

---

# Strategic Alliances and Marketing Cooperatives: a Lamb Industry Case Study

T.C. Farrell and P.R. Tozer\*

Producer cooperatives and strategic alliances could assist lamb producers and market efficiency by improving price signals through product grading. Opportunities exist for first and second cross lamb producers to achieve price premiums by forming intersectoral linkages with processors/wholesalers and retailers. Producer cooperatives enable producers to supply consistent quantities of high quality lambs to satisfy the market requirements of the wholesalers/retailers within an alliance. Alternatively, opportunistic lamb suppliers who are constrained by environmental or cost factors may not be able to derive similar price premiums.

Market analysis reveals that there are barriers to entry into specific market segments for some producers, who participate in the market individually or as a group. Hence, strategic alliances between producers and higher level market participants, i.e. retailers or food service suppliers, can yield price premiums beyond those achievable in a short-run freely competitive market.

## 1. Introduction

Lately, there has been a call for farmers in several industries, primarily those related to sheep and beef products, but also in other industries such as grains, to form strategic alliances with down-stream processors and, in some cases, research and development funds have been directed at forming these alliances. The main aim of these alliances within the lamb industry is to develop the market for products that meet certain specifications and to increase market share by developing intersectoral loyalty. Lamb marketing alliances are examined for long term profitability with emphasis on the benefits and costs which accrue to lamb producer groups. Other aims are to minimise income risk by reducing price fluctuations and to remove the price distortions which result from "averaging" caused by the lack of product description. *A priori*, we expect that graded products yield benefits to both producers and consumers, where the consumer in this case is the processor or wholesaler.

The complicated supply structure within the lamb industry has resulted in producers receiving unclear

market signals regarding desirable lamb fat depth and carcase weight. The price risk of not satisfying carcase specifications has previously rested with the wholesaler or processor resulting in price averaging. This implies that producers of high quality carcasses are effectively subsidising lower quality producers. Furthermore, the cost of the processor accepting the risk is that producers are paid less than the optimal price for the product to compensate for the cost of wastage and the cost of further product grading.

Factors which exist within the current free-market system add a risk premium or cost to the final lamb product. Some of these risks can be dissipated through the effective management of a supply alliance. Lamb prices may fluctuate providing lamb producers with an uncertain level of income. Hence, producers cannot effectively plan purchases of high quality inputs to produce a high quality end product. Processors also add a risk premium to the cost of processing lambs as they are confronted by two sources of risk: quality of output and variations in throughput quantities. Purchasers of skins, offal and carcase meat are all subject to similar risks due to their dependency on the processing sector of the industry for supply consistency.

Lamb producers stand to benefit when they adopt the specification risk and grade the lambs on-farm to suit a particular market. Indirectly, the producer becomes the wholesaler of lamb to the retailer or food service company and uses the processor and wholesaler as a contractor of other services.

The objective of vertical coordination is to remove some of the risks to all parties involved in a mass market transaction of an undifferentiated product. The

---

\* Product Development Officer (Elite Lamb) New South Wales Agriculture, Armidale, and Project Officer, The Rural Development Centre, University of New England, Armidale, respectively. We wish to thank Garry Griffith, Bill O'Halloran, Roley Piggott, David Turnbull and Vic Wright for comments on earlier drafts of this paper.

market risks include price, quality and delivery timing (Sporleder). For example, if a lamb processor forms an alliance with a group of prime lamb graziers to supply a product meeting particular specifications for delivery on a certain date, this may remove the price risk to both parties and allow the processor to plan her/his processing plant schedule with less variability in throughput. The reduction in market risks and improvements in the quality and transmission of information leads to greater efficiency in the market place as more information is available, not only to those within the alliance but to most participants in the market (Barry, Sonka and Lajili).

The primary purpose of this study is to examine the potential gains to producers from forming marketing cooperatives within a geographic area, or between producers of similar products, to develop niche markets for produce of particular specifications, and to determine if strategic alliances between these cooperating producers and down-stream market participants, such as processors or retailers, can improve market performance. Several producer marketing groups or cooperatives are supplying specialised markets, hence they are producing lambs to different specifications, and they have entered into strategic alliances with processors or wholesalers seeking specific quality lambs. A second aim in this paper is to determine whether there is the potential for price premiums, paid to producers for meeting certain product specifications, to be sustained within a market that exhibits the atomistic structure of a purely competitive industry, such as the lamb industry. Also, we will consider the lamb industry structure to determine if these cooperatives and alliances can sustain price premiums or generate long-run supernormal profits. A conceptual framework has been used in this study due to data limitations within the wholesale and retail sectors of the industry.

## 2. Background

Of the Australian sheep and lamb population of 120 million head, about 64 per cent are predominantly Merinos for wool, 19 per cent are principally first cross for wool and meat and 17 per cent are for meat alone (Koch). Approximately 58 per cent of total lambs traded are purchased through sale yards, the remaining 42 per cent being purchased on Computer Added Livestock Marketing (CALM) or direct from the producer (AACM).

