

Nuffield Farming Scholarship 1996

D A Brown
Oamaru
NEW ZEALAND

Objectives of Study

The Meat Industry - "Pasture to plate" with particular emphasis on quality meat production to match rapidly changing consumer demands.

General Agriculture - Farm management practices relevant to New Zealand.

Nuffield Farming Scholarship 1996

Recipient

D.A. Brown
Punchbowl
6 O.R.D.
Oamaru
New Zealand
Phone / Fax (03) 439-5693

Objectives of Study

The Meat Industry - "Pasture to plate" with particular emphasis on quality meat production to match rapidly changing consumer demands.

General Agriculture - Farming management practices relevant to New Zealand.

Countries of Study

Hong Kong, England, Scotland, Wales, Northern Ireland, Republic of Ireland, Holland, Belgium, France, Germany, Austria, Turkey and China.

Contents

	Page No.
Abstract	4
Introduction	6
Areas of Study	7
Section 1 European Farming - an overview	
1-1 Farm Size	8
1-2 Subsidies	8
1-3 Efficiency of agricultural output	9
Section 2 European Sheep Farming	
2-1 The Production Sector	10
2-2 Production Output	10
2-3 Efficiency of Sheep Production	11
2-4 British Sheep Breeds	12
2-5 Sheep Breeding Technology	13
2-6 The Future of Sheep Farming in New Zealand	13
Section 3 The Processing Sector	
3-1 Beef and Sheep Abattoirs	15
3-2 Comparison of Meat Processing Industries	15
3-3 Lloyd Maunder - Exeter	15
3-4 Brooks of Norwich - Norwich	16
3-5 Bernard Matthews - Norwich	17
3-6 Product Development	17
Section 4 The Market Place	
4-1 The Supermarkets	19
4-2 The Food Service Sector	20
4-3 The Changing Nature of Food	20
4-4 Lamb in the Market Place	21
4-5 Food Traceability	22
Section 5 New Zealand's Future Place in the Market	
5-1 The Developing Global Market	25
5-2 The Supermarket Partnership	25
5-3 The Service Sector Partnership	26
5-4 New Zealand's Clean Green Image	26
5-5 Promotion in the Marketplace	27
5-6 The New Zealand Meat Producers Board	28
Conclusion	30
Acknowledgements	31

Abstract

European agriculture is dominated by small holdings. Like New Zealand declining product prices in real terms are forcing farms to amalgamate and large units are producing an increasing percentage of the output.

Subsidies still play a major part in European agriculture but reductions will occur as subsidies are not sustainable in the long term at present levels.

Crossbreeding within the United Kingdom sheep flock is widely utilised using a 3 tiered structure which focuses on optimising meat output. A wide diversity of breeds are utilised to achieve this and little emphasis is given to wool production.

To remain international competitive New Zealand sheep farmers must produce a product that is better targeted at the market place. Utilising new technology and better genetics will help achieve this aim.

The United Kingdom sheep processing sector is dominated by small abattoirs in comparison to the pig and poultry sector which is dominated by large processors. Processors such as Lloyd Maunder, Brooks of Norwich and Bernard Matthews run large efficient operations where a huge emphasis is put on product development. Supermarket product requirements are becoming more exacting and the convenience food sector is expanding rapidly.

Large supermarkets chains dominate the food retail business in the United Kingdom with inhouse branding widely used by the big players. The large supermarket groups are spreading their influence into Eastern Europe and Asia while the food service sector (hotels, restaurants, institutions, airlines etc.) continues to grow rapidly.

Food consumption habits are changing for the following reasons

1. People are more health conscientious
2. Consumers want variety in their diets
3. Increasingly customers want fresh food
4. Demand for convenience food is expanding rapidly
5. Food safety is of paramount importance
6. Consumers are very aware of animal welfare issues
7. Consumers are becoming increasingly aware of environmental issues.

The image of lamb needs repositioned with new innovative products and all sectors of the industry need to promote the benefits of eating lamb in a balanced diet.

Food traceability systems are now essential in any food chain from the primary producer through to the final customer. Farm Assurance schemes are now an integral part of the chain to ensure that food is safe and produced in an animal welfare and environmentally friendly way.

The New Zealand lamb processing sector must form close partnerships with the supermarket chains of the world. Our clean green image must be protected, enhanced and exploited as much of the world is heavily polluted.

We must protect the integrity of the country of origin brand "NZ Lamb" because like it or not that is the main brand for our lamb. However where possible new brands would help reposition lamb and lift its image.

New Zealand lamb is a minority meat in world terms. The modern sophisticated consumer seeks new eating experiences. Provided the industry can provide innovative exciting products lamb will be an integral part of these new eating experiences.

Lamb farming has a bright future in the long term.

Introduction

I am married to Jeannie and have two children Simon and Alice. We farm 400 hectares at Maheno, North Otago running sheep and beef on rolling downlands with an average rainfall of 500 mm.

The main focus of our farming operation is over recorded flocks of Romney, Suffolk and Poll Dorset sheep. It is our intention to expand this operation through increasing ewe numbers and adding new breeds as we see fit.

I am actively involved in Federated Farmers, the New Zealand Suffolk Breed Committee and the Otago Southland Sheep Council.

With this background in mind I set out to examine the meat industry from the farm to the retail sector in most of the countries visited. Much of the emphasis was on sheep meats and how New Zealand fitted into the overall scenario.

General agriculture practices were also examined on the many farms we visited.

D.A. Brown

Areas of Study

February 1996 to July 1996

February	Hong Kong - 2 days Mr Lee	
February to March	6 weeks Nuffield Group London, Wye, Holland, Belgium (Brussels), Paris, Boveran, Amien Central England, Wales, Northern Ireland	
April	England Retail Sector Processors Farms MLC Brussels NZMPB WNZ Hamburg Retail Trade Munich Retail Trade	
May	Dusseldorf WNZ Paris Importer, Retail Trade	
	London Ken Rouse NZ Lamb Co	
	Swindon	NZDB - Anchor Foods
	Norwich	Brooks, B. Matthews
	Ikley	WNZ
	Scotland	Farms
		S.A.C., SQBLA
	Northern Ireland	Nuffield Sheep and Beef Tour
June	Ireland	Processors, Research Stations Farms
	Wales	Aberystwyth University
	Scotland	Shows, Suffolk Sheep Breeders Processors
	England	Royal Show L. Maunder, Farms ENZA
July	Turkey China Home	

1 An Overview of European Farming - on farm

Most of my farm visits were in the United Kingdom and Ireland. Clearly European farming has huge diversity when compared with New Zealand but even within the United Kingdom and Ireland this is also apparent. My main impressions were:

1-1 Farm Size

Much of European agriculture is dominated by small holdings. For example the average farm holding over 1 hectare in France is approximately 31 hectares, Belgium 20 hectares, Germany 29 hectares and the United Kingdom 52 hectares.

I was told the average dairy herd in France is around 30 cows and the United Kingdom 70 cows. Clearly compared with New Zealand many of the units are very small and lack economies of scale. Agriculture support in the form of subsidies enables the small operator to survive but increasingly more and more farmers are being forced to work off farm to supplement their incomes or exit the industry due to financial pressure.

The number of full-time farm holdings in the United Kingdom has decreased from over 200,000 in 1968 to under 130,000 in 1996. However whilst European agriculture has traditionally been dominated by small holdings there are also many large holdings which have a huge influence on the output of British agriculture. The largest 9% of holdings account for around 48% of output.

