au

M: 0417 311 098

About Cam

Cam Nicholson is a partner in Nicon Rural Services, a consulting business near Geelong working with the grazing and cropping industries.

Cam has been involved in many farmer programs for the GRDC, MLA, Landcare and drought resilience. He provides consultancy advice to farmers and lectures on animal and pasture systems at Marcus Oldham College.

His most recent work has focused on understanding and discussing risk in farming businesses and how to enhance decision making.

He and his wife Fiona run a 400ha beef and sheep farm on the Bellarine Peninsula, turning off cattle for the long-fed feedlot market and fine wool.

Session summary

Pasture sowing is expensive so two things are imperative:

- ◆ It is an economically acceptable investment.
- ◆ It is successful.

Three steps are recommended to confirm pasture sowing is the most appropriate course of action.

1. 'Rule out' the option that pasture cannot be manipulated for greater productivity.

Pasture Paramedic is a valuable tool to conduct this assessment. If the pasture has potential for manipulation, then the following should be considered:

- ◆ Soil condition, mainly fertility and acidity: sub optimal soil conditions affect production of desirable species, reduce pasture quality and often favour less productive weeds.
- ◆ Grazing method: the period of grazing and spelling has a significant influence on the desirable species. Understanding the ideal grazing approach for the desirable species should inform the grazing applied. Importantly, while some principles of grazing are common to all grasses, there are some differences between species.

- ◆ Weed control. While improving soil conditions and grazing can reduce weeds in a pasture, sometimes intervention through herbicides or fodder conservation may be required (this does differ between species).

2. Estimate the current and potential productivity of the paddock, using local benchmarks.

While some pastures may contain more weeds than is ideal, if they are green, leafy and vegetative, they will have similar quality to most desirable species. Calculating the difference in stocking rate between what is current and what would be achieved by resowing is essential to appreciate the potential gain from resowing. Methods of estimating potential stocking rate based on annual rainfall and growing season are available.

3. Rule in the economics of sowing are acceptable.

Sowing commonly requires a large up-front cost that is 'repaid' over subsequent years. The cost is in the preparation, sowing and inputs (seed, fertiliser, lime, chemicals), but can also include the extra livestock needed to realise the potential stocking rate, or capital items such as fencing and water.

A resowing plan should be prepared which contains the following considerations:

- ◆ paddock infrastructure changes, related to land classes, paddock size and water to enable appropriate grazing.
- ◆ enhancing soil conditions, including fertility, pH and roughness of the paddock
- ◆ achieving appropriate weed and pest control, before, during and after establishment
- ◆ appropriate species selection, to suit the climatic conditions, soil type and aspect

The Pasture Improvement Calculator (<https://etools.mla.com.au/pic>) steps producers through the correct considerations in understanding the time to break even and likely return on their investment in sowing. The costs identified in the resowing plan will help to quickly populate the calculator.

If the decision is to proceed, then consider some additional components:

- ◆ timing and method of sowing, including machinery type and set up
- ◆ post sowing observations, around establishment, pests and weeds
- ◆ post sowing grazing management, including when to graze, how hard and how often.

Key take home messages

- ◆ Pasture sowing is costly – make sure it is worthwhile and successful.
- ◆ The Pasture Improvement Calculator is a useful tool to appreciate the cost and returns from pasture sowing.
- ◆ Prepare a sowing plan, paying special attention to the preparation before sowing

Relevant tools and resources

◆ Pasture Improvement Calculator

The Pasture Improvement Calculator was developed to help determine the costs and benefits of resowing pastures compared to current practice.

The tool allows inputs of:

- costs of resowing
- benefits of the resown pastures to livestock
- soils and the environment at any given financial values (i.e. different interest rates, tax rates, gross margins etc.)



◆ Pasture Paramedic

Pasture Paramedic is a decision-making tool that allows rapid assessment of pasture condition in the high rainfall zones of southern Australia.

The tool is used in the paddock to measure the quality and quantity of available pastures and identify requirements for pasture renovation or rejuvenation.



◆ Feedbase Hub

Manage your pastures for optimal performance with practical resources found on MLA's feedbase hubs. These hubs bring together the latest R&D on soil, pasture and weed management to increase pasture production, quality and persistence.

Featuring case studies, calculators, reference guides and training packages, the hubs offer plenty of practical information to support producer decisions throughout the season.



