PDS: LOTSA LAMBS – *Improving Reproduction Success – 2022 update*

Background

As a result of the impact of drought, ewe numbers are low both locally and nationally. To facilitate the rebuild of the flock, it is necessary to produce more from the existing ewe base through maximising reproductive efficiency and minimising mortality. Seasonal conditions have led to many producers aiming for an autumn lambing to utilise feed available to lambs due to shorter springs and extended low feed on offer due to extended summer conditions. Producers are aware of the research that indicates higher lamb survival from twin bearing ewe flocks run as smaller groups at lambing. Most are unsure how to best implement this strategy, particularly in a mixed farming system with a focus on cropping. On the ground solutions and demonstrations are required for producers to be able to see how this strategy could possibly work in their sheep flock.

Many producers have adopted the strategy of feeding ewes in containment over summer and early autumn, often through much of their pregnancy. Common practice for a Nov-Dec joining is a 7-8 week joining period, and a lack of pregnancy scanning resulting in significant variation in nutritional requirements of the ewes at any one time. The adoption of early pregnancy scanning, scanning for multiples and condition scoring should allow targeted feeding of mobs while held in containment, and reduce problems such as dystocia due to over feeding of later lambing single bearers.

Part of this project will look at improved genetic selection in commercial flocks, incorporating data collection and analysis on reproduction success, understanding ram genetics and Merino Flock Profiling (MFP). The aim being to refine breeding objectives and plan for future breeding decisions with fertility in mind, including an understanding of the traits to focus on to breed robust animals for UNFS production systems.

Methodology

Review and demonstrate:

1. At two sites demonstrate the value of;

   i. reduced joining period to 5-6 weeks

   ii. correct ewe to ram ratios

   iii. managing and feeding mobs separately based on condition score, foetus number and foetus age.

   iv. matching nutrition needs to rations

Measure feed consumption, lamb survival and ewe condition score. Analyse gross margins and cost of production ($/kg lamb produced). Record other observations of variations in animal health and condition. (2 lambing cycles).

2. Establish two demonstration sites for improved pregnant ewe management incorporating:

   i. Development of a clear breeding objective including improved genetic data and decision making

   ii. Pregnancy scanning

   iii. Splitting twin bearing ewes into smaller groups for lambing.

   iv. Ewe condition scoring and segregation within single bearing ewes based on condition.

Measure lamb survival and assess the cost:benefit of the practices. Record other observations of variations in animal health and condition. (3 lambing cycles)

Run 5 extension activities for UNFS members. The workshops will be delivered by recognised industry experts in condition scoring, feed budgeting, impact of mob size, effective confinement feeding, using ASBVs and the RamSelect app, breeding objective development and interpreting Merino Flock Profile results. Principles will be based on the AWI Life Time Ewe Management Course content.

Results and Discussion

Alison Henderson and Andrew Kitto are providing demonstration sites to implement the practice of pregnancy scanning and lambing multiples in smaller mobs. The demonstration sites strive to have twin-bearing ewe mobs of 100 or fewer during lambing to reduce the risks of mismothering, ewe-lamb separations, and lamb mortality. 2022 presented challenging lambing conditions at Henderson and Kitto's demonstration

properties due to a late break in the season, lack of feed on offer for pregnant ewes and harsh cold conditions during lambing. Lamb marking data for 3 lambing cycles will be measured at these sites.

Lachie Smart is also providing a demonstration site from 2023 onwards, focussing on confinement feeding pregnant ewes as well as lambing in small mobs. Lamb marking for 2 seasons will be recorded.

The project has enabled demonstration site landholders to have individual sessions and ongoing support with Deb Scammell from Talking Livestock. These sessions plan for selective management of twin-bearing ewes, including ewe nutrition, condition scoring, feed budgeting, the impact of mob size, and effective confinement feeding based on the principles of Life Time Ewe Management.

Image 1. *Workshop 1 – Alison Henderson's property – lambing ewes in smaller mobs*

Image 2. *Workshop 2 – Understanding and interpreting DNA flock profiling results*

Image 3. *Workshop 3 - BreedELITE smartdrafter demonstration – Nathan Scott & Caleb Girdham*

Image 4. *Workshop 3 - Girdham's containment feeding demonstration site*

Image 5. *Caleb Gurdham, Deb Scammell, Nathan Scott in containment feeding yards*

Activity	Date & Location	Workshop Objective	Activity Description
Workshop 1: **LOTSA LAMBS** Producer Demonstration Site Workshop 1	28th June 2022 Don Bottrall's Shearing Shed and Alison Henderson's farm	To provide and introduction to LOTSA LAMBS PDS project and information on topics associated with the PDS.	**Guest Speakers Michelle Cousins, Merino Services and Andrew Michael, Leachim Stud:** • Defining a breeding objective • Merino Flock Profiling—understanding test results & how to use the information • Understanding Australian Sheep Breeding Values (ASBVs) and Indexes • Why use ASBVs when buying rams • Using the RamSelect app • Pregnancy scanning ewes, splitting twins & singles, and managing smaller mob sizes **Producer Case Study: Alison Henderson gave an insight into their sheep enterprise, including sharing her experiences and a visit to their farm.**
Workshop 2: **LOTSA LAMBS** Flock Profiling & Improving Genetics	19th September 2022 Don Bottrall's Shearing Shed	Understanding and interpretation of flock profiling results	**Andrew Michael, Leahcim Stud** **Small Workshop with 12 producers who did flock profiling on their sheep** • Defining a breeding objective • Merino Flock Profiling—understanding test results & how to use the information • Understanding Australian Sheep Breeding Values (ASBVs) and Indexes • Why use ASBVs when buying rams • Using the RamSelect app • Farmers had DNA testing results on the day and had the opportunity to interpret results on an individual basis

Activity	Date & Location	Workshop Objective	Activity Description
Workshop 2: **Implementing eID's on farm and Improving Reproductive Success**	23rd February 2023 Caleb Girdham's farm, Melrose	To provide a hands on demonstration by presenter and farmer on how to incorporate technology into containment yard design as well as implementation of eID's on farm for efficiency and productivity outcomes.	**The what, how, and why (or why not) of applying it practically on your farm.** • Equipment options • How the technology works • What data to collect • Understanding the implications of applying selection pressure • How to collect data & tips on managing data **DEB SCAMMELL (Talking Livestock) – Improving Reproductive Success** • Pregnancy requirements & this season's feed • The fit of containment this year • Containment costs $$ - benefits and feed on offer – the data FREE FEED TEST WAS AVAILABLE FOR ALL PARTICIPANTS STICKY BEAK AT GIRDHAM'S AUTODRAFTER, YARDS AND CONTAINMENT FEEDING SET UP

Acknowledgements: