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## Acknowledgements

I would like to place on record my appreciation to the sponsors of the Nuffield Farming Scholarship, namely Federated Farmers, the N.Z. Meat Producers Board, the N.Z. Wool Board and the N.Z. Dairy Board. Not only was the financial contribution valuable but also dialogue with various executive members prior to my departure was invaluable. Some of the contact names and addresses proved to be of great value. This was apparent when visiting the International Wool Secretariate both at Ilkley in Bradford and the headquarters in London. My visits to the Meat Board office in Chancery Lane, London, were always helpful and I thank the European Director, Mr Harry Douglas, for making the staff so freely available..

The first secretary of Agriculture at N.Z. House London, Don Crump (1980), was most helpful and the list of N.Z. Embassy addresses and people was used to advantage at The Hague, Bonn and Paris. I strongly recommend future Nuffield Scholars to make full use of these contacts especially for the Continent.

I must thank in particular Paul Spackman, Economist with the N.Z. Meat Producers Board in London and Sven Larsen the marketing manager in Brussels for being so informative and also helpful with additional contacts in the meat industry.

The Alliance Freezing Company gave me personal introductions which were used to full advantage. This enabled me to see another side of the meat industry and some memorable appointments were arranged.

### Agricultural Training

Don Cameron of the Ministry of Agriculture and Fisheries, Wellington, provided me with excellent advice in this field

### The United Kingdom

The director of the Nuffield Farming Scholarship,



Captain John Stewart, has to be thanked for the organising he does. This includes the first month's programme when one sees so much and meets many people. This gives one a chance to organise the priorities for the remainder of the scholarship. The flat made available to us was "The Dovecote" at Olney, 60 miles north of London, owned by Captain Stewart and was a great haven from which to either relax or organise the next two weeks programme.

Eileen Stewart provided some good advice on cultural matters and with John their hospitality on several occasions was appreciated.

The British Milk Marketing Board made a car available for the duration of the scholarship. The value of this generous act would be hard to estimate but the flexibility of travelling all round the United Kingdom and across to the continent was a tremendous advantage. In total 23,000 kilometres were travelled in the Chrysler Avenger.

Many people both past Nuffield Scholars and others gave hospitality initially to myself and then to my wife Kit as well. In fact one third of the nights on the scholarship were spent in private homes.

I must thank Dan and Sandy Cherrington of Noss Mayo, near Plymouth for their hospitality as "farmer host" on a couple of occasions and for the advice and opportunities that came from them.

The National Farmers Union, A.D.A.S. (Advisory Service) the Meat and Livestock Commission and the National Sheep Association all played an important part to help with my studies.

Without going into any further detail I would comment that the six months study was very timely; the concept is excellent and it is now up to me to take advantage of the knowledge and ideas which will hopefully also benefit people other than myself.

Without the co-operation of my family I could not have made this trip. I thank Kit my wife for keeping the "home front" under control for three months and then for being such an amicable travelling companion. The two grandmothers who so capably looked after the children for three months - thank you.

Finally, if there was one thing I learnt from this

scholarship it is that we are all dispensable. I came back to find the farm in top order and thanks to Gary Shuttleworth we had an excellent lambing in 1980. He must have put in some long hours and he obviously met any challenges as they occurred. Thank you Gary and Beth.



*Owen Jennings (Karamea, N.Z.), David Raff (Queensland), Art Westland (Canada), myself and Murray Garnock (NSW) suiting up in hygienic outfits to inspect a piggyery in Dorset.*

## Itinerary

### NUFFIELD FARMING SCHOLARSHIP STUDY TOUR 1980

FEBRUARY 18 - AUGUST 8

1980

- Feb 18-22 *London*. Introduction to farming organisation, National Farmers Union and A.D.A.S. (Advisory Service) N.Z. Meat Board.
- Feb 24-  
Mar 8 *Tour with four Nuffield Scholars to Dorset, Devon and Cornwall*. Introduction to British Agriculture. Visited several sheep farms, also dairying, pigs, fish farming and meat abattoirs.
- Mar 9-14 *Dan Cherrington - sheepfarm near Plymouth*. Visited a number of sheep farms in the area as lambing was in full swing.
- 17-20 Four Nuffield Scholars and self - Wye College in Kent Centre of European Agricultural Studies. *Two days in Brussels* studying the European Economic Community.
- 21 *National Agricultural Centre, Slonleigh, Warrickshire*. Mr Mike Cornwell-Smith who had been to Southland on a 12 month advisor exchange showed me the sheep centre and the systems of lamb rearing they are experimenting with.
- 24 Meat and Livestock Commission. Bletchley, saw Mr J. Read and David Croston in charge of the sheep division - this includes their performance recording scheme.
- 25 Meat and Livestock Commission Marketing Division.
- 26 Meat and Livestock Commission. Carcass evaluation unit. Some very useful work being done here.
- 27-28 *Bradford, Yorkshire*. International Wool Secretariat Technical Centre. Also British Wool Marketing Board.

- 31 Drayton Experimental Husbandry Farm, near Stratford on Avon. Over 200% of lambs sold from ewes mated.
- Apr 1 National Institute of Agricultural Engineering at Silsoe.
- 2 Hampshire and John Cherrington. Sheep and cropping farm. Evening attended a top line farmers meeting.
- 3 Visited three sheepfarmers near the Cherringtons.
- 4-7 *Hampshire near Andover*. Ted Schlater - managing a large estate 1400 ewes. Busy with lambing. Visited five farms running up to 3000 ewes.
- 8-10 *London*. Co-operatives and meat marketing.
- 11 *Hampshire*. Harry Ridley - a top operator - sheep and cropping.
- 12-13 *Dorset*. Raymond Bere. Nuffield Scholar - mostly dairy farming.
- 14-26 *France*. Visited sheep farms near Bourges and Clermont Ferrand in the Massif Central. Met journalists and with the help of the N.Z. Meat Producers Board gave them our view of the problems of marketing sheep meat in Europe.
- 27 *U.K. - Birmingham* where I had a 9 minute live interview on BBC TV 1 Farming programme.
- 30 *Wales*. Paul Charter Nuffield Scholar. Dairy Farm. Evening spoke to a meeting of sheep farmers.
- May 1 Pullpeiran Experimental Husbandry Farm. Forestry and sheep production.
- 2 *Aberystwyth*. Meat marketing - University of Wales. Emlyn Pugh at Llandewi.
- 6 *Luton north of London*. Associated N.Z. Farmers meat cutting plant.
- 7-9 Royal Vet College. *London*. Southern Counties Sheep Group seminar.
- 10 Berkshire College of Agriculture. Grassland Institute at Hurley re Teeth wear of sheep. Artificial rearing of lambs.