◆ Paydirt – Profitable Grazing Systems program

A package developed to value-add soil testing results and to help producers determine how to get the most bang for their fertiliser buck.



◆ Sowing for success

This package will help producers determine where to invest their pasture dollars to successfully establish a perennial pasture.



◆ Renovation rescue

This package will aid producers in transforming run down perennial pastures through the application of grazing, weed manipulation and improved soil conditions



Establishment of sub-tropical pastures in southern New South Wales



Dr Suzanne Boschma

Senior Research Scientist, NSW Department of Primary Industries

E: suzanne.boschma@dpi.nsw.gov.au

M: 0477 358 589

About Suzanne

Dr Suzanne Boschma is a Senior Research Scientist with NSW Department of Primary Industries, based at Tamworth in northern NSW. She has over 20 years' experience in pasture grass and legume field-based research in particular tropical pastures. Over the last four years Sue has been leading a project to understand the potential of tropical grasses in central and southern NSW. She's excited by the interest in tropical pastures in southern NSW and the opportunity to speak today.

Session summary

Areas in southern NSW have been receiving more summer rainfall in recent decades. This rainfall is largely ineffective in current livestock systems as the majority of sown temperate pastures are not actively growing. The addition of pastures to the feed base that could use this summer rainfall would provide green feed for livestock and help fill the traditional summer-early autumn feed gap. Tropical perennial grasses, also called subtropical or C4 grasses, are a group of species that could utilise this summer rainfall. Tropical grasses grow during the warmer months of the year; growth commencing in spring continuing through summer and ceasing when frosts commence in autumn.

An advantage of tropical perennial grasses is their high growth rate and ability to quickly provide feed for livestock following summer rainfall. They are also drought tolerant and can maintain high ground cover year-round, protecting the soil surface and providing competition against summer weeds. When they are green and in a vegetative growth stage, well managed tropical pastures provide quality feed, and good liveweight gains of growing stock can be achieved.

Due to lower reliability of summer rainfall in southern NSW, establishment of tropical pastures is more challenging than temperate pastures but applying sound agronomic practices will provide the best opportunity for success. Prior planning and preparation to ensure good summer annual grass weed control is key to successful establishment. Sowing high quality seed at a shallow depth is also important.

Tropical grasses are productive and highly responsive to nitrogen. Nitrogen is required to maintain productivity and feed quality and can be supplied either by a companion legume or by fertiliser. A tropical grass-temperate legume mixed pasture also has the advantage of extending the period a paddock can provide green feed for livestock throughout the year. Active grazing management is required to ensure the persistence of both the grass and legume components.

Tropical perennial grasses offer the opportunity to utilise summer rainfall providing quality feed for livestock, helping fill the summer-early autumn feed gap in southern NSW. In our highly variable and changing climate, there are significant benefits to production systems where livestock have access to a diverse feedbase incorporating pastures that can respond to rainfall at different times of the year.

Key take home messages

- ◆ Tropical perennial grass pastures can utilise summer rainfall producing green feed for livestock helping fill the summer-early autumn feed gap.
- ◆ These summer-active perennial grasses can maintain high ground cover year-round, minimising water runoff and providing strong competition to summer weeds.
- ◆ Tropical pastures are suitable for cattle and sheep, and good summer liveweight gains can be achieved when they graze well managed tropical grass pastures.

Relevant tools and resources

- ◆ **Tropical perennial grasses for northern inland NSW – NSW DPI**

This book aims to increase the understanding, integration and management of tropical perennial grasses for use on-farm.



- ◆ **How do I improve grass-based pastures? – MLA factsheet**

Sub-tropical perennial grasses make a valuable contribution and are the feed gap in summer/autumn, resulting in increased stocking rates and reduced reliance on supplementary feeding.



- ◆ **Sub-tropical pastures for southern meat producers – MLA final report**



Managing crop stubbles in a mixed farm system



David Holder

E: Mannamite8@gmail.com

M: 0419 276 033

About David

David has 29 years' experience in managing a prime lamb and cropping enterprise at Cootamundra in south-west NSW. Most of this time has been spent learning how to grow quality feed in the paddocks and then convincing sheep to eat it. David has a degree in urban planning which he shares hasn't always been a particularly useful in achieving the above aim. He is also a keen mountain bike rider and has contributed to building a network of trails in the Jindalee National Park which surround 'Mannamite'.