At present all lamb, regardless of breed type, weight, fat depth and conformation, is labelled and branded as lamb. Lamb has for many years been considered a low cost generic product. Many supermarkets have used it as a loss leader and further, the product is regarded as being over fat and cheap by consumers (AMLC 1994).

Purchasers of live lamb continue to pay a premium for lambs which do not satisfy consumer requirements, especially when lambs are short in supply. This problem is due to the fact that processors must slaughter a certain number of stock to meet their fixed costs. In most cases processors are not overly concerned by the quality of the product providing that they have throughput and that the processed product sells. This form of trading has led to an industry structure which supports the concept that there are few grades, where price minimisation, rather than product quality, is the most important result. In some cases processors earn considerable profits from the skins, offal and by-products derived from processing lambs, so the carcase value represents approximately 80 per cent of the total value of a live lamb to the processor (Read and Malcolm).

## 3. Product Description

The Lamb Identification and Description System (LIDS) was developed to provide the lamb industry with an objective method of measuring and describing carcase weight and fat depth. Carcase weight and fat depth are the two most important predictors of carcase yield. Lambs with high weight and low fat level yield more red meat (Hopkins *et al.*).

LIDS can be described as the basis of a partial description system as there are other carcase characteristics which are also deemed important by purchasers such as carcase conformation, meat colour, fat colour, age and product freshness. These characteristics are currently assessed subjectively by skilled assessors. The components of each grade vary depending upon the individual and the grades are not standard across the industry. Whilst, there are no formal grades of lamb in Australia, there are well established informal grades of lamb which are used by industry participants. A survey of "methods of ordering" by retail butchers in Tasmania showed that 25.5 per cent use visual means, 29.8 per cent use weight only, 31.9 per cent use weight and fat and 12.8 per cent have no choice because the company has a central buyer (Jackson, p.8). The price

variation for different grades of lamb can be as much as 33 per cent for lambs of similar weight and fat specification. Hence, the subjective component of the product grade remains important. The combination of the objective and the subjective information determines the carcass grade as used by sales people to the retail trade.

#### 4. Product Grading and Branding

Freebairn (1967, 1973) suggests that by undertaking a grading scheme of some type the structure of the market will change, and that both buyers and sellers may be better off in a utility sense. He also concludes that the introduction of grading may help improve product development as firms attempt to find new characteristics to differentiate their products. Grading may also improve the flow of market information, hence improving market efficiency. However, this will only occur if all participants in the market are aware of the grade specifications.

Crosby also suggests that a grading scheme for Australian meat will improve the efficiency of production as producers who turn off poor quality animals will be penalised by large discounts at the market place, and that the price differential between ideal market animals and poor quality animals will increase as the grading system becomes more widely recognised. This increasing price differential will force producers of poor quality stock to either leave the industry or produce the type of animals that achieve the higher market price, thus improving the efficiency of the industry.

Lambs may be graded on-farm by the producer, by the agent, in the abattoir, at the wholesalers or at a food service supplier. The product may also be graded at the retail level by using brand names. The costs and benefits of grading increase for highly competitive markets such as food service and some retail shops as lamb carcasses must be of superior quality. In these markets other factors such as consistency of supply, cost averaging, and guaranteed eating quality are essential components of the product mix. In other markets, such as bulk buy or discount butchers shops, the willingness to pay for such product attributes is not the same.

Returns from product grading increase the further a carcass moves down the supply channel as sellers can more accurately fulfil buyer's specifications. Demand becomes more inelastic toward the retail end of the

market as there are more opportunities to grade lambs and to provide just-in-time delivery, both of which cause price to increase. The grading process also causes some lambs with poor conformation and inferior meat colour to be downgraded and sold below cost to some sectors of the retail market. This is also a typical cost cutting function when carcasses exhibit signs of ageing (or become stale) beyond 2 to 3 days.

New technology such as Video Image Analysis (VIA) may assist suppliers of high quality lamb to differentiate their product from other lamb. VIA enables processors to grade lambs against a database of objective characteristics such as carcass proportions, meat colour, fat colour and estimated carcass yield.

VIA may also work against suppliers of high quality product if the system fails to detect a significant "quality" indicator in perceived high quality lamb. The additional value of the quality indicator must be greater than the cost of differentiating the product. This benefit must also be of value to retailers and wholesalers and not easily detectable in a live lamb for a processor to benefit from this outcome. If the quality indicator is easily detectable within live lambs then producers will be in the best position to capture the benefits derived from implementing the VIA grading system providing that wholesalers and retailers are willing to pay more for the product difference.

By grading a product such as lamb into classes by fat score, weight or meat quality, it is assumed that these classes reflect consumer preferences for the attributes of the product (Griffith). However, by increasing the degree of heterogeneity within a market for a commodity, the elasticity of substitution for each grade or class will tend to increase with the number of grades, as each grade becomes a closer substitute for the others as well as for other meat products, such as beef or pork. Therefore, to make the grades less elastic in substitution, product branding could be undertaken to increase demand for the enhanced product grades.

