

Terms of Reference

B.FLT.0165 – Cost of feedlot dags to Australian beef industry

Summary:

Meat & Livestock Australia (MLA) is seeking expressions of interest from individuals, organisations or project teams with the capability of evaluating the cost of feedlot dags to the Australian beef industry, with a view to providing information that can be used by MLA and other interested commercial entities to assess the potential for investment in technologies to address the issue. This evaluation will also include an assessment of the likely benefits (primarily cost reduction) of two technology approaches that may address feedlot dags.

Background:

The presence of dags on cattle hides is a major problem to the feedlot, meat processing and hide tanning sectors due to concerns regarding the welfare and health of animals, increased costs associated with the cleaning and processing of daggy cattle, reduced performance and meat quality outcomes, and the potential to compromise food safety through carcass contamination.

Dags are comprised of faecal and soil particles that adhere to the hair in the coat of cattle, and usually develop during the winter period when pens remain wet following rainfall. *Bos taurus* cattle, which traditionally have long hair coats during the winter period, are the most commonly affected, although other breeds can also be impacted. The dag is attached to the hair fibre and not to the epidermis of the skin, which makes it difficult to remove, but does provide the potential for non-invasive removal of the dags.

MLA has funded a significant number of projects over the past 30 years, with limited success in developing a suitable alternative to the current practice of extensive washing to breakdown and remove the dag material. More recently, a number of commercial entities have indicated they are interested in investment in research to address the issue. There is, however, currently no significant up-to-date information on the magnitude of the problem, the cost of current interventions, or the total cost to industry. This information is required as a basis for assessing potential solutions to the problem, and the likely return on any investment to address the issue.

This project is designed to collect the information required to allow these assessments to be undertaken.

Project Objectives:

1. Evaluate the cost of dags to the Australian beef industry, through an assessment of the cost to each impacted sector of the supply chain, including:
 - a. The magnitude of the problem, giving consideration to regional distribution of feedlot dags, annual variability in dag prevalence, and washing location (feedlot vs. processor).

- b. Cost to the feedlot sector, including performance loss, direct cleaning costs (infrastructure, labour, water use, WH&S costs, etc.), processor cleaning charges, and meat quality downgrades.
 - c. Cost to the processing sector, including direct cleaning costs not charged back to supplier feedlots, impacts on processing efficiency (additional labour, reduced chain speed, etc.), cost of trim and potential microbial contamination, including potential for increased risk due to food safety recalls.
 - d. Cost to the hide tanning sector as a result of incomplete dag removal and increased damage to hides.
2. Estimate the benefit (primarily cost reduction) of adopting two dag intervention approaches to managing dags, with a focus on the viability and likelihood of adoption of these approaches, given the industry cost of dags, their distribution and seasonal variability.

Project Outcomes:

The project will produce a thorough benefit cost-analysis of the impact of feedlot dags to the Australian feedlot industry. Project outcomes will include:

1. The value proposition to managing feedlot dags so the economic feasibility of invention methods can be determined.

Methodology:

Whilst not limiting the capacity of the applicant to develop any particular methodology or technique it is envisioned that the project will largely be a desk-top exercise, utilising data collected from a representative sample of the various industry sectors being studied.

Process:

The Expression of Interest should be submitted using an MLA Project Application supplemented with appendices as required, to address any specific requirements. To access the project application template, go to www.mla.com.au and follow the links to *Research and development*, then *Funding opportunities* and *Research organisation funding* to download the **MLA Full application template and guidelines**.

In particular, the proposal should:

1. Detail the approach that will be adopted to address the project objectives.
2. Detail the specific work activities proposed and timelines for their achievement.
3. Provide details of the information/data to be collected, collated and assessed and how these activities will be undertaken.
4. Include a detailed and fully costed budget that covers all the resources required to undertake the work, including details of basis for charging (daily fees, number of days, expenses, etc.).
5. Propose a payment schedule, taking account of the following:
 - o Progress payments may be negotiated against project milestones if the size and timescale of the project warrant this. The proposal should propose milestones and payments if required.
 - o A minimum of 20% of the project budget must be retained for payment against the final milestone.
 - o Payment of fees will be upon MLA acceptance of the attainment of the project milestones.

Selection Criteria:

Selection of the successful proposal will be based on the following criteria:

1. Soundness of the method proposed to achieve the project objective;
2. Demonstration of the applicants knowledge and understanding of the relevant issues;
3. Track record of the applicant and proposed team members; and
4. The project budget, delivery timeline and assessed value for money.

Reporting Requirements:

The successful applicant will provide milestone reports (if required) and a final report giving full details of the results of the work. Milestone and final reports will be prepared in line with MLA report guidelines.

The successful applicant shall report directly to Des Rinehart, MLA Grain Fed, Live Export and Goat Program Manager.

Confidentiality and IP:

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.

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.

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

Further Information:

If you have questions regarding this project, contact:

Dr. Joe McMeniman
Feedlot Project Manager
Research, Development & Innovation
Meat & Livestock Australia

Phone: 0447 264 341
Email: jmcmeniman@mla.com.au

Project Proposal Submissions:

Proposals must be lodged electronically as Word document to: applications@mla.com.au

Proposals must be received by **COB Friday 28 October 2016**.