



# Nuffield adventure: Part I

The inaugural winner of the Kondinin Group-supported Nuffield Scholarship, Western Australian farmer Brendon Tierney, has recently started the first part of his Nuffield adventure, an around-the-world tour with fellow Australian scholars. Brendon filed this report of his trip so far.

**My Nuffield experience** began with a day of briefings in Canberra followed by a flight to New Zealand to start a six-day tour of the Long Isle.

In New Zealand we were based around Hamilton and Rotorua in the Waikato region of the North Island. The Waikato region can receive as much rainfall as 1500 millimetres. Enough rain falls during the mild summer months to provide green feed for the whole year.

## A closer look at dairying

The main focus was the dairy industry which is the highest value industry in the region. Traditionally beef and sheep farms were prevalent but recently many of these farms have been converted to dairies. New Zealand dairies are typically 'seasonal' milkers with cows calving from June onwards and the milking season ending during April. Maize is grown for silage and is used towards the end of the milking season as a supplementary feed when the quality of the grass is in decline.

## Last year the dairy industry was booming with milk payments over \$7 per kilogram of milk solids.

(A typical dairy produces 1200kg milk solids per hectare per year). On the back of these prices, dairy land values have shot up to \$20,000–\$25,000 per acre. But the outlook in the current year is far less rosy with the milk price expected to fall to \$5/kg or lower. At the same time, the value of maize has fallen from over 30 cents/kg to less than 20c/kg.

In terms of business structures, the most notable aspect was the high level of gearing. Typically equity levels are less than 40%. Most are looking for capital gains to provide the basis of their long term returns in the industry. Notwithstanding the recent correction in land values, the capital gains have been very rewarding. The absence of capital gains tax in New Zealand was often cited as a major reason behind the strong focus on capital gain.

New entrants have entered the industry through 'share milking'. This involves the

share milker purchasing cows and running them as part of another herd. The land owner is assured of labour to manage his dairy and, over the years, the share milker is able to save a sufficient deposit to purchase their own land.

## Marketing and co-operatives

The New Zealand dairy industry was deregulated during 2001 and producers now export their milk via a number of co-operatives including Fonterra. Fonterra appears to have a 'commodity' focus with low processing costs achieved through a larger scale. Other co-operatives like Tatua, are much smaller and focus on high value processing and the targeting of niche markets. Tatua is the only supplier of whipped cream aerosols in the southern hemisphere.

The cooperative marketing system is looked upon favourably by most farmers. One of the key reasons for this is that milk is a perishable product and therefore cannot be stored on farm unlike grain. Without the option of withholding grain, dairy farmers view profit-motivated corporations as a threat since they would be looking to acquire milk at the cheapest price. Conversely, the co-operatives focus on returning the maximum amount to their members.

## Environmental issues

The most noteworthy aspect of New Zealand was the influence environmental considerations have on agricultural production. Environment Waikata (EW) is a body with legislated powers to control the use of farm land for the purpose of managing water quality and other environmental issues. (The Waikato River provides fresh water to the cities and towns in the north island and is also an important source of electricity generation).

This is of major relevance to the dairy industry which is one of the greatest sources of nitrate leaching back into the water system. The problem is not the high rates of nitrogen applied to optimise pasture growth but the urine from milking cows. One cow applies a nitrogen application of up to 1000kgN/ha. Reducing nitrate leaching is a key focus of research into new pastures and farming systems.

The power of EW was well illustrated in the Lake Taupo district. In order to stabilise

the declining water quality in Lake Taupo, a nitrogen 'cap and trade' system was introduced to limit the amount of nitrate flowing into the lake. Based on computer modelling and historical practices, each farm was allocated a 'right' to leach a certain amount of nitrate into the system. Those who reduce their nitrate leaching, such as by switching from dairy farming to a dry stock system, can sell their 'rights' to leach nitrate. Dry stock farming systems, beef and sheep, leach less than one third of the nitrate leached in a dairy system. There is also a compensation fund in place to buy dairy farms and put that land back to low leaching uses.

The establishment of the nitrogen management agreement for Lake Taupo was a long process but to the credit of EW and the local farmers, both parties recognised the need to put a system in place for the greater good.

Even outside the Lake Taupo district, farmers recognise the need to farm in an environmentally sustainable manner. It appears New Zealand farmers are heading towards a time when the use of their land and water resources will be governed by other priorities, such as drinking water supplies.

## Summing up

New Zealand dairy is obviously a very different industry from crop and sheep production in Western Australia but there were a number of striking similarities. These include the low operating profits relative to the capital value of land and the reliance on capital gain in farm land values to provide the bulk of long term returns. Similarly, the effect of environmental concerns on dairy farm operations is a warning to Australian farmers who, prior to the mulesing debate, have been largely free to farm our land without external influences. Like our New Zealand counterparts, we need to recognise such issues early and work with the relevant bodies to ensure the farming view point is accounted for in the final resolution.

Next stop the UK!

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