

Maternal Efficiency: The Key to Profitable Ruminant Animal Production

Jack Courts

2024, New South Wales



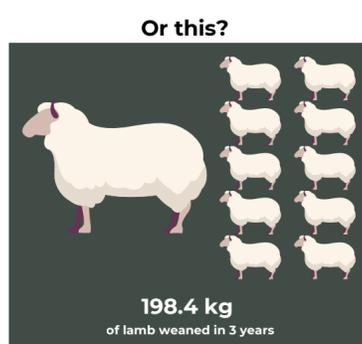
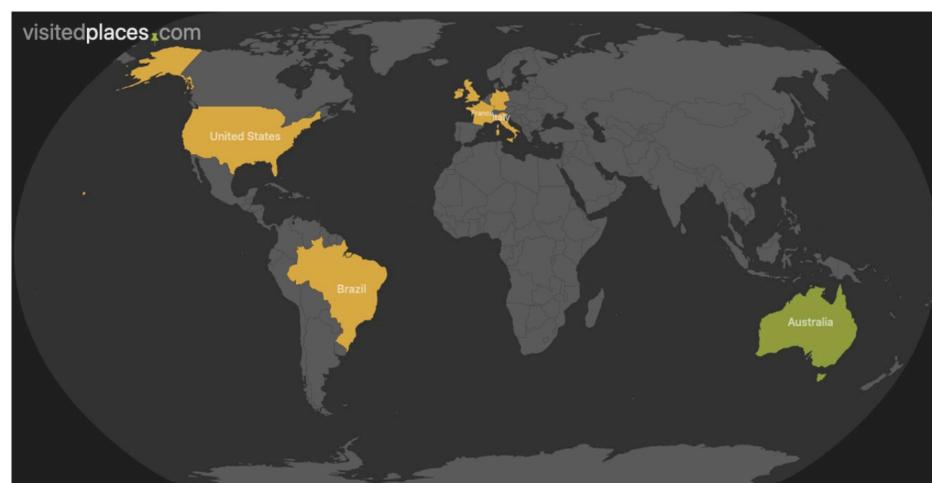
Research Purpose

I chose this topic because my background has shown me that maternal efficiency is one of the strongest drivers of profitability in ruminant production systems. Over time, I have observed how even small improvements in traits such as fertility, body condition, and feed efficiency can translate into substantial financial gains for a herd. The maternal role is therefore central not only to biological performance but also to the long-term economic success of production enterprises. This experience inspired me to explore the topic in depth, examining the ways in which genetics, management, and nutrition combine to influence maternal efficiency and, ultimately, overall profitability.

Key Learnings

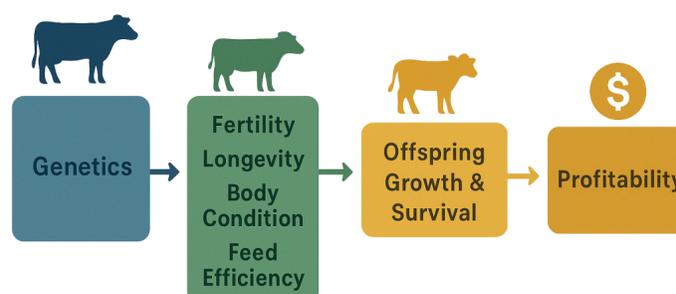
- Genetic selection underpins efficiency
- Fertility is the biggest driver of profitability
- Nutrition and body condition are pivotal
- Technology strengthens management decisions
- System design must balance efficiency with market alignment

Travel



350% more lamb!

MATERNAL EFFICIENCY



Recommendations for Industry

- **Genetics:** Select for NFI, DTC, EMA, IMF; target early puberty, longevity, and moderate mature size.
- **Reproduction:** Aim for >90% conception; use 4–6 week joining; maintain BCS 3.0 at joining/calving.
- **Nutrition:** Use high-protein pastures; supplement at key stages (\$10–\$20/hd → \$54–\$60/hd return); match stocking rates to carrying capacity.
- **Technology & Markets:** Apply tools like Optiweigh, EID apps, AgriWebb; align genetics with MSA carcass traits for premiums

Thank you to my sponsor



Contact

Jack Courts

Phone: 0407 516 152

Email: jack_courts@icloud.com