



2004 SCHOLARSHIP REPORT

Completed: October 2005

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Topic:

Lamb Production, Marketing and Quality Assurance
(Focus on Brands and Value Adding for the Producer)

Sponsored by: Meat & Livestock Australia



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Executive Summary

Lamb producers - have you ever been really disappointed after a sale of lambs in the auction or over the hooks, especially when you believe the quality of lambs is excellent? My guess is that you have, even though you may have invested in good genetics, feeding and even been a part of a Quality Assurance scheme. That being the main driver, an astute couple from Beachport, South Australia put into motion a branded product called Limestone Coast Lamb (LCL). They then invited three other likeminded businesses to join them to start a company of which I am a director.

Starting a branded product takes a lot of time and effort, and is often met with little success. The red meat industry has developed over a long period of time and some people involved in the industry are entrenched in their views and ways.

To broaden this thinking and help in the development of our industry and product, I have looked at similar products and businesses overseas and in Australia. I visited the UK, Canada, USA, and New Zealand on my study tour.

Being involved in the industry from three different perspectives at production level, including seed stock, prime lambs and brand marketing, gave me the basis to look at operations in other countries industries and bring home findings or innovations.

The main focus of my study was to look at producer-driven value adding, some through branding, some through continued ownership along the marketing chain. I also looked at the industry outlook on a global scale to see whether the current buoyant conditions for lamb will continue.

The sheep and lamb industry in Australia is in a very positive position. Low and relatively static sheep numbers in the large exporting countries look set to continue. China, although having the largest population of sheep, nearly consumes all its own production. The US flock whilst possibly levelling out in numbers, is still under threat of further decline as it dips below a level of critical mass. Farmers in the UK have to face a steep learning curve as subsidies are shifted from production based to a single farm payment.

All areas visited had some production issues. Many areas in the USA have major predator problems, with bears, mountain lions, wolves and coyotes all playing a part in reducing lamb numbers. Canadian producers, have the extreme winters to deal with. The UK has a lot of small flocks comprising many breeds, making it hard to get continuity of type through the works. Wet and cold winters also result in most sheep being shedded for a period, with most

lambed indoors. The main issue for Australian producers is the climate, which makes it difficult to get an even supply all year round. Australia also had the lowest lambing performance in percentage terms, of the countries I visited. New Zealand's problems are few, with feed systems in place to get a reasonable supply of lambs through the winter, and the North Island having a good turn-off all year. However, internal parasites are a problem.

My search for producer-driven branded products uncovered some successful brands and groups, as well as some which were less successful. The businesses I looked at are by no means an exhaustive list but I believe represent a good cross-section in the industry. The four outstanding groups I found were Mountain States Lamb co-op in the USA, Alliance Group and Primary Producers Cooperative Society in NZ, and Q lamb in WA. These groups, while not all having their own brands, were all excelling in adding value for producers.

Acknowledgments

I would like to thank my sponsor Meat & Livestock Australia for its support and funding to make my tour possible. Many thanks also to the Australian Nuffield Farming Scholars Association for having the confidence to select me, as well as Australian Nuffield CEO Bryan Clark and secretary Janette Lees for the organisation of the Global Focus Tour with nine other dynamic Nuffield Scholars which was a positive growth experience for all involved.

Thanks must also go to Ken Solly, who mentored me throughout the application process and is always a positive influence.

I am also very grateful to the people that helped on my tour with contacts, advice, friendship and hospitality and to my business partners Phil and Leigh Clothier for being flexible and generous with time.

A special thanks to my wife Karen and my children Sam, Hannah and Oliver for their support and encouragement.

Background

I am a second-generation farmer and have been involved in agriculture 25 years, farming in partnership with two brothers. We farm and manage sheep for meat, wool, and genetics.

I attended Lucindale Area Agricultural course in years 11 and 12 and completed the Business in Rural Management certificate through TAFE in 1992-93.

Our business became involved in a branded lamb product venture two years ago. The group is named Limestone Coast Lamb, of which I am a director, which aims to collectively add value to our lamb through a recognised brand in the meat industry. This is being achieved through whole carcass sales to butchers in our nearest city.

Disclaimer

The views expressed in this report are entirely my own and no connection can be made to the Australian Nuffield Farming Scholars Association or to my sponsor, Meat & Livestock Australia.

Objectives

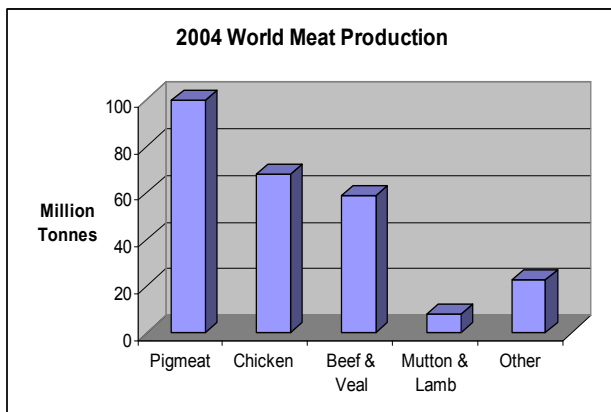
The aim of my study was to look at similar products and businesses to Limestone Coast Lamb, to see if any improvements could be made and also to investigate how other businesses keep and maintain supply from producers to consumers. I soon realised that each country had its own dynamics and drivers within each industry so as to put it into perspective my studies then encompassed industry production, trends and challenges. I also realised that branding was not the only way to value add for the producer and that continued ownership down the processing chain can be achieved in other ways.

