



Above—Rob and Lucy Adams.

## 'Swallowfield'

### Location

17 km north-east of Armidale, New England Tablelands NSW, Macleay catchment

### Property size

'Swallowfield' 1060 ha (2619 acres)  
'Tulloch' 275 ha (680 acres)

### Paddocks

30 ('Swallowfield'), 4 ('Tulloch')

### Average annual rainfall

813 mm (32 inches)

### Main enterprises

Fine to superfine Merino wool (16.0-17.9 micron), Beef cattle

### Stock numbers

750 Merino ewes, 240 breeding cows and 300 trade steers

### Stocking rate

5.9 DSE/ha (2.4 DSE/acre, combined sheep and cattle); excluding areas of dense timber: 8.0 DSE/ha (3.2 DSE/acre)

### Main soil types

'Swallowfield' - meta-sedimentary ('trap'), 'Tulloch' - fine granite

### Vegetation types

'Swallowfield' - formerly open-forest of stringybark and New England blackbutt on gravelly slopes and ridges; grassy woodland of yellow box, grey box and Blakely's red gum on slopes on better soils and New England peppermint on alluvial flats; mostly cleared to scattered paddock trees and small timber belts, and 250 ha of stringybark retained on harder west-facing slopes. 'Tulloch' - original vegetation similar to above; 115 ha of uncleared stringybark open-forest left on steeper slopes.

### Elevation

965-1080 m a.s.l. ('Swallowfield')  
1065-1200 m a.s.l. ('Tulloch')

# Wool production & biodiversity Testimonial working together for Rob & Lucy Adams

## Introduction

Rob and Lucy Adams own and manage 'Swallowfield' and nearby 'Tulloch', which were purchased by Rob's parents in 1970-73.

Fifteen per cent of 'Swallowfield' is regularly cropped or sown to pasture, 30% is timbered and the balance is fertilised native pasture. Sixty per cent of 'Tulloch' is fertilised native pasture and scattered trees, and the balance timber. Changes over time have included ring barking, clearing, logging and fertiliser application, with the Adams now addressing these through major environmental programs.

Rob and Lucy run a self-replacing Merino flock for superfine wool production and breed and trade cattle at 'Swallowfield', and run their older breeders at 'Tulloch'.

Rob and Lucy's management aims are to generate sufficient income to raise their two teenage sons and invest for their future financial security, while looking after the natural resources and values of their land.

This testimonial describes Rob and Lucy's management of 'Swallowfield' and the many examples where they have been able to simultaneously enhance livestock production while protecting and restoring wildlife habitat, repairing erosion and creating wetlands.

## 'Swallowfield' wool

Rob and Lucy produce bright, soft, stylish, fine, long-staple wool.

Seven years ago, they began modifying their flock (based on traditional Merryville blood lines) by introducing soft rolling skin (SRS) genetics from 'Lorelmo', 'Kaori' and 'Strabban' rams. They now produce plain-body, wrinkle-free, easy-care sheep with a bulkier, finer fleece and more boldly crimped wool. The main fleece lines have a 120-mm, pencil-tip staple, less than 1% vegetable matter,

and tensile strengths ranging from 35-55 N/ktex. The micron varies from 16.2  $\mu\text{m}$  in the hoggets to 17.9  $\mu\text{m}$  for the ewes.

The Adams shear every 8 months for more efficient wool production and more even cash flow. The hoggets cut 2.0-2.5 kg of wool/head and the ewes 3.0-3.5 kg/head. The long staple means that even in a hard year, there is sufficient length to avoid penalties for short wool. Most of the 'Swallowfield' clip is bought by the Asian market.

## Grazing & pasture management

"I set stock mainly," explains Rob. "I don't want to be entirely beholden to my stock or my pastures. If I go away for a week, I don't want to rely on someone who doesn't know the property and the stock. One mistake could hurt for a year or more."

