

CARBON NEUTRAL DIPTON

NEWSLETTER
MAY 2023

The Greater Dipton Catchment Group are part way through an exciting community project, and we wanted to share an update.

Our Catchment Group is made up of local farmers and community members and we've been brainstorming ideas to turn into action. We decided that although Dipton might be small, we are mighty – and want to become **CARBON NEUTRAL DIPTON**. This project is all about us doing the hard yards to make our fellow catchment farmers' lives easy.

We're working with five farmers, each with some buddies (neighbours and community members who share and learn at the farm sessions). These farmers, and their buddies, are brainstorming exciting ways to reduce GHG emissions on their farms. They are from all types of farming backgrounds so there is something for everyone.

Over the past few months, the farmers have been working with consultants to model and evaluate the different ideas.

This newsletter provides an update on what's been happening with the project, and what's in the pipeline. We'd love you to join us on our adventure to see if small changes on-farm can make big differences to our emissions.

THE NUTS AND BOLTS OF THE PROJECT

Project organisers » **Greater Dipton Catchment Group**

Project » **Greenhouse Gas Reduction & Sequestration Journey**

Funding » **\$92,080** excl GST (funded via Thriving Southland by MPI)

Period » **November 2022 to May 2023**

Introducing the Five Case Study Farmers

JOHN AND CLARE OFFICER

Offrey Farms was established as a sharemilking business in 2007 by John and Clare Officer.

Ronaki is a 151ha dairy farm currently run in conjunction with two adjacent lease blocks of 100ha and 16ha respectively. They milk 460 cows on a 170ha platform, with the remainder used as an extended platform during the shoulders of the season for silage and young stock. They have a System 4 dairy operation, utilising in-shed feeding, and silage and fodderbeet feed in the shoulders of the season.



In 2018, the Officers purchased a 186ha (160ha effective) runoff block just south of Dipton known as Ben Esk. This has been used for wintering cows, rearing beef stock and growing silage. Stock are wintered on fodderbeet, kale and grass. There are two small unmanaged forestry blocks on the property, native shelterbelts and some unproductive gullies.

“We are excited to be part of this project with the Catchment Group, and learn more about the forestry side of things and the ETS as we have existing blocks of trees on the runoff block that we have been unsure of what to do with. We’re also excited to work with our buddy group as having fellow farmers involved and brainstorming always brings up new ideas” – John & Clare Officer

BRIAN AND KRISTINE RUSSELL

Russell Farms Ltd is owned and operated by Brian and Kristine Russell, alongside their children, Adine, Hamish and Natalie.

The Russell’s own an 845ha sheep and beef property located at Castle Downs. Running 4200 Romney ewes with a goal of 150% lambing, approximately 6200 lambs to 17-19kg CW. A mixed beef system of 150 beef cows and 30 replacement heifers, alongside 283 steer calves destined for 5-star beef at Ashburton (at 500-550kg LW).



The property has a mix of contour, with 565ha of developed flat, some steep country and a further 145ha undeveloped hill. The property also has some forestry, 40ha existing with 75ha planted in Douglas Fir in 2022, and a further 40ha to be planted this year. Most of the planting has occurred in areas where gorse is difficult to control or is too steep or rocky to cultivate.

Utilising crops for winter feed, 35ha is direct drilled with swedes, 15ha second crop kale and a similar area into young grass annually.

“Being part of this project allows us to explore some of the opportunities that exist to find some answers with credibility. This will give ourselves and the wider community a variety of options to combat on-farm GHG emissions that suit our own individual properties” – Brian and Kristine Russell

READ MORE AT: www.facebook.com/CarbonNeutralDiptonNZ



CHRIS AND CHARLEEN WITHY

Chris and Charleen Withy moved to Southland 22-years ago to start a 650 cow, 50/50 sharemilking position near Taringatura Camp. Since then the couple have expanded both their family and farming business in the Dipton District.

Trading as South Fields Ltd, the Withy's now own a 156ha dairy farm (143ha effective) located at Benmore Kauana Road. The farm was purchased by the Withy's 13 years ago, having previously been involved in an equity partnership on the property alongside a 650-cow farm.



The Withy's currently milk 440 Friesian cross cows. The majority of the herd are wintered off, keeping approx. 70 MA cows back home on fodderbeet. They aim to rear 25% replacement heifer calves, and these leave the dairy farm over December each year for grazing, returning as incalf heifers.

The farm has three different soil types (almost 60% are Lumsden soils). All are poorly drained soils and can be easily compacted, meaning they need to be carefully managed, particularly in the spring. The property also has a hectare of pine trees where springing cows can be stood off when wet. An effluent management system controls the spreading of effluent over 58ha via low rate irrigation pods. The dairy shed is 36-aside herringbone, with in-shed feeding.

