

# Inside Dairy

May 2018

Your levy in action

## STORM PROVIDES ENVIRONMENTAL EPIPHANY



**Achieving water quality**

Efforts nationally and regionally

**The new season**

Setting goals and shifting gear

**DairyNZ**



## over the fence...

I'm pleased to report that the public favourability of dairying is continuing to grow. DairyNZ's surveys in February and March show 62 percent (nearly two-thirds) of the public have a favourable impression of dairy. This is an exciting result and means we, collectively, have achieved a five percent increase since July last year. It's all credit to the many of you who've been engaging with your community, sharing your stories with friends, family, social media and the media. Thank you to those who have helped – it's having an impact. It's also a positive signal that industry and DairyNZ's work to improve perceptions is making a difference.

These surveys also tell us that, although most people think good things about dairying, they still believe we're not doing enough to protect our environment. For most farmers, we know this just isn't true.

In this issue of *Inside Dairy*, we explore the huge range of environmental initiatives happening on farms throughout New Zealand. We start with Jared and Sue Watson's inspirational story about recovering from the big storms of 2004 and adapting their farming practices for resilience and environmental sustainability.

We hear about regional limit-setting, the science behind wetlands and riparian buffers, and a host of examples of technology and innovation – as well as plain old-fashioned hard work planting and fencing on farms.

In the insert with this issue, you'll read about the work we've been doing for climate change. The new government's increased focus on climate change commitments mirrors our own focus – and our Dairy Action Plan for Climate Change (DACC), launched a year ago, set the scene for dairy's leadership in this space.

Finally, check out the great events coming up through May and June in your region.

As always, I really appreciate your feedback, so please feel free to email me at [tim.mackle@ceo.dairynz.co.nz](mailto:tim.mackle@ceo.dairynz.co.nz)

**Tim Mackle**  
Chief executive  
DairyNZ



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On the cover: Bay of Plenty farmer Jared Watson (centre on cover) with farm owner Kent Watson (left) and herd manager Richard Lowe (right): rethinking his farm system, its environment and his farming expectations. The trio are seen here preparing to plant out flowering irises.

## TAKE 5... TIPS FOR FARMERS

### 1. Prepare stock for transport



Are your cows ready for transport? Download our checklist for transporting cows, and other transporting stock resources, to ensure a comfortable and safe journey for cattle. Visit [dairynz.co.nz/transporting-stock](http://dairynz.co.nz/transporting-stock)

### 2. Update on climate work

We're nearing the 12-month milestone for the Dairy Action for Climate Change (DACC). To see what DairyNZ and you have achieved in that time, and what we have planned over the next few months, check out the DACC insert with this magazine.

### 3. Pasture summit



Two pasture summits, themed 'Growing Dairy's Future' will be held on November 26-27 in the North Island and November 29-30 in the South Island. Organised and run by farmers, with support from DairyNZ, these are a must for those wanting to lift their business profitability in an increasingly challenging and competitive environment. Visit [pasturesummit.co.nz](http://pasturesummit.co.nz)

### 4. Farmers as landlords

A quick reminder: farmers providing staff accommodation are subject to the same rules as other landlords, with a couple of exceptions. That means you need a written service tenancy agreement even if the tenant doesn't pay rent. Check [tenancy.govt.nz](http://tenancy.govt.nz) for details.

### 5. Lifestyle choices



Want to chat with other farmers about creating profitable businesses that put people first and bring the joy back into farming? Follow Millennium Farming (funded in part by DairyNZ through the levy) on Facebook and be inspired by others who are progressive and positive about the future of dairy and its people. Visit [facebook.com/TheY2KFarmer](https://facebook.com/TheY2KFarmer) or [millenniumfarming.co.nz](http://millenniumfarming.co.nz)

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#### We appreciate your feedback

Email [insidedairy@dairynz.co.nz](mailto:insidedairy@dairynz.co.nz) or call us on 0800 4 DairyNZ (0800 4 324 7969). Alternatively, post to: Inside Dairy, Private Bag 3221, Hamilton 3240. For information on DairyNZ visit [dairynz.co.nz](http://dairynz.co.nz).

# SILVER LINING IN STORM'S DEVASTATION





Jared (right), checking the quality of his lucerne pasture with farmer owner (and his dad), Kent: "We've seen more robust, palatable pastures develop with better organic matter levels within the topsoil."

The intense and dire storm system that hit the eastern Bay of Plenty back in July 2004 devastated parts of the region, including the coastal region of Opotiki and Whakatane. The region was saturated by hundreds of millimetres of rainfall in the one in 100 year event, with hundreds evacuated and, sadly, two people killed.

But the same storm was also the catalyst to prompt Opotiki sharemilkers Jared and Sue Watson in the Waioatahe Valley to seriously reconsider their farm system, the environment they operated in and their own farming expectations.

The couple were only in year two sharemilking on Jared's parents' property in the picturesque valley 20 kilometres south east of Whakatane when the storm struck.

"We ended up having to truck three unit-loads of cows off the property, with 60 percent of the farm covered in about 20 centimetres of river silt and completely un-grazeable," says Jared.

"We had also just had our first child, so it was a pretty intense and stressful time for all of us."

### **Setting the scene for change**

While a relatively small catchment, the Waioatahe area can be assaulted by significant rainfall events that pass neighbouring districts by, with river flat properties like the Watson's particularly vulnerable downstream of the small, steep catchment.

"We had wonderful support from people who looked after our cows. But that storm was a bit of a wake-up call, causing me to have something of an epiphany about how we were farming, and how we should look to farm into the future."

It came at a time when the sector was collectively pushing hard for production and growth.