Within the European Community (EU) there is huge opposition from farmer groups to reducing Common Agriculture Policy (CAP) Support payments as it is these payments which support the whole agriculture infrastructure. This was particularly evident in France and Ireland but in the United Kingdom there is a realisation the subsidy reduction is inevitable due to

- 1 further liberalisation of world trade under GATT which will require subsidy reduction
- 2 the extension of the EU to the East. The CAP takes nearly 50% of the EU budget and clearly with any extension it will not be possible to continue subsidising farmers at 1996 levels.

1-2 Subsidies

It never ceased to amaze me how much subsidy there is in EU agriculture. As previously mentioned it sustains the whole infrastructure but for how long?

The more common subsidies are cow and ewe premium paid on a per head basis or area payments for cropping farmers. Many areas are classified as "less favoured areas" (LFA) and demand higher per head payments for cattle and sheep.

Some of the more usual subsidies I discovered were

1. subsidies for the maintenance of stone walls
2. subsidies to take agriculture land out of production for a specified period each year to protect native fauna and flora.
3. subsidies to compensate Welsh farmers for sheep affected by radioactive fallout from Chernobyl. It was discovered that when sheep were tested in slate yards they gave a higher radioactive reading than those tested in timber yards and hence more subsidy.

Loopholes such as this are common and the subsidy system is often abused.

From a New Zealand point of view there are two differing perspectives one could take on subsidies.

Firstly the continuation of the subsidy regime could be viewed as positive from New Zealand's point of view in that it locks European agriculture into a time warp. Small inefficient holdings can survive and hence output is stifled. Should subsidies be reduced dramatically rationalisation would have to take place to give greater economies of scale in land holding area and an increased efficiency within the farming business.

Pastoral farmers would be forced to adopt lower cost farming methods as in New Zealand. The present subsidy system feeds everyone in the system so that the costs come up to meet the outputs and ultimately the farmer is little better off. An analysis to compare British dairy farm returns with those in New Zealand found that despite a significantly higher per litre price for milk in the United Kingdom (2 to 3 times more). The high costs and significantly smaller dairy units meant that the net return to the New Zealand farmer was higher on a per hectare basis.

Secondly subsidies earn the wrath of nations interested in the liberalisation of trade in that subsidised product often undercuts the market on which other unsubsidised nations depend on for viable agriculture output. European countries are able to subsidise agriculture as generally it is a small percentage of G.D.P. output compared with countries like New Zealand whose agriculture output is a large percentage of G.D.P.

Subsidy reductions will occur but only slowly as they are still vital to sustain the whole viability of the rural sector. For example in France only 4% of the population is directly involved in agriculture but 30% of the population live in rural areas and have huge political clout.

However there is a realisation that subsidies need diverted away from direct commodity output into indirect payments that are aimed more at sustaining the infrastructure of the rural economy and stewardship of the land.

1-3 Efficiency of Agriculture Output

The efficiency of European agriculture varies hugely. I sighted small dairy farms in Austria with less than 20 cows who still send their milk to the factory in milk cans. On the other hand I visited the Bernard Matthews operation near Norwich which grew and processed 17 million turkeys annually in a totally vertically integrated structure.

Pastoral farmers of sheep and beef in the United Kingdom and Ireland have smaller economies of scale compared with New Zealand. Generally they are traditional by nature and very much reliant on subsidies and quota for their viability. They are labour intensive operations with much of the stock housed for long periods over the winter in most parts of the United Kingdom.

Arable farming is regarded as being significantly more advanced than pastoral farming. Once again subsidies give the cropping industry much impetus and there are a number of large cropping operations who receive an annual cheque of over £1 million pounds of subsidy.

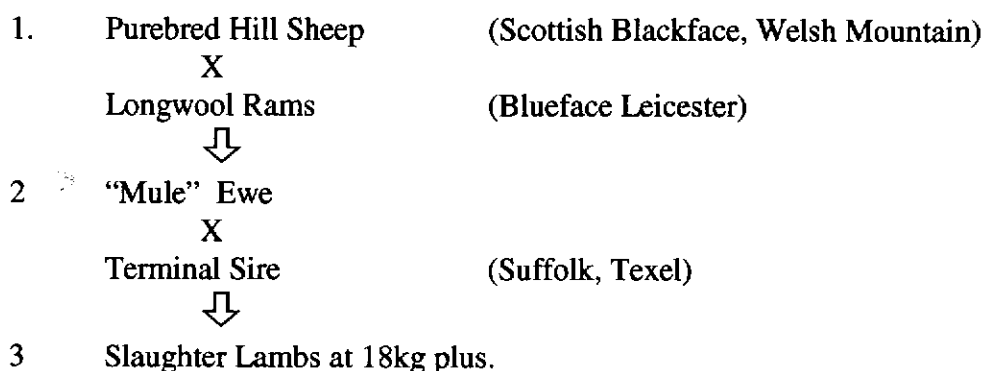
The poultry and pig sectors have become very polarised and dominated by large efficient players. For example the salmonella scare in the British egg production industry in the early 1990's caused the market to collapse. Small production units became uneconomic and now the industry is dominated by a few large players who deal directly with the large supermarket chains.

2 *European Sheep Farming*

2-1 *The Production Sector*

The United Kingdom (UK) has the largest sheep flock in the European Union (EU) with a national ewe flock of approx. 20 million which accounts for 30% of the total EU flock. Whilst the United Kingdom flock is relatively stable numbers in the rest of Europe have generally fallen significantly. By New Zealand standards the flocks are small. The average EU flock is just over 100 head (all sheep) with the United Kingdom average being approx. 450 sheep. The average UK sheep farmer runs 230 ewes and the Irish 85 ewes per flock. The United Kingdom lamb output is produced by a 3 tiered pattern of breeding and production.

Hill breeds of sheep such as the Scottish Blackface, Welsh Mountain and Swaledale are maintained as pure breeds in generally harsh environmental conditions. The flocks are self replacing but after 3 to 4 lambings the ewes are sold to other upland farmers whose farming environment is generally easier. The hill country ewes are then mated with specialised long wool crossing breeds, principally the Bluefaced or Border Leicester. This cross produces the "mule" female which is on sold to lowland flocks. The crossbred or "mule" ewe is then crossed with a terminal sire such as the Suffolk or Texel.



The British production base varies from the New Zealand one in that ours is dominated by dual purpose sheep ie. Romney, Coopworth or Perendale where a proportion are mated to the pure-bred sires to ensure adequate replacements with the balance mated to terminal sires.

2-2 *Production Output*

The meat output from the British system is significantly ahead of New Zealand on a per ewe basis over the national flock. There are 3 main reasons for this

1. Little emphasis is given to wool production and hence greater pressure can be put on the productive traits of fertility and growth rate. Wool output accounts for approximately 5% of the gross per stock unit income and hence is little more than a by-product of sheep farming. The quality is also very mixed with a lot of varied colour and micron through the clip.
2. Crossbreeding with high fecundity breeds such as the Blueface Leicester maximise hybrid vigour. A lambing percentage of 180 to 220 percent is very common plus the mule is an excellent milker - a trait inherited from the Blueface.
3. Usage of terminal sires is widespread to maximise meat output. It is common to utilise terminal breeds in the maternal base ie. Texel or Poll Dorset cross ewes.

However the situation in New Zealand is changing more toward the British way due to depressed wool prices in the 1990's and the premiums being paid for lambs over 15kg carcase weight.

Crossbreeding has become more common in recent years in an effort to maximise meat output. New breeds such as the Texel, Finn and East Friesians plus long established ones such as the Poll Dorset and Border Leicester are being utilised more in crossbreeding programmes to maximise meat output per hectare through increased fertility and growth rate.

The trend will continue in New Zealand because prices in real terms for meat and wool are likely to decrease slowly and higher production per head and per hectare will be required to remain viable.

