



Guy Michaels is proud of the natural assets on his family farm and enjoys the increased sense of place they provide.

CREATING A VIABLE BUSINESS WITH MINIMAL ENVIRONMENTAL IMPACT

FARM OVERVIEW:

- Enterprise: Sheep and beef farm wintering 1800 ewes and 35 cattle.
- Property Size: 214 ha with 195ha effective, 12 ha managed for biodiversity and the balance of 7 ha is in shelter belts or is as yet undeveloped.
- Property location: Foothills of the Forest Range, Glenham, south-eastern Southland.
- Average annual rainfall: 1100mm
- Altitude: 150m a.s.l. at top of farm.
- Soil Type: Well-drained Kaiwera.
- Ecological values: Two broad-leaved bush remnants with recovering understory and an extensive area of Red Tussock/reed wetland adjoining one of the bush remnants.

Jo and Guy Michaels had worked on a number of farms, both in Northland and Southland, before purchasing their sheep and beef block near Glenham in 2002. With their young family, the development of the business and Jo's off-farm work for Plunket, life is busy for the Michaels family. Nevertheless, they have made huge improvements to the farm environment in just a few years.

The Michaels family had always planned to fence off some areas ever since they purchased the property. Even so, their protection vision has developed in parallel with their growing appreciation of the biodiversity values on the farm as time has gone on. Contact with outside bodies began when Guy sought advice on riparian plantings from staff at Environment Southland. This initial approach led on to the involvement of Janet Gregory from the NZ Landcare Trust, and subsequently the QEII National Trust, which collaborate together with Environment Southland and other agencies under the umbrella of the Biodiversity Southland forum.

Cooperation with these organisations has been a key driver of the biodiversity protection work. Without the funding that they have facilitated, the costs of fencing would have been too high for the Michaels to cover in the short-term, especially because the location of the reserve areas meant that direct benefits of fencing to farm management would have been minimal. In order to exclude stock from the two bush areas and the first wetland area alone, almost three kilometres of fencing has been put in, much of it over challenging country. The total cost of this fencing work was over \$30,000 dollars with the Michaels covering a third and the balance gained from the QEII National Trust and the NZ Landcare Trust through Biodiversity Condition Funding. Expertise and advice from fencing contractor Bernard Affleck of Affleck Fencing helped to identify the best options for fence lines.

Fencing contributions from the QEII National Trust are conditional on the landowner wishing to place the reserve areas under covenant agreements. This was not a barrier to the Michaels because, as Guy explains; "if you are going to the effort to protect an area of value, it makes perfect sense to protect it for good". Over and above fencing costs, the NZ Landcare Trust has provided advice as well as funding for the purchase of 700 trees, and for chemical to help control the Elderberry infestation.

The view looking southwest over part of the mature Kamahi dominated broad-leaved bush covenant towards Toetoes Bay.



Guy and Jo are modest about their achievements, seeing ongoing weed and pest control work as part of the farm routine. In conversation, Guy prefers to focus on the benefits rather than the work involved. Many of the benefits he cites relate to a personal appreciation of nature and a desire to see the fragile native biodiversity remain a part of the farmed landscape for long into the future. In the context of this outlook, the satisfaction that the Michaels derive from seeing the areas improve over time is no surprise. They regularly take their children on wanders in the bush to look at the regeneration of understory plants such as ferns and forest lilies, or simply to watch the native birds. There are some practical benefits of fencing off

non-pasture areas of course, such as ease of stock management and the guarantee of ongoing shade and shelter. Another unforeseen outcome has been the formation of good relations with local government agencies.

A number of threatened species were identified in the forest areas including *Olearia lineata* (Small-leaved Tree Daisy), *Olearia bullata*, *Olearia laxiflora* and a green mistletoe (*Tupeia antarctica*.) The presence of these plants has added a special dimension to the bush areas.

Owing to the presence of the main watercourses that run through the farm being within the reserve areas, a free and important service that these areas provide is the maintenance of water quality. Guy sees ensuring stream health and water quality as all part of creating a viable farming

enterprise into the future. He was pleased to find that streams on the farm provide a home for eels, native Galaxid fish and Koura (freshwater Crayfish) and through plantings aims to improve their habitat whilst harnessing the nutrient filtration properties of adjacent wetlands.

The Michaels are working to a ten year plan for progressive improvements to the farm. According to the plan, the yards

will get an overhaul and pasture fertility targets are to be gradually worked upon. They aim to fence major watercourses on the property as funds and

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COMMENTS JO MICHAELS.

time permit. Alongside these investments in the core business, the biodiversity work will shift focus from protection to enhancement after one further covenant for a large area of wetland straddling Habukinini Creek is made. Biodiversity enhancement will centre on weed and pest control, but instead of looking at this as a challenge Guy sees it as a learning opportunity. For example, Guy is looking forward to experimenting with different ways to deal with gorse, perhaps eradicating smaller patches yet simply maintaining gaps in larger patches to aid the establishment of a native canopy so that it will naturally out-compete the gorse. Eventually, the Michael family would like to have the chance to share what they are creating with members of the wider community and acknowledge the support and funding from the various agencies and people involved.



This smaller wetland area is of particular value because it can be appreciated on a daily basis as it is close to the lane and house.



In the remote lower part of the farm, the smaller broad-leaved bush fragment grades naturally into a substantial wetland area that straddles the upper part of the Habukinini Creek, a tributary of the Titiroa Stream. Being on steep ground, the bush cover helps limit soil erosion and the wetlands below help filter any sediment or nutrient load in the surface water. One day the Michaels would like to build a hut in this area.