

GROWTH AND FLEECE PRODUCTION OF ANGORA WETHERS GRAZING ANNUAL PASTURES

B.A. MCGREGOR*

Preliminary results are presented from an experiment examining the influence of stocking rate and mixed grazing with Merino wethers on the liveweight gain and fleece production of Angora wethers. The experiment is being undertaken on annual pastures at Werribee (mean annual rainfall 500 mm). Pastures are composed of annual ryegrass (*Lolium rigidum*), barley grass (*Hordeum leporinum*), silver grass (*Vulpia bromoides*) and subterranean clover (*Trifolium subterraneum* cv. *Bacchus Marsh*). The experiment has three stocking rates, 7.5, 10 and 12.5/ha and three combinations of species; goats alone, sheep alone and goats and sheep mixed in equal numbers. Each stocking rate by species combination has two replicates each of ten animals. The experiment commenced in 1981 and will finish in 1985.

Goats and sheep (6 to 8 months of age) after treatment to remove existing gastrointestinal parasites were grazed together on irrigated pastures, contaminated with known parasite populations, from April to June. During July and August, 5 goats/ha plus 5 sheep/ha were grazed on each experimental plot to equate parasite contamination and pasture selection. Animals were allocated to treatment replicates on fasted live weight (mean fasted live weights were goats 16.7 kg, sheep 28.7 kg) and faecal egg count. Results in Table 1 refer only to 7.5 and 12.5/ha stocking rates. Monitoring of gastrointestinal parasitism, botanical composition and availability of pastures is also being undertaken.

TABLE 1 Mean live weight and clean fleece production of Angora goats and Merino sheep grazed separately or mixed on annual pastures at Werribee

Species	Stocking Rate/ha	Mean live weight (kg)			Clean fleece (kg) Aug 81 - Aug 82
		17/11/81	15/3/82	17/8/82	
Goats alone	7.5	28.0	24.5	27.5	1.86
	12.5	28.6	22.0	24.5	1.69
Goats mixed	7.5	27.1	23.8	27.9	2.12
	12.5	28.5	22.2	20.9	1.55
Sheep alone	7.5	42.3	34.7	46.0	3.33
	12.5	41.3	30.2	35.8	2.59
Sheep mixed	7.5	41.5	34.5	48.5	3.33
	12.5	42.8	31.7	38.1	2.92

Differences in live weight or fleece growth between stocking rates did not appear until February 1982. Pasture availabilities were similar until December 1981 but treatment effects then became apparent. The pattern of liveweight change was similar for both species. Sheep grew approximately 70% more clean fibre than the goats. Significant increases in wool production ($P < 0.01$) were recorded when sheep were grazing with goats at 10 and 12.5/ha compared to sheep grazing alone. Nonsignificant increases in mohair production were recorded from goats grazing with sheep at 7.5 and 10/ha compared to goats grazing alone. Medullated fibre content of mohair increased with heavier stocking from 2.98% at 7.5/ha to 5.11% at 10 and 12.5/ha. Pastures grazed by goats at 7.5 and 10/ha showed an increased incidence of subterranean clover.

Financial support from the Reserve Bank's Rural Credits Development Fund is gratefully acknowledged.

* Department of Agriculture, Animal Research Institute, Werribee, Vic. 3030.