2-3 Efficiency of Sheep Production

There are wide variations in the efficiency of sheep production in the United Kingdom and Ireland. As mentioned flocks are small by New Zealand standards and some are run on traditional lines where numbers are small and labour input is high. However the profitability of sheep farms was varied and as in New Zealand small units are becoming increasingly unviable. In fact approximately 50% of sheep farmers in the United Kingdom run less than 400 sheep all counted and this is large by European standards.

However it is important to remember that more often than not sheep are only part of the farming enterprise and are run in conjunction with cattle or crop.

As in New Zealand it is likely that much rationalisation will take place in the United Kingdom sheep industry. Increasingly small flocks will become uneconomic and this will be accelerated if the ewe premium (subsidy) is reduced. Whilst the majority of lambs are still sold through sale yards at present the percentage is decreasing yearly as more producers move into selling direct to the processor. Small flocks will prove to be a less desirable source for processors who onsell to the retail sector (supermarkets).

Housing of livestock is still common practice in Europe and the United Kingdom is no exception to this. Cattle in particular are housed for long periods from the late autumn to spring. This is obviously necessary in many areas due to the severity of winter which necessitates removing cattle from pasture to avoid pasture damage. However in other areas it seems more born out of tradition and many were housed well into the spring to enable silage paddocks to be shut up. The silage paddocks were shut up early whilst the cattle continued to eat silage in the wintering barn. To the visitors it seems more logical to allow the cattle out onto the pasture earlier and hence the necessity to make silage would be reduced.

Housing of livestock is expensive and there is a realisation that cattle and sheep farmers need to adopt lower cost systems particularly if subsidies are removed and the market moves more towards the world price. This is particularly so in the dairy industry which is still based on winter housing of the cows and the feeding of concentrates. Dairying is a high input, high output but high cost industry. The Irish in particular have taken on board the necessity to move to more grass feeding of cows and New Zealand is being used as the model.

Whilst the sheep industry is not quite as reliant on winter housing the majority of ewes are still lambed indoors. This is a labour intensive business as often it is a 24 hour a day operation and hence greatly increases the cost structure of the industry.

Production output per head is good by world standards but the smaller flocks, high labour input, plus housing and supplementary feed expenditure makes the cost of United Kingdom sheep farming considerably higher than either Australia or New Zealand. On the surface the price the United Kingdom farmer receives for his lambs looks attractive compared with New Zealand but when the costs are added into the equation he certainly is not making a fortune.

During the height of the BSE crisis in 1996 lamb reached £2 per kilogram live weight in the United Kingdom market. Correspondingly the price for New Zealand lamb in the United Kingdom market place increased by 30 to 40 percent in the same period.

However once the bulk of the main crop domestic lambs start to flow through into the market in May and June the price can drop very rapidly and when it goes below £1 per kilogram live weight the variability of lamb production becomes very marginal.

2-4 British Sheepbreeds

Blueface Leicester

The Blueface Leicester and to a lesser extent the Border Leicester have a huge influence in the United Kingdom sheep industry. Aberystwyth University in Wales is one of the main sheep research institutions in the United Kingdom and they have been assessing the merits of breeds such as the Blueface, Texel and Beulah. The Blueface is a highly fertile breed with high milk production and excellent mothering ability. However its carcase qualities are poor due to its poor conformation. There has been little production recording done with the breed and the average pure-bred flock size is 12 sheep. Its dominance and potency as a crossing sire is unique considering these two facts. The Blueface is considered the Holstein of the British breeds while the Border Leicester is the Friesian due to its superior carcase qualities. Aberystwyth has established a central Blueface flock with the intention of improving the carcase characteristics of the breed.

East Friesian

The East Friesian is established in the United Kingdom but is not widely used outside the milking industry. They have a reputation as lacking constitution and being poor on their feet. Aberystwyth have trialed East Friesians but they did not have the same potency to pass on hybrid vigour as the Blueface does. However the East Friesian clearly has similar attributes to the Blueface Leicester and will undoubtedly have a role to play in the New Zealand sheep flock as a crossing sire. Crossbreeding to utilise hybrid vigour is becoming more common as farmers seek to increase production. The big plus with the United Kingdom 3 tier system is that farmers get 2 opportunities to capitalise on hybrid vigour.

Suffolk

The Suffolk ram is the dominant terminal sire breed used in the United Kingdom with a 50% market share. The United Kingdom Suffolk differs from its New Zealand counterpart in that they are a more heavily muscled animal with heavier bone. While the muscling is desirable the preoccupation with heavy bone is debatable as it does little to improve the meat to bone ratios of the breed. To compare growth rates and muscling between the United Kingdom and New Zealand was difficult due to the differing environments and site measurements used to assess muscle depth. However New Zealand breeders of terminal sires need to increase carcase quality and muscling to provide raw material that is more efficient to further process into a whole range of cuts required for the supermarket trade. Thicker confirmation and greater muscle depth is required in the United Kingdom terminal sires as the "mule" type ewe generally does not have the conformation of the New Zealand Romney, Coopworth, Corridale or Perendale. The "mule" possesses the maternal characteristics of fertility and milking ability in abundance while the terminal sire has excellent growth rate and carcase qualities. To clearly differentiate these two separate sets of productive traits is important to maximise efficient meat production.

Breed Diversity

The United Kingdom sheep industry has a wide range of breeds compared with New Zealand. The diversity has increased with the introduction of the European breeds such as the Charollais, Ile de France, Bleu du Maine and Vendéen. The genetic base has increased but many of the "recent" imports have had little new to offer the United Kingdom sheep industry.

2-5 *Sheep Breeding Technology*

The uptake of modern animal breeding technology within the sheep industry has been slow compared with the pork and poultry industries. Indeed compared with New Zealand the use of technology in the United Kingdom sheep breeding is not as advanced. However there are extremes with some sectors still very much reliant on visual appraisal while others are fully utilising technologies such as sire referencing. The Suffolk breed typifies this situation. The Suffolk breed is the largest terminal sire breed with approx. 1200 breeders in the United Kingdom. It is a breed steeped in tradition. For the majority eye appraisal is still the dominating means of stock appraisal and huge prices are paid for the best at the Edinburgh Ram sale. Whilst a large number scan for eye muscle depth and weigh regularly to ascertain weight gain the visual appraisal of a ram is still the ultimate determinant.

A Suffolk sire reference scheme was established in 1989 and over 50 breeders belong to the scheme. Utilising the Signet Lean Index Sheepbreeders programme developed by Meat and Livestock Commission (MLC) the sire reference scheme requires breeders to use common sires on a minimum of 30 ewes in each flock. Artificial insemination is utilised and the progeny of the A.I. rams are then used as a benchmark to rank the respective rams which provide linkages between flocks so genetic merit of all the progeny can be ascertained. Considerable genetic progress has been made and this scheme ranks with the best in New Zealand. However in the overall context of the industry only a small percentage are utilising such technology and hence genetic progress is hindered.

However there are research institutions working on improving the technologies of artificial insemination and embryo transfer to make it more user friendly. This may well be necessary as present intrauterine (surgical) artificial insemination is frowned upon by the animal welfare lobbyists and without further refinements to the technology it could well come under increasing scrutiny. Cutting edge research into "new" technologies such as gene mapping and cloning have received much prominence in the media. Indeed the development of "Dolly" the first cloned sheep took place at the Roslin Institute near Edinburgh during our visit in early 1996. Whilst the development of new technology will drive forward the genetic progress of the respective livestock industries there will be many ethical, animal welfare and food safety issues to work through as well. Ultimately the consumer is king in the "food" industry.

2-6 *The Future of Sheep Farming in New Zealand*

Much of the future prosperity of farming sheep in New Zealand is very dependant on what happens outside the farm gate. The business of "food" is changing rapidly in the marketplace as commodity prices are driven down and marketing becomes more about food integrity and creating a difference. Customer perception over rules objective reality.

