Hybu Cig Cymru Scholarship Michael & Catherine Roberts

New Zealand October 2005

The first week in New Zealand was at Tauranga. We contacted Mark Aspin, who was the organiser for the monitor farms. We sought out local monitor farm participants and were able to spend some time on Alan and Sue Costers's farm on the Kaimai Range overlooking Mount Manganui. We were taken aback by their welcome. Open acceptance of us and their generosity. We were able to gain an insight into the concept of monitor farms as focal points for stimulating good practices within the industry,being facilitators for others to share farming experiences.

Practices such as 'paddocking' using electric fencing to facilitate rotational grazing enabled them to maximise their grass potential. Water was managed as a resource and every paddock was furbished with a clean supply of water. They utilised a man made pond and had installed themselves a water wheel pump to back flood drinking tanks for the stock.

Many of the farms kept a weather station and growth gauges to monitor grass, growth, rainfall etc. Grass densities and stocking rates in paddocks were closely aligned to the theoretical objectives assigned. Prior to Alan and Sue taking over the running of the farm, the stock were mainly Romneys and the lambing percentage was around 75-80%. They decided to change to composite sheep and in so doing have managed to up their lambing percentage to 150-160%. Sheep handling facilities included an electronic ID race with automatic shedding etc. The sheep shearing (wool shed) was the centre point of sheep activities. Cattle handling facilities were impressive and again utlilized new well constructed pens, races, yards and centred around an electronic weighing station with plug in computerized system.

The climatic condition on the South East facing side of the Kaimai Range had enabled Alan and sue to operate an all year grazing only system, no fodder was cut, but stocking levels at the farm were finely tuned to efficiently utilise seasonal growth rates. Great emphasis was placed on conversion of grass to m eat. We spent several days helping docking lambs, weighing cattle and maintaining water supplies.

It was clear that ram production for the commercial farmer was left predominantly to the specialist ram breeders. One such breeder was Dave Walpole, who had developed a composite sheep .Twinmier composite sheep which contains quarter polled Dorset quarter border Leicester quarter Finn and quarter east Freisian.

On Monday the 31st October we journeyed to Tekuiti, the shearing capital of the world. There we had the pleasure of spending time with Colin and Verna Meads. The fearsome world renowned rugby player, now ambassador to the game, and a credit to the farming community of New Zealand. Colin farms a hill farm with rugged terrain and breeds Suffolk, Texel x Suffolk rams. His no nonsense approach was evident in his farming practices as we turned up to help him during a routine brucellosis test of the 150 sale rams, which he would have carried out single handedly with the vet.

We travelled to the South East coast to Porangahau to meet a family Marilyn and Alan Forrester and sons and their families. Alan supports his son Wayne, who is a quadriplegic in the farming of 600 acres

farm, land 400 effective. He runs 1100 ewes, 300 hoggets, 20 rams, 100 yearling bulls and heifers together with 65 suckler cows. The cows are mainly Angus crossed with Charollais bull. Steven the other son farms 700 acres flat land, 350 acres of rolling hills. He farms 1600 ewes 400 hoggets 50 bulls for fattening bought in at a year old, and sold out at about years 600kg live weight. These run mainly as single man units with family help and contractual help at peak periods. The emphasis on a quality wool shed for ease of handling of sheep and good animal husbandry was exemplified by all these farmers. Their attitude was straight forward with a diligent approach to work and were able to set time aside for enjoyment and recreational needs. They relied heavily on others to do pioneering work using fecpak as a tool for identifying worm resistant sheep from which to breed from, but were aware of the importance of this work to their future prosperity. During our time at Porangahau we were able to see the twice World Champion lamb shearer who sheared 850 lambs per day. The video enabled us to capture this event.

We then travelled to Dannevirke, to meet up with Hamish De L a Tour and his family. Hamish specialised in identifying using the fecpak system sheep that were resilient to worms i.e. sheep that were tolerant to the worm burden and seem to have the ability to thrive even when challenged.

One of the highlights of the tour was the prearranged visit to Mr Holmes Warren and his family who specialised in breeding fully recorded Romney rams. He and his family shared with us many experiences of developing estimated breeding values and the ethos of scientifically quantifying positive traits which have proven in the main to be hereditary. Their commitment to the reproduction of these rams was enlightening and a rewarding experience.