12-14 *Lincolnshire*. Sir Emrys Jones. Visited farms - sheep, cropping, duck farm and plant breeding station.

15 *Beverly Yorkshire*. Bishop Burton, Agricultural College. Saw Texel sheep.

19 *Avonmouth Bristol*. Meat Marketing.

20-22 *London*

23 *Taunton, Dorset*  
*Wesley Wyatt*. Sheep and pig farm.

24-27 *Noss Mayo, Plymouth*. Dan Cherrington - sheepfarm. Visited several farms near Plymouth.

28-29 *Newquay, Cornwall*. Tom Carlyon - sheep and cropping farm.

30 *Tiverton, Somerset*

June 1 David Ferdindo - sheep and beef

4 *London*. Meat Marketing.

5-28 *Belguim, Holland, Denmark, Germany and France*. Stayed on farms in Denmark and France.

30-  
July 3 Royal Show. *Warrickshire*.

6 *London*.

9 *Stratford on Avon* - Field day at Drayton Experimental Husbandry Farm.

10 *Cirencester, Oxford*. Tim Morris sheep and cropping.

11 *London*. Royal Garden Party.

12 *Hampshire*. Ted Schlator - Sheep and cropping.

13-15 *Kent*. Victor Pope - Sheep farm. Visited two other farms Wye College - NZ Romneys from the N.Z. Romney Development Group were inspected.

16 *London*. International Wool Secretariat. Evening Dinner for Nuffield Scholars by the National Farmers Union.

17-27 *Scotland*. Visited 2 experimental husbandry farms. 1 University at Aberdeen. Stayed on 2 farms. Andrew Sharp Heriot, Sheep and grouse. Craig Rankin Ayreshire. Sheep and cropping.

28-29 *Yorkshire*. Tony Pexton. Sheep and cropping.

30 *Gloucester*. Sheep 80 - A comprehensive sheep field day.

31 *Herefordshire*. Ian Howie. Sheep and beef and cropping.

Aug. 1-3 *Wales, Anglesey*. Iolo Owen - woolless sheep and entrepreneur.

4-8 *Olney Bucks*. Tidy up of papers.



*Indoor wintering of sheep has become an accepted practise throughout the U.K.*

## Introduction

Report on a Nuffield Farming Scholarship study visit to the United Kingdom and other European countries, 18 February to 8 August 1980.

### Topics of Study:

- 1) Marketing of lamb
- 2) The role of producer co-operatives
- 3) The management of sheep at high levels of prolificacy
- 4) Agricultural training at a regional level
- 5) The European Common Market and its effect on agricultural trade.

### Introduction:

During my studies, I was able to visit or stay on 57 farms. This included six in France and four in Denmark. Most of the farms ran some sheep, but these were rarely the main enterprise.

I had 26 appointments with one or more persons regarding meat marketing and 14 meetings or visits to co-operatives. This included three in France and one each in Holland, Denmark and West Germany.

I had five meetings on agricultural training and 16 other meetings relating to agriculture. I visited the International Wool Secretariat at Ilkley and in London, and the British Wool Marketing Board in Bradford.

### E.E.C.:

With four other Nuffield Scholars, I attended a two day briefing on the European Economic Community at Wye College in Kent at the Centre for European Agricultural Studies.

Time was also spent -

- 1) Two and a half days in Brussels with the four Nuffield Scholars and Capt. John Stewart, our Nuffield director, studying aspects of the E.E.C. Commission.

- 2) Three days at the Royal Agricultural Show at Stonleigh.
- 3) One day Roskilde Agricultural, Denmark.
- 4) Two and a half days at a seminar organised by the Southern Counties Sheep Breeders Group at the Royal Veterinary College, Potters Bar, London.
- 5) One day Sheep 80 Melvern, organised by the National Sheep Association.



*Some of the 50 pure breeds and 300 Crossbreeds found throughout the U.K. From left to right: Texal, Jacob, Dorset Down.*

## Meat Marketing

### Promoting New Zealand Lamb:

One of the unexpected events was to help the N.Z. Meat Producers' Board correct some misconceptions held by the French about N.Z. lamb production.

This involved joining Mr Svend Larsen of the Brussels office and Dr Lawrence Hogben, a former New Zealand Rhodes Scholar, who has retired in France, after spending a number of years with Imperial Chemical Industries as their head public relations expert on the Continent.

We initially spoke with two French reporters who cover three papers. The response was sufficient to encourage a programme to be arranged for a week's tour of the south and west of France, which covered the main sheep producing areas.

We spoke to eleven reporters from eight newspaper companies who were responsible for, at least, ten different publications. Interviews were conducted in the cities of Tours, Rennes, Bordeaux, Claremont Ferrand, Auxerre and Paris. We were able to gain the confidence of these reporters when they realised that an economic return to the New Zealand producer was just as vital for us as it is for our French counterpart.

I was able to counter French claims that the New Zealand sheepfarmer lived off his wool returns, that meat is just a by-product, and it is controlled by multi-national companies! Being a Southland sheepfarmer, where the return for meat is 66% of the total sheep return under intensive conditions, and being a director of a farmer-owned abattoir or freezing company, which owns lamb after it arrives in Europe, I was able to have a favourable impact. The fact that we have been trading with the United Kingdom since 1882 and that, in recent years, we have cut our supply to Europe by 100,000 tonnes made the point that we have been responsible traders.

The main problem with the "guerre de mutton" has been the supply of English lamb coming on to the French market and causing a threat to the prices received by the French producer.

So this was the message:

New Zealand is not prepared to be a scapegoat. We have made adjustments in both the efficiency of our own production and in our marketing. We are sympathetic to the welfare of French and British producers, but the necessary adjustment should not be at New Zealand's expense. If the issue is more of a social question, then the Governments concerned should take the responsibility. At all cost the issue should be kept in perspective and not be blown out of proportion to some of the major issues of adjustment required between member countries. After all, sheep meat represents only 3% of all meat consumed in the E.E.C.

What influence did this have on subsequent top level discussions? Probably very little.

I would treat this approach the same as advertising. On its own, the impact is minimal, but as part of an on-going campaign, it can pay handsome dividends. This was emphasised when we were interviewed by Mr Jean Hainaux at Tours. He had met Mr Adam Begg, chairman of New Zealand Meat Producers Board, a year before and was interested at the outset and subsequently published a favourable article.

The importance of having competent multi-lingual employees of the meat board showed to best advantage during this week. I believe a continuing programme of contact with producer groups in both the United Kingdom and in France is of the utmost importance. The opinion of producers will in time, have an effect on their parliamentary representatives. While, at the moment, the key leaders in the United Kingdom and some in the E.E.C. are sympathetic to New Zealand, we should not underestimate the importance of promoting goodwill at all levels.

The reaction of French reporters was favourable because of their objectivity. I can not say this of the few French producers or of their British counterparts I met, who genuinely believe that we are a real threat to them.

In the United Kingdom, this has become more open with some printed reports complaining about the presence of N.Z. lamb.

As in France, I was amazed at the change in attitude of United Kingdom sheep producers when I had a chance to explain the situation as it is. Instead of condemning N.Z. lamb imports, I would point out the -

- a) *importance of maintaining the consumption of lamb which has dropped from the mid-1960s at 11kg per head to 7kg per head in 1978, largely due to lower imports from New Zealand;*
- b) *to do this both countries must improve the quality and marketing of lamb;*
- c) *the United Kingdom lamb benefits from New Zealand's advertising (which most people accept);*
- d) *that the E.E.C. is only 67% self-sufficient in sheep meat production;*
- e) *New Zealand's frozen product is not strictly competitive with home-killed lamb and this is shown on occasions by the independent price movements for each product.*

At times there will be a conflict of interest, but I believe there is enough mutual benefit to improve the relationship between the producers of both countries. Principally because both the hill country sheep producer who will receive £44 million or \$96.8N.Z. million in hill country subsidy in 1980 and his New Zealand counterpart are unlikely to find a major alternative source of income in the near future that gives a better return than sheep.

#### Conclusion:

1. New Zealand should not make any apology for sending the current tonnage of lamb to the United Kingdom provided it arrives early in the season and that only minimal amounts should be sold from July to November.
2. The New Zealand producer should fully support the work of the Meat Producers Board in Europe. The opportunities for increased returns from improved marketing and promotion are just as great as from increased production.
3. More effort should be made to inform the United Kingdom producer of New Zealand's position. This could be by developing a closer relationship with the N.F.U. Marketing committee, the Meat Promotion Executive, and the National Sheep Association.

Articles should be contributed to the major farming journals. This could be encouraged through the Meat Board resources.

4. The meat industry should develop closer contact with the retailers of meat. Smithfield may only handle approximately 7% of New Zealand lamb to United Kingdom but it is a market of the past and does no credit to the handling or presentation of our product.
5. Better communication will allow for further processing according to requirements. Whether this is done in New Zealand or overseas should be determined by profit and what is most practical.
6. This would reduce the incidence of buyers looking for the weakest seller and encourage the positive approach of sellers looking for the best buyers.
7. By increasing the value of lamb, this would help to overcome criticism (unjust as it may be) of New Zealand selling its lamb too cheaply.
8. We should aim, as an industry, to move our lamb into a higher income commodity group. It is poor business to send lower quality meats 20,000 kms to market.
9. The lowering of the E.E.C. tariff is a prime objective as this is a real disincentive to improving our product before arriving in the United Kingdom.

#### T.V. - B.B.C. National Farming Programme:

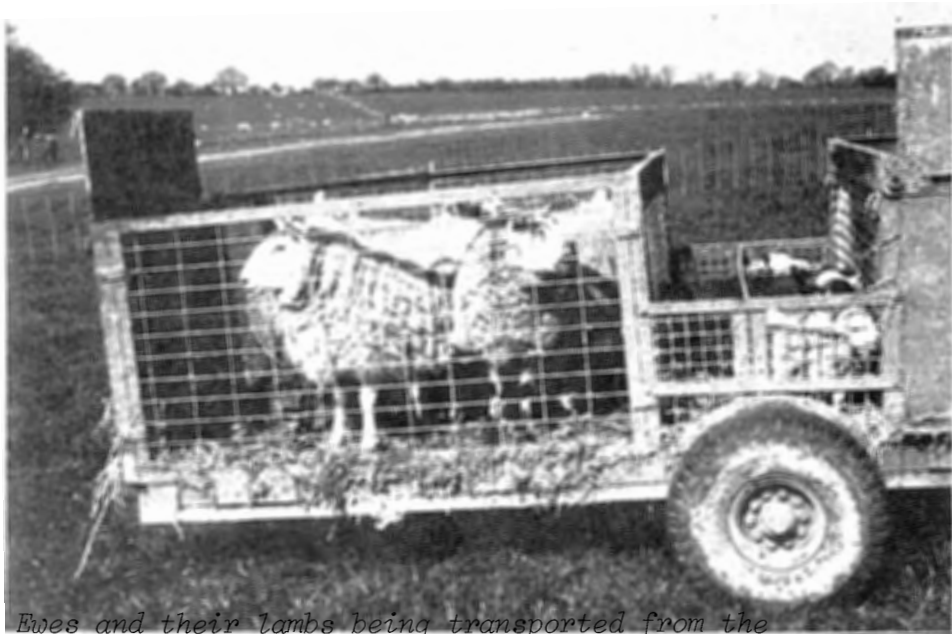
On 27 April, I participated in a nine minute live discussion with Jean-Marie Chavel of Canvin International Meats. Dan Cherrington, who had been to New Zealand in January for filming, was chairman. The discussion followed filming of Alliance Freezing Co. Ltd and some Southland farming shots and interviews with Mr Norman McRae, Deputy Chairman of the Meat Board; Roger Bews, sales manager at Alliance and Mr Alister McGregor of Mt Linton Station, Ohaio.

Mr Chavel commented favourably on the genetic programme mentioned by Mr McGregor and went on to say that New Zealand should diversify her markets more and should ask a higher price for the lamb in the United Kingdom. He claimed that the United Kingdom could produce

all its own sheep meat on a year round basis.

I responded by outlining the extent to which we have diversified and suggested that continued complimentary supplies from New Zealand are preferable to high cost out-of-season United Kingdom lamb. I mentioned the effect of price on consumption and that the New Zealand producer wishes to obtain the best price possible.

This experience highlighted the impact of T.V. and I was continually surprised by people, some of whom I had not previously met, who remembered the programme after meeting me.



