



Biodiversity sea change



The chance for overseas markets for their onions led a Tasmanian farming couple to put biodiversity conservation on their agenda.

At 'Hillcrest', a 75 hectare property near Devonport, Sharni and Shane Radford now grow up to ten different crops in any one year, produce prime lambs and include biodiversity conservation as integral to managing their farm.

In 2003 they won the Tasmanian Government Environmental Excellence Award - Sustainable Agriculture

Biodiversity on the agenda

'Hillcrest' is on the rich basalt soil of north-west Tasmania, in an 800 to 900 millimetres rainfall area which is highly in demand for agriculture. Despite this, the property contains four hectares of native bush that have miraculously escaped clearing.

In 1999, *Field Fresh Tasmania*, a company that bought the Radford's onions, offered premium prices if producers could meet the quality assurance system requirements for market access to the United Kingdom. Meeting these involved the Radfords in developing an environmental management system for 'Hillcrest' and all its land and operations.

Field Fresh had also contracted Greening Australia, through the Australian Government's Natural Heritage Trust Bushcare programme, to do an audit of the natural values of properties developing an environmental management system, as part of meeting the UK's Quality Assurance requirements. This meant that 'Hillcrest' was the subject of a complete environmental audit. It showed that the four hectare remnant was in good condition.

The forest remnant contains an association of 40 to 50 metre tall Stringybark and Black Peppermint, including some old growth trees providing nesting hollows for bats and birds. The native



bush under these large trees has been protected from grazing and is therefore also in good condition. Coupled with the rarity of having such an exceptional example of natural bushland on their property, the audit found that 'Hillcrest' provided habitat for the vulnerable Blue Pincushion, listed as a threatened plant species in Tasmania.

As part of the audit process, farmers with significant natural bushland on their properties were also helped to apply for financial assistance under the Natural Heritage Trust, for fencing to exclude livestock from vulnerable areas and for other conservation works. This gave the Radfords the impetus to further integrate biodiversity conservation into 'Hillcrest's' environmental management plan and in July 2001 they received Trust funding of \$1,650 to fence off the remnant forest.



Sustainable farming

The Radfords use a number of different ways to make their farm sustainable and protect biodiversity, including:

- judicious use of pesticides and fertilisers;
- preventing pollution;
- conserving and enhancing wildlife and the landscape;
- growing cereal crops before planting crops like onions to improve soil structure and prevent soil erosion;
- using sheep to reduce weeds in paddocks after harvest;
- implementing measures to protect human health;
- using energy, water and other natural resources efficiently;
- recycling and reusing materials; and
- maintaining soil quality.

Soon after buying 'Hillcrest', they realised they needed to make some changes to improve productivity and sustainability. Shane has a particular interest in building up soil organic matter and Sharni has used a financial background to integrate environmental management with production. To help good



Biodiversity encompasses the variety of all living things. Conserving biological diversity gives us the best chance of adapting to our rapidly changing world.

This leaflet is one of a series showing how farmers, Indigenous communities, local government and community groups have either initiated special biodiversity projects, or have successfully incorporated biodiversity protection into their work and daily lives.

We hope these success stories provide useful information and inspiration to others in similar situations.

For more information: www.nrm.gov.au; or freecall 1800 552 008

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record keeping on all aspects of their farm planning and management they upgraded their computer skills at TAFE. Now they use a specialised agricultural software program *Paddock Action Management* (PAM) to keep all records and farm maps, as part of their whole farm plan.

In practical terms, the Radfords were quick to install grassed waterways, grassed irrigator runs and contour drains, based on systems that had been developed by researchers from Tasmania's Department of Primary Industries, Water and Environment. Shane was also among the first farmers in northwest Tasmania to use mulched rip lines for erosion control.

Many production benefits have flowed from their efforts to protect biodiversity and farm sustainably including:

- increases in onion yields ;
- potato crops above the district average;
- healthier soils and less erosion through the use of mulched ripper lines;
- an increase in the overall value of the property has increased; and
- improved record keeping;

Putting it all together

Biodiversity conservation and sustainable farming practices now go hand in hand on the Radford farm. Their management plan says they aim "...to increase productivity on our commercial working farm without compromising the ability of future generations to meet their own needs."

They have now fenced off the native vegetation area, which is managed for biodiversity conservation side by side with productive farming country. On other parts of 'Hillcrest' they have planted some 200 native trees to replace laurels and pines that were removed.

The commitment of the Radfords to conserving biodiversity has also extended to helping the National Parks and Wildlife Service banding Swamp Harriers on their property. Banding this species, which migrates to Tasmania has provided important information on breeding sites.

Lessons learnt

- It is possible to both protect natural values and run a profitable farm.
- Implementing environmental management systems helps with this.
- Practical, low cost, on-ground actions can be taken to develop sustainable agriculture and protect biodiversity.

Photo Credits

Front: Sharni and Shane Radford; Bob Iddon. Gumnuts; Richard Barnes.
Forest remnant on 'Hillcrest'; Sharni Radford. The Radford family on their farm; Bob Iddon.
Back: Blue Pincushion; Louise Gilfedder. Stringybark leaves; Richard Barnes.