"However, for a variety of reasons, I am leaning more to rotation of some stock at different times of the year. I can see better pasture utilisation and production in rotationally-grazed pastures. The stock are regularly going on to fresher, greener feed with less dead, indigestible matter; it encourages the better grasses which are not flogged down as much; the pastures are producing more feed and the stock are healthier with less worms.

"I have also used large mobs to bash down wiregrass and reduce the

*Below—Prime lambs being fattened on a pasja (brassica) crop at 'Swallowfield'. Photo courtesy of Lucy & Rob Adams.*



## Prime lambs & beef cattle

In 2005, Rob and Lucy experimented with prime lambs, joining 360 of their older Merino ewes to White Suffolk rams. They grew out the prime lambs on a pasja (brassica) crop, realising \$70/lamb.

The Adams have a self-replacing herd of 240 predominantly Hereford cows with a little Maine Anjou blood. Weaners are sold at 9 months of age and the balance are turned off as 2-year olds around August.

“Cattle complement the sheep,” according to Rob. “You can run more DSEs by running both because they don’t always compete for the same pasture species. Cattle are good for managing worms in sheep, too.”

vegetable matter in the wool clip. Running larger mobs also means more efficient use of my labour and less mustering. Where I am rotating, the stock are in a paddock for a fortnight and won’t come back for a minimum of a month.”

Between 5 and 10 ha of lucerne is maintained for hay during winter, as required. Sown pastures of rye grass and clovers, plantain and chicory and occasional fodder crops of pasja are used to grow out calves and weaner sheep, and turn off stock for market in good condition. “I don’t like to see stock leave ‘Swallowfield’ in store condition,” says Rob.

Short-term, rye grass based pastures are followed up with fescue-dominated mixes which are used for breeding and fattening stock.

“I use contractors to direct drill crops and pastures rather than having my own gear. The downside is waiting in line with the rest of the district when conditions are right,” says Rob.

The native pastures sustain the breeders and ewes out of season. “They’re good for producing bulk but not quality,” says Rob.

The Adams regularly topdress all their native pasture country with fertiliser and clover seed, and sometimes add rye grass seed, to ensure sufficient production. Single superphosphate is applied at a minimum, although high-analysis fertilisers are sometimes applied to native pastures after soil testing every 3 years or so.

*Below—A newly planted mound in a 5-row windbreak on ‘Swallowfield’. Photo courtesy of Lucy & Rob Adams.*



*Below—A windbreak of mixed native and introduced trees and shrubs.*



*Below—A newly created wetland, established to repair soil erosion, and planted with fringing trees and shrubs. Photo courtesy of Lucy & Rob Adams.*



*Below—The same wetland 6 months later.*



## Property planning & environmental stewardship

Rob recounts a host of reasons why he and Lucy have spent so much time and money repairing erosion damage, creating wetlands and protecting and establishing wildlife habitat and corridors on ‘Swallowfield’.

“I don’t think of my country as a means of just generating income. I want to put something back, and leave it in better shape than when I started,” says Rob.

“I like the idea of a picturesque, harmonious landscape to live and work in; laneways of colourful trees are easy on the eye. In some ways, I see your land as an extension of your garden. It’s a reflection of how you think, it’s an extension of yourself. I take pride in the whole farm and want it to look good.

“Linkage of habitats with wildlife corridors is important to us. If I can plant some trees and heal erosion at the same time, all the better. There’s the real estate value down the track, whether we leave the farm to the boys or sell up.

“The psychological benefit of a biodiverse farm is important. It’s good to be able to go and look at the flowers or trees for a while when things aren’t going right. It’s better than taking your frustrations out on the stock or dogs.”

For Rob and Lucy, environmental stewardship goes hand in hand with improved livestock production. “Our interventions might seem disparate but it all fits together, it’s all connected,” says Rob.

“The pastures and stock do better around the shelter and shade provided by the trees we plant and the logs we leave in the paddocks. The trees attract the birds and other animals that help to control pests.