*Ewes and their lambs being transported from the lambing shed to pasture in a convenient trailer which can hold up to 16 ewes and 32 lambs.*

## Role of Producer Co-operatives

*Internationally a producer co-operative is the concept of producers making a commitment together for their mutual financial benefit to market and or process their products.*

*The actual structure is determined by the needs of the producers and the laws of the country to which they belong.*

*A co-operative is not an automatic licence to success but it can bring benefits by producing competition and returning the profits of processing and marketing back to the producers. The success or failure of co-operatives still depends on the calibre of top management employed.*

I looked at producer co-operatives in the United Kingdom, France, Holland and Denmark.

### United Kingdom

The Central Council for Agricultural and Horticultural Co-operation C.C.A.H.C. was established in 1967 with the following three functions:-

- 1. To organise, promote, develop and co-ordinate co-operation of all kinds in agriculture and horticulture.*
- 2. To advise the Minister on all matters relating to co-operation in agriculture and horticulture.*
- 3. To administer a scheme of grants chiefly to aid co-operative activities in production and in marketing.*

A marketing policy committee was set up in 1974 to be responsible for the Government's Marketing Fund which is used mainly to initiate a range of marketing projects. The committee is comprised of members from the Central Council which has representatives from the three Farmers Unions, the four Central Co-operative Associations and independent members appointed by the Ministers responsible for agricultural development in the United Kingdom.

The Marketing Unit carries out the programme approved by the Marketing Policy Committee. It does not

pay out grants but it is able to give advice to co-operatives on marketing and it is able to help in planning their commercial development.

### Publications

The C.C.A.H.C. has produced a number of booklets which cover all aspects of co-operatives law, directors responsibilities, communication, commitment control and growth etc. These are simply presented. The head of promotion, development and training, Nic Guiton was most helpful by suggesting who I should see.

With ten regional officers one would expect the co-operative movement to be a major influence with the advice and finance available through the grant scheme for new and for the expansion of co-operatives.

This does not appear to be the case. In fact there seems to be a wide variation in the understanding of what a co-operative is. Some producer groups such as Cornwall Quality Lamb are providing a co-ordinating role in the collection of lamb to be delivered to another co-operative North Devon Meat. There is financial benefit in transport savings but no participation in any payout from selling the meat.

### North Devon Meat - General Manager Dick Cawthorn

By processing more than 500,000 lambs each year this successful co-operative with more than 5000 members is the largest sheep meat plant in the U.K. There are two killing plants: one at Torrington, Devon, and another at Barnstaple in Somerset. The daily kill at Torrington is 1200 lambs, 300 cattle and 600 pigs with 290 people employed.

100% of the pigs come from shareholders, 80% of the cattle and the sheep varies from 45% to 50% at the beginning of the season to 100% later on.

There are 16 buyers who service shareholders and procure additional stock.

Three wholesale depots at Torrington, Exeter and Plymouth are operated by the company.

Apart from a joining fee of £50 or N.Z. \$120 increased capital comes from reinvestment of dividends.

This usually amounts to about 80% of the payout. Last year the appropriations included 17½% of dividend to shareholders, and an employees bonus of 5%.

The success of this co-operative revolves around efficient management which is also responsible for marketing. This includes a contract to Marks and Spencer for small-goods of which a very high and precise standard is expected.

Some supplier shareholders I met were very loyal to the company because of the service they received in stock being delivered and because of the principle of co-operatives even though at times more attractive prices could be obtained elsewhere.

### Welsh Agricultural Organisation Society - W.A.O.S.

The W.A.O.S. formed in 1922 is the controlling body serving farmers' co-operatives in Wales. It is financed by its member organisations and from a grant from the Central Council for Agricultural and Horticultural Co-operation. Over 100 producer organisations are members of W.A.O.S.

### Welsh Quality Lamb Aberystwyth - Manager Harold Oliver

This co-operative was formed in 1970 and subsequently took over two processing plants in 1975.

It has lifted prices to producers to be competitive with English prices. The minimum shareholding is £200 or N.Z. \$460. The co-operative holds back 1% of the value of lamb as a revolving loan which is paid back after four years. Tax is payable in the year of repayment.

The company slaughters 20% of the Welsh lamb production and hope to reach 25% in the next year.

This was certainly a situation of producers having to help themselves by forming a co-operative. Alternatively they would have remained at the mercy of fickle buyers and with the risk of losing processing facilities in Wales it would have put the farmers in financial jeopardy.

### France

France is co-operatively minded largely because of

the fragmented land holdings. It has been politically desirable to retain the rural population and so the formation of co-operatives helps to keep small units economically viable. Whereas other countries such as the United Kingdom have less than 4% of the work force in agriculture, France aims to maintain theirs at 10%.

Legislation seems to cover every detail of how a co-operative is formed and what it can do. Not to comply would mean a loss of grant or subsidy monies.

This usually comes from Credit Agricole which is a rural bank controlled by a state authority. Credit Agricole's importance has increased at the expense of other financial bodies, mainly because it can grant loans at low interest rates. It is the only institution through which the Ministry of Agriculture channels interest allowances. These are really subsidies to meet the cost difference between the interest rate paid by the borrower and the going market rate.

From time to time in recent years, Credit Agricole has been in considerable difficulty because of its obligations, as a co-operative bank, to the agricultural co-operative sector.

The co-operatives liabilities have been, in some instances, out of all proportion to their capital and other assets. The management of their operations has been, in the words of one report, 'not only less than dynamic, but frankly bad'.

While it might be said that co-operation in France may be seen as more of a government development than a farmer development, I did have the opportunity to look over a meat abattoir at Laon, 150 km north of Paris.

Situated in the Aisne region, this S.I.C.A. was established in 1960 in a mainly cropping area to cater for the slaughter and marketing of beef cattle. With 1000 members and the beef being of a seasonal nature the S.I.C.A. has its own distribution company and two super-markets. 15% of the meat is frozen and with additional frozen products of chicken etc. a delivery service to locals is provided although increased freight costs are placing a limit on this.

Italy takes live bulls so only 50% of the bulls are slaughtered at Laon. This relieves the pressure for

killing space at certain times of the year. There are plans to build a new abattoir in the near future.

*Situated in a prosperous area this co-operative appeared to be both well managed and profitable. In turn this gave the company more freedom to determine its future direction and use initiative rather than looking at legislative restrictions.*

#### Alliance Pastoral

I was able to visit this sheep co-operative situated in the Central-West region near Poitiers 200 km south of Paris.

Approximately 20% of sheep farmers are members of co-operatives. Situated in a natural sheep breeding area Alliance Pastoral involves 350,000 ewes and 8,000 members.

This is broken down to smaller groups such as Poitiers Ovin with 190 members and 90,000 ewes. This group has a board and a management committee.

