

CASHMERE PRODUCTION, CASHMERE FIBRE DIAMETER AND LIVWEIGHT OF
SELECTED WETHER GOATS

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Information on cashmere production from Australian goats is based on genetic programs with unselected feral goats (Restall 1982) and on production of feral does selected for cashmere production and their progeny reared under commercial grazing conditions (Couchman and McGregor 1983). There are no published data on production of cashmere from wether goats. Goat breeders and potential goat farmers need to know if wether goats culled from breeding programs should be kept or purchased for cashmere production or slaughtered for meat. This study reports the cashmere production of selected wether goats following their culling from a commercial breeding program.

Wether goats were purchased from a southern Victorian cashmere breeder whose flock was based on selected feral does. The breeder had undertaken further culling and begun breeding to improve cashmere production. From the spring drop of 520 kids and following the selection of 30 buck kids for breeding purposes, 50 white wether kids were selected (Couchman and McGregor 1983). After the second shearing this number was reduced to 45 and represented the 10 to 30 percentile of cashmere production in the wether portion of the flock. Goats were shorn in June each year and also in summer in years 1 and 2. Total fleece samples were tested for cashmere content and cashmere fibre diameter (Australian Wool Testing Authority). Liveweights midway during the cashmere growing season are presented (Table 1). Data from 3 goats whose fibre diameter was $>19 \mu\text{m}$ were excluded from year 3. Three goats died during the last year of the study.

TABLE 1. Mean liveweight, cashmere production and cashmere fibre diameter of selected wether goats (\pm SD)

Observation	Year 1	Year 2	Year 3
Liveweight (March) kg*	19.6 (2.4)	29.2 (3.8)	43.4 (4.1)
Cashmere weight g	204 (44)	217 (93)	145 (49)
Cashmere fibre diameter μm	16.6 (0.7)	17.1 (0.8)	17.5 (0.7)

* Liveweight year 4 52.0 ± 7.6 kg.

Cashmere harvested in summer represented 26% of the cashmere produced in years 1 and 2. As shearing cashmere goats twice instead of once increases production 30% (McDonald 1987) and nutritional management in year 3 allowed a 14 kg liveweight gain, the most likely explanation for reduced cashmere production in year 3 is reduced shearing frequency. The average cashmere production during the period of measurement was 190 g at $17.0 \mu\text{m}$. This suggests that wether goats culled from breeding programs have potential for commercial cashmere production.

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