

Dairy Farming Without Nitrogen

Production without the problems



Mangatewai Farm

1200 herd bank - 340 hectare (unirrigated) + 220 hectare runoff

2.8 cows per hectare

950 (calved) spring & 250 calved in Autumn

Production 2000-01 season: 324kgm/s per cow - 900 per hectare

Peter & Linda Kroot

MANGATEWAI FARM, TAKAPAU

"We first started using Hatuma's dicalcic phosphate during 1998 as we wanted to focus on animal health using the philosophy that if you feed an animal well and with quality grass, then you will get the results in the vat. It was all very well giving the animals trace elements to maintain their well-being, but we wanted them to have what they needed naturally – through the soil," recalls Peter. "Prior to using dicalcic phosphate we had been following the "normal" dairying practice of using DAP, superphosphate, urea and no lime, but the stock seemed to have way too many health problems for our liking, and the farm's whole appearance just didn't look right.

There was hardly any clover and what was there was shallow rooted leading to a lot of pulling. Cocksfoot and browntop were very predominant throughout the pasture as well.

Finally, after observing our neighbour's sheep and beef farm (Ewan and Trish Wilson), and taking notice how their farm always had plenty of clover and how their stock always looked healthy and content, we decided to find out what they were doing differently to us. It was during this time when we first heard about the benefits of Hatuma's dicalcic phosphate and its simple philosophy behind it. As the Wilsons had been using

it for 40 odd years, and their results were impressive, we decided to try it ourselves – and we haven't looked back since.

We had the usual health problems in our herd, like milk fever, bloat, lameness, empties, problems calving etc, but since we've looked outside the square for a solution, these problems have either virtually disappeared or else have become easily managed. The empty rate used to be 10% and now that is down to 3.5%, and the deaths and culls have gone down as well. We hardly have any calving problems and rarely see the vet on the property. Last year we used a bit of nitrogen on a small part of the farm, but the cows on that particular area ended up getting bloat! So while consultants have been quick to warn us against farming without nitrogen, our faith in the dicalcic phosphate has been such that we won't use nitrogen again.

At the beginning of winter this year the farm only had 1300kg DM/ha cover. This measurement stayed the same due to an autumn drought and the fact that we milked 250 cows through the hard, cold winter. Although the experts told us that it should be a minimum of 2000 kg/ha, we carried on anyway, eventually calving on the low cover as well.

Photograph below: Peter and Linda Kroot





As we milked on with our 1300kg DM/ha, we ignored the warnings from those who stressed that we needed nitrogen, and right throughout, the milk result was still very good, even with the low cover and we never felt threatened enough to have to resort to 'Plan B'. It was a real eye opener! It proved to us that the quality of the pasture must have been very high, with everything the stock needed, to enable them to get through so well. The cows have held their milk peak longer and where we were 15% behind last season's production at the end of January, we are now only 4% behind. We had an extra 150 cows on the farm during Oct/Nov last season as well, and yet, we are still on target to match our best season's production.

Our costs associated with this farm have dropped substantially, and naturally our health bill has too. Each year the mating is getting better without having to use cidres and we are well on the way to eliminating inductions. For the last three years our submission rate has been 95%. This season our non-return rate was 79%. These figures increase each year without extra input. While other farms appear to have more grass using their nitrogen programmes, our cows are just thriving on this pasture. We now have plenty of clover and it's all healthy. It hangs on longer and recovers quicker afterwards, making the dry spells shorter. After milking, we used to have to chase the cows into the paddock otherwise they would start to go back into the shed; now the grass is so palatable that they want to go by themselves. The aeration of the soil has definitely improved. Originally the farm had very few earthworms, but now they're just like spaghetti! These worms certainly help the dung break down and keep everything recycling within the system.

We started out farming with a basic herd, but now we have reached the stage where we can decide which cows we want. The increase in production has been quite incredible, as it has increased 50% since 1998 with only a 20% increase in cow numbers.

We believe the whole natural approach goes hand in hand as the cows are now quieter and more contented, which makes farming so much easier for us. Even during this hard winter, whenever I went into the paddocks to check on the cows, they were still happy and healthy.

Finally, all of this wouldn't have been possible without the full backing of the farm's owners. They have understood clearly what we have been hoping to achieve here and have supported us every step of the way.

While initially our main focus for using dicalcic phosphate was for the health of the animals - getting through this winter so well has shown us how to have the confidence to get through anything.

Our farming philosophy is, 'do the basics well and the rest will look after itself.'



"We rear 500 calves ensuring all the basics are done well, all the while using the motto, 'Look, Notice, Act'. In other words, watch them when they are feeding, notice if anything is wrong and take action immediately," says Linda.

"It's all very simple, keep them dry and warm, ensure they have plenty of clean water, feed them well and act as soon as you notice a problem.

We ensure the calves have as much natural product as possible. We use homeopathic remedies and feed them partially dried alfalfa with molasses that produces a natural yeast, which is really important in developing the calf's digestive enzymes."

The Calves