

THE RANKING OF MEAT QUALITY FACTORS BY ABATTOIR PERSONNEL

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The Meat Research Corporations' Prime Lamb Program, which aims to increase the amount of large lean lamb reaching high value markets (McLaughlin 1992) has involved each sector of the marketing chain. Of these, least was known about the processing sector, particularly with respect to the importance placed on different meat quality characteristics. Such information is essential so strategies can be developed which increase the sale of high quality lamb meat.

Thirty processors throughout New South Wales and Victoria handling approximately 75% of south-east Australia's lamb kill were surveyed and their management personnels' ranking of 7 meat quality characteristics obtained. This was assessed by using a card system where staff selected and ranked the 3 most important characteristics to their operation. Additionally each interviewee was asked whether they considered lamb had a problem with toughness and if so what caused the problem.

Meat colour, fat levels and tenderness were the most highly ranked (Table 1) and of these the first 2 were also given a strong second ranking. Since retailers rank meat colour and fat levels highly (Jackson *et al.* 1992), and these characteristics are easily assessed they provide immediate feedback to processors as to the suitability of the carcasses and processors choices reflect this. Alternatively tenderness, juiciness and texture can only be assessed by the end consumer after cooking, and as such, comments back to processors from consumers through retailers will be delayed and may in fact never be received.

Table 1. Importance of meat quality characteristics ranked by abattoir personnel

Factor / Ranking	1	2	3	Total
Meat colour	17	10	3	30
Fat levels	11	11	4	26
Tenderness	6	4	11	21
Juiciness	2	4	3	9
Fat distribution	1	2	2	5
Meat texture	1	3	7	11
Fat colour	-	4	6	10

Of the processors 14 believed lamb did have a problem with toughness and the suggested causative factors in order of importance were, nutrition of the lamb pre-slaughter, age of the lamb, stress, breed, time between slaughter and consumption and chilling times. Thus processors attributed the major reasons for toughness, to on farm factors and not factors such as a lack of ageing or inappropriate chilling regimes, the usual reasons for toughness (Hopkins and Kajons 1993).

It is our contention that processors have the means to control those factors which were most highly ranked namely meat colour, fat levels and tenderness by reducing pre-slaughter stress and upgrading chilling methods, purchasing leaner lambs and using electrical stimulation and controlling chiller temperature. The results indicate that there is a need to educate processors about what affects lamb meat quality and how to improve the quality of the product they purchase and sell. Concise technical information has since been provided to these processors (Hopkins and Kajons 1993).

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HOPKINS, D.L. and **KAJONS, A.** (1993). "Processing and Retailing of Large, Lean Lambs", (Ed P. Lucas) pp. 1-13 (Meat Research Corporation: Sydney).

JACKSON, W.J., PIRLOT, K.L. and **HOPKINS, D.L.** *Proc. Aust. Soc. Anim. Prod.* **19: 172.**

McLAUGHLIN, J.W. (1992). *Proc. Aust. Soc. Anim. Prod.* **19: 173-5.**