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# Is there an economic benefit in using mob-based walk-over weighing information for ewe management?

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## SUMMARY

Ewe liveweight at joining affects the fecundity of Merino ewes (Oldham and Thompson 2004). Kelly and Croker (1990) reported an additional 1.1 lambs per 100 adult ewes per kg increase in ewe liveweight at mating. Condition score, which is correlated with liveweight (Frutos *et al.* 1997; Koycu *et al.* 2008), is also related to fecundity. These relationships suggest that monitoring of the average liveweight of a ewe flock may help producers to make more accurate decisions about feeding management and thus increase ewe productivity.

Mob-based walk-over weighing (MBWOW) is an emerging grazing management tool. It provides the producer with regular estimates of average liveweight and the distribution of liveweights in a mob of sheep. Prime lamb producers may be able to use such information to make better-informed decisions about the nutritional management of ewe mobs to increase fecundity. The aim of this experiment is to determine the economic benefits of using MBWOW technology to optimise grazing management decisions aimed at increasing the fecundity of pasture-fed ewes in a first-cross lamb production system.

The experiment will be replicated in three similar commercial prime lamb production systems for two production seasons and a control mob and a treatment (MBWOW) mob will be assessed in each production system. The hypothesis is that there is an economic benefit in using MBWOW as an aid to ewe management. The control mob will be subjected to grazing management decisions based on traditional paddock appraisal of the animals and pasture. The treatment mob will be subjected to grazing management decisions based on MBWOW data. Decisions will be made at two critical stages of the ewe production cycle: before joining and before lambing. In all cases, decisions will be made for the control flock before the MBWOW data is accessed.

Ewe fertility and fecundity and lambs weaned per hectare will be recorded for all mobs over 2 years. Input costs such as the cost of labour and supplementary feed will be recorded. This data will be incorporated into annual enterprise budgets and economic parameters for the two management systems. The economic benefit of MBWOW as an aid for ewe management in first-cross lamb production systems will then be quantified.

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