“We were keen to be a part of this project to gain a better understanding of GHG's within farming and exploring solutions to reduce our emissions while still having a profitable farming business. We also believe it's a great way to build knowledge of this topic within our local community and be helpful for local farmers” – Chris and Charleen Withy

TONY AND RAYLEEN DUNNAGE

Tony and Rayleen are Sheep and Beef farmers at Dipton West. They farm a beautiful 320ha property which is predominantly flat with 10% rolling hill.

Tony and Rayleen initially leased the farm from Tony's family, before purchasing gradually over their farming career. Three years ago, the couple added an 80ha lease block to their operation. Tony and Raylene farm the two properties themselves without staff.



The property has over 10km of mature shelterbelts with the Dipton Stream running through the property and sits on Pukemaori soils. The lease farm has some areas of native tussock land.

They run a predominantly sheep breeding operation with some finishing. Currently running 2,900 breeding ewes and 800 replacement hoggets which are mated. With a target lambing of 140%, the Dunnage's currently finish roughly 50% of lambs, adjusting the number of lambs sold store as the season dictates. 50 yearling cattle are purchased in December and finished, selling 18-20 months later. Sheep are wintered on a direct drilled kale crop. This is then second cropped before being sown into permanent pasture.

Caring for the Dipton Stream and its water quality is a key priority for Tony and Rayleen. As part of this project, they are excited to learn more about what they can do for the health of their waterways and also investigate other opportunities that may be available for their farming practice.

READ MORE AT: www.facebook.com/CarbonNeutralDiptonNZ



THE STEWART FAMILY

Glenrannoch Farms is a sheep and beef farm located on Bryce Road, Dipton. The farm is owned by Chris and Serra Stewart and has been in the family for around 85 years and three generations.

The farm is 625ha, of which approx 590ha is effective and is currently running 4900 Perendale breeding ewes and 1100 replacement hoggets. Typically the farm is lambing 135%. In a normal year, non-replacement lambs are finished through summer and autumn with a CW of 17-18kg. Alongside the sheep flock, the Stewarts trade 50-100 R2 beef cattle.



Glenrannoch Farms bounds significant waterways; the Oreti River at the bottom and Winton Stream at the top. The Farm has multiple different classes of land from alluvial river plains near the Oreti, rolling country through the middle and some steeper hills and faces.

The farm has approx 15ha of mature pines and a further 30-40ha of steep scrub/gorse country, as well as smaller gullies throughout the property.

In recent years Glenrannoch Farms has been trialing mixed species winter crops in an effort to improve animal, water and soil health. This has seen things such as ryecorn/clovers/annual grasses/sunflowers/plantain/vetch planted with kale and swedes. These provide animals with feed variety, provide a catch crop growing back in spring and add organic material into the soil.

“We are most excited to see how changes to farming systems could impact GHG emissions and how these changes could impact farm profitability. It will be great to have more knowledge around this issue to have more fact based discussions with other farmers and members of the community around what mitigations might be worth implementing.”

What's been happening?

CONSULTANT REVIEWS IN JANUARY AND FEBRUARY

Both the farm and forestry consultants met individually with the five case study farms to understand their farming operation and prepare their baseline consultants reports.

Forestry consultant, Don Frengley, also considered opportunities for utilising trees within current farming operation and what areas may be suitable for planting, what the financial returns could look like and the overall ability to integrate forestry into their business.

Chris Beatson from Agrimagic reviewed the current farming operation, utilising modelling technology including overseer and farmax to model the current farm emissions and categorise these into methane, nitrogen dioxide and carbon dioxide greenhouse gas emissions.

All farmers have their reports and have been discussing the findings alongside their buddies.

OFFICIAL PROJECT LAUNCH ON 14 MARCH

Over 50 people gathered at the Dipton Golf Club for the launch of Carbon Neutral Dipton, the Group's biggest project to date.

Catchment Group Co-chairs Lynden Prebble and Clare Officer provided an overview of the project, Agrimagic farm consultant, Chris Beatson, spoke about how to mitigate greenhouse gases and forestry consultant, Don Frenghley, talked about using forestry to lower carbon emissions.

Four of the five case study farmers introduced their farming business' and discussed their involvement in the project.



