

LIFETIME WOOL. 14. PUTTING IT ALL TOGETHER IN THE Paddock

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Lifetime Wool is a national project that is developing profitable ewe management guidelines for woolgrowers across Australia. The project comprises a series of plot-scale research experiments that aim to determine the dose-response of both wool and meat production per hectare in the short term, and the lifetime performance of the progeny in the longer term, to a range of levels of ewe nutrition at different stages of the reproductive cycle (Thompson and Oldham 2004). The project also consists of paddock-scale research in cooperation with woolproducers across the main wool producing regions of Australia, with 15 sites spread throughout WA, VIC, SA, TAS and NSW. These experiments are primarily aimed at confirming results in the paddock are the same as those from the plot-scale experiments, exploring the performance of twins versus single progeny, and developing the management process.

The standard protocol followed by the co-operators has typically involved joining about 1000 mixed aged adult Merino ewes as a single flock. Real time scanning was used to identify single- and twin-bearing ewes conceiving during the first 21 days, and the marked udder method (Davis *et al.* 1981) was used to identify single and twin born lambs. From day 21 of joining, 2 random subsets of the original flock were managed to achieve predetermined liveweight (LW) and condition score (CS) targets, based on monthly measurements of ewe LW and CS, and the quantity and quality of all feeds (fed by hand or on offer in the paddock). GrazFeedTM has been used to assist feed budgeting decisions. The targets were drawn from either the LW/CS profiles of the CS3-3000 FOO or the CS2-1100/1500 FOO treatments from the plot-scale experiments (see Ferguson *et al.* 2004). The quantity and quality of wool produced by the ewes was measured on a random sample of single (n = 50) and twin bearing (n = 50) ewes from each flock, and the reproductive performance of all ewes at their next joining will be measured. The quantity and quality of wool produced by the progeny will be measured on all progeny of each flock for 2.5 years.

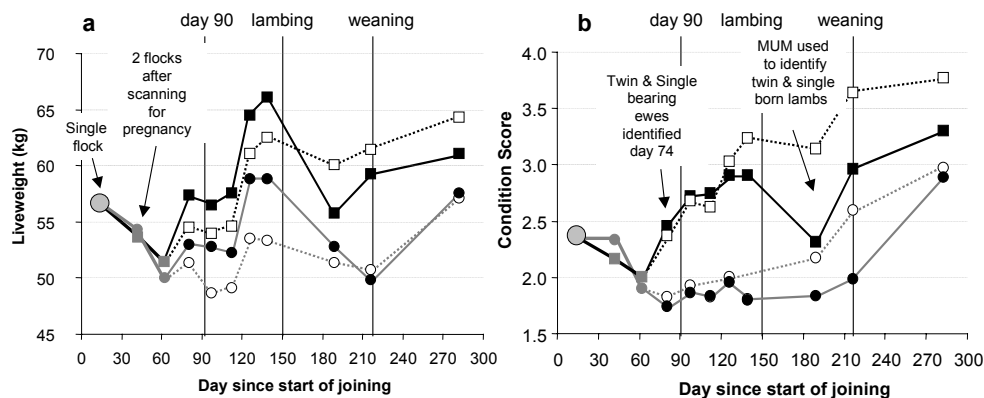


Figure 1. Example of (a) liveweight, uncorrected for wool or conceptus, and (b) condition score profiles for the flocks in the on-farm phase of the Lifetime Wool project - the single (open symbols) or twin (closed symbols) bearing ewes are shown following the CS3-3000 FOO (□, ■) or CS2-1100/1500 FOO (○, ●) profiles from the plot-scale experiments. MUM – marked udder method.

While feed budgeting to achieve pre-determined LW and CS targets is difficult, nonetheless, it can be done successfully (Figure 1).

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