

Profitable biodiverse wool production systems for the Northern Tablelands of NSW: science and extension working together

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Introduction

In order to achieve nature conservation and biodiversity protection effectively on a significant scale, it must occur outside of reserved areas on farming lands: it needs to become an integral part of the farm production system.

The Land, Water & Wool Northern Tablelands Project (2002-2006) quantified the ways in which biodiversity and nature conservation on farms increased production and profit, increased awareness among the wider community, and in particular, increased adoption of best practice among wool growers on the Northern Tablelands.

Objectives of the project

Project leader, Dr Nick Reid at the University of New England, and project partners Southern New England Landcare and the Centre for Agricultural and Resource Economics (CARE), used an action research approach to:

1. Document and publicise the relationship between biodiversity and production on three outstanding "Case Study Farms" and eight "Testimonial Farms".
2. Work with 15 "Monitor Farms" to record and analyse various production and biodiversity outcomes over a two year period. This information was the basis of further extension work.
3. Increase the general public's awareness of the very positive relationships between biodiversity and production.

From the beginning, the project employed a Project Facilitator (separate to project technical staff), to facilitate landholders and technical experts to work together in a way that values local knowledge in all stages of the project. Project activities were underpinned with sound science and dedicated technical experts at all times. A local steering committee was facilitated to design the 'extension' into every aspect of the project, so that it was rolled out as the project occurred, rather than as a separate process after the project was completed.

We believe this combination of factors is what enhanced the project's visibility, acceptance and adoption among both the farming and wider New England communities. The project was well-received both locally, and nationally, with a repeat screening on ABC's Landline program (ABC Landline, 2007).

Communication is key

Because the project was in part funded by Australian Wool Innovation LTD (AWI) and therefore grower levies, a key communication challenge for this project was that local wool growers wanted reassurance that the project was targeting their needs and that practical information of use to them was being gathered. Growers made it clear that a whole farm focus was important to them, and that the information was to come from real commercial farms, not experimental farms or research institutes. They also wanted the information, results and implications of the project available in readily accessible formats that they could easily understand.

For these reasons, the project facilitated a local steering committee made up of 'technical experts' (both academic and local agribusiness consultants) and wool growers to come up with a communication and extension plan. So that everyone was 'on the same page', the steering committee decided on a project mission statement:

To demonstrate to Northern Tablelands wool producers and the wider community, the compatibility between biodiversity and profitability, the benefits of continual learning in natural resource management, and to illustrate management options that assist in achieving both goals.

And a slogan:

Creating wealth through wool profits in an enhanced environment.

The project's communication goal was to provide timely and relevant advice to the project's primary clients about the relationships between profitable wool production and biodiversity conservation on the Northern Tablelands of NSW.

To achieve this goal, a number of key activities were decided on:

A **Project Steering Committee** of nine local wool grower families and agency and private extension personnel was formed to direct the project and advise the research team. A program of quarterly to 6-monthly meetings of the committee took place through the life of the project. The schedule of meetings listed the specific outcomes to be achieved by each meeting and the requirements of each of the technical team in terms of preparing information for committee members, to be submitted in business papers to members about 1 week prior to each meeting date.

A **quarterly article and press release** summarising project progress and inviting feedback from wool growers was prepared for Southern New England Landcare's newsletter, *Landchat*, each quarter. At that time, *Landchat* had a mailing list of 650 recipients, comprising 550 landholders (including an estimated 70% of wool growers in southern New England) and 100 extension officers, school Landcare group contacts and related personnel. This article was also forwarded simultaneously to other Tablelands Landcare networks, producer groups, and AWI and Land & Water Australia (LWA) for insertion or publication in their mailouts and newsletters.

The quarterly article and press release was also circulated to local and regional newspapers, and to the ABC regional radio's *Rural Report*. Important articles and press releases of more general interest were also sent to *The Australian* and *The Land* newspapers.

A **segment at each quarterly meeting of Southern New England Landcare Inc** (SNELCC) was devoted to this project. Twenty-eight Landcare groups are represented at SNELCC meetings, where issues relevant to Landcare are discussed. The segment updated Landcare group representatives about the project and its progress.

Field days, local producer on-farm discussions and farm inspections/walks were scheduled throughout the project. One major field day was scheduled at each case study farm during the project and attracted in excess of 100 participants. One attracted 170 participants. The primary objectives of these events were (i) to inform local and out-of-region wool growers of best management practices (BMPs) for wool profits and biodiversity conservation on real farms by demonstration, (ii) for growers to practice biodiversity monitoring skills, (iii) to obtain feedback from growers about the advantages and disadvantages of the BMPs on display, and (iv) to receive feedback from growers about the particular BMPs they use on their own properties. Images of three major project field days may be seen in Plates 1, 2 and 3.

Plate 1: Field day participants learn about water quality and wetland biodiversity findings of the LWW NT (2002-2006) project at the Case Study Farm 'Nant Lodge'.



Source: Karen Forge-Zirkler, 2004.

Plate 2: Case Study Farm 'The Hill' boasts the honour of being the site of the first ever 'Tree Fest'. Field day participants sit among the now mature trees and shrubs planted at Tree Fest to hear early findings of the LWW NT (2002-2006) project.



