

Biological Farming – A new way of doing business

by Clayton Wallwork

Biological Farming was the focus of a recent conference hosted by Rotorua Lakes and Land Trust. Many of the over 270 attendees were farmers; demonstrating the rise in popularity of this new sustainable way of farming.

So what is Biological farming? It is a way of providing the soil with the necessary nutrients, base chemicals, organisms, and organic matter to encourage a healthy system for pasture to grow. These elements are added to the soil via natural products, as opposed to using synthetic fertilisers. Biological Farming is not organic farming. Organic farming has its own set of rules and guidelines which some find too restrictive, biological farming on the other hand seems like a more natural way of farming in a business as usual type manner.

By farming using a careful mix of natural products nutrient runoff is virtually stopped, the soil has more micro-pores and worms and plant roots can go deeper. By plant roots going deeper they can pick up more deeply buried minerals, have better water holding capabilities and are more drought resistant.

The potential benefits of biological farming are far reaching. Consumers can expect to see an increase in the quality of food being produced. Healthy soil ecosystems provide the plants and animals with the necessary trace elements needed to develop healthy well balanced food.

A wide range of products and biological farming methods were on display at the conference. Biological Farming is an emerging field and consequently farmers are still working out what the best approach for them will be. Expert advice suggests that each farm will be treated differently depending on what fertilisers, nutrients etc. the farm has had applied in the past, and their budget and farm management intentions.

Biological Farming products currently available include: dolomite, lime, seaweed, fish bproducts, worms, bacteria and fungi, biochar, and a mix of unknown natural (trade secret) products from various suppliers. Farmers around the country are already using some of these products and reporting positive effects such as improved soil and water quality



Trustee Rick Braddock talks to biological farmer Peter Berryman



Mark Shaw, a North Island dairy farmer who presented at the conference said that biological farming wasn't a silver bullet, but he had noted a steady improvement as he reduced the traditional high rates of nitrates and phosphorus through the gradual application of seaweed products. He has also increased his pasture diversity by using mixes of fescue, clover, plantain, cocksfoot, and chicory. Mark reports happier animals, and he felt as though he was leaving the land in better hands for future generations. Not surprisingly, Mark also advised that the best way for farmers to make money was to reduce their on-farm costs and he felt adopting Biological Farming methods were helping him take greater control of rising costs.

Many farmers throughout New Zealand have already adopted this approach, but evidence of their success has been largely anecdotal. Farmers have noticed marked improvements through observations of improved pasture production and stock health. There has been a recent increase in scientific research providing credibility to this new way of farming. This backs up the existing positive farmer-based evidence.

Graham Sheppard an independent soil scientist from Palmerston North has developed a visual soil assessment to help farmers understand their soil condition. This is a very practical method and can quantify the health of soil and be used to assess changes in management techniques.

Guna Magesan, the driving force behind the Biological Farming conference has recently taken up a position with the newly formed New Zealand Biological Farming Systems Research Centre. The Centre will conduct independent research on all aspects of biological farming systems, such as soil and water quality, plant production and quality, animal health and economic viability. This type of research is required to help reinforce the benefits farmers are seeing on their farms and with their stock.

Farmers are leading the charge on the development of biological farming systems. Research currently underway will provide the scientific evidence needed to position New Zealand farmers at the forefront of biological farming, enabling them to take full advantage both nationally and internationally, of new innovations as they come to light.



Graham Sheppard explains the Visual Soil Assessment