



ADAPTING TO A CHANGING CLIMATE: CASE STUDY 6

FOCUS ON SUSTAINABILITY

A Hawke's Bay hill country farm

THE FARM

- Trelinnoe, Te Pohue, Hawke's Bay.
- 1134 hectares in total with 800 hectares effective. The balance is mostly in trees including 110 hectares in QEII Trust, and the 13 hectare Trelinnoe Park and café.
- Sheep and beef operation currently carrying 7500 stock units.
- Stock numbers vary from winter to summer.
- In February 2009, towards the end of another extended dry period, they were down to 3500 ewes, 4000 lambs, 900 hoggets, 220 breeding cows, and 400 other cattle.



THE FARMERS

- Brothers Bruce and Scott Wills are partners of Trelinnoe, which was developed by their father and uncle.
- Bruce is Chairman of the Meat & Fibre industry group of Federated Farmers.



Trelinnoe farm is run with a focus on long-term sustainability. The owners have experienced extreme weather events in recent years and are adapting to these signals, in addition to economic, market and consumer influences.

INVESTMENT IN LONG-TERM SUSTAINABILITY

Four years ago, Bruce Wills left a 20-year career in rural banking and investment to return to the family farm, Trelinnoe, where his brother Scott had been farming for 23 years.

The brothers have actively responded to signals they received from weather events, economic conditions and workloads.

It was the 2007 drought and its financial effect that triggered a dramatic change in how the brothers farmed. Contrary to the adage that "you can't be green when you're in the red", they've borrowed money in the last four years to invest in the long-term sustainability of the farm.

Their focus is now on a low cost/low input system. They concentrate on being more sustainable and give away a bit of profitability to be that way.

They've significantly reduced stock numbers, changed their pasture management regime, fenced off steep gorges, increased the number of dams, put in new access tracks, implemented a pole planting programme, and replaced culverts to deal with future flood events.

ADAPTING TO THE CLIMATE SIGNALS

Average annual rainfall at Trelinnoe is 1300mm, with wet winters, dry summers and significant variation within the year. Wind is a big factor, with westerly winds contributing significantly to dry spells and drought. Rainfall is becoming more variable. Dry periods are getting drier and wet periods more severe.

Adaptation is fundamental to Trelinnoe. Bruce says: "I think all we're doing is adapting to the signals that we're getting from the weather, as we do to price signals."

He believes there is plenty of expertise and support in Hawke's Bay to learn to adapt, such as from farm forestry, field days and the regional council.

"We've got to change the way we farm. Our customers, who we sell products to, are demanding that we farm more sustainably. I'm responding to that message, too.

"I just hope that the intelligence of farmers, along with information that has been shared, will encourage others to change. I have a real preference for education over

“The message that we’ve got to keep putting out there to farmers is that farming is not all about profitability. It’s about sustainability, it’s about risk management, it’s about all of these other things, including public and consumer perceptions.” Bruce Wills

legislation. My personal hope is that we can keep being practical and pragmatic.”

CHANGING STOCK POLICIES WITH CHANGING CONDITIONS

Up until the 2007 drought, the farm carried 10 000 stock units. Bruce admits they were pushing things to the limit.

“The lesson is that you can lose an awful lot of money dumping stock when you don’t intend to, when the weather goes against you.”

Stock numbers were reduced to 7500 after that, and ewe numbers from 6500 to 3500. They’ve since increased cattle numbers for greater flexibility and have restructured to make sure they’ve got plenty of trading stock.

MAINTAINING PASTURE COVER

The focus with pasture is fertiliser and grazing management that uses old pasture varieties that have been tried and proven in the conditions. The significant change Bruce and Scott have made is a conscious decision to keep the pasture longer.



Biodiversity and water quality has improved.

“We prefer to have a lot of top length in our pasture going into the hot summer period to shade our clover,” says Bruce.

With longer covers, the clover is less pressured, they don’t pick up worms as they used to, and pasture recovery is better after a dry period.

“It’s a different scenario if you pull out stock earlier and maintain longer covers,” says Bruce. “You have a more sustainable pasture management regime.”

The benefits of this approach were obvious during the end of the most recent summer’s dry period (2008/09). They had grass growing and options.

TREES ARE INTEGRAL

“We have to live up to expectations, do the right thing and keep planting trees,” says Bruce.

Many old trees were pollarded during the 2007 drought, and they will be more actively managed in the future to stop overgrowth that shades the grass.

Bruce has pruned many larger kanuka trees around the farm to allow more light in, but also to increase shade and erosion control. There is also an ongoing pole planting programme in erosion prone areas.

INVESTMENT IN FENCING

Fencing of gorges on Trelinnoe involved a huge time and financial commitment. Bruce and Scott put in 18km of seven-wire post-and-batten fencing around 110 hectares of gorge.

“We dug in, by hand, 3000 posts. We battened up 12 000 battens, strung out 130km of wire, and stapled 135 000 staples,” says Bruce.