World Industry and Production Trends

Only 3% of the world meat market is made up of sheep and lamb (Fig 1). While this is hard for me to comprehend, it gives a great picture of the place of lambs in the wider market. It is the luxury red meat being more expensive than all other red meats. We have to be careful not to price ourselves too high or risk further eroding the market.

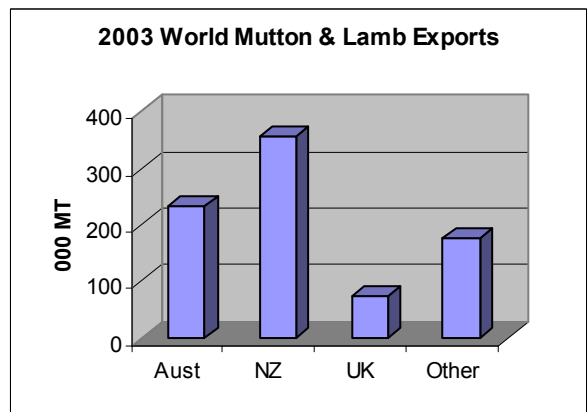
Traditionally, the major export markets for lamb have been the UK for New Zealand and the USA for Australia, which looks set to continue. New Zealand has done a lot of work in raising the profile of lamb in Canada through advertising. The UK has a sound industry well serviced by New Zealand.

Australia produces 7% of world sheep meat production and 28% of the lamb and sheep meat exports (Fig 2). Together, Australia and New Zealand produce 70% of all world sheep meat exports.



Source: FAO

Fig 1



Source: FAO

Fig 2

Lamb and Mutton Consumption

Consumption in Australia of mutton and lamb is relatively stable at 18.8 kg/head. (Fig 3)

New Zealand's consumption of lamb is falling, down from a high in 2002 of 10.6kg/head to 8.7kg/head in 2004. Both Canada and the USA have very low levels of consumption, with only 30% of Americans ever having eaten lamb. Lamb is currently only 1-2% of meat sales in the USA. Most lamb is pitched at the \$8-\$10US /pound in the supermarkets, with most product consumed on the east coast.

The UK currently sits at 6kg/head, which has been at a relatively stable level for a decade or more. More than 70% of all lamb consumed in the UK is eaten by people over 45 years old, with more than 50% sold in the form of traditional roasts.

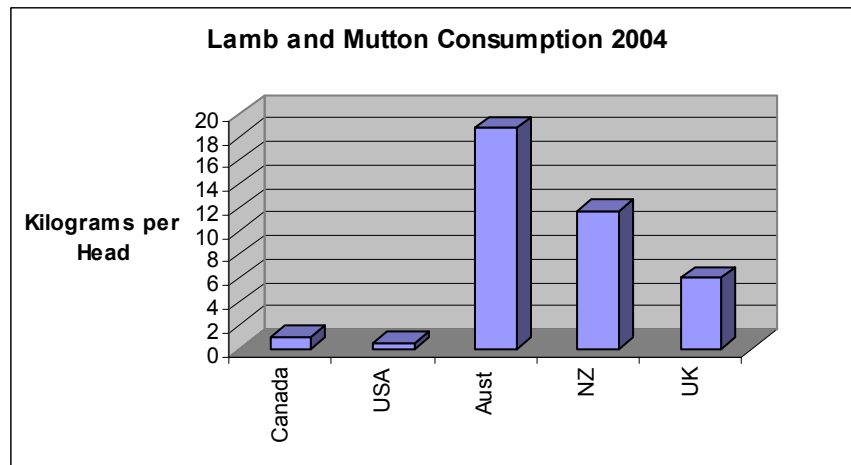


Fig 3 Source: Statistics Canada, USDA, MLA, MWNZ, MLC

Flock Size

Flocks in the countries I visited are now relatively stable.

After a period of high sheep numbers in the UK, driven by production subsidies the flock currently stands at nearly 36 million head, down from a high of 43 million in the early 1990s.

The Canadian flock grew by 46% from 1996 to 2001 to currently sit at 1 million head.

The US flock may be levelling out after a long period of decline, and is currently sitting at 6.1 million head, down 1% on 2003.

New Zealand's subsidy system (abolished in 1984) also pushed its flock to very high levels. In the early 1980s, it had 70 million head, and currently sits just under 40 million.

Australia's flock currently stands at 102 million (Fig 4) down from the wool-driven flock in the late 1980's of about 170 million. Australia exports 32% of its lamb production.

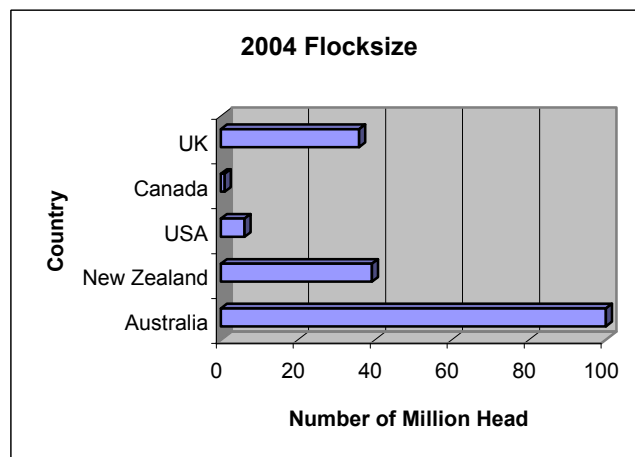


Fig 4 Source: MLC, Statistics Canada, USDA, MAF, MLA

Wool and Skins

Wool is perceived as a problem in most places I visited. Returns from stronger micron wool barely cover the shearing costs on most crossbred and British breeds, though Merinos and their crosses are the exception. Some producers are experimenting with shedding sheep such as Dorpers but most cannot bear to think of all that wool lying around making a mess. Wool presses are a rarity anywhere but New Zealand and Australia, making wool harder to handle in other areas. The usual method is tramping into sacks by foot.

