

## Foreword

Over the last decade, Australian agricultural industries, in partnership with government and the private sector, have demonstrated leadership and innovation in the development and application of Environmental Management Systems (EMS). EMS pilot projects throughout Australia have begun to explore EMS as a tool that can lead to better environmental outcomes in agriculture and ensure that Australia remains competitive in international markets and can substantiate ‘clean and green’ claims. Agricultural industries throughout Australia have tailored EMS to suit their own requirements, whether these drivers may be demonstrating good environmental practice to the community for market-based reasons or simply the desire for environmentally sustainable agriculture.

The many producers involved in both the development and trialling of EMS, across industries and locations in Australia, are truly leading farmers. These farmers have shaped EMS approaches and ensured that they are practical, locally relevant and combine both production and environmental management. The contribution of primary producers to EMS research and implementation is greatly appreciated by all authors in this special issue.

This special issue of *Australian Journal of Experimental Agriculture* is based on the theme of ‘Diversity and Innovation’ in EMS and features a selection of papers from the 4th National Environmental Management Systems (EMS) in Agriculture Conference. This conference was hosted by the Department of Primary Industries Victoria and held at Beechworth from 17–20 October 2005. It was attended by 189 delegates from a variety of agricultural and research sectors. The objectives of the conference were to determine the requirements of stakeholders regarding environmental management, to explore the value of EMS to primary production (motivation and how to best make use of EMS), to share EMS experiences, to showcase diverse EMS approaches and to debate the next steps for EMS in Australian agriculture. This collection of papers presents a unique insight into the latest thinking in both EMS development and implementation across Australian agriculture. Papers cover several themes from the 4th National EMS Conference. I hope you enjoy reading them.

The first theme, ‘Value of EMS to external stakeholders’, explored what the various stakeholder groups hoped to derive from the adoption of EMS by primary producers. Balancing the requirements of multiple stakeholders with the needs of primary producers is a common focus of these papers. The adoption of environmental assurance in meat and wool supply chains and subsequent provision of largely public benefits is reported by Pahl (2007). An irrigation-based environmental stewardship system trialled in the Murray–Darling Basin (in dairy, viticulture and rice industries) explores how to deliver value for both agencies and land managers (Andrew *et al.* 2007). Pahl and Sharp (2007) outline the expectations for environmental assurance of various players in the pastoral industry. Similarly, the provision for diverse stakeholder needs in viticulture, while addressing the individual needs of grape growers is reviewed by Tee *et al.* (2007).

Another theme area, ‘EMS – benefits to users’, discusses the benefits derived by primary producers who have embarked on EMS. Both Sallur *et al.* (2007) and Huhn *et al.* (2007) recommend that EMS be delivered in a context of group learning, using self-assessment as a starting point and providing support networks for producers. A Victorian study outlines the perceived benefits, challenges and recommendations for EMS implementation by primary producers and catchment managers more broadly (Seymour 2007). This collection of papers has some strong underlying messages about the strong role for extension and the challenges in developing appropriate recognition if EMS is to be taken up by more than leading, innovative farmers.

The theme ‘Innovative EMS approaches by industry’ emphasised the diverse approaches to EMS development and implementation in Australian agriculture. It also provided an opportunity for those actively involved in EMS implementation to share experiences and discuss some of the challenges and opportunities. Several papers discussed ways they had tailored EMS to suit their industry requirements, such as dairy (Carruthers 2007), the lamb industry (Huhn *et al.* 2007) and horticulture (Hopkins *et al.* 2007). As Quality Assurance (QA) is already relatively well established in some industries, the alignment with QA and a staged approach to EMS is explored by Seymour *et al.* (2007).

Although most papers at the conference, and in this special issue, explore the implementation of EMS with specific groups, two papers have focused on the monitoring aspect of EMS in detail. Monitoring is a crucial part of EMS which has not been well addressed to date. Reid and Ridley (2007) explore the motivation for environmental monitoring, as part of EMS, by landholders in north-east Victoria, while Ridley *et al.* (2007) assesses more broadly the environmental issues and priorities for monitoring among EMS facilitators and catchment managers from around Australia. They conclude that landholder and catchment monitoring requirements are not necessarily well aligned and this raises issues about evaluating measurable environmental benefits resulting from EMS.

The final theme area ‘Where to from here for EMS?’ explored the key barriers, existing frameworks and recommendations for future EMS development and implementation. The paper selected in the special issue for this theme focuses on extension needs to prepare broad acre agriculture for EMS (Ridley 2007). It raises some important issues about the roles of the public and private sectors in providing information about natural resource management and EMS.

Finally, I would like to congratulate all authors who have written journal papers for this special issue. Most EMS literature in Australian agriculture resides in the non-peer reviewed literature and as such is less likely to stand the test of time of international accessibility and allowing the sharing of learning and knowledge. The collection of papers in this special issue represents the most comprehensive and reviewed ‘story’ of the EMS journey in Australian agriculture to date.

Finally, the organising committee of the 2005 National EMS Conference Committee would like to acknowledge the sponsorship of the following organisations: Department of Primary Industries Victoria, Rural Industries Research and Development Corporation, Grains Research and Development Corporation, Commonwealth Department of Agriculture Fisheries and Forestry, Meat and Livestock Australia and the Australian Farm Journal.

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