

**GROMARK SOCIETY OF AUSTRALIA  
A STRUCTURE FOR APPLYING A BREEDING PLAN TO SHEEP**

ARTHUR GODLEE  
P.O. Box 397, Tamworth 2340 ("Marengo", Daruka Road, Tamworth)

**BACKGROUND**

The project was commenced by the author in 1965 on hill country in the Tamworth district of New South Wales. (Godlee 1979)

Corriedale ewes and Border Leicester rams were crossed and then interbred using a fast turnover of sires. The outstanding lamb production of this first cross ewe has recently been cited by Spiker et al. (1987)

The New Zealand breed the Borderdale, is the same cross and selection is also based on measured production. This cross while not common in New South Wales has been quite popular in parts of Victoria. An attempt was made in the 1950s by the New South Wales Department of Agriculture to develop a breed from the successful Border Leicester X Merino but this was eventually upgraded towards the pure Border Leicester which is now known as the "Glenvale".

The objective was to develop a combined measurement and visual quality system to produce a competitive self-replacing prime lamb breed. (Godlee 1978)

A breeding plan was developed and selection pressure is applied through live weight and greasy fleece weight gradings. Type of birth is required for adjustment of weaning weight and twin born sires are preferred.

To reduce cost in the long development phase, the reproductive performance of individual ewes was generally not pursued to any degree and most of the measurement was applied to rams.

## BREED SOCIETY

Following the successful trial of the breed by several producers, a breed society was formed in 1969. While the general structure is similar to other breed societies, the philosophy and approach is different. (Godlee 1981b) Competitive showing is not allowed, a composite judging system using verifiable production gradings was recently considered but rejected by members.

Breeders wishing to produce stud grade rams are required to obtain date and type of birth, adjusted weaning weight, greasy fleece weight and also yearling weight and fat class through the Meatsheep Testing Service (New South Wales).

A comprehensive recording system with options is being developed (Piper 1986) which will provide an index of economic productivity. This should improve the genetic gain from the existing measurements. Lambplan will eventually provide this type of service.

Stud grade rams have to meet specified within-flock production gradings and also have to be visually acceptable for the usual factors before a tattoo is applied. The flock book (1981) provides the usual stud histories showing the infusion of new genetic material. Pedigrees are not provided, but each stud sire used has his production record after his number.

## GENE POOL

The gene pool is kept open by generous grading up provisions. Ewes are visually classified and tattooed into two categories:- Stud ewes or appendix ewes.

The approach also allows the creation of sub strains and flocks incorporating the Booroola gene and four teated ewes are being developed.

## EXTENSION OF THE MEASUREMENT CONCEPT

The Society gives flock members equal status to stud members. All members are supplied with the manual "Breeding Gromark Sheep" (Godlee 1981) which explains the approach, the genetic rules, the development of the breeding plan and a step by step guide to taking and processing the measurements.

An occasional newsletter is also produced and a field day and ram sale is held in conjunction with the annual general meeting. Displays have been mounted at several major field days and shows. Some breeders are involved in the annual multibreed Objectively Measured Meat-sheep ram sale held at Uralla, New South Wales (O'Halloran 1988).

## RESULTS

Flocks are not numerous, but breeders are satisfied with their performance under a wide range of climatic conditions. Although specific comparative figures are scarce, it can be said that the breed is large (ewes 80kg, rams 100kg) and consequently, leaner at a given weight (Lollback 1988a and 1988b). If ewes are in good condition at mating, a high percentage (70) of multiple births ensue.

Growth rate is comparable with terminal sire breeds. Wool returns are comparable with crossbred ewes. The first cross with the Merino is noted for its outstanding wool.

The breed displays a minimum of lambing difficulty even when joined with other breeds, this characteristic being part of its overall easy care profile. Because of its basic breeding and selection for weaning weight, the breed should be suitable for milking for cheese production.

## PROBLEM OF ACCEPTANCE

Initially, a new breed based on measurement attracts the small percentage of producers who are innovative enough to appreciate the concept. However, because until recently, all livestock trading and selection was based on straight visual appraisal, the going gets tough from here on. This is made more difficult because the committed people tend to not overfeed their animals in keeping with their overall approach to animal production.

The whole system consisting of producers, fat and store stock buyers and agents tend to either ignore or quietly denigrate the usurpers who are trying to change the set order of things that have been continuing happily for many years. Producers are least blameworthy as to be different can be an expensive and lonely experience.

## COMPETITIVE SHOWING

While the scientific community generally considers showing as some sort of joke, no one should underestimate the depth that showing has become imbedded in the livestock producer's psyche. We have not publicised the fact that we are the first Australian breed society to ban competitive showing because of the incredulous response we receive. Newspapers have virtually refused to print such a scurrilous piece of information.

## COST OF MEASUREMENT

Current prices of rams are not high enough to carry the cost of providing full production information. Methods are urgently required to obtain meaningful figures without the need to tag lambs at birth.

I think the advantage of the measurement approach is not so much the modest annual genetic gains that are theoretically possible, but the fact that it enables a sound breeding plan to be specified which should result in an improvement in productivity over time. It follows that, perhaps more effort should be given to devising effective minimum measurement systems rather than increasingly sophisticated and expensive schemes.

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