

Final report

Unlocking new opportunities and audiences for delivery of MLA products in Southern Australia farming groups.

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Abstract

This consultancy required the development of a co-ordinated operational plan (business case) and the piloting of some new products from the feedbase adoption plan. The aim of the operational plan (business case) was to outline ways to maximise delivery of MLA products and services to members of farming groups in Southern Australia (Victoria, Tasmania, South Australia) who have not been traditional users of MLA products and services.

Development of the plan involved surveys of 430 producers and advisors about MLA products, a detailed situation analysis of the Southern Region, adoption and impact calculations and the piloting on 10 awareness activities and training workshops that are recommended for use in the operational plan.

The producer and advisor surveyed managed more than 735,000 ha of land, ran approximately 1.4 million sheep and 97,000 cattle. The greatest interest was in Feedbase type products, followed by matching feed supply and animal demand and understanding carbon and livestock emissions. However, there was interest in most MLA products, albeit at a reduced level.

The situation analysis showed a stagnation in current stocking rate over the past 15 years and an enterprise shift towards cropping and out of sheep. However, in recent years there has been growing interest in expanding the livestock enterprise due to improved commodity prices and challenges with continuous cropping. Importantly those producers who wish to make the change, and those who advise them, only have a rudimentary understanding of the grazing system. They were a generation that did not participate in the major livestock programs of the 1990's and early 2000's (e.g. Prograze, Evergraze and Grain and Graze). This provides a willing and motivated audience to engage with.

An operation plan was developed by a consortium of six farming groups and submitted to MLA for consideration. The plan proposed would achieve 4380 producer and 950 advisors engagements through awareness raising activities and workshops to build knowledge in the fundamentals of a grazing system. This included 162 awareness activities, 175 training workshops and 77 webinars, with the proportion around each topic area reflecting the interest from those surveyed. An additional 81 workshops were aimed at advisors, to build their knowledge and skills and leave a legacy after the project is finished. Thirty case studies, five major events and regular communications were also included. The operational plan also encouraged participants to proceed to existing skills development opportunities such as Profitable Grazing Systems and Producer Demonstration Sites.

An impact calculation indicated to lift gross margins on participating farms by \$32.5M after 5 years (\$38/ha) and a likely return on investment of 6.8:1.

Executive summary

Background

Stocking rates in the rainfall area of Southern Australia have stagnated in the past 15 years and is only 76% of the theoretical maximum given the average annual rainfall. The reasons for this plateau are likely to be because of producer and advisor focus on cropping, the lack of any major livestock extension program since the early 2000's and historically low commodity livestock commodity prices compared to grains.

Recently there has been a renewed interest in livestock, due to improved commodity prices and challenges with continuous cropping. However, this new generation of producers and advisors lack the fundamental knowledge to practice or advise on an efficient grazing system. They have very limited knowledge of MLA products, tools and platforms.

Six farming groups in Southern Australia, most of who have had a strong cropping focus, have agreed to work together with the aim to build the awareness and knowledge of their 2,500 members around various aspects of livestock production. They wish to present MLA with a well research and comprehensive plan to deliver a co-ordinated package of awareness and knowledge-based activities that will increase livestock profitability.

Objectives

This project had four objectives

- The creation of short information packages about MLA products and opportunities in partnership with MLA **Completed successfully**
- A comprehensive market survey **Completed successfully**
- Development of an operational plan for increasing beef, sheep production in cropping systems **Completed successfully**
- Piloting of 10 activities **Completed successfully**

Methodology

Development of the operation plan involved:

- the collation and description of all relevant MLA products and tools
- farming Groups becoming familiar with those MLA products and tools
- conducting a survey of producers and advisors to gauge their interest in participating in various MLA topics and the method of engagement,
- a detailed situation analysis of the Southern Region to identify potential for improvement in livestock productivity
- adoption and impact calculations of the proposed activities to establish an investment benefit:cost ratio.
- the piloting and evaluation of 10 awareness activities and training workshops that could be used if the operational plan was implemented.

Results/key findings

The grower and advisor survey was successfully completed which indicated the level of interest in various activities. This enabled an operation plan to be developed which contained activities and outputs, anticipated practice change that would results and impact of the investment.

Benefits to industry

If the operational plan is implemented, then engagement through these groups would reach close to 2,500 producers who run 41% of all sheep 22% of all cattle in the project area. The legacy would be a new skillset for a younger generation of producer, but also upskilling of hundreds of crop-oriented advisors. An impact calculation indicated to lift gross margins on participating farms by \$32.5M after 5 years (\$38/ha) and a likely return on MLA investment of 6.8:1.

Future research and recommendations

The project recommends MLA support the implementation of the operational plan. MLA already has the products available; the project would access and utilise an audience of 2,500 producers who are keep to participate and the return on investment is strongly positive.

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1. Background

Meat and Livestock Australia wish to improve the effectiveness of their extension program. In recent years new programs have been developed (e.g., Profitable Grazing Systems) or modified (Producer Demonstration Sites) and a Producer Adoption Reference Group (PARG) established. MLA have also stated their desire for bigger, bolder projects.

One opportunity that has not been explored is working more closely with traditionally crop aligned farming groups. These are mature, trusted farmer led organisations that have an extensive membership base and sophisticated communication channels. Would these groups be interested in working with MLA to promote pasture and livestock information and skills development.

To test this opportunity Nicon Rural Services was contracted to undertake a pilot project to examine the appetite for neighbouring farming groups in Southern Australia to come together as a consortium to deliver MLA related products to their members. Seven farming groups from Victoria, South Australia and Tasmania were invited to participate.

A workshop was held with MLA and the seven farming groups to identify what MLA products and services could be used. Participants at the workshop identified 10 areas of mutual interest between MLA and the farming groups that could be developed into a regional proposal (appendix 1). The participants identified that a detailed member survey was needed to confirm topics of interest, co-ordinate an approach to build knowledge of MLA R&D resources and identify areas or potential new tools and resources. The farming groups attending were:

- Southern Farming Systems (SFS),
- Birchip Cropping Group (BCG)
- MacKillop Farm Management Group (MFMG)
- Riverine Plains (RP)
- Perennial Pasture Systems (PPS)
- Grasslands Society of Southern Australia (GSSA)
- AgEx Alliance (representing 7 South Australian farming groups).

The project aims to develop an operational plan for the co-ordinated delivery of MLA products to increase the long-term productivity and profitability of farming system group members. The groups agreed to (i) spend time becoming familiar with MLA products and services e.g. Pasture Paramedic, how do I...... fact sheets, My MLA, Business Edge, carbon workshops and PGS packages (at their own cost) and (ii) create and conduct a joint survey to better understand what information, knowledge and skills members require to improve on-farm management practices which will increase livestock and pasture performance in a mixed farming system. Most producers are 100% crop focused and are in the infancy stage of livestock and pasture production. The survey data collected would include topics of interest and inform which methods of delivery work best for each group, and (iii) develop a strategic plan to the roll out of existing MLA products, communication activities and development of new products that will deliver productivity and profitability.

2. Project objectives

2.1 The creation of short information packages about MLA products and opportunities in partnership with MLA

Seven information sessions will be conducted to familiarise each of the farming groups members with MLA products programs and services. This will provide farming group members with the confidence and understanding of MLA products before completing the survey. This objective was to ensure farming groups became familiar with MLA products and offerings. Most groups were unfamiliar with what MLA had to offer, so this first objective was essential to support any questions arising from participants undertaking the surveys.

2.2 A comprehensive market survey

- A comprehensive survey from 5,100 producer members of the seven farming groups across South Australia, Victoria and Tasmania to identify areas of interest (livestock, pastures and business) and preferred delivery approaches. The survey would be prepared in partnership with the MLA adoption mangers and the communications team and include:
 - a. Physical farm data e.g. area, livestock, crops etc.
 - b. Members current understanding of and engagement with, MLA products and services
 - c. Identification of topic areas of interest (that fall within the MLA remit)
 - d. Preferred method of engagement and delivery
- Distribution of the survey will be by multiple means including survey money and semi structured face to face interviews

This objective was to ensure there was sufficient 'evidence' from the farming groups as to the areas of interest and likely quantum of participation from members. Such data would reduce the chances of potential future offerings not meeting market demand.

2.3 Development of an operational plan for increasing beef, sheep production in cropping systems

- The development of an operational plan in consultation with MLA, based on the survey results to ensure the alignment of programs and communication activities. The strategy would focus on engagement opportunities to improve their capability (skills and knowledge pertaining to latest R&D outcomes, business performance and livestock & pasture production)
- Identify existing and new opportunities for extension and adoption. This would ensure co-ordination and efficiency of delivery between farming groups and MLA
- Equip members with intelligence and knowledge that increases their understanding of the livestock sector's issues and needs.

This objective was to describe and cost a comprehensive and integrated operational plan to maximise the extension of MLA products and delivery to producers in the Southern region of Australia. The strategy would focus on engagement opportunities to improve their capability (skills

and knowledge) pertaining to latest R&D outcomes, business performance and livestock & pasture production.

2.4 Piloting activities

Deliver 10 pilot activities/events to at least 10 people in 7 farming groups across Victoria, Tasmania and South Australia farming group members and familiarise themselves with at least 20 MLA 'products' e.g. Pasture Paramedic, how do I...... fact sheets, pasture persistence, weeds, sub clover, soils material. This objective aimed to respond to survey responses by designing and piloting simple activities where no existing MLA product was available. It was to 'test the water' with new delivery of existing extension products.

The objectives of the project have been achieved.

3. Methodology

All seven farming groups were required to become familiar with the MLA products on offer. This involved investigating the product list (as associated links) provided by Nicon Rural Services through support from MLA.

Survey questions were developed by Nicon Rural Services with MLA, to ensure the desired content was covered and questions provided valuable quantitative and qualitative information. This consists of 32 questions that captured the level of interest, willingness to pay and any other thoughts across feedbase, genetics, business management and market areas (appendix 1).

The 32 questions were then discussed with the farming groups before surveying commenced, to ensure consistent questions were asked of members of each group. A short 13-minute video (that was not in the original project contract) was also developed to ensure consistency with how the products were presented. The video was created in four parts, with the first part of the video shown to the audience, then a pause to answer any questions people had about the MLA products and then people were asked to respond to the relevant survey questions. This was repeated for the other three parts.

Surveys were conducted by the Group's using different opportunities to be in front of members and explain the MLA products. Voting was accessed through a QR code unique to each group, with responses recorded via mobile phones. Each group accessed their survey results in real time. Responses were stored in an Excel database for later analysis.

Group members reviewed the collated responses and identified which topic areas they were interested in. Pilot projects were conducted around some of these topics to test the content and delivery. These pilot projects were evaluated and then considered in the mix of possible activities in the operational plan.

The groups met numerous times to scope out the possible delivery of activities that would match the information collected from the surveys (i.e., reflect producer interest in various topics). A five-year plan to deliver these activities was developed and costed for possible implementation.

Preliminary discussion with MLA indicated the need to include a user pays component in some of the delivery items suggested. This was discussed with the groups and an operational plan that reflected

resourcing from MLA levies and MLA Donor company was proposed. Contents of the operational plan was transferred to a MLA Donor Company application form for consideration by MLA.

4. Results

4.1 Product familiarisation and survey set up

All seven farming groups enrolled across southern NSW, Victoria, South Australia and Tasmania, and participated in several meetings to appreciate the task at hand and how best to deliver within the event schedule they are planning.

Group members become familiar with the current range of MLA products of offer. A short 13-minute video explaining these products was produced, along with survey questions that were endorsed by MLA. The video is available at: <u>https://f.io/IBokGxaQ</u>.

4.2 Survey Implementation

Surveying was delayed in late 2021 (commenced on August 19) due to Covid-19, but was completed by May 2022. A total of 430 surveys were completed (92% of the original survey target of 467). The last 37 surveys were not pursued because analysis of earlier results showed the addition of another 93 surveys completed after the milestone 4 report did not materially change the popularity (or otherwise) of individual offerings. Chasing the final few surveys would not have added to the quality of the data or the conclusions drawn.

The surveys completed represented 16% of the total membership base of the seven organisations, suggesting futures surveys do not need to aim for more than 15% of members to get a representative sample.

Farming group	Survey nos (contracted)	Surveys recorded	Shortfall (no.)	Survey completed (%)
Southern Farming Systems (SFS)	100	100	0	100%
Riverine Plains (RP)	50	50	0	100%
MacKillop Farm Management Group (MFMG)	50	54	-4	108%
Perennial Pasture Systems (PPS)	30	44	-14	147%
Grasslands Society of Sth Aust (GSSA)	120	77	43	64%
Birchip Cropping Group (BCG)	25	25	0	100%
AgExcellence Alliance (AgEx)	94	80	14	85%
TOTAL	469	430	39	92%

Table 1. Surveys completed by group

4.2.1 Survey results

Results from the survey for each individual question is attached (appendix 2). The main points from the survey were:

- Producers answering the survey manage more than 735,000 ha of land, ran approximately 1.4 million sheep and 97,000 cattle. These numbers are likely to be an underestimate, as a proportion of the responses only listed breeding stock rather than total animal numbers. Importantly grazing was just over half the total area managed (59%), with a significant proportion of land under cropping.
- As expected, the historic pasture-oriented groups (e.g., Grassland Society of Southern Australia, Perennial Pasture Systems, Mackillop Farm Management Group) had a higher proportion of grazing compared with 'historic cropping groups' (e.g. Birchip Cropping Group, Southern Farming Systems, Riverine Plains, AgExcellence Alliance). The results confirmed this enterprise orientation. However, the results also supported the proposition expressed from the traditional cropping groups that their members have a significant number of livestock. This is a significant growth opportunity for MLA, as the four traditional cropping groups represent 59% of the sheep and 32% of the cattle in the survey results.

