

Terms of Reference

Driving on-farm practice change to increase whole of life cow productivity for southern beef production systems

Program of Work

Meat & Livestock Australia (MLA) are conducting adoption activities that result in practice change for the grassfed beef sector across southern production systems. The focus of any work will be to target adoption opportunities that result in measurable increases for productivity over the lifetime of a breeding animal. Proposals are sought for developing and delivering extension packages that will result in improvements in reproductive performance throughout a breeder's productive life as a result of adoption of selected management techniques. The MLA Adoption Strategy outlines an increased focus on long-term supported practice change programs, new awareness and learning channels, ensuring adoption is embedded within applied on-farm R&D and building the capacity of and attracting the supporting advisory network.

Summary

The productivity of the southern beef sector has the potential to improve if management strategies are put in place that concentrate on reproductive performance. There is a wealth of information and resources available to producers but practice change leading to improved reproductive outcomes, and the associated productivity gains, remains poor. To date MLA has invested in initiatives to identify causes of calf loss across Australia and a range of complementary activities that support breeding programs, and weaner management. Current work aims to identify the impact of various management techniques for heifers to the point of second calving, including a cost-benefit analysis and the development of a decision support tool. There is also another research group surveying southern beef producers to examine issues of calf mortality including potential causes. New MLA investment that aligns with RedMeat 2030 objectives will have an on-farm productivity and efficiency focus in delivering practice change across southern beef producing regions.

Impacts

Applications to this terms of reference must contribute to the development and adoption of practices, technologies and knowledge that will improve southern beef productivity, profitability and sustainability.

Specifically, applications must contribute to the following KPI's:

- Increase deliverer capability;
- Increase producer knowledge, skills, confidence and on-farm practice change;

Applications must clearly demonstrate how the project will contribute to these impacts, and what quantum of achievement is expected and/or achievable during the life of the project.

Priorities

MLA is seeking preliminary proposals to address any or all of the following:

Develop and conduct extension and adoption programs that improve profitability, productivity and sustainability for southern beef:

- Critically review southern focused extension and adoption activities that have been completed to date or are currently available and the impact on beef productivity, profitability and sustainability around reproductive performance in southern beef herds, identifying gaps and opportunities for improvement.
- Review and develop reproductive targets and measures of efficiency across different production systems/regions/enterprises typical of southern production systems. Develop guidelines and practices that allow producers to quantify reproductive efficiencies, including the targeted use of proven strategies that improve conception for first calf heifers and mature cows.
- Write/revise, plan and deliver extension and adoption programs that are complementary to existing programs by addressing one or more of the following objectives:
 - a. Assist producers to improve reproductive efficiency, reduce calf mortality and boost overall herd productivity. The intent is to build on existing and/or past training packages/workshops (see Appendix 1), identify gaps and opportunities to lift calf survival.
 - b. Develop and deliver clear training opportunities for producers that provide a clear pathway to practice change based on proven applied R&D outcomes that are complementary to existing extension programs. In the process, service providers should:
 - Investigate a range of different learning styles to ensure engagement strategies and information flow is targeted based on individual learning styles, enterprise mix.
 - Identify potential training package deliverers (Profitable Grazing Systems (PGS) & others).
 - Investigate any gaps in content between Bred Well Fed Well (BFWF) feeder event & the Building Better Breeders PGS package and potential opportunities for other relevant training packages and feeder events (see Appendix 1).
 - c. Explore options for the updating, developing or enhancing adoption/accessibility of decision support tools such as nutrition models, software packages/platforms which could be incorporated into EDGE, BFWF, Profitable Grazing Systems (PGS) packages or on farm, for improved breeding management decisions.

Proposals must include a focus on long-term practice change programs, new awareness and learning channels. These include 'Lifetime Ewe', Bred Well Fed Well, Breeding EDGE, PGS Packages (including the newly developed PGS written specifically for southern Australian beef producers entitled 'Building Better Breeders' <https://www.mla.com.au/extension-training-and-tools/profitable-grazing-systems/>) and More Beef from Pastures.

Submissions are encouraged to engage with the MLA adoption team to discuss linkages to existing packages to ensure no duplication.

Deliverables

Applicants to the terms of reference must clearly identify which of the priority outcomes and RD&A gaps the application is seeking to address.

It is an expectation that prior to submission of a preliminary proposal, applicant/s have engaged with producers through a regionally relevant research advisory council such as SALRC or WALRC. This is to include:

- A clearly articulated value proposition.
- Net benefit, (per head, per hectare, per year, per kg LW gain, per calf or product) of the adoption output.
- An adoption method and predicted adoption rate including time to peak adoption. Where outcomes are earlier stage applied research, the applicant should demonstrate that they have

considered potential adoption pathways.

Scope

The work is southern in scope although the applications and solutions within each project may be regionally specific to maximize adoption opportunities. Collaborative teams across institutions are encouraged to apply to take advantage of complementary skills including research, development, adoption and expertise in the use of technologies.

Participation of producers and formal producer networks is encouraged, especially in setting and reviewing the direction of adoption of practical, on-farm practices.

Confidentiality and intellectual property

Successful projects will be funded with grassfed beef and/or extension-adoption levies. MLA Donor Company applications will also be accepted and will be favorably considered (<https://www.mla.com.au/about-mla/what-we-do/mla-donor-company/>).

The successful applicant will be required to enter into a standard agreement with MLA.

Applicants must demonstrate how the project will contribute to industry impact through practice change.

Applicants must identify any background intellectual property (IP) they bring to the project.

All data and cited references must be acknowledged appropriately in the final publication and it is the sole responsibility of the applicant to ensure copyright laws are not breached.

Where further information is available which may assist the successful applicant in meeting the requirements of the project, MLA will provide such information to the successful applicant.

MLA will share and discuss this proposal with producers, technical experts, other research organisations and research and development corporations. Please acknowledge this freedom to operate.

Deadline for submissions

Preliminary proposals must be received by MLA before 11.59pm (NSW time) Friday, 2 October 2020. Late proposals will not be accepted.

Use the preliminary proposal template to submit proposals electronically to MLA at: projectcall@mla.com.au

Preliminary Proposals will be acknowledged and recorded on the MLA project information system.

Applicants will be advised in writing of the success or failure of their Preliminary Proposal in January 2021.

Further information

If you have questions regarding these terms of reference, contact:

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Appendix 1.

Driving on-farm practice change to increase whole of life cow productivity for southern beef production systems Terms of Reference.

Below are the priorities and key objectives outlined in the Driving on-farm practice change to increase whole of life cow productivity for southern beef production systems ToR. The below table will provide insights into links between objectives current MLA programs/work in development.

Current MLA programs & work in development that align to the priority/key objectives

Priorities objectives		Current MLA Programs/Work in development
Objective number	Objective Description	
A	<p>Assist producers to improve reproductive efficiency, reduce calf mortality and boost overall herd productivity. The intent is to build on existing and/or past training packages/workshops, identify gaps and opportunities to lift calf survival.</p>	<p>Development of the Building Better Breeders (BBB) PGS package is now complete.</p> <ul style="list-style-type: none"> • This package is a Beef Reproduction & Management Package and covers: <ul style="list-style-type: none"> • Genetics • Reproduction • Nutrition • Animal Health & Welfare • Business Management • Deliverers will be trained and approved for delivery (currently developing Train-the-Trainer framework pending COVID restrictions). <p>There is a formalised capability building program with all MLA-owned PGS packages including Train-the-Trainer, mentoring and/or co-delivery as required.</p> <p>One of the key outcomes of the BFWF cattle program content is to increase knowledge skills and confidence of participants in understanding and developing clear written breeding objectives. This skill in using Breeding Objectives will be further developed and applied through the Building Better Breeders PGS Package.</p>
B	<p>Develop and deliver clear training opportunities for producers that provide a clear pathway to practice change based on proven applied R&D outcomes that are complementary to existing extension programs. In the process, service providers should:</p> <ul style="list-style-type: none"> • Investigate a range of different learning styles to ensure engagement strategies and 	<p>BFWF will be undergoing a content review in the next 12-18 months to identify gaps and opportunities for future delivery.</p> <p>MLA have developed an eLearning platform to be launched in September 2020, with More Beef From Pastures currently being developed into downloadable modules. There is potential to incorporate southern beef reproductive efficiency modules into the eLearning platform.</p>

Priorities objectives		Current MLA Programs/Work in development
Objective number	Objective Description	
	<p>information flow is targeted based on individual learning styles, enterprise mix.</p> <ul style="list-style-type: none"> • Identify potential training package deliverers (Profitable Grazing Systems (PGS) & others). • Investigate any gaps in content between Bred Well Fed Well (BWWF) feeder event & the Building Better Breeders PGS package and potential opportunities for other relevant training packages and feeder events 	
C	<p>Explore options for the updating, developing or enhancing adoption/accessibility of decision support tools such as nutrition models, software packages/platforms which could be incorporated into EDGE, BWWF, Profitable Grazing Systems (PGS) packages or on farm, for improved breeding management decisions.</p>	<p>Rumen8 for beef nutrition is in development, a tool that could be used by producers and/or their advisors to balance diets (where supplements are involved) or predict likely outcomes in terms of liveweight gains.</p> <p>MLA's project 'Optimising heifer development and management to increase whole herd profit' (B.GBP.0038) will deliver a decision support tool focused on managing heifers to ensure they calve on time and get back in calf when they should.</p>