The difference between the top and bottom performing sheep farmers is widening. The introduction of new technology to advance the output of farming is increasing every year and if we add to this new

bench marking systems to identify best practise the trend will continue. Today's best practise rapidly become tomorrow's mediocrity.

Trends developed in the United Kingdom will become more apparent in New Zealand. Stock units per farm will increase as economies of scale become important due to static product prices or actually decreasing in real terms. Already New Zealand sheep farms are significantly more efficient because of scale but to maintain our competitive advantage the trend will continue.

It will be necessary for individual farmers to develop closer relationships with processors. Gone will be the days of spot trading and more emphasis will be placed on farmers to produce a specified product at a specified time. As the supply chains to the retail sector become shorter the preciseness of product delivered to specification will become more demanding. Supermarkets trade huge volumes of product and they know exactly the turn over of any product daily. Space per sq. metre is allocated according to the turnover. There will be less tolerance in the system for the storage of product as storage is costly.

Increasingly individual farmers may work together in producer groups. Groups will be able to identify best on farm practises which integrate all existing education, extension and productivity systems into one package. Producer groups will have more marketing clout and produce a specified product as required by the processor. This will take into account the "farm assurance" standards required by the processor which will be driven by the demands of the consumer in the marketplace.

Increasingly quantity will give way to quality and production streams will become more differentiated. For example the traditional dual purpose sheep in New Zealand will probably inhibit the focus on increased quality. Producers will need to decide if they are focusing on either meat or wool and select genetics accordingly.

Genetic advances will become more identifiable as better computer based recording systems and selection methods become more common place. Top genetics will be utilised more fully through improved techniques in artificial insemination and embryo transfer.

Already "new" technologies such as gene mapping and cloning are developing rapidly and will soon add their trust to genetic advancement.

Genetics will become more international as scientists overcome disease barriers to genetic trade and top genetic will become held in decreasingly fewer hands. Already we are seeing this in New Zealand as a small percentage of ram breeders gain an increasingly large market share. They are breeders whose uptake of new technology and genetics will allow them to outstrip the competition.

3 *The Processing Sector*

3-1 *Beef and Sheep Abattoirs*

The United Kingdom processing sector is dominated by large numbers of one chain abattoirs owned by a vast array of companies. It is totally different to New Zealand where 4 large companies (PPCS, Alliance, Richmond and Affco) control over 90% of the export kill and who are supplemented by a relatively small number of domestic supply abattoirs - approx. 18. What the United Kingdom has in common with New Zealand but to a greater extent is excess killing capacity. In 1995 there were 476 registered abattoirs in the United Kingdom and it was believed that with more efficient operation approx. one third of the existing capacity could handle the total kill. Many of the plants were old and in 1996 plants were going into receivership every week. The problem of over capacity was accentuated by the BSE crisis with specialised beef abattoirs obviously being the most affected.

The situation was one of the lowest common denominator as abattoirs went into receivership. The assets were often sold at basement prices and if the plant was recommissioned a new low cost structure was established and then others with higher costs and debt levels were then under pressure. The cost structure of the whole industry was in a downward spiral with huge restructuring taking place. The Irish were purchasing many of the United Kingdom plants with many of them being modern plants.

As mentioned previously the majority of the abattoirs are one chain plants. Much of the technology in the more modern plants has been borrowed from New Zealand and in most respects don't differ greatly.

3-2 *Comparison of Meat Processing Industries*

The beef and sheep meat industries vary vastly from the pork and poultry industry. There are over 50,000 domestic suppliers to a vast array of abattoirs in the beef and sheep industries. This contrasts with the pork and poultry industries who are now increasingly dominated by a few big producers who supply large processing companies. In the poultry (chicken and turkey) industry much of it is now totally vertically integrated with the producer and processor being one. With the controlled environment these industries operate in they have huge efficiency advantages over the beef and sheep industries and hence are much more cost efficient. Some of the processors the writer visited are now described.

3-3 *Lloyd Maunder - Exeter*

Maunder's plant is regarded as one of the more progressive operations in the United Kingdom. They killed around 500,000 lambs / year and in 1996 60% of the kill went to the Continent in carcass form. The United Kingdom is the second biggest exporter of sheep meats after New Zealand and in recent years up to half the kill has been exported with France being the biggest market.

Maunder's also deals direct with the supermarket chains with Sainsbury's being Maunder's biggest customer. The supermarket chains set tight specifications on the cuts they want (weight, size etc.) and hence a reliable grading system that is recognised by the industry is very important. Both carcass inspection and grading is undertaken by Maunder's own people but audited by M.A.F.

The company has a base price for most lamb grades with a premium paid for the top (E) grade and discounts for the two bottom (O and P) grades who are either too fat or lack conformation.

Maunders like many other processors have a product development team. They employ a qualified chef and assistants to develop new products in conjunction with the "Flavour Houses" who produce spices, marinates etc. Flavours are like fashion and come and go. For example Thai flavours were popular in 1996 after a period when Cajun flavours were popular.

Product development to meet the demands of the United Kingdom supermarket trade was a vital role for Maunders. The customer is becoming increasingly discerning, wants quality and tenderness and a range of new products to choose from.

Tenderness (or eatability) is becoming increasingly important for lamb. Maunders had detected few breed differences but identified stress as being the main cause of tough meat. Product is continually sampled to assess tenderness.

Excess fat is a problem with lamb and Maunders believed fat levels need reduced without reducing the carcass muscle. Lamb is perceived as being more "fatty" than beef, pork or poultry and the industry has to address this.

Maunders were also involved in processing New Zealand lamb for the supermarkets as with other processors. Captec technology is used to import chilled lamb primals which have a shelf life of up to 80 days. The primal cuts are broken down by Maunders into display packs and flushed with oxygen for the retail trade. The display packs then have a chilled shelf life of 5 or 6 days. Maunders have experienced few problems with the imported product and the processing procedure.

Maunders have adopted the British Beef and Lamb Farm Quality Assurance scheme which was developed by the Meat and Livestock Commission (MLC). Traceback is now the norm in the British meat industry.

3-4 *Brooks of Norwich*

The Brooks plant at Norwich imports frozen primals and carcasses from New Zealand which it then further processes to add value. Brooks supply the main supermarket chains such as Sainsbury, Tesco, Safeways etc as well as into the catering trade such as restaurant chains like Whitbreads.

The frozen product is tempered down to -4°C when it is then further processed into the products for the retail sector. It is kept at -4°C through to the retail sector.

Brooks have a product development team which continually works on new products. New products have been developed from the problem primals like shoulders which have traditionally been difficult to dispose of.

The integrity and accuracy of the New Zealand grading system is very important to Brooks. Much of the retail trade is done in unit pricing (ie. every cut is the same weight and price) and hence it is vital that the grading is done accurately to achieve this. The majority of Brooks product is from the M grade which gives best opportunities for optimum unit pricing. If the carcass is from the H grade the unit price for a cut can be too high for the customer. For example Brooks want legs up to 1.6kg but H grade legs are usually over 1.6kg.

"Price Point" is the term used to describe critical pricing to ensure volume sales are made eg. £1.99 as opposed to £2.30. Hence portion size is very important to pricing as if a portion is too big it will push the price past a critical price point. The Brooks operation is all about breaking down a frozen carcass to a blueprint to maximise added value.

Brooks supply what the customer wants and the majority of the product is supplied to the customer in the "in-house" or supermarket brand. Brooks are not too concerned about developing their own label but do supply under the Brooks brand to supermarket chains where in-house branding is not so important ie. Iceland, Co-op and Sommerfield.