The brothers also upgraded culverts to prepare for future storm events.

FOR MORE INFORMATION

- The Sustainable Farming Fund supports rural communities to achieve sustainability. A range of publications including information on *Adapting to climate change in hill country Hawke’s Bay* (project C08/022) can be found at www.maf.govt.nz

Bruce hopes the fence will last for a hundred years, but it's already brought a range of benefits. The rest of the farm has become more intensified, it's faster to move stock, and biodiversity and water quality has improved.

UPGRADING OF INFRASTRUCTURE AND WATER

The focus on water has been to build on existing resources. To achieve this, 40 new dams have been dug and shade trees planted to keep water cooler and reduce evapotranspiration.

In addition, 12km of access tracks have been put in. During another dry period, the brothers began upgrading culverts to prepare for future storm events.

SUSTAINABILITY AND PROFITABILITY

Bruce used to think he had to be profitable to be green, but he's recently come to the conclusion that it's all a matter of degree.

"I'm here as a temporary custodian of this property. It's probably rather an old, trite statement, but if I can leave this place in a better state than I found it, then I'll go to my grave a happy man."

EDUCATING THE WIDER COMMUNITY

Bruce is passionate about educating the wider community, especially those in urban areas, about the efforts undertaken in rural areas to protect the environment. A café and garden on Trelinnoe attracts 3000 to 5000 people a year and provides an opportunity for the public to see the farm's focus on environmental sustainability.

Bruce enjoys showing people around the farm and takes immense satisfaction in seeing people's reactions to what they've done.

"I think we need to do so much more of this sort of thing. If I come back to cold hard profitability, we would close the café down, but we do it for important reasons. It showcases something that our parents spent a lifetime creating and it's a wonderful opportunity for people to come and see that here are some farmers taking care of the environment."

THIS IS ONE IN A SERIES OF CASE STUDIES CALLED ADAPTING TO A CHANGING CLIMATE

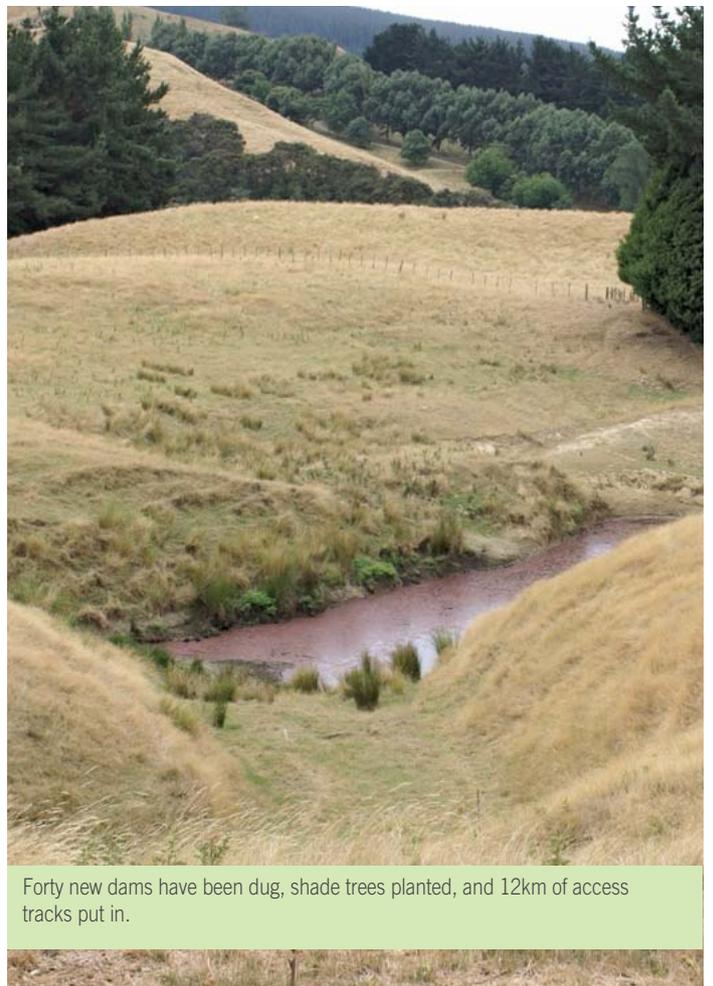
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Key points

- 1** The 2007 drought was one factor that triggered a dramatic change in the management of Trelinnoe farm.
- 2** The farm owners concentrate on being more sustainable, which sometimes means giving away some profitability.
- 3** Significant changes have been made to stock policies and pasture management: less stock, a new sheep breed and sheep/cattle ratio, more trading stock, longer pasture during dry summer periods.
- 4** Changes to stock and pasture management were supported by huge investments in fencing and infrastructure development.
- 5** Educating people who live in the city about sustainable farming is important.
- 6** Adaptation is fundamental. Trelinnoe is farmed with a long-term view to prepare for change.



Forty new dams have been dug, shade trees planted, and 12km of access tracks put in.