Branding is a method of differentiating a product at the market place. In the meat industry branding takes place at the abattoir. Many consumers of beef and lamb prefer to purchase branded meat as they believe that the brand implies a product of quality and boosts customer satisfaction (AMLC 1995). Branding is also seen as a method of assuring quality throughout the processing chain, and this assurance can be enhanced through the sourcing of the product from producers willing to participate in some type of quality assurance

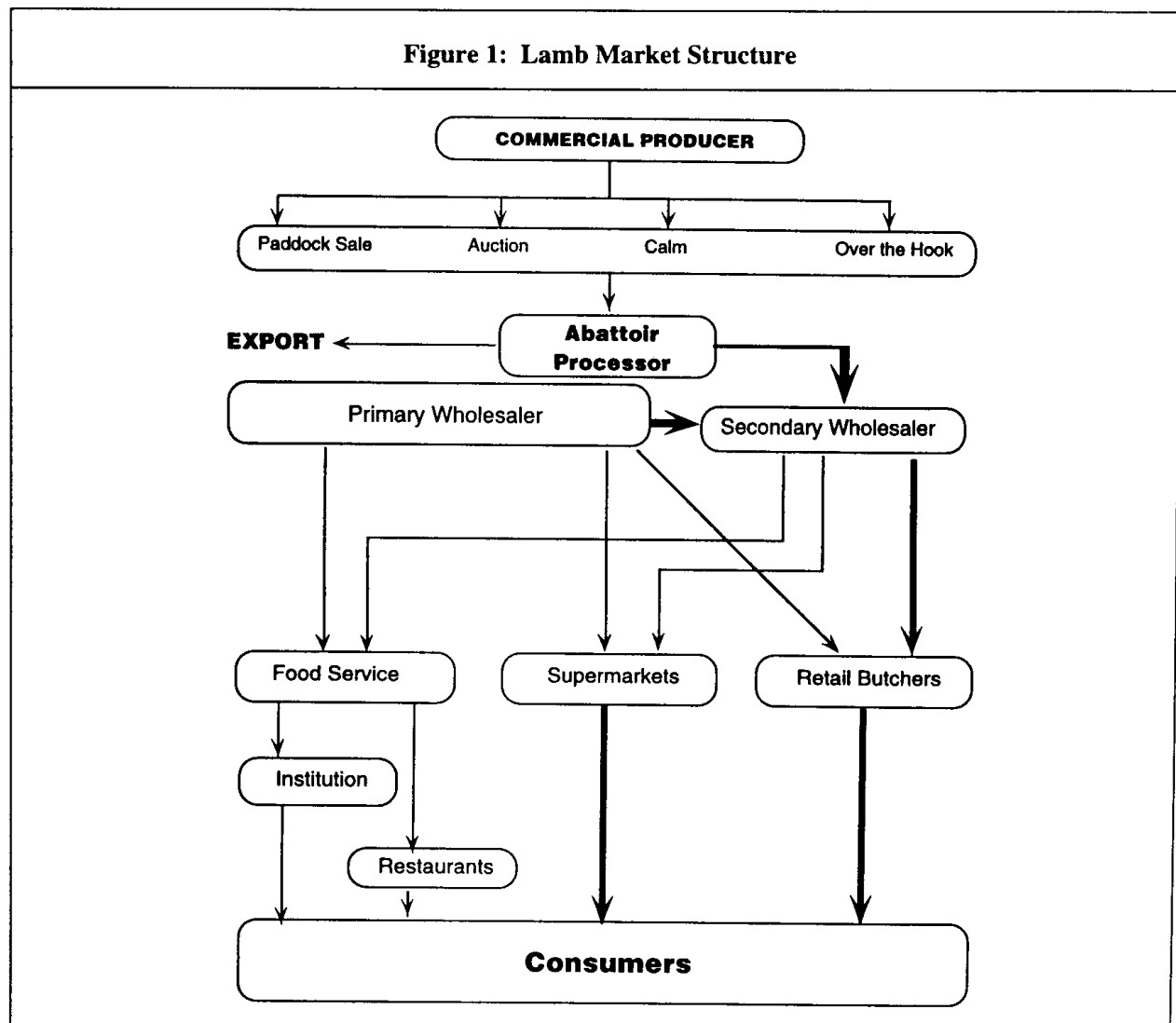
program within a strategic alliance or cooperative (AMLC 1995).