Jared says as young, keen sharemilkers they were no exception milking 360 cows on 103 hectare (ha)

Jared and the Waioatahe Water Care Group are leveraging off DairyNZ and regional council resources to improve riparian plantings and water quality in the district.



“We had very good production at 480kg MS a cow and were stocked at 3.5 cows a hectare. There was very little flex in the system for when events like that came along, and not a lot to spare to help you cope with those events.”

supported by significant volumes of palm kernel, nitrogen inputs and a feed pad.

“We had very good production at 480kg MS a cow and were stocked at 3.5 cows a hectare. There was very little flex in the system for when events like that came along, and not a lot to spare to help you cope with those events.”

“We realised, and had been told, these events were going to be more frequent and more intense. We needed a farming system that was gentler upon the environment, and could handle the inevitable impacts these events would bring.”

Almost by default, they were forced to opt for a system change to adapt to the storm’s impact upon the farm, but also

one that has now become an integral part of their management – once a day milking (OAD).

### **Taking stock**

“We had the younger cows and heifers left on the farm, and to take the pressure off them went OAD pre-mating. We found that when the older cows came back after the flood and silt had gone, they did not look as good as the younger ones, submission rates at mating had also been lower.”

They had also appreciated on a personal level the flexibility OAD had given them at a particularly stressful time, and decided to stick with it as a post-Christmas practice.

“We knew at the time our ability to continue to access it via the river was going to be limited and it’s far better to deal with that change before it becomes compulsory.”

“This was just the start of being given the opportunity to think ahead about the entire system and whether we wanted to stay pushing hard for every kilogram of milk solid production in a pretty conventional system, with an approach that did not feel that sustainable on a personal or environmental level.”

At about the same time, they had entered in the Sharemilker of the Year competition, opening their eyes further to the environmental impacts of some of the practices they had regarded as par for the course. That included crossing cows over the Waioatahe River regularly to access 13ha of grazing land on the other side.

This prompted them to reconfigure the farm, dropping that area out of the milking platform and leaving it as a base for wintering cows and growing crop.

“We knew at the time our ability to continue to access it via the river was going to be limited and it’s far better to deal with that change before it becomes compulsory.”

Also looking beyond convention, the couple took stock of how much nitrogen (N) fertiliser they were putting into the farm system, determining 280kg N/ha a year was too high and needed to come down.

“We had issues with pasture palatability and were not happy with conception rates. Things were not looking at all like the ideal farm operation many people imagine farming is about!”

### **Greater performance/lower costs**

They moved to a regime that applied greater quantities of lime, addressed soil micro-organisms and significantly reduced N applications to about 80kg N/ha, applied in liquid form.

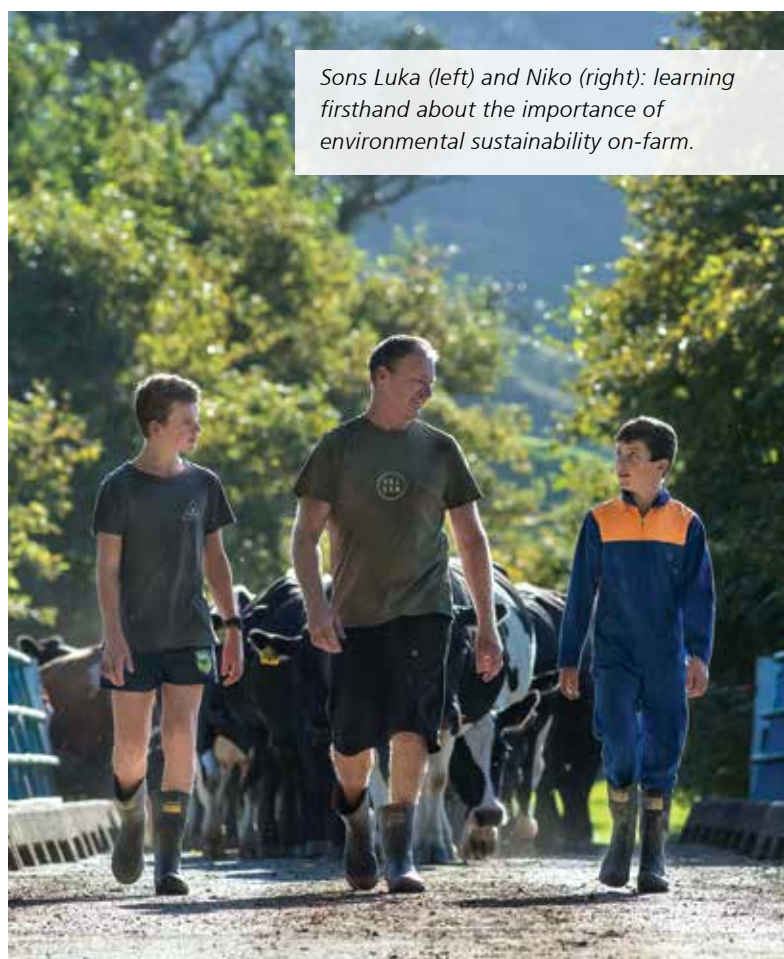
“We have seen more robust, palatable pastures develop with better organic matter levels within the topsoil.”

Jared says he has come close to converting to organic production, and felt the gains they have made in other areas make an organic conversion something he would still like to consider in the future.