Source: Karen Forge-Zirkler, 2004.

Plate 3: Case study farm field days attracted in excess of 100 participants each. This one, at 'Lana' attracted 170 participants from all over NSW to hear how Holistic Management contributed to the spectacular biodiversity findings of the LWW NT (2002-2006) project.



Source: Karen Forge-Zirkler, 2004.

The project produced high quality ecological and economic data that were analysed and presented in a series of **extension publications** for southern New England woolgrowers and the Australian wool industry. The publications included three Case Study Farm booklets, seven Testimonial Farm brochures, 11 Fact Sheets and one calendar. These can be found at www.snelandcare.org.au under the publications menu.

The extension materials produced by the project were of high quality. They were original, broad, detailed, provided new insights and gave a positive image of the regional wool industry.

They now provide the industry with grower-oriented property management information, scientifically researched answers to woolgrowers' questions, information for wool promotion, bargaining power with regulators, and scientific evidence with which to engage green groups and urban critics.

Good communication adds value

As an added bonus, and largely because of the extension and communication approach taken by the project as a whole, project leader, Associate Professor Nick Reid, stated that he enjoyed working with an extended group of 25 woolgrower families and consultants. He worked with them while attending Steering Committee meetings, gathering the experiences and insights of the Case Study and Testimonial growers, helping technical staff work on the Monitor farms with the pasture surveys, and working with CARE and the Project Facilitator on the results and extension products.

Incentives for adoption

Following completion of the Land, Water & Wool Northern Tablelands Project (2002-2006), Southern New England Landcare secured a \$669,529 grant from the National Landcare Program through the Northern Rivers and Border Rivers-Gwydir Catchment Management Authorities (CMA). Additional funds were secured from the Namoi CMA, Northern Rivers CMA Plan Implementation and River Health programs, and the Macleay National Landcare Program project.

The funding was made available to landholders under a project called the *Land, Water and Wool Best Management Practice project (LWW2-BMP)* to assist them implement findings from *Land, Water & Wool Northern Tablelands Project (2002-2006)*.

All of the funding secured for on-ground works was rolled out simultaneously. This ensured that landholders had a 'one-stop-shop' for all their project requirements and were involved in a consistent project planning and assessment framework, facilitated by Southern New England Landcare staff assisted by various technical personnel.

A steering committee of local landholders and technical personnel was formed to ensure LWW2-BMP was delivered in a way that would achieve the best outcomes for both landholders and the funding bodies.

Eight field days and 10 follow-up workshops were run throughout the region. These activities utilised the extension products produced in the 2002-2006 project and the assistance of local 'Landcare Champions'. During the field days and workshops, farmers were provided with examples of BMPs in the field and then assisted by a group of technical experts and local 'Landcare Champions' to use the extension products to plan on-ground works that would implement BMPs. Proposals were then assessed by a local panel and funding was allocated according to specified criteria.

In total, 170 people attended the field days. This led to 50 farmers attending the workshops and submitting 90 project proposals. Funding allocations were made to 85 of these projects. Landholders contributed approximately \$670,000 in cash and kind to implement the projects.

- Projects included:
- Constructing subdivision fencing and off-stream watering for improved grazing management, native vegetation regeneration and/or the protection of riparian zones/wetlands.
- Establishing strategic belts and blocks of woody vegetation for multiple outcomes, e.g. corridor linkages, stock shelter.
- Fencing off bushland remnants for conservation and/or regeneration.
- Fencing off and managing eroded areas or saline scalds.

The biophysical outcomes of the project included:

- 36 km of stream bank and 263 ha of riparian vegetation protected with 45 km of fencing.
- Off-stream watering systems established on 15 properties.
- 1,041 ha of remnant vegetation protected.
- 97 ha of vegetation established.
- 197 km of fencing erected to protect these works.

Conclusion

This innovative, whole-of-community approach enabled a significant step in a positive direction for our nation's ability to conserve nature and biodiversity across whole landscapes.

The first project (2002-2006) provided:

- The science and economics behind what so many of our leading landholders were claiming was occurring on their farms, incentive and motivation for others to do the same, and an opportunity for landholders to access financial incentives to assist with a wide range of NRM practices.
- The outcomes of this science are applicable not only on the Northern Tablelands, but nationally.
- This approach also demonstrated how effective a research project can be when the extension is designed and built into the project from the beginning. A communication and extension strategy designed by a team of local wool growers who were empowered through group facilitation was key to the success of the project.

The follow-on 'best management practice' implementation project demonstrated that significant numbers of landholders are willing and able to learn about and make changes on farm that affect biodiversity in a positive way.

Key to the great outcomes we experienced with the Land, Water & Wool projects are the following points, of which none should be underestimated:

- A dedicated Project Facilitator to facilitate landholders and technical experts to work together in a way that values local knowledge in all stages of the project.
- Underpinning project activities with sound science and dedicated technical experts at all times.
- The power of enabling a local steering committee of woolgrowers to design and advise the project.

As a result of our learnings with the Land, Water & Wool projects, and in the spirit of action research and action learning, Southern New England Landcare now runs most of its projects using the 'Land, Water & Wool Project' approach.

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