# SPECIFICATIONS OF LAMB CARCASES PRODUCED IN NSW AND RETAIL PREFERENCES

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#### SUMMARY

Specifications of lamb car-cases from 3 NSW domestic abattoirs representing 988 405 lambs slaughtered in 1994-95, together with the results of a survey of 44 Sydney retail butchers, are reported. Of the lambs slaughtered, 39.5% were fat score 2 and 77% fat score 2 or 3. Retailers preferred to have 59% of their lamb carcases fat score 2 and 97% fat score 2 or 3. The most preferred retailer specification was 18 to 20 kg, fat score 2 with 24.4% of lamb carcases in this category. Only 9.2% of the production from the 3 abattoirs met this specification. Wholesalers of lamb carcases would like to see a discount of 21% for lamb carcases that are fat score 4 and 5 compared to fat score 2 and 3 carcases.

#### Keywords: lamb, carcase specifications, fat, marketing

# INTRODUCTION

There is an increasing need to reduce fat levels in Australian lambs because lamb cuts are perceived as too fat according to most consumer surveys (e.g. Hopkins and Congram 1985; Anon. 1994a; Anon. 1994b). Consumers see only the final lamb product, that is lamb meat in various cuts or in prepared meals. By this time, some or all of the external fat has often been removed and there is no information available to indicate the type of carcase from which the lamb product was derived. Programmes to measure and record the weight and fat of individual lamb carcases have been implemented by the Australian Meat and Livestock Corporation (AMLC) and the Meat Research Corporation (MRC) since 199 1. By 1995, approximately 45% of Australian lamb carcases had this information supplied on a ticket attached to each individual carcase (J. Wotton, pers. comm.). This has allowed retailers to order lamb carcases based on weight and fat measurements and has improved their knowledge of the specifications of carcases they consider most suit their customer needs. Simultaneously, the collection and analysis of weight and fat data on lamb carcases has defined the specifications of the types of lambs being produced.

We surveyed a number of domestic abattoirs and retail butchers in New South Wales to determine whether the preferred carcase weight and fat specifications of retail butchers were being met. Additionally, a survey of the price discount that selected lamb carcase wholesalers would like to offer their supplier for over fat lamb carcases is reported.

### MATERIALS AND METHODS

Forty-four Sydney retail butchers were surveyed to determine their preferred weight and fat level of lamb carcases. The butchers selected all had some association with the MRC funded Prime Lamb Programme (McLauglin 1992; Hall et al. 1994b) and none were associated with supermarkets. They had all ordered lamb carcases on the basis of weight and fat specifications on tickets and were familiar with the 5 fat score units (1 being the leanest and 5 the fattest) or the associated GR measurement (total tissue depth, 110 mm from the mid line of the car-case over the 12th rib). They were asked the question "Given an unlimited supply of lambs of any weight and fat level, what is your preferred weight and preferred GR or fat score of lamb carcases to meet your customer needs". The retailers were encouraged to nominate more than one specification if their requirements varied with consumer demand. Half the interviews were conducted in person and the others by telephone.

In 1994-95 the number of lamb carcases in each weight and fat specification, including the proportion with Elite lamb specifications (carcase >22 kg, GR 6 to 15 mm) was recorded for Cowra, Canberra and Tamworth Abattoirs, a total of 988 405. These abattoirs supply an estimated one quarter of the Sydney and Canberra markets. The carcases from Tamworth were trimmed to AUS-MEAT standards while those from Cowra and Canberra had kidneys, kidney fat and skirt retained, approximately 5% of the total carcase weight. GR tissue depth was measured using the AUS-MEAT sheep probe, (Cabassi 1990) the

results from which have been shown to be closely related to the GR measurement obtained manually (Hopkins et al. 1995).

To assess how the actual supply of lamb carcases corresponds to the preferences of the retailer, the differences between the actual and preferred for each specification were obtained.

In most cases the retailers surveyed were supplied by 1 or more lamb wholesalers. To ascertain their preferences for different lamb carcase types, 10 of these wholesalers, who supply approximately 45% of Sydney retailers, were interviewed. They were asked the same question as the retailers regarding preferred lamb carcase specifications (not reported here) and the amount they would like to discount or actually do discount their purchase price of all lamb carcases over fat score 3 compared to fat score 2 and 3 lamb carcases.

#### RESULTS

The average carcase weight and GR preferred by retailers were 19.0 kg and about 10 mm respectively. Preferences were for 68% of carcases to be over 18 kg and 59% to be fat score 2, 38% to be fat score 3 and 1% to be fat score 4 (Figure 1).