	Hectares	Sheep	Cattle	How many hectares of	
	under	-	typically run	crop are sown	Proportion
Farming Group	management	(approx.)	(approx.)	(approx.)	grazing (ha)
Southern Farming Systems					
(SFS)	189044	477431	19669	98369	48%
Riverine Plains (RP)	67963	110613	2730	36483	46%
MacKillop Farm Management					
Group (MFMG)	51706	186000	4380	12662	76%
Perennial Pasture Systems					
(PPS)	81872	162085	19120	22671	72%
Grasslands Society of Sth Aust					
(GSSA)	128544	328132	40675	15383	88%
Birchip Cropping Group (BCG)	58986	40340	800	49650	16%
AgExcellence Alliance (AgEx)	158752	97399	9269	72109	55%
TOTAL	736867	1402000	96643	307327	58%

Table 2. Area farmed, livestock numbers and proportion cropped by farming group

• The most popular topic areas were feedbase related products (perennial grass management, sub clover, weeds), followed by matching feed supply to animal demand and issues around carbon emission and climate (figure 1).





This response towards feedbase and grazing products is not surprising, given the anecdotal reports from the groups in the survey about the interest their members have been expressing in pastures and livestock. For groups where pastures are at the core of their reason for operating e.g., Grasslands Society, Perennial Pasture Systems, interest is strong for the more in-depth type activities. For groups where pastures are emerging as a growing area of member interest e.g., Southern Farming Systems, Birchip Cropping Group shorter, more fundamental information is requested.

The growth in the area being cropped appears to have peaked, with many crop dominant farmers re-examining the role of livestock in their systems. The driver behind this is likely to be multi-faceted but include change in commodity prices, growing input costs in cropping, greater risk due to climate change, herbicide resistance and the need to build soil carbon.

The 'willingness to pay' was tested around five offerings if respondents indicated they were "extremely interested" or "very interested" In the product. The amount respondents said they were willing to pay was marginally higher if they indicated "extremely interested" compared to "very interested" (table 1).

Product	Extremely interested		Very erested
PGS - Paydirt	\$ 610	\$	416
PGS - Pasture manipulation	\$ 1,051	\$	793
PGS - Pasture resowing	\$ 1,000	\$	712
More Beef from Pastures	\$ 375	\$	279
Business EDGE	\$ 404	\$	315

Table 3. Willingness to pay for five MLA offerings

The current price of PGS courses is set by the deliverer would appear to be significantly higher than the current price points. The current price of PGS courses is set by the deliverer, with a maximum contribution by MLA of 30% of the total delivery cost (up to \$900 per business) and a minimum of 20% paid by producers (the remaining 50% is paid by the producer or through sponsorship).

The first four PGS *Paydirt* courses are being delivered so far, with the total cost of delivery budgeted at \$2,550 per business, meaning producers would need to pay between \$510 and \$1,785 per business. The exact costing will be refined once the final one on one coaching sessions have been completed and the time commitment is better understood. No PGS Manipulation or Resowing courses have been delivered, although the initial costing estimates are \$3,090 and \$2,940 per business respectively, meaning producers would need to pay between \$620 and \$2,160 per business for the Manipulation course and between \$590 and 2,060 per business for the Resowing course.

The *More Beef from Pastures* course is delivered in Victoria through the Better Beef Network (Agriculture Victoria). In the past there has been no charge because it was subsidised by MLA. Business edge is offered by Meridian Agriculture at a cost of \$1,500 per person (\$2,500 for 2 participants per business).

The results in table 3 would suggest that sponsorship will be a necessary component to get increased uptake of these courses, or the cost of delivery would need to decrease significantly. This may be challenging, given the desire to have well qualified and experienced deliverers and the requirement for one-on-one coaching in the PGS program.

Opportunities for new activities

This has commenced. Two activities have already been developed, but only 1 has been tested due to COVID-19 restrictions. This was the Pasture Paramedic farm walk.

A short workshop on managing sub-clover, which included the use of the subclover performance checklist and sub-clover identification chart was intended to be delivered in October 2021 but was cancelled because group activities could not be undertaken. The timing for its use has now passed until Spring 2022.

The collated results will be shared with the groups as this should provide sufficient evidence to build some pilot activities between now and June 2022. However, the completion of the contract will restrict which events can be undertaken, as they will not co-incise with seasonal conditions. Therefore, the focus will be on pilot activities that are not seasonally dependent e.g., carbon footprint, grazing management principles, soil analysis or are relevant for autumn / winter.

4.3 Operational plan

The intent of the operational plan was to provide guidance on the outcomes, activities and outputs over a five-year period if MLA co-invested in a large regional project with existing farming groups in Southern Australia. It contained the rationale for investment, targets, deliverables, evaluation criteria and cost sharing arrangements.

The operational plan reflected the survey results and willingness of the groups to participate. One of the seven groups involved in the original survey (AgEx Alliance) decided to withdraw from the operation plan, citing limited capacity to deliver and the requirement to contribute cash to the plan's implementation through the MLA Donor Company.

The project will be managed by Southern Farming Systems (the lead proponent) with subcontracts to five other farming groups. Southern Farming Systems are responsible for program delivery with MLA and the MLA Donor Company.

Two additional pieces of analysis were undertaken to inform the operational plan. This was a project area situational analysis and an adoption and impact study. A copy of the operational plan is attached (appendix 3). The significant points from the five-year operational plan are described:

- The aim of the operational plan is to lift gross margins on participating farms by \$32.5M after 5 years (\$38/ha).
- It will deliver 162 awareness activities, 256 training workshops and 77 webinars to producers and advisors. The delivery by clustered topic area for producers and advisors is presented (table 4 and 5).

Clustered topics	Awareness	Workshops	Webinars
Feedbase and feed supply /			
animal demand	102	67	5
Carbon, livestock emission			
management and climate	31	29	4
Genetics	5	30	3
Business management	1	8	2
Markets, carcass feedback and			
using MLA platforms	17	26	29
Animal welfare and biosecurity	6	15	9
	162	175	52

Table 4. Number of activities by clustered topics for producers

Chustowed towing	A	Markebana	Mahinana
Clustered topics	Awareness	Workshops	Webinars
Feedbase and feed supply /			
animal demand	0	38	5
Carbon, livestock emission			
management and climate	0	11	4
Genetics	0	10	4
Business management	0	2	2
Markets, carcass feedback and			
using MLA platforms	0	6	6
Animal welfare and biosecurity	0	14	4
	0	81	25

 Table 5. Number of activities by clustered topics for advisors

- It will result in engagement with 3,760 producers and 880 advisors (some multiple engagements on different topics).
- Two high profile field sites and two satellite sites to demonstrate feedbase principles will be established and monitored
- Five significant regional events/conferences will be held
- 30 articles suitable for publishing in MLA feedback magazine or elsewhere will be produced
- Groups will distribute MLA information to the 2,480 members in the consortium
- A comprehensive longitudinal impact evaluation of the program to measure the benefit cost of the investment will be undertaken.

4.4 Pilot projects

Ten pilot projects were completed, which covered both producers and advisors. More than 300 participated in the presentations, ranges from groups as small as 4 to as large as 60. The style of delivery varies between topic and audience (table 6).

Торіс	Delivery time	Method
Feed budgeting	½ day workshop	In room training using MLA web based and Excel tools
Grazing		Some in room theory of grazing principles followed by
management	1/2 day workshop	paddock walk
Pasture	2 hrs as part of	Short theory session followed by paddock demonstration
Paramedic	larger program	and practice
		Theory presentation as part of larger program, with follow
Sub clover	1 hr	up discussion during paddock walk
The basics of	90 minute	
soil carbon	workshop	Presentation followed by Q&A session

 Table 6: Pilot topics presented, audience and value from event

A short summary of the topics cover, groups involved, and rating of the event is provided (table 7). Comments received from one of each of the topic areas are listed to give a feel for the reaction to the material and presentation format (appendix 4).

					Value from event	
No	Торіс	Audience	Organisation	Attendance	(0-5)	Range
1	Feed budgeting	Advisors	Nutrien Ag	35	4.6	4 to 5
2	Feed budgeting	Advisors	Premier Ag	4	5.0	5
3	Grazing management	Advisors	Nutrien Ag	35	4.8	4 to 5
4	Grazing management	Producers	Perennial Pasture Systems	36	No scoring - Ther positive response t "would you recomi to othe	to the question, mend the event
5	Pasture Paramedic	Producers	Grasslands Society	45	4.4	3 to 5
6	Pasture Paramedic	Producers	Best lamb group	11	4.6	4 to 5
7	Sub clover	Producers	Grasslands Society	40	4.5	4 to 5
8	Sub clover	Producers	Bestwool group	8	4.4	4 to 5
9	The basics of soil carbon	Producers	Te Mania Angus	60	4.6	4 to 5
10	The basics of soil carbon	Producers	SFS branch (Tasmania)	40	4.3	3 to 5

Table 7: Pilot topics presented, audience and value from event

The evaluation results clearly show the content and delivery met audience expectations. This type of delivery was proposed in the operational plan, with additional topic areas to be developed and other local presenters to be trained.

5.Conclusion

5.1 Key findings

This project was successful at creating an operation plan for consideration by MLA. It was possible to bring farming groups in Victoria, South Australia and Tasmania together into a consortium, discuss and refine delivery that will benefit all groups. The combined farmer and advisor membership of this consortium is 2,480, with members calculated to represent farms with 8.6 million sheep (41% of all sheep in the project area) and 550,000 cattle (22% of all cattle in the project area). *This is a highly significant audience reach being offered through the operational plan.* In addition, the in-kind access (membership names to target for training and broader communication access) is valued at \$3.18M over the life of the project.

5.2 Benefits to industry

Implementation of the operational plan will have a significant benefit to the industry. Several aspects contribute to this conclusion:

- The operational plan utilise existing MLA products, enabling value to be gained for existing MLA investment
- It builds pasture and livestock knowledge and skills in the advisory sector, who have a strong cropping focus. These advisors already have a large client base which enables upskilled advisors to share information seamlessly with clients.
- The project utilises a massive, trusted membership base for communication and enrolment. Members of these groups run 41% of all sheep and 22% of all cattle in the project area, so avoids creating new structures.
- The modelled industry benefits through increase productivity is \$32.5 million after 5 years. With the proposed investment of \$4.8 million this would generate a benefit cost ratio of between 6.8:1.

6. Future research and recommendations

The operational plan developed as an output from this project should be supported. It provides a pathway to engage with a significant audience MLA are endeavouring to reach, using existing materials already available. It provides access to a significant number of producers who manage a significant number of livestock in the region. The benefit cost ratio of the proposal is between 4.8:1 and 6.8:1.

The approach in developing the operational plan could be replicated in other locations. This includes:

- Creating consortiums of existing farming groups that MLA may have had a limited working relationship before (opens a new audience and utilises existing networks and structures)
- Getting the groups to conduct a comprehensive survey of members to gauge member interest, thereby reducing the risk of resourcing activities that are not wanted.
- Driving a user pay culture for MLA products and services
- Embedding the MLA monitoring and evaluation plan into large scale investments.

7.1 Appendix 1 – Survey questions

Have your say on what MLA could offer you?

To increase your skills, knowledge, efficiency, profitability, growth and development of your business focussing on feed production, livestock, feed supply & demand and farm business.

Feed Production

What is your interest in:

1. Receiving the Pasture Paramedic kit and undertaking a short (1 hr) workshop?



- 2. Receiving feed production information via videos & factsheets on perennial grass management, subclover, weed management and soil conditions?
 - Extremely Interested Very Interested Somewhat Interested Mildly Interested Limited Interested Not At All Interested
- 3. Participating in short workshops explaining the information on perennial grass management, subclover, weed management and soil conditions
 - Extremely Interested
 - Very Interested
 - Somewhat Interested
 - Mildly Interested
 - Limited Interested
 - Not At All Interested
- 4. Enrolling in the Profitable Grazing Systems *PayDirt three session* course (3 half day workshops, 4 hours of 1:1 consulting)?

Extremely Interested Very Interested	
Somewhat Interested	Go to Question
Mildly Interested	Go to Question
Limited Interested	Go to Question
Not At All Interested	Go to Question

How much would you be willing to pay for a PayDirt Course?

\$0
\$500
\$1000
\$1500

5. Enrolling in the multi-session *Pasture Manipulation* course over an 18 month to 2 year period (6 half day workshops, 8 hours of 1:1 consulting)?

