

EFFECTS OF CASTRATION AND AGE ON CARCASS COMPOSITION OF MALE LAMBS

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Ram lambs produce leaner and heavier carcasses than wethers and their growth rate is also more rapid. However, castration makes males less aggressive and eliminates unwanted pregnancies.

In Tasmania, male and female prime lambs are mostly managed as one group and slaughtered at 3-6 months old. In this experiment Border Leicester x Polwarth male lambs were either castrated or left entire, and grazed on highly improved pasture on the north-west coast. Live animal and carcass data were collected around slaughter at about 4.5, 6.5 or 9.5 months of age.

Every 6-8 weeks lambs were weighed, condition scored (lean to fat, 1-15 arbitrary units) according to a modification of the method by Jefferies (1961). Shortly after slaughter carcass weight, GR*(110 mm from midline on 12-13th rib), hot dressing % (carcass wt./live wt. x 100) and eye muscle area (length x width x 0.8) were also measured. Results are presented in Table 1.

Table 1 Mean live animal and carcass values of ram (R) and wether (W) lambs

Age at slaughter (months) Type of animal No. in group	4.5		6.5		9.5	
	R	W	R	W	R	W
	25	25	26	26	26	26
Live weight (kg)	28.66	27.80	35.22	32.94 ^b	40.91 ^a	35.55 ^b
Cond. score (arbit. units)	4.86	5.32	5.48 ^a	6.44 ^b	7.75	8.13 ^b
Hot carcass wt. (kg)	12.10	11.82	14.76	14.56 ^b	18.13 ^a	16.02 ^b
Hot GR (mm)	5.68	5.92	8.62 ^a	11.46 ^b	10.50	11.76
Hot dressing %	42.06	42.34	41.90 ^a	43.99 ^b	42.50	43.25
Eye muscle area (mm ²)	-	-	1100 ^a	1005 ^b	1280 ^a	1171 ^b

Unlike superscripts within age & trait indicate significant differences (P<.05)

When live weights of all remaining animals were compared prior to slaughter at 6.5 months of age, ram lambs were significantly heavier than wethers ($35.50 \pm .65$ and $32.39 \pm .66$ kg; $P<.001$). At this time, ram lambs were leaner than wethers as assessed by condition score, and in the carcass by hot GR or hot dressing %. Ram lamb carcasses also contained more eye muscle than wethers. At 9.5 months the live weights, hot carcass weights and eye muscle areas of ram lambs were significantly greater than wethers.

There appears to be a financial benefit to producers in leaving male lambs entire if they are sold on the basis of live weight (but not hot carcass weight) at or before 6.5 months old. If payment was based on lean tissue production, entire males would attract a further premium at, or possibly before this age.

Jefferies, B.C. (1961). Tas. J. Agric 32:19.

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* GR= total tissue thickness at site indicated - Ed.