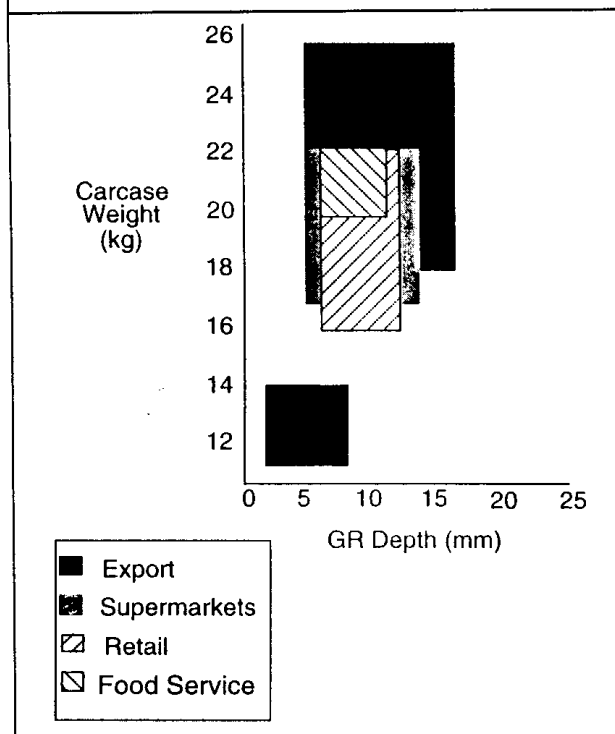
## 5. Market Structure

The market for lamb is divided into 36 per cent retail butchers, 25 per cent supermarkets, 6.9 per cent food service and 7.3 per cent manufacturing. The remaining 24 per cent is exported. The retail and supermarket sectors of the industry are by far the largest market segments. The export sector has increased during the past decade and represents a significant market for first cross and Merino lambs. This sector of the industry has been excluded from the discussion as it is much more complicated and better suited to purchasing methods which include forward contracts and utilising CALM.

The basic structure of the domestic lamb industry and the relationship between the various sectors is shown in Figure 1. Some lambs are sold from processors direct to wholesalers located close to the destination market who in turn sell lambs to retail butchers (secondary wholesalers). The major supermarkets purchase lamb direct from producers or from primary wholesalers located at country abattoirs. The food service industry use a mixture of primary and secondary wholesalers.

Four sectors of the total lamb industry compete for lambs in the 20 to 22 kg weight range and three of the same four compete for lambs in the 18 to 22 kg weight range. These market specifications are shown in Figure 2. Participants competing for lambs within these specifications do so because of the carcass attributes of cut size, weight, fat depth and meat yield.



**Figure 2: Market Specifications by Weight and GR Measure**

### 5.1 Retail

The retail butcher sector uses three types of lamb which include side, trade and heavy trade. A brief outline of these market segments follows.

Light side lambs (14-17 kgs, GR 7-12 mm<sup>1</sup>) are a declining market segment due to the high cost of processing, which is charged on a per head basis. Some producers have developed a very select milk lamb (up to 3 months old) market, however this market is extremely small. Competition in the side lamb market is generally limited to low priced club and hotel markets for club raffles.

Trade lambs (17-20 kgs, GR 7-12 mm) are being used in small older style retail butcher shops. Retailers claim that this style of lamb provides them with a product which has small legs, i.e. less than \$10 per leg retail price, and that the product is young and therefore tender. The cost of processing these lambs is being subsidised by heavier lambs. This market uses first and second cross lambs as well as some Merino lambs in the discount stores although, the lamb preferred for this market is second cross with a light meat colour

and good conformation. The light trade lamb market is declining.

Heavy trade lambs (20-22 kgs GR 5-12 mm) are preferred by the some retailers due to higher carcass yields and more versatility in product range. This market is high value and retailers expect to receive lamb with very good meat colour, fat colour and conformation consistently throughout the year. This is a specialist market segment and is particularly suited to second cross lamb producers.

### 5.2 Supermarkets

Supermarket lambs (16-22 kgs GR 5-15 mm) are by far the most common weight and fat score of lamb. The supermarket share of the domestic meat industry appears to be expanding. However, the total domestic market has declined due to the high number of small retail shops going out of business. Hence, total supermarket share, as a percentage of volume, has most likely remained constant. Supermarkets use both first cross and second cross lambs.

### 5.3 Food Service

The food service sector of the industry has a number of sub-sectors. The preferred lamb type is lean and high yielding (20-22 kgs GR 7-14 mm). Weight variation is limited to a range of two kilograms as consistency of serve size is extremely important in the top end of this market. The average food service supplier accepts a range of up to four kilograms in weight as prices are lower and they are also prepared to spend their own time to trim to meet customer requirements. At the bottom end of this market are the club and hotel suppliers who purchase heavy lambs with more fat as they tend to sell whole legs and provide a product which is comparatively inexpensive. Many food service companies purchase broken lamb instead of a full carcass. Broken lamb includes legs, rumps, loins and racks. Products such as forequarters, shanks and breast meat are sold to discount retail outlets for manufacturing into sausages etc. This market also utilises both first and second cross lambs.

<sup>1</sup> GR is the tissue depth including fat and muscle over the twelfth rib 110 mm from the mid back line. The GR score is used as an indicator of carcass fat depth which is differentiated by measures of five millimetres into five scores with one (0-5mm) being the leanest and five (21-25mm) the fattest.