Extremely Interested Very Interested	
Somewhat Interested	Go to Question 8
Mildly Interested	Go to Question 8
Limited Interested	Go to Question 8
Not At All Interested	Go to Question 8

6. How much would you be willing to pay for the Pasture Manipulation?



7. Enrolling in the multi-session *Pasture Resowing* course over an 18 month to 2 year period (6 half day workshops, 8 hours of 1:1 consulting)?



8. How much would you be willing to pay for the Pasture Resowing Course?

\$0
\$1000
\$1500
\$2000

9. Are there any other ideas or thoughts for feed production issues (gaps or areas of interest) you would like addressed?

Livestock

What is your interest in:

10. Receiving information contained in the Accelerate Genetics HUB website in local newsletters and at events (presentations)?

Extremely Interested
Very Interested
Somewhat Interested
Mildly Interested
Limited Interested
Not At All Interested

11. Enrolling in the 1 day BredWell FedWell workshop?



12. Participate in short workshops around implementing animal welfare standards?



- 13. Receiving information contained in the Learning more about how to access and use the market report information?
 - Extremely Interested
 - Very Interested
 - Somewhat Interested
 - Mildly Interested
 - Limited Interested
 - Not At All Interested
- 14. Participate in short workshops around navigating and understanding the market information?



- Limited Interested
- - Not At All Interested

15. Participate in short workshops around navigating and understanding the market information?



16. Being involved in a PDS project around genetics?



17. Being involved in a PDS project around feed production?



18. Are there any other ideas or thoughts for genetics, animal welfare or market information (gaps or areas of interest) you would like addressed?

Feed Supply & Animal Demand

What is your interest in:

19. Participating in a short workshop on how to use the stocking rate, feed budget and feed demand calculator tools?



20. Enrolling in a More Beef From Pastures course?

Extremely Interested	
Very Interested	
Somewhat Interested	Go to Question 23
Mildly Interested	Go to Question 23
Limited Interested	Go to Question 23
Not At All Interested	Go to Question 23

21. How much would you be willing to pay for the Course?



22. Are there any other ideas or thoughts for pasture and animal interaction (gaps or areas of interest) you would like addressed?

Farm Business

What is your interest in:

23. Participating in a Business EDGE workshop?

Extremely Interested Very Interested	
Somewhat Interested	Go to Question 26
Mildly Interested	Go to Question 26
Limited Interested	Go to Question 26
Not At All Interested	Go to Question 26

24. How much would you be willing to pay for the Course?



25. Short workshops to ensure you are up to date with <u>Integrity scheme</u> requirements? Integrity Scheme - National Livestock Identification System, Livestock Production Assurance, Meat Standards Australia, Living Data Link

Extremely Interested
Very Interested
Somewhat Interested
Mildly Interested
Limited Interested
Not At All Interested
 -

26. Short workshops to ensure you are up to date with how to access and interpret <u>carcass information</u> to help inform breeding and feeding choices?

Extremely Interested
Very Interested
Somewhat Interested
Mildly Interested
Limited Interested
Not At All Interested

27. Short workshops to ensure you are up to date with calculating the <u>carbon footprint</u> of your farm?



Very Interested

Somewhat Interested

- Mildly Interested
- Limited Interested
- Not At All Interested

28. Short workshops to ensure you are up to date with understanding the <u>latest climate</u> <u>variability tools</u>?



29. Receiving information from the dung beetle research project in local newsletters and at events (presentations)?



30. Short workshops to set up My MLA?



31. Are there any other ideas or thoughts for business management, integrity systems or carbon (gaps or areas of interest) you would like addressed?

32. How many hectares under	
management?	

- 33. How many sheep do you typically run (approx.)?_____
- 34. How many cattle do you typically run (approx.)?_____
- 35. How many hectares of crop are sown this year(approx.)?_____

7.2 Appendix 2 – Response to each survey question

1. Receiving the Pasture Paramedic kit	and undertak	ing a short (1	hr) workshop	?														
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys		1. Receiving the Pasture Paramedic kit and									
Southern Farming Systems	39	40	10	4	6	1	100		undertaking a short (1 hr) workshop?									
Riverine Plains	7	13	19	6	2	3	50	40%										
Perennial Pasture Systems	5	16	19	2	2	0	44	35%										
MacKillop Farm Management Group	6	27	10	3	6	2	54											
Grasslands Society of Sth Aust	24	31	14	4	4	0	77	309										
Birchip Cropping Group	1	6	5	4	6	3	25	25%		_								
AgExcellence Alliance	16	21	21	12	5	5	80	209										
TOTAL	98	154	98	35	31	14	430	20%										
								159	5 -	-								
								109	_									
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely											
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	59	5 -									
Southern Farming Systems	39%	40%	10%	4%	6%	1%	79%	0%										
Riverine Plains	14%	26%	38%	12%	4%	6%	40%		Extremely	,	Somewhat	Mildly	Limited	Not at all				
Perennial Pasture Systems	11%	36%	43%	5%	5%	0%	48%		Interested	I Interested	interested	interested	interest	Interested				
MacKillop Farm Management Group	11%	50%	19%	6%	11%	4%	61%											
Grasslands Society of Sth Aust	31%	40%	18%	5%	5%	0%	71%											
Birchip Cropping Group	4%	24%	20%	16%	24%	12%	28%											
AgExcellence Alliance	20%	26%	26%	15%	6%	6%	46%											
AVERAGE (all responses)	23%	36%	23%	8%	7%	3%	59%											

Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys			_	ed produc			
Southern Farming Systems	40	34	21	1	4	0	100		vide	eos & fac	tsheets o	n perenn	nial grass	5
Riverine Plains	8	16	19	3	4	0	50		manag	gement, s	subclover	, weed m	anagem	ent
Perennial Pasture Systems	10	20	9	4	1	0	44			an	d soil con	ditions?		
MacKillop Farm Management Group	9	21	16	3	4	1	54	40%						
Grasslands Society of Sth Aust	29	32	11	2	2	1	77	35%						
Birchip Cropping Group	1	1	8	7	4	4	25							
AgExcellence Alliance	18	24	18	11	5	4	80	30%						
TOTAL	115	148	102	31	24	10	430	25%						
								20%						
								15%						
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	10%						
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	5%				-		
Southern Farming Systems	40%	34%	21%	1%	4%	0%	74%	0%						
Riverine Plains	16%	32%	38%	6%	8%	0%	48%		Extremely	Very	Somewhat	Mildly	Limited	Not at all
Perennial Pasture Systems	23%	45%	20%	9%	2%	0%	68%		Interested	Interested	interested	interested	interest	Interested
MacKillop Farm Management Group	17%	39%	30%	6%	7%	2%	56%							
Grasslands Society of Sth Aust	38%	42%	14%	3%	3%	1%	79%							
Birchip Cropping Group	4%	4%	32%	28%	16%	16%	8%							
AgExcellence Alliance	23%	30%	23%	14%	6%	5%	53%							
AVERAGE (all responses)	27%	34%	24%	7%	6%	2%	61%							

3. Participating in short workshops exp	laining the inf	ormation on	perennial gras	s manageme	nt, subclov	ver, weed ma	anagement a	and soil cond	litions	i					
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys						workshop		ning
Southern Farming Systems	34	45	10	5	5	1	100						perennia	-	
Riverine Plains	4	20	17	6	2	1	50			mana	gement, :	subclove	r, weed m	anagem	ent
Perennial Pasture Systems	10	19	11	2	1	1	44				ar	nd soil co	nditions		
MacKillop Farm Management Group	7	21	14	5	6	1	54		40%						
Grasslands Society of Sth Aust	24	34	14	3	2	0	77		35%						
Birchip Cropping Group	1	3	6	6	4	5	25		30%						
AgExcellence Alliance	15	19	15	15	11	5	80								
TOTAL	95	161	87	42	31	14	430		25%						
									20%	-					
									15%	-					
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely		10%	-					
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very		5%	-				-	_
Southern Farming Systems	34%	45%	10%	5%	5%	1%	79%		0%						
Riverine Plains	8%	40%	34%	12%	4%	2%	48%			Extremely	Very	Somewhat	Mildly	Limited	Not at all
Perennial Pasture Systems	23%	43%	25%	5%	2%	2%	66%			Interested	Interested	interested	interested	interest	Interested
MacKillop Farm Management Group	13%	39%	26%	9%	11%	2%	52%								
Grasslands Society of Sth Aust	31%	44%	18%	4%	3%	0%	75%								
Birchip Cropping Group	4%	12%	24%	24%	16%	20%	16%								
AgExcellence Alliance	19%	24%	19%	19%	14%	6%	43%								
AVERAGE (all responses)	22%	37%	20%	10%	7%	3%	60%								

4. Enrolling in the Profitable Grazing Sy	stems PayDirt	three sessior	i course (3 nai	r day worksn	ops, 4 nou	rs of 1:1 con	suiting)?		
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys		
Southern Farming Systems	21	27	22	13	14	3	100	30%	
Riverine Plains	4	14	10	14	3	5	50		
Perennial Pasture Systems	4	8	20	7	3	2	44	25%	
MacKillop Farm Management Group	6	11	20	6	10	1	54		
Grasslands Society of Sth Aust	14	21	24	9	9	0	77	20%	
Birchip Cropping Group	0	5	5	5	2	8	25		
AgExcellence Alliance	10	15	21	11	13	10	80	15%	1
TOTAL	59	101	122	65	54	29	430	10%	_
								5%	_
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely		
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%	
Southern Farming Systems	21%	27%	22%	13%	14%	3%	48%		
Riverine Plains	8%	28%	20%	28%	6%	10%	36%		
Perennial Pasture Systems	9%	18%	45%	16%	7%	5%	27%		
MacKillop Farm Management Group	11%	20%	37%	11%	19%	2%	31%		
Grasslands Society of Sth Aust	18%	27%	31%	12%	12%	0%	45%		
Birchip Cropping Group	0%	20%	20%	20%	8%	32%	20%		
AgExcellence Alliance	13%	19%	26%	14%	16%	13%	31%		
AVERAGE (all responses)	14%	23%	28%	15%	13%	7%	37%		



5. Enrolling in the multi-session Pasture	. wampulation	i course over		to z year peri	ou (o nair	uay workshi	ps, a nours o	of 1.1 consult	.ing):						
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys			Manip	oulation	n the mul course ov	er an 18	month t	o 2
Southern Farming Systems	12	29	27	12	15	5	100			year p	eriod (6 l	half day w	orkshops	s, 8 hour	's of
Riverine Plains	2	9	14	11	7	7	50					1:1 consu	lting)?		
Perennial Pasture Systems	3	7	16	7	7	4	44	3	0% -						
MacKillop Farm Management Group	4	7	18	8	12	5	54								
Grasslands Society of Sth Aust	12	22	24	7	10	2	77	2	-5%						
Birchip Cropping Group	1	1	3	6	7	7	25	7	.0% -						
AgExcellence Alliance	5	17	16	17	11	14	80	2	.070						
TOTAL	39	92	118	68	69	44	430	1	.5% -			-			
								1	.0% -					-	
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely		5% -						
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very		570						
Southern Farming Systems	12%	29%	27%	12%	15%	5%	41%		0% -						
Riverine Plains	4%	18%	28%	22%	14%	14%	22%			Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested
Perennial Pasture Systems	7%	16%	36%	16%	16%	9%	23%			Interested	Interesteu	Interested	Interesteu	Interest	Interesteu
MacKillop Farm Management Group	7%	13%	33%	15%	22%	9%	20%								
Grasslands Society of Sth Aust	16%	29%	31%	9%	13%	3%	44%								
Birchip Cropping Group	4%	4%	12%	24%	28%	28%	8%								
AgExcellence Alliance	6%	21%	20%	21%	14%	18%	28%								
AVERAGE (all responses)	9%	21%	27%	16%	16%	10%	30%								

6. Enrolling in the multi-session Pasture	Resowing col	urse over an .	18 month to 2	year period (6 nair day	worksnops,	8 hours of 1:	1 consulting)?	
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly	Limited interest	Not at all Interested	Surveys		
Southern Farming Systems	11	25	27	15	19	3	100		
Riverine Plains	1	5	18	13	8	5	50		
Perennial Pasture Systems	2	6	10	14	6	6	44	30	0% –
MacKillop Farm Management Group	5	4	20	5	14	6	54		
Grasslands Society of Sth Aust	14	13	24	13	13	0	77	- 25	5% -
Birchip Cropping Group	0	1	2	5	6	11	25	20	0% -
AgExcellence Alliance	4	12	16	15	18	15	80		
TOTAL	37	66	117	80	84	46	430	15	5% -
								10	0% -
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5	5% -
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very		
Southern Farming Systems	11%	25%	27%	15%	19%	3%	36%	(0% -
Riverine Plains	2%	10%	36%	26%	16%	10%	12%		
Perennial Pasture Systems	5%	14%	23%	32%	14%	14%	18%		
MacKillop Farm Management Group	9%	7%	37%	9%	26%	11%	17%		
Grasslands Society of Sth Aust	18%	17%	31%	17%	17%	0%	35%		
Birchip Cropping Group	0%	4%	8%	20%	24%	44%	4%		
AgExcellence Alliance	5%	15%	20%	19%	23%	19%	20%		
AVERAGE (all responses)	9%	15%	27%	19%	20%	11%	24%		

6. Enrolling in the multi-session Pasture Resowing course over an 18 month to 2 year period (6 half day workshops, 8 hours of 1:1 consulting)?

