

HE PANUI

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Tēnā koutou e te whanau

This year Te Uranga B2 Inc. is embarking on 3 major ecological studies that will help us discover how well we're already doing and what we still need to do to become environmentally friendly land owners.

1. In our last panui we mentioned the native biodiversity study that began on 5 February looking into how our sheep and beef farm is affecting the native animal and plant life on Upoko.
2. The pine forest on Ue Pango will be harvested in about 6 years and we're researching the best way to reforest the block – manuka, domestic natives and pinus radiata.
3. Like all dairy, sheep and beef farms our animals help contribute to the emission of greenhouse gases. Owing to our diverse farm operations our farm is ideally set up for yet another study; that is to measure our greenhouse gas emission against our riparian and manuka planting, pine forest and Nga Whenua Rahui blocks that absorb carbon dioxide, one of the greenhouse gases. (See article provided by Tanira Kingi.)

What studies Te Uranga B2 has in place now, will for the coming generations, be used to ensure a strong economic future from a healthy and balanced land use.

Nga mihi nui, Derek Kotuku Wooster, Chairman

A summer of extremes.

If nothing else the last four months have taught us to never to try and predict what the weather will do. After an extremely wet spring, December became the month when the rain forgot to fall and the 29mm of rain (just 16% of normal) caused as bit of a rethink in the farm plans. Getting into January and the rest of summer and we have just had the hottest summer on record with an average temperature of 18.8 degrees. What has

accompanied this has been the humidity and the rainfall to boot. Conditions that have made it hard to plan a camping trip or sleep at night have been conditions great for growing grass and we have seen a stellar recovery on farm – and productively we are planning on making up for some of the ground lost in the spring!

This type of weather pattern does bring its challenges however and one of these was the hot dry conditions in December which caused an increase in cases of viral pneumonia which slows the growth in the lambs on Upoko – this was largely caused by heat stress and dusty conditions on farm. The joys of farming!

The challenges to the industry come thick and fast and the dairy industry is now waiting to hear from the monitoring being undertaken by dairy companies to see how widespread the disease Mycoplasma Bovis is around the country. This is a disease that was never in the country until last year and causes health issues in cattle. It was detected in a herd in the South Island but has now been detected in the North Island. When there were just a few cows affected these were culled but if it is found that it is more widespread the country will have yet another disease to deal with – it will be manageable but will be “just another thing”.

This all just goes to show you never really know what is in store and we must always remain vigilant and plan well.

Darren McNae, Agribusiness Advisor

Education Grants and Scholarships are now open

Our annual education grants and scholarships round is now open. Applications close at the end of June. We have three pools of funding available:

(1) \$100 early childhood education grants, (2) \$100 school grants, and (3) up to five tertiary scholarships of approximately \$1000, depending on the quantity and quality of applications. The criteria and conditions for these scholarships can be found on our website and on the application forms. You can either apply electronically from our website, or request application forms from Carla Benefield at Peak Accountants (07 895 3013).

Relationship with Victoria University

We are exploring a relationship with Victoria University in Wellington to increase scholarship funding available for students studying at Victoria University (only). While these are only discussions, we encourage any of our eligible owners or their whānau who are studying at Victoria University this year to make sure that they apply for our tertiary scholarship.

Young Animators Workshop

We are also exploring an opportunity to run an animation workshop for rangatahi (8-17 years of age) in June or July of this year in Taumarunui. Young Animators aims to teach rangatahi the basic principles of hand-drawn 2D, stop motion and 3D animation. The workshop runs for two days from 9am-3pm each day. All resources are provided, and there is ongoing support for rangatahi post-workshop. The workshop is run by Nikora Ngaropo, who is an experienced animator that has worked for Weta Workshop, Te Wānanga o Aotearoa; and has worked on major films such as BFG, Avatar, Iron Man 3 and The Jungle Book. We are seeking expressions of interest if you have any rangatahi in your whānau who might be interested in attending a two-day workshop in Taumarunui. The rangatahi must be an owner or a descendent of an owner, must be able to attend a workshop in Taumarunui and if they are from out of town, have access to accommodation during the workshop. If you know of someone who might be interested, please visit our Facebook page where you can fill in the expression of interest

form or contact Carla Benefield at Peak Accountants (07 895 3013). More information about Young Animators can also be found on our Facebook page.

Jonathon Kilgour, Committee of Management

Shareholder's Field Day – SATURDAY 14 APRIL 2018 – inspect 2017 manuka planting – help plant native seedlings around the new Koromiko effluent pond and have a look at Upoko's new woolshed.

**Meet at Nga Kōhatu at 10.00 am
SATURDAY 14 APRIL**

Packed lunch provided – so we know how many lunches to make please [Text 021 654 044](tel:021654044) or email derekwooster@outlook.com saying how many will be attending before Wednesday 11 April.

Reducing Greenhouse Gas Emissions (GHG) on Māori-owned Farms

Scion, in partnership with AgFirst, are undertaking a research programme funded by the New Zealand Agricultural Greenhouse Gas Research Centre (NZAGRC) looking at GHG mitigation options for Māori-owned pastoral farms.

The research programme is led by Dr Tanira Kingi (Scion) based in Rotorua, and managed by Phil Journeaux (AgFirst) out of their Hamilton office. In December 2017, the new government outlined the process to introduce the Zero Carbon Bill to Parliament in 2018.

