

AN EVALUATION OF THE CASHMERE AND CASHGORA FLEECE CHARACTERISTICS OF FAURE ISLAND GOATS

B.A. McGREGOR^A, F.H. MOYLAN^B, B.E. BELL^B and C.C. BELL^B

^AVictorian Institute of Animal Science, Dept of Agriculture, Werribee, Vic. 3030

^BFaurè Victoria, Kawalla, RMB 7248, Mockinya via Horsham, Vic. 3400

Clarke (1976) evaluated the fibre type of feral goats from Faure Island (25°51'S,113°53'E) for commercial mohair production and concluded that the dense undercoat with mean fibre diameter (MFD) > 1 S µm resembled cashmere. Evans (1980) suggested that Faure Island goats may be descended from cashmere-Angora goats imported from France. Since this time there has been considerable discussion and some controversy over the quality and classification of strong cashmere and cashgora and the role of crossbreeding in the cashmere industry (McGregor 1991). Textile demand exists for strong cashmere (18-20 µm) and cashgora (18-23 µm, Moylan and McGregor 1991). Our research aims to estimate heritabilities of the major determinates of fleece value of Faure Island goats. This paper documents the production and characteristics of fleeces from the Faure Island base adult doe flock.

In 1986, the first of 3 annual shipments of goats from the arid Faure Island arrived in Western Victoria. In 1989 the goats were relocated to annual pastures near Horsham (36°59'S,142°08'E). Goats were shorn in July 1990, February and July 1991 (mean age 4 years). Pasture germination occurred in May 1991. In 1991, fleeces were weighed and samples representing the entire fleece were taken. Fibre style (cashmere, cashgora, superfine mohair) was visually assessed using industry standards. One weighted sample was prepared and tested at the Australian Wool Testing Laboratory, Sydney for cashmere (down) yield and down MFD using the FDA 200 with no fibre diameter cut-off.

Table 1. Mean, standard deviation (SD) and range in 1991 fleece production, fleece quality and liveweight of adult Faurè Island does grazed on annual pastures in Western Victoria (n = 170)

| Character | Mean | SD | Range |
|-----------------------------------|-------|------|-----------|
| Total fleece weight (g) | 682 | 185 | 275-1270 |
| Down yield (%w/w) | 62.2 | 10.8 | 22.7-79.6 |
| Total down weight (g) | 437 | 159 | 94-836 |
| Mean down fibre diameter (µm) | 23.2 | 2.23 | 19.4-29.0 |
| SD (µm) | 5.80 | 0.84 | 3.29-8.23 |
| CV (%) | 24.97 | 2.53 | 16.6-31.5 |
| Fleece length (February+July, cm) | 17.3 | 3.4 | 6.5-24.5 |
| Liveweight December 1990 (kg) | 30.1 | 5.4 | 18.5-44.0 |

Fleeces from these adult does were predominately cashgora style (84%) with some cashmere style (4%) present. Despite acclimatisation and seasonal nutritional stresses these goats produced significant quantities of down (Table 1). Since 1991 experience in management, culling of broken mouth does and selection has improved production, quality of down and reduced down diameter. The results show that sufficient variation exists in the farmed population of Faure Island goats which should enable effective selection to improve the production and quality of strong cashmere and cashgora.

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