

Profitable Resource Management- Wotif we wanted to make money?

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The world of natural resource management is extremely dynamic, and is underpinned by the knowledge of farmers, resource managers and local communities, as well as that of scientists and research organisations. The most practical, innovative ideas are grounded in intimate knowledge, understanding and experience. The multiple aims of maintaining a profitable agricultural business while managing and protecting the resource base can be combined. As the price of water and energy goes up, farming systems that close the loop will become more and more competitive, domestically and globally. Win-wins do happen, **BUT** we should never be under any delusion that they are inevitable, commonplace or even always possible.

It is often the case that the returns from more sustainable practices are either long-term or offsite, or spread over a wide area. There is a gap between the person making the investment in time, money and effort, and the ability to capture that return locally and NOW. In some cases the returns are non-market and can't be captured in a price benefit anyway. In those situations we have two main strategies. The first and probably most important is R&D to develop smarter, more profitable practices. Australia's world leading and highly successful rural research and development model, a partnership between industry and government, is our front line weapon here. The model provides the foundation for the Cotton Research and Development Corporation and Land & Water Australia. The second strategy is incentives that recognise the public benefit and therefore the rationale for a public contribution.

This presentation will reference the author's family property history particularly with respect to the maintenance of a healthy resource base aligned to a positive bottom line. A critical analysis of management performance will include some "Bright Ideas" that have proved crucial to continued property viability.

Other case studies from farmer innovators who use their knowledge and experience, think laterally and pioneer new ways of improving their businesses and making more money will be featured. Farmers are natural integrators and many are born inventors. Australia has a long history of farm-based innovations driven by necessity, knowledge and spirit, many of which changed the way food and fibre are produced not only in this country but also around the world. For research organisations such as Land & Water Australia, our challenge is making sure we are open and able to build on innovations that appear at all levels, and where it is possible, identify, test and share the good ideas for the broader benefit. Sometimes we need to follow rather than lead.

One exponent of profitable resource management is canegrower and McKell medallist 2006 Robert Quirk from the Tweed Valley, an intensive agricultural activity in a sensitive coastal area which has high population density and a lot of community scrutiny. Robert's farming focus is on applying sustainable management practices and especially improving and protecting the soil health. Current practice in New South Wales involves burning the cane pre and post harvest, but Robert uses green trash blanketing to return nutrients and build organic matter in the soil. Minimum till and mound planting rather than full cultivation maintain soil structure, while cover crops reduce erosion and a two hectare engineered wetland reduced discharges from the farm and trap harmful elements. As a

result of these efforts Robert has increased his productivity by 75 per cent and halved per unit costs. He now uses less fertiliser because his system is able to use all the nutrients he does apply. Herbicide usage has also been cut by 30 per cent and heavy metal and acidity discharge from his farm is down 80 percent.

Land & Water Australia has been investing in research and development for sustainable production and natural resource management for more than 15 years. We are a small R&D corporation with a broad brief. Our mandate is to buy, broker and manage research aimed at the productive and sustainable management of the land, water and vegetation resources underpinning Australia's primary industries and regional communities.

Since its inception Land & Water Australia has had a strong emphasis on collaboration with agricultural industries because sustainable management is not commodity specific, and these issues should be worked on collectively. Soil health, Water Use Efficiency in irrigation, energy efficiency, climate risk management, managing waterways – these are all issues where commodity boundaries are not sensible. Accordingly, Land & Water Australia works with other RDCs to jointly fund research on sustainable agriculture issues where there is more to be gained from a joint approach than a fragmented one. We cannot achieve our goals by working in isolation and collaboration is a core element of Land & Water Australia's investment strategy. The rural RDCs, including the CRDC, are particularly important collaborators as they provide a clear link to Australia's commodity producers, the managers of much of the Australian landscape.

These collaborations create a direct connection between research and on-farm application, with many programs directly working with farmers to tap into their wealth of experience. They are built upon a strong foundation of goodwill, shared vision and commitment to the future of productive agriculture in Australia. Five industry programs are currently managed by Land & Water Australia. They are:

- Grain & Graze – improving the profitability and sustainability of mixed farmers in the wheat/sheep/beef zone of southern Australia
- Healthy Soils for Sustainable Farms – applying broad understanding and put into practice techniques which maintain and restore farmland soils.
- Land, Water & Wool - providing wool producers with practical tools for managing natural resources sustainably and profitably.
- Managing Climate Variability – improving climate prediction, access to climate information, developing tools for tactical decision making and further adapting practices to Australia's unique circumstances.
- National Program for Sustainable Irrigation – investigating critical emerging environmental issues while also improving productivity and maximising community benefits.

Ongoing investment through collaborative approaches will enable Land & Water Australia to continue to play its role in securing the futures of our rural industries.

For more information about Land & Water Australia visit www.lwa.gov.au, write to GPO Box 2182 Canberra ACT 2601, or telephone 02 6263 6000.