The Bill will lay the framework for New Zealand to meet its 2050 target to be carbon neutral (zero net carbon emissions). The consequence of this legislation is that agricultural producers will need to reduce their GHG emissions or face heavy carbon tax penalties. Farmers can do this by improving their farming practices e.g. lower stocking rates and lower fertiliser inputs, but they will also need to diversify into land uses that produce lower carbon emissions or that store carbon e.g. forestry.

This research is aimed at understanding how diversified Māori farms like Te Uranga B2 can improve their carbon profile further with changes to the management system and land use diversification. The programme will develop a carbon and economic profile of the current operation of the incorporation's dairy, sheep & beef and forestry operations and then model hypothetical changes that the Committee of Management want to explore, to see the affect on carbon emissions and profitability.

The programme is collaborating with DairyNZ, B+LNZ, Federation of Māori Authorities and Te Tumu Paeroa to share the findings with the wider agribusiness community.

While this study is carried out on Māori-owned farms, it is the first research programme in the country that is modelling both farm management mitigation options and land use changes and is therefore relevant to New Zealand's entire agricultural industry.

For more information contact:

Dr Tanira Kingi tanira.kingi@scionresearch.com

Maniapoto Maori Trust Board & Maniapoto Fisheries Trust Hui a Tau.

Te Rā: Sunday 18th March 2018

Kei: Rereamanu Marae, Hangatiki

Te Wā: 9.30am

Farming & Nature Conservation on Te Uranga B2 - Upoko

Sheep and beef farms comprise just over 40% of



New Zealand's total land area and are an essential part of both our economy and culture. They are often situated in lowlands where there is little

public conservation land (national parks and reserves), and are home to many rare, threatened and taonga species. Because of this there is a fantastic opportunity to work with farmers throughout Aotearoa towards a common goal: find ways to increase native biodiversity on our farms that also benefits the farm as a business. To accomplish this goal, *Farming & Nature Conservation* is bringing together biological scientists, social scientists, iwi, farmers and local communities throughout the country.

We are asking: what do farmers think of biodiversity and conservation, and what are the incentives or obstacles associated with this? What are the costs and benefits of maintaining and improving native biodiversity? We are looking at how the spatial arrangement of habitat across the farm affects the function of biodiversity. Finally, we will be modelling ecological processes, land use change and management decisions with the aim of being able to predict future change in native biodiversity.

For Te Uranga B2 - Upoko - this means that we are working closely with staff and committee members. By combining contemporary science with Kaupapa Māori we can obtain a holistic view of the native biodiversity on the farm. Horizons Regional Council are very supportive of our research and we are looking forward to working with them in the future regarding how the farm fits into the wider landscape.

On the ground there is plenty of work to be done! For the first two weeks of February we had five ecologists out and about; all with different areas of expertise. The biggest task by far was mapping the native vegetation across the 1445ha of the sheep and beef farm. This took the entire two weeks and once we had started we quickly realized this farm was something special. There are many pockets of biodiversity, hidden away at the top of steep hills or at the bottom of valleys.

Some of the abundant species like rautahi (*Carex geminata*) are providing a quick snack for the



stock while maintaining healthy population sizes. Other species, like tōtara, are not so palatable and have therefore grown extensively over the farm, providing habitat for many native birds, shade in which other native plants can grow and of course great shelter for the stock.

Large trees provide shelter for the stock from both



the sun and rain

In the first week of February Anoek, a Bachelor of Science intern from the Netherlands, conducted five-minute bird counts in different habitat types around the farm with the aim of comparing how the different vegetation affects the species of birds present. Her data is still being processed but she did hear many native birds including ngirungiru/miomiro/tomtit, riroriro/grey warbler, tūi, kererū and koekoeā/long-tailed cuckoo. Koekoeā spend winter on smaller Pacific islands near the Phillipines but migrate to New Zealand to breed in summer. They are famous for laying their eggs in the nests of other birds like riorio and leaving them to raise the chicks.

The whole team was involved in setting up the first of our “Tier 1” plots. These are replicates of the nation-wide monitoring protocol the Department of Conservation uses to monitor vegetation on public conservation land. We will be setting up nine permanent plots in different habitat types around the farm and permanently marking them, so Te Uranga B2 Incorporation can compare the native vegetation and coarse woody debris that there is there now, with what is there in the future.

The plots are 20m x 20m and within this we measure and tag large trees (more than 135cm) - both standing and fallen. We also record all the understory species (less than 135cm) down to the tiniest kahikatea seedling. Taking soil samples allows us to analyse the nutrient content and see how the vegetation affects the soil, and vice versa. Chloé Mathieu (PhD candidate) and Johanna Spaak (research assistant) from Auckland University of Technology take a good look at the seedlings growing under large tōtara trees in our first Tier 1 plot.

We managed to get a lot done in our two weeks on Upoko, but there are many more boxes to tick! We will hopefully be back on the farm sometime around April to continue finding out about this unique piece of land.

Stacey Bryan, Research Assistant | [Farming & Nature Conservation](#), University of Canterbury Christchurch

FIELD DAY – SATURDAY 14 APRIL

MEET AT NGA KŌHATU AT 10.00 AM

Text 021 654 044 or email

derekwooster@outlook.com to say how many of you are coming so we know how many lunches to make.

Comments and contributions welcome

Derek Wooster - 021654044

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[Facebook Te Uranga B2](#)

