Structural Change in the Australian Lamb Industry

Terence Farrell
NSW Agriculture
P.O.Box 991.
Armidale NSW 2350.

Abstract

Retail market share for lamb has declined relative to beef, pork and chicken. Altered eating habits and new competitors such as fast food have eroded market share further. The export sector has expanded while the domestic sector has declined. The food service sector of the domestic industry has increased substantially during the past two years. The retail sector has contracted due to price competition from supermarkets and chain stores which continue to use lamb as a loss leader.

Traditional selling systems based on subjective quality descriptions are being replaced by grid pricing and forward contracts which reward industry participants who supply to specification. Producer marketing groups have formed strategic alliances with wholesalers, retail groups and food service suppliers to secure high value, low volume markets.

A contributed paper presented to the 39th Annual Conference of the Australian Agricultural Economics Society, University of Western Australia, February 14-16, 1995.

1. Introduction

Measurement of structural change within primary industries has almost become a science within itself as models have increased in complexity during the past decade. Unfortunately simplistic model structures are often discounted in favour of highly manipulated models which provide the correct signs etc, but are of little practical use in further applications to the same industry due to changes in data formation, new technology and operating procedures. No attempt has been made within this paper to measure the extent of structural change within the Australian lamb industry. The author endeavours to provide a practical understanding of developments which have occurred within the lamb industry during the past five years. The lamb industry is experiencing a very dynamic stage in its development and it is very possible that it will to continue to change more during the next two years.

2. Background

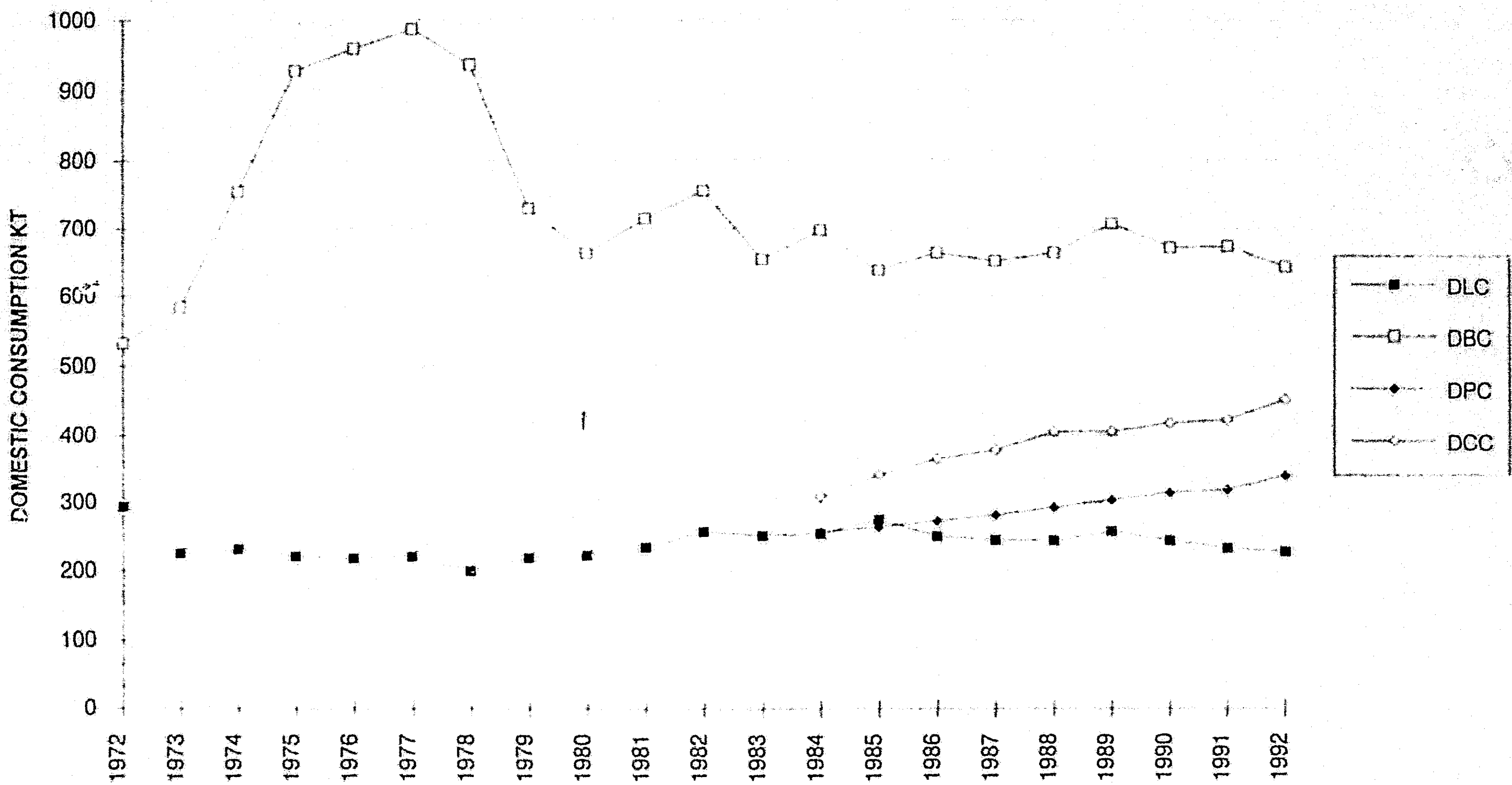
Retail lamb prices have increased by approximately 10 per cent during the fiscal year from 1992-93 to 1993-94 while domestic consumption of lamb decreased by 7 per cent during the same period (AMLC 1994a). Figure 1, shows the decline in lamb (DLC) and beef (DLB) consumption relative to increases in chicken (DCC) and pork (DPC) consumption during the decade 1982 to 1992. Figure 2, shows the retail price of lamb relative to beef, pork and chicken. Note, that the retail price of chicken and pork decreased prior to the 1990-91 fall in lamb prices. Lamb exports have increased by over 20 per cent during the past two years within established markets such as the United States and Canada (AMLC 1994b). New markets in South Africa and china are also contributing to the strong export recovery.