Shearing sheds are also rare outside New Zealand and Australia. The capital investment is instead put into shedding for sheep in the winter, which is also used for shearing. The contractor will bring all the gear and set up usually under cover with a trailer.

Labour is becoming a big issue in the countries I visited. Employing people to shear, lamb down and handle sheep is becoming increasingly difficult.

Australia, New Zealand and the USA have the highest priced skin values, because they have the best skins. It was not uncommon to see lambs ready for slaughter in the UK with brands on the backs of the lambs that were not scourable. Most lambs slaughtered in New Zealand through the winter period either undergo a complete high-pressure wash or a belly wash if they are not too dirty, and are then stood to dry before slaughter.

Recommendation: That the Australian industry increases it's funding in shearer and shed staff training to relieve some pressure on finding labour in future.

Scrapie

With food safety being a major concern for consumers and growers, the UK government has put in place a scheme called the National Scrapie Plan (NSP), to be proactive against possible findings that Bovine Spongiform Encephalopathy (BSE) and Scrapie are linked. So far, there is no scientific evidence to support this.

The scheme involves the blood testing of all rams for a specific gene, the Prion Protein (PrP) gene. All rams are implanted with an electronic identification device – a rumen bolus. This bolus has a unique number, which can be scanned with the appropriate equipment. Rams are graded from type 1 (high) to type 5 (low). Low-resistance rams must be castrated or slaughtered 90 days from being issued with a Slaughter or Castration form, and over time only rams with the highest resistance will be able to be used (Fig 5).

The program is voluntary and all testing, electronic identification (EID) and certification is paid for by the government. Uptake by pedigree producers has been high.

The USA and Canada both have voluntary schemes in place that are funded by government. In Alberta, Canada, all sheep aged over 12 months that die on-farm must have their heads submitted for testing. If this is achieved and an enrolment form signed, they can have all their adult sheep genotyped for Scrapie resistance, provided they individually identify all sheep and maintain records to identify parentage with single sire matings.

Scrapie testing is free for 10 animals in the US. If Scrapie is found, whole flock testing takes place.

Australia and NZ are free from Scrapie. Passive surveillance testing of 400 brains is carried out annually in both countries with very little knowledge of the Scrapie genotype as limited testing is done in pedigree or stud sheep. The cost of the NSP in the UK in the first three years since inception has been 19 million pounds.

Fig 5

NSP RAM GENOTYPING SCHEME CONSEQUENCES TABLE

Genotype	Type	Certificate?		Restrictions (males only)
		Male	Female	
ARR / ARR	1	✓	✓	No restrictions apply
ARR / AHQ		✓	✓	
ARR / ARH		✓	✓	
ARR / ARQ		✓	✓	
AHQ / AHQ	3	✓	-	Sale and breeding restrictions for Type 3 rams no longer apply. However, these restrictions will still be displayed in any Genotype Results Summaries (NSP 11) and Genotype Certificates (NSP 4) issued until IT changes have been implemented.
AHQ / ARH		✓	-	
AHQ / ARQ		✓	-	
ARH / ARH		✓	-	
ARH / ARQ		✓	-	
ARQ / ARQ	✓	-		
ARR / VRQ	4	*	-	Immediate restriction on sale, transfer or breeding. Slaughter or Castration Form (NSP7) issued immediately. Slaughter or castration required within 90 days.
AHQ / VRQ		*	-	
ARH / VRQ		*	-	
ARQ / VRQ		*	-	
VRQ / VRQ	5	*	-	

Key	✓	NSP Genotype Certificate (NSP4) issued
	*	Slaughter or Castration Form (NSP7) issued immediately
	-	No Certificate issued/ no action required

This table is subject to continuous scientific review

Protected Geographical Indications

The European Parliament has implemented Protected Geographical Indications, which are areas of geographical production protected from name usage by any other producers or countries. Both Wales and Scotland have PGI status on their lamb (Welsh Lamb) and beef (Scotch Beef). These are then used as marketing tools as these brands are very well known. England did not acquire this status as it was perceived that it did not have a geographical brand in place when the rules were introduced.

English Beef and Lamb Executive (EBLEX), has since put in place a brand for English lamb and beef that has so far been allowed by the EU.



Industry Background UK

Lamb production in the UK is very intensive with more than 80 recognised breeds and very traditional husbandry practices. The breeds can be broken down to 12-15 main lowland breeds and 4-5 main highland breeds. The main terminal sires are Suffolk, Texel and Charolais with the Blue Faced Leicester being the main long wool breed.

Change in the industry has been slow and the use of Estimated Breeding Values is still not widely understood by most producers. The change of policy by government through 2005 to pay subsidies through a Single Farm Payment instead of a per head payment will change the way producers view their industry. More emphasis will now be put on cost of production, genetic improvement and gaining a return from investment.

The UK industry has a strong basis, with government and industry funded bodies helping the industry. Meat and Livestock Commission (MLC) collects revenue on a UK basis and then distributes the funds to independent bodies within England (EBLEX), Wales (HCC), and Scotland (QMS) with total funding being 28 million pounds.

Supermarkets dominate meat retailing in the UK, the four largest being Tesco, Sainsburys, Asda and Somerfields. Aggressive marketing and procurement of lamb is putting pressure on butchers and farmers. While I was in the UK, Tesco posted a profit of more than two billion pound for the past 12 months. In the late 1970s there were more than 25,000 butcher shops in the UK, but in 2002 this number dipped below 8,000.