7. Receiving information contained in t	he Accelerate	Genetics HU	B website in lo	cal newslette	rs and at e	vents (prese	ntations)?							
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys			0		tion cont HUB web		
Southern Farming Systems	14	26	29	12	14	5	100		news	letters ar	nd at ever	nts (prese	entations	5)?
Riverine Plains	2	11	17	9	7	4	50							
Perennial Pasture Systems	2	13	15	5	7	2	44	35%						
MacKillop Farm Management Group	8	13	18	8	5	2	54	30%						
Grasslands Society of Sth Aust	10	19	26	8	10	4	77	25%						
Birchip Cropping Group	3	1	3	4	9	5	25	25%						
AgExcellence Alliance	11	10	29	14	11	5	80	20%						
TOTAL	50	93	137	60	63	27	430	15%		_				
								10% -						
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5% -						
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%						
Southern Farming Systems	14%	26%	29%	12%	14%	5%	40%		Extremelv	Very	Somewhat	Mildly	Limited	Not at all
Riverine Plains	4%	22%	34%	18%	14%	8%	26%		Interested	Interested	interested	interested	interest	Interested
Perennial Pasture Systems	5%	30%	34%	11%	16%	5%	34%							
MacKillop Farm Management Group	15%	24%	33%	15%	9%	4%	39%							
Grasslands Society of Sth Aust	13%	25%	34%	10%	13%	5%	38%							
Birchip Cropping Group	12%	4%	12%	16%	36%	20%	16%							
AgExcellence Alliance	14%	13%	36%	18%	14%	6%	26%							
AVERAGE (all responses)	12%	22%	32%	14%	15%	6%	33%							

8. Enrolling in the 1 day BredWell FedW	/ell workshop?	•						
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly	Limited interest	Not at all Interested	Surveys	8. Enrolling in the 1 day BredWell FedWell workshop?
Southern Farming Systems	16	25	23	18	15	3	100	
Riverine Plains	3	14	19	8	6	0	50	30%
Perennial Pasture Systems	4	10	13	5	6	6	44	25%
MacKillop Farm Management Group	12	16	12	5	6	3	54	
Grasslands Society of Sth Aust	13	18	21	7	10	8	77	20%
Birchip Cropping Group	2	4	8	2	3	6	25	
AgExcellence Alliance	15	17	23	9	13	3	80	15%
TOTAL	65	104	119	54	59	29	430	
								10%
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5%
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%
Southern Farming Systems	16%	25%	23%	18%	15%	3%	41%	Extremely Very Somewhat Mildly Limited Not at all
Riverine Plains	6%	28%	38%	16%	12%	0%	34%	Interested Interested interested interested interest Interested
Perennial Pasture Systems	9%	23%	30%	11%	14%	14%	32%	
MacKillop Farm Management Group	22%	30%	22%	9%	11%	6%	52%	
Grasslands Society of Sth Aust	17%	23%	27%	9%	13%	10%	40%	
Birchip Cropping Group	8%	16%	32%	8%	12%	24%	24%	
AgExcellence Alliance	19%	21%	29%	11%	16%	4%	40%	
AVERAGE (all responses)	15%	24%	28%	13%	14%	7%	39%	

9. Receiving information contained in t	he Animal we	lfare website	in local newsle	etters and at	events (pre	esentations)	?											
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys			9. Receiving information contained in the Animal welfare website in local								
Southern Farming Systems	13	28	27	10	20	2	100			news	letters a	nd at ever	nts (prese	entations	;)?			
Riverine Plains	0	16	18	9	2	5	50			newe					<i>,</i> ,,.			
Perennial Pasture Systems	3	14	15	7	4	1	44		40%									
MacKillop Farm Management Group	7	18	13	8	7	1	54		35%									
Grasslands Society of Sth Aust	9	12	32	14	7	3	77		30%									
Birchip Cropping Group	1	2	8	3	8	3	25		25%									
AgExcellence Alliance	12	12	31	13	10	2	80											
TOTAL	45	102	144	64	58	17	430		20%									
									15%									
									10%				-					
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely		5%	-	_		_					
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very		0%									
Southern Farming Systems	13%	28%	27%	10%	20%	2%	41%		070	Extremely	Very	Somewhat	Mildly	Limited	Not at all			
Riverine Plains	0%	32%	36%	18%	4%	10%	32%			Interested	Interested	interested	interested	interest	Interested			
Perennial Pasture Systems	7%	32%	34%	16%	9%	2%	39%	L										
MacKillop Farm Management Group	13%	33%	24%	15%	13%	2%	46%											
Grasslands Society of Sth Aust	12%	16%	42%	18%	9%	4%	27%											
Birchip Cropping Group	4%	8%	32%	12%	32%	12%	12%											
AgExcellence Alliance	15%	15%	39%	16%	13%	3%	30%											
AVERAGE (all responses)	10%	24%	33%	15%	13%	4%	34%											

10. Participate in short workshops arou	nd implemen	ting animal w	elfare standar	ds?										
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly	Limited interest	Not at all Interested	Surveys				e in short g animal			
Southern Farming Systems	12	22	25	15	24	2	100	40%	1.	(,			
Riverine Plains	0	14	19	10	2	5	50	40%						
Perennial Pasture Systems	1	12	15	8	5	3	44	35%						
MacKillop Farm Management Group	6	11	18	3	14	2	54	30%						
Grasslands Society of Sth Aust	6	11	31	15	10	4	77							
Birchip Cropping Group	1	0	7	4	9	4	25	25%						
AgExcellence Alliance	7	18	29	12	11	3	80	20%						
TOTAL	33	88	144	67	75	23	430	15%						
								10%						
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5%						
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%						
Southern Farming Systems	12%	22%	25%	15%	24%	2%	34%	070	Extremely	Very	Somewhat	Mildly	Limited	Not at all
Riverine Plains	0%	28%	38%	20%	4%	10%	28%		Interested	Interested	interested	interested	interest	Interested
Perennial Pasture Systems	2%	27%	34%	18%	11%	7%	30%							
MacKillop Farm Management Group	11%	20%	33%	6%	26%	4%	31%							
Grasslands Society of Sth Aust	8%	14%	40%	19%	13%	5%	22%							
Birchip Cropping Group	4%	0%	28%	16%	36%	16%	4%							
AgExcellence Alliance	9%	23%	36%	15%	14%	4%	31%							
AVERAGE (all responses)	8%	20%	33%	16%	17%	5%	28%							

11. Receiving information contained in	the Learning	more about h	now to access	and use the r	narket rep	ort informat	ion?													
	Extremely	Very	Somewhat	Mildly	Limited	Not at all				11. Receiving information contained in										
Farming Group	Interested	Interested	interested	interested	interest	Interested	Surveys			the Learning more about how to access and										
Southern Farming Systems	10	24	36	12	13	5	100			use the market report information?										
Riverine Plains	2	18	11	12	4	3	50		35%	die the market report mornation.										
Perennial Pasture Systems	3	11	11	11	7	1	44		5%											
MacKillop Farm Management Group	8	18	12	2	10	4	54		30%											
Grasslands Society of Sth Aust	8	18	22	13	11	5	77		25%											
Birchip Cropping Group	1	6	12	4	2	0	25													
AgExcellence Alliance	7	24	20	15	11	3	80		20%											
TOTAL	39	119	124	69	58	21	430		15%				_							
									L0% -											
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely		5%	-		-	-							
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very		0%											
Southern Farming Systems	10%	24%	36%	12%	13%	5%	34%		0%	Extremely	Very	Somewhat	Mildly	Limited	Not at all					
Riverine Plains	4%	36%	22%	24%	8%	6%	40%			Interested	Interested	interested	interested	interest	Interested					
Perennial Pasture Systems	7%	25%	25%	25%	16%	2%	32%	L												
MacKillop Farm Management Group	15%	33%	22%	4%	19%	7%	48%													
Grasslands Society of Sth Aust	10%	23%	29%	17%	14%	6%	34%													
Birchip Cropping Group	4%	24%	48%	16%	8%	0%	28%													
AgExcellence Alliance	9%	30%	25%	19%	14%	4%	39%													
AVERAGE (all responses)	9%	28%	29%	16%	13%	5%	37%													

12. Participate in short workshops arou	nd navigating	and underst	anding the ma	rket informa	tion?												
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly	Limited interest	Not at all Interested	Surveys		12. Participate in short workshops around navigating and understanding the market								
Southern Farming Systems	10	23	26	18	19	4	100		11011	546115 41	informat						
Riverine Plains	2	17	13	9	6	3	50				internat						
Perennial Pasture Systems	2	15	9	7	8	3	44	30%									
MacKillop Farm Management Group	8	12	13	9	9	3	54	25%									
Grasslands Society of Sth Aust	7	10	25	18	10	7	77	2070									
Birchip Cropping Group	0	7	6	6	6	0	25	20%			-						
AgExcellence Alliance	6	16	17	15	9	1	64	4 50/									
TOTAL	35	100	109	82	67	21	414	15%									
								10%									
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5%									
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%									
Southern Farming Systems	10%	23%	26%	18%	19%	4%	33%	076	Extremely	Very	Somewhat	Mildly	Limited	Not at all			
Riverine Plains	4%	34%	26%	18%	12%	6%	38%		Interested	Interested	interested	interested	interest	Interested			
Perennial Pasture Systems	5%	34%	20%	16%	18%	7%	39%										
MacKillop Farm Management Group	15%	22%	24%	17%	17%	6%	37%										
Grasslands Society of Sth Aust	9%	13%	32%	23%	13%	9%	22%										
Birchip Cropping Group	0%	28%	24%	24%	24%	0%	28%										
AgExcellence Alliance	9%	25%	27%	23%	14%	2%	34%										
AVERAGE (all responses)	8%	24%	26%	20%	16%	5%	33%										
13. Being involved in a PDS project are	und genetics?																
---	---------------	------------	------------	------------	----------	------------	-----------	---									
	Extremely	Very	Somewhat	Mildly	Limited	Not at all		13. Being involved in a PDS project around									
Farming Group	Interested	Interested	interested	interested	interest	Interested	Surveys	genetics?									
Southern Farming Systems	7	22	30	17	17	7	100	30%									
Riverine Plains	2	7	14	11	11	5	50	30%									
Perennial Pasture Systems	2	10	13	12	3	4	44	25%									
MacKillop Farm Management Group	7	13	11	4	12	7	54										
Grasslands Society of Sth Aust	7	14	21	17	13	5	77	20%									
Birchip Cropping Group	3	1	5	4	4	8	25										
AgExcellence Alliance	8	13	23	12	16	8	80	15%									
TOTAL	36	80	117	77	76	44	430										
								10%									
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5% -									
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%									
Southern Farming Systems	7%	22%	30%	17%	17%	7%	29%	Extremely Very Somewhat Mildly Limited Not at all									
Riverine Plains	4%	14%	28%	22%	22%	10%	18%	Interested Interested interested interested interested Interested									
Perennial Pasture Systems	5%	23%	30%	27%	7%	9%	27%										
MacKillop Farm Management Group	13%	24%	20%	7%	22%	13%	37%										
Grasslands Society of Sth Aust	9%	18%	27%	22%	17%	6%	27%										
Birchip Cropping Group	12%	4%	20%	16%	16%	32%	16%										
AgExcellence Alliance	10%	16%	29%	15%	20%	10%	26%										
AVERAGE (all responses)	8%	19%	27%	18%	18%	10%	27%										

14. Being involved in a PDS project aro	und feed prod	luction?						
Forming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly	Limited interest	Not at all Interested	Suprove	14. Being involved in a PDS project around
Farming Group Southern Farming Systems	15	37	28	10	7	3	Surveys 100	feed production?
Riverine Plains	4	21	15	3	3	4	50	35%
Perennial Pasture Systems	4	15	13	9	1	3	44	30%
MacKillop Farm Management Group	6	20	12	5	8	2	54	30%
Grasslands Society of Sth Aust	13	20	15	10	9	3	77	25%
Birchip Cropping Group	3	3	10	3	3	3	25	20%
AgExcellence Alliance	15	17	10	12	14	3	80	20%
TOTAL	60	140	112	52	45	21	430	15%
								10%
								10%
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5%
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	
Southern Farming Systems	15%	37%	28%	10%	7%	3%	52%	0% Extremely Very Somewhat Mildly Limited Not at all
Riverine Plains	8%	42%	30%	6%	6%	8%	50%	Interested Interested interested interested interested Interested
Perennial Pasture Systems	9%	34%	27%	20%	2%	7%	43%	
MacKillop Farm Management Group	11%	37%	24%	9%	15%	4%	48%	
Grasslands Society of Sth Aust	17%	35%	19%	13%	12%	4%	52%	
Birchip Cropping Group	12%	12%	40%	12%	12%	12%	24%	
AgExcellence Alliance	19%	21%	24%	15%	18%	4%	40%	
AVERAGE (all responses)	14%	33%	26%	12%	10%	5%	47%	