Session summary

'Mannamite' is a mixed enterprise 1350ha property north of Cootamundra. The farming system consists of 450ha of crops including wheat, canola and barley in conjunction with 4000 meat and also composite ewes.

Stubbles on 'Mannamite' are managed and utilised in a number of ways. The benefits of the first summer drench are maximised by turning stock onto clean paddocks. Barley stubbles are baled, and the dry matter is utilised for lambing ewes on grazing wheat, with perennial pastures and in the drought lot when required. It also enables the prioritisation of stock class to feed type. Utilisation of the stubble resource also allows proactive management in maintaining soil health and groundcover levels. Currently stubble burning is used as a valuable tool in seasons when livestock cannot reduce the stubble load enough prior to the target sowing dates. A future goal is to adopt technology to reduce this dependence on burning stubbles in high stubble load seasons.

A drought lot is utilised as part of normal practice. The building of a 20ha drought lot not only provides benefits during dry times but also extends to being an essential tool in the stubble management program. Ewes are trail-fed barley. They also have constant access to barley straw when groundcover targets are reached, and stock need to be removed from paddocks.

Key take home messages

- ◆ Dry matter from stubbles in mixed farming systems can be baled and used as a valuable feed source for livestock when they are feeding on grazing cereals and on pastures and can be used in drought lots.
- ◆ The availability of stubble as a feed source in drought lots allows flexibility in managing stocking rates in paddocks so that ground cover targets are not compromised, and soil health is maintained.
- ◆ Using stubble as a feed source can provide flexibility in the system to allow particular stock classes to be matched to desired, available feed types.

Relevant tools and resources

- ◆ **Grazing modern stubbles – MLA guide**

A guide to the nutrition and management of sheep grazing stubbles in mixed farming areas



- ◆ **Stubble Grazing Calculator**

The Stubble Grazing Calculator has been designed as a guide for producers to estimate the number of grazing days for adult sheep on wheat stubbles, based on the level and timing of supplementary feeding required in each individual scenario.



- ◆ **Dual-purpose cropping – MLA Feedbase Symposium presentation**

Dual-purpose cropping is a tool for mixed enterprise producers. It provides livestock grazing opportunities when there are feed deficits in addition to grain income.



- ◆ **Assessing components of a stubble and impacts of grazing**

A research paper written by Cam Nicholson, Nicon Rural



My take home messages and actions

Reflect on the presenters at the MeatUp Forum. For those of relevance to you, note the session title, your key messages, and actions you can take to implement ideas.

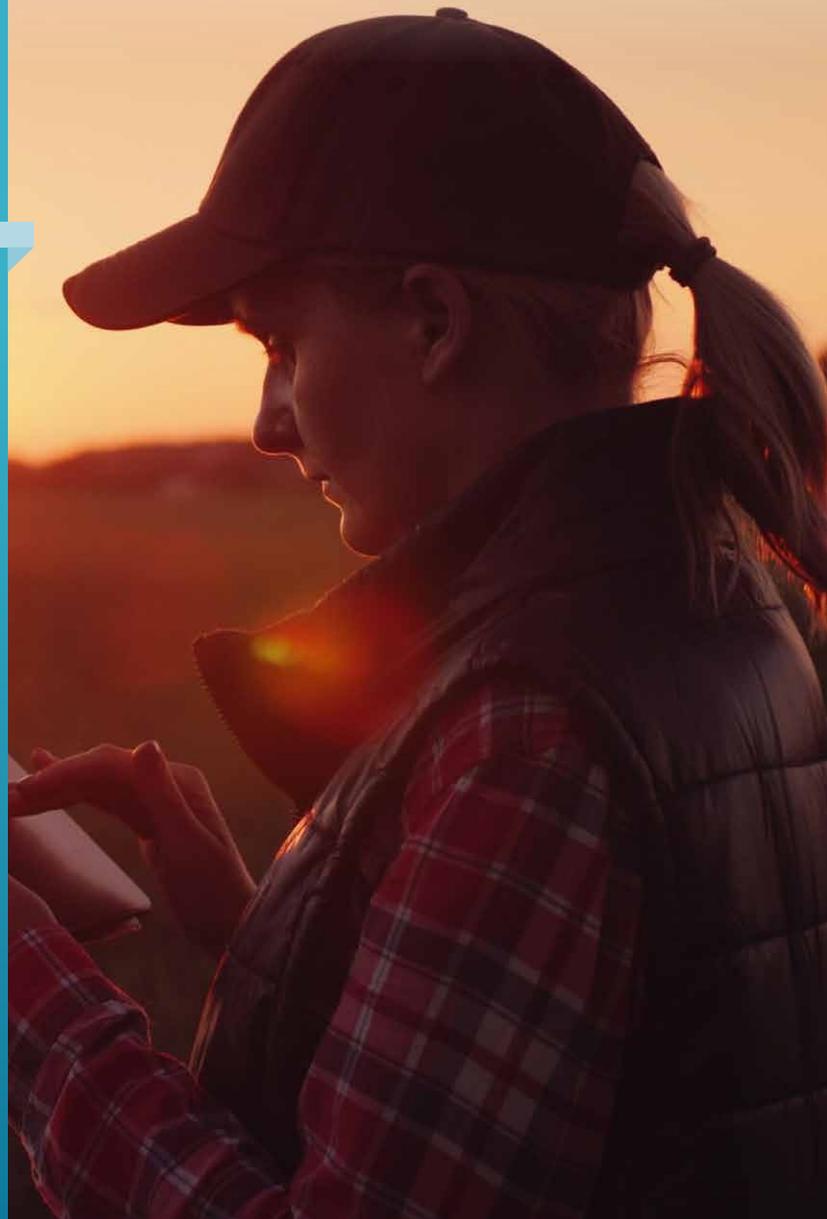
Session and key messages	Actions - Things I could do to implement ideas



