

Impressions of New Zealand

In November last year, three Teagasc advisors – John Noonan, Westport; Joe Hand, Thurles; and John Cannon, Letterkenny – made a knowledge-gathering mission to New Zealand. In this article, I have assembled just a fraction of the knowledge they gathered from meeting researchers, advisors and farmers there.

The major strength of New Zealand farming, like our own, is that the production systems are based on the crop the country is very good at producing, namely grass. This is across cattle, sheep and dairy production,” says John Noonan.

“Animal breeding in New Zealand has focused on producing ewes and beef cows that require a very low level of man hours to operate, especially at lambing and calving time. The stud ram breeders have concentrated on producing replacements with lower levels of lameness than in the past.

“Farms have access to the performance figures for the various rams and bulls offered for sale and use them to select sires for replacements. There is a strong emphasis on maternal qualities. In addition, buyers refine their choice of sires using visual assessment. This focus on easy-care has resulted in a very high level of output per person.”

Challenges

“The government is prepared to support agriculture, as it represents a large percentage of the foreign earnings in New Zealand, but agriculture is faced with a range of challenges,” says Joe Hand.

“The largest issue is protection of the environment. Central government and the regional councils are driving this, in response to demands from the public, who have observed deteriorating water quality, especially where dairy farming has intensified over the last few years.

“Allied to this is the demand for water for irrigation and opposition from the lobby that have concerns about fish in rivers.

“Limits have been set for the levels of discharge of nitrogen (N) from farms. This currently appears to be



15kg N/ha on drystock farms. Hill farms have much lower levels of discharge due to the extensive nature of the farming there.”

Enterprise trends

“The trend towards new dairy farms is coming at the expense of decreased numbers of drystock and arable farms on the better soils,” says John Cannon.

“In the Canterbury plains area, there is a decline in the lamb fattening enterprise and the possibility that more store lambs will have to be retained on the farms of birth to be fattened and eventually be sold directly to the meat plants, known locally as the ‘works’.

“At present, the level of farm debt

is estimated at NZ\$63bn (€43bn), with dairy farming accounting for 63%. Herd size is averaging about 800 cows on the newer dairy farms on the South Island.

“It requires NZ\$1.20/kg MS to service this debt. The capital employed in milk production works out at about NZ\$45 to NZ\$50/kg MS, about 65% of this is for the land.

“The level of mechanisation and amount of capital tied up in machinery, as well as the increased trend to feed more concentrates to dairy cows, is causing an increase in the production costs of milk solids. This is a threat to the traditional low-cost production method employed on farms with its emphasis on grass production and utilisation.”

John Noonan,
Judy Carter,
Joe Hand and
Sean Carter.



Drystock on grass

John Noonan

Sean and Kate Carter farm 503ha of their own and lease another 160ha on the western side of the North Island. Their 480 effective hectares carry 150 South Devon x Aberdeen Angus cows with all progeny sold finished off grass at 16 to 18 months old. Heifer target carcase weight is 240kg; 300kg for bulls. This performance is achieved with a grass only diet. Although retired from farming, Sean's father John and wife Judy live next door and are there to help when called upon.

"We buy in c.150 Friesian bull calves as four-day-old calves and sell them (pictured left) at 16 months off grass at a 300kg carcase as bull beef, with no meals," says Sean. "Our sheep flock consists of 2,000 ewes and we have a maternal and a terminal flock. The maternal flock is Coopworth (Romney x Border Leicester). The terminal studs are Texel. Hogget ewes are mated to a Cheviot for easy lambing. The ewes are vaccinated against Leptospirosis, Toxoplasma and Campylobacter."

Rams are bought at 14 months of age for mating at 19 months of age. "The idea is that any structural defects will be spotted and the rams ultimately last longer," says Sean. "The rams are generally mated at one ram/100 ewes usually in groups of 500/600 ewes per group. The rams cost around NZ\$1,140 to \$1,200 (which is about €800) each.

