## **ON THE FARM – THE GOOD DIRT NOVEMBER EDITION**

## FAIR DINKUM FARMERS, **SOIL & BIOLOGY**

"Fair Dinkum farmers are interested in their soil," says South Australian farmer, Brenton Byerlee. Brenton, who manages his family-owned properties, was giving advice to farmers at the recent Healthy Soil Healthy Food Field Day at Broadford.

Based on his wide experience that ranges from cereal cropping to rangeland grazing and his studies at the Waite Institute, Brenton is convinced that healthy soils are fundamental to profitability.

"Getting the soil structure right and creating habitat for the soil biology is key to ensuring that nutrients in the soil are used efficiently," he said.

This means understanding the soil and the interplay between the various components.

"Only then can a farmer know what needs to be done. Too often farmers are getting a narrow view of the problems and solutions and they need to look more broadly."

Brenton believes soil and tissue testing are important tools to aid this process.

The Broadford field day was built around a paddock inspection. Brenton suggested farmers take a spade with them whenever they're working around the farm, to get familiar with the soil and how its condition changes each season.

At the field day he analysed a number of samples from local farms and made suggestions for improving productivity.

Brenton's expertise. Paul, who has developed a specialised cell grazing system, is aiming to lift production by 20% or more.

At this time of year, Paul's clay based soil showed few signs of biological activity. Soil testing revealed a large reservoir of phosphorous in the soil after many years of applying P fertilisers. He now hopes to increase its availability by improving the biological activity of the soil.



Rain did not deter farmers from the field day on September 28.

The soil structure of clay dominant soils can really be improved with calcium for example, to assist the aggregation of soil particles. This allows for better flow of water and air through the soil.

Improved soil structure in turn creates better habitat for soil biota and this improves the soil's ability to store nutrients. Sulphur is also very important for biological activity.

Paul Fleming was one local farmer to benefit from Although it's not always easy to get a good result without the use of synthetic fertilisers, Brenton said the disruption they cause to soil biology can be counterproductive to building a healthy soil. Systemic types of fungicides and herbicides are especially worth avoiding because of their impact on soil micro biology.

> Brenton discussed the use of other stimulants for soil microbial activity but made the point that soil structure has to be right for them to work.

> It takes time to build a healthy soil and the first sign that treatment is working is the emergence of fine root hairs and soil particles sticking to the roots. This can be seen as early as a month after testing and treating the soil.

It may take time and effort but the rewards make it worthwhile. With support from the Goulburn Broken Catchment Management Authority's (CMA) Beyond SoilCare project and the Southwest Goulburn Landcare Network, Paul has set up a trial to evaluate ways to improve the biological health of the soil to lift production and to increase profitability. The supporting funding comes from the Australian Government's Caring for our Country program.

The trial will run for the next 3-5 years. Further details for Beyond SoilCare are available on the Land Health page on the Goulburn Broken CMA website, www.gbcma.vic.gov.au

For further information contact:

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## WHAT'S ON

Bust trip to NEC Organic Farm, Thurgoona - with Rob Fenton. Saturday, November 24. Rhiannona@gbcma.vic.gov.au or 5736 0108

Strathbogie Alternative Fertiliser Trial field day and paddock walk, Strathbogie Monday, December 10. Kerri Robson Landcare2@iinet.net.au

We are currently meeting with production and Beyond SoilCare groups, and Landcare Networks to determine community priorities for sustainable farming investment over the next 4 years. CFOC Phase 2 is expected to be announced over Christmas and time frames for consultation and bid development will be short. Our focus is on farming practices that improve soil condition. If your group has particular activities or projects that you would like to see included in the bid get in touch. Contact us via your Facilitator or directly via the details below.

## **FURTHER INFO**

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*This information has been prepared by the GB CMA with* funding by CfOC.