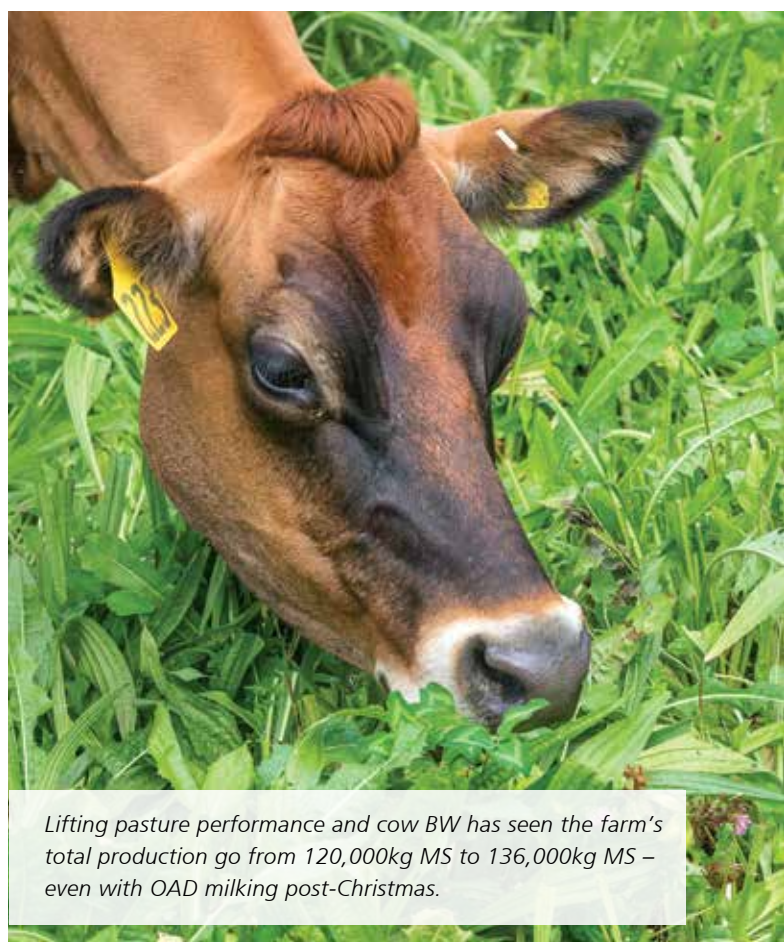
Meantime they had been dropping cow numbers from their original 360-head herd, down by this time to 270, when Jared decided to renew his focus upon breeding worth (BW) to develop a herd that was genetically better calibre, and by default more efficient within the farm’s footprint.

The moves to increase pasture performance and cow BW had contributed to the farm lifting total production from 120,000kg MS to 136,000kg MS, whilst still pursuing OAD post-Christmas.

“We also put it down to less stress on the cows, and managing to achieve a high peak in the spring time of up to 2.6kg MS a



Sons Luka (left) and Niko (right): learning firsthand about the importance of environmental sustainability on-farm.



Lifting pasture performance and cow BW has seen the farm’s total production go from 120,000kg MS to 136,000kg MS – even with OAD milking post-Christmas.

“We have to be transparent; people will believe us, but we no longer have a social licence to farm and we can’t take it for granted.”



cow a day.”

Now they have switched to OAD all season, the herd is down to 270 head and is in the country’s top five percent for BW and production per head is averaging 351kg MS a head.

The further drop in numbers was accompanied by dropping palm kernel inputs, another change Jared could see coming.

He is looking forward to a third full season of OAD to have some solid numbers for comparison against twice a day.

However, he believes he has achieved at least a 15 percent reduction in farm costs, lowered pressure on the effluent system and enjoyed a more flexible approach to their farming business.

To further cushion against intense rain events, Jared has been running two loafing pads for on-off grazing over wet winter months, along with the original feed pad.

He also maintains a strict ‘no pugging’ policy, knowing the effects will be felt well into summer through reduced pasture quality and weed incursion. The couple have planted several thousand trees around waterways in a blend of exotic and natives that have added considerably to the property’s visual appeal.

Last year the couple were awarded the Bay of Plenty Ballance Farm Environment Supreme Award. The accolade is a proud achievement, one that has underscored much of their quiet efforts since the big flood of 2004 to have a sustainable farm model, on a personal and environmental level.

### Taking the lead

Jared admits he has been prompted to take more of a leadership role around environmental practices since winning the award with Sue, and he is becoming more comfortable with the profile it brings.

In his role as chairman of the newly formed Waioatahe Water Care Group, he is helping leverage off DairyNZ and regional council resources in this farmer-led initiative to improve riparian

plantings and water quality in the district.

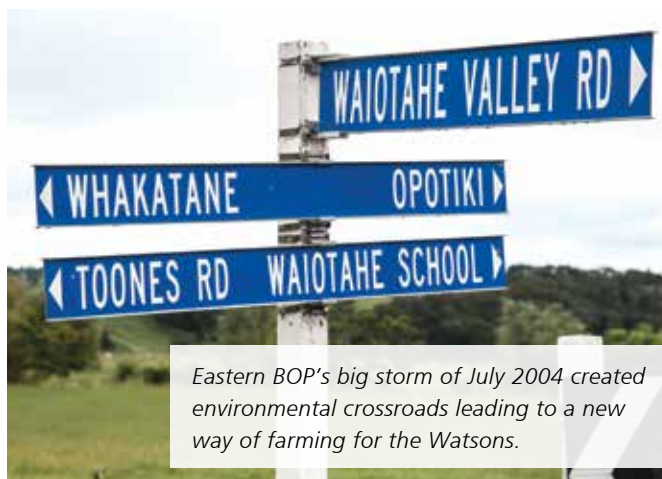
This has included sourcing advice from DairyNZ environmental extension specialist Logan Bowler on on-farm effluent systems and helping farmers become more proactive in managing effluent challenges.