Underlying all of these domestic market specifications are the nondescript specifications of bottom end retailers and smallgoods manufacturers who specialise in buying lamb which is not suitable for any of the above markets. These firms generally purchase lambs by price and buy from any supplier whenever the product is available and relatively cheap.

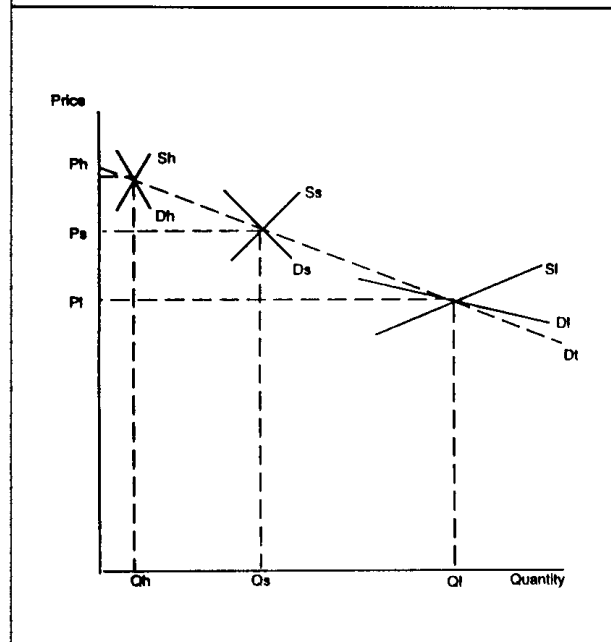
## 6. Market Analysis

A number of researchers have examined the demand for lamb at both the farm and retail levels (Murray; Martin and Porter; Alston and Chalfant). The majority of these studies estimated own price elasticities of retail demand for lamb to be greater than -1.0 in the normal price range (Mullen). This infers that the demand for lamb is relatively elastic when compared to other meats, therefore any increase in price should lead to a decrease in total revenue to the industry over the normal price range. This is not a suitable market environment to introduce higher costs and involve producer marketing groups. However, almost all of the previous studies have examined lamb as a single commodity product rather than as graded product. We speculate that there are at least three separate demand curves for lamb and, in particular, we suggest that the demand for lamb in the food service and high value retail shops is relatively inelastic given the final product market. Further, we believe that with the increased use of forward contracts within the institution trade (motels, hotels, hospitals, gaols, schools etc.) the demand for lambs within these sectors will become more inelastic. Also, the growth in the supermarket share of the market, the decline in the number of older style retail shops during the past five years, and the expansion of the export sector of the industry, has led to an increase in price due to the lower volumes of lamb available on the domestic market. Hence, retailers are competing with a number of other market segments to secure "quality" lamb, so their propensity to push prices down should also decline as lamb quality increases.

The supply and demand schedules for three different lamb market segments are shown in Figure 3.  $D_t$  represents the total demand curve for ungraded lamb and is shown to be relatively elastic.  $D_h$  and  $S_h$  are the demand and supply of high value lamb in food service and boutique retail shops. The elasticity of demand and supply in the high value market is assumed to be relatively inelastic as product quality, consistency of

supply and brand loyalty are the principal components of the price.

Figure 3: Market Segments for Lamb



$D_s$  and  $S_s$  represent the demand and supply of lambs for supermarkets and medium quality retail stores. The elasticity of demand and supply in this market segment is shown to be near to unitary, as there are some basic levels of product consistency and quality available, however the market participants are also price competitive as there are many lamb substitutes available in these markets.

$D_t$  and  $S_t$  represent the demand and supply of low value lamb to lower quality retail shops and manufacturers of small goods. Demand and supply in these markets are shown to be very elastic as price is the overriding component (Hopkins). The price and quantity of other protein substitutes also plays a vital role in price determination within this market segment.

## 7. Cooperatives and Strategic Alliances

### 7.1 Cooperatives

Cooperatives exist in many forms within the Australian agricultural sector. The rationale for most coop-

eratives was to provide producers with some bargaining power when dealing with monopsonistic industry structures. Some cooperatives flourished due to favourable internal structures or market conditions, while others foundered due to poor management, the inability to maintain a large enough market to sustain the output of the cooperators, or the free rider problem (Campbell and Fisher).

Babcock believes that compulsory membership of cooperatives will not necessarily mean the success of the cooperative. Compulsory membership imposes on the members and management an expense that is not necessarily covered by profits to the cooperative. LeVay, in discussing the long term viability of an agricultural cooperative, implies that providing the cooperative yields benefits to members beyond those available to non-members the cooperative will succeed and there is no need for compulsory membership.

## 7.2 Strategic Alliances

Strategic alliances are not a new concept in the food market, but are relatively new in the primary production stage of the market (Sporleder). Koenig and van Wijk define an alliance "as a cooperative agreement between independent firms designed to achieve mutually relevant outcomes... with little or no mutual control". A strategic alliance in the context of this paper is a form of vertical coordination between at least two members of the lamb supply chain.