15. Participating in a short workshop of	n how to use t	he stocking r	ate, feed budg	get and feed o	demand ca	lculator too	ls?							
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys				g in a sho ing rate, f			
Southern Farming Systems	27	27	22	12	8	4	100				nd calcul			
Riverine Plains	6	21	14	5	2	2	50			Gente				
Perennial Pasture Systems	5	16	11	7	4	1	44	35%						
MacKillop Farm Management Group	14	16	10	5	6	3	54	30%		-				
Grasslands Society of Sth Aust	21	23	18	5	6	4	77	25%						
Birchip Cropping Group	2	9	7	4	3	0	25	2370						
AgExcellence Alliance	11	23	20	10	8	8	80	20%						
TOTAL	86	135	102	48	37	22	430	15%						
								10%						
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	 5%						
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very							
Southern Farming Systems	27%	27%	22%	12%	8%	4%	54%	0%	Extremely	Very	Somewhat	Mildly	Limited	Not at all
Riverine Plains	12%	42%	28%	10%	4%	4%	54%		Interested	Interested	interested	interested	interest	Interested
Perennial Pasture Systems	11%	36%	25%	16%	9%	2%	48%							
MacKillop Farm Management Group	26%	30%	19%	9%	11%	6%	56%							
Grasslands Society of Sth Aust	27%	30%	23%	6%	8%	5%	57%							
Birchip Cropping Group	8%	36%	28%	16%	12%	0%	44%							
AgExcellence Alliance	14%	29%	25%	13%	10%	10%	43%							
AVERAGE (all responses)	20%	31%	24%	11%	9%	5%	51%							

16. Enrolling in a More Beef From Pastu	ires course?														
	Eutomatic	News	Communitati	. All disc	1.1				16. E	nrolling i		Beef From	m Pastur	es	
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys				cours	e?			
Southern Farming Systems	6	18	15	13	15	33	100	35%							
Riverine Plains	1	7	13	15	6	18	50	30%							
Perennial Pasture Systems	1	5	3	4	6	25	44	50%							
MacKillop Farm Management Group	8	13	9	5	8	11	54	25%							
Grasslands Society of Sth Aust	13	15	20	7	16	6	77								
Birchip Cropping Group	1	1	2	1	2	18	25	20%						-	
AgExcellence Alliance	6	9	11	9	15	30	80	15%							
TOTAL	36	68	77	40	68	141	430	15%							
								10%		-					
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5%	-	-				-	
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%							
Southern Farming Systems	6%	18%	15%	13%	15%	33%	24%	0%	Extremely	Very	Somewhat	Mildly	Limited	Not at all	
Riverine Plains	2%	14%	34%	2%	12%	36%	16%		Interested	,	interested	interested	interest	Interested	
Perennial Pasture Systems	2%	11%	7%	9%	14%	57%	14%								
MacKillop Farm Management Group	15%	24%	17%	9%	15%	20%	39%								
Grasslands Society of Sth Aust	17%	19%	26%	9%	21%	8%	36%								
Birchip Cropping Group	4%	4%	8%	4%	8%	72%	8%								
AgExcellence Alliance	8%	11%	14%	11%	19%	38%	19%								
AVERAGE (all responses)	8%	16%	18%	9%	16%	33%	24%								

17. Participating in a Business EDGE wo	rkshop?													
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly interested	Limited interest	Not at all Interested	Surveys		17	7. Particip	ating in a worksh		s EDGE	
								30%						
Southern Farming Systems	9	18	27	18	20	8	100							
Riverine Plains	1	20	12	8	6	3	50	25%						
Perennial Pasture Systems	4	5	13	8	10	4	44							
MacKillop Farm Management Group	7	11	16	6	11	3	54	20%						
Grasslands Society of Sth Aust	8	14	22	10	11	12	77							
Birchip Cropping Group	2	5	4	3	6	5	25	15%						
AgExcellence Alliance	3	15	24	16	11	11	80							
TOTAL	34	88	118	69	75	46	430	10%						-
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5%						
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0.1/						
Southern Farming Systems	9%	18%	27%	18%	20%	8%	27%	0%	Extremely	Very	Somewhat	Mildly	Limited	Not at all
Riverine Plains	2%	40%	24%	16%	12%	6%	42%		Interested	Interested	interested	interested	interest	Interested
Perennial Pasture Systems	9%	11%	30%	18%	23%	9%	20%							
MacKillop Farm Management Group	13%	20%	30%	11%	20%	6%	33%							
Grasslands Society of Sth Aust	10%	18%	29%	13%	14%	16%	29%							
Birchip Cropping Group	8%	20%	16%	12%	24%	20%	28%							
AgExcellence Alliance	4%	19%	30%	20%	14%	14%	23%							
AVERAGE (all responses)	8%	20%	27%	16%	17%	11%	28%							

18. Short workshops to ensure you are	up to date wit	th Integrity so	cheme require	ments?				
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly	Limited interest	Not at all Interested	Surveys	18. Short workshops to ensure you are up to date with Integrity scheme requirements?
Southern Farming Systems	8	21	26	17	18	10	100	
Riverine Plains	4	13	15	9	6	3	50	35%
Perennial Pasture Systems	3	6	15	8	8	4	44	30%
MacKillop Farm Management Group	3	17	13	8	9	4	54	
Grasslands Society of Sth Aust	4	14	26	10	16	7	77	25%
Birchip Cropping Group	0	2	9	5	7	2	25	20%
AgExcellence Alliance	6	13	32	14	8	7	80	
TOTAL	28	86	136	71	72	37	430	15%
								10%
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5% -
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	
Southern Farming Systems	8%	21%	26%	17%	18%	10%	29%	0% Extremely Very Somewhat Mildly Limited Not at all
Riverine Plains	8%	26%	30%	18%	12%	6%	34%	Interested Interested interested interested interested Interested
Perennial Pasture Systems	7%	14%	34%	18%	18%	9%	20%	
MacKillop Farm Management Group	6%	31%	24%	15%	17%	7%	37%	
Grasslands Society of Sth Aust	5%	18%	34%	13%	21%	9%	23%	
Birchip Cropping Group	0%	8%	36%	20%	28%	8%	8%	
AgExcellence Alliance	8%	16%	40%	18%	10%	9%	24%	
AVERAGE (all responses)	7%	20%	32%	17%	17%	9%	27%	

	Extremely	Very	Somewhat	Mildly	Limited	Not at all					shops to e			
Farming Group	Interested	Interested	interested	interested	interest	Interested	Surveys				to access			
Southern Farming Systems	5	20	30	16	20	9	100		info	rmation	to help inf	form bree	eding an	d
Riverine Plains	4	15	17	5	3	6	50			f	eeding ch	oices?		
Perennial Pasture Systems	1	10	12	8	10	3	44	 			0			
MacKillop Farm Management Group	6	13	15	7	9	4	54	35%						
Grasslands Society of Sth Aust	4	14	25	16	11	7	77	30%			_			
Birchip Cropping Group	2	4	6	4	7	2	25	25%						
AgExcellence Alliance	9	17	23	12	10	9	80	200/		_				
TOTAL	31	93	128	68	70	40	430	20%						
								15%						
								10%						
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5%	-					_
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%						
Southern Farming Systems	5%	20%	30%	16%	20%	9%	25%	0%	Extremely	Very	Somewhat	Mildly	Limited	Not at all
Riverine Plains	8%	30%	34%	10%	6%	12%	38%		Interested	Interested	interested	interested	interest	Interested
Perennial Pasture Systems	2%	23%	27%	18%	23%	7%	25%							
MacKillop Farm Management Group	11%	24%	28%	13%	17%	7%	35%							
Grasslands Society of Sth Aust	5%	18%	32%	21%	14%	9%	23%							
Birchip Cropping Group	8%	16%	24%	16%	28%	8%	24%							
AgExcellence Alliance	11%	21%	29%	15%	13%	11%	33%							
AVERAGE (all responses)	7%	22%	30%	16%	16%	9%	29%							

20. Short workshops to ensure you are	up to date wit	th calculating	the carbon fo	otprint of yo	ur farm?			
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly	Limited interest	Not at all Interested	Surveys	20. Short workshops to ensure you are up to date with calculating the carbon footprint of
Southern Farming Systems	26	25	22	15	8	4	100	your farm?
Riverine Plains	5	13	11	10	6	5	50	
Perennial Pasture Systems	8	15	8	4	7	2	44	30%
MacKillop Farm Management Group	13	11	12	9	6	3	54	25%
Grasslands Society of Sth Aust	19	19	20	6	6	7	77	
Birchip Cropping Group	2	5	1	10	5	2	25	20%
AgExcellence Alliance	12	19	18	10	15	6	80	15%
TOTAL	85	107	92	64	53	29	430	15% -
								10%
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5% -
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	
Southern Farming Systems	26%	25%	22%	15%	8%	4%	51%	0% - Extremely Very Somewhat Mildly Limited Not at all
Riverine Plains	10%	26%	22%	20%	12%	10%	36%	Interested Interested interested interested interested Interested
Perennial Pasture Systems	18%	34%	18%	9%	16%	5%	52%	
MacKillop Farm Management Group	24%	20%	22%	17%	11%	6%	44%	
Grasslands Society of Sth Aust	25%	25%	26%	8%	8%	9%	49%	
Birchip Cropping Group	8%	20%	4%	40%	20%	8%	28%	
AgExcellence Alliance	15%	24%	23%	13%	19%	8%	39%	
AVERAGE (all responses)	20%	25%	21%	15%	12%	7%	45%	

21. Short workshops to ensure you are	up to date wi	th understan	ding the latest	climate varia	bility tools	;?								
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly	Limited interest	Not at all Interested	Surveys				shops to e erstandin	'		
Southern Farming Systems	14	24	31	16	7	8	100		duce		ariability	-	cot chine	
Riverine Plains	4	14	15	5	8	4	50			v	anability	10013:		
Perennial Pasture Systems	5	7	18	5	7	2	44	35%						
MacKillop Farm Management Group	10	10	17	9	7	1	54	30%						
Grasslands Society of Sth Aust	10	21	23	11	7	5	77	25%						
Birchip Cropping Group	4	2	3	11	1	4	25	23/0						
AgExcellence Alliance	6	20	23	13	12	6	80	20%						
TOTAL	53	98	130	70	49	30	430	15%						
								10%						
								10%						
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5%						
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%						
Southern Farming Systems	14%	24%	31%	16%	7%	8%	38%	070	Extremely	Very	Somewhat	Mildly	Limited	Not at all
Riverine Plains	8%	28%	30%	10%	16%	8%	36%		Interested	Interested	interested	interested	interest	Interested
Perennial Pasture Systems	11%	16%	41%	11%	16%	5%	27%							
MacKillop Farm Management Group	19%	19%	31%	17%	13%	2%	37%							
Grasslands Society of Sth Aust	13%	27%	30%	14%	9%	6%	40%							
Birchip Cropping Group	16%	8%	12%	44%	4%	16%	24%							
AgExcellence Alliance	8%	25%	29%	16%	15%	8%	33%							
AVERAGE (all responses)	12%	23%	30%	16%	11%	7%	35%							

22. Receiving information from the dur	ig beetle resea	arch project i	n local newsle	tters and at e	vents (pre	sentations)?		
Farming Group	Extremely Interested	Very Interested	Somewhat interested	Mildly	Limited interest	Not at all Interested	Surveys	22. Receiving information from the dung beetle research project in local newsletters
Southern Farming Systems	16	16	26	18	15	9	100	and at events (presentations)?
Riverine Plains	2	9	24	5	6	4	50	
Perennial Pasture Systems	2	7	13	9	7	6	44	30%
MacKillop Farm Management Group	5	16	14	9	9	1	54	25%
Grasslands Society of Sth Aust	16	23	22	9	6	1	77	
Birchip Cropping Group	0	1	2	9	6	7	25	20%
AgExcellence Alliance	8	20	13	11	19	9	80	
TOTAL	49	92	114	70	68	37	430	15%
								10%
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	5%
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	
Southern Farming Systems	16%	16%	26%	18%	15%	9%	32%	0% Extremely Very Somewhat Mildly Limited Not at all
Riverine Plains	4%	18%	48%	10%	12%	8%	22%	Interested Interested interested interested interested Interested
Perennial Pasture Systems	5%	16%	30%	20%	16%	14%	20%	
MacKillop Farm Management Group	9%	30%	26%	17%	17%	2%	39%	
Grasslands Society of Sth Aust	21%	30%	29%	12%	8%	1%	51%	
Birchip Cropping Group	0%	4%	8%	36%	24%	28%	4%	
AgExcellence Alliance	10%	25%	16%	14%	24%	11%	35%	
AVERAGE (all responses)	11%	21%	27%	16%	16%	9%	33%	

23. Short workshops to set up My MLA	?													
	Frature and a lar	Marri	Comouhat	N Allalla	I included	Net et ell			22	Short wo	rkshops t	o set un		2
Forming Crown	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Cumunus		23.	Short wo	i kshops t	o set up		:
Farming Group	Interested	Interested	interested	interested	interest	Interested	Surveys	30%						
Southern Farming Systems	8	25	22	17	17	11	100							
Riverine Plains	2	4	17	12	6	9	50	25%			-			
Perennial Pasture Systems	2	8	11	8	8	7	44							
MacKillop Farm Management Group	2	12	12	9	10	9	54	20%						
Grasslands Society of Sth Aust	7	16	21	10	10	13	77	20/0						
Birchip Cropping Group	1	2	5	4	9	4	25	15%						
AgExcellence Alliance	5	14	23	19	11	8	80	1370						
TOTAL	27	81	111	79	71	61	430	10%						
								1070						
								5%						
	Extremely	Very	Somewhat	Mildly	Limited	Not at all	Extremely	J 70						
Farming Group	Interested	Interested	interested	interested	interest	Interested	& very	0%						
Southern Farming Systems	8%	25%	22%	17%	17%	11%	33%	076	Extremelv	Very	Somewhat	Mildly	Limited	Not at all
Riverine Plains	4%	8%	34%	24%	12%	18%	12%		Interested	Interested	interested	interested	interest	Interested
Perennial Pasture Systems	5%	18%	25%	18%	18%	16%	23%							
MacKillop Farm Management Group	4%	22%	22%	17%	19%	17%	26%							
Grasslands Society of Sth Aust	9%	21%	27%	13%	13%	17%	30%							
Birchip Cropping Group	4%	8%	20%	16%	36%	16%	12%							
AgExcellence Alliance	6%	18%	29%	24%	14%	10%	24%							
AVERAGE (all responses)	6%	19%	26%	18%	17%	14%	25%							

7.3 Appendix 3 – Operational plan

Introduction

This operational plan is a wide reaching extension project. It uses the latest MLA materials from the Feedbase Adoption Plan and other MLA program areas to create an extension pathway for producer and advisors, from awareness through progressive skills development opportunities to adoption. It offers opportunities across the whole MLA portfolio of topics, with the intensity of offerings based on market research.