“Sometimes there’s a tension between wanting the place like a park and catering for nature. I’ll drive past a log or resist taking out a tree and think ‘I had better leave that for the wildlife’. Sometimes you have to forgo a bit of yourself to let nature have a go.”

# A healed landscape

## Tree planting

Dieback affected the cleared country on 'Swallowfield', so the Adams have planted 5 km of tree lines and some 15 000 trees and shrubs since 1989.

"Tree plantings have provided several benefits for the environment and our production," explains Rob. "There's the aesthetics, and the role of tree lines as wildlife corridors to link up the areas of native trees across the property and beyond. For us, it gives shelter for lambing ewes and calving, and increased lamb survival.

"The reduction in wind speed across the paddock conserves soil moisture meaning more pasture production. The birds help control insect pests, and twenty-metre wide belts of trees give me more managerial flexibility. I can put a laneway along a treeline or bulls on either side of a shelterbelt and not worry about them fighting with each other.

"We have developed a successful approach to tree planting," explains Rob. "We deep-rip and spray out well in advance of planting, for a chemical long-fallow of 12 months. This ensures a saturated profile.

"We have used a moulder in the past three years, and if we can, we slash weeds between the tree lines after planting and then spot spray in a two-foot circle around the cartons to keep the weeds down in the first year."

"We believe in growing local native species in a mix of shrubs and trees. Trees are desirable for shade and to reduce wind speed out in the paddock, and the shrubs are necessary to stop wind tunneling.

"We don't get landcare money to plant exotics but we plant a few that we know grow well for colour, diversity and dense shelter. We often back-plant exotics in a gap where the natives have died for some reason, or on the house side of a tree line.

When tree lines fill up with dense grass, they become harbour for foxes and rabbits. "We have grazed some tree lines at lambing to be able to get at the foxes better, but we tend to keep our young tree and shrub lines fenced from stock—we worry that stock will damage them."

*Below—Natural regeneration of stringybark, red gum and yellow box in the Adams' 250-ha wildlife refuge.*



*Below—A 0.5 ha remnant of New England peppermint grassy woodland, fenced from livestock and enriched with native tree and shrub plantings. This vegetation type is proposed for listing as an endangered ecological community in NSW.*



*Below—Microlaena pasture beneath red gums at 'Swallowfield'.*



*Below—A night's work for Sam Adams. Photo courtesy of Lucy & Rob Adams.*



## Scars become wetlands

Rob hates erosion, so with funding assistance, he has set about converting eroded areas and scalds into assets—wetlands. "These areas were unproductive anyway, so we enhance them. We excavate and dam eroding areas, fence them off, plant trees and shrubs, and use the clean water by reticulating to troughs for livestock. The wildlife and waterbirds benefit, too."

## The wildlife refuge

Rob and Lucy maintain 250 ha of regrowth stringybark and box timber on 'Swallowfield' as a wildlife refuge. "'Swallowfield' wouldn't be the same without it, it would be like a house without a garden" says Rob.

"The soils in the wildlife refuge are gravelly, so you'd probably only lose money by clearing and trying to improve it. It's good for sheltering sheep off-shears. We collect firewood up there and it's an incredible recreation area after a light shower of rain when you can listen to the frogs and tree creepers."

The area was one of the first in New South Wales to be designated a wildlife refuge under the National Parks & Wildlife Act, 1974.

"It's a big block of timber so it is self-sustaining and has a wide range of birdlife. We have a bird list from Geoff Barrett because he used it as one of his research sites in the early 1990s." In the wildlife refuge, Geoff recorded seven woodland birds destined for extinction in the wheat-sheep belt of NSW due to excessive clearing.

"The wildlife area has got to cover its costs. We pay rates on it, so we graze it," says Rob. "The downside is there's not much understorey."