With the large population and difficulty in making a return without a point of difference, quite a few farmer-driven marketing avenues for lamb and red meat have opened up, far more so than in Australia. Being a net importer of lamb with a high population of 60 million, the marketing dynamics are different to Australia's export-orientated market.

These include:

1/ Direct to abattoir	5/ Organic brands
2/ Auction sales	6/ Mail order
3/ Direct box marketing	7/ Internet sales
4/ Farm shops	8/ Farmers markets

In Australia, most lamb is marketed either direct to processor or auction market with little co-operation between growers in marketing.

There is also good support for lamb and beef marketing through EBLEX with the "Tuck In" promotion started in Autumn 2003 and the 'Beefy and Lamby' commercials released in March 2005.

Quality Assurance in the UK



The three schemes in place in the UK have a high acceptance rate by producers.

English Beef and Lamb Executive (EBLEX) HCC (Wales) and Quality Meat Scotland (QMS) run the following programs:-

- 1/ Farm Assured British Beef and Lamb (FABBL)
- 2/ Farm Assured Welsh Livestock (FAWL)
- 3/ Quality Meat Scotland Assurance Schemes (QMSAS)

Animal welfare is a big issue in the UK. All Quality Assurance schemes are built around framework to ensure animal welfare standards are high. The environment also features strongly in any policy coming from government or industry.

The sale of livestock outside of these Quality Assurance programs is becoming increasingly difficult. An example of one of the schemes follows.

Welsh Beef and Lamb Promotions

A Co-op encompassing 7000 farmers and 75% of the Welsh sheep flock is funded by a per-head levy. Membership of 85 pounds entitles the grower to an on-farm assurance audit.

Its main charter is to oversee Quality Assurance on-farm. Farm Assured Welsh Livestock (FAWL) has a producer manual that is updated every two years, and covers 75% of the Welsh sheep flock. The scheme has standards that must be reached and maintained in the following areas.

- 1/-Identification and traceability
- 2/-Farm animal management, husbandry and welfare
- 3/-Environment
- 4/-Feed composition, storage and use
- 5/-On farm feeding or mixing
- 6/-Housing and handling facilities
- 7/-Medicines, Animal health and Veterinary treatments
- 8/-Transport and livestock vehicles
- 9/-Biosecurity

Welsh Beef and Lamb Promotions CEO Moss Jones says farm assurance is “a bit like air conditioning – you only miss it when it is not working”.

Quality Welsh Food Certification Ltd monitors the FAWL program to standards set by the EU (European Standard EN45011).

This scheme is very similar to the Australian Flockcare. Australia's Chemcert guidelines are ahead of the UK standards in storage and drum disposal. Most of the guidelines from the Department of Environment, Food and Rural Affairs (DEFRA) would be tighter in each section, for example castration and tailing could only be carried out within seven days from birth on lambs, if over this age, anaesthetic must be used and only a vet can do the castration if lambs are three months old.

Case Studies

Graig Farm Producers

I visited Nuffield Scholar Nigel Elgar, who manages an Upland Wales farm involved in organic production.

Nigel is a director of Graig Farm Producers Pty Ltd. It specialises in organising sales for 200 members at a cost of 35 pounds/year/member. It also sources large orders of tags, fertilizer, seed, cereals and feed for members at lower cost, and has an annual turnover of 3 million pounds, giving a return to members based on kilograms of meat traded for the year.

Graig Farm Producers charges 2% commission to the member and 2% to the processor and because most works contract kill, the group chooses the closest kill point to deliver to. About 70% of the lamb goes through Sainsbury's supermarkets sold under the Graig Farm Producers brand. A separate company called Graig Farm Organics also sells lamb in its own shop. Turnover ranges from 30,000-35,000 head per year, with all lambs sourced in Wales. The lambs are produced to a defined standard for organic food and are fully traceable by batch to the farm of origin. All chemical use is minimised and GM feeds are prohibited from use. Graig Farm Producers employs a full-time manager and an administrative officer three days per week.

This operation appeared to run very well with a good rapport with the processors. It was interesting to note the use of supplying farm inputs to encourage more farmers to become members. With the return of a dividend per kilogram of meat traded and the likelihood of lower prices for inputs, it is easy to keep the membership base.

Dolaucothi Estate

In the Cothi valley, located in the Cambrian Mountains in the heart of Wales, a group of eight tenant farmers have banded together to sell to a local abattoir. Oriel Jones and Son then process the lambs and supply Sainsbury's, who in turn sells the lamb as a branded product.

All the farmers involved are tenant farmers of the National Trust and are Farm Assured Welsh Lamb (FAWL)-registered. In talking to plan instigator Hugh Davis, he intimated that they were getting a useful premium per kilogram for their lamb. They supply for three months of the year from September through till the end of November on a weekly number contract of 250 per week with a variance of about 30 per week.

This operation was simple and effective for those involved the supermarket liked the concept of being able to tell a story with the product and sell a clean and green image, along with the concept of the farmers taking good care of their stock and managing the land.

Farm House Lamb

Rebecca Moore a Nuffield scholar of West Sussex was the facilitator of a branded lamb product Farm House Lamb in the region south of London. At its peak Farm House Lamb handled 60,000 lambs annually, selling through Waitrose supermarkets. All products were traceable as each lamb was individually tagged and recorded. This arrangement ceased when negotiations with the abattoir broke down.

South Down Lamb

South Down Lamb was created from a government grant matched by landowners in the South Downs area of West Sussex. It was instigated to keep the traditional look of the area preserved for example South Down sheep in the rolling hills of West Sussex. Seventeen farmers were involved with full carcasses going through to butchers at a premium of around 5 pound/head. The group held training days for the producers to create better selection of lambs. Processor and delivery problems were starting to emerge with the geographical area a constraint to lamb supply.

