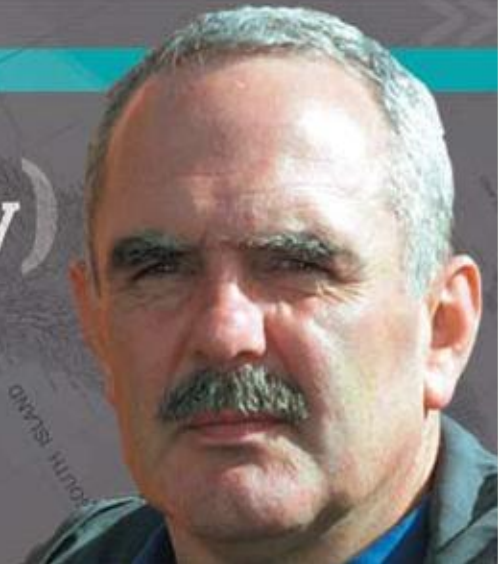


(Sean Kelly Memorial Bursary)

As the recipient of the Guild of Agricultural Journalists/ICMSA Sean Kelly Memorial Travel Bursary, Matt O'Keeffe undertook a study tour of New Zealand last autumn to investigate the growing trend in their dairy industry towards investing in high-output systems of milk production.



In the third and final part of a series on New Zealand dairying, Matt O'Keeffe visits a farm investing NZ\$3m in land, and talks to a vet about the fine line of economics when it comes to supplementary feeding



Meadows by name and...

Greg and Sarah Meadows bought part of an 8,000-acre deer station 18 months ago and converted it into a dairy farm. The 670-acre dairy unit was established in early 2007 and the new dairy farm has been transformed in the interim. Two 'Herd Homes', each catering for up to 200 cows, have been built. The basic logic, according to Greg, is to "provide shelter from the snow". Being close to the ski slopes of Mount Hutt in the Southern Alps means snow falls both early in the autumn and late in the spring. During winter the idea is to feed the cows on green ration (grass, kale, etc.) and to stand the cows off when this is not possible on a diet of silage and mixed ration in the 'Herd Homes'. This has the added advantage, in Greg's opinion, of protecting the pasture as well as the cows themselves. The system also centralises feeding instead of "driving all over the farm".

The Meadows farm uses a Keenan 200 feed wagon. The farm currently has 800 cows with the potential to milk up to

1,000 cows. In addition to the feed wagon, there are two New Holland TM 165s on the farm, one operating the Keenan feeder and the other with a front loader attached. There are a number of store houses for bought-in feed and straw as well as silage slabs. The meadows built a 60-unit rotary parlour on the farm, with, as Greg puts it "as much automation as we could get". It tests the milk for SCCs, conductivity, volume and so on. There are automatic cup removers. In addition, the system incorporates the use of pedometers on the cows legs to measure activity for heat detection, lameness and other health issues. With the harsh winter all calving is in spring.

A Costly Course Of Action

The costs have been considerable, as one might expect, and \$1.3m was spent on the basic milking parlour.

another \$300,000. Greg considers it money well spent.

A labour unit has been cut out: "That's \$40,000 a year saved". The hardest thing, according to Greg, is to become accustomed to the degree of automation involved, and relying on the computer to see what is going on. Only one person is needed to operate the rotary parlour. Nevertheless, there are six full-time labour units on the farm, including Greg himself.

The 'Herd Homes' cost about \$600,000 for the two houses. This included the feed facility and slurry storage. The feed wagon, tractors and stores cost about \$200,000. In addition a baler has been purchased on the basis that "we've spent enough on contract baling last year to justify buying one and we have the staff with the time and competence to operate it".

The 'Herd Homes' are roofed by three layers of a laminated plastic. Dung and urine are separated with a bunker beneath to store the dry matter. The next planned expenditure is a Keenan Orbital to spread the dung, perhaps once a year. Kale, rape and oats will be grown on the farm to provide winter feed 'on the stalk'.

Feeding To Maximise Production

During November (May in Ireland) the Meadows' cows were getting straw, molasses and some grain in addition to their grass diet.

One kilo of baled silage is fed in addition to help entice the cows to eat the straw. Greg is adamant that straw is crucial in the diet until Christmas when the grass dries out to 18-20 per cent DM. Minerals, of course, cal/mag and so on, are also carried in the mixed diet. Later on it transpired that the cows were also getting up to 5kg of rolled wheat in the parlour. Stocking rate is measured at three cows per hectare. Milk solids were expected to average 420kg in the first full 2008 production season. Greg anticipated that this would go to 450-460kg, as the production system matures.

Because of the climate, the lactation length is shorter than it

would be further out on the Canterbury Plain, and 260 days is the average length. Calving begins in August and ends in mid-November. There is a 'run-off' on the farm to cater for the younger drystock.

One bonus for the Meadows farm is that there is no need for irrigation because of the higher rainfall closer to the mountains (1,500ml rainfall/annum Vs. 1,000-1,200ml average on the Plain). Having farmed under irrigation earlier in his career Greg has no regrets at moving away from it.

Defending A High-Input System

Greg insists that while his intensive feeding system owes something to high milk prices the main reason is "an interest in production – seeing what a cow can do".

"I have always put feeding in front of breeding. That has been my philosophy. Any cow with reasonable genetics will milk well if fed well." He acknowledges the large body of New Zealand research pointing to 'grass only' production as the most cost effective, but he likes what he does. It gives him a greater interest in dairy farming than strictly pasture farming. "The extra inputs also mean that we are not as governed by weather conditions, of snow, rain or drought, as we might otherwise be".

Greg was confident that if milk prices came back to \$5 there is enough flexibility in the system to cope. "We would still be cost effective at that price. It's more about feed efficiency than milk price. In fact, the more we embrace the intensive feeding system, the more cost effective it will be."

Even including the cost of putting in roadways, a drinking system, the parlour, feedpads/housing, feeding equipment and stores, it was cheaper for the Meadows to convert the former deer station than to buy an established dairy unit. In New Zealand terms it has cost about \$32/kg MS to convert the farm. If sold now as a going concern the market price would be in the region of \$40/kg MS. So there has already been an \$8/kg MS appreciation.

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