## 8. Producer Marketing Groups

During the past two years, 20 lamb producer marketing cooperatives ranging in size from 5 to 29 participants have formed to supply niche lamb direct to lamb wholesalers, retailers and food service suppliers. The majority of these groups differentiate their product according to breed type. Most of the smaller producer groups supply second cross lambs to secondary wholesalers, for periods from one to six months. One end market may be serviced by up to four producer groups who have distinctly different production environments. Supply from various producer groups is coordinated by livestock agents on behalf of the producer cooperative.

In Northern NSW, the "Guyra Lamb Marketing Group" supply 170 lambs per week to a Newcastle retail group of eight butchers during the period from January to June. A Southern NSW producer group at

Marrar supply lamb from July to December each year to take advantage of the surplus winter feed and the resulting cost efficiencies in production.

Producers who act cooperatively expect to receive higher financial rewards in return for supplying a differentiated product. This in effect reduces the opportunity for grading by industry participants further down the supply channel so the producer is in a position to capture the industry benefits and risks which are derived from grading. Producers within such marketing groups stand to profit by indirectly making other lamb producers (competitors) worse off. Lamb marketing groups aim to capture promotion benefits by advertising their product as superior to all other lamb available on the market.

Porter outlines four alternatives which suppliers can undertake to differentiate their product from the traditional product image. The reconfiguration may involve options such as the following:

- (a) a new distribution channel or selling approach;
- (b) forward integration to take over buyer function or eliminate the channels;
- (c) backward integration to control more determinants of product quality;
- (d) adoption of an entirely new process technology (pp.158-163).

Option (a) has been achieved by directly linking the producer sector with the retail and food service sector. However, much of the distribution channel remains the same except that the participants now undertake a new function. Options (b) and (c) are being used by lamb marketing groups when they agree to form alliances. Lamb producers forward integrate to take over the grading and supply programming functions from processors and wholesalers although these participants still have essential tasks to perform. Retailers and food service operators have used backward integration to ensure that they receive carcasses with the desired characteristics to meet consumer requirements consistently by establishing product specifications and providing feedback information to producers. A number of Australian processing companies have altered their supply and processing technology within the past ten years, option (d); however, many remain less efficient than New Zealand lamb processing companies and food industry establishments (Kearney).

## **9. Alliance Sustainability**

The price benefit from grading by producers will increase if the product attributes such as leanness and tenderness are promoted and this causes demand to become less elastic above the current price (Quilkey). These benefits will only be realisable if the producers can prevent other producers, processors and wholesalers not involved in the grading scheme from entering the market with an identical, or similar product.

Producers who participate in lamb marketing cooperatives gain additional benefits which surpass those of individual producers. The large number of small scale lamb producers (family farms) operating in the lamb industry supports collective marketing activities. This is also true for most meat retailers as they are often small shops competing against large supermarkets. Producers working in a cooperative manner may increase their returns by reducing the search costs of processors, wholesalers and retailers. Producers also benefit by being able to collectively market lamb skins and by-products such as offal. More advanced cooperatives may also act as a collective purchasing group to buy farm inputs and associated products.

Retailers derive similar advantages to producers as they can gain economies of scale in purchasing lamb, beef, chicken and pork as well as dry products for small goods manufacturing. The Meat and Allied Trades Federation of Australia (MATFA) has recently embarked on a campaign to form a nation-wide franchise for meat retailers. The trial program for the franchise (Mrs Beetson's) is operating in Newcastle, NSW, in addition to a local franchise, the "Tenderlean" group of retailers. Both groups appear to be successful as they are competing in different market segments. Franchising is not new to the meat industry. There are at least two other successful franchises operating with boutique butcher shops, the "Q"Guild in the United Kingdom and the Kerschlarger in Holland (Q-Guild).

## **10. Barriers to Entry**

Supernormal profits can be sustained in the long run if there are barriers to other suppliers entering the niche market, thereby decreasing returns, increasing the consumer surplus and decreasing the producer surplus. Barriers such as producer education of niche market requirements, production environment, genetics of ewes and rams, quality control from farm to plate, new

grading technology and product promotion will maintain opportunities for producers acting cooperatively.

To maintain a price premium in the market, cooperators need to maintain barriers to entry, and the principal barrier to entry for farmers producing goods to specification is the capacity to meet specifications. This barrier will be weak if other producers can easily emulate the cooperators and supply a comparable product. In such circumstances the persistence of the alliance is threatened and the ability of cooperators to extract a long term price premium for their product is at risk.

Within an alliance the lambs are managed to suit a particular end market. The management skills which producers require to supply an alliance are usually above those of traditional producers. The producers in an alliance must have a sound understanding of all the operations and functions of other participants in the alliance. They must use improved genetic stock, they must be able to control the nutrition of the animal, they must know how to estimate dressing percentages, and they must understand factors which affect meat quality. Hence, the average producer who does not specialise in lamb production and operates a number of enterprises will not have the time or the price incentive to manage lamb production so closely. The alliance requires the services of a stock coordinator and assessor to make sure the lambs will satisfy specifications. Meeting specifications also means that the assessor must receive feedback and monitor progress regularly.