DairyNZ’s advisor on riparian planting, Dr Tom Stephens, has addressed the group with input from local DairyNZ consulting officer Ross Bishop.

After *E.coli* alerts were detected at regional council monitoring sites last year, farmers are now working with the council to collect regular water quality data and build a better picture of what the triggers for elevated *E.coli* levels are in the catchment.

“We also met with other farmers to help the Waioatahe Estuary Care Group pick up rubbish around the estuary, and it proved an invaluable means of connecting with the non-farming community, showing them we, like them, do care about our local environment,” says Jared.

He urges all dairy farmers to be open to the interest people in their community may have in farming.





“We have to be transparent; people will believe us, but we no longer have a social licence to farm and we can’t take it for granted.”

He admits he has been touched by people’s interest in how farmers are approaching environmental management, and their preparedness to talk to him about it.

As a Dairy Environment Leader, he has also learnt much by attending the Dairy Environment Leaders' Forum, a DairyNZ initiative bringing together leaders in the sector from around New Zealand, sharing ideas and inspirations for approaches to environmental management.

### Looking ahead

In the medium term, as the sector completes its efforts around waterway protection, Jared can see greenhouse gases as the next challenge for the sector to address.

Forest plantings, including riparian plantings as carbon sinks, alternative crops and improved genetics will all help to reduce emissions, while also making the sector more efficient in the process.

For Jared and Sue, the challenges that 2004 storm brought prompted them to revisit how they farmed. Ultimately the changes they have made gave Jared the boost he needed after more than two decades of dairying, helping him rediscover his passion for the sector and in the process leave a legacy that was more sustainable, and personally rewarding.

Words: Richard Rennie   Photos: John Slater



Jared and Sue receiving their Bay of Plenty Balance Farm Environment Supreme Award last year.

Photo : Bay of Plenty Balance Farm Environment Awards

## FARM FACTS

### Jared and Sue Watson

**LOCATION:** Waitoaha Valley, near Opotiki

**FARM SIZE:** 110ha milking platform: 20ha hill block and 13ha support block for lucerne, oats and maize

**HERD SIZE:** 270 cows

**PRODUCTION (KG MS):** 95,000

## JARED'S TOP TIPS FOR ENVIRONMENTAL WINS



**1.** Aesthetically pleasing plantings become self-motivating – if you like how they look you'll want to plant more of them.



**2.** Invest in wintering-off capability – the impact of pugging on soil remains for months after the event, with knock-on effects on pasture quality and weed levels – it's best avoided with loafing facilities.



**3.** Consider alternative options to conventional nitrogen application – using foliar-applied nitrogen helped reduce the amount required as part of a revised fertility programme.



**4.** Have a 'Plan B' or back-up for effluent i.e. investing in more storage or having a good relationship with a contractor that can take a load off.



**5.** To shift to once-a-day milking you need to have a high BW herd and a good supply of high protein feed in summer (plantain/ chicory, red clover crop, or lucerne) and it helps to get involved with a DairyNZ OAD discussion group or like-minded farmers.



**6.** Increase the range of species into the pasture – a sward that can create synergies that can access different minerals but also promote micro-organisms to get deeper root development.



# Water quality: setting limits

In recent surveys, people identified water quality as the most significant environmental issue New Zealand faces right now. Dr David Burger, DairyNZ strategy and investment leader (responsible dairy), explains what water quality means for you and what DairyNZ is doing to support you.



Water quality, and dairy's impact on it, continues to be a significant issue for New Zealanders. We know through our own public perception research that water quality is a key driver of the public's perception of dairying. This is mirrored in recent MPI public survey results, where the public said that water quality was the most significant environmental issue facing New Zealand, with many still believing it's predominantly a dairy issue. This is despite a growing body of science saying all land users, including urban, have a role to play.

Right now, regional councils are working with their communities to set water quality objectives and limits for all water catchments. This is to meet the requirements set by the last government under the National Policy Statement for Freshwater Management ([mfe.govt.nz](http://mfe.govt.nz)). That policy calls for limits or targets to be set nationwide for water quality, by each region. This process must reflect the values of local communities, the need to maintain or improve water quality at a regional scale, and a set of 'National Bottom Lines' (or minimum water quality standards) to protect New Zealand's ecosystem and recreational health.

Farmers across the country are true stewards of the land, and these requirements build on work many have already started.

Many regions are already well on their way, like Canterbury, Horizons (Manawatu), Waikato, and Southland. DairyNZ will continue to work closely with councils, farmers, sector and community stakeholders to ensure that the limits and policies being proposed are robust and evidence-based. This is where our Dairy Environment Leaders and the teams in DairyNZ play such a crucial role.

It's not just about what's in front of you. Your farm's location is part of a water quality chain, which means that what happens upstream inevitably travels downstream, affecting water quality every step of the way. Studying this a complex science, which is why we're working in partnership with regional council science teams, Crown research institutes and universities to establish the robust science needed to underpin policy and find the right solutions for every size of issue.



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**“Robust science [is] needed to underpin policy and find the right solutions for every size of issue.”**

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Some of our recent research work has included looking at constructed and seepage wetlands; catchment modelling; detainment bunds; riparian filters; new pastoral systems or practices; and the ecology of what drives changes to insects and algae in our waterways. Together, this work is being used to support better outcomes for farmers and the environment.

Every farm will be affected by the limit-setting, so it's crucial that you're aware of what is happening in your council area and catchment. By focusing on supporting your efforts with robust science, we can all tell a better story of what farmers and the sector are achieving for water quality on our farms and in our communities.