Mullen and Alston (1994) estimate own price elasticity of demand for lamb to be in the range of -0.34 to -2.07. The own price elasticity is thought to be inelastic for traditional lamb cuts supplied to older consumers (See Mullen and Wohlgenant 1991) and more elastic for traditional lamb, trim lamb and value added cuts purchased by young consumers. This argument follows from the notion that lamb was once a staple part of the diet for elderly consumers and that modern consumers are exposed to a wider choice of home cooking products and greater access to take aways and restaurant meals.

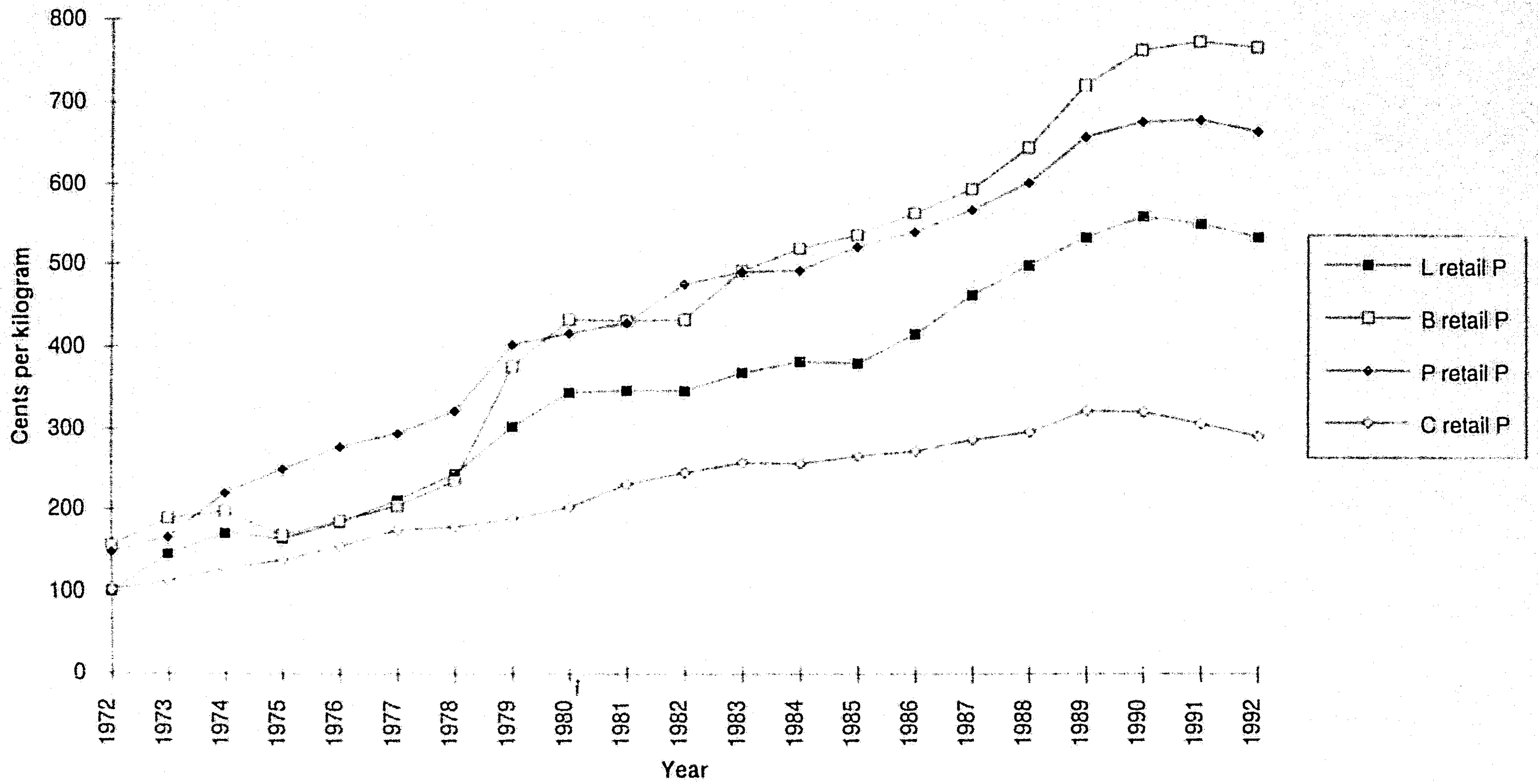
3. Consumer Attitudes Toward Lamb

Lamb industry competitors such as beef, pork and chicken once represented the alternative sources of animal protein however, there is now a greater range of meat and meat substitute products which are consumer ready (such as frozen meals) and may also be considered as competition to lamb products.

RELATIVE LAMB CONSUMPTION



Retail Lamb Price Relative to Beef, Pork and Chicken.



Traditional lamb products were not conducive to food service industries with clubs and schools consuming the larger portion of lamb as roasting legs. These are traditionally low priced, high volume markets. Table 1, shows the market share for lamb and beef products as a percentage of the total market. During the past two years the restaurants/cafe and hotel/motels markets have increased their use of high value lamb in conjunction with the development of new lamb products by the AMLC such as trim lamb (1994 data is unavailable at present).

TABLE 1.

Market Share for Lamb and Beef Products as a Percentage of the Total Market 1992.

