

Monitoring ewe fat score aids management

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Managing ewe fat score to specific targets during the reproductive cycle has clear benefits for sheep production in terms of optimising reproductive performance (Langford *et al.* 2004) as well as wool production and quality (NSW Agriculture 1996). A national project "Lifetime Wool" (Thompson and Oldham 2004) aims to optimise ewe management systems in order to favourably impact on the lifetime wool production and wool quality of the progeny. However, monitoring animal performance and managing feed intake to meet specific fat score targets also allows wool producers to make more strategic management decisions which can improve pasture utilisation. This paper highlights the variability of fat score within a mob of breeding ewes of varying reproductive status in three different environments. This ongoing project is beginning to indicate how this information can be used to improve pasture utilisation and ewe productivity.

Methods

In NSW three Lifetime Wool paddock-scale comparisons commenced with joining in 2004. At each site (Carwoola - Southern Tablelands; Kialami - Northern Tablelands and Oak Hills - Central West Slopes & Plains) approximately 1000 breeding ewes were split at about 21 days from joining into two nutrition groups (high versus low). The nutritional intake of the ewes was manipulated (via pasture availability, stocking rate and supplements as necessary) to achieve a difference of about 1 fat score between the two groups at day 90 of pregnancy with this fat score difference maintained until weaning. Live weights and fat scores of the ewes were recorded at monthly intervals from joining, pregnancy scanning at day 90 identified dry ewes as well as those carrying single or twin lambs and the ewes were 'wet and

dried' prior to weaning to identify those which had reared their lambs.

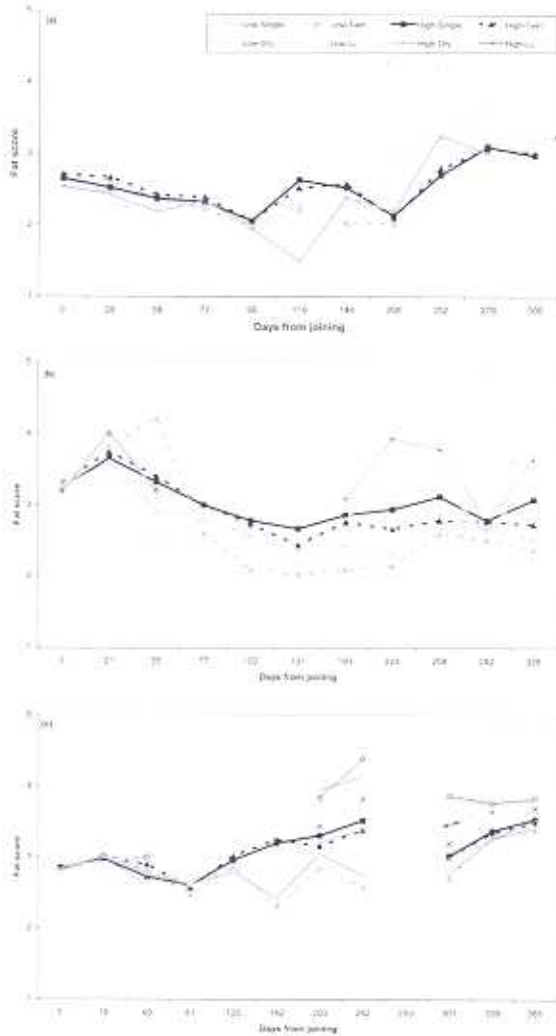
Results

At each of the three sites, the fat score profile varied significantly according to the pregnancy status of the ewe. Ewes with fat scores less than 3 at joining tended to fail to conceive while those with the higher fat scores tended to conceive twins (Figure 1). From about day 200, the fat score of both the dry and lambing and lost ewes increased significantly compared to those ewes rearing a lamb. Following weaning (about day 250) the fat score of all ewes increased significantly, however magnitude of the increase was smaller for the ewes in the low nutrition treatment, particularly those who had reared twins.

Discussion

Both the PROGRAZE™ and Wean More Lambs extension programs recommend managing the condition of breeding ewes to achieve a fat score of 3.5 (range 3 - 4) from joining to mid-pregnancy and a fat score of 3 at the point of lambing. This recommendation allows for good conception and survival of the foetus and provides some tolerance for a loss of body condition prior to lambing without impacting on lamb survival. However, dry ewes and those which failed to rear their lambs to weaning do not require this level of condition. If they remain with the breeding mob they are effectively decreasing the pasture available to the productive ewes with higher feed requirements. Therefore, dry sheep should be drafted from the breeding mob at the earliest opportunity; ideally, dry ewes will be removed at pregnancy scanning and lambing but lost ewes at marking. Once identified and separated from the breeding

Figure 1. Fat score profiles from joining for ewes of various reproductive status (ie dry, single and twin bearing ewes and lambed & lost ewes) subject to either a low or high nutrition regime from day 21 to weaning at (a) Carwoola, (b) Kialami and (c) Oak Hills.



mob, the dry sheep can be utilised in a number of other productive ways. Fat scoring provides a useful management tool for optimising livestock and pasture productivity in self-replacing Merino flocks. This ongoing study is aimed at producing recommendations and confirming how these management changes will also benefit pasture management.

Acknowledgments

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References

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