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Contact us at [info@dairynz.co.nz](mailto:info@dairynz.co.nz) or your regional council if you want to know more about what's happening in your area.



Constructed wetlands help filter out contaminants before they reach waterways.

# Joint project to ensure farmers rewarded for water quality work

We know riparian buffers and constructed wetlands reduce contaminant loss to waterbodies, but not always by how much. DairyNZ water quality specialist Aslan Wright-Stow explains how a collaborative nationwide project aims to identify this – and why this is important as regional limit-setting processes ramp up.



Many landowners are in the process of identifying and implementing ways to reduce contaminant loss to waterbodies, which are increasingly required by regional limit-setting processes. Constructed wetlands and riparian buffers are at the forefront of the options available, but we need to know

how they perform across all landscape settings, so we can optimise their performance, and as a farmer, your efforts to reduce contaminants are rewarded in farm nutrient/contaminant budgets.

The project is jointly-funded by DairyNZ (through the farmer levy), the National Institute of Water and Atmospheric Research (NIWA) and regional councils. It's taking place over five years, beginning by developing a set of provisional performance and design guidelines for immediate use, based on current scientific understanding.

At the same time, we'll design, establish and monitor a range of riparian buffer and constructed wetland systems across New Zealand to quantify and compare performance in different landscape and climate settings.

## Wetlands and riparian buffers

Monitoring the constructed wetlands is a relatively straightforward exercise, comparing the quality of water entering and exiting the wetland to determine contaminant loss<sup>1</sup>. The aim of the riparian monitoring is to find out if having wider buffers at locations where runoff is more strongly focused (so-called 'critical source areas') will improve flow and contaminant

filtering. In principle it should, however, testing this at catchment scale has so far not been done, here or overseas.

We'll identify and compare suitable paired catchments throughout the country, each pair featuring a standard fixed-width buffer and a variable-width buffer (made wider at critical source areas and narrower where overland runoff is less important). We'll be trying to find out how optimal water quality return relates to cost, time and farm productivity.

While mainly focused on reducing primary water quality contaminants (sediment, nitrogen, phosphorus and faecal microbes), this project will also provide new information on flow buffering, biodiversity and habitat enhancement. It'll identify options for addressing issues related to climate change as well (e.g. providing stream shading; managing water temperatures).

The project's results will enable us to guide farmers' water quality initiatives so you can meet regional limits, improve water quality on your farm, and get greater certainty of performance. It will make your efforts more cost-effective, but also ensure your efforts are rewarded by authorities in nutrient budgets. Our results will also identify what works where and on what scale, so water quality efforts can be tailored to suit individual and regional situations. Overall, the research project will quantify the performance of riparian buffers and constructed wetlands to ensure farmers are recognised for their water quality efforts.

<sup>1</sup> Further information on how constructed wetlands work to reduce contaminants can be found in the February issue of *Inside Dairy*.

Learn more about protecting waterways at [dairynz.co.nz/waterways](http://dairynz.co.nz/waterways)



# James Shaw talks climate change

New Zealand farmers are among the best in the world, and our agricultural research into climate change mitigation on farms is world-leading. This makes New Zealand perfectly positioned to take advantage of what could be the greatest economic opportunity we have faced in more than 30 years, writes Minister for Climate Change James Shaw.



*Minister James Shaw (centre) with (left-right) Vern Brasell, Karen Williams, Aidan Bichan, and Neville Fisher at Kawaiwai Dairies at Featherston.*

A couple of months ago, I visited two farms in the Wairarapa: one a dairy operation, and the other a mixed cropping business which also combines beef and lamb finishing.

On those visits I met dedicated, hard-working people who are deeply committed to getting the best out of their land in both economically- and environmentally-sustainable ways.

At Kawaiwai Dairies, outside Featherston, Aidan Bichan and Vern Brasell have created an impressive wetland network, which is exceeding their expectations for removing nitrate.

Eels, koura, frogs and an abundance of birdlife now populate

the wetland. Aidan and Vern are planning to expand it.

Down the road, near Carterton, Karen and Mick Williams run Ahiaruhe Farm, growing wheat and barley. They have previously won a top environmental award for the work they do and the results they achieve in a sustainable balance with the natural resources available to them.

These are just two examples of the hundreds, if not thousands, of farmers around New Zealand who are adding significant value to the food they produce, building their own brand and that of brand New Zealand.



*Minister James Shaw (center) speaking to farm owner Aidan Bichan (left) at the award-winning Kaiwaiwai wetlands project at Kaiwaiwai Dairies.*

And it ensures New Zealand, which is already seen around the world as a leader in farming best-practice, will be seen as the source of the best ideas, intellectual property and services for low-emissions agriculture, which others around the world will be lining up to learn about and buy.

New Zealand's path to a net zero emissions economy will be built on the commitment of people like Karen and Mick Williams, and Aiden Bichan and Vern Brasell.

We don't expect this transformation to a net zero emissions economy to be shouldered by farmers alone, or without the support they need to make the change. It's going to take all of us – working together – and it's going to take everything we've got.

Farming has been the economic backbone of this country for around 150 years. In that time, it has changed and adapted; enjoyed boom times when demand for wool, wood, meat and dairy was strong and survived the tough times when tastes shifted and downturns hit.

Farmers are again facing the challenges of change on many fronts – from synthetic meat to the demands of maintaining good quality water and the effects of climate change.

But New Zealand farmers are the best in the world.

They produce the best quality food which is respected and enjoyed around the world.

Our agricultural research is world-leading too. And that world-leading expertise is being applied in many forms, including how to address agriculture's greenhouse gas emissions.