At Hawarden, Canterbury we were able to visit Duncan and Jane Frazer and family. On the progressive East Coast farming enterprise, we were surprised how reliant on water irrigation the farming practice in this area was. It was common for up to hours a day morning and night to be spent moving irrigation pods and seeing to irrigation pumps. It was surprising the number of lambs they were able to finish on what seemed less than favourable conditions. Duncan was an advocate of what we would term as share farming arrangements.

A visit to Christ church Show enabled us to met at first hand representatives from Lincoln University, namely Dr Jon Hickford who is a leading Agricultural scientist. We were able to gain valuable information regarding the development and identification of foot rot resistant gene, which had been available commercially since 2003. We were invited to visit the university, which we subsequently did when we travelled south.

Whilst at Hawarden we also visited Mr Edward Orr who had emigrated from Scotland in the 50's, and his wife who was a New Zealander. Edward was a leading contributor to the identification and development of foot rot resistant sheep. He had realised that foot rot resistance was an inheritable trait and had done sterling work during the 60s in identifying these sheep by challenging time after time his flock of sheep with known infected clinical foot rot. It was his selection process that gave Lincoln University the head start when it came to identifying the gene that was most likely to be the marker for foot rot tolerance and resistance within the breed.

We journeyed west to Haupiri to visit Gaye and Murray Coates and sons. They are a young and progressive couple who keep deer, cattle and sheep and were fully conversant and up to date with modern thinking farming practices in New Zealand. It was surprising at the amount of rainfall on the West Coast.

The next port of call was Winton near Invercargill where we stayed with Robin and Lynley Campbell of the Kinrae stud, who bred Tefrons which were a composite of Texels, East Freisian and Romneys. Some farmers had considerable benefits when using Tefron type sheep. They were able to increase their lambing percentage from 115% to 138% over a four year period. Although specialising in these sheep they also produced traditional Romney rams for commercial use, these too had increased their prolificacy over the past 10 years using indexing and recording. Both flocks were fully recorded and great use was made of paddocking as a pasture management tool.

Murray Rohloff is a sheep farmer, part of the Southern Romney Development Group, they have been sire referencing since 1987 and making full use of Best Linear Unbiased Prediction (BLUP) analysis since 1991. It was AgResearch Invermay scientist John McEwan who first sparked Murray Rohloffs interest in parasite resistance back in 1988. Mc Ewan persuaded the New Zealand Romney Development Group to become involved in a series of breeding trails that Ag Research was proposing , his work later matured into the worm FEC programme. In 1989 Murray took FEC samples from sons of each sire used in his Aweka flock and the results confirmed ,Mc Ewans findings that huge differences existed between sires. Murray was a wealth of knowledge regarding worm resistance and breeding for worm resistance using the work FEC protocol.

We travelled to Gore to meet Bill Mc Call and family. He was a member of The Southern Island Sheep Council, kept composite sheep and Angus x cattle. He had diversified and had geared his livestock production of paeonies. The wife, son and two daughters of school age were fully employed at peak season with disbudding, picking and packing of this valuable commodity.

A visit to the ANZCO Foods Canterbury Meat Packers where the five star beef (grain fed) was being processed was a very interesting day. This high tech abattoir was especially designed to a very high standard to cater for the export market. The reliance on grain fed black cattle for the Japanese export marker seemed a little difficult considering the abundance of grass finished stock.

The visit to the south to Owaka to various commercial farms underlined the many good practices and stockmanship that we had seen throughout. The welcome offered to us by fellow farmers will remain with us always.

Review

The visit to New Zealand helped greatly to further our understanding of the treatment of foot rot and also the strategies for the identification of worm resistant sheep. It was refreshing to visit so many farmers who were committed to improving efficiencies within the livestock sector. In general the forward thinking farmers were advocates of improvement through identification of natural genetic markers and, where possible, harmonising this with their farming practices. Land use and utilisation was greatly increased by the use of electric fencing. We will follow this up and implement a paddocking system tailored and scaled down accordingly.

1 Genetic markers for footrot resistance, Lincoln University

2 Identification of worm resistance sheep using FECpak.

3 Paddocking using electric fencing and portable water troughs

4 Continue with EBV's to identify super performers.