Business EDGE

Know your business,
grow your business

A two-day workshop to enhance your financial management and improve business efficiency and profitability. You will also develop strategies to determine if your business can fund future growth, how to reduce debt and how to plan for retirement and succession.



Events
near you

Business EDGE Wagga Wagga: 6 - 7 September, 2022

To register contact Prue Francis **M:** 0435 052 255 **E:** prue@agrista.com.au

For more information about EDGE: mla.com.au/edge-network



Business EDGE has been developed by Meat & Livestock Australia

paraboss



Integrated parasite management for sheep, goats and cattle

ParaBoss is the industry's go-to resource for parasite management information, bringing together the latest R&D and practical resources all in one place.

This online resource offers regionalised and seasonal tactics to reduce the impact of flies, ticks, worms and lice in any sheep, goat or beef system.

Find information on the management, treatment and biology of parasites and the latest advice on preventing chemical resistance.

Tried and tested by producers, see how ParaBoss can benefit your business.

Visit paraboss.com.au.

flyboss

wormboss

liceboss

tickboss

ParaBoss has been developed and funded by Meat and Livestock Australia, Australian Wool Innovation, Sheep CRC, University of New England, and Queensland Department of Agriculture and Fisheries, with technical guidance and endorsement by sheep, goat and cattle parasite technical experts.

paraboss.com.au





Learn about your responsibilities as an employer.

Providing a great workplace and managing your employees is a key part of running a successful business. People in Agriculture provides you with the latest, industry specific employment information through tools, tips and examples, wherever and whenever you need it.



**People in
Agriculture**
YOUR EMPLOYMENT INFORMATION GATEWAY
www.peopleinag.com.au



Pasture Principles

Building skills in pasture management

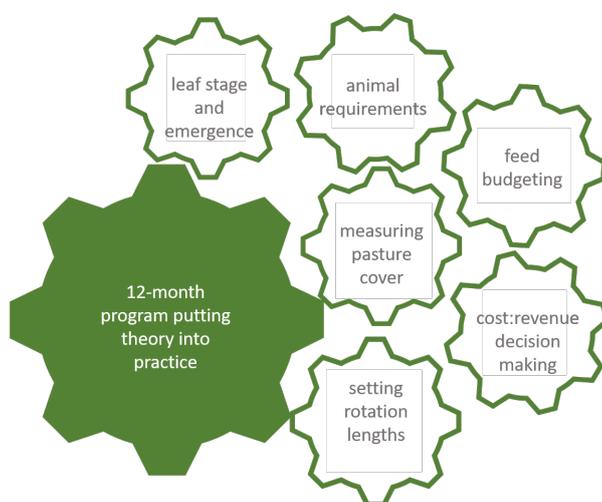
A 12-month program designed to build livestock producer's skills in pasture management. delivered across southern Australia in 2023.