Along with that research, I regularly hear about, read about, and meet farmers who already embrace more sustainable practices on their properties.

The details of how we make this journey together as a country will be at the centre of public consultations across the country. We aim to begin those consultations over June and July this year.



## Minister James Shaw is speaking at DairyNZ's Farmers' Forum in Hamilton on May 8

For more information and to register, visit  
**[DAIRYNZ.CO.NZ/FARMERSFORUM](http://DAIRYNZ.CO.NZ/FARMERSFORUM)**

What everyone can do now to be a part of the conversation about designing our climate change framework, is to register for updates and notifications about upcoming events at the Ministry for the Environment's page:

**[mfe.govt.nz/have-your-say-zero-carbon](http://mfe.govt.nz/have-your-say-zero-carbon)**

From farmers to factory workers, to iwi and innovators, we need the views and ideas of all New Zealanders to set up this country for what can be the greatest economic opportunities we have faced in more than 30 years.

To be a part of the conversation about designing our climate change framework, you can register for updates about upcoming events at the Ministry for the Environment's link: **[mfe.govt.nz/have-your-say-zero-carbon](http://mfe.govt.nz/have-your-say-zero-carbon)**

# FARMERS & OUR ENVIRONMENT:

## making a region of difference

DairyNZ is supporting dairy farmers to protect their farm and catchment environments and biodiversity. Check out this snapshot of what farmers are doing around the regions and read more stories on pages 14-16.

### Roger and Jane Hutchings, Okaihau

The Hutchings are protecting kiwi and other native birds on their farm as members of the Puketara Landcare Group (which covers more than 3000ha from Okaihau to Kenkeri) and fencing off and planting native species across their farmland, bush, waterways and wetlands. Read more on page 14.



### Andrew and Vicky Booth, Titoki

In just one year, this couple has involved local school children in planting 4500 native plants in riparian zones across their property. The Booths also maintain a 3.65ha wetland which filters runoff and supports native species. They're planting 4000 more natives this upcoming planting season.

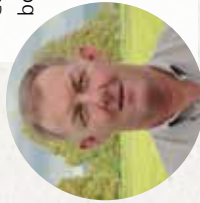
### Murray Linton, Te Puke

Murray riparian planted and fenced 15km of bushland in the 1990s and has planted 15,000 manuka and kanuka since 2014. This year, he's reduced stocking rates by 12 percent as part of an ongoing initiative to eliminate winter forage crops and reduce nitrogen loss on-farm by one tonne, without cutting profit. Controlling deer and possums has helped increase seedling regrowth in the 120ha native bush area.



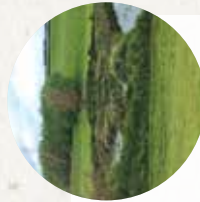
### Conall Buchanan, Paeroa

Conall is protecting old remnant kahikatea stands on both his farms – and encouraging other district farmers to do the same. As part of this, Conall supports a local school project in fencing and underplanting kahikatea on local farms. He'll also be planting natives around his new dairy shed.



### Belinda and Ben Price, Waitotara

Waitotara-based sharemilkers Ben and Belinda have helped converge a wetland and waterway system on David and Adrienne Hopkins' farm, and also do contour spreading of fertiliser to improve nutrient utilisation. The farm has native planted areas, riparians and shelterbelts to improve biodiversity.



### Mac and Lynda Pacey, Lake Rerewhakaaitu

The Paces are involved in the farmer-led Project Rerewhakaaitu, reducing nitrogen leaching and improving lake water quality. On-farm, they've dropped their stocking rate, applied less fertiliser and increased their effluent application and storage areas. They use a feed pad to reduce pugging in wet weather.



### Warren Smith, Ahaura

Warren has been protecting native forest remnants on his farm and joined in a major planting programme combining native and fast-growing exotic trees in single shelterbelt rows. He is also keen to create an on-farm wetland area that can handle dry conditions.

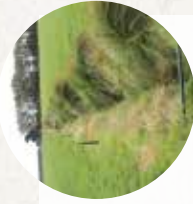


### Shane and Eileen Walker, Willowbank

The Walkers created a wetland in 2014, building a dam surrounded by native plantings (flax and toetoe) in a low-lying, low-production paddock on their farm. Its original open drain is now a pond inhabited by pukeko and ducks. Another small pond has been completed and a third is planned for the farm's far side.

### Lorraine Stephenson, Tararua

A long-time farmer on her ancestral Māori land, Lorraine has advocated for environmental sustainability for 40-plus years. She fences waterways, plants out riparian areas and includes biological fertilisers on-farm. Already on several environmentally-focused boards at national level, Lorraine is also actively involved in various other projects, including managing the Manawatu River restoration.



### Tom Mason, Canterbury

Multi-farm owner Tom has a main goal to reduce nitrogen loss to water and he is currently working with Coes Ford catchment farmers on improving water quality. On his own dairy properties, Tom is also planning to maintain 500ha of double-fenced low-lying and wet land, as well as continuing riparian and other planting activities.



### Lyndon Strang, North Otago

Lyndon is a member of a multi-sector farm group formed in 2013, NOSLAM (North Otago Sustainable Land Management), which unites goals for land, water and social resources. Its 'pod' groups also provide community education (e.g. good management practices around wintering) and develop stakeholder relationships.



### Jean Bonner, Taieri Plains

Jean co-founded Taieri Rural Ladies' Group with 'partner in crime' Anne-Marie Wells. Jean and husband Ben recently hosted 'Tidy the Taieri', a voluntary rubbish pick-up event held across the Taieri Plains, receiving support from the local community board, council, local people and businesses. It may become an annual event.