The joining fee of 7F per ewe (N.Z. \$1.50) was higher than usual in order to gain an interest in an abattoir. No interest is paid on capital although up to 5% could be declared.

*Voting - one member one vote.*

Commitment of member:

1. Remain in co-operative for 5 years (legal requirement).
2. Sell all production from animals to co-operative as determined by the particular rules for that co-op.
3. 1% commission based on gross sales.
4. Sign a production contract.

In this there can be an encouragement incentive of 10F (N.Z. \$2.20) per ewe which is paid on the completion of the contract which states quantity and quality to be supplied at predetermined times.

On withdrawal the member can be paid out if the credit rating of the co-operative is not affected!

The Poitiers Ovin co-operative included in its activities a mobile dipping service; it employed a veterinary surgeon and supplied a wide range of farm requisites.

## Holland - Cebeco-Handelsraad

Mr Heink Morsink who is general manager of the large grain operation of the co-operative is responsible for the annual purchase of 3.5 million tonnes of grain. He is one of three general managers for this huge organisation.

It is an organisation of 226 co-operatives with a membership of over 50,000 farmers.

These in turn are divided into nine districts which elect seven farmer directors who meet two days each month with the three general managers and 15 divisional managers.

A supervisory board of 25 farmers, who are generally chairmen of local co-operatives, meet once every three months. They are elected from the nine districts.

## Activities

A large company like Cebeco-Handelsraad covers all farming activities from pig breeding, potato processing and egg marketing to machinery sales and computer services.

## Finance

Rabo is the largest savings bank in Holland and it draws funds from both town and country. This then is a major mortgage source for farms. Initially members provide no share capital but mortgages are taken over farms. In turn 20% of rebates are retained by way of revolving loans of up to 15 years according to the individual co-operatives policy.

With local co-operatives commanding 90% of farming business the importance of co-operatives in Holland can be easily understood.

The democracy which prevails for the election of directors ensures that co-determination remains and Heink Morsink seemed to be very much aware of this. With a \$1½ billion dollar turnover it would take more than a few days to determine the efficiency of a co-operative system like this.

## Denmark

I was able to see the influence of co-operatives in Denmark through the eyes of a progressive pig farmer at Horsens and by the impressive display of quality control of a pig abattoir also at Horsens.

The importance of ESS FOODS in developing and maintaining the vital bacon market to Britain is well known.

It was therefore with interest that I looked over the Tulip Danish Bacon abattoir factory at Horsens where 450 people are employed. This plant had one slaughter and two dressing lines with a slaughter rate of 450 pigs per hour and a daily limit of 3050 imposed by the union. The precision of grading as to length and fat depth and the monitoring of bacterial count was impressive and for hygiene standards it would equal the best in New Zealand.

## The Producer

Hans-Peter Moellor and his wife Helga own a 30 hectare pig farm with 100 sows. The land grows two thirds of the pig feed requirement which was mostly barley. The layout of the piggery was quite efficient and the standard of husbandry was excellent. Pigs were sent to the abattoir on a regular basis and an even number at a given weight each week. A sense of frustration existed in that ESS Foods was a bit remote but had the final say as to what was required for the market. This included the breeds of pig to be used which left the producer with a limited degree of decision. While ESS Foods is largely responsible for the successful continued sale of bacon to Britain it can affect the quality of life for the producer if room for initiative is limited.

## Danish Co-Operatives

*The growth and development of Danish Co-operatives has quite a message for New Zealand. They demonstrate a high degree of vertical integration which has seen the change from Denmark being a grain growing country in the nineteenth century to a producer of high quality dairy and pig products in the twentieth century.*

When cheap grain via steamship from the United States caused the decline of Danish exports to neighbouring countries the Danish farmers began feeding it to their livestock. But the scope for increasing the practise of cattle on the hoof driven down through Jutland to be sold in Germany was not great. Some farmers had the bright idea of selling the products of livestock rather than the live animals themselves and a trade began in butter and cheese and meat from pigs and cattle.

As Britain adopted a free trade policy to provide cheap food for the growing industrial population, the steamship which had seemed to spell doom for Denmark became its salvation.

The first Danish co-operatives were institutions set up to provide credit for farmers in the hard times of the 1850s but it was not until 1866 when the first retail distributive society was founded. This served as an example to the farmers who established the first dairy co-operative in 1882 and the first bacon factory five years later at Horsens in Jutland.

### Democratic

An important aspect to keep in mind is that Danish co-operatives, unlike those in some countries, have never become connected with the socialistic movement or any particular political party. They are purely practical, having grown out of the hard necessity of combining to win a living from land of little natural resource, no minerals and relatively poor soil.

They have not had to develop with the restriction of pre-determined legislation. Laws were introduced rather to ensure the concept of small family farms by encouraging the break up of the large estates and by providing loans and credits for the small holdings.

One of the consequences of a democratic co-operative movement in any country is the need to discuss, persuade and agree. From time to time new issues will enter the picture. Hence in Denmark the discussion is about the future of the bacon market in competition with alternative markets, some of which are best suited to a heavy pig, making the singular reliance on the long light bacon landrace a topic of passionate discussion as previously referred to.

### Marketing

The Danish farmers have two main exporting objectives. First, to develop uniform quality products marketed at a uniform price, and then to promote them in their overseas markets with consumer advertising and in-store promotion.

Denmark exports her agricultural products to over 120 different countries and while she is less dependent upon the single market of Britain, the industry has learnt that this is still the one market which every week and every year can absorb a large part of the Danish dairy and pig production.

### Comment

*In New Zealand there is insufficient education on the aspects and principles of co-operatives.*

*While successful producer co-operatives play an important role in the industry, not many N.Z. farmers other than those directly involved in the running of those companies, know much about their real significance.*

A study of the principles of co-operatives will lead to the question of one member, one vote. What are the best methods of financing co-ops? How far should legislation determine the benefits and the areas in which co-operatives should work? This is often in the form of taxation relief.

What are the possibilities of worker participation in a shareholding?

More courses in secondary schools and in our Agricultural Universities are essential in a country like New Zealand. Its welfare state and its benefits have to combine with the dearly held belief of the strength of the family farm and the independence and initiative which goes with it. Arrange this with the need to continue to competitively export our farm produce and one can see the need for co-operation at all levels: the producer, the processor, the marketer and the authorities with statutory power such as the producer boards. Added to this is the need to liaise with our political parliamentary leaders who have to, on the producers behalf, battle to fight protectionism in the form

of tariffs, quotas, levies, or just simply excuses to protect home producers.

