

COMPARING PELT QUALITY FROM LAMBS OF DIFFERENT SIRES AND SIRE BREEDS*I.P. CAMPBELL^A, A.F. HOPKINS^B and P.A. KENNEY^C*^A Agriculture Victoria, Colac District Office, Colac, Vic. 3250^B Austrade, Southgate, South Melbourne, Vic. 3205^C Agriculture Victoria, Rutherglen Research Institute, Rutherglen, Vic. 3685

The quality of Australian fellmongered sheepskin pelts varies widely. The highest valued pelts come from crossbred lambs, which tend to be flatter and stronger than the Merino influenced skins. Two detrimental characteristics of a portion of Australian sheepskin pelts are pinhole and ribbiness. Pinhole cannot be detected until after the skin has been fellmongered, and is a series of large pores in the pelt which detract from the leather quality if a grain finish is required. Pinhole appears to be related to primary and secondary follicles coming out as a plug during the fellmongering process (Passman and Dalton 1982). Rib is the skin wrinkle regarded as being due to the Merino influence.

The aim of this trial was to examine lamb pelts from known genetic background for pinhole and rib faults. Pelts from lambs sired by different sires of the same breed and different breeds were examined to determine if these faults are traits that could feasibly be selected against.

Skins from the Central Progeny Test lambs, where 28 rams representing 13 different breeds were individually joined to a random sample of BLMx ewes, were used in this trial (Kenney and Gaunt 1995). These lambs were slaughtered at commercial ages and the individually identified skins were fellmongered. Afterwards the resultant pickled pelts were assessed visually for pinhole and rib by an experienced pelt grader. Skins were graded as sound or downgraded for pinhole or rib fault.

Table 1. The range in the percentage of pelts downgraded for either pinhole or rib in pickled lamb pelts from lambs of different sire breeds

Breed (no. of sires represented)	Pinhole (%)	Rib (%)
Poll Dorset (14)	9.5-65.5	0 -50.0
U.S. Suffolk (2)	20.0-28.6	0 -3.3
Texal (2)	16.0-20.8	8.0-8.3
Other Breeds (10)	0 -27.8	0 -11.5

Of the 524 pelts examined 123 (23.5%) had pinhole fault. This is consistent with anecdotal evidence given by Australian fellmongers for second cross lambs, equating to an overall annual loss to the industry of around \$6 million.

There was considerable variation in the quality of pelts from different sires, and the heritability of pinhole was 0.4. (Harvey's mixed model least squares) This indicates that whilst there may be some difference between breeds, there is a large difference within breeds. It is not likely that the breed of terminal sire in itself will be of use in predicting the incidence of pinhole fault. Pinhole is something that could be selected against if the appropriate incentive was there. If this was to be a selection criterion for terminal sires there would need to be a direct way of identifying the sires which do not carry the pinhole problem. Such a marker is not yet known and progeny testing such as this is required.

The incidence of rib was somewhat less, at 8.2%, and was all only light or blind rib. This again was consistent with industry sources as a normal level of rib present in second cross lambs. The heritability is only 0.1, a low value which makes it hard to work on with regard to selection.

We thank Roy Verner of AMT for the pelt grading and Castricum Brothers Export for allowing us to conduct this trial on their premises, in particular Peter Castricum, Ray Vinton and Darren Vinton.

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