Pasture management is the fundamental skill that determines the profitability of pasture based grazing systems as the key driver of stocking rate.

Pasture Principles developed by Pinion Advisory, provides a group training environment for farmers to learn the guiding principles of pasture management that will allow them to work confidently regardless of the season or system.

The program is suitable for producers involved in the sheep, beef and dairy industries. Groups are delivered across New South Wales, Victoria, South Australia and Tasmania.

Pasture Principles is a 7-session program including theory and on-farm coaching sessions delivered within a 12-month period, with sessions aligned with key seasonal pasture management timeframes.



“Our entire team undertook the Pasture Principles program. From this we implemented a new grazing management plan, only possible with the new skills we obtained from Pasture Principles. Pasture Principles provided us with one of the most critical turning points in our business productivity and profitability in the last decade.” *Frank Archer, Landfall Angus.*



Want to participate in Pasture Principles?

Delivery locations will be determined based on interest. The commercial cost for this course is \$2500 ex GST per farm business. However, with the support of MLA's Profitable Grazing Systems program, this course is discounted for producers.

- \$1750 ex GST** per farm business (*maximum of three people, must be an owner, partner or full-time employee of the participating farm business*)
- \$800 ex GST** per additional person from a participating farm business
- \$2500 ex GST** per person from an agribusiness*

*For more information on agribusiness training packages, please contact us

For more information on New South Wales groups in 2023 please contact Pinion Advisory: pastureprinciples@pinionadvisory.com or T: 1300 746 466



HEIFERS *for* PROFIT

RURAL INDUSTRIES SKILL TRAINING

HEIFERS FOR PROFIT
GETTING HEIFER MANAGEMENT RIGHT



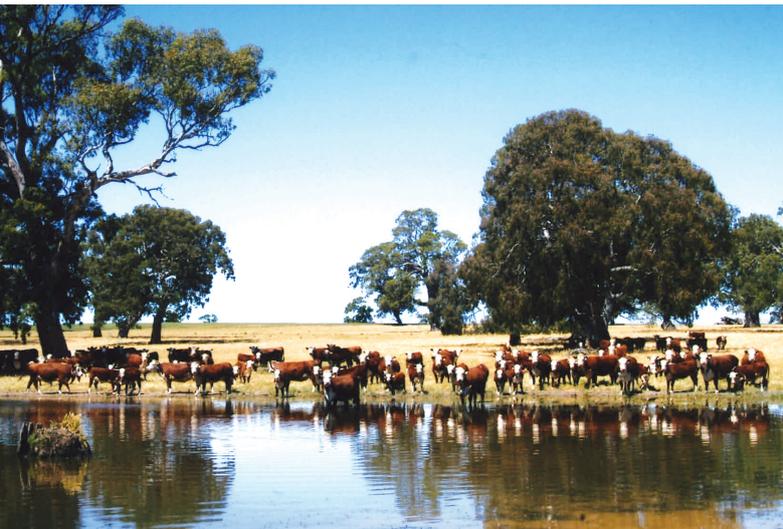
CONTACT
Bec Malseed
P: (+61) 407 730 943
E: bmalseed@rist.edu.au
W: www.rist.edu.au
TOID: 4198

915 Mt Napier Rd
Private Bag 105
Hamilton VIC 3300



Profitable Grazing Systems - an initiative of MLA

Heifers for Profit is structured to maximise knowledge retention, skills development and practice change.



COURSE OVERVIEW

Being involved in a Heifers for Profit course gives you the skills and confidence to manage your heifers' nutrition to improve animal welfare, increase future reproductive success, optimise stocking rates, and increase whole farm profitability.