*It is amazing that the N.Z. meat industry is to celebrate its centenary of exporting frozen carcasses and this is still the main form in which the product is sent all over the world. With new technology available for processing and with more sophisticated expectations from our once traditional customers, lamb and mutton are falling behind as a well paid foodstuff. We are capable of supplying high quality, easily cooked and pleasant-to-eat meat. No longer do our customers in Europe wish to regularly struggle with bone or cut off fat and in the U.K. this is shown by the dramatic decline in the per head consumption of sheep meat.*

*The world does not owe us a living and alternative products are available. I do not think that we should give up the European market easily but it will take further investment at home and overseas in processing techniques, in marketing promotion and this includes attracting people with the necessary expertise to sell on our behalf.*

*A co-ordination of meat interests in N.Z. is occurring and this must continue in the future.*



*Prizewinning Berrichon ram on a farm near Bourges, France. Note the excellent meat qualities. This flock spends its entire life indoors!*

## Management of Sheep

### The Management of Sheep at High Levels of Prolificacy:

A study of management systems and techniques to aid the weaning of 170% of lambs or more to ewes mated in the United Kingdom proved to be both interesting and timely. There are a significant number of flocks both commercial and stud in Southland achieving 140% or better. With prospects of improved higher performance, it is important to overcome problems of mis-mothering and to improve fostering techniques as levels of 170% are reached.

The sheep population in the United Kingdom in 1980 was twenty-two million, of which thirteen million were breeding ewes.

The three tier structure is well known:

- 1) Hill breed - mated to hill breed. This includes the purebred Scottish Blackface and the Welsh Mountain.
- 2) Hill breed - mated to longwool ram, Blue Faced Leicester and Border Leicester rams. Popular cross-breeds are the masham, mule and greyface.
- 3) Crossbred ewes - mated to meat breed rams. Suffolk, Dorset, Hampshire and Texel rams.

There are more than 50 breeds and over 300 specified crossbreeds in the United Kingdom. In 1977 the average flock consisted of 170 ewes.

Nevertheless, I was able to visit a number of flocks of mule and greyface sheep from 1400 to 3000 ewes. These were in the southern counties and, in particular, Hampshire, Dorset & Devon where they had to compete with cropping. Sheep were usually not as profitable as wheat and barley, but they were seen as an integral part of the rotation which would include a two year lea for weed control and fertility build up.

In Wintering has become popular and if buildings from a previous beef enterprise weren't available, special sheep sheds costing \$65 per ewe have been built. The advantage of carrying five more ewes per hectare and having a suitable lambing shed justifies the investment in the often harsh United Kingdom winter/early spring

climate. The sheep are under cover for twelve weeks from Christmas until lambing in March. Silage or hay is initially the main diet, but six weeks prior to lambing a 14% to 16% protein meal is introduced commencing at .25kg per sheep building up to .75kg plus hay each day.

#### Harvesting the Lamb Crop:

The leading flocks of 1,400 ewes or more are selling 170% lambs to ewes mated. These ewes would be 70-75kgs at tugging and drop 190% of lambs born.

A typical situation would consist of 250 ewes in each mob prior to lambing. The permanent shepherd would have four assistants for 1,400 ewes. One person would be observing the lambing ewes and, with a potential value of \$65 (\$95 this year 1981) for a 19kg carcass weight lamb, he would not hesitate to assist any ewe. Up to 70% assistance, much of it slight, is common. Immediately the lambs are born, the ewe is escorted to an individual pen. These are available at a ratio of one pen for eight to ten ewes in the flock. This accommodates every ewe after lambing for 24 to 48 hours, until she goes out to grass.

It is this set up which enables cross fostering or wet fostering to take place. This simply means that at 170% lambing very few ewes rear triplets and only those not capable of rearing twins in fact rear a single. A ewe with triplets has one fostered off and a ewe with a single is escorted to an individual pen. She is given either another single of equal size or her own lamb is fostered while she receives two foster triplets of a similar size. Fostering is continued with a relieving night shepherd. Hygiene is important and, apart from the ewes previously being vaccinated against the clostridial diseases and enzootic abortion, the lambs have iodine on their navels and are checked for health and strength by another shepherd who will castrate and tail with rubber rings.

The third shepherd will feed the necessary lambs and decide which are ready to go out and he will help the fourth person to load a specially designed trailer capable of holding 16 ewes and 32 lambs. This all takes place under cover and, in one instance, this was from

the protection of a 13,000 sq.ft tent especially hired for lambing.

In spite of the favourable conditions, lamb losses often are between 10% to 12% partly due to small triplets and also because of disease from infection. Bearing troubles are common in spite of ewes being in a store condition of a fat score cover averaging two out of five (one is thin, five is overfat).

Subsequently, grass staggers or hypomagnesaemia is a problem on the nitrogen fed pastures and deaths occur unless magnesium blocks are available.

With good planning and hygiene standards, this system works well and very few ewes need to rear triplets. The ewes are put out on to ample young pasture and, if necessary, are subsequently given additional concentrate feed. They rear their lambs to 18kg carcass weight in 14 to 16 weeks, which is more than 300gms per day live-weight gain.

While the indoor lambing with wet fostering may not appeal to many New Zealand situations, the system at Drayton Experimental Husbandry farm near Stratford-on-Avon could be more attractive. They have the Cambridge breed which is very prolific as a result of initial selection of ewes of any breed which have had three sets of triplets. The present sheep are largely Clun Forest blood and at Drayton they are getting close to 200% of lambs sold per ewe mated.

With insufficient foster mothers available, the triplet rearing ewes are run together with ample pasture available. The lambs have cold milk preserved with formalin available from buckets with lamb teats. In addition, concentrates are available for the lambs to eat when they are ready which is usually from fourteen days of age on. A third of the lambs drank the milk. By weaning with the cold milk and creep feed meal, a satisfactory crop of lambs were reared last year.