The breed of the lamb will act as a barrier as each breed type has different characteristics, with breeds other than second cross lambs at a disadvantage in terms of conformation and growth rates. However, these same lambs have the advantage of being leaner at heavier weights. Lambs which are supplied through an alliance must be delivered according to a planned schedule, even if it costs the producer additional money to supplementary feed the lambs and/or the ewes. Hence, the cost of supplementary feeding in times of poor feed supply or drought may also act as a barrier to entry.

Contracts for supply between the different members of an alliance will act as a deterrent to producers who swing in and out of the lamb industry depending upon the market rate of wool and first cross ewes. Many of these speculators will not commit themselves to a single market. Reynolds and Gardiner found that "Higher lamb prices lead to a slight increase in lamb carcass weights as producers hold lambs to heavier



weights" (p.205) and "It is obvious that there are far greater restrictions to building up flocks in times of high price than to running down flocks in periods of low prices"(p.209). Hence, supply contracts restrict speculators from flooding markets by taking advantage of favourable seasons and the resulting decrease in production costs.

Quality control from farm to retail shop will add a further barrier to entry as lambs which are supplied outside of the alliance cannot be guaranteed to meet stringent meat quality parameters.

Some retailers within alliances regularly taste test lamb products for tenderness, fat percentage, cooking loss, pH and flavour. In fact, the more end users such as retailers, chefs and consumers know about product quality the greater is the barrier to other lamb entering the niche market.

The above barriers to entry are sustainable only in the short run due to the competitive nature of the industry. Long term supply contracts will reduce price risks and search costs, thus providing all sectors of the alliance with mutual long term benefits.

## 11. Industry Benefits

The measurement of benefits accruing to industry from participating within an alliance are not simple to measure as there are few objective attributes of lamb which can be measured and then priced. The present system of grading and product description does not provide a direct comparison of lamb carcass grades. Measurement of benefits and costs also becomes increasingly difficult when examining the dynamics of a market which segregates branded products from generic products (Quilkey). However, once a number of carcass attributes are priced then marketing margins or utility analysis may prove useful to measure the extent of benefits and costs. The further valuation of risks within each of the sectors is also dependent upon some form of objective grading system being implemented.

The Guyra Lamb Marketing Group have been able to derive a ten to twenty cents per kilogram premium for lambs supplied through an alliance compared to lambs sold through local saleyards. This assessment of lambs for comparison was subjectively based on live weight and estimated fat score. At the retail end of the market the Tenderlean group purchased the same lambs at a discount of ten to twenty cents per kilogram compared

to other wholesale prices, reflecting a marketing margin in the region of twenty to forty cents per kilogram from producer to retailer compared to the alternative supply channel.

In the final analysis it has not been possible to quantify the benefits and costs which arise from alliance trading. Producers benefit through decreased price and income risk, as do all participants in an alliance. Processors benefit from consistent throughput at a fixed cost which reduces their search costs and quality risks. Wholesalers derive similar benefits to processors. Retailers also benefit from reduced price and quality risk. However, they also have a supply system which can be differentiated from all other supply sources. There may be positive outcomes from consumers acknowledging more care or attention to their needs. Consumers may also respond positively to the signs the marketing systems is interested in their needs.

Alliances and producer cooperatives can assist producers to increase returns for their lamb products. However, producers require technical support in product marketing, and assistance in identifying market opportunities for their products. Producers and agents may require additional supply management skills and resources to successfully operate within an alliance.

## 12. Conclusion

This paper examines the concepts of marketing cooperatives and strategic alliances in relation to the NSW lamb industry. It argues that cooperative marketing can assist lamb producers in marketing niche products. The general elastic nature of demand does not apply to all sectors of the industry. An industry-wide grading scheme would benefit producers who act cooperatively at the expense of other more opportunistic lamb producers only if certain desired product characteristics were measurable in live lambs.

Producers of lamb stand to benefit from cooperative supply coordination and marketing where they can effectively exclude other market participants from supplying similar products. It is suggested that there are at least three differentiated markets for lamb rather than one and that the price elasticity of demand in the domestic food service, restaurant and boutique retail butcher markets is more inelastic than the other two high volume market segments. The supply alliance method of marketing is shown to provide benefits to all participants in an alliance from producer to consum-

ers whereas, in the traditional system, there are always winners and losers when prices and quality are averaged.

There are sufficient barriers to entry to prevent other suppliers entering the high quality market. Factors such as producer awareness of market specifications, farm management practices, quality control and food safety issues, new grading technology and the ability to promote the end product will all contribute to the short term success of producer marketing groups. Over time some of these advantages may be eroded as other producers or large vertically integrated companies move to compete within the high value segment of the industry. In the short term, producer marketing groups are expected to sustain above normal profits by marketing within an alliance supply network.

