

# Awareness of breeding ewe management practices by producers with extensive sheep enterprises

L. Broughton<sup>A</sup> and S. F. Hatcher<sup>B,C,D</sup>

<sup>A</sup>Productive Livestock Systems, PO Box 82, Cootamundra NSW 2590 Australia

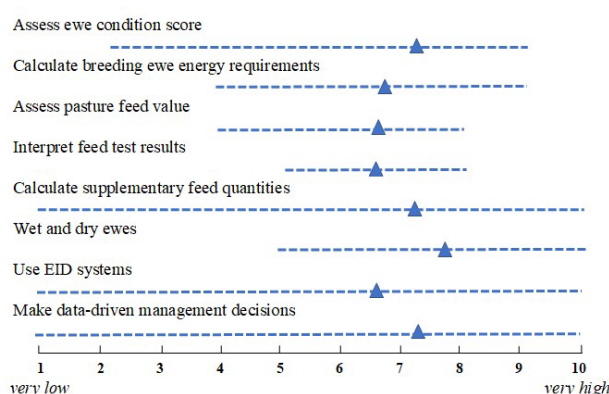
<sup>B</sup>Makin Outcomes Pty Ltd, PO Box 8358, Orange East NSW 2800 Australia.

<sup>C</sup>Charles Sturt University, Boorooma Street, North Wagga NSW 2678 Australia.

<sup>D</sup>Corresponding author Email: sue@makinoutcomes.com.au

New South Wales rangelands environments are typically based on native pasture systems that experience low annual rainfall (260 - 404 mm) that is variable both within and between seasons. Tactical grazing where sheep enterprise decision making is dictated by the prevailing season allowing producers to sustainably manage their land resources is commonly used. In these extensive systems, where large paddocks form the basic management units, it can be difficult to implement 'best-practice' breeding ewe management strategies that involve semi-frequent mustering to collect data and actively manage breeding ewes based on their reproductive potential. MLA's Producer Demonstration Site (PDS) program aims to increase the rate of adoption of key management practices and technologies that improve business profitability, productivity, and sustainability. A key focus of the PDS program is to support participating producers to learn new skills and management practices through mentoring and facilitated participatory group learning within their own enterprise. This paper reports the results of a pre-project survey of producers participating in the 'Pregnancy scanning in extensive sheep flocks' PDS project (Hatcher and Broughton 2022). The survey was designed to capture the producers' level of understanding of and confidence in implementing a range of breeding ewe husbandry and management practices.

The four core and seven observer producers completed pre-project surveys in mid-2021. Lamb survival was selected as the primary factor limiting their flock's net reproduction rate (NRR, lambs weaned per ewes joined) in all flocks with ewe fertility, weaner survival and ewe fecundity also identified as limiting factors. Overall, the producers demonstrated a high awareness of key management practices related to breeding ewe performance including target condition scores for ewes at joining and lambing, optimum joining length, time for pregnancy scanning and udder assessment as well as the relative energy requirements of twin- relative to single-bearing ewes in late pregnancy and early lactation. On average, the producers were quite confident of their ability to carry out these practices with average scores of 7.1 to 8.2 for the eight practices (Fig. 1). However, the range in confidence related to assessing ewe condition score, calculating supplementary feed requirements, using electronic ID systems, and making data driven ewe culling decision was large.



**Fig. 1.** Sheep producers' self-assessment of the confidence level of their ability to carry out a range of breeding ewe management husbandry and management practices (the ▲ signifies the average and the dashed line the range).

Interestingly, despite most producers agreeing or strongly agreeing to statements regarding the usefulness of pregnancy scanning for multiples, udder assessment and managing ewe condition score as tools to improve NRR, fewer than half of the producers routinely undertook them as normal practice. The integration of these practices into the routine management and husbandry programs of extensive sheep enterprises may be limiting improvements in NRR. The mentoring and group learning setting provided by this PDS project, particularly the paired comparison of a control (i.e. normal practice) and trial mob undertaken by the core producers, together with the reproduction benchmarking questionnaire (Hatcher and Broughton 2022) and cost-benefit analysis may encourage the wider adoption of these practices in extensive sheep enterprises. A post-project survey will quantify changes in the knowledge, attitudes, skills and aspirations (KASA) of these producers and track their skill development and adoption of key breeding ewe management practices. This PDS will also identify research, development and adoption gaps related to breeding ewe management in extensive sheep production environments.

## References

Hatcher SF and Broughton L (2022) *These proceedings*.

*We gratefully acknowledge Meat & Livestock Australia for funding this Producer Demonstration Site and the sheep producers involved. This project is run in collaboration with MerinoLink Limited.*