Increasing number of lambs weaned / ewe unit

Producer case study: Jason Stokes, Mt Erin

Introduction

Jason Stokes operates Mt Erin, a large-scale mixed farming enterprise located in Chapman Valley, Western Australia. With a focus on maximizing productivity and sustainability, Jason participated in the MLA Producer Demonstration Site (PDS) Project aimed at improving lamb survival through precision ewe feeding. Jason has implemented strategic breeding, feeding, and management practices to enhance flock performance while adapting to the changing market landscape. This case study outlines the integrated approach Jason has taken to livestock management, highlighting his commitment to using precision tools and using data-driven decisions to ensure the success and sustainability of his operation.

Background and operation structure

Jason Stokes, a producer based in Chapman Valley, WA, participated in the 3-year MLA Producer Demonstration Site (PDS) Project, which aimed to improve lamb survival through precision ewe feeding. Jason started the project with 600 maiden ewes and implanted split joining, with joining commencing in mid-November.

Jason operates Mt Erin, a large-scale mixed enterprise spanning 5,200 hectares, with a 60:40 cropping-to-livestock ratio. The farm currently manages 5,600 breeding ewes and is transitioning from 4.5 to 3 full-time labour units, driving the need for greater efficiency across all areas of operation. The stocking rate is maintained at a sustainable rate

Image 1 Jason Stokes, primary producer at Chapman Valley, WA

of 10 DSE per winter-grazed hectare (wgha), supporting both livestock and cropping success.

Sheep genetics and breeding objectives

Mt Erin runs Leahim-bloodline Merino ewes, selectively bred for early growth, easy-care traits, and high wool and meat production potential. Sires are bred in-house via an AI program, with 90% selected based on Australian Sheep Breeding Values (ASBVs), including growth and fleece traits. Visual selection continues to play a key role, with ewes evaluated for conformation, wool length and brightness, and ease of management.

The enterprise has transitioned from the DP+ index to a combination of Self-Replacing Merino (SM) and Maternal (ML) indexes to align with commercial and maternal lamb production targets.

Reproduction management

In more recent years, Jason has been implementing split joining (21 days: rams in for 10 and back in for 21 days). He has found this practice allows for tighter lines of lambs to mark, wean, and market, and to track ewe reproduction performance. Being a November joiner, he relies on teasers to ensure ewes are cycling and uses a joining rate of 2.5%. Pregnancy scanning has been in place since 2006, with eID gear introduced in 2018, which has allowed for tracking individual ewe performance. The type of data Jason collects includes:

- Pregnancy status and litter size
- Lamb marking and weaning weights
- Hogget weight, fleece weight, and fleece traits
- Body weight and condition scoring

Mt Erin has set weaning target weights for 20 kg (singles) and 18 kg (twins) at 11 weeks. Post-marking mortality is maintained at approximately 3%, aided by high-input monitoring and animal health protocols.

Flock selection and culling strategy

Each April, post-shearing data, including fleece weights and traits, body weight, and condition scores, are used to index ewe hoggets. The top 10% are selected for AI, the bottom 10% culled, and an additional 3–5% removed based on visual appraisal. Ewes are culled immediately if they:

- Fail to scan in-lamb
- Fail to rear a lamb
- Present udder defects

Feeding systems and nutrition

Jason employs a diverse and structured feeding strategy across the year. Over summer, sheep graze stubbles and are either trail-fed, provided TMR, or have access to self-feeders. Like most mixed growers, Jason uses home-grown commodities and fodder and assesses the cost of energy and crude protein (CP) to determine the most cost-efficient feed sources. Different classes of stock receive different rations depending on the production status and the Food On Offer (FOO). A typical ration would consist of:

- **Ewes:** 75% wheat, 10% canola, 15% lupin stubbles (shifting toward 40% wheat, 40% lupin, 20% canola)
- **Weaners:** 80% lupin, 20% oats/barley

Jason confinement feeds from March to May to allow for efficient allocation of feed sources and land allocation to allow for winter crop grazing. In confinement, sheep receive a ration of 60:40 barley to lupin, with ad lib barley straw. Jason places a large emphasis on feed budgeting to ensure enough grain/hay is conserved. Each ewe is budgeted for ~45 kg of grain per year.

Loose licks enriched with calcium and sulfur support pre-lambing and lambing nutrition. Causmag, limestone, and salt are provided when grazing crops. Winter cereal grazing is practiced, contributing to condition recovery before lambing.

Lambing and management systems

Mobs are split 15 days prior to lambing into production status, with the emphasis on managing mob size for lambing. With single bearing ewes have a maximum of 400 hd in a mob and twin bearing ewes maximum mob size is 200 hd.

- Lambing paddocks are sheltered, and lupins are spread in grassy areas to provide 10 days of feed. Lamb growth is considered critical: “If a lamb or weaner is not putting on weight, it is dying” (Bob Hall). The entire system is designed around ensuring continuous growth.

Animal health program

Jason’s approach to animal health programs is a preventative one, with key treatments provided at critical times to ensure the health and productivity of the flock:

- Pre-lambing: Long-acting drench, ADE, Glanery 7
- Marking: Glanery 7, Trisulfon, Clik
- Weaning: Glanery 7 booster, combination drench, lice treatment
- Parasite control: Monthly FEC testing; treatment as needed

Technology and tools

Jason's operation integrates a suite of tech tools, including:

- TruTest Data Link, AgriWebb
- Innovate IoT (for tank, pump, weather monitoring)
- Drought Feed Calculator, LTEM

- Safety Culture (shearing shed audits)
- Lambing Planner (paper version)
- WhatsApp for real-time team communication

Jason has found these tools useful for planning, measuring production, reporting, and managing resources. The data collected through these tools drive Jason's production and management decisions, helping him optimize performance, improve efficiency, and make informed decisions for the future of the operation.

Challenges and strategic priorities

Major challenges include labour availability, managing Barber's Pole worm, and achieving timeliness of operations. The primary improvement focus is increasing lamb growth from birth to weaning without compromising stocking rates. Under financial pressure, no components are removed from the program. The scale of the operation requires proactive rather than reactive management, especially regarding parasite control. Jason's non-negotiables, that he believes crucial for his business's success are:

- Pregnancy scanning
- Achieving target condition scores pre-lambing
- Maintaining uninterrupted lamb growth

Enterprise change: Focus on store lambs

Jason is modifying his enterprise aims to suit the evolving market, to 'produce the best quality store lambs for the feeder market'. He has calculated that the time value of finishing lambs and the current store prices make it hard to make the math work to feed to slaughter. Currently, store lambs are more profitable per kg than finished lamb. When factoring in shearing 1.5 times a year, grain prices, losses, and financing costs, $90 per head in September starts to look appealing compared to $150 per head finished. He believes this strategy will allow Mt Erin to run another 500 ewes.

Conclusion

Jason's operation is an advanced enterprise leveraging precision breeding, structured feeding systems, and integrated technology to drive productivity and sustainability in large-scale sheep production. The combination of rigorous data collection, targeted nutrition, and strict selection delivers consistent lamb growth and reproductive success, positioning Jason's enterprise as a leader in practical genetic application within commercial systems. With the shift to producing high-quality store lambs, Jason is poised to improve operational efficiency while adapting to market conditions, ensuring continued success in the long term.

For further information:

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