

Terms of Reference

Pain Mitigation

Program of Work

Meat and Livestock Australia (MLA) are investing in research, development and adoption (RD&A) initiatives that contribute to programs of work to increase the productivity, profitability and sustainability of the grass-fed beef and sheep-meat sectors. Proposals are sought for developing and executing collaborative and participative research to fit within this program of work.

Many husbandry procedures that are necessarily carried out to improve animal and herd wellbeing and productivity, can be painful. While in the long term it may be possible to replace some of these procedures (e.g. selecting for polledness, instead of dehorning), pain mitigation remains an unavoidable imperative in the interim, or where replacement is not an option. Addressing the priorities outlined in this terms of reference, will contribute to a program of work to provide livestock producers with the means to manage the pain of these aversive procedures in the most appropriate and efficient way.

Summary

The imperative for providing producers with better means for managing animal pain has multiple drivers. Currently there are still only a limited number of available pain relief solutions available for use on livestock. MLA has funded research that has underpinned the development of some of these including the oral NSAID preparation Buccalgesic, and the NUMNUTs administration system designed to deliver local anaesthetic simultaneously with the application of elastrator rings to tails and testes at marking. A novel transdermal NSAID is also currently under development. In addition, the potential benefits that can accrue from pain mitigation may not be immediately evident in financial terms, which necessitates consideration of social and community impacts.

It is likely that direct productivity and profitability benefits attributable to pain management will be difficult or impossible to quantify. Although a painful event can be expected to have a temporary adverse effect on e.g. appetite and hence, live weight gain, it is also to be expected that compensatory growth will eliminate such impact over the life of the animal. Increased feed intake, or impaired feed conversion, to “finance” the compensatory growth, is not practically measurable in extensive production systems. The greatest impact in this case is likely to arise from the counter-factual i.e. doing nothing. The downside risk of losing consumer and community support was estimated at ca. \$3.9Bn in 2015 in the Meat Industry Strategic Plan (MISP) 2020. The fact that minimizing suffering of the animals in our care is the ethical thing to do and the psychological “feel good” benefit for producers and livestock contractors from using pain relief is also indisputable, but impossible to quantify in financial terms.

Impacts

Technologies and knowledge are developed for improved animal welfare, which significantly contributes to supporting red meat consumption within the domestic market, via the maintenance of favourable consumer attitudes.

Priorities

In the course of good livestock husbandry, animals can be subject to procedures to improve their behaviour and wellbeing. Some of these procedures are unavoidable, aversive and painful. MLA is seeking preliminary RD&A proposals to address the following needs with regard to pain management in the red meat industry:

- a. Promote adoption of currently available pain relief products for aversive procedures in cattle, sheep and goats and best practice techniques for de-sexing, tail docking and dehorning, to ensure that using pain relief measures will not compromise attention to correct technique and procedure.
- b. Develop analgesic products and delivery systems (e.g. currently existing NSAID compounds could be adapted to a better delivery system), that will mitigate pain for up to seven days after the procedure. To make these products available to producers, they should be developed with the safety, toxicity and efficacy data package required for registration by the APVMA.
- c. Demonstrate the benefits to producers and the broader red meat industry of a consistent and coordinated approach to pain management.

Deliverables

1. A program that aims to describe the productivity, social and animal welfare benefits of available pain mitigation procedures, which builds producer and advisor capability, and supports practice change. This includes a clear set of guidelines on the correct and appropriate use of currently available pain management options, and a clear understanding of their limitations; and/or
2. one or more analgesic products of proven efficacy for livestock, addressing the need of producers for easy access, sustained activity, and convenient administration; and/or
3. a set of parameters by which the benefits of pain mitigation can be assessed at enterprise and industry level, and which can be used to monitor and evaluate continuing improvement.

Applicants to the terms of reference must clearly identify which of the priority outcomes and R&D gaps their 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 i.e. NABRC, SALRC or WALRC and other industry stakeholders (consultants, merchants, service providers) to also identify extension and adoption pathways. Applicants must consider how any funded work will translate into practice change on farm. This should include:

- a clearly articulated value proposition;
- where applicable, the net benefit (per head, per hectare, per year, per kg LW gain or product) of the research output if adopted;
- 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 national in scope although the applications and solutions within each project may be regional and focused on enterprises growing grass-fed cattle and sheep-meat.

Collaborative teams across institutions are encouraged to apply to take advantage of complementary skills including research, development, adoption and expertise in the use of products/technologies.

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

Confidentiality and intellectual property

Successful projects will be funded with sheep-meat and/or grass-fed beef levies. MLA will also consider MDC applications outside of the specific terms of reference but consistent with the program objectives and provided that applicants are able to demonstrate how the project will contribute to industry impact.

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.

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

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) Wednesday, 16 October 2019. 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 2020.

Further information

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

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