## References

- AACM (1994), "Profile of Beef and Sheep Carcases Produced in Australia During 1993/94", *Meat Research Corporation Project M.369B*, Meat Research Corporation, Sydney.
- ALSTON, J.M. and CHALFANT, J.A. (1987), "Weak Separability and a Test for the Specification of Income in Demand Models with an Application to Meat in Australia", *Australian Journal of Agricultural Economics* 31(1), 1-15.
- AMLC (1995), "Branded beef and lamb: What's in a name?" *Chef's Special: Fresh ideas for beef and lamb in food service*, Vol 9 (November), p.3.
- AMLC (1994), "Lamb Usage and Attitude Study 1994", *AMLC Domestic Market Research Report*, AMLC, Sydney.
- BABCOCK, H.E. (1935), "Cooperatives the Pacesetters in Agriculture." *Journal of Farm Economics* 17,153-6.
- BARRY, P.J., SONKA, S.T. and LAJILI, K. (1992), "Vertical Coordination, Financial Structure and the Changing Theory of the Firm", *American Journal of Agricultural Economics* 74(4), 1219-25.
- CAMPBELL, K.O. and FISHER, B.S. (1991), *Agricultural Marketing and Prices*, 3rd Ed, Longman Cheshire, Melbourne.
- CROSBY, J. (1995), "How Grading Will Change Our Industry", *MEAT - 95 Conference, CSIRO*, Session 7A, Brisbane.
- FREEBAIRN, J.W. (1967), "Grading as a Market Innovation", *Review of Marketing and Agricultural Economics* 35(3), 147-62
- FREEBAIRN, J.W. (1973), "The Value of Information Provided by Uniform Grading Systems", *Australian Journal of Agricultural Economics* 17(2), 127-39.
- GRIFFITH, G.R. (1976), "The Benefits of a National Pig Carcase Measurement and Information Service", Paper Presented to the Carcase Classification Symposium, Adelaide, May 4-6, 1976.
- HOPKINS, D.L., WOTTON, J.S., GAMBLE, D.J. and ATKINSON, W.R. (1995), "Lamb Carcase Characteristics 2. Estimation of the Percentage of Saleable Cuts for Carcases Prepared as Trim and Traditional Cuts Using Carcase Weight, Fat Depth, Eye Muscle Area, Sex and Conformation Score", *Australian Journal of Experimental Agriculture* 35.
- HOPKINS, D.L. (1995), "Understanding the Factors Wholesalers and Retailers use to Value Lamb Carcasses", Paper Presented to CSIRO Meat 95 Conference, Session 8A, Brisbane.
- JACKSON, W. (1992), "Butcher Survey - Tasmanian Retail Butchers' Attitudes to Large Lean Lamb Carcasses", Unpublished Report, District Agricultural Officer, Launceston, Tasmania.
- KEARNEY, A.T. (1994), "Sheepline 2000, Processing Benchmark Study: Industry Results and Perspectives", Meat Research Corporation, Sydney, December.
- KOCH, Richard. (1995), "AMLC Sheep Industry Survey", *Meat and Livestock Review*, October, AMLC Sydney.
- KOENIG, C. and van WIJK, G. (1991), "Inter-firm Alliances: The Role of Trust", in J. Thepot and R-A. Thietart, (eds), *Microeconomic Contributions to Strategic Management*, North Holland, Amsterdam.
- LeVAY, C. (1983), "Agricultural Cooperative Theory: A Review", *Journal of Agricultural Economics* 36(1), 1-44.
- MARTIN, W. and PORTER, D. (1984), "Testing for Changes in the Structure of Demand for Meat in Australia", *Australian Journal of Agricultural Economics* 29(1), 193-211.
- MULLEN, J.D. (1995), "The Influence of Fat and Weight on the Price of Lamb in the Homebush Livestock and Wholesale Markets", *Review of Marketing and Agricultural Economics* 63(1), 64-76.
- MURRAY, J. (1984), "Retail Demand for Meat in Australia: A Utility Theory Approach", *Economic Record* 60(1), 45-56.
- PORTER, M.E. (1985), *Competitive Advantage - Creating and Sustaining Superior Performance*, The Free Press, New York.
- Q-GUILD (1991), "The Cutting Edge", A Q-Guild Information Film, Meat and Livestock Commission, Milton Keynes, U.K.
- QUILKEY, J.J. (1986), "Promotion of Primary Products - A View From the Cloister", *Australian Journal of Agricultural Economics* 30(1), 38-52.
- READ, M. and MALCOLM, W. (1994), "The Changing Victorian Meat Processing Industry", Paper presented to the 38th Annual Conference of the Australian Agricultural Economics Society, 8-10 February, University of Victoria, Wellington.
- REYNOLDS, R.G. and GARDINER, B. (1980), "Supply Response in the Australian Sheep Industry: A Case for Disaggregation and Dynamics", *Australian Journal of Agricultural Economics* 24(3), 205-209.
- SPORLEDER, T.L. (1992), "Managerial Economics of Vertically Coordinated Agricultural Firms", *American Journal of Agricultural Economics* 74(4), 1226-1231.