# Farmers taking the initiative

Find out about what some dairy farmers are doing to protect their farm and catchment environments. Many are involved in environmentally-focused groups and also work to educate the wider community about environmental sustainability on farms and elsewhere.



## NORTH ISLAND

### All the trappings of success in Northland

Overlooking the Bay of Islands at Okaihau is Lodore farm, where Jane and Roger Hutchings milk 700 predominantly Ayrshire cows on rolling to flat volcanic soils. The 349ha property (270ha effective) has one of Northland's top 150 wetlands and mature to regenerating bush.

The Hutchings have long been environmental champions, winning the Supreme Northland Ballance Farm Environment Award in 2014. Their biodiversity planning includes bush and waterway fencing, as well as weed and pest management.

The farm has four large waterfalls surrounded by native stands of kauri, rimu, totara, kahikatea and puriri. The farm is home to a healthy population of North Island brown kiwi and Jane runs a pest-trapping programme to protect the birds and bush. Once a year they do a kiwi calling census, which involves spending two hours a night over four nights jotting down the male or female calls, compass bearing and distance. From this they gauge how many kiwi live in the area – current estimates are more than 30 birds.

Sustainable energy has been another focus for the Hutchings and they have invested in a 90-panel 22 kilowatt solar system on the dairy shed roof which reduces electricity use and feeds power



*Jane Hutchings (pictured) and husband Roger have 135 predator traps on their farm.*

into the grid when demand is low.

The farm is part of the Puketotara Landcare Group, comprising 2000ha of surrounding farms, bush, streams and lifestyle blocks with the aim of allowing native bird species to survive and thrive through weed and pest control. This has resulted in a considerable drop in the numbers of pests and an increase in bird life and canopy cover in protected bush areas.



*Paul and Lisa Charmley surrounded by seedlings in their native plant nursery.*

### Reaping what they sow in Manawatu

Dannevirke farmers Paul and Lisa Charmley are enthusiastic when it comes to pursuing sustainable farming practices.

Their 108ha farm, where they milk 300 cows once a day, is at Te Rehunga, close to the Ruahine Ranges. In 2017 they won two awards in the Horizons Ballance Farm Environment Awards but it was an entry in the 2015 awards that got them started on enhancing and protecting the environment.

"The judges' feedback has really shaped our farming operation," says Lisa. "We would never have thought to plant out a piece of 'wasteland' and their encouragement was amazing. To see our property through the judges' eyes was so valuable."



John Hayward and Susan O'Regan will be presenting a workshop titled 'Taking control of the environmental challenge' on day two (May 9) of the Farmers' Forum in Hamilton this month. See page 25 for details.



### Busy bees in the Waikato

Waikato farmers John Hayward and Susan O'Regan have received a slew of awards for their successful farm management practices. Their farm, Judge Valley Dairies, is based on 240ha east of Te Awamutu where they milk 400 autumn calving friesians using CRV Ambreed Low N sires.

Over the last few years John and Susan have worked with Waikato Regional Council to develop an environmental programme. They have built dams to capture sediment from an 80ha hill block, planted 30,000 natives, fenced wetland areas to exclude stock, planted native wetland species, retired 13ha of marginal land and established a high potency manuka plantation in a joint venture with Comvita.

A green flood wash system and a weeping wall have been established on the feed pad to enable solids to be used pre-planting on maize blocks. Effluent rain guns fertilise the dairy unit and digital monitoring measures water consumption, soil temperature, soil moisture and rainfall on the farm.

After the judging, the Charmleys began planting natives along seven kilometres of fenced-off streams on the farm. This led them to start their own native plant nursery which now has up to 1500 seedlings and cuttings for planting alongside their streams. Since 2015, they have planted 3000 plants which will mature by 2025.

The Charmleys are also working with the Ruahine School which has QEII National Trust land beside the school field. Lisa is on the fundraising committee and is showing the children how to pot native plants for an annual fundraising sale. Lisa quotes a Chinese proverb: "The best time to plant a tree is 20 years ago; the next best time is now."

### SOUTH ISLAND

#### Trees abundant on Canterbury farms

Dairy farmers John and Cara Gregan have completed extensive tree planting on hillsides and unproductive areas of their two South Canterbury farms which milk 1000 cows across two unirrigated properties.

Owned by family for more than 100 years, John's 330ha home farm has been gradually planted over many years and is now home to more than 40ha pine and native trees, and they have put 5ha of native bush into the QEII National Trust. After its purchase 10 years ago, the second farm was converted from sheep and beef and its waterways fully riparian planted.

"The home farm also has about five hectares of wetland. We have learnt more about the environmental potential of wetlands to improve water quality and enhance the biodiversity values of the area in the last few years, and have fenced and planted them all with flaxes and native grasses. Totara have also been planted



John Gregan has completed extensive tree planting on-farm.



*Duncan Wells' farm innovations include a traffic light system on the effluent pond.*

on farm," says John.

The Gregans grow and feed fodder beet and lucerne, which is a great crop for dry areas and nitrogen fixation. The business's sustainability practices have led to increased bird life, streams flowing with more water, greater shade for the herd and the farm's surroundings are more aesthetically-pleasing to the eye.

### **Technology benefits Otago farm's sustainability**

Anne-Marie Wells and husband Duncan farm in Outram, Dunedin, where they use technology and the odd gadget to benefit the environment.

The 210ha, system four farm is home to 620 cows where Anne-Marie and Duncan have established a reliable, low impact and future-proofed farm system.

"Duncan has developed quite a few farm innovations," says Anne-Marie. "He is an ex-electrician so he still likes to delve into that sort of thing."