South West Quality Meat

Elizabeth Bowles managed South West Quality Meat from when it was launched in June 2000 to when it ceased to trade in July 2001. The company was formed with the aid of input from three member groups representing more than 300 farmers and government funds.

These groups are: 1/ Cornish Quality Livestock Producers Ltd

2/ Wessex Quality Meat Producers Ltd

3/ Bodmin Moor Farmers Club

The key objectives of the company were to deliver best eating quality every time, to develop a strong regional brand identity and to value add for the producer.

Liz said the main reason for failure was that the processor did not have the same philosophy as the grower groups. She also thought that the brand needed to represent all meats to give it credibility, and that the producers involved needed to have a larger sense of financial ownership.

Other problems were that 60% of the cattle offered were dairy-based breeds which created quality issues, and the product range also needed to be more innovative. The group did not have a good financial return.

Well Hung and Tender

Although not lamb, this example of marketing was at the cutting edge and proving very successful.

“Well Hung and Tender” was a brand conceived by Don and Sarah McPherson, to value add and sell their home grown Aberdeen Angus beef. After Don completed his Nuffield Scholarship on beef eating quality in 2002, he realised the only way for him to serve consistent eating quality was to extend the maturation length to a minimum of 24 days in the chiller. The stock was then prepared locally for sale, targeted at the upper end of the price bracket at Farmers Markets in and around Edinburgh, which were usually held over the weekend. A chiller van was used to transport all the equipment and meat, and labour was hired as required.

Apart from fresh meat sales, they served hot barbecue burgers using unsold meat from previous markets, utilising whole carcass and limiting wastage. Customers were attracted to the wonderful aromas coming from these stands.

Sale of burgers now makes up at least half the income from the business. The husband and wife team often attend two markets on the same day.

When I visited this business they had attended three markets over the weekend and grossed more than 5,000 pounds. Many customers were repeat buyers and although Don could sell ice to the Eskimos, his consistent, quality product sold itself.

Secrets to success

1. Sale of whole carcasses through the burger trade.
2. Working while the most people were relaxing.
3. Consistent eating quality for repeat custom.
4. Future planning to grow the business, looking at franchise, and buying in cattle rather than producing them all himself.

Conclusions

1. Quality Assurance is here to stay so the quicker producers get on board, the easier it will be.
2. Food safety and confidence in labelling is high on UK consumers minds.
3. UK consumers like a connection to agriculture when they purchase food, for example farmers markets, direct box marketing, and farm shops.

Industry Background Canada

Sheep farming in Canada is a small industry. With only 1 million sheep the flocks are small averaging 75 head. Nearly all lambs are finished on grain. The flock is probably under reported as many lambs are sold as freezer lambs, for example killed in an inspected works then taken home by the owner to on-sell. One property I visited sold 30% of lambs this way. The producer was well paid (\$160 CAN for an 18 kilogram carcass). Shearing costs were about \$3/head if enough numbers were offered. All ewes lambed indoors for at least a short period with most lambs born between January and July. People involved in the industry are optimistic and very enthusiastic with the high prices being paid. The winter conditions in Canada are not ideal for broadacre sheep production with all sheep being housed through the coldest periods, making it difficult for the industry to grow too large.

Only 50% of sheep and lamb consumption is produced in Alberta the rest being imported. The largest producers of sheep are Hutterite colonies which are communal farming structures based around a religious background

The Canadian sheep industry is well serviced by producer funded bodies in each province. I visited Alberta Sheep and Wool Commission in Airdrie and found that there were good programs in place for both sheep identification (Canadian Sheep ID scheme) and Quality Assurance (Canadian Food Safe program). The downside I found was the inability of the provinces to pool funds and work together for a common goal in promoting sheep and lamb meat consumption.

Case Study

Sunterra Farms

This is a family owned business specialising in pork, veal and lamb. The Price family has owned Sunterra Farms for three generations, developing their business on the strength of growing, processing and marketing these meats. A true example of vertical integration, the family believes that by owning and controlling each aspect of the production chain customers needs can be most consistently met.

With more than 800 staff employees throughout the operation, it is a corporate affair from the farms producing hogs, cattle and lamb, two federally inspected meatworks and Sunterra Market shops in Calgary and Edmonton, Sunterra Farms produces and markets meat and other produce, locally and to the world.

I visited the meat processing plant at Innisfail and spoke with the plant manager Miles Kliner. Sunterra Farms set up the “Canada’s Freshest” brand in the early 1990s, with 98% of lamb processed and sold in eastern Canada under that brand. The group kills about 1500 lambs per week, with short periods filled with lambs from their own feedlot (10,000 head capacity).

Miles suggested that supply and carcass consistency were major problems, partly caused by 90% of ewes lambing in the spring resulting in tight supply from February to April. Sunterra Farms also offers a feed on contract, where producers are guaranteed a price to have their stock fed through Sunterra’s feedlot while paying for the feeding to help secure lambs.

The major control Sunterra has over supply and demand is that it only ever sells product pre-slaughter so that all processed produce has a home to go to. This means that marketing drives the business, and also helps to maintain good prices.

A premium grid pricing structure is used to purchase lambs. This grid is based on the parameters of Sunterra Farms pork grid, and uses three elements to calculate the final price.

- 1/ Fat cover: The GR (Grade Rule) measurement is the total fat tissue depth of the site over the 12th rib, 11 centimetres from the backbone.
- 2/ Muscle Score: The average of three subjective muscle grades (leg, back and shoulder) out of a score of 1-5 with 5 being the best.
- 3/ Weight: Target weight 45- 56 pounds with premiums to 60 pound.