CHATTING ABOUT THE SCIENCE ON 29 MARCH

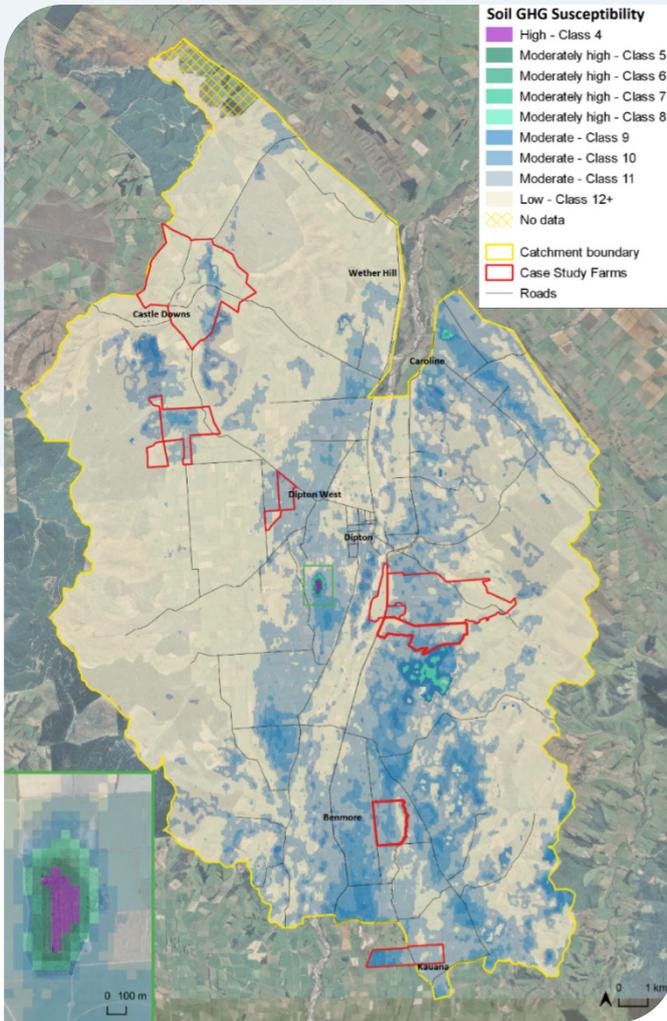
Dr. Ant Roberts, Ravensdown's Chief Scientific Officer, met the case study farmers and some of their buddies at the Dipton fire station.

The group discussed various mitigation options, when new mitigations might be available and quick wins the teams could consider. This included tightening up and evaluating all aspects of their farm systems, which has been shown to be very effective (10-12%) in reducing emissions.



LAND AND WATER SCIENCE MAPPING

Land and Water Science have used some of their amazing data to create fantastic maps of our catchment and case study farms showing where wetlands may have existed. They have created a short video that describes the catchment wide map and what it shows.



BUDDY FARMER DISCUSSIONS FROM FEBRUARY TO APRIL

All of the five case study farmers and their buddies have met on-farm to discuss the reports and the current emissions profiles of the case study farms.

The buddy groups have been working with the case farmers to decide what mitigation options may be available and are working with the consultants to review the change in emissions profiles if these mitigations were implemented on farm.



SHOWCASING CARBON NEUTRAL DIPTON AT THRIVING SOUTHLAND BREAKFAST ON 20 APRIL

Committee member and case study farmer Charleen Withy spoke to a Thriving Southland Stakeholders breakfast in Invercargill about the project. She provided an overview of the project and next steps for the committee and farmers.



CASE STUDY AND BUDDY FARMER GROUP MEETING

On 4 May, the case study farmers and the project committee were joined by the buddy farmers for a meeting and BBQ at the Dipton Golf club.

This was an opportunity for the buddy farmers to get an update on the projects progress and to review the farm mitigations that are currently being modelled for the five case study farmers. The current mitigations were discussed at length with new ideas to be considered by the consultants for further modelling.

They also heard from Toha and Calm the Farm, two groups currently working to support farmers to generate income from regenerating actions being taken on their land.

Dr Clint Rissman from Land and Water Science also joined the meeting and presented the mapping data, discussing the soil GHG profiles of the Greater Dipton Catchment, and how these maps can be best used and applied on farm.





Next steps for the project

The Consultants will be preparing their final reports with the confirmed mitigations which will be presented back to farmers and their buddy farmers.

From May, the Project concludes with a community Field Day in June, where the results will be shared. We hope to carry on the great media coverage the project has had!

From July, the Committee will consider further opportunities so watch this space!

We got into the media

- » The Southland catchment group working to make Dipton farms carbon neutral | [Stuff.co.nz](https://www.stuff.co.nz)
- » Midday Rural News for 17 March 2023 | [RNZ](https://www.rnz.co.nz)
- » Leading the way to be the first carbon neutral town in Aotearoa | [RNZ](https://www.rnz.co.nz)

Thanks for reading about our project and we look forward to seeing you at our June Field Day. Follow us on [Facebook](#) or the [Thriving Southland website](#) to find out details. For more info contact group co-chairs Lynden Prebble and Clare Officer or project manager Alexis Wadworth.

READ MORE AT: www.facebook.com/CarbonNeutralDiptonNZ

