

CASE STUDY: RAKAIA INCORPORATION

Maori farming award winners rely on irrigation

Janine Holland meets the people behind the Maori Incorporation using water to their advantage.

The winners of 2016's Ahuwhenua Trophy for Maori excellence in farming say they wouldn't be where they are today without water.

"Our management committee has always been for irrigation. It's a necessity isn't it?" says Chairman of the Rakaia Incorporation, James Russell.

Rakaia Incorporation claimed the 2016 award for their management of Tahu a Tao farm, 8km from the Rakaia River mouth on the Canterbury Plains.

It was the first time a South Island dairy farm had won the prestigious award for Maori agriculture in its 83-year history.

"Just to get to the finals was an achievement. The judging was pretty tough," says James.

Farm advisor John Donkers confirms this. "It came as a huge surprise to them to win, especially as Ngai Tahu was also a finalist."

Tahu a Tao farm comprises 216 hectares at Dorie in Mid Canterbury. Milking 820 cows targeting 360,000 kgMS, Julie and Mark Cressey are Rakaia Incorporation's 50:50 sharemilkers in their ninth season. Annual rainfall on the farm is only 650mm so irrigation is crucial in this dry part of the Plains. Water is sourced from groundwater and the property's reliable soils are ideal for irrigating.

Rakaia Incorporation represents the interests of the owners of this piece of Maori Reserve land whose origins date back to 1886 as part of the Crown's negotiations with Ngai Tahu for the purchase of Canterbury.

When Rakaia Incorporation took the land over from a previous leasee in 1994, they were faced with its unimproved value, says John.

"They basically got a bare block of land which barely had a boundary fence around it. It really started from scratch as a bare bone farm. Rabbits had to bring their own lunch, it was really dry this land. All of this land east of Rakaia is very dry. It wouldn't exist without water."

When the farm was converted to dairying in 1996, Rakaia Incorporation invested in rotorainers to distribute water from two wells. At the time centre pivots were relatively new and very expensive and the long, narrow property lent itself to rotorainers, says John.



Mark Cressey, James Russell and John Donkers with the 2016 Ahuwhenua Trophy.

The property is not a great shape. It's mostly 3000m wide by 1000m long so we have 33 irrigation runs."

Recognising the limitations of rotorainers, sharemilker Mark and farm adviser John have worked together with Rakaia Incorporation to improve system delivery where possible.

"We're now much more focused on metering our takes. Aquaflex soil moisture monitoring was put on five to six years ago and we use that throughout the season to make irrigation decisions. We're just in the process of calibrating it to better determine our soil moisture status," says John.

"Our original design was three rotorainers on 11 to 12 day runs. Two years ago we bought a fourth irrigator and reduced our runs to eight to nine days. This has made a huge difference. We grow more grass for the same amount of water. We're getting close to the production output of a pivot," he says.

SMART

CASE STUDY: RAKAIA INCORPORATION (CONTINUED)



Mark says the soil moisture monitoring really comes into its own during the shoulder seasons.

"It's very useful in spring and autumn telling us when to consider starting and finishing the season. During rainfall events it tells us if the irrigators can put on less water. Then we might run them only for 14 to 16 hours rather than 24 hours a day," says Mark.

With the conversion designed for rotorainers, the focus now is on streamlining the operation and ensuring water goes further.

"We split the farm into quadrants and the rotorainers sort of chase each other so we're not wasting too much time chasing irrigators. When we put on the extra one we nozzle them back so we're not putting on any more water and we're using less than our allocation. We knew we needed to upgrade because we had periods in January and February where we struggled to grow grass. Now we've got no drop-off that period; pasture growth keeps going because we've never gone under the refill point. We keep the soil moist," says Mark.

James says it's reinforced to the farm's owners, Rakaia Incorporated, the value of good water management.

"When we talked about it at the committee meeting, we didn't necessarily think an extra rotorainer would have the impact it has had. I don't think there's much more we could do to be more efficient."

John agrees. "We've learnt how to be quite efficient with our rotorainers."

Other strategies the management team use to optimise water include growing fodder beet.

"Fodder beet's requirement for water seems to be less than for pasture. We don't water it anywhere near as much," says Mark.

Growing crops that soak up nitrate during the winter months also assists with the farm's environmental requirements.

"This farm will need a consent to farm under the Canterbury Land and Water Plan. We've done our Farm Environment Plan and have used OVERSEER for years, for phd levels initially, but now we're trying to be more precise," says John.

"The major reason now we need to be efficient with our water use here is the cross over with nutrient efficiency."

WHO IS RAKAIA INCORPORATED?

The Incorporation's roots date back to 1886. The land was originally set aside as one of 16 blocks of Maori reserve land known collectively as Rakaia 2058. In the early years the land was leased out to local crop farmers by Maori Affairs. Over the past 50 years, 14 of the original 16 blocks have been sold and Tahu a Tao is the only block whose owners have developed a viable dairy unit. Today, the financial results of Rakaia Incorporation have enabled a second farm to be bought, Pahau in the Amuri Basin.

Acquiring, enhancing and achieving sustainable returns from their land is a significant strategy for this group of Maori land-owners. Land and the produce generated from it enhances the mana of shareholders. A long held vision is to own one farm for each of the original 27 owners identified in 1886.

"Rakaia Incorporation has aspirations to own and run 27 farm as 27 is the number of original families that were part of the incorporation. What we have said is they don't have to be dairy farms; they could be mussel farms, high country farms, as long as it's got the word farm attached to it," says James.

John Donkers says the Rakaia Incorporation story is a compelling one.

"For other Maori incorporations, who want to find their feet in farming, the model they have developed is a good one. It could be very helpful to other incorporations who are taking back the running of their land, to learn from these guys."

"I have always felt what the incorporation has done is a great little story. There's a lot of negative stories about Maori and these guys have been very successful over the last 20 years in farming. The Ahuwhenua Trophy gives them great opportunity to tell their story."

For their 300 shareholders, James says winning the award means they have recognition on a national scale that their farming efforts are delivering results.

"It's huge. We haven't really got into promoting it yet but we should."

Rakaia Incorporation's win is the first time a dairy farm from the South Island has taken out the title and is believed to be one of the first fully-irrigated properties to win the award.

In the past ten years, they have made a profit of \$6.5 million and paid out over \$2 million to shareholders.