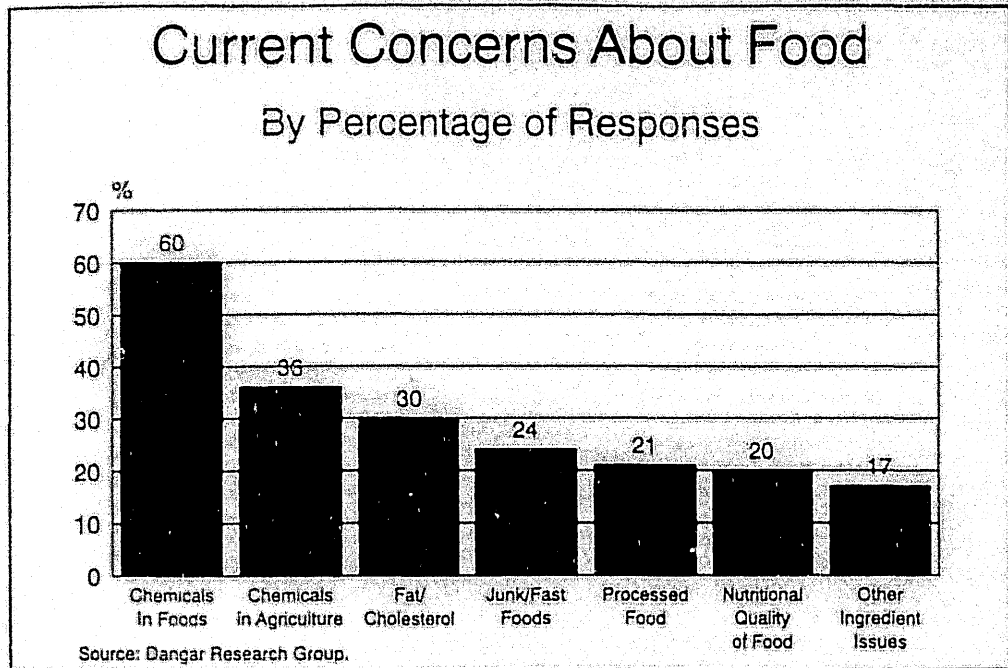
Commercial Sector	Lamb	Beef
Restaurants/Cafes	3	36
Hotels/Motels	6	37
Clubs	14	46
Fast Foods/Takeaways	1	26
Catering	5	49
Institutional Sector	**Lamb**	**Beef**
Schools	19	14
Hospitals	9	36
Nursing/Retirement	6	34
Prisons/Military	6	48

(Derived from AMLC 1992, Figure 8)

Lamb has always been a low priced commodity compared to other competitive products. Consumers claim that lamb is still regarded as a secondary product relative to beef and that lamb still retains its "fatty image" (AMLC 1994c). The AMLC "trim lamb" campaign was established to overcome problems associated with these concerns however, the campaign was rejected by traditional retailers. AMLC discovered that retailers were not informed adequately about yields and profits from marketing lamb as trim lamb and most thought that consumers only require traditional cuts. More recent AMLC campaigns focused on satisfying the concerns of retailers as well as the consumer.

In general consumers have increased their consumption of vegetables and complex carbohydrates while decreasing products perceived as being fattening such as sugar and red meat. Table 2, identifies the current concerns of consumers regarding food and food quality.

TABLE 2.



The greatest concern which consumers have regarding food is the volume and mix of chemicals used in producing the product. This survey information will be of considerable concern to the intensive chicken and pork industries. The Australian beef industry has already suffered as a result of a cotton trash scare and further incidence could rapidly destroy export markets. The lamb industry should be in a favourable position to market a clean green image given that very few lambs are fedlot or treated with hormones and other forms of growth stimulants.

4. Retail Butchers

Approximately five retail butchers leave the Australian Meat Industry every week (MATFA 1995). Traditional retail butchers are being forced to leave the industry for a number of reasons. The development of supermarkets have caused consumers to shop in multistorey complexes with easy access. Small retailer butcher shops have very little buying power hence they tend to be supplied with low quality carcases. Retail butchers who were situated on main streets have found that consumers car parking places have been converted to clearways and that consumers do tend to shop where they can not find a easy parking position. Retail butchers in many cases cannot afford to keep their stores operating after seven pm and many choose to stay open to five pm only. Busy consumers are forced to shop at supermarkets if all the household occupants are working nine to five shifts.