Brooks want product moving consistently through their plant as the supermarkets now carry only a few days stock. This minimises the investment in stock and hence co-ordinated supply and transport is important and goes right back to commitment from the farmer in New Zealand to ensure consistent quality and supply. Barry Brook's said that once product flow through the plant took weeks but now it moves through the plant in a matter of days to match supermarket demands.

3-5 Bernard Matthews - Norwich

The Bernard Matthew's operation is also based around Norwich and is mainly focused on turkey production. The company is also very keen to expand its lamb operation and owns the Advanced Food plant at Waipukarau which Matthew's brought in 1994.

Legend has it that Bernard Matthews started in the business by buying 20 eggs and an incubator for £2:50. On successfully hatching 12 chicks he sold them as he could not afford to feed them and reinvested in another 40 eggs. The Matthews business was underway.

Bernard Matthews is a total integrated business that has full control over the product from day one. They have 500 sheds sited around Norwich in which they grow 17 million turkeys per year. The turkeys are grown out to over 20lb liveweight and slaughtered at around 23 weeks for an average dressed carcass of 16lb. To achieve this they feed 9,500 tonne of wheat and soya meal per week.

Bernard Matthews market all their product under their own Matthew's brand. The brand is powerful enough to get into all supermarket chains except Marks & Spencer. This highlights the power of the Matthews brand as multiples such as Sainsburys and Waitrose are very much own brand operations. Only Matthews and Unilever solely market under their own brand in the United Kingdom poultry industry.

Matthews is very big on added value and are continually developing new products. For example their mini turkey Kiev's are 220% added value. That is for every kilogram of turkey meat in the product there is 2.2kg of additives such as cheese, fillers, crumbs, sauces, marinates etc etc. By adding value they greatly increase the price of the turkey meat and hence the profitability of the product.

Product development is continual as most products have a shelf life which is usually a few weeks before new innovation is required to keep the customer interested. Food is fashion and fashions change. However some products surprise. A range of children products made in the shape of dinosaurs to coincide with the Jurassic Park craze was expected to last a few months. However some two years later it was still one of Matthews biggest sellers.

Turkeys like chickens have very high feed conversion ratios and hence the business is very controlled and efficient. Feed conversion ratios of up to 1.5 are being achieved whereas it was around 3, 20 years ago.

3-6 Product Development

Product development and innovation is now vital in the United Kingdom food market. Competition is severe and prices are decreasing in real terms as production industries become more efficient and supermarket chains compete for market share.

Food processors such as Lloyd Maunders, Bernard Matthews, Brooks of Norwich and Moy Park (chicken processors of Northern Ireland) are placing increasing emphasis on product development. The multiples demand new products that create interest and customer sales as shelf space for any product is dictated by sales. Modern computer tracking systems enable multiples to check product turnover daily and those lines not selling are quickly terminated.

The Moy Park chicken operation in Northern Ireland processes 600,000 chickens per week and in February 1996 launched 15 new chicken products. With Tesco's who is Moy Park's biggest customer they launch at least one new product per week.

Product development is an exacting business and Moy Park take on average 6 to 8 weeks to develop a new product. Retailer specifications are tightly specified and documented and usually a new product is trailed before going into full production. Product innovation and development in the white meat industry is far more advanced than the red meat industry. Reasons advocated for this are

1. subsidies stifle innovation in red meats
2. white meat production is more controlled and efficient with far higher feed conversion efficiencies
3. white meat taste is bland compared with red meat such as lamb and hence more suited to added value with sauces, marinates, crumbs etc.

Moy Park produces over 300 products from chicken and this highlights the potential for product development in the red meat industry. Ready to eat or heat and eat meals are increasingly becoming part of busy peoples lives in the Western World. Cooking times are halving with each generation as yesterdays generation would spend 1 hour preparing a meal, today half an hour is enough and tomorrow's generation will want food ready at home in 15 minutes.

The future of the New Zealand lamb industry hinges very much around product development and a move totally away from the commodity trade. Commodity trading means lowest possible added cost and hence is done very much on price as there is little to differentiate the product. Lamb is fortunate in that world sheep numbers are falling and compared with chicken, pork and beef it is a minority meat in the western world. Sophisticated consumers demand variety and change in their eating habits and lamb has a big future provided the industry is totally committed to product development.

4 The Marketplace

4-1 The Supermarkets

The retail sector in Western Europe is now very much dominated by the powerful supermarket chains as everyone is aware of. Various figures are quoted and in the United Kingdom the 5 biggest multiples now control around 70% of the food market with Sainsbury's and Tesco's each controlling approximately 20% each. In 1973 the five biggest chains had a 28% market share while conversely the independents share has dropped from 33% to 5% over the same period. Hence the supermarkets (multiples) exert huge influence in the market place and this forces change on everyone in the food business.

Food processors, manufacturers and service firms will need to grow so that there are fewer but larger businesses. The multiplies like to keep control over their supply lines and the fewer they can deal with the better as it shortens the supply chain. Own label branding is widely practised by the supermarket chains. It ranges from 100% own label at Marks & Spencer, 60% own label at Sainsbury's and 50% at Tesco's. Others such as Asda, Co-op and Iceland who discount heavily are mainly supplier / processor labelling. These discounters tend to deal at the lower end of the market.

Own labelling makes it very difficult to establish a brand in the market place.

Powerful processors / suppliers such as Bernard Matthews and Unilever have achieved this with all chains except Marks & Spencer while others such as Moy Park, Lloyd Maunder and Brooks of Norwich supply what the multiples and their customers want. In fact 90% of the product Moy Park creates is sold under the multiples own brand.

European supermarket chains do not exert the dominance of their United Kingdom counterparts but in Western Europe they are increasing their market share - particularly in France, Germany and the Benelux countries. Some are domestically based while others have linkages through Europe. For example Sainsburys has linkages with French and Germany companies and Marks & Spencer is established in much of Europe. Clearly by having linkages there are advantages in sourcing product through the supply chains.

Eastern Europe and indeed Asia are being targeted as future areas for expansion by the powerful multiples in Western Europe. They see economic activity improving in these areas and the opportunity to introduce Western retailing concepts. Clearly there will also be new supply lines at very competitive prices as agriculture production is upgraded with western investment.

The supply chains for the multiples in Europe are significantly longer than in the United Kingdom. More traders are involved but this will change as costs are removed from the system and the supply chains become shorter.

The European multiple chains are not so heavily into own label branding and supplier brands are more readily accepted. The German customers are big on food integrity and like to know that a product has come from its country of origin without it being tampered. The French are very parochial and prefer home grown product if possible. Clearly country of origin labelling could be seen as a disadvantage in the French market.

If a product is exported to the United Kingdom and goes direct to the supermarket shelf without further processing it is necessary to have a country of origin brand on it. If a product has been further processed it is not necessary to have the country of origin label on the package. Clearly this can be advantage when selling into the French market where French is best.

4-2 The Food Service Sector

The food service sector (hotels, restaurants, institutions, airlines etc) is very large in Europe and continues to grow very rapidly. Growth in the meals away from home sector is huge as more and more people eat at restaurants, fast food outlets, hotels etc. From the perspective of the supplier or food processor the service sector has two main advantages over the retail trade.

Firstly the trade is not so price sensitive as the retail trade. The multiples compete on price and squeeze supplier margins which can make the trade difficult. If demand drives up prices the multiples will tend to siphon off the increased returns. Whereas with the service sector it is easier for the supplier to capture the increased prices. Some areas of the service section are very lucrative ie top hotels.

Secondly the service sector is more consistent than the retail trade and long term contracts are more easily obtained. However both areas have become more demanding in product quality and continuity of supply.

4-3 The Changing Nature of Food

Western populations are becoming more discerning in what they eat. Food consumption habits are changing for many reasons.