Delivery will be through six farming groups in Southern Australia. These are Southern Farming systems, Birchip Cropping Group, The Grasslands Society of Southern Australia, Perennial Pasture Systems, MacKillop Farm Management Group and Riverine Plains.

Project area situation analysis

The project area covers 15,900 grazing farms in Victoria, Tasmania and the South East of South Australia. Just over half the farms run sheep (9,900 properties), with a further 9,400 properties running cattle. About 3,300 farms running both. There are more than 2.5 million cattle and 21.1 million sheep in the project area (ABS 2021/2022).

The highest concentration of livestock are in South West and North East Victoria (figures 1 and 2).



Figures 1 and 2: Livestock numbers by project zone (source ABS 2021/22).

The enterprise mix has changed significantly over the past 25 years especially in South west Victoria and South East South Australia. While beef cattle numbers have stay relatively steady and just under 1.3 million head, there has been a decline in the number of sheep on farms (by more than 2.4 million head) and a corresponding 500% increase in broadacre cropping from 85,000 ha in 1994 to 430,000 ha in 2020 (figure 3). Cropping has displaced sheep rather than cattle, as most cattle are grazed in the wetter areas and on terrain less suited to cropping.

Figure 3. Number of livestock and area of crop in South West Victoria (1993/94 to 2019/20). *Source ABARES commodity data.*



A similar, albeit smaller change has occurred in Norther East of Victoria.

The two major drivers for the long-term decline in livestock have been the incremental development of crop agronomic packages that suit a high rainfall environment (i.e. greater yields) and better crop gross margins compared to livestock. A comparative snapshot from 2014 to 2016 indicated average crop gross margins of \$1,139/ha compared to \$268/ha¹ for livestock in the Southern high rainfall zone (MLA, 2018), although Victorian Monitor Farm Project (VMFP) data (Agriculture Victoria), would suggest the livestock gross margins for the same period were more favourable (\$398/ha). Nevertheless, the historically lower livestock gross margins compared to cropping would support the premise that low margins encouraged the change in enterprise mix.

However there appears to be a recent shift in the thinking with greater interest in re-introducing or increasing livestock numbers. These include:

- enterprise costs associated with cropping are approximately twice that of livestock (\$578/ha compared to \$290/ha¹), not including machinery
- Increasing weed control issues with continuous crop rotations (more frequent herbicide use and herbicide resistance) and the need to consider a pasture break phase
- Recognition of declining soil organic levels from continuous cropping compared to the initial pasture carbon levels before cropping.
- Improving livestock gross margins (figure 4), which is occurring across all classes (cattle, prime lambs and wool sheep).

¹ MLA (2018). Profitable integration of cropping and livestock management guideline.



Figure 4. Change in livestock gross margin (adjusted for inflation) for livestock farms in South West Victoria compared to long term (20 year) average. Source: Victorian Monitor Farm Project.

Analysis of 30 years of annual stocking rates from the VMFP (figure 5), reveals two significant insights.



Figure 5. Average stocking rates (DSE/ha) for farms in South West Victoria compared to the theoretical maximum (green line) based on rainfall. *Source: Victorian Monitor Farm Project.*

- The average stocking rate have remained relatively constant in the past 15 years, despite the improvement in gross margin (15.6 DSE/ha overall, 16.4 DSE/ha in the past 5 years). This is 76% of the theoretical maximum given the average annual rainfall received by these farms². In the past two decades there has only been a slight upward trend in stocking rate.
- 2. Stocking rates increased significantly in the 1990's and early 2000's. The probable reason was the implementation of several high-profile research, development and extension programs aimed at producers in Southern Australia (and elsewhere). These influential programs included the Grasslands Pasture Productivity Program (est 1993), Prograze (est 1994), Sustainable Grazing Systems (est 1996), EverGraze (est 2003) and the mixed farming Grain and Graze program (est 2003). They underpinned more than a decade of improvement in farm productivity, despite the period being one of the driest decades on record.

² Equation based on Stocking rate (DSE/ha) = 1.3 x ((average annual rainfall - 250)/25). Adapted from French 1987, Hosking and Cameron, 1983.

The generation of producers that experienced this period of engagement in the 1990's and 2000's are now aging. If they were in their 30's and 40's during the 1990's, many are now in their 60's or 70's, having retired or looking to wind down. A new generation of farm managers are taking over.

This analysis raises the question of where the next generation of younger livestock producers will gain similar knowledge and skills? While the soil management, species management, weed control and grazing principles are still sound (and have been modernises through MLA projects L.FAP.1901 to L.FAP.1904, e-learning etc), there has been no recent major initiative to comprehensively extend this information to a new cohort of livestock producers through a 'pathway' of connected activities.

This proposal believes there is another opportunity to raise productivity like the 1990's and 2000's through extension to a new cohort of farmers. Information from the Victorian Monitor Farm Project shows the 'top 20%' of producers³ from the same VMFP data set shown in figure 6 have consistently carried higher stocking rates than the average:

- 19.1 DSE/ha past 5 years compared to 16.3 DSE/ha (18.1 DSE/ha compared to 15.6 DSE/ha over 20 years) or a 16.5% difference.
- Top 20% achieved 88% of the theoretical maximum stocking rate based on rainfall than the average producer (76% of maximum).
- Profit per year for the top 20% has been 26% higher in the past 5 years.

The reasons for the theoretical gap in stocking rate are thought to be a combination of not addressing productivity constraints (soil fertility, pH, grazing management, weed control, genetics etc) because of insufficient knowledge, the lack of skill to confidently implement new practices and varying tolerance to risk.

It should also be recognised that the extension landscape has shifted considerably in the past three decades. Advisory support and capacity from State agencies has greatly diminished, there has been a significant rise in the influence of farming groups, the private advisory sector and through merchandise outlets. For example, the six farming groups involved in this project have a farmer and advisor membership base just under 2,500 people.

New relationships have been formed and new structures to extend information have emerged, but like the younger generation of farmers, where are the new advisors getting their information from? This evolution necessitates a rethink in how to best reach the target audience and how to get greatest efficiency in the development of new knowledge and skills.

While the underlying drivers described above will result in a natural shift to more livestock in the next 5 to 10 years without intervention, current circumstances present a unique opportunity to capitalise on the underlying motivation around pastures and livestock. It will make use of the modernised extension products and make better use of private sector advisor capacity, especially within crop advisors and resellers.

Potential opportunity

There are two concurrent opportunities. The first is the emerging interest from farmers to shift part of their cropping operation back to livestock, either by choice (financial conditions more comparable between enterprises, less outlay and lower risk) and/or their cropping program require a pasture phase to deal with soil carbon decline and herbicide / disease issues. We have a willing and interested audience.

³ based on farm operating profit

The second is significant opportunity for improvements in productivity and profitability. There is a strong correlation between gross margin per hectare and farm profit (figure 6). Our aim is to increase gross margin per hectare, by using two levers, stocking rate and margin per DSE. This should improve farm profit.



Figure 6: Relationship between farm operating profit and livestock gross margin *Source: Victorian Monitor Farm Project.*

The reasons for the theoretical gap in stocking rate are likely to be a combination of productivity constraints (soil fertility, pH, grazing management, weed control etc), tolerance to risk and the confidence to implement practices. The improvements in gross margin will come from improved animal performance (matching feed supply and animal demand, genetics, using market feedback, animal welfare) and better business performance.

Extrapolation of the survey data (refer to 7.2 - appendix 2) indicates member manage and represent farms with 8.6 million sheep (41% of all sheep in the project area) and 550,000 cattle (22% of all cattle in the project area). *This is a highly significant audience reach being offered through the project.* This in-kind access (membership names to target for training and broader communication access) is valued at \$635,000 per annum or \$3.18M over the life of the project. A project of this magnitude will access an audience that have not significantly engaged with MLA in the past.

The operational plan also It supports and implements many key components of the current MLA adoption program. The project:

- is designed from extensive market research of farmers and advisors in the region, to determine their interests and willingness to pay
- it covers the full MLA portfolio of products including feedbase, genetics, business, carbon, animal welfare, compliance and marketing
- encourages a user pays culture for training, by requiring producers to contribute financially to workshops and training
- actively encourages 'pull through' into skills development programs such as Profitable Grazing Systems (PGS) and Producer Demonstration Sites (PDS)
- uses a similar cost sharing model practiced in PDS for local producer demonstrations, maintaining consistency in the MLA demonstration investment approach
- targets advisors to develop higher level technical competency within their businesses, to leave a skills legacy after the project is completed
- adopts the new MLA Extension Program Monitoring and Evaluation Framework to assess impact.
- supports the aims of MLA's producer adoption approach, to increase the uptake of on-farm research and development (R&D) and Red Meat 2030 aim of developing skilled and capable producers by developing user-led extension/uptake programs.

The operational plan

Project Objectives

- By December 2027 achieve 4380 producers engagements in awareness events and workshops across a range of MLA topics including:
 - o 102 awareness and 67 workshops on feedbase and feed supply / animal demand
 - o 31 awareness and 29 workshops on carbon, livestock emission management and climate
 - 5 awareness and 30 workshops on genetics
 - o 1 awareness and 8 workshops on business management
 - 17 awareness and 26 workshops on markets, carcass feedback and using MLA platforms
 - o 6 awareness and 15 workshops on animal welfare and biosecurity
- By December 2027 achieve 950 advisor engagements in 81 skills training activities across feedbase and feed supply (38), carbon, livestock emission management and climate (11), genetics (10), business management (2), markets, carcass feedback and using MLA platforms (6) and animal welfare and biosecurity (14).
- Enrolled 120 producers in 7 PDS and 8 PGS courses by December 2026, that have resulted from earlier participation in awareness and workshop activities
- By December 2023 establish two high profile field learning sites at locations in North East Victoria and South West Victoria, with a further two satellite demonstration sites in South East South Australia and North West Victoria (annual monitoring in subsequent years).
- Host five major regional events, two in 2025 (Wodonga, Hamilton), two in 2026 (Naracoorte, Bendigo) and one in 2027 (Ballarat), showcasing the full range of MLA products, producer experiences and allowing for interactive sessions.
- By December 2027 have distributed relevant and seasonally topical MLA information through their established and trusted communication channels, that coincides with face to face offerings (awareness activities, workshops).
- By December 2027 produce 30 articles suitable for publishing in MLA Feedback magazine or elsewhere (6 per year).
- By December 2027 successfully undertaken a comprehensive impact evaluation of the program, satisfying the new MLA Extension Program Monitoring and Evaluation Framework.



The metrics stated above reflect the level of interest shown by producers in the survey (figure 7).

Anticipated outcome

The project will increase the stocking rate on 1800 farms in Southern Australia by 0.9 DSE/ha by June 2027. This will equate to a gross margin increase of \$38/ha or \$32.5 M for the project area. It is an adoption project, focussed on maximising the value from a range of existing and emerging MLA products and programs. Details of how the anticipated outcome was calculated in in appendix 7.3a at the end of this document.

Participant's role and responsibilities

The project is led by Southern Farming Systems, a farmer led non for profit group that operates in South West Victoria, Gippsland and Tasmania.

Five other high profile farming groups are partners in the project. These are:

- o Riverine Plans in North East Victoria and Southern NSW
- o Birchip Cropping Group in North West Victoria
- o MacKillop Farm Management Group in South East South Australia
- Grassland Society of Southern Australia
- Perennial Pasture Systems

Each group is responsible for delivering a range of components. This is represented (table 1), with more detail on each in the additional information section.