"This year, the overall scan was 1.84,

Sean and Kate Carter
Mangoataki, Piopio,
North Island.



with 1.46 weaned/ewe to the ram. The mortality levels were higher this year due to increased levels of facial eczema – though we supplemented with zinc to reduce its incidence."

Lambs are born in early September with a target of drafting a one-third in late December for slaughter at 38kg, giving an average 17kg carcase. On that day, the lambs made \$88 (€60).

All purchased rams are recorded with performance data. This is the norm and farmers put great value in recording and see it as an essential part of their business. In this area, there is additional emphasis on resist-

ance to foot rot and facial eczema.

"We have practically eliminated lameness through strict culling along with using the use of resistant rams," says Sean. "So lambs don't generally suffer from lameness issues."

Aerial application

The farm receives an annual application of DAP (a combination N and P) dressing by aeroplane over 20% of the pasture. Lime is also applied. Much of the farm is rolling/steep grassland and is of good quality by New Zealand standards. The flat areas receive fertiliser via tractor spreading. The aeroplane uses GPS technology when spreading and most farms in the area have their own airstrip and fertiliser silo. Urea is applied over smaller areas for cattle mainly. The overall nitrogen use appears to be low by our standards.

"Ewes are grouped post-weaning on condition score, with any ewe that does not have a lamb at weaning excluding two-tooth sheep being culled," says Kate Carter. "The ewes with triplet lambs are put into a sheltered paddock and the third lamb is often reared artificially."

The Carters are not only efficient but also extremely environmentally conscious; cattle are fenced from all watercourses, for example. As the environment becomes an ever more important issue, there are now competitions to highlight environmental protection on farms in New Zealand. The Carters are being encouraged to enter and their chances must be good.





New findings

**John Cannon,
Dr Margaret Brown,
Joe Hand and
John Noonan.**

The advisors met with Dr Margaret Brown, senior researcher at Agresearch, Palmerston North.

Dr Brown employs her expertise as an educationalist to help design agricultural extension programmes.

“Dr Brown said that the New Zealand government is only prepared to fund research into agriculture if research organisations can demonstrate that the industry uses the new findings and adopts the necessary changes in practice,” says John Noonan.

Dr Brown described how the complexity of any adoption process will vary depending on the level of change necessary by the end users. For example, simple changes such as the use of a new animal vaccine may affect a small number of other factors, while a complex change of farming system such as from a sheep breeding enterprise to a cattle fattening system may involve an interaction with family members, partners, parents and the needs of dependents, bankers, consideration of the environment, shed requirements, feed requirements and so on.

“The design of a complex change programme must meet the needs of all the stakeholders, and the decision

to adopt the change rests with the farmer,” she says. “While the requirements of most of the stakeholders may be relatively clear, the needs of the farmer and his family must be understood and are often very complex, in order to adopt change successfully. In addition, the question needs to be asked what’s in it for ‘me’.”

“An example of a novel approach used by Dr Brown, was to visit a primary school in a rural area and speak to the pupils about a proposed meeting on a specific topic (such as environmental issues, rural development, etc.) for their parents a few days later,” says John Noonan. “She says wives as well as children are potential stakeholders who can influence what happens on the family farm. She says she knows from experience that New Zealand farmers’ wives are more focused on long-term planning and environment issues than men.”

The advisors were very impressed by all the farms and organisations they visited and contacts made. These included Focus Genetics, Mount Linton Station, Wairere Station, Nithdale Genetics, Beef and Lamb New Zealand, Alliance Foods, AbacusBio, Lincoln and Massey Universities, PGG Wrightson and Glenthorpe Station.

CONCLUSION

In conclusion: John Noonan, Joe Hand and John Cannon report that they received phenomenal help and hospitality throughout their trip to New Zealand. They visited 17 farms, institutes and businesses which face many of the same issues we face in Ireland and the people there were universally generous with their thoughts and insights.