Many retailers have not kept up with consumer demand for products which are innovative and have very little fat content. Consumers do not know the names of retail cuts and hide their shortcomings (as perceived by retailers) by shopping at supermarkets where they can choose a product from the prepacked areas with the price previously recorded on the label for them.

The large decline in small retail butcher outlets has had a considerable impact on primary and secondary wholesalers. Primary wholesalers are defined as those who supply retailers direct from an abattoir. Secondary wholesalers are defined as those who purchase lambs from a number of primary wholesalers and resell lambs to retailers. The NSW and the South Australian industries have been dominated by secondary wholesalers, whereas the Victorian and QLD and WA markets are dominated by primary wholesalers. Secondary wholesalers have suffered a large decline in numbers as many of their retail clients have left the industry (often owing debts). The decline and subsequent removal of Homebush and Riverstone abattoirs in Sydney is often quoted as the reason why there are so many secondary wholesalers operating in NSW. An increasing number of secondary wholesalers are changing their business focus away from supplying retailers to become specialised boning rooms and meat packing plants for food service markets.

Many NSW and QLD wholesalers purchase lambs from Victoria, Tasmania and South Australia. Shipments of WA lambs have also been sold in Sydney and Brisbane markets. The comparative low cost of interstate carcase transport is an important factor to consider in lamb supply and demand models. NSW and QLD abattoir processing prices are in some cases four dollars more expensive than Victorian Abattoirs which makes interstate transport a viable option.

5. Food Service

The food service sector of the domestic industry has replaced the supermarket industry as the largest growth segment during the past two years. Food service operators are perceived to be better business people compared to retailers as they are more aware of cutting yields, meat quality (such as pH and tenderness and colour measures) and specialised markets such as restaurants and airlines. They also have more investment in technology such as packing machines, cookers and quick chillers. Food service operators regulary meat yield tests and may calculate costs to the nearest cent hence, they demand to purchase lamb carcases by specifications and forward contracts. The growth of this new industry segment results in a number of new problems for economist working with supply and demand data. Consider the following three examples.

Lamb carcases are generally traded as a fresh product taking no more than five days from farm to the retail shop. New product packaging and storing techniques have enabled lamb products to be stored for periods from two up to six weeks without any deterioration in product quality. Thus, monthly or quartile supply and demand data may now be more reliable than weekly data.

The food service sector of the industry prepares many products which loose their identity such as backstraps, this enables a high volume of mutton to be substituted for lamb. Anyone analysing "Trim lamb" consumption would need to consider the level of mutton being boned for domestic markets for uses other than manufacturing.

Many carcases which are consigned to the food service industry also have the internal fat and kidneys removed. This process may reduce carcase weight by up to five per cent. As more domestic processors build rendering plants at abattoirs the number of processors removing fats will increase. At present the number of lambs being sold fats in to fats out is not known as some abattoirs only remove fats when it suits the purchaser and other processors may only remove fat for lamb sold in their own state but not for other states.

Once a lamb has been broken up into retail cuts by the food service sector various parts of one carcase may be delivered to a number of states. This process makes tracking supply and demand very difficult as often records are not provided on destinations. If destinations are known you may also have the problem of working out whether the lamb product was a high or low value part of the carcase.

5. Supermarkets

Supermarkets have increased their market share during the past three years to 57 per cent of the total red meat market. The purchasing power of the top three supermarket chains often results in many of the higher quality lambs being directed to these markets with secondary wholesalers purchasing the remainder of the lamb being offered. The purchasing strategies of the top three supermarkets is vastly different. One company purchases lambs on farm and through saleyards using commission buyers. The second company purchases lambs from a number of selected wholesalers to tight specifications. The third utilises a range of purchasing methods including contracts and producer groups.