Table 1: Responsibility for delivery from each group

				Group ad	tivities		
Task	SFS	BCG	GSSA	MFMG	PPS	RP	Outsourced M&E
Project co-ordination group	X	х	х	Х	Х	х	
Awareness activities - producers	Х	х	х	Х	Х	х	
Training - producers	Х	х	Х	Х	Х	Х	
Webinar - producers	х		х	Х		х	
Training - advisors	х		х	Х	Х	х	
Webinars - advisors			Х	Х			
Demonstration sites - main	X					Х	
Demonstration sites - satellite		х		Х			
Large community events	X	Х	Х	Х		Х	
Communication	X	х	Х	Х	Х	Х	Х
Impact study (evaluation)	X	Х	Х	Х	Х	Х	Х

Delivery approach

This project will be delivered by a consortium of six farming groups in Victoria, South Australia and Tasmania with a combined farmers and advisor membership of 2,480. It will access an audience that have not significantly engaged with MLA in the past. Southern Farming Systems (Lisa Miller) will be the project lead.

The project has six components (described in detail below and highlighted in red). This involves:

- Awareness (category A) activities for producers
- Training (category B) workshops for producer and advisors
- Establishment of demonstration sites that support the teaching in awareness and training activities
- Events to bring producers and advisors together creating a community of practice
- Communication to members and the wider public.
- Measurement of the impact at a whole of farm and whole of region level.

The project will also promote and link to other existing MLA adoption skills development offerings (category C) such as PDS and PGS, creating a 'pull through' into these programs.

The delivery model to be adopted can be represented diagrammatically (figure 8).

Figure 8. Schematic adoption pathway with required project components highlighted in red.



Project co-ordinating group

A project co-ordinating group will be established, chaired by Southern Farming Systems. This group will meet on a regular basis (minimum of every six months) to undertake the following:

- plan the next six to 12 months of activities. This will help the group remain agile, to adjust the topics
 of delivery to suit seasonal conditions and circumstances e.g. more emphasis of dry condition
 management if going into a drought, more on biosecurity if there is a disease concern etc. It will also
 allow for co-ordinated delivery between groups, allowing 'themes' to be created and gain efficiency
 in delivery e.g. some speakers do a 'roadshow' of events.
- <u>capture evaluation and feedback from the previous six months</u>. This is important to learn as the project progresses, but also to be able to provide timely information for regular milestone reporting.
- <u>Plan communications</u>. The project would seek to actively involve the MLA communications team so themes could also be featured in MLA publications.
- <u>Participate in the annual stop/go review with MLA</u>. While Southern Farming Systems lead the proposal, all groups are responsible for delivery so need to be privy to these discussions.

The project would be keen to have MLA program managers and communication people attend and contribute to these discussions, to provide the most seamless and efficient delivery as possible.

More on the six components

The six components are interlinked.

Component 1: Delivery of awareness activities (Category A)

The objective of this component is to raise awareness about the various products, deliver some 'lightbulb moments' that motivate producers to want to find out more. They are deliberately designed to spark curiosity and interest and will be directly aimed at driving further participation in training workshops.

The awareness activities will take a two pronged approach. One will be to combine a series of MLA topics together as a stand alone event. The second is to integrate one or two topics into existing activities the groups will already be running (as the groups run numerous events for their members anyway e.g. paddock walks, field days, results days, strategic planning days, conferences etc). It also opens up the opportunity to engage with other groups e.g. Bestwool/Bestlamb, Better Beef Groups, Landcare etc. By slotting into existing programs this will reduce the cost of delivery by utilising existing groups and structures rather than competing.

Some of these training materials to use in the awareness workshops already exists i.e. the delivery notes and PowerPoint slides have been created, but some need to be prepared in the first 6 months of the project. This is a small but important task to ensure quality and consistency in delivery and to maximise the use of content of MLA materials. Cam Nicholson and Lisa Miller will lead this development.

More than 160 presentations are planned during the project. To be able to provide high quality delivery, a small team will be trained to deliver the material, creating local deliverers.

Component 2: Delivery of workshop activities (Category B)

The objective of this component is to enhance the knowledge of participants to underpin future practice change. A sound knowledge around a topic helps reduce the risk of adoption.

Both producers and advisors will be targeted through this component, however there will be some advisor only training sessions offered. The producer workshops will be timed to be seasonally relevant and less busy times of the year. To encourage the user pays model, participants will pay a small fee (~\$100 per business) to attend any workshop offered. This will not be full cost recovery but starts creating the culture of paying for good information and skills development.

Advisory support (independent and through merchandise outlets) has grown exponentially over the past two decades on the back of the increased cropping. However the same expertise and service has declined in the pasture area. Initial interest from merchandise and advisory sector to the new FAP products has been very encouraging, indicating an appetite to learn more about, and utilise the resources available (*Pasture Paramedic* has been extremely well received as it is an 'independent' assessment, not then flogging stuff). They see business growth in providing pasture advice, as they believe the cropping expansion has peaked. This provides an exciting new outlet for extension and aligns well with the characteristics of the target audience who are high information users and are looking for good advice.

Advisor training is to impart a deeper level of knowledge, so the advisors can 'teach' the information to others within their businesses, add value to discussion with producers who have attended training on the same topic, and impart information to additional producers who had not attended workshops. This legacy component is a critical part of the knowledge training.

Webinars will be an important adjunct to the advisor training, providing resources to those unable to attend various sessions.

There are gaps in the lesson plans and delivery slides for the various workshops. These would be prepared by Cam Nicholson and Lisa Miller in the first year of the project, to ensure continuity when producers are moving from awareness to these workshops and also to dovetail with existing PGS products on offer (especially Pasture Principles, Paydirt, Pasture manipulation, Pasture resowing and Gra\$\$ to dollars). Workshop content will reply heavily on existing MLA material. Lisa will also prepare a knowledge library, with electronic access to relevant research papers, videos, documents and calculators.

Training of additional delivery staff will occur in 2023 and again in 2025. The focus in 2023 will be on topics to be delivered in years one to three. This will avoid overwhelming new deliverers with all the material at one time.

Component 3: Demonstration of Feedbase and feed supply / demand.

Demonstrations are powerful to show the impact of a practice change (seeing is believing). Field demonstrations are particularly useful to show influences on the feedbase (fertiliser, lime gypsum, grazing management, herbicides). While some actions such as herbicide manipulation are rapid and obvious, other changes such as soil manipulation (fertility, pH, soil structure), grazing management and the introduction of new species can take years to materialise. The addition of a 'control' is also valuable, as the previous condition can be easily forgotten or confounded by seasonal conditions.

The project will establish or expand four demonstration sites, two intensive sites (South West Victoria, North East Victoria) and two additional satellite sites in South East South Australia and North West Victoria. The sites will be managed by the local farming group and used extensively for awareness activities and workshops as well as host visits from external farm and tertiary groups (e.g. Marcus Oldham College). An obvious value add will be to encourage producers visiting the site to undertake their own Producer Demonstration Sites (PDS) activities. This project will help support producers to develop PDS applications stemming from visits and interaction at the site.

Two of the sites will also undertake new pasture species trials in partnership with commercial seed companies. All species data collected will be of a standard suitable for inclusion in the Pasture Trial Network (PTN).

To avoid undermining the co-contribution model that operates with a larger PDS, demonstrations will have a 50% cash contribution towards their implementation.

Component 4: Creation of a community of practice.

Several groups in the project are experienced in host large public events. Five large stand-alone events are planned, to move to different locations and feature local producers and advisors who have been active in the awareness and training workshops.

To avoid clashing with pre contracted events, the first two events would be held in late 2024 and early 2025 (tentatively NE Vic and SW Vic), two in 2025/26 (tentatively Naracoorte, Horsham) and Ballarat in 2027. This will also enable the project to get 'some runs of the board'. MLA would be invited to play an active part in each event.

Component 5: Communication

The farming groups in this project have a mature and trusted communication structures. They can collectively reach 2,500 producers and advisors through existing channels. These include, websites, webinars, blogs, email, social media, text messaging, post, Youtube and podcasts. This network is being offered to the project.

Results from the producer survey indicated many would be interested in receiving materials on some of the less popular topics via electronic and hard copy. The project will ensure material relevant to a 'theme' being pursued will be sent to all members.

The communications plan will be prepared on a 'six months forward' basis with the project co-ordinating group. This will provide adequate time to plan, prepare and distribute materials and advertising for upcoming events. The project would strongly encourage MLA communications to be part of this discussion.

The project will also provide 30 producer case studies at regular intervals throughout the project. Where appropriate the case studies will align with a 'theme' chosen to be promoted. The case studies will be of a standard to use in Friday Feedback magazine (i.e. good copy, good photo, all permissions of use granted etc).

Component 6: Measuring the impact

A project of this size requires rigorous measurement. While individual awareness and workshop will be undertaken after each event e.g. level of satisfaction, new knowledge, intent etc (collated by Southern Farming Systems), a higher level farm and region impact measurement is required.

This project proposes contracting an independent evaluator to apply the metrics recommended in the new Extension Program Monitoring and Evaluation Framework adopted by MLA. It would involve tracking a small group of producers (and advisors) over the life of the project, collecting knowledge, attitudinal, biophysical and financial metrics at the start, during and at the end of the project. Farming groups will 'enrol' participants in the study, with the evaluator collecting data at arms length of the project deliverers (to ensure independence).

Three data collections will be undertaken, at the start, mid project and at the end. The two primary measures of project impact will be:

- changes in farm stocking rate and
- changes in gross margin.

The change in gross margin (both real and using fixed prices), will then be extrapolated to changes in farm operating profit (EBIT) to calculate an impact measure and return on investment for MLA.

Lee Beatie, principal consultant with Beatie Consulting Services has been approach to undertake the impact study.

Delivery cost

The cost of delivery proposed by the consortium is commercial in confidence. However a benefit cost ratio of between 4.8:1 and 6.8:1 has been calculated.

Appendix 7.3a: Estimated level of adoption and impact

The CSIRO ADOPT tool was used to understand the impact the proposed extension program would have on the extent and rate of uptake of various practices. Responses to questions in the ADOPT tool were aligned with the MLA market segmentation. The target audience in ADOPT were described as producers who have a strong profit orientation, are willing to take some risk in adoption new practices, take a long term view of their business, have scale and are not limited by significant financial constraints.

The analysis also recognised that the new products created through the FAP project with Southern Farming Systems will gain some adoption WITHOUT active extension (producers would stumble across when seeking information). The ADOPT tool estimated this to be 5.1 % above current levels after 5 years through passive discovery (peaking at 11% after 12 years).

Active intervention, as proposed in this project, led to six changes to the ADOPT responses.

- 1. Increase the observability by demonstration (up 1 step from moderately observable to easily observable)
- 2. Increase advisory support (up 2 steps from minority currently use a relevant advisor to the majority use a relevant advisor)
- 3. Increased group involvement (up 1 step, from a minority are involved in a relevant group to the majority)
- 4. Improvement in skills and knowledge (up 1 step from about half needing new skills and knowledge to adopt to the minority).
- 5. A small reduction in business risk, as pastures will be more robust to climate and short term reduction in inputs (up 1 step from no change in risk to a small decrease in risk).
- 6. Increase in ease and convenience (up from no change to ease and convenience to a small change) as Improvements in ease and convenience will come from becoming comfortable with the grazing approach, soil testing, to grazing movements and decision a round choice and timing of weed control.

These changes alter the expected level of adoption to 28.4% after 5 years, peaking at 39% after 9 years. The intervention (the project) would increase adoption by 23.3% of the target audience after 5 years (the difference between 28.4% and 5.1%).

Conservative business, target audience and adoption assumptions were used in modelling the likely increase in stocking rate (table 2). In particular it was assumed:

- 60% of the total target audience would be the 'average' producers (based on current stocking rate), with a further 20% from the 'top 20%'.
- the 'average' producer would only close the stocking rate gap to 50% of what the 'top 20%' are currently achieving (i.e. 'average' currently 16.4 DSE/ha, "top 20%' 19.1 DSE/ha, only half way after 5 years to increase by 1.35 DSE/ha).
- The 'top 20%' would only close the gap to the theoretical maximum stocking rate by 20% after five years, fearful of the risk of overstocking if increased any further (i.e 'top 20%' currently 16.4 DSE/ha, theo maximum 21.0 DSE/ha, only 20% of way after 5 years to increase by 0.38 DSE/ha).
- The relatively high current gross margins currently being experienced will be maintained i.e. not assuming any additional increase over current gross margins.

Table 2. Business, target audience and adoption assumptions used.

Business assumptions	Amount	Units	Source	
Number of properties in proposal	15,931	Properties	ABS, 2020/2021	
Average grazed area	475	ha	ABS, 2020/2022	
Average stocking rate (last 5 yrs)	16.4	DSE/ha	VMFP 15/16 to 19/20	
Average stocking rate top 20% (last 5 yrs)	19.1	DSE/ha	VMFP 15/16 to 19/20	
Theoretical maximum stocking rate based on average annual rainfall (last 5 years)	21.0	DSE/ha (653 mm rainfall)	VMFP, French 1987, Hosking & Cameron, 1983	
Gross margin (last 5 yrs) average producer	\$ 42.24	\$/DSE	VMFP 15/16 to 19/20	
Gross margin (last 5 yrs) top 20% producer	\$ 53.32	\$/DSE	VMFP 15/16 to 19/20	

Target audience assumptions	Amount	Units	Source	
Target audience				
Driving growth segment	22%	producers	MLA market segmentation	
Living the life segment	21%	producers	MLA market segmentation	
Proportion of target audience that are average producers	60%		Assumption	
Proportion of target audience that are top 20% producers	20%		Assumption	

Adoption assumptions	Amount	Units	Source
Adoption without project (after 5 yrs)	5.1%		CSIRO ADOPT tool
Adoption with project (after 5 yrs)	28.4%		CSIRO ADOPT tool
Reduction in stocking rate gap of average to top 20% after 5 years	50%	reduction	Assumption
Reduction in stocking rate gap of top 20% to theoretical max after 5 years	20%	reduction	Assumption

Using the assumptions from table 2, the economic impact was calculated (table 3).

