Organic milk production at "Spencerfield"

TOM LAMBIE
Pleasant Point

It is my pleasure to addresses your conference today on the subject of the production of organic milk on our farm near Pleasant Point in South Canterbury. In 1982 my family purchased "Spencerfield" which was an 89 ha traditional market-milk dairy farm milking 130 cows on a year-round basis. Since that time we have progressively increased our holding to 308 ha, running 280 cows and 140 head of young stock with all animals grazing on.

The cows produce 1.4 million litres of milk or 106 400 kg milksolids, with the emphasis on the production of a minimum 2000 litre per day quota. The stocking rate may seem low; however, we farm in a dryland sheep and cropping district. A water-short catchment means we have only 80 ha of irrigation which is subject to restrictions in an 550 mm average rainfall area. Rainfall ranges between 400 mm and 950 mm.

Having lived through the droughts of the 1980s, the above-average years are used to put extra feed into pit silage for the next series of dry ones. Supplying year-round milk has allowed the development of a distinct late autumn and spring calving pattern to maximise the number of dry cows during the summer months.

This is one area of our management that will change quite radically. From December this year we will be able to reliably irrigate 185ha as shareholders in the Opuha Dam.

As a family our interest in organics goes back to the early 1980s when we became disillusioned with our animal health status. At this time my sister started studying alternative remedies for people and it gave us ideas to try new ways of dealing with the health of our cows. At least with cows any success can't be blamed on the placebo effect.

In hindsight it also had a great deal to do with the nutritional underfeeding of the cows owing to the severe east coast droughts and difficult financial conditions that resulted. Bloat, acute mastitis, retained afterbirth and damaged feet were problems we decided to try to fix by prevention rather than cure.

A great deal of trial and error went with the territory owing to the almost complete lack of information. The national annual organic conferences were one of the few sources of alternative practices. Hence from animal health rather than a philosophical point of view we started to consider organic systems as a farm management tool.

Advice from those looking at alternatives led us to believe the most logical thing to blame was super-phosphate. Healthy soil leads to healthy animals leads to healthy people, so an assumption that an input at base level had to be wrong. As a consequence and since 1984 we have used only reactive rock phosphate (RPR) as a fertiliser base.

However, it was only after Nigel van Dorsser was employed as a farm advisor with a particular emphasis on the nutritional well-being of our animals that we were confident of going one hundred percent organic. The final catalyst to fully comply with the rules was the advent of a small company in Christchurch willing to pay a premium for our milk. "Only Organics" has grown since 1991 to a point where it now takes approximately fifty percent of our milk. They produce baby food and "Sierra Foods" Cyclops yoghurt, through one of the partner's businesses,. As a point of clarification we are still Kiwi Co-op suppliers who then on sell the milk to "Only Organic".

Organic in our case can be defined as complying fully with the standards set down by the national certification body Bio-Gro New Zealand. Certification requires the use of alternatives to chemical sprays, antibiotics, drenches and fertiliser like superphosphate and nitrogen.

One of the great myths about organics is that the use of any fertiliser except compost is prohibited. For us the basic principles of using fertiliser inputs to grow clover to produce the nitrogen to grow the grass is the fundamental advantage that New Zealand's farming industry enjoys.

New Zealand is uniquely blessed with a temperate climate and clover-dominated pasture production system. It gives us an opportunity to produce some of the most environmentally friendly milk products in the world without compromising the fundamental production system that makes us so competitive on world markets. My particular emphasis in our organic production system has centred around optimising animal health.

We start with the soil, trying to balance the nutrients to provide quality inputs for both pasture and animal requirements. Fertiliser applications are based on a combination of AgResearch and Perry's (an American company) soil tests. Base RPR requirements range across the farm from 350 to 700 kg/ha depending on need. Elemental sulphur, potassium sulphate and trace

elements zinc, boron, copper, selenium and cobalt make up the solid fertiliser mix applied in the spring. We also use a fish-based liquid fertiliser applied in the autumn and spring.

One area we have not experimented with at this stage is alternative grass species outside the district practices. Ryegrass–white clover predominate, with cocksfoot more prevalent on the dry country. Our emphasis, with the knowledge that more irrigation water is available, is to spend our scarce capital resource on irrigation development and capital fertiliser. A pasture renewal programme is to be the second phase. At that stage I will address if alternative pastures species outside the norm would help our cause.

Our basic philosophy is to have an all-grass system complemented by feeding different supplements during different times of the year, thus trying to achieve a balanced nutrition with cows fed to optimise production. An example of this is in the spring and autumn when the grass tends to be higher in protein – an energy supplement in the form of barley is feed to complement the grass.

Mineral supplements also play a significant role and we use minerals recommended by Nigel Van Dorsser, our farm advisor. Minerals are supplied through the water system and in lick form in the fields.

A balanced approach to cow nutrition has allowed us to eliminate or minimise almost all animal health problems. Good farm husbandry is the essential element, whether it is organic or conventional. I believe anyone thinking of converting to organic dairy farming should concentrate on animal health issues while in the conversion phase.

In conclusion our entry into organics came through animal health concerns and a willingness to try alternative remedies. Fifteen years later I am running a sustainable, profitable, consumer-driven farming system based around the quality assurance programme of Bio-Gro New Zealand.

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