Super markets continue to use lamb and pork as loss leaders to attract consumers. By conducting business in this fashion they have contributed to the decline in retail butchers however, they have also been more responsive to the needs and concerns of consumers in terms of service and product variety. Small retail butchers who wish to compete with supermarkets have to compete on quality of product and service.

6. Lamb Trading

The lamb industry has been very slow to adopt marketing systems based upon objective description such as CALM and over the hook (OTH) marketing. The lack of an efficient objective grading (description) systems within the industry stifled supply signals within the domestic retail market as consumer feedback was not reaching lamb producers. The use of product grading and therefore expected increases in production, processing and marketing efficiency associated with development of niche markets within the domestic industry such as "Elite Lamb" and "Trim Lamb" were delayed until early 1993.

The length and complexity of the domestic marketing chain from farm to retail outlets was the primary impediment to early adoption of value based trading. Lambs which pass through a domestic retail supply channel may change hands up to four time before reaching the retailer or final consumer. Much of the background information is lost through the averaging system which occurs within the domestic industry as noted above. As a general observation the greater the number of people involved in the market chain the greater the calling from the final consumer to add more descriptors and tracking devices to the current grading system.

Lamb exporters and food service operators derived market advantage from adopting grid trading and utilising forward contracts to secure supply from lamb producers. Exporters were early adopters of the livestock identification and description system (LIDS) because additional information was seen as a direct benefit toward meeting tight product specification. Exporters usually purchase lamb directly from the paddock or over the hook therefore, they are aware of the lambs background such as, in which district the lambs were grown, the approximate age of the lamb, the breed mix and the type of pasture the lamb was produced on. Each of these factors affect meat quality and carcase yield and therefore also purchase and selling prices.

During 1992 and 1993 the Meat Research Corporation (MRC) funded the development of the Livestock Identification and Description System (LIDS) which enables carcase weight and GR measurement (tissue depth 110 mm over 12 rib) to be recorded and placed on a ticket which is attached to the carcase. LIDS information was developed to be used by producers, processors, wholesalers and retailers to establish an objective trading system based on carcase weight and fat score.

The underlying objective of LIDS was to move the domestic industry away from subjective grading where various industry participants were gaining financial benefit by misdescribing lamb and lamb products. Development and implementation of weight grades and fat categories by Aus-Meat threatened to expose industry members who enjoyed the cover of a market which was not regulated by product grades and accurate product description or market intelligence. The adoption of LIDS was stifled by some processors refusing to weigh or fat score carcases, inaccurate GR measurements (or claims of inaccurate measurement), destruction of tickets at wholesale level and inconsistency between competing ticket programs. Thus, conflicting markets signals remained within the industry.

Several critics of LIDS suggests that the information which it offers to processors and wholesalers is insufficient to provide an accurate description of various types of lambs. They claim that additional meat quality characteristics such as conformation, meat colour, fat colour, age, tenderness and breed type should also be provided within the description to ensure a complete grading system is developed. Other less substantive arguments favour abolishing the grading prospective altogether because, in their opinion, salespeople working within wholesale companies are capable of grading lambs more precisely, consistently and economically than new technology.

The principal objective in developing an objective grading system is that it should enable buyers and sellers to trade lamb products without having to view them. Clearly, unless the grading system is extensive enough to allow this then, some aspect of the lamb quality will require subjective assessment when being traded. The lamb description debate is very similar to the sale by description debate which occupied the wool industry for almost a decade. An effective solution may take some considerable time.

Subjective selling systems such as public auctions in saleyards and paddock sales have been the preferred method of selling lambs by producers and agents. ACIL 1991, found that OTH marketing provides producers with returns which were 15 per cent higher than saleyard selling however, very few producers have confidence in the system to achieve the best price. Agents encourage their clients to sell in the traditional manner as it requires them to do a lot less work for their commission ie. they do not have to fat score and weigh every lamb. Furthermore livestock agents did not understand processor specification requirements since buyers for certain processors would purchase lambs outside of the specification for a higher price than the price offered for the specified product. Livestock buyers also benefit by purchasing lambs via the traditional method as they can purchase large lots of lambs without having to visit a large number of producers. Exporting companies who use forward contracts benefit by having producers supply lambs of the correct weight and fat score to a pre planed schedule which has considerable benefit in product quality and meeting production targets.