Working with groups of 5-7 farmers who meet six times in 15 months, your trainer will work with you on:

- The principles and practices of Heifers for Profit
- Getting heifers in-calf efficiently
- Managing pregnancy and achieving critical weights
- Transitioning the heifer into a cow – preparation for calving and re-breeding
- Managing calving 'The fruits of your labour'
- Pre-joining management and calf marking

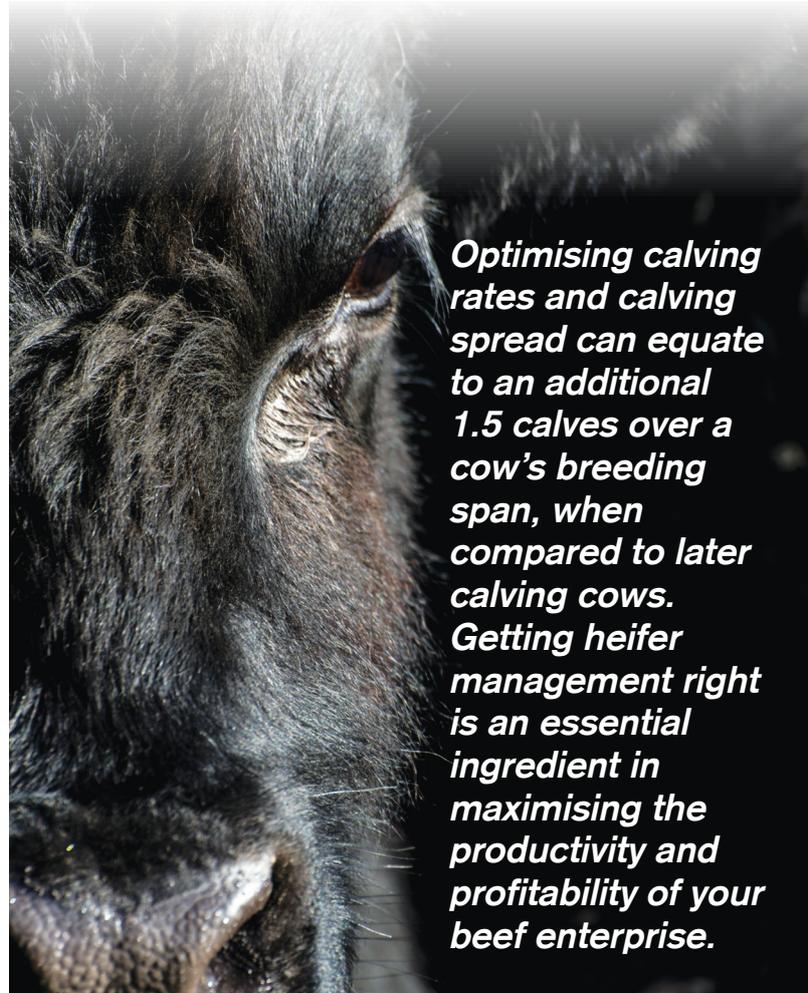
COURSE INVESTMENT

The cost of Heifers for Profit is valued at \$2,200 plus GST per participant, Heifers for Profit will be open to producers for \$1,540 plus GST thanks to the support of Meat & Livestock Australia through the Profitable Grazing Systems initiative.

HOW DO I JOIN A HEIFERS FOR PROFIT COURSE?

Heifers for Profit is delivered on farm and is ideally suited to a small group of 5-7 participants. It is anticipated that the Heifers for Profit program should commence when heifers have been weaned.

We encourage you to contact like-minded neighbours and farmers in your local area to form a group, and a trainer will come to you to deliver the Heifers for Profit course.



Optimising calving rates and calving spread can equate to an additional 1.5 calves over a cow's breeding span, when compared to later calving cows. Getting heifer management right is an essential ingredient in maximising the productivity and profitability of your beef enterprise.

bredwell fedwell

Updated BredWell FedWell workshop builds on 10 years of impact in genetics and nutrition training

On the back of a decade of success, MLA's BredWell FedWell (BFWW) workshop will soon be relaunched to reflect evolving best practice genetics and nutrition management.

The workshop program is being reviewed by the Schuster Consulting Group, Dubbo, to ensure BFWW continues to meet the needs of producers wanting to increase the welfare, productivity, and profitability of their herds and flocks through improved genetics and nutrition.

The review also included input from a panel of industry experts, who provided advice in areas ranging from practical breeding and nutrition strategies, cattle and sheep production in northern and southern regions, as well as approaches to capability building and adult learning.

The revised program developed through the review process will be further refined during a pilot stage later this year before being rolled out nationally via a network of trained and accredited deliverers.

Here, Angela Schuster of Schuster Consulting Group, whose team is leading the review and coordination of the program explains the background of the review process.

"The extension and adoption field has changed significantly since BredWell FedWell was first launched with more information and tools such as flock profiling, heifer select and new indexes now available to help producers apply the outcomes of genetics and nutrition research," Angela said.

