

THE FINE WOOL FLOCK AT ROSEWORTHY

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Traditionally, medium to strong wool (22-26 micron) has been produced in the Mediterranean climate of South Australia, where Merino sheep are typically plain bodied, with open faces, and of large frame. There has been an industry perception that only such sheep can profitably produce in the harsh South Australian climate. In the last 10 years the average micron of wool produced in South Australia has been 1 to 3 microns broader than the national average which ranged between 21 and 22 micron during that period (ABARE 2002).

The Fine Wool Flock (FWF) was established in 2000 by The University of Adelaide and the Sheep Industries Development Centre at the Roseworthy Campus. Four hundred and twenty six Finewool ewes born in 1995 and 1996 were purchased from Western Australia. Table 1 shows the results from the 2001 shearing for greasy fleece weight (GFW), clean fleece weight (CFW), yield (Y), fibre diameter (FD), coefficient of variation of fibre diameter (CVFD), staple strength (SS) and staple length (SL).

Table 1. Results from the 2001 autumn shearing

	GFW (kg)	CFW (kg)	Y (%)	FD (micron)	CVFD (%)	SS (N/ktex)	SL (mm)
Mean	4.0	1.9	48.7	18.9	21.7	38	78

In 2001 the ewes were artificially inseminated with semen from fine wool sires sourced from New South Wales, Victoria and South Australia. Two of the sires link the Fine Wool Flock to Central Sire Evaluation.

A major aim of the Roseworthy FWF is to demonstrate that fine wool sheep can be run as a profitable component of a cropping enterprise in the environment in question. Since its establishment, the FWF has been integrated with the Selection Demonstration Flocks (SDF). The SDF project is evaluating the genetic progress achieved by different selection methods, namely, objective measurement, professional classer assessment, and 'elite wool' approach (Ponzoni *et al.* 2000). In the FWF selection and mating decisions are made by a committee of industry members who represent the three above mentioned selection methods. An important aim in this process is to find as much common ground as possible among the approaches.

The breeding objective, in broad terms, has been defined as 'improving the profitability of fine wool sheep in this environment' and it includes the following traits: CFW (maintain), FD (reduce), CVFD (maintain or reduce), SS (maintain or increase) and live weight (maintain). Faecal egg count, yield and reproductive rate will be monitored and will be a target of improvement through management.

The inclusion of the Fine Wool Flock in the SDF project opens opportunities for communication among supporters of the different approaches. It encourages an exchange of ideas that can culminate with the development of selection options which better satisfy advocates of all approaches, and might result in widespread adoption in the Australian Merino sheep industry.

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ABARE (2002). *AgSurf*, <http://www.abare.gov.au>.

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