

Highlands Station – a story of economic and environmental sustainability

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Summary

Our management philosophy is to try and reduce any limiting factors so that the farm, livestock, and the people are able to reach their full sustainable potential.

This is done by:

- Monitoring fertility, pasture, stock, technologies, and markets and then adjusting management plans accordingly
- Matching the most sustainably profitable stock policies to the various land classes
- Having a good team of staff and advisors, and ensuring they have the resources and guidance to do their jobs well
- Ensuring this business makes reliable profits, some of which are used to improve the property for future generations of owners and also for environmental work, such as protecting bush and streams. As the saying goes ‘You have to be in the black to be green’.

The story

My father took up the ballot for the original title of our farm in 1932. When he arrived the farm was completely undeveloped bush and scrub. He left the bush, but gradually developed the scrub and bracken into pasture over the next 40 years. This was done mainly out of income, but near the end of development in the 1970s, development was supported by encouragement loans from the Muldoon government.

By 1995, the farm had been expanded to cover 1640 ha. Although I had come back to the farm in 1981, after 3 years at Lincoln, it wasn't until 1995 that Catherine and I were able to buy 1240 ha of the farm from the rest of the family. I was the second youngest of six in our family, so it took a while to sort this all out, and we ended up with substantial debt as a result of being as fair as possible to all family members. The incentive of a big mortgage and the desire to be good farmers resulted in us pushing ahead with further development along with changes to the farm and its management.

While our farm totals 1240 ha, only 920 ha is effective with approximately one third of pastures able to be topped (weather dependent), the balance being hill country. The property and business is managed in an environmentally and economically sustainable way such that it:

- Provides a home and economic base for ourselves and future family generations
- Remains a beautiful property to be proud of

- Provides consistently high long-term profits for at least the next 100 years
- Will be an enjoyable, safe and interesting place to work and live for all of the team and family.
Some of the things that have been done to ensure the farm's sustainability are:
- Leaving the bush on the farm untouched and retired. Some areas are now in the QE National II Trust. In total, about 25% of the farm is in retired, fenced (18 km) bush
- Removing old poplars from one of the blocks along the Wairua stream which was added to the farm in 1987. While these plantings were done with the best intentions in the 1960s by the Soil Conservation Department, they shaded the farm and provided a stock camp and pugged area adjoining the stream which is less than ideal environmentally
- With the poplars gone stock watering points on the stream were fenced off, and a water wheel was installed to reticulate water to about 200 ha at the back of the farm
- Last year a low head electric water turbine was installed to power three mains electric fence energisers adjoining the water wheel
- More than 200 dams have been built around the farm, originally for stock water but more recently to stop runoff. This sounds altruistic, but the reality is that because of the soil type the dams didn't work well for stock water. They were usually dry in the summer when stock water was needed most. However, they did stop runoff and protected tracks and fence lines below the dams, so more have been built as time permitted. In one catchment of 22 ha there are 19 dams and in a downpour of 100 mm in 4 hours during 2014, no water ran out of the bottom dam. It is worth pointing out that to be able to afford these environmental works such as dams, stream and bush retirements, and maintaining fences etc., the farm has to be profitable. The expression ‘You have to be in the black to be green’ is very true.
- Annual soil testing in the last week of September is done on the same eight transects providing an understanding of soil fertility and nutrient trends. The goal is to ensure that no nutrients are limiting grass growth, without spending any more than is absolutely necessary on fertiliser. So our management philosophy is to reduce any limiting factors on the

farm, so the livestock and people are able to reach their potential and perform to their best.

- Critical to farm management has been good subdivision to both control grass growth and give easy access for both people and stock around the farm with over 210 paddocks and about 18 km of laneways. Fencing is continuing, especially to separate different contours so cattle can occupy easier country and sheep the steeper areas.
- All facilities have been renovated, including all the houses, yards and sheds, so these now operate efficiently, and work can be done on time.
- Bulls are run in mobs of 16 to 28 and they are cell-grazed on their blocks, with 12 cells in winter and six in spring. The cells are set up with polly-wire and fibre glass rods, and in the winter there is about 90 km of this temporary fencing.
- All bulls are weighed when they are yarded for drenching etc. This monitoring has been critical to achieving targeted growth rates. Weighing and recording is not “high tech” and uses the most basic scales, pencil and waterproof paper! If it works well why change? A sample of sheep are also weighed every time they are yarded. A weigh crate was invented that takes 10 ewes or 20 lambs to make the job quick and easy, and these crates are located in all three sets of sheep yards.

The biggest asset of the business are the people who run the farm and support us. The team includes Daniel Hodson, Browyn Edwards, Kevin Kelly, Colin Mead and George Bulled. Areas of responsibility are delegated to each person and an effort is made to make the job interesting and challenging. About every 2 to 3 months the team has morning tea together and review what has gone well and what can be improved. The subjects range from altering gateways to ease stock movement, to stock numbers and policies. Will Wilson has been the farm consultant since 1990, and involvement in farm discussion groups has been of huge benefit.

Proof that the farm management is working is evidenced by the results achieved:

- *Sheep performance:* lambing percentage has increased over the last 20 years. Lambs sold from the total of ewes and hoggets wintered, and with the use of Composites and now Landcorp Romneys, has risen from 100% in 1995 to 140% in 2015. The New Zealand average lambing percentage is about 135% from ewes only – this farm ewe only percentage is

158%. Lamb weights are less impressive, but reflect summer pasture growth as much as management. In a good growth year most lambs are sold to the works, but in dry years many are sold as lighter store lambs. The sheep operation still has some potential to improve, but currently we are reducing numbers in favour of more cattle as the difference in market prices is large. Last year there were 3900 ewes and 1200 hoggets; this year about 3500 ewes and 1000 hoggets.

- *Beef production:* The main driver for farm profitability has been bull beef. Last year we wintered 830 rising 1 year bulls which were sold to the works by the end of January. In 2015, carcass weight averaged 292 kg with an average kill date of January 15th. This generated a margin over replacement of \$1168 per head. Some years up to 200 steers have been bought in late winter if there is confidence in spring grass growth. With a tough winter and another dry summer predicted no steers are being run this season.
- *Production performance:* Total meat and wool produced per ha over the last 20 years has changed with the farm development and different stock policies from 230 kg/ha in 1995 to a high of 411 kg/ha. However, at the latter production level management was stressful, and equally good profits are now made at a lower level without anywhere near as much stress. The current target is 380 kg/ha of meat and wool and this has been achieved. The national average was 125 kg/ha in 2014, so the farm is running at about three times that level.
- *Financial performance:* With changes in farm management and prices, the Economic Farm Surplus/ha over the last 20 years has gone from \$132 in 1995 to \$525 in 2014. (Note: the average for New Zealand in 2014 was \$108/ha). In 2015, \$880/ha was achieved, the best ever. The biggest change to the farm has been livestock policies. The most profitable stock for the class of land is run. So over time stock have changed from beef cows, deer, grazing heifers, sheep and bulls to breeding ewes on the steeper areas, yearling bulls on the easier country and sometimes with steers. It is no coincidence that these policies also have low environmental impact. Looking after the land so it grows as much grass as it can, and feeding that grass to animals so they grow as quickly as they can, is both profitable and environmentally sustainable.