1. People are more health conscientious. They want nutritious food that is high in vitamins and minerals but are wary of excess fat. Vegetable and fruit consumption has increased while red meat has decreased. Lamb is regarded as fatty and hence has an image problem.
2. People want variety in their diets. Chicken has reached saturation point in the United Kingdom and people are looking for new eating experiences. Lamb fits the scenario of a new eating experience in markets like North America.
3. Customers increasingly want fresh food. The food market is global and increasingly food is sold fresh. The Rungis market in Paris is one of the worlds biggest and has fresh food from throughout the world. Moy Park now sell 60% of their chicken products chilled, the rest frozen. In 1985 it was 20% chilled and 80% frozen. Chilled New Zealand lamb has become a real winner as it is what the market wants and is prepared to pay a premium for.
4. Customers increasingly want convenience food. Sixty percent of British women work full or part time and 60% of households are 2 people or less hence food preparation times must be short and food must be in a convenient form. Marks & Spencer targets the convenience food sector and the demand for a leg of lamb has decreased as it is too big for the modern family and takes too long to cook.
5. Food safety is of paramount importance to retain customers. The consumption for beef plunged due to the BSE and E coli outbreaks as did egg consumption in the early 1990's due to salmonella poisoning.
6. Consumers are very aware of animal welfare issues such as battery hens and sow stalls. Increasingly they want to know that their food has been produced in an animal welfare friendly way.
7. Food production must not damage the environment and consumers are increasingly aware of production methods that do.

The changing nature of the food business means that New Zealand producers have to change their thinking in many ways. All products be they wine, apples, cheese or lamb have to adapt to the changing market place.

4-4 Lamb in the Market Place

The consumption of lamb in the EU varies from area to area. The approximate consumption per head annually of the main meat groups is

Pork	40 kg / head annually
Beef	20 kg / head annually
Chicken	20 kg / head annually
Fish	20 kg / head annually
Lamb	3-4 kg / head annually

However the consumption of lamb varies from country to country.

Greece	14 kg per head / year
Ireland	8 kg per head / year
France	6 kg per head / year
United Kingdom	5.5 kg per head / year
Germany	1 kg per head / year

Lamb consumption is static in the United Kingdom, increasingly slowly in France and quickly from a low base in Germany. Factors which will determine the consumption trends of lamb in the future are:

Fat

Lamb is regarded as being a "fat" meat by other meat standards. Pure lamb muscle has approximately 5% fat, beef 3.5%, pork 2% and chicken less than 2%. In Europe fat is being regarded more harshly than in the United Kingdom. Particularly by the older generation who remember the fatty taste of mutton used to feed the population in the second world war.

However lambs image of being a "fatty" meat is unjustified today. Modern animal breeding programmes have considerably reduced fat levels over the last 3 decades and more recently improved processing and butchery technology has reduced fat levels further. Once lamb chops sold untrimmed contained 30% fat but today well processed chops contain no more than 5% fat. However some primals such as shoulders which contain high levels of intermuscular fat are a major challenge for the industry and more R & D is required to better utilise such portions.

More research needs done on the benefits of eating lamb and in particular grass feed lamb. Research on the fatty acid components of lamb, the vital proteins, amino acids and minerals. More advocacy is needed about including lamb in a balanced diet. Stories about lamb being a rich source of iron, B group vitamins and minerals need promoted.

The world is full of negative messages about meat and everyone does damage even if unjustified. Vegetarianism continues to increase with each negative story. People have eaten meat for centuries and human metabolism is suited to eating meat. The industry must development well researched and justified stories about the benefits of eating meat.

Tenderness

Lamb is perceived as being tender by most people in the industry. Tenderness, taste and flavour (palatability) are becoming increasingly important in the market place and fortunately New Zealand lamb does have a very good reputation and in particular our chilled products. As with beef but to a lesser extent fat is a double edged sword as with no intermuscular fat (marbling) the meat is tough and dry.

Clearly accelerated conditioning and ageing (AC & A) as greatly helped the reputation of New Zealand lamb. It is consistently the best product in the European market.

Food Safety

Lamb is regarded as the only "pure" meat left. Beef has been tainted by BSE, angel dust, E coli etc, pork with pollution and animal welfare problems and poultry with factory farming, growth promotants and antibiotics. Lamb is seen as naturally clean and green and its an image we in New Zealand must protect. New Zealand is perceived as clean and green in much of Europe and every effort is required to ensure we retain the present image and enhance it further to ensure we endure future scrutiny.

Product Diversity

As previously mentioned the sheepmeat industry lags well behind the poultry, pork and indeed dairy industries in product development. The future for lamb hinges on product development and it is a concern that the New Zealand industry is so obsessed with today's problems rather than tomorrow's opportunities. More investment is required in research and development to progress new technology to service tomorrow's market place.

Some companies such as Brooks of Norwich, Bernard Matthews and Lloyd Maunder are doing much good work in the product development field but it needs to be driven more from New Zealand. As Barry Brooks said it is a mind set that companies need to overcome to commit more investment into product development and away from bricks and mortar.

Why does lamb not feature much in the fast food and convenience food sector? That is a challenge for the industry. Lamb is a minority meat compared with beef, pork and poultry. Provided the industry can develop innovative product forms to suit different cultures for this reason alone the outlook for lamb is positive. Germany and North America are two markets where lamb consumption is increasing rapidly because lamb is seen as a new exciting eating experience.

4-5 Food Traceability

Food safety has been identified as the number one concern of the customer in the nineteen nineties. Europe has been greatly troubled by B.S.E., Angel dust, E coli, hormones, salmonella and other health disasters. Sadly more often than not meat has been implicated and today huge economic resources are put into food safety. Traceability is now an integral part of any food production system in Western Europe to ensure food safety integrity. Supermarket chains now insist that systems are in place to trace food through every step of the chain and ensure due diligence is observed.

The supermarket chains such as Marks & Spencer's, Sainsbury's and Tesco's have moved to establish long term relationships with farmers and processors. These partnerships or clubs enable the multiples to impose quality standards at all stages of the supply chain. They have specialist consultants in areas such as animal welfare, medicines, nutrition and food hygiene for example. Stringent audit systems have been put in place both on farm, at the processor and through the transportation systems.

The multiples now go to great lengths to establish the integrity of their supply chains. For example Tesco's has established a number of Producers Groups (processors). The groups in turn has established Producer Clubs with farmers who can comply with the standards laid down by Tesco's in their policy document. The policy document covers the areas of

- origin of livestock (Traceability)
- feed composition and storage
- medicines and veterinary treatment
- loading and transport
- husbandry and welfare
- housing and handling facilities
- movement records and medicine books
- identification and marking

Groups such as the Scottish Quality Beef and Lamb Association (AQBLA) have seized on the opportunity to promote environmental, regional, farm practise and breed differences with Scotch beef. A lot of Scotch beef is raised on grass and now the "grass fed only" aspect of beef production is strongly pushed in the aftermath of BSE.

Farm Assurance

The majority of sheep and beef farmers now belong to a recognised "Farm Assurance" programme. Many bodies such as the MLC, Welsh Foods and SQBLA run Farm Assurance schemes. Indeed the SQBLA accreditation scheme struggled to convince farmers to join when it was established in the early 1990's. In mid 1995 approximately 1200 belonged but with the big outbreak of BSE in late 1995 and into 1996 there were over 7000 members come mid 1996.

The standards for the respective schemes vary but over time will become more standardised. With some the audit process is carried out by trained people of the street and with others vets undertake the accreditation process. Indeed with some a farmer only needs to apply to join and provisional accreditation is given pending an audit. Many of the schemes are then used as the basis for belonging to a partnership involving farmer, processor and multiple. Indeed for the vast majority of partnerships it is now mandatory.