The payment calculation is then: Base Price x Grade Index x Weight Index, with the Grade Index weighted toward highly-muscled, leaner carcasses.

Sunterra Farms, in conjunction with Alberta Sheep and Wool Council has invested in a Sire referencing scheme that has been running for two years to identify best genetics. It has involved producers following lambs through the works and also trains producers with best practice production methods to get the most out of their enterprise.

Industry Background USA

The lamb industry in the US has shrunk to a level where most producers still involved are committed to the industry. It is hard to believe that after World War II, there were 56 million head of sheep in the USA. The emphasis then was on wool production with lamb as a by-product to wool. With the downturn of the wool industry since the mid 1960s the flock numbers have also dipped despite government intervention. The demise of the wool tariff scheme in the early 1990s, where tariffs on imported wools were passed back to US growers, led to producer returns plummeting and sheep numbers falling rapidly. The decline in wool mirrored the decline in lamb and mutton consumption with a drop from 4.5 pounds per capita in 1960 to 1.1 pounds at present.

As the consumer is perceived to like big servings, the carcass weight on lambs killed is indeed heavier than we see here in Australia. A lightweight lamb is 25 kilograms dressed and a heavyweight 38 kilograms. Raising the carcass weight was also seen as a way to increase production from the falling number of ewes. Not all consumers or meat fabricators like the big cuts, the long legs are hard to sell but of course racks and loins are easy. The larger carcass weights have also added to the problems of lambs being over-fat at slaughter with little genetic gain made since weights were increased.

There are only five major slaughter houses left in the US with the possibility of more rationalisation in future if the flock continues to decline. Lamb is defined in the US by the break joint in the front leg, for example if the joint comes away as a clean break it is defined as a lamb, if the joint breaks it is a hogget. This roughly lines up with dentition and cutting teeth but tends to let them get to heavier weights.

In the eastern states, lambs tend to be killed at lighter weights. Nearly all lambs are finished on grain some in custom feedlots and some by the owners.

The oversupply in kill space as numbers have declined has made it easier to set up co-ops as they have strong bargaining power.

There is no national Quality Assurance scheme in the US. Producers in the mountain states have major problems with predation, as bears, mountain lions, wolves and coyotes often attack and kill sheep. The poison 1080 was banned in the US in the early 1980s and since that time wolves and especially coyotes have increased in numbers and become a huge problem. Some restitution can be sought through the government agencies if a kill can be proved and the animal inspected. A mountain lion kill returns at 3 to 1 and a bear at 1 to 1. No payments are made for coyote kills, for example a sheep killed by a mountain lion would have the owner compensated for three sheep.

Anecdotal evidence puts the sheep and lamb losses to predation as high as 10% in some areas.

Case Studies

Mountain States Lamb – Wyoming USA

History

This is a producer Co-operative founded in 2001 consisting of 129 members, and based in Douglas, in the heart of Wyoming. Mountain States Lamb was originally set up out of frustration from lack of marketing opportunities and uneven consistency of product, coupled with low prices. It drew members from numerous states in the USA. The Co-op gained momentum with the purchase of a 50% stake in B Rosen and Son, a meat fabricator (packing) and Distribution Company in the north eastern states, based in New York.

Structure

Mountain States Rosen markets 20-30% through put of all lamb produced in the USA. Mountain States Lamb supplies about 40% of this quantity, sourcing up to 5000 lambs per week from members.

Share ownership entitles members to deliver one lamb for every share over a 12-month period. If under delivery takes place, a penalty is applied.

Mountain States Rosen is developing new markets in pre-packaged and food industry products. It is also focusing on cultural markets Halal (Muslim) and Kosher (Jewish). The Kosher market is especially treasured as its focus is on the whole fore-quarter, a cut which is sometimes more difficult to trade.

Markets for all natural lamb (antibiotic and hormone free) are growing and currently make up 20% of the co-operative's kill. Producers gain a 3cent per pound premium for natural lamb and sign a declaration stating that no antibiotics or hormones have been used. The remainder comprises regular lamb.

Lambs are purchased by Mountain States Lamb on a grid system which offers premiums and discounts. A variety of weights are desirable for fabrication to supply the needs of numerous customers. Mountain States Lamb producers acquire an offal credit of about 75 cents per head and are paid for the pelt. Producers pay Mountain States Lamb a \$1US marketing levy, freight to the fabricating plant and a kill fee of \$8.40 US.

Conclusions

Mountain States Lamb Co-operative has been very successful

- 1/- Producers have a consistent sale avenue
- 2/- Producer returns have increased via direct vertical integration as they receive a dividend from Mountain States Rosen via the co-op.
- 3/- Due to the existence of co-ops such as Mountain States Lamb there has been stabilisation of the US flock.
- 4/- Australia has lifted exports to the USA through the decline in the US industry.

With only 3-4 million lambs killed in the USA per year, this represents an ideal opportunity for Australian lamb to boost consumption in the US.

Prairie Lamb Co-op

Prairie Lamb Co-op was established in 1994 by seven Minnesota lamb producing families. In the face of a rapidly expanding lamb import market, these producers could see a bleak future in the lamb industry unless they tried something different. They decided to try to market differentiated and creative lamb products as a Co-op.

The goal was to bring to the retail market a range of lamb products that had never been available to mainstream American consumers.

The Co-op spent time over a period of five years undertaking surveys, taste tests in restaurants, and visiting processors of frozen oven ready meals, to come up with five new pre packed meals including

1/ Lamb Rogan Josh

2/ Lamb and Apricot Tagine

3/ Chicken Lajawab

As above, not all were lamb meals. The Co-op wanted to create a brand that would be recognisable and entice new lamb consumers to try lamb and other meats under their brand, which provided “authentic, exotic, ethnic meat dishes”.