## Wildlife

"We are pretty keen on most wildlife," says Rob. "Platypus used to be common in the Gara River when I was a school boy, and Lucy has lost a lot of chooks to quolls over the years. We had two magpie geese stay with our domestic geese on the lagoon for a fortnight once. The bird watchers came out from town to see them."

"There's plenty of echidnas and brush-tail possums up in the wildlife refuge and evidence of feather-tail gliders. Geoff Barret recorded all three species of treecreeper up there

## The Lagoon

'Swallowfield' boasts a 2.5-ha lagoon on the Gara River floodplain. "It's part of a larger paddock, so sheep drink from it, but we keep the cattle out," explains Rob. "It has lots of swamphens and standing dead trees. We also made islands in the middle."

*Below—The Lagoon on 'Swallowfield', a natural wetland on the Gara River floodplain.*



and a koala once. I'm fond of the grey thrushes around the garden, and the bullfrogs that call in a pool there. They're a sign of rain, but I don't like hearing them at shearing time!"

"I like the 'God birds' [swamp hen] on the lagoon but I'm not too keen on wood ducks. When it comes to breeding pasture species, a duck-proof fescue would be good! The ducks have sometimes taken out an acre or two of pasture. The plovers [lapwings] have increased in recent years due to better fox control, and I like the ibis because they eat the insects. There are lots of frogs and snakes along the river.

"We've had bats under the eaves and in the wall cavities of our house. They might be useful for pest control, but they're a nuisance inside the house.

"A few kangaroos are OK, but we have to control them every now and then when they start to eat more grass than the stock. I favour the wallaroos and swamp wallabies which we get in the timber."

## Commitment to community

Rob and Lucy help their community where they can.

They are members of two local Landcare groups and the NSW Farmers Association. They have a formal agreement with the teacher-in-charge of the neighbouring Thalgarrah Environmental Education and Field Study Centre. The Study Centre uses 'Swallowfield' for classes with visiting school children.

Numerous researchers have visited 'Swallowfield' over the years to investigate possums, birds, canopy insects and beetles, and for the Land, Water & Wool Project.

The Adams have sought many opportunities to assist with conservation work at 'Swallowfield'—some as early as the 1970s—but more recently, through Southern New England Landcare and Armidale Tree Group.

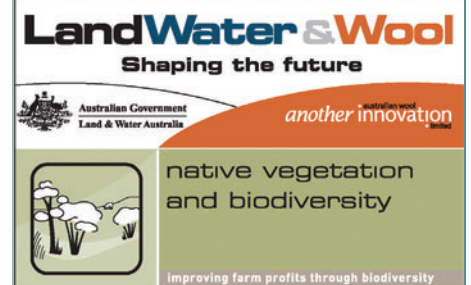
Rob and Lucy are grateful to be able to raise their boys in a healthy farm environment. "There are so many things they can do on the farm; they love being here," says Lucy. "They grow up earlier than urban kids because they have responsibilities on the land. Sam loves shooting and keeps the rabbits and especially the foxes in check. Toby loves lizards but he's also mad about trail bikes."

Rob is humble about their achievements. "We don't get it right all the time. You have to be willing to change when the errors are glaring."

Rob and Lucy have found many ways to manage their farm so that production and income generation work in harmony with natural resource management and environmental stewardship, and they are intent on continuing their farm's restoration program.

**"While we are earning income from the land, we have to look after it," concludes Rob. "It's an incredible place to be—we feel good about ourselves and what we are doing. And we want to avoid damaging the land by working with nature as best we can."**

The Adams' commitment and contribution to sustainable wool and livestock production is worth emulating everywhere.



The Native Vegetation and Biodiversity sub-program of Land, Water & Wool is working with woolgrowers and demonstrating that biodiversity has a range of values, can add wealth to the farm business and can be managed as part of a productive and profitable commercial wool enterprise.

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The Land, Water & Wool Northern Tablelands Project is led by Associate Professor Nick Reid, University of New England, in collaboration with Southern New England Landcare Ltd and the Centre for Agricultural and Regional Economics.

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