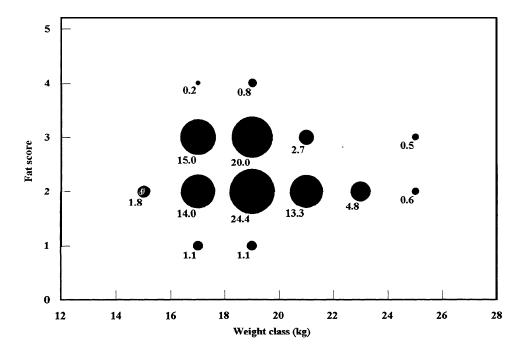


Figure 1. Survey of retail butchers' preferences for weight and fat specifications of lamb carcases (%)

Actual production from the abattoirs was 39.5% fat score 2 carcases, 37.5% fat score 3 carcases and 11.3% fat score 4 carcases. Overall 5.2 % of lamb carcases (Figure 2) met Elite lamb specifications. The weight class 16 to 18 kg had the largest number of lamb car-cases.

The differences between Figure 1 and Figure 2 show where there are surpluses and deficits of lambs in each weight and fat specification. There was a large deficit in available lamb carcases for the 18 to 20 kg fat score 2 specification, the most preferred specification, such that retailers may be able to obtain only 38% of their preferred numbers. This assumes the 44 retailers surveyed were representative or all retailers supplied by the abattoirs. There was also a deficiency in supply of carcases with fat score 2 in the 20-22 kg and 22-24 specification and fat score 3 in the 16-18 kg and 18-20 kg specifications. Other specifications have a greater percentage of lambs available than preferred by the retailers.

The average discount that the lamb wholesalers would like to offer their suppliers was 21%. The values for each of the 10 wholesalers were 3 at 0%, 3 at 20% and the other 4 at 25, 27, 33 and 60%.

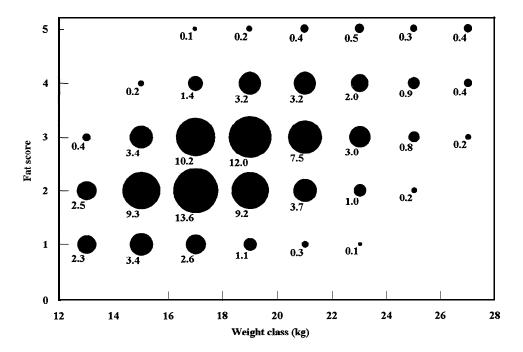


Figure 2. Survey of actual weight and fat specifications of lamb carcases from 3 NSW abattoirs in 1994-95

## DISCUSSION

The 2 surveys highlighted that lamb car-cases available from domestic processors in NSW do not adequately supply the specification of carcase preferred by discriminating retail butchers in Sydney. The large deficiency in lamb car-cases in the 18 to 20 kg, fat score 2 specification cannot be replaced by carcases from the adjacent 8 specifications. Three of these other specifications also had deficits and 2 had matching demand and supply. The 'surplus' lamb carcases in the 20 to 22 kg fat score 3 specification are part of a specification preferred by the food service sector. This sector is estimated to be 10% of total domestic lamb consumption (Anon. 1994c) and would thus seek many of the lambs preferred by retail butchers. While there are surplus carcases of fat score 1, there is limited demand for these (Figure 1). Supermarkets in Australia, which sell nearly half the domestic lamb carcases, usually also specify carcases over 17 kg and fat score 2 and 3. Although NSW imports lamb carcases from interstate, there is no evidence to suggest that these have any different specifications from those produced within NSW.

Other information indicates that the average Australian lamb carcase weight is 18 kg (Anon. 1994d) with an average GR of 11.3 mm (Anon. 1994e), values consistent with those reported here. Also, the distribution of carcases across all specifications is similar to data from 2 NSW domestic abattoirs surveyed in 1992-93 (Hall *et al.* 1994a).

Ultimately the deficit of lamb carcases in some specifications will be supplied only when value based marketing becomes widespread and production procedures are modified. The average discount of 21% that the wholesalers would like to impose on their suppliers for over fat carcases would seem to be an appropriate value to ensure price signals for fat are transmitted. Additional questioning revealed that 1

of the wholesalers who nominated no preferred discount, **enly** buys the cheapest lamb **carcases** and the wholesaler that nominated 60% discount rarely gets car-cases over fat score 3 because of this indicative purchasing policy.

The challenge of the lamb industry is to have as many car-cases meeting desired specifications as possible. With the increasing use of weight and fat specifications to trade lamb car-cases, value based trading systems can be introduced into the lamb and lamb supply chain. These systems require information on the quality measurements desired by consumers, the monetary value consumers place on such measurements, and appropriate measurement systems. The data presented here, together with yield data from lambs of different specifications (eg Hopkins *et al.* 1995), could be used to determine discounts or premiums for lambs with different specifications. The final stage of a value based marketing system involves linking this information so that financial signals for quality can be passed back through the marketing chain.

# ACKNOWLEDGEMENTS

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