Many of the standards involving animal welfare, medicines, transport and identification are established by EU dictate and over time will become more stringent. New Zealand producers, processors and suppliers have taken on board the necessity of such schemes to ensure food safety. Basically the schemes certify that good safe farming practices are observed and documented throughout the year. For the competent farmer they cause little imposition on normal farming practices.

Food safety does highlight the importance of having good audit systems in place. One major food safety disaster could decimate New Zealand's reputation as a producer of quality safe food. Hence it is important that New Zealand Incorporated plays a lead role in ensuring all players meet their requirements to food safety.

For example it is important that we have a meat inspection service to certify all meat is safe. This inspection does not necessarily need done by M.A.F. but it is important that the standards are set and audited by an independent body. The system should be well recognised and give the product integrity, honesty and a clean health image in the market place.

Animal Welfare

Acceptable animal welfare practices are very much part of most Farm Assurance schemes. The RSPCA and other lobby groups keep animal welfare very much to the forefront in the United Kingdom media. Once again adverse publicity does enormous damage to livestock farming. Battery hens, sow stalls, veal

cages, stock transportation, animal housing regimes and animal slaughter methods have been big issues in the United Kingdom.

Few farmers look after their animals better than New Zealand farmers but once again our methods have to be accepted as animal welfare friendly. The supermarket chains such as Sainsburys have been forcing the issue to ensure we comply with acceptable standards. The affluent educated customer wants to be assured that his or her food has been produced in an animal friendly way.

For example former Scottish Nuffield Scholar John Campbell of Peebles near Scotland is converting his egg production operation from battery to free range eggs. Previously he was forced to reduce the number of hens per battery from five to four due to animal welfare lobbyist pressure. New hen sheds are built to free range specification and he obtains free range accreditation from the RSPCA. Free range eggs were attracting a 50% premium when sold by the multiples and John is now the 6th biggest egg producer in the United Kingdom (over 400,000 hens). The egg production industry was decimated by the salmonella outbreaks in the early 1990's and is now dominated by a few big vertically integrated players.

5 *New Zealand's Future Place in the Market*

5-1 *The developing Global Market*

The food business is becoming increasingly global. Reasons for this are:

1. Trade barriers such as quotas and tariffs are being reduced and international trade is increasing.
2. Transportation systems have improved significantly.
3. Refrigeration and storage systems have become sophisticated in temperature control which has enabled the expansion of the chilled and fresh market. The development of the chilled lamb trade by New Zealand using captec technology is an example of this.
4. The retailers are demanding more variety and quality to meet consumer demands.
5. Economic growth in undeveloped parts of the world is opening up new opportunities for growth in the food business.
6. Cultural, knowledge and population boundaries are shifting and expanding the food market. For example more Asians live in the Western world and visa versa.

New Zealand's economy is still very much dependent on the food business and must adapt to the rapidly changing nature of the business to remain internationally competitive.

5-2 *The Supermarket Partnership*

Supermarket domination of the food business continues to expand from the Western world into less developed regions. The retailing power is held in fewer and fewer hands and this will provide opportunities for New Zealand. It is vital that New Zealand exporters become increasingly part of the system. Strong alliances or partnerships need established with the multiples to ensure we achieve growth in the market place. Greater demands will be placed on New Zealand exporters to ensure we have appropriate quality assurance programmes in place, which will increasingly take into account food safety, animal welfare, environmental and continuity of supply issues.

Fortunately the New Zealand sheepmeat industry is well positioned to take advantage of the supermarket domination. New Zealand has a lamb product that the world wants and hence the supermarkets want.

Food is cultural to a large degree and increasingly the consumer wants choice and variety. People do not want to eat chicken everyday or beef. Lamb is regarded as a minority meat in most sophisticated markets and adds to the variety of consumer choice.

New Zealand meat companies do appear to be developing close relationships with the supermarkets. The development of the chilled lamb trade has been a major boost for New Zealand exporters and farmers and chilled or fresh is the way forward. As the infrastructure improves there seems few barriers to the continued development of this trade particularly as world sheep numbers continue to drop. That is apart from trade barriers such as tariffs and quotas.

Supermarkets are placing increasing emphasis on point of sale merchandising. Increasingly consumers want to know more about the product. Signs, pamphlets, video displays and supermarket or supplier personal increasingly provide information on

- what does the product contain
- how was it produced ie. is it safe
- where did it come from
- how will it be cooked or prepared ie. convenience.

This trend will increase and is a plus for New Zealand lamb provided we produce a range of quality products. New Zealanders don't have a huge reputation as marketers and if the expanding merchandising function covers our inadequacies in this area it must be a plus for New Zealand. Expansion by the European supermarkets into Eastern Europe and Asia will expand our lamb market.

Lamb can be introduced as a new quality product via the supermarket chain with appropriate merchandising support. The merchandising support to a new product is vital to develop market share in a new market. Previous initiatives by New Zealand exporters in new markets have often failed due to lack of market support. Now we can utilise the marketing skills of the multiple chains.

The fact that over 90% of our lamb exports are now controlled by 4 players (PPCS, Alliance, Affco and Richmonds) is another plus for New Zealand lamb. The companies have critical mass and can provide sufficient investment to market development which is all about the partnership with the supermarkets. Previously when there were many more exporters often the market investment and co-ordination was sadly lacking with the focus more often on procurement at home.

5-3 The Service Sector Partnership

Many of the principles which apply to supermarkets are equally appropriate to the food service sector. This sector also is increasingly dominated by big players and once again it is in the best interest of our exporters to form long term partnerships with the key players. Clearly product quality and innovation will once again become an increasingly important attribute. For example new versatile "light" products which can easily be incorporated into an airline's menu. The "meals away from home" sector is expanding rapidly throughout the world and New Zealand must be a part of it. Product development is the key to our future in this area.

5-4 New Zealand's Clean Green Image

New Zealand is perceived as a clean green country in much of Europe and the challenge for the future is to make the perception the reality. Much of Europe is heavily populated and contamination is widespread. Pollution comes in many forms be it industrial, agricultural, radioactive, environmental or chemical and Europe is constantly reminded by the media that its water, air and land is polluted.

The environmental lobby is all powerful and agriculture production is continually focused upon. Farm pollution (animal effluent, silage leechate, housing materials, and chemical usage etc) regularly features in the media and farmers now face many regulatory measures to control pollution. In the aftermath of BSE farming methods have come under increasing scrutiny and the image of farmers and their industry is far from positive. The most common view is that BSE was caused by feeding animal by-products back to ruminant animals but other believe that it could be linked to dangerous farm chemical usage ie. organophosphate dips.

Sadly peoples perception often takes over from reality and farmers have become a very much less trusted species.

Increasingly people want to know how their food has been produced taking into account food safety, animal welfare and environmental concerns. The supermarkets devote enormous resources to securing "safe" supply chains and everyone in the chain is now required to observe due diligence. Many have seized the opportunity to gain commercial advantage as both the media and the consumer are quick to respond to any perception that can be created and the customer will quickly shift between products.

Where does New Zealand's clean green image sit amongst the ashes of BSE. Clearly we have to conform to the new standards of food safety and address any animal welfare and environmental concerns as required by the market place which ultimately is the consumer. However BSE and the like has provided opportunities for us to promote our clean green environment and sustainable farming methods.

By world standards our backyard is not heavily polluted but we need to be proactive to complete the clean up and promote the new reality.

Many see our distance from world markets as a severe disadvantage in that it adds time and transportation costs to our agricultural exports. However it can be viewed as a significant advantage in that we are on the other side of the world, away from all the pollution problems of Europe and still miles from Asia. Our isolation should be seen as an advantage and should be exploited as such in the promotion of New Zealand Incorporated and all its agricultural products.