The potential prolificacy of sheep in the United Kingdom can be seen from the following quote from the 1979 Annual Review of Drayton E.H.F.:

*"There are genetic differences in potential fecundity both between and within breeds. The Scotch halfbred can average over 1.8 lambs per ewe whilst the*

*Finnish Landrace is capable of 3.4 lambs per ewe. The Cambridge is a new breed being developed and standardised for high prolificacy with mature ewes averaging 2.8 lambs per ewe.*

*The prolificacy of certain breeds and crosses has been compared in a trial at Drayton:*

<u>Breed of Ewe</u>	<u>Lambs born/ewe</u>	<u>Lambs born alive</u>
Scotch halfbred	2.10	1.97
Cambridge x SHB	2.39	2.29
Finnish Landrace x SHB	2.61	2.47
Cambridge	2.81	2.58

*To calculate the lambing percentage, an allowance must be made for barren ewes and ewe deaths between tuppings and lambing. During this trial these averaged 7% with no difference between breeds."*

*Furzeleigh Farm, Buckfast Abbey, Ashburton, Devon -*  
*John Hanniford, Manager*

The visit to this farm gave me a good illustration of the influence of the Finnish Landrace on a traditional wool breed normally producing 130% of lambs. The sixty ewe hoggets were the result of mating half Finnish Landrace/half Polled Dorset rams to white face Dartmoor ewes. They had dropped 202% of lambs and reared 198%.

The 600 ewes which had varying proportions of Finnish Landrace blood were rearing 175% of lambs for the Easter premium market. These lambs are grown indoors, and they are weaned at 18kgs liveweight at seven weeks of age. With a conversion rate of three to one, they go through to 18kgs dressed weight on concentrates. The concentrate feeding begins while still on their mothers. They are attracted to the creep feed with the use of infra red light.

Lambs sired by Texel rams reach the same dressed weight seven days later than those by Suffolk rams.

*Chimbolton Downs, Andover, Hampshire -*  
*Harry Ridley, Manager*

This 647 hectare estate was an excellent example of integrating enterprises with clear targets and objectives for maximising profit.

162 hectares wheat averaging 6-7 tonnes per hectare  
162 hectares spring barley undersown to new grass  
81 hectares winter barley

The rotation is two years lea/spring barley; two years wheat/winter barley/stubble turnips/winter barley undersown to new grass.

In 1979 overall crop yield was 6.6 tonnes per hectare.

Sheep - 3100 mule breeding ewes are kept outdoors on this light chalk soil with a 700mm rainfall.

To achieve 175% of lambs reared, the ewes are intensely shepherded with each ewe going into a temporary pen in the field where cross fostering and tailing takes place. Pens are available at a ratio of one pen for ten ewes at lambing and one pen for 70 ewes for fostering in a separate area. Two shepherds attend 500 ewes - these are often New Zealanders.

At 14.3 ewes per hectare, the feeding of the ewes and 600 ewe hoggets is well planned.

During early winter, the sheep are rotated on pasture and get hay. Then in January and February they graze the turnips and in March the wheat is grazed as Harry Ridley is prepared to lose up to 500kg in yield to save the cost of wintering the sheep indoors.

Up to \$7 per ewe is spent on feeding cake or concentrates both during and after lambing. This is to ensure that there is sufficient grass available for maximum lactation and to allow hay to be shut up. Blanca white clover is included in the pasture mixture as it stands the application of nitrogen. Most pasture and crops receive in excess of 100 units of nitrogen with the second crop of wheat getting the maximum of 134 units.

*The 5224 lambs averaged 18kg dead weight and returned \$65 each. Each ewe gave \$113 in lamb production and \$7 worth of wool.*

Stock health is good apart from some vibrio abortion and hypomagnesaemia in the ewes. Lambs are drenched at six weeks of age and then at monthly intervals.

Good use is made of electric fencing to make pasture utilisation efficient by rotationally grazing

ewes with their lambs as soon as they mother up satisfactorily. Mobs are usually made up of 300 ewes.

Harry Ridley has a similar outlook to many New Zealand farmers in that he is innovative and cost conscious. He maintains that sheep pull their weight and the following are the gross returns per hectare:

Sheep . . .	\$1562
Wheat . . .	\$1704
Barley . . .	\$1420

#### Meat and Livestock Commission:

This statutory body began in 1968 to promote greater efficiency in the livestock industry in the United Kingdom.

Four main areas are -

- 1) *Livestock improvement;*
- 2) *Carcase evaluation and classification;*
- 3) *Market information and intelligence; and*
- 4) *Meat promotion, information and publicity.*

Until recently the M.L.C. has been largely funded by Government levies, but this has changed and several services have to pay their way. This has had quite an effect on the outlook and the spirit of the M.L.C. Whereas some empire building previously took place as funds became available based on the value of livestock sold, the attitude is now a question of what price the user is prepared to pay. This applied to carcass evaluation and the sheep recording services.

This is probably a good thing to avoid unnecessary or excessive services being developed.

#### Sheep Performance Recording:

A basically sound sheep performance recording scheme is available but compared with sheeplan in New Zealand it has very little impact on the industry. On one hand there are the hill country breeds, Scottish Blackface, Welsh Mountain, North Country Cheviot, Swaledale and many others whose main requirement is to rear one good lamb under extensive and harsh conditions. Here the use of a computer has a limited practical use. On the other hand, there are the main crossbred flocks for

intensive lamb production whose genetic background depends on the purebreeds.

One might have thought that the longwoolled breeds for crossing with the hill purebreeds, that is the Border Leicester and the light boned Bluefaced Leicester, could be improved with the performance recording scheme. These stud flocks are of such small numbers, (the largest recorded flock is 68 ewes) and they are part of a traditional system so that no significant advantage is taken of such schemes.

The breeders using the performance recording scheme with clear objectives of breeding more prolific sheep with good milking ability often had at least four breeds involved and used small numbers of two to three hundred ewes in a flock. So again it was difficult to see major advances being made. The breeds involved could include the Finnish Landrace, East Friesian, Polled Dorset and the Oldenburg. If a group of breeders with the same objectives co-operated, the development of a breed without the problems of inbreeding would be enhanced. Never-the-less, it appears that the Cambridge breed the British Milksheep (which has Finnish Landrace and East Friesian blood) and the Finnish Landrace Polled Dorset cross offer increased lamb and milk production by mating these rams to either crossbred ewes or to purebreeds (such as the Romney or the Devon longwool.) Such is the complexity of options with so many breeds.

## Agricultural Training

Having been involved with the development of agricultural farming in N.Z. since 1970 when I was one of the working parties representing the Young Farmers' Clubs at the Training in Agriculture Conference I was interested to see how the situation in the United Kingdom compared. In N.Z. I have been on the prescription committee for the Trades Certificate in Farm Management; I was on the farm systems analysis committee which has led to a remodelling of the Certificate in Farming. I was also on the National Farm Cadet liaison committee and subsequently had a two year term on the National Farm Cadet Committee. From this I experienced the benefit of co-operation between the educationalists and practical farmers with liaison from the executive officers of the Agriculture Training Council. I have seen a tremendous development in co-ordinating the agricultural training resources to meet the needs of those in the industry and, provided unnecessary empire building does not take place, the agricultural training council will continue to provide a stimulus and bring training resources together.

