## THE GOOD DIRT - JUNE EDITION

## CONVENTION VERSUS INNOVATION

Euroa farmers Stuart and Sally Belcher asked "What would be the best ways to improve our soil?" In 2002 they "wanted to transform what they were doing." Stuart identified water availability for stock and lack of feed as initial challenges. He increased water efficiency through central trough access in the paddock cells and promoted pasture development through rotational grazing. Soil tests showed highly acid soils with high aluminium and magnesium content. Stuart realised that soil health was the next challenge.

The Belchers joined other farmers to set up the 'Convention vs Innovation' soil trial plots in Euroa, Graytown and Springhurst in 2006 to investigate different ways of improving their soils. Data collection for the trial finished in December 2008. The group adopted various approaches to improving soil health through testing and application of various soil ameliorants including lime, aeration, superphosphate, guano, compost tea and specialty forms of minerals and trace minerals. They were used individually and in combination in the plots. The findings indicated that the combination of three approaches lime, microbes and aeration had the most beneficial effect.

On reflection, running the trials during the hard days of drought gave a set of results that "Super respect that did not reflect the 'normal' pattern of soil behaviour. What Stuart did gain were valuable insights to farming practice. He through," explain through," explain that "Super respect to the 'normal' pattern of season. Other well in less than common here."

sees now that it "can sometimes be the subtle things that cause a shift. It doesn't necessarily always require huge amounts of energy, diesel and money to make good returns."

Stuart believes that Nitrogen-Phosphorus-Potassium (N-P-K) applications concentrate on increased production but don't address 'the leaks in the system' such as the locking up of nutrients, making

The changes in the soil six years later can be observed. Right now the superphosphate plot is doing well. "There is a lot more



Stuart Belcher beside a cell watering trough.

clover but it has taken a long time to shine through," explains Stuart. He points out that "Super responds well in a nice normal season. Other fertiliser approaches work well in less than optimal seasons, which are common here."

Stuart believes that Nitrogen-Phosphorus-Potassium (N-P-K) applications concentrate on increased production but don't address 'the leaks in the system' such as the locking up of nutrients, making them unavailable to plants. He points out that with high inputs you have to push more money and energy into the system. "When you pull the trigger on those high inputs you've got to keep going. There is a point where you end up treading water. In more forgiving systems there are smaller inputs and the risks are lower."

What Stuart has learned is that "the ultimate point – perfection – is a long way down the track." He says, "To get the calcium magnesium ratio right is going to cost a lot. There must be a point where the returns are really good for not a lot of outlay. If you spent that money on management skills rather than expensive amounts of fertiliser, the returns on your investment are considerable and will last forever."

The balance that Stuart and Sally have achieved on their farm is a reflection of their outlook and a long term view of sustainability. While the 'Conventions vs Innovation' trial outcomes were limited by drought, the infrastructure and process is still there. Stuart explains that "A lot of the management approaches are still there and we can refer and go back to repeat the trials." What he wanted to do was to permanently alter the system, and he has found that soil health is the result of variable practices and interdependency of inputs is important.

## WHAT'S ON

23rd July Burnt Creek soil test interpretation workshop Rhiannon Apted 5736 0108

27th July Sheep Pen Creek/Caniambo soil test interpretation workshop
Rhiannon Apted 5736 0108

3rd Aug Graytown-Costerfield/Violet Town Best Wool Best Lamb soil test interpretation workshop

Rhiannon Apted 5736 0108

10th Aug Mansfield soil test interpretation workshop

Brad Costin 5784 0600

Soil and sustainable farm practice demonstrations and trials to improve soil health can be supported through the Goulburn Broken CMA's Beyond SoilCare project with funding through the Australian Government's Caring for Our Country Program. For details on the Goulburn Broken CMA Soil Health Action Plan visit www.gbcma.vic.gov.au.

## **FURTHER INFO**

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