



Change in soil management practice boosts productivity

Since attending three Digging up the Dirt workshops run by Goulburn Murray Landcare Network (GMLN), Undera cropper Robert Backway says he sees his farm's soil in a completely different light.

The workshops, presented by soil expert Gwyn Jones, focused on the links between soil health and farm production. The workshops were held on farms at Ardmona and Byrneside. This allowed attendees to participate in soil sampling and look at the three key soil aspects - physical, biological and chemical – that need to be considered when making management decisions.

To improve attendees understanding of soil health, the workshops covered:

- Assessing soil health
- Knowing what soil biology needs and how they function: soil processes.
- Learning about what minerals and nutrients do, where they come from, and how to cycle them.
- Indicator plants, nitrate weeds.
- Earthworms and their benefits to cycling nutrients.
- To dig and look, monitor and measure (soil testing).
- How elements can affect each other.

Robert, who grows mixed crops of winter wheat canola and lupins on the 270 acres he owns and on another 500 acres of land he leases, has changed many of his practices since completing the program.

“Now, when walking into a paddock and looking at my soil, I see everything differently and note indicators,” he says.

Previously he'd burn his stubble in autumn before sowing his next crop. Now he no longer carries out burn offs and is retaining straw and organic matter to help retain moisture over summer and protect and improve the worms he has introduced to his soil. The worms provide better aeration in the soil as well as improved nutrient access for plant root development, which ultimately helps yields.



Robert Backway now sees new potential for his farming enterprise.

He is also rotating his crops, firstly growing lupins, then canola, then wheat and then lupins again. He has found this makes the soil more pliable and sowing his lupin crop directly over the straw also helps reduce water splashing up onto crop leaves. This means no black spots and no need for fungicides. Another benefit is that during wet winters the soil holds together better and helps prevent machinery from sinking as the straw acts as a mat.

Robert's a firm advocate for hands-on style workshops and field days as he says it's a way to support farmers to take up new practices.

“Landcare is about looking after the soil, it's about new ideas that we can embrace,” he says.

GMLN's Jo Doolan agrees. She says the project's main achievement was bringing together a group of similar minded farmers who were keen to keep on learning about soils and how to manage them for ongoing profitable production.

“There is a definite desire to gather information and develop a sound understanding of soil processes, and how this understanding influences management decisions and promotes profitable agriculture,” Jo says.

“Small groups of people encouraged group participation and a general comfortable feeling amongst the group. Those who attended got a lot of value from their time and left encouraged and capable of trying at home, what they had learnt.”

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