Table 3. Anticipated economic impact from adoption by June 2027

Calculations	Year 1	Year 2	Year 3	Year 4	Year 5	Source	
Adoption with no project (% of target population)	0.2	0.8	1.9	3.4	5.1	CSIRO ADOPT tool	
Adoption with project (% of target population)	1.4	6.6	15.1	24.2	31.2	CSIRO ADOPT tool	
Adoption difference due to project (%)	1.3	5.8	13.2	20.8	26.1	CSIRO ADOPT tool	
Target audience (no of farms)			6850	I I		producers	
Annual producer adoption (no farms)	87	312	506	519	362	producers	
Cumulative producer adoption (no farms)	87	399	905	1424	1786	producers	
Change in stocking rate (average producer)	1.35					DSE/ha	
Change in stocking rate (top 20% producers)	0.38					DSE/ha	
Change in stocking rate (all producer)	0.9					DSE/ha	
Change in gross margin (average producer)	\$ 57				\$/ha		
Change in gross margin (top 20% producer)	\$ 20					\$/ha	
Change in gross margin per farm (all producers)	\$ 38					\$/ha	
Change in gross margin across region	\$ 18,176				per property		
Change in gross margin each year across region	\$ 1.6 M \$ 5.7 M \$ 9.2 M \$ 9.4M \$ 6.6 M		Millions for region				
Cumulative change in gross margin across region	\$ 1.6 M	\$ 7.2 M	\$ 16.5 M	\$ 25.9 M	\$ 32.5M	Millions for region	

Sensitivity analysis was conducted on two assumptions considered highly variable. This was to appreciate the impact if these assumptions were incorrect. The assumptions varied were:

- The reduction in the stocking rate gap (original assumption was 50% reduction by 'average' producers towards the 'top 20%' and a 20% reduction in the 'top 20%' to the theoretical maximum) Table 4.
- The assumed gross margin (\$57/ha for 'average' producer and \$20/ha for the 'top 20%') Table 5.

Table 4. Impact on total gross margin (\$ M/region) from changing gross margin (\$/ha), currentassumption highlighted in green.

	Change in gross margin compared to now (M)					
	-30% -15% 0% 15%					
Project gross margin	\$ 22.7	\$ 27.6	\$ 32.5	\$ 37.3	\$ 42.2	

A 30% reduction in gross margin would result in a project return of \$22.7 M for the investment across the region rather than \$32.5 M.

Table 5. Impact on total gross margin (\$ M/region) from alternative stocking rate gap reductions(%), current assumption highlighted in green.

	Stocking rate change in 5 yrs compared to now					
	10% 25% 50% 75% 1					
Project gross margin	\$ 6.5 M	\$ 16.2	\$ 32.5	\$ 48.7	\$ 64.9	

If the reduction the stocking rate gap was only 10%, then the gross margin change for the investment across the region would result in a gross margin increase of \$6.5M rather than 32.5 M.

7.4 Appendix 4 – Witten feedback on some pilot events

Understanding the possible carbon implications for a beef herd? (May 2022).

Te Mania Angus workshops

Attendance~ 60 (mainly producers from Vic, SA, NSW)

1. What value did you get out of *Understanding the possible carbon implications for a beef herd*? (0= none, 5= very high)

Average 4.6, range 4 to 5

2. What was your biggest insight from today?

Emission sources

- The CO2 equivalents from cattle how high they are particularly nitrous oxide
- Methane is our issue
- Not all cows are equal

Carbon calculations

- How to do a basic calculation of carbon for our farm
- How the calculator has changed in 10 years
- How much the goal posts keep moving
- The changing of the goal posts of carbon rules
- Awareness of the sharks in the carbon industry

Carbon and markets

- Emissions intensity is one of the next frontiers
- The market will drive the practices to improve efficiency productivity methane production (all interlinked)

Sequestration

- Cycling of organic matter
- That spreading compost has a ceiling in terms of maximum capacity of soil carbon sequestered
- Species of trees different in co2 capture i.e shining gums
- Tree choice dictates how much carbon they produce (store)
- Ensure change is permanent to maintain soil carbon benefits
- Make changes permanent
- The different impacts on carbon sequestration and how it could be implemented and effect on our production

Farm business

- To run an environmentally sound farm is good for profit and sustainability
- Focus on productivity that is sustainable and permanent

3. How do you intend to use the information?

Carbon calculations

- Do a calculation of carbon for our property
- Do a carbon audit
- Determine our farms emissions output
- Will assess our business carbon footprint and develop reduction strategies
- Calculate footprint on farm

Net emissions reduction

- Increase the treed area on our property
- Our business intends to gather phenotypic data on efficiency and methane intensity
- Implement a whole farm strategy to improve our emissions efficiency
- Focus on efficiencies remove non performers, net feed intake
- Planting right species of trees
- Aim to make our animals more efficient so to reduce their footprint. Do this by collecting more on farm data about animal performance
- Implement farm practices
- Increasing farm forestry
- Nutrient management in soils

<u>Other</u>

- Research more and use on-line tools
- Keep an open mind
- Love the saying be broadly right not precisely wrong
- Look into future options and see if it is applicable to our operation
- Promote bio-diversity for wide scale improvements
- Don't focus on selling carbon credits

4. What other information / workshops / client days would you like?

- Net feed intake and how to select for more efficiency
- Soil carbon
- Pastures from space
- More like this
- Soil science
- Explanation of UN And therefore IPCC recommendations scientific consensus or bias?
- Chinas contribution to CO2 reduction western world doing all the heavy lifting and making themselves poorer economically
- More info on carbon in general
- Keep this info simple as people are trying to learn the basics
- Need more literacy about carbon and environmental good we can do better
- As science / data comes in updates and resources info/support around methane reduction and other possible offsets
- More on soil carbon
- More time and in depth info

- Keep the message simple and easy to understand
- More information from informed primary producers like Cam
- We just need to keep having the communication and keep raising the awareness
- Build climate literacy
- Some further on farm demonstrations to see it applied.

5. Other feedback

- Fabulous, no nonsense presenter
- Cam Nicholson is an excellent presenter, with great knowledge and delivery
- Great presentation by Cam very insightful and engaging
- Cam Nicholson's talk was the best yet that I've heard
- Brilliant delivery
- Delivery was excellent and easy to digest
- Very well presented by Cam
- There needs to be pushback by MLA against demonising livestock. The national curriculum now teaches a vegetarian diet is being sustainable, not meat.
- Why be an early adopter when the rules keep changing?

Sub clover workshop (May 2022).

Grasslands Society of Southern Australia

Attendance~ 40 (mainly producers from SW Vic)

1. What value did you get out of understanding sub-clover management (0= none, 5= very high)

Average 4.5, range 4 to 5

2. What was your biggest insight from today?

Sub clover ID

- Identifying sub clovers
- Identification of sub clover

Sub clover management

- Pasture manipulation to grow more sub
- Improving pasture management to improve sward composition
- Sub clover management
- Understanding management for increasing subclover content
- The influences that impact the % clover in my pasture
- We can have 1000 2000 kg/ha dry material at the break. I thought it was 700 kg/ha and 30% bare ground
- Clover establishment aim for 1000 kg/ha dry
- The importance of managing grasses and sub clover differently
- How to manage sub clover and getting the most out of it
- Sub clover setting seed
- Sub clover seed base creation
- Clover seed set management

3. How do you intend to use the information?

Sub clover

- To check varieties of sub clover and whether these can be improved
- Identifying sub clover in my paddocks
- Increase % clover in my pasture
- Increase sub clover in pastures
- Increase sub clover content
- 1 year clover build up
- Hopefully increase the amount of sub clover in current pastures

Pasture Paramedic workshop (Aug 2022).

Bestlamb group

Attendance 11 (producers from around Colac area)

1. How likely are you to recommend Pasture Paramedic to others (0= highly unlikely, 5= very likely)

Average 4.6, range 4 to 5

2. What was your biggest insight from today?

Pasture Paramedic

- Using the Pasture Paramedic kit
- Pasture management through pasture Paramedic

Pasture management general

- Range of management options
- Setting up our pastures for next year starts now
- Balance between clover and grass management
- Pasture management
- Different management decisions affect pasture
- Grazing is key

3. How do you intend to use the information?

Pasture Paramedic

- Pasture species identification
- Tweaking rather than resowing
- Assessing my own paddocks
- Improve grazing management
- Track clover and grass pastures
- Improve pasture composition

<u>Other</u>

- Sowing more lucerne
- Graze to conditions better
- When managing rotations
- Better decision making
- Help with pasture management strategies
- Investigate more management options
- Discussions with farm owners

Feed Budgeting (June 2022).

Nutrient Ag Advisor workshop

Attendance~ 30 (mainly advisors SW Vic, SE SA)

6. What value did you get out of *Feed budgeting workshop*? (0= none, 5= very high)

Average 4.6, range 4 to 5

7. What was your biggest insight from today?

- The whole thing
- The most effective way to calculate how much feed is available
- The technology being used e.g. Grazfeed, New pasture satellite programs
- Use tools available to set up a feed budget for short, medium and long term
- The tools already available to help with farm plans
- My Farm Dashboard and Grazfeed are fantastic tools
- New technology from satellites & feed budgeting spreadsheets
- Learning the calculations behind days to produce a new leaf.

8. How do you intend to use the information?

- Only for myself properly first
- Doing better feed budgets
- Using some of the tools shown and working with clients to help set up plans for the season
- To integrate into existing animal health programs with clients
- Distribute tools to relevant clients
- Help farmers work out stocking rates
- To help clients better develop grazing plans matched more accurately to their paddock growth

9. What other information / workshops / client days would you like?

- How to tell DM in kgs
- Going through a season long plan in detail
- Setting up training in actual situations to practice
- More practical basic pasture classes
- General pasture management topics

10. Other feedback

- Great insights
- Don't deal with animal stuff in my branch so haven't been asked to do feed budgeting, however I can see how valuable it is.
- Great session!
- Awesome, thank you for today
- Excellent, relevant and engaging
- Great session

Grazing management (June 2022 – next day).

Nutrient Ag Advisor workshop

Attendance~ 30 (mainly advisors SW Vic, SE SA)

11. What value did you get out of *Feed budgeting workshop*? (0= none, 5= very high)

Average 4.8, range 4 to 5

12. What was your biggest insight from today?

- Great to have a refresher in managing species type and learning about the reproductive differences between grasses
- Grazing times for different grasses
- Rotationally manage perennial pastures for grasses and clovers
- As someone who does animal health and not agronomy I found it easy to follow and learn things I can start to bring into my clients plans
- Cam's Excel sheets
- The different growth / development of perennial grasses.
- Principles for grazing management and managing rotations around leaf not time
- The plants 'battery' and what stage it is through grazing (1-3 leaf) especially over summer period
- The 9 key principles
- Better understanding of growth patterns of certain pastures species, the different types of tiller and leaf growth photos were great and very helpful.
- Fertiliser grows fat leaves not fast leaves

13. How do you intend to use the information?

- To help clients develop an overall management plan for species manipulation (clover V grasses)
- Help farmers with grazing pastures better
- Discuss with clients what pasture species need to be better managed and how to do that
- To learn more and go deeper so I can look at a whole farm perspective instead of just animals
- Re-inforce what I do.
- Keeping a better eye on pasture in relation to climate and DSE requirements.
- Better inform clients to help put the pieces together of pasture management for me
- Better educate clients on this and get most out of perennial pastures
- Use in shop and recommending products
- In helping consult farmers
- Throughout my job and studying. As well as practically in my own farming enterprise
- Confidence in my knowledge

14. What other information / workshops / client days would you like?

- General pasture management topics
- I think the leaf stages of grass and grazing times would be interesting to farmers
- Annual species management

- Localised to district, particularly low rainfall and irrigation districts
- More pasture and soil basics and more sessions on how agronomy impacts animal health and production
- How to read feed tests
- Explaining ASBVs
- Feedlot days
- Multimin/ B12 benefits
- Pasture variety strengths and weaknesses and where they fit in different climates and conditions
- Herbicides in pastures for management of weeds
- Days like this every few months or so.
- More on grazing management
- Maybe more specific about how different pasture species grow and tehri shoots, roots and nodes.
- Any that are available involved with pastures, soils and grazing
- Grass types affecting reproductive performance

15. Other feedback

- Great session
- Awesome, great for non agronomy people as well
- It would be good as a group to have access to Grazfeed
- Thankyou for today, very good
- Great session
- All good.