In the United Kingdom I saw many similarities in the role provided by the County Colleges and our Farm Training Institutes. One thing that is certain is that the impact an institution has on its area depends largely on the calibre of its principal.

### United Kingdom Structure Agricultural Training Board

The A.T.B. was set up in 1966 under the 1964 Industrial Training Act and is charged with the task of ensuring the provision of an adequately trained work force for the farming industry.

The A.T.B. covers England, Scotland and Wales. It draws funds from Treasury and reports directly to the Ministry of Agriculture.

One activity backed by the A.T.B. is Training Groups.

### Training Groups

I was able to discuss with Mr George Douglas the role of the Brigg Training Group in North Lincolnshire. Formed in 1962 this group is made up from ten members farming 6500 hectares of good cropping land. The main enterprises being wheat, barley, peas, potatoes, sugar beet and oats. Livestock is restricted to 2000 sheep, 800 cattle and 700 pigs.

The group employs 24 foremen, 150 full time and 40 part time employees.

Definition of a Training Group:

A training group is a number of farmers who have decided to group themselves together to provide training for themselves and their staffs. The group forms a management committee and appoint a person to organise the training which is required. The A.T.B. ensures that a specially trained person is available.

The training includes that of new recruits, short craft courses for mature workers and there are ways to meet the special needs of foremen, supervisors and managers.

Of particular value to trainees in the Brigg Training Group are -

1. *Five or six trainees can be accepted each year. Training is therefore systematic and continuous. Although trainees work on individual farms they are never-the-less part of a team.*
2. *Liaison with the A.T.B. and the County Agricultural College at Riseholme is good, and can be tailor-made to suit the groups requirements.*
3. *The number of farms and diversity of enterprise and soil type makes for a breadth of experience.*
4. *Possibilities of subsequent promotion are much greater within a large group.*

Subsequent Employment:

After the completion of three years employment successful trainees receive a Craftsman's certificate. This entitles the employee to a 12½% premium over the basic wage. The Brigg group aims to retain as many trainees as possible within the group. The qualified employee within the group continues to receive systematic training to enable him to keep up-to-date with modern

developments and to acquire new skills as is necessary. This is also jointly financed by the group and the A.T.B. It is further carried on to the Farm Foreman stage and regular foreman group meetings are held throughout the year.

The A.T.B. supports a training group because -

1. *Each holding is considered to be suitable for trainees and is negotiated as such.*
2. *The training is systematic and the trainee receives a skill and technical knowledge of a supervised standard.*
3. *Standards of attainment in skill and knowledge are regularly tested to ensure progress of a trainee. The standard is that set by proficiency tests, and examinations for the City and Guilds of London.*
4. *The trainees are in fact in the Apprenticeship Scheme for Agriculture supervised by the A.T.B.*

#### Comment

George Douglas is confident that the Brigg Training Group has contributed to the efficiency, productivity and profitability of the group members by ensuring that a good labour force is available. It seems to be a combination of a cadet scheme leading into farm discussion groups as we know them in New Zealand. It meets the need and the group is obviously successful to have survived for 19 years.

#### AGRICULTURAL COLLEGES

##### Royal Agricultural College, Cirencester

This College is fully private and responsible to a board of Governors, Principal Mr H. V. Hughes.

It offers the following courses:

- a. *Diploma in Rural Estate Management 3 years.*
- b. *Higher National Diploma in Agriculture 3 years.*
- c. *College Diploma in Agriculture 2 years. Emphasis on farm and estate management subjects.*
- d. *One Year Farming Course - for the more mature student.*
- e. *College Diploma in Advanced Farm Management. Entrants must possess an agricultural degree or a, b or c above.*

The College farms are impressive with cereal growing, a model dairy parlour and very prolific sheep.

With hopes of being given a degree status this College has produced some very capable students who have had an impact in agriculture.

##### County Agricultural Colleges.

I visited two of these Colleges.

1. *Berkshire College of Agriculture, Maidenhead, Principal, John Pollard.*
2. *Bishop Burton College of Agriculture, Beverley, North Humberside, Principal, Dennis Hurst.*

These Colleges are responsible to a Board of Governors and to the Local Education Authority. They tend to be orientated to providing needs of their particular region. Berkshire College has 50% of its 200 full time students from the three immediate counties. Never-the-less seven or eight overseas students are accepted including an exchange from Telford and Flock House on alternative years. John Pollard places emphasis on developing people. The environment at both colleges and the attitude of the teaching staff would support this approach. A combination of having good recreational facilities and having farms and horticulture units for demonstrating principles must be of benefit to the students. In both cases the staff were proud of their farms. Berkshire had a Jersey dairy herd, Bishop Burton had an amazing horticultural area and a pedigree herd of Friesians as well as other enterprises.

Both Colleges offer a one year General Agriculture Course for people at least 18 years of age.

A three year sandwich course leads to the Ordinary National Diploma in Agriculture. Students must have reached a reasonable academic standard and have had at least one year's practical experience in the industry.

Apparently the standard and therefore the image of County Colleges vary considerably.

Most Counties have been significantly influenced by the benefit of graduates from County Colleges although in areas such as Cornwall where there are no Colleges a less progressive attitude prevails.

### Craft Skills Assessment

The Colleges run training programmes for farmers. These include teaching techniques and assessment skills so that farmers can help make assessments. Students can in addition to their study for the Ordinary National Diploma sit the Craft Skill test. At Berkshire College 90% pass at the first attempt compared to 60-65% from the industry. While there is some variation as to the interpretation of standards the Agricultural Training Board has the responsibility of seeing to this.

### Comment

In N.Z. where the objective of people in practical agriculture is eventual farm ownership, our Cadet Scheme and Farm Institutes are sensitive to the need. Along with the guide for application to enter farm ballots our system is being continually reappraised.

*Discussion groups, field days and conferences (as in the United Kingdom) provide valuable stimulus to those in management or those who own their own farms. The weakest area is in the ability to employ labour, that is man management. This lack of skill undermines the benefit of the training of employees when the employers or potential employers do not have the confidence or the training to get the best from delegating responsibility.*

*Attitudes of employees on farms in N.Z. are different to those in the U.K. so we have to design our own employer programmes to cope with this situation. From my experience I would think that within N.Z. there is a different emphasis in the outlook of employees say from North Island hill country from Canterbury cropping and from Southland intensive sheep farming.*

*This in turn calls for a different emphasis from the employer.*

