

Farmer-Based Monitoring to Reduce the Risk of Soil and Nutrient Loss

Location:	Cressy, Tasmania
NRM Region:	NRM North
Industry:	Dryland grazing and cropping
Group:	Upper Brumbys Catchment Group
Issue:	Sustainability of local farming systems
Key Outcomes:	<ul style="list-style-type: none">• Farmer managers able to monitor soil nutrient status and implement more efficient fertiliser practices• Farm managers able to use monitoring tools to detect effects of changing farm practices over time• Increased understanding of benefits of positive group dynamics

Background

The Upper Brumbys Catchment Group is made up of representatives of six farms, and is a sub-group of the much larger Upper Brumbys Landcare Group. It formed in 1995 to implement an Australian Government funded project entitled *Six Steps to Better Farming Practices*. This involved working through a process to identify and resolve NRM issues resulting from farming practices. After this, the group felt motivated to keep going as they believed there was much more they could do on their farms to ensure their sustainability.

The Project

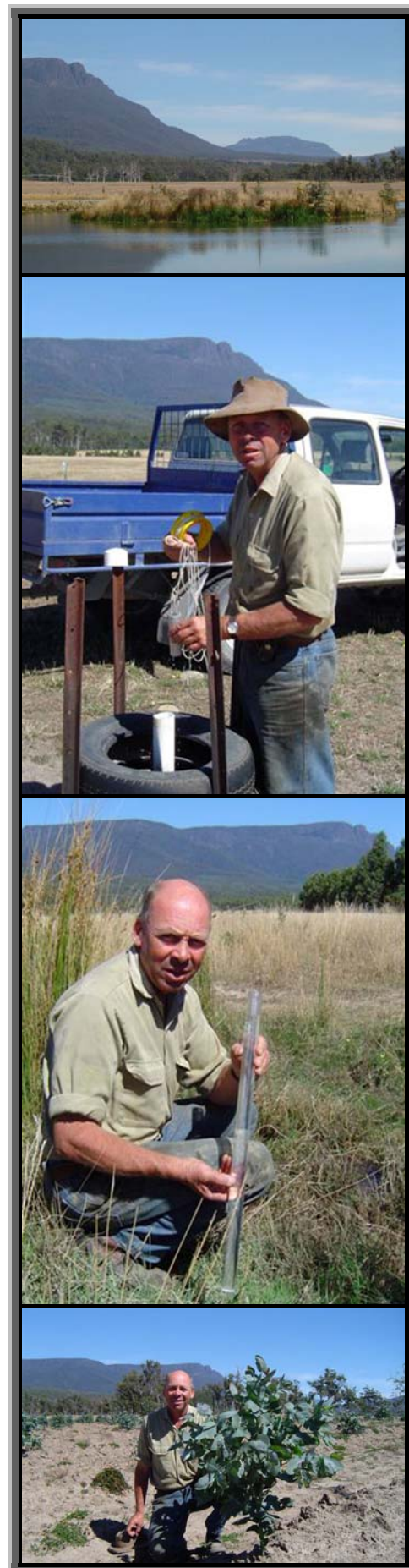
A project officer runs the project, working two days a week for two years. A steering group meets quarterly to review progress and advise on future work, however the project is primarily driven by the interests and needs of the farmers. The project officer coordinates and runs regular meetings for the group, often inviting a guest speaker to talk on issues like soil sampling/testing, soil health and structure, and fertiliser use. The project officer researches information that the group wants to know more about, produces newsletters, runs trials and coordinates water sampling and salinity testing.

Outcomes

The project has increased the farmers' awareness of sustainable agriculture issues associated with management practices used and offers alternatives. For example there has been an increased awareness of the value of soil testing and not applying excessive amounts of fertiliser, or timing the application of fertiliser so it is of most benefit and the chances of off-site impacts are reduced. A nutrient budget spreadsheet has been developed by the group that gives a soil nutrient balance for each paddock based on the crop, the yield, the fertilisers applied and how the stubble was treated. At least one piezometer has been installed on each farm, and the group will be able to continue to monitor trends in the water table and salinity over time. Articles about the group have been widely published in the hope that sharing this information will be of value to other farmers and will inspire them to be more involved in sustainable agriculture.

The Future

As with so much of this type of work, many new questions have been raised during the past two years. The nutrient budget process will require more time and effort to ensure it is a useful tool. The group is also hoping to expand its work on water quality to include monitoring for agricultural chemicals used in the catchment, and to increase its knowledge of alternatives to problem chemicals. Farming productively and profitably while at the same time ensuring that all activities are sustainable for local farms and the wider catchment continues to be a major goal for the group.



(Photos: Don Defenderfer)

From top: 1. Wetland, paddocks and the Great Western Tiers, as seen from Andrew Colvin's property. 2. Andrew Colvin checks salinity levels on his farm with piezometer. 3. Andrew Colvin assesses water quality of creek draining across his property. 4. Andrew Colvin checks growth in new eucalypt plantation.