

# CARCASE CONFORMATION AND LEANNESS OF SECOND CROSS LAMBS FROM SIRE IN A CENTRAL PROGENY TEST

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Overseas work has identified that Texels provide lean, meaty and heavy lamb carcasses (Clarke *et al.* 1988). They have recently been imported for use as terminal sires in the Australian prime lamb industry for the purpose of satisfying consumer demand for lean, meaty lamb (Hopkins *et al.* 1986). This paper compares conformation and leanness of second cross lambs sired by selected rams from various breeds used by the prime lamb industry in Australia. Particular focus is on Texels, given the limited information available on the performance of this breed under Australian conditions.

Data from the Central Progeny Test (Banks *et al.* 1995) conducted in 1994 at Rutherglen Research Institute were used to compare 13 Poll Dorset sires with 14 sires representing 12 breeds (Table 1). Since individual sires were selected by studmasters as being superior within their stud, generally on the basis of LAMBPLAN figures, they represent some of the elite genetics available within the national flock for that breed. Each sire was mated to 34 Border Leicester x Merino dams. The resultant progeny (585) grazed together until weaning, after which the ewes and cryptorchids were separated and slaughtered when they reached a mean liveweight of 40 kg and 50 kg respectively. Following slaughter, GR tissue depth was measured and conformation subjectively assessed by an experienced carcass assessor. For analysis, GR tissue depth was adjusted to constant carcass weight of 20 kg. A conformation score of 1 - 7 (1 = poor, 7 = good) was given for each lamb using the following criteria: a) hindleg/chump: muscling, length and width and butt shape b) loin: width and fullness and c) forequarter: width and flatness across blades, muscling and rib shape. There was no interaction between sire and sex.

**Table 1. Conformation (1 = poor, 7 = good) and GR tissue depth (mm) for different sire breeds**

Sire breed	Total lambs	Total sires	Conformation		GR (mm)	
			Mean	Range	Mean	Range
Poll Dorset	266	13	4.2	3.9 - 4.5	10.6	9.6-11.8
Texel	53	2	4.7	4.5 - 4.9	8.9	8.6-9.1
South Hampshire Down	18	1	4.4	4.4	10.7	10.7
Jonesdale	28	1	4.3	4.3	10.4	10.4
American Suffolk	15	1	4.2	4.2	9.3	9.3
Hampshire Down	9	1	4.1	4.1	11.0	11.0
White Suffolk	57	2	4.1	3.8 - 4.4	10.2	9.8-10.5
Dorset Horn	17	1	4.0	4.0	12.2	12.2
Dorset Down	21	1	4.0	4.0	12.8	12.8
Coolalee	41	1	3.8	3.8	10.8	10.8
Wiltshire Horn	16	1	3.8	3.8	9.6	9.6
Romney	13	1	3.7	3.7	10.1	10.1
Finn	31	1	3.3	3.3	9.2	9.2

Compared to sires from other breeds currently used in Australia, Texel sires produced second cross lambs which had lower means for leanness and higher or equal means for conformation. Whilst wider investigation of the overall potential of Texel genetics for prime lamb production is needed, the current results indicate Texels have the potential to improve the genetics of the Australian prime lamb industry for carcass attributes which satisfy current market requirements.

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