"We've focused on integrating these tools into a new format that balances genetic and nutrition decision-making across the whole livestock production cycle with a specific focus on an individual's profit drivers.

"The new format is designed to help producers increase their productivity and profitability through improving genetics and nutrition."

What to expect

Building on the workshop's first iteration, participants will come away with skills to help them develop a customised breeding objective aligned to their profit drivers, identify sires and select and feed animals that help meet their breeding objective.

The new highly graphical, easy to follow one-day workshop will continue to be delivered on-farm, with the intent to drive practice change as well as whet participants' appetite for further learning.

Producers will gain fresh knowledge about the latest research and management strategies in the field and will apply this knowledge through guided learning that includes practical exercises.



Figure 1. BFWW breeding and feeding production cycle

The structure of the workshop will utilise the *BWFW breeding and feeding production cycle* – see figure 1 – which covers pre-joining and joining, pregnancy, calving/lambing, weaning and beyond, and selection. Each ‘wedge’ in the cycle represents a major decision point in a producer’s commercial enterprise where consideration of both breeding (genetics) and feeding (nutrition) is required.

Workshops will focus on:

- Increasing awareness of the impact both genetics and nutrition have on a producer’s flock or herd productivity and profitability.
- Assisting producers to develop their own breeding objective and a plan for selecting animals with consideration of the profit drivers for their business.
- Improving producer knowledge of feed availability and livestock requirements to achieve greater productivity during the livestock production cycle.
- Showcasing additional adoption activities in genetics and nutrition designed to improve productivity and profitability.

More than 140 predominantly MLA-supported resources, research papers, tools and reports have informed the refreshed BWFW workshop with the focus being on delivering implementable research outcomes to participants. The updated workshops are due to be delivered in 2023.

For more information, contact:

Peter Schuster

BredWell FedWell Coordinator

E: peters@schusterconsulting.com.au

To register your interest in future workshops, submit your details via the following QR code:



Producer Demonstration Sites: quick start guide

Producer Demonstration Sites (PDS) are on-farm projects run by producer groups who want to validate the benefits of incorporating research findings into their businesses.

By supporting producers to use best practice management techniques and technologies that improve business performance, the PDS program aims to:

- increase the rate of R&D adoption
- encourage producers to pursue new skills and knowledge
- foster collaboration within the red meat industry.

MLA calls for preliminary applications for PDS projects that will help to improve the profitability, productivity and sustainability of beef and sheepmeat enterprises on an annual basis.

What can I demonstrate?

Your PDS producer group could get involved in demonstrating practices that support:

- increased lamb survival
- control of regionally important weeds
- improved induction to drought rations, or
- remote measurement of carrying capacity.

What do I need to do?

The practice you plan to demonstrate must be trialled on at least:



3 different properties



with 10 core producers



with a larger producer network
keeping track of the project

Other considerations



The project duration should be a minimum of two years and a maximum of six years



Ensure your project includes communication activities to extend key learnings beyond the core group



Implement monitoring, evaluation and reporting processes to demonstrate producer engagement, practice change and benefit to the Australian red meat industry

What are the funding opportunities?

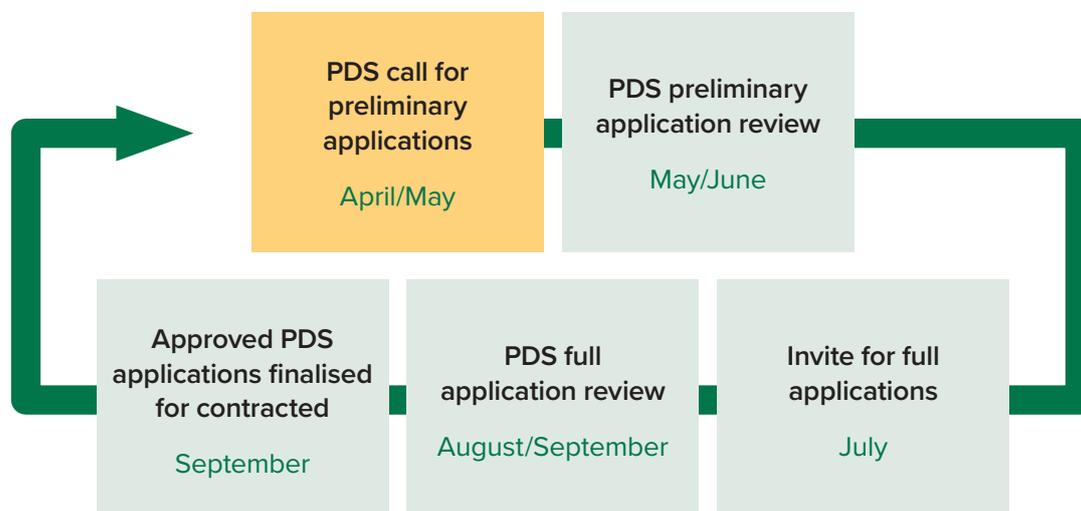
There are two primary funding streams that aim to increase the rate of adoption of on-farm management practices and technologies in PDS projects: levy and co-contributor.