Increasingly product marketing is about telling a story, product positioning and creating a difference. Our mountains, lakes, seas, forests and pastures should be the framework from which the difference and the marketing stories are developed. Our pastoral livestock systems vary markedly from European livestock farming and that should be exploited.

The French market their agricultural products around a story. The French tend to be very parochial to the region in which they live and brands have been developed to reflect the area. Champagne is the most well known regional brand but when the 1996 Nuffield Scholars visited south east France they stayed around Boveran. Dairying was the primary industry in the area and Monte d'or branded cheese was one of the key products named after the local mountain range. A story was attached to the cheese in that the milk had to be from the Montbiliarde breed of cow and it was made in small traditional boutique type factories according to an age old recipe.

French wine, cheese and meat has value added to it by the "story" attached to its production and this clearly differentiates each product from the competition. Hence regional brands are important in the French market and it is unlikely the "in house" supermarket brands will ever be as dominant in this market as compared with the United Kingdom.

5-5 Promotion in the Marketplace - Branding

Supermarket "in-house" branding has become a dominant feature of the United Kingdom retail market. The effect of this branding is to attach the chains culture to the product and all that it entails. It is about competitive pricing of high quality products which have integrity. Good regimented British efficiency to the fore.

Clearly the development of processor or supplier brands is hindered by in-house branding and some commentators were starting to question the policy in 1996. During this period Tesco's overtook Sainsbury's as the number one multiple in market share terms and one of the reasons advocated for the change was that Sainsburys placed too much emphasis on in-house branding. In the BSE aftermath consumers became more concerned about food's origin and with in-house branding the origin was more difficult to identify. Many felt that processor or supplier brands added more integrity to the product and this is certainly the case in parts of Europe ie. Germany.

Brands are difficult and expensive to establish in the United Kingdom market and also expensive to support. Nevertheless once established brands are a very powerful marketing tool especially when they have instant customer recognition. Brands such as Bernard Matthews and Anchor are worth tens of millions to their respective organisations.

The main brand of New Zealand lamb in the United Kingdom market place that has high recognition is just that - "New Zealand Lamb". Clearly this is a country of origin brand which is the case with much New Zealand product sold in the United Kingdom.

New Zealand marketers have not been very successful at establishing brands in the European marketplace with the main exception being Anchor. Whilst the country of origin brand "New Zealand Lamb" does have high recognition it is a brand that has become somewhat tired and worn by time. Lamb is changing from being frozen legs, shoulders, and chops in the freezer to highly attractive chilled or fresh cuts on the chilled shelf or in the delicatessen cabinet. Does the brand "New Zealand Lamb" reflect these changes?

New Zealand is recognised as being a quality food producer. The country of origin branding does provide a stable base to market a product. Especially if the open space, scenic background and consistent high quality values and the like are added to the product. Some describe this approach as an umbrella brand under which company brands can be developed. The problem with this approach is that it can crowd out or have an averaging effect on a company brand. Indeed should New Zealand lamb be involved in a food safety scare the reliance on a country of origin brand puts all players in the market in the same basket and at greater risk. A consumer brand allows processors to differentiate their product and hopefully minimise the effects of the food safety scare.

Clearly there are opportunities in some markets to develop consumer brands such as in Europe. However brands require huge development commitment and ongoing support to be successful. Maybe it is better for the New Zealand processor to invest in an existing brand that is well established and has high market recognition. The PPCS investment in Brooks of Norwich is a very successful example of this strategy and could be a way forward for other New Zealand companies.

5.6 The New Zealand Meat Producers Board

The activities of the Meat Board are much discussed by New Zealand farmers. More often than not the short comings of the meat industry are blamed on the Meat Board as opposed to individual meat processors or marketers.

This judgement on the Meat Board is disproportionate to their role in the industry and producers should focus more strongly on the performance of the meat companies. After all it is they who have the greatest impact on farmer returns.

The writer had the opportunity to visit the Meat Board offices in both London and Brussels to view their activities and makes the following observations.

Generic Promotion

The value of generic promotion is much debated and with our main lamb processors forming close relationships with the large supermarket chains its merit becomes very debatable. After all it should be those who are right at the retailing cliff face who should best know where to spend the advertising dollars.

Generic advertising has little relevance when supermarket chains use "in-house" brands to promote our lamb. In this case we rely upon the integrity and power of the "in-house" brand to promote our lamb

products. The stamp "product of New Zealand" is often only used to meet legislative requirements for the country of origin.

However because "New Zealand Lamb" is the main brand for our lamb it is still appropriate to provide umbrella generic branding under which company or consumer brands can operate. Because the "New Zealand Lamb" brand is so well recognised it is important that its integrity and value is protected and enhanced.

It is essential that generic branding is well targeted and its success measurable. It must be supported by the majority of players in the market place and must not crowd out the efforts of processors and/or retailers to develop new consumer brands.

The big risk with a strong generic brand such as "New Zealand Lamb" is that it could become the lowest common denominator in terms of product quality. This situation could arise in the aftermath of a food safety crisis involving New Zealand lamb. For this reason it is important that the New Zealand lamb industry has a strong audit process to ensure this never happens.

Food Safety / Animal Welfare

The supermarket chains demand due diligence in every step of the food chain and the evolving Farm Assurance schemes are part of this process. Clearly the Meat Board has a role as a watch dog or advisor in this process to ensure no one lets our lamb industry down.

The auditing of our meat inspection services by a respected agency such as the Meat Board is important to give integrity to our sheep meat products. However there is no reason why the processing companies should not do their own inspection.

Market Access

The Meat Board should in conjunction with Government be the main advocate in market access issues. The Board has much experience and knowledge in promoting the industries cause.

Grading

Most processors and retailers of New Zealand lamb expressed satisfaction with the lamb grading system. Much of the retail trade is done in unit pricing (ie. every cut is the same weight and price) hence it is vital that accurate grading is achieved to maximise returns.

However it is important that the system is voluntary as the situation could arise where a processor / retailer relationship may decide that a new system or grade is appropriate to differentiate product for the market.

Conclusion

Whilst the writer was privileged to observe the Meat Boards operation in Europe it is still very difficult to judge its value to the New Zealand sheep industry. Clearly the Board needs to work in partnership with the industry to achieve positive outcomes for all parties involved but if this support is not forthcoming we must question the value of the Meat Board in our overseas markets.

When I left New Zealand on my Nuffield in February 1996 there was a lot of pessimism in the sheep industry due to poor returns. Did the industry have a future?

In the aftermath of the BSE crisis of March 1996 product prices for sheep meats lifted dramatically. Suddenly there was optimism for the future of lamb production.

New Zealand lamb is regarded as the best lamb product in the market place. However the market place is changing rapidly and the industry needs vision to ensure that our lamb products meet the requirements of the sophisticated markets of the world.

I came home totally convinced that lamb does have a bright future for many reasons outlined in this report.

As primary producers we are only the first part of the food chain. Provided all parties work together I see no reason why lamb production should not continue to be a dominant land use activity in New Zealand agriculture.

Acknowledgements

My sincere thanks go to the Nuffield Farming Scholarship Trust both in New Zealand and the United Kingdom for making this trip possible. It has been the opportunity of a life time.

My sincere thanks to all who hosted me on my travels.

Thanks to all my fellow Scholars of 1996 for some memorable and enjoyable times on our travels. In particular my fellow Kiwis Stuart Wright and Murray Taggart.

Thanks go to my support team at home who kept the farm operating and looked after my interests.

Finally and most importantly thanks go to my wife Jeannie for her support. Four months at home with farm and family responsibilities is a long time by oneself - probably too long. However Jeannie, Simon and Alice all survived and we both have many happy memories of our joint travels in Europe.

Doug Brown