7. Producer Marketing Groups

Producer marketing groups encourage producers to supply lambs to specifications with other producers on the basis of similar breed types, product specifications or production environment. The clients of PMGs are small retailers, food service companies or exporters who require high quality lamb consistently. The desire to establish marketing groups arose from disenchanted producers who could not derive a premium from the market place due to the price averaging system and industry participants who were not receiving the consistent high quality products which they required to meet specialised market segments. There are currently up to thirty six producer marketing groups operating at various levels of the market chain throughout QLD, NSW, VIC, SA and TAS.

The advantage of supplying through a marketing group is that producers have a regular high value market for their lambs. Furthermore, they may use the network to supply excess lambs on forward contracts as a group or individually. Other benefits to producers include the exchange production and marketing techniques and knowledge of further processing and consumers requirements. The disadvantage to producers is that there is more work involved in understanding and meeting production requirements and tighter market specifications.

8. Summary

The Australian Lamb industry has undergone a substantial amount of structural change during the past five years. The most significant change has been the develop of the livestock identification and description system for lambs and the increase use of forward contracts and development of producer marketing groups. Other changes such as the reduction in the retail sector and the growth in the food service sector of the industry will affect lamb supply and consumption data significantly. Factors such as whether or not a lamb has fats in or out may influence the carcase weight of a lamb by up to five per cent.

The retail segment of the industry will continue to decline causing secondary wholesalers to focus on alternate enterprises such as boning lambs for the high quality low volume food service makets. Retailers which offer a high quality product with a high standardof service are more likely to survive the high level of price competition from major supermarkets. Small retail outlets and boning operations have benefited by developing strategic alliances with producer marketing groups which supply a consistent high quality product throughout the year.

Bibliography

ABARE (1993) Commodity Statistical Bulletin. Chart 64, p62.

ACIL (1991) An evaluation of Livestock Marketing Methods. ACIL Australia, PTY LTD, Canberra, Australia. pp xi, 20.

AMLC (1994a) Meat Marketing Trends, Attitudes and Behaviour, Retail. Published by Australian Meat and Livestock Corporation, September 1994.

AMLC (1994b) Australian Cattle and Sheep Projections 1994. Published by Australian Meat and Livestock Corporation, December 1994.

AMLC (1994c) Consumer Attitudes Towards Meat. Derived from a study prepared by Danger Research Group 1994, Beef and Lamb, Usage and Attitude. Published by Australian Meat and Livestock Corporation, March 1994.

AMLC (1992) Meat Expenditure and Purchase Patterns in the Food Service Industry. Published by Australian Meat and Livestock Corporation, August 1992.

MATFA (1995) Personal communication, Meat and Allied Trades Federation of Australia.

Mullen J.D. and Alston J.M. (1994) The Impact on the Australian Lamb Industry of Producing Larger Leaner Lamb. Review of Marketing and Agricultural Economics, Vol 62, No 1, April 1994. pp 43-61.

Mullen J.D. and Wohlgenant M.K. (1991) The Willingness of Consumers to Pay for Attributes of Lamb. The Australian Journal of Agricultural Economics. Vol.35, No.3.pp 247-262.

Piggott N.E. and Wright V. (1992) From Consumer Choice Process to Aggregate Analysis: Marketing Insights for Models of Meat Demand. The Australian Journal of Agricultural Economics. Vol.36, No.3.pp 233-248.

Tomek W.G. and Robinson K.L. (1987) Agricultural Product Prices. Cornell University Press. (pp 140-149).