What's the difference?

Levy	Co-contributor
Producer-driven projects to address regional PDS priorities set by the Regional Research Advisory Councils (RACs)/Regional Committees	Producer-driven projects aligned with industry priorities/targets
Offers producer groups the opportunity to receive funding of up to \$25,000/year for the life of the project	Offers producer groups the opportunity to receive funding of up to \$50,000/year for the life of the project
100% funded by producer levies	Funding consists of: 50% levies, 25% producer cash contribution, 25% MDC (matching the producer contribution), 8% access fee (of the total project value – 25% producer, 75% MLA/MDC)

When can I apply?

Preliminary applications for the PDS program will open in April annually. See below for a full overview of the application process.



Want to know more?

► For more information contact:

Alana McEwan	MLA Project Manager, Productivity and Market Insights	(07) 3620 5227 amcewan@mla.com.au
Russell Pattinson	PDS Coordinator	0419 872 684 miracledog@bigpond.com
Maria Thompson	PDS Coordinator	0411 961 545 maria@agstarprojects.com.au

► Visit mla.com.au/pds

Better your business



MLA offers red meat producers a range of training opportunities, resources and publications.

TRAINING OPPORTUNITIES

Profitable Grazing Systems is a group-based delivery program designed to deliver training and coaching over several months and up to a year to improve producer skills and knowledge. The aim is to achieve practice change on-farm in the areas of people, business, reproduction and genetics, value chain and feedbase.



mla.com.au/pgs

Producer Demonstration Sites are on-farm projects run by producer groups who want to demonstrate findings from known research into their local farming system. MLA calls for Producer Demonstration Site applications that will help to improve the profitability, productivity and sustainability of red meat enterprises every April.



mla.com.au/pds

EDGEnetwork[®] workshops offer practical knowledge and skills on topics such as breeding and genetics, business management, nutrition, grazing and land management. Workshops range from one to three days.



mla.com.au/edgenetwork

BredWell FedWell are practical one-day workshops designed to teach producers the key benefits of superior genetics and feed management for improved flock and herd performance.



mla.com.au/bredwellfedwell

The toolbox, MLA's free eLearning platform, builds knowledge in the areas of animal welfare, husbandry, feedbase and genetics. Packages take between 15 to 20 minutes to complete online, allowing users to learn at their own pace.



elearning.mla.com.au

myMLA is a customised online dashboard that provides news, weather, events and R&D tools relevant to you, as well as a single sign-on feature for integrity systems.



mla.com.au/aboutmymla

Seasonal hubs provide resources, tips and tools organised by season to make it easy to find relevant information to support your business decisions.

mla.com.au/seasonal-hubs

Feedbase hubs provide tips and tools on soils, pastures, legumes and weed management alongside the latest R&D to increase pasture production, quality and persistence.

mla.com.au/feedbase-hub

RESOURCES

MLA's Feedback magazine signposts producers to practical on-farm information and showcases how MLA is investing levies in research, development and marketing activities.

mla.com.au/feedback

PUBLICATIONS

Keep informed about the latest red meat and livestock industry news, market information, events, research and marketing with MLA's suite of e-newsletters. Mastheads include:

The Weekly • Integrity Matters • Goats on the Move • The Quarterly Feed • Global Markets Update • The Advisor.



mla.com.au/enews

Become an MLA member today

MLA membership is **free** to levy-paying producers of grass or grainfed cattle, sheep, lambs or goats. To become an MLA member call **1800 023 100**, visit mla.com.au/membership or scan the QR code.



www.mla.com.au/meatup

