

Jonny Duncan took time out from his job as a large animal vet with Willows Veterinary Group in Cheshire, to spend six months working in New Zealand. He reports on his experiences.

# An English vet takes on NZ

**I**n late-July 2014 I arrived in the South Island of New Zealand and after a weekend to shake off the jet lag I was ready for day one of practice in Ashburton, Canterbury.

Calving had just started and the emergency calls began to roll in fast. I was in a small practice, with only 30 clients, but an average herd size of 1,000 cows.

The farming systems in this particular practice were more varied than the rest of New Zealand. Canterbury is remarkably flat. It has a thin layer of topsoil over a gravel base, ensuring the soil is leached of everything from minerals to nitrates. With growing pressure on nitrate levels across the country, there has been steady uptake in housed systems. We had two new 'barn' systems with 600 and 1,500 cows, which gave me a good opportunity to get involved using my experience of these systems in the UK.

The infrastructure was impressive, but many aspects of management required attention. Cows were slowly getting used to cubicles and a TMR diet, and the staff were finding out what worked and what did not. The practice also boasted the largest extensive robotic system in the world. After a failed planning attempt for a 'barn' to house cattle, the scenario was nine robots, with 600 cows grazing a platform around the shed.

The results were sub-optimal to say the least, and while robotic milking technology has come on leaps and bounds, cows are no different in the Southern Hemisphere, and therefore, struggle to deal with large walking distances and reduced lying times.

The remainder of farms were more typical of my expectations,

with some well run block calving units. The grassland management across New Zealand is impressive, meaning they are able to make the most of the incredible grass growth in the region – up to 24 tonnes of dry matter per hectare (9t DM/acre) of irrigated land.

There is a high proportion of share milking in New Zealand, where the farm is typically owned by a separate party to the herd of cows, and the milk cheque is split in various ways depending on who provides labour, palm kernel (the main external feed source) and other extra costs. On other occasions, all is owned by one party but instead of employing a herd manager, there is a low order share milker who receives a profit share as payment.

This really motivates the workforce and provides good opportunities for young aspiring farmers. Something which did strike me was the massive number of farmers under the age of 35, a generation which struggles to start farming in this country. However, if the farm owner felt the herd was not performing as it should, he would seek a new herd. This means many of the new unestablished farmers live a very unsettled life of rotating around the country with

their herd hoping to secure a longer term opportunity.

The farmers had a real enthusiasm for everything they were doing and were very eager to learn and try new things. For a locum vet it can be difficult establishing relationships with new clients, but the 'kiwis' were accommodating and interested in learning from my experiences too.

## Mastitis

I was able to get involved in the large housed unit, which was struggling with yields and mastitis rates, and provided a report of my findings. One suggestion was to split a 350-cow cubicle shed into two halves to provide a heifer group with some much-needed TLC, something I had put a one month time frame on.

There was concrete to be broken up and cubicles to be cut out to allow another passageway. Thirty-six hours later the job was completed, with marked immediate benefit, they felt. I hope my expectations for introducing change are not annoyingly high after my trip away, but it is always nice to work alongside enthusiastic people who embrace change.

Many of the suggestions seemed simple and obvious com-

ing from the UK, where cow comfort is already a key priority. This is not to knock the New Zealand farmers, it is a new concept as they are learning quickly. There are other priorities which come from the nature of block calving. Parlour hygiene on 90 per cent units was remarkably high. This something I feel we can definitely learn from, and their record-keeping and ability to simplify key management tasks of large numbers of animals was impressive.

Large batch disbudding sessions began to fill the afternoon and the vets provided the extra labour to complete the job. I was impressed at the technique used. Sedation of the calves allowed the vets to carry out disbudding, removal of supernumerary teats and vaccination in a stress-free and timely manner, for both the calves and workforce.

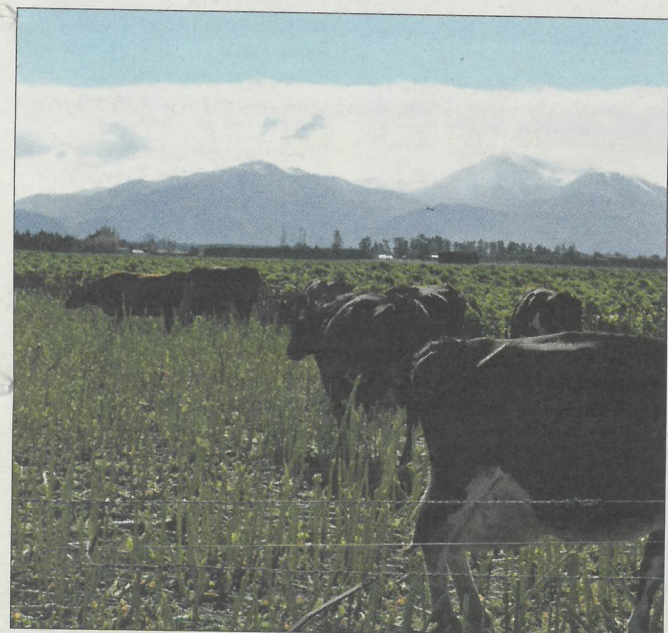
As with the UK, focus has been placed on heifer rearing, and getting heifers to the correct size and stature for first calving. With foot conversion efficiency at its highest in the youngest calves, great importance has been placed on growth rates from an early age and as part of this many were using anti-inflammatories as a strategy to reduce the impact of disbudding.

