

STOCKING RATE, LAMBING TIME AND THE PRODUCTIVITY
OF MERINO EWES IN SOUTH WESTERN VICTORIA

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Since 1969, the interaction of rate of stocking with lambing time has been studied as it affects the fertility and wool production of Merino ewes in south western Victoria. The experiment has three rates of stocking (12.0, 15.5 and 19.0 ewes/ha) and two lambing times (September and October) and is replicated in two randomized blocks with a unit cell size of 30 ewes.

The results to date suggest that the relationship between greasy fleece-weight per-ewe and stocking rate is approximately linear with a slope similar to that found with wethers in the same environment. Ewes lambing in October grow approximately 5% more wool than those lambing in September, apparently as the result of generally better nutrition in late pregnancy and lactation. Mean fibre diameter varies by about 1 μ over the range of stocking rates, but in other respects wool quality is unaffected by treatments. ,

Lambing time has not affected fertility although perinatal mortality is greater in flocks lambing during the harsh weather conditions in September than in those lambing in October. The proportion of dry ewes has not been affected by stocking rate but the proportion bearing twins is reduced to about one half to one third as stocking rate increases from 12.0 to 19.0 ewes/ha.

Survival from birth to weaning is inversely related to rate of stocking.

Table 1 presents the mean values over three years for a number of parameters measured in the experiment.

TABLE 1
Results of Experiment (1970-1972)

| Ewes/ha | September lambing | | | October lambing | | |
|--------------------|-------------------|------|------|-----------------|------|------|
| | 12.0 | 15.5 | 19.0 | 12.0 | 15.5 | 19.0 |
| Wool/ewe (kg) | 3.7 | 3.5 | 3.3 | 3.8 | 3.7 | 3.4 |
| % ewes dry† | 5.0 | 5.3 | 7.8 | 4.2 | 6.7 | 5.9 |
| % ewes with twins† | 14.4 | 11.7 | 7.8 | 13.9 | 9.7 | 5.0 |
| % lambs weaned† | 75.1 | 69.4 | 60.2 | 81.4 | 78.6 | 73.3 |
| % deaths of ewes‡ | 2.2 | 3.6 | 4.7 | 2.8 | 4.2 | 6.7 |

† Expressed as % of ewes joined

‡ Expressed as % of ewes present at shearing

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