The Co-op aimed to start at 350 lambs per month growing to 1000 per month over time with their target markets being hot food counters in supermarkets, delicatessens, malls and airline catering services.

With a lot of hard work and thought put into this venture the final stage came to undertake an equity drive among Minnesota lamb producers. The drive failed due to producer apathy and the Co-op was disbanded.

Conclusions

- 1/ Most farmers are reluctant to be involved in group marketing as they are fiercely independent.
- 2/ Basing a venture on new consumers with new products can be very challenging.

Industry Background - New Zealand

The sheep industry in New Zealand has undergone major change in the past 20 years coming from an era of industry subsidies and many different industry bodies, to being directed by just two groups with no subsidies. Meat and Wool New Zealand collects all levies from sheep, wool, beef and goats, and runs on an operating expenditure of \$37.3 million. The Meat Board oversees the quotas to the European Union.

With 90% of sheep and lamb meat exported, NZ is extremely focussed on exports. Because of New Zealand's clean and green image producers do not grain finish their lambs. With higher returns on exports to the UK and France, a larger emphasis is put on these markets than the US. New Zealand has a quota of lamb and sheep meat into the EU of 226,000 tonnes compared with Australia at 18,650 tonnes. (Argentina has a quota of 23,000 tonnes). The distance to the EU markets is seen as a positive, as eating quality improves while the fresh product matures on route.

The climate and conditions in NZ are very good for sheep, with the high country suiting fine wool Merinos and the lower country better for crossbreds and lamb production. Lamb turn-off is reasonably stable on the North Island all year with the South Island having a huge turn-off spike at the end of spring. Grazing systems are intense with many sheep through winter creep grazed with electric fencing on crop (Kale or green feed oats) or pasture to maintain bodyweight through winter enabling large mobs of sheep to be run on small areas. Monitoring of pastures and inputs is more intense than in Australia. Many sheep pastures are run as efficiently as dairies.

With the wet winters, lambs to be slaughtered are high pressure washed to remove mud, and stood to dry. All lamb abattoirs in New Zealand are fitted with electrical stimulators to ensure consistency of eating quality.

There are several large meat companies in New Zealand with two groups- Primary Producers Cooperative Society (PPCS/Richmond) and Alliance group-processing about 15 million of the 24 million lambs killed each year. The largest works capable of 32,000 lambs/day at peak.

Sheep numbers in New Zealand have declined from a peak of 70 million in the early 1980s to 36 million at present, with productivity improvements in the past 20 years proving beneficial to the industry.

	1990-1991	2004-2005
Lambing %	101.6	123.2
Ave lamb wt in kg	14.35	17.14
Lamb sold kg/ewe	9.76	15.8

Source: Meat and Wool New Zealand

*This equates to 12% more lambs from 31% fewer ewes

Current returns for producers are profitable and the industry appears strong and viable. The only negative element I found was the shortage of labour, both on-farm and for the abattoirs. New Zealand has done a superb job of creating a clean and green image in the UK and Canada through industry marketing campaigns.

Case Studies- New Zealand Producer Co-operatives

Co-operatives have been a successful tool for New Zealand producers. Many younger producers do not appreciate their situation having strong processing and marketing institutions owned by producers.

Alliance Group

In the early 1960s a group of farmers applied to the New Zealand Meat Board for a licence to build an abattoir because they were frustrated at the lack of available marketing opportunities. They built the Lornville Plant with a full capacity of 32,000 head/day. They now run seven works which are all on the South Island. Alliance has Co-op members from whom it sources stock. Payment for lambs is made in several different ways

- Pool- 90% up front, then delayed distribution payment
- Per kilo
- Per head (This method is used the least)

Alliance has in place its own Quality Assurance scheme (similar to Flockcare) which is audited by drafters. The Quality Assurance program started in October 1997 and has four main focuses:

1. Animal welfare- five freedoms
2. Food Safety- health, hygiene, residues
3. Management recording systems
4. Audits

It also has sheep presentation standards and will only accept lambs of A or B presentation (clean or crutched) following major issues with stock not crutched and presented in dirty condition. Each lot of stock must present with a declaration form and no grain fed lambs are accepted.

The Co-op has markets throughout the world from Marks and Spencer in the UK to varied markets in Europe and USA.

Murray Taggart, Director on the board of Alliance Group stated that

1. “The meat industry is one of the few industries where you need to compete in two markets - procurement and sales”
2. “Tension for procurement is high as two more killing works have been added and the number of lambs and stock available has fallen”

PPCS/Richmond

Slogan – “Suppliers of quality to the world”

PPCS/Richmond is New Zealand’s largest meat marketing company, exporting to more than 60 countries. It is involved in sheep meat, lamb, venison and beef turning over \$2 billion annually including about 37% of New Zealand sheep meat exports. The company is owned by 9000 farmer members, with 26 processing plants employing 8000 staff during peak season. Farmer representatives are elected to the board of directors, with the board made up of 12 directors – two independent and 10 shareholder representatives, with a rotating two year term.

Farm assurance programs, of which 70% of suppliers are involved, are the platform which provides full traceability on carcasses and batch traceability on meat cuts. These schemes, again, are very similar to Flockcare and encompass fencing, yarding, livestock handling processes and record keeping. PPCS has been working on a DNA traceback scheme for six years and is nearly at their target point of being able to test 10 lambs/minute at a cost of 10cents/lamb. A shortage of boning staff has intensified the development of robotic boning, and PPCS is currently at the level of 20 legs per minute with minimal labour input.

The Co-op runs pools and pays 90% in three days, the balance paid within three months. It then also returns a dividend, one third of which can go to purchase more shares and two thirds returned as cash. The cap on share ownership currently sits at 17,500 shares, and with a profit of \$60 million last financial year, \$40 million was returned to members.