With the current worldwide demand for milk not meeting supply the New Zealand 'payout' is nearly half of what it was last year, currently at \$5.30/kg (£2.50/kg) of milk solids. The farms are all strictly budgeted by bank managers, so when there is a price drop, they can certainly feel the pressure to reduce expenditure in all areas.

There is accurate cost-benefit analysis for most inputs into the farming system, in particular, veterinary investment. In the past they would have cut numbers of non-bullers for synchrony by half to reduce immediate spend. Nowadays, for most businesses, it has become part of the yearly



Jonny Duncan spent six months working in New Zealand last year.



On some New Zealand farms cows are out-wintered on kale.



The view from Mount Hutt onto the flat plains of Canterbury.



routine as an investment in the herd to prevent increased culls and reduced productivity the following year. The seasonal nature of the farming system employed in NZ, allows for accurate number crunching and therefore, a real understanding of the on-farm economic drivers.

The second part of my trip was to gain experience with the block calving approach to ensure the herd calves down within the same three-month period each year. Fertility is the single biggest focus in New Zealand dairy herds, and while our high yielding Holstein cows can still be profitable with a slightly longer calving interval, it is still one of the greatest economic drivers for any farming system. The estimated cost per cow more than 100 DIM, not in-calf, is between £2.50 and £6 per day.

My second period of employment was in the Waikato region in the North Island. The landscape is a mixture of undulating hills and surrounding flat areas. There is little irrigation and the average herd size is 350 cows. Calving was tarting to tail off, and people were getting cows ready for breeding.

There was a spectrum of approaches to herd fertility, but all saw the importance of investing in his area in order to hit their targets. A plan of action for the individual farm was established using a Repro Ready visit. This

was a short call to put some dates in the diary for planned 'clean check' visits, non-buller synchronisation and other visits which were deemed appropriate.

It was a dynamic approach and we used both calving disease data and previous years' performance to indicate what level of involvement was advisable. This structured approach proved extremely valuable for providing a fool-proof mating plan to ensure nothing was forgotten. Planning is extremely important in these systems, and often time is needed for changes to take effect. Therefore, it is often too late, and extremely costly, when certain aspects of management are accidentally neglected.

## Treatment

On completion of the visits, we started the 'clean checks', ensuring we treated cows with metritis with enough time for cure. The main treatment used was a cefapirin antibiotic wash-outs. Recent research suggests conception rates are vastly increased by using this alongside prostaglandin. This is due to subclinical infections, deep in the uterine horns, which are still present after prostaglandin treatments. The timings of these visits ensured all cows had been calved four weeks before checking.

Pre-mating heats were used to

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record animals showing oestrus before the planned start of mating (PSM). Thirty-five days before the PSM all herds were tail painted in the preferred colour (often linked to when the animal calved) and as heats were detected they were painted a different colour to distinguish them with the individual animal number recorded as well.

The new 'Estrorect' scratch card-type heat detection aids were in increasing demand too. This enabled them to draw up a list of animals which had not been seen bulling for the next visit scheduled on the Repro Ready.

The veterinary industry invests large amounts of money and time in trialling different synchronisation techniques and assessing the

cost-benefit of these programmes and has found the most important driver for profitability is to ensure the non-bulling cows are seen 10 days before the PSM, to allow service of these animals on day one of mating.

This has an immediate increase on submission rate for the herd. Serving the potential problem breeders early, and giving them more time to re-cycle within the nine-12 week service block has a positive impact on profitability targets. The most commonly used synchronisation technique across the herds is a CIDR-synch programme, similar to ours, with the inclusion of an extra hormone called equine chorionic gonadotrophin (eCG). There is little use of this product in the UK, but since my return to the Willows Vet Group, we are hoping to complete a small trial for our own analysis.

Within the practice there were efforts made to track farm performance by following specific targets, which included three-week submission rate, six-week in-calf rate and 10-week not in-calf rate. The six-week in-calf rate is closely linked to farm profitability through improved days in-milk and culling rates.

Empty rate is often used, but is also easily manipulated, and therefore an inferior target to track. These figures are relatively easy to calculate in the block calv-



**A new infrastructure being built to house cows for longer periods.**

ing system, however, it is equally important for all-year-round calving herds to track fertility figures closely. With accurate recording of services, we can generate 21-day pregnancy rates, and track weekly in-calf targets for your farm, which have a distinct practical use.

## Impact

This type of work fills a large proportion of a vet's time in New Zealand and demonstrates, with accurate data analysis and a knowledge of the farm situation, we can have a great impact on farm profitability and efficiency.

I spent the remaining month of my trip in both New Zealand and

Australia for some R&R before returning to my position at Willows Farm Animal Veterinary Practice. Although my work was predominantly with block calving clients, much of what I have learned is translatable into many farming systems.

We have a variety of systems here in the UK, and experiencing aspects of all is highly important. It has been particularly interesting to see other veterinary approaches to service provision around the world, and we recognise the importance for our clients here in Cheshire, in broadening our knowledge and experience within the practice.