



# farmtalk



This article contains information most relevant to the less than 350 mm rainfall mallee farming region

## Sharing, Learning, Doing!

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## Improving Farmers' Skills & Knowledge on Soils through the Health Soil Project

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Soil Pit Presentation at Kerribee 2007

The following headings are examples of research and field work that MSF have completed and link with the Healthy Soils Project:

- 1. Increased cropping intensity** – Understanding your paddock's nitrogen availability is critical when it comes to managing more intensive crop rotations. Nitrogen availability depends on the nitrogen taken off in the previous season's grain, rain events over summer and the amount of retained stubbles. Keeping an eye on these will give you valuable insights into the nitrogen you will need to put on during sowing (see *farmtalk* # 2 Intensify Cropping - Improve your Profitability and # 6 How do we manage Nitrogen in Mallee Soils?).
- 2. Tillage selection** – The selection of minimum and no-till is important when considering managing wind erosion, but it seems to be less important when it comes to achieving your potential yield (see *farmtalk* # 12 Getting into No-Till in the Mallee).
- 3. Soil available moisture** – Knowing the available moisture at sowing provides a great edge when it comes to managing your cropping program and hence business profits. Soil moisture can be measured either by soil testing or by monitoring moisture use from the previous year and measuring summer rainfall (see *farmtalk* # 24 Measuring Your Own Soil Moisture to Better Target Yield Potential).
- 4. Electromagnetic (EM) Mapping** – The challenge of taking the MSF trial results and duplicating them on your paddocks requires knowing your soil variability. EM mapping can help you

### The issue

The area of arable land in Australia is relatively small compared to other countries. Our country's soils are old and prone to erosion, acidity, sodicity and structure decline.

Australia's wealth and well being are dependent on the sustainable use of our soils; it is the foundation for farming and mineral production and is important for water quality, carbon stores, soil biota, and waste management.

The *Healthy Soils for Sustainable Farms* project will bring together and build on existing soil health information. The project is working with farmers, community groups and advisers to improve the management of Mallee soils. Mallee Sustainable Farming (MSF) and the Department of Primary Industries (DPI) are the key parties involved in the project in this area of Victoria.

### What we know

Over the years, much research and field work has been completed on soils; yet, much of the research and knowledge is not easily accessible.

**GRDC**  
Grains Research & Development Corporation

**Grain & Graze**  
Profit through knowledge  
MALLEE

**CSIRO**

**Australian Government**  
Department of Agriculture, Fisheries and Forestry  
National Landcare Programme

**healthy soils**  
for sustainable farms  
A Natural Heritage Trust Initiative

**State Government Victoria** Department of Primary Industries

**NSW DEPARTMENT OF PRIMARY INDUSTRIES**

**RURAL SOLUTIONS SA**

**Lower Murray Darling CMA** CATCHMENT MANAGEMENT AUTHORITY

**Department of Environment & Climate Change NSW**

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to understand your paddocks better. This will lead to investing the correct inputs onto that part of the paddock that will give you the best returns (see *farmtalk* # 23 Making use of EM in the Mallee).

### What it means

The information and knowledge of soil health that already exists is vast, yet we often do not know where to find it. The *Healthy Soils for Sustainable Farms* project will improve access to and knowledge of soil health in the Mallee region. The objectives of the project are:

- To improve farmers' capacity to manage soil health issues.
- To identify appropriate soil management strategies, both at a landscape and industry level.
- Enhance, to develop and to deliver data and information packages for farmers.
- To develop and promote industry based training packages.

The long term aim is for farmers and advisers to have greater confidence to manage soil health for increased farm productivity.

As existing information is collated, it will be used to deliver workshops on various soil health topics for both farmers and private and public advisers. Information packages will also be made available, and where appropriate, the information will be accessible online. Victorian Resource Online (VRO) is where information on many soil topics is available to the public. Check their website at:

- [www.dpi.vic.gov.au/vro](http://www.dpi.vic.gov.au/vro).

For the MSF project area the *Healthy Soils for Sustainable Farms* project will mean continuation of structured industry based training on soil topics to improve farmers' and advisers' knowledge and skills

#### ▼ Soil Pit at the Kerribee Field Site 2007



▲ Local Demonstration Site used for learning

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to better manage soil health in the farming system. The workshops will provide greater access to information and resources for Mallee farmers.

### Where to next

Interested in attending a workshop on one of the several soil health topics? There are nine soil health workshops to attend:

1. Understanding Soil Health
2. Understanding Soil Type
3. Understanding Soil Structure
4. Understanding Soil Tests – Chemical
5. Understanding Soil Biology
6. Managing Soil Organic Matter
7. Managing Subsoil Constraints
8. Understanding Soil Erosion
9. Water Use Efficiency



Soil Sampling in the Millewa

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DPI, with support from Rural Solutions SA, Nutrient Management Systems, and MSF are developing and delivering these workshops. In other parts of Victoria, Birchip Cropping Group and Southern Farming Systems are the delivery group and contact for workshop information.

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