

Terms of Reference

Dough from Doe\$

Summary:

MLA and the Goat Industry Council of Australia (GICA) are seeking to fund a literature review and several producer case studies on the topic of advanced breeding systems for the purposes of increased output from breeding goat herds, does particularly.

There are significant gains to be made through improved reproductive performance and management of the breeding doe. This project is envisaged to be phase one in addressing this issue, with phases two and three to follow looking at new research/trials if required and development of an extension package for producers.

Background

There is significant interest within the goat meat industry in better understanding how much pressure can be applied to a breeding doe. This is in reference to factors such as the most appropriate time to join maidens and frequency of kidding. Producers want guidelines on best recommended practices to improve lifetime productivity of the doe.

The project will examine optimum breeding systems to improve lifetime productivity of the doe including comparisons between breeding systems with a single kidding annually vs more than one kidding every 12 months.

Method

As a part of this project, a literature review of advanced breeding systems for both goat breeds and other small ruminant species will take place to identify information gaps, recommend topics for additional research if needed, recommend interim services/decision aid tools/resources for producers should additional research be needed.

The project will encompass detailed producer case studies focusing on people experimenting in the area of advanced goat breeding systems (domestic and international if applicable). The following topics should be included in the study and final report:

1. Doe management

This will include:

- Examination of the best metric (ideal age or weight) for first joining
- Examination of recommended time of joining and optimal culling age for mature breeding does with the aim of maximising value at culling vs loss of productivity on farm
- Understanding of annual nutrition requirements for does with multiple vs single births

2. More than one complete reproductive cycle per annum

This will include an exploration of the feasibility of more than one kidding per 12 months, including:

- Cost comparison with traditional breeder systems
- Examination of the logistics and management changes required to make this work (such as nutrition, joining times, parasite control, breed, geographic location etc.)
- Impacts of this system (doe health, carrying capacity, markets and weaner management)

- Documentation of the critical success factors

3. Weaning

In terms of the weaning process the project will review information relating to:

- Best management practices
 - o Taking weaners through to production efficiently and cost effectively (replacement does to their first joining and males to slaughter)
 - o Post weaning feeding, selection pressure, management recommendations
- Maintenance of the doe during the weaning process
 - o How to achieve maximum cyclicity post weaning (i.e. impact of doe weights, condition scoring, nutrition/stocking rates etc.)
 - o Mitigating potential for poor performance in second kidding

Objectives

1. Completion of literature review as described above including:
 - identification of information gaps
 - definition of minimum system requirements and inputs needed where >1 kidding per annum is feasible.
 - recommended topics for additional research if needed
 - recommended interim services/decision aid tools/resources for producers should additional research be needed
2. Inclusion of 5-6 goat producer case studies as described above

Outcomes from this project

- Recommendations for the modification (if applicable) of existing extension/information models (i.e. Making More from Sheep Wean More Lambs module, Lifetime Ewe Management courses) and determining if they can be adjusted for the goat industry rather than development of something completely new.
- If existing sheep extension packages as mentioned above can be utilised, then explore the metrics that need to be replaced for it to be goat relevant and if sufficient knowledge exists to populate the package.
- Identification of the amount of pressure which can be applied to does before reproductive efficiency declines.
- Provide clear pathway forward with regards additional research and/or extension activities

Application process

The Expression of Interest should be submitted using the MLA Full Application form, supplemented with appendices as required, to address any specific requirements. To access the project application template, click [here](#).

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:

- a. 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.
- b. A minimum of 20% of the project budget must be retained for payment against the final milestone.
- c. Payment of fees will be upon MLA acceptance of the attainment of the project milestones.

Selection Criteria:

Applications will be reviewed by MLA and GICA, and selection of the successful proposal will be based on assessment against the following criteria:

1. Soundness of the method proposed to achieve the project objectives;
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.

In addition to MLA standard reports, the following will also be provided to MLA at the time of delivery of the Final report:

- a copy of all project data, including meta-data (de-identified)
- the applicant should allow for a half-day presentation/meeting with GICA to review project results and recommendations for further work
- the applicant should allow for a half-day presentations/meeting with MLA staff at project inception.

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. This project will be funded with goatmeat levies. Potential applicants must identify any background IP they are bringing to the project.

Conflict of interest:

Applicants, research teams or subcontractors with any potential conflicts of interest, should thoroughly outline these in this application, including how they propose to manage them, if applicable.

Further Information:

If you have questions regarding this project, contact: Julie Petty, Project Manager Goat Industry on 0411 680 516 or jpetty@mla.com.au

Project Proposal Submissions:

Proposals must be lodged electronically as Word document to: applications@mla.com.au
Proposals must be received by close of business Monday 13 August 2018.