Regular communication from the board to members is achieved using roadshows up to three times per year. Loyal members are rewarded with kill space at difficult times especially with deer, as deer kills are currently at record levels with most producers reducing their herd numbers.

The Co-op is throughput driven, employing 100 company field representatives to source livestock all over New Zealand. A weekly price schedule is produced with suppliers having the choice of schedule, schedule plus rebate, per kilogram, per head or contracts, giving the producer a wide range of choice.

Both entities, even though in competition for procurement of stock and market share, have been great vehicles for New Zealand producers to be a part of putting competition, reliability of market options, and pricing into the industry.

Conclusions

1. Co-operatives have serviced the New Zealand sheep industry well, and have been set up in tough times making it appealing for producers to join.
2. Co-operatives in the current economic climate are more difficult to setup.
3. Quality Assurance underpins both Co-ops philosophies.
4. Long-term marketing push by industry of “clean and green” image has worked very well.

Industry Background Western Australia

Western Australia was very different to any other sheep production area I visited it has an undersupply of kill space. Lambs have to be booked in 12 months ahead with 3 to 5 million being shipped off in the live sheep trade when operating.

Merinos are commonly used for meat and especially as lamb, with most farms that run sheep also finishing some lambs through a feedlot system. This helps continuity of supply throughout the year and makes marketing a lot easier and prices more even, instead of a huge spring glut and associated low prices.

There are six main abattoirs in Western Australia, all south of the latitude of Narrogin in southern WA.

The Western Australian Meat Marketing Commission used to have the power of acquisition on every lamb slaughtered and exported in WA. For this, the processor paid a levy to the WA Government run Commission anywhere between \$6 and \$14 which was designed to return a payment to producers. This commission has now been abandoned

Case Study

WA Q Lamb- Western Australia

History

Q Lamb was established in September 1995 at Narrogin Western Australia, by Alan Jarman former Lambplan consultant for WA. He and a group of producers, including Hillside Meats owner, Peter Treford, started an alliance to reduce the spring glut/ low price, late winter/high price regime.

Annual throughput started at 4500 lambs in 1996-1997 to 178,000 lambs in 2003-2004. Currently lambs are booked in for kill space before the start of the lamb year (August 30th / September 1st) with bookings completed by the August 1st for the full 12 months ahead.

Structure

Q Lamb is managed as an incorporated body and is a non profit organisation with a 215 closed member base.

The alliance WA Q Lamb owns the trade-mark as Q lamb, and has registered its trademark (logo) in five countries. All lambs are processed at Hillside Meats with Action Supermarkets being the sole WA supermarket retail outlet. Their aim is to put through 25% of total lamb throughput into Action Supermarkets. Hillside, through Q Lamb, also has overseas markets in Singapore, Japan, Mauritius, Thailand, Hong Kong, Mexico, Sri Lanka and Vietnam. Thai Air also serves WA Q Lamb.

To keep Q Lamb operational for each member's slaughtered lamb, 50 cents is collected from both the producer and processor which funds the office and salaries.

Communication with members is maintained via a monthly newsletter which reports on current issues.

In 2004 a 10c/kg premium was instigated for any producer who was Flockcare accredited with 45% of members now in the scheme, delivering 70% of total production. The aim is to have all members accredited by October 2007.

Each individual lamb is weighed and fat scored before slaughter, with both first cross and Merino lambs accepted. All Merino lambs must be finished on a hard ration (pellets or grain) for at least 24 days.

Q Lamb has developed a tight specification grid resulting in 97% of lambs now reaching the target. These lambs have 6-15millimetres of fat at the GR site and in the 17–24 kilograms dressed weight range. This has been achieved through education and field days to teach growers the type of lambs consumers want and, more importantly, how to select them.

On viewing the quality of product in three major supermarkets it was evident that the tight specifications set enabled the end product viewed in the Action Supermarkets to be very even and well presented. The wide choice in competing meat products does not allow any room for poor quality lamb to be sold. As Q Lambs procurement officer Reg Crabb says “you can only trim off so much fat and maintain integrity of the product”.

Conclusions

- 1/- Selecting the appropriate partners is crucial to success in a branded product.
- 2/- Tight specifications ensure a consistent, marketable and saleable product
- 3/- Quality Assurance is vital to have a stand alone, successful branded product
- 4/- Year round supply is the key to success of branded products.

Summary

From my travels I conclude that the sheep industries in the countries I visited share many similar issues. Uptake of breeding for performance to enhance the whole industry using Estimated Breeding Values (EBV's) is slow to take hold. Producers tend to look at the short-term view instead of long-term for industry benefit. We must remember that the Australian industry is small in global terms, so any tools that can increase productivity must be used to ensure the survival of sheep farming. Fat is a major issue to processors and end users. It amazed me that the British could still afford to eat lamb.

Consumers do not owe lamb producers a living. We must produce a product that is affordable and of high quality (more meat, less fat) with confidence from the consumer in food safety, therefore involving Quality Assurance.

In closing I also found that:

1. Any lamb producer can value add to their bottom line by being a member of a group or organisation that holds ownership further down the marketing chain.
2. To be successful, this group or organisation must:
 - a. Have year-round supply.
 - b. Deliver quality with integrity.
 - c. Have the ability to adapt and change.
 - d. Use continuous innovation and improvement.
 - e. Target niche, not commodity, markets.
 - f. Establish full Quality Assurance over time.
 - g. Ensure the business grows.
 - h. Ensure the producers have a sense of ownership
3. Quality is defined as 6-15millimetres of fat at the GR site.

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