When the dairy shed was built, Duncan and Anne-Marie invested heavily in a one million cubic metre storage pond and an impact pond system from the milking shed, which reduces solids and improves the effluent quality.

"One of Duncan's gadgets includes an automated traffic light system on the pond – green is all good, amber needs action and so on. You can see at a glance where we are at with it," says Anne-Marie.

Safety stops on the irrigators also mean the pump will cut out if there are any issues. "We have invested heavily in infrastructure to make sure we are compliant and have a fail-proof system."

Other technology improves water efficiency – by ensuring the right volume is being used to cool milk. The farm's effluent block has been extended to 50ha and fertiliser is only applied to paddocks identified by a soil test.

"We're open to new ideas, technologies and systems that could help us and the environment. As farmers, we have to do everything we can to reduce our footprint."

### **Southland farm's sustainable approach**

Coastal Southland farmers Ewen and Diane Mathieson's whole farm business is centred around growing the sustainability of their diverse farm.

The 900-cow farm is fully self-contained and the Mathiesons also run young stock, calves and (on 25ha of steeper land) a flock of lambs. Ewen's farm set-up means carefully managing effluent application – with the whole milking platform now consented for effluent application, including application of liquid effluent to 160ha and solids from a weeping wall spread over 35ha.

Solar panels were installed on the farm's dairy shed, a 54-bail rotary, and have paid for themselves in three years. "It's been a smart way of future-proofing the business against increased electricity costs and greenhouse gas emission costs.

"Our nutrient budgets also get some pretty close scrutiny as to what we're applying and we have a real focus on maintaining good practice in its application. Every year we soil test half the farm," says Ewen.

"One thing that I have realised is the value of effluent as a fertiliser, in saving money and benefiting animal health."

Winter grazing practices are also vital, including establishing buffer zones in paddocks at sowing; standing cows off on feed pads to manage for the high rainfall; and by following good grazing practice (such as grazing from the top of slopes down and multiple shifts during the day).

In recent years Ewen has taken his interest in environmental management off-farm through the local Pourakino Catchment Group, as a Dairy Environment Leader and as a member of Southland's DLAG (Dairy Leaders Advisory Group).

# Meet DairyNZ's water quality team

Connecting our research and support with education and enthusiasm (yours and ours) is an important part of how this team works on improving water quality and environmental sustainability for farmers. Water quality scientist Aslan Wright-Stow explains.



## What do we do and why?

Our team of five water quality specialists undertakes research to better understand water quality issues, and how farmers can improve water quality, translating the science into action. Working with other relevant organisations, we use evidence-based science to help dairy farmers achieve (and exceed) water quality targets and regulatory limits, and obtain other environmental benefits (e.g. protecting biodiversity). We focus on a range of water quality solutions to suit the individual farmer within specific catchment-facing limits, right through to working with central government to ensure those limits are fair.

On a more personal level, farmers' 'ah ha!' moments are one of the most rewarding aspects of the job. I've often been met with a look of surprise by farmers when I tell them wetlands can remove nitrate by 75 to 98 percent, and often those wetlands are located on marginal land with limited productive value. Consequently, we're seeing more farmers retiring marginal land, reinstating wetlands and planting riparian buffers. That makes it all worthwhile and it's something we're proud to be a part of.

## How is our research used?

We're sharing our research through our website ([dairynz.co.nz](http://dairynz.co.nz)); through our publications, guidebooks, factsheets and other resources and tools; and with local and central government, sector groups, environmental organisations and community groups.

We also connect directly with farmers through workshops, seminars and other gatherings through our consulting officers' support, including on-farm visits. That's where we see those 'ah ha!' moments.

## What are some examples?

Programmes which help us understand the performance of riparian buffers and seepage/natural wetlands. 'Engineered' solutions include detainment bunds, constructed wetlands and two-stage channels (we liaise with our farm systems team so we're not considering these in isolation).



*DairyNZ's water quality team includes specialists like Dr Tom Stephens (far right), seen here talking about the team's award-winning Riparian Planner at a Greater Wellington field day.*

We work closely with regional councils and central government to ensure the water quality limits are fair on dairy farmers and based on sound evidence and robust science. We also encourage these organisations to formally recognise those farmers who are doing the hard work through the likes of nutrient budgets.

## What do people think about what we're doing?

While some public perceptions are challenging, we're making sure people hear about what farmers are doing to improve water quality, and public opinion is slowly changing. It's important to know that science providers, and central and regional government, all support the work being done by our team and you, as farmers.

## How can farmers get in touch with your team?

Contact our Farmer Information Service on 0800 4 DairyNZ (0800 4 324 7969). They'll have a chat about what you're after and put you onto the best specialist in our team to help.

# Setting goals to stay in control

Heading into a new season is a great time to take stock and reflect on your broader business goals beyond the everyday to-do lists. DairyNZ farm business lead Carolyn Bushell explains how to become better-equipped to deal with unexpected challenges.



How do you gain control of your businesses so if the unexpected happens, you're ready to respond? It helps to have a good understanding of long-term goals, a plan to achieve them and a regular assessment of where you're at so you can be prepared. Or if your goals are already clear, it's useful to revisit them and measure progress.

A clear direction will help with decision-making, especially if tough calls need to be made in response to an unexpected drop in income or change in circumstances. It'll also provide the flexibility to focus on the things you want to do and love.

## Where do you want to be? Create the dream

Successful people and businesses have a clear vision of the future. Your values and vision help identify and prioritise day-to-day tasks. A successful vision is one which is truly meaningful to you and can be easily communicated to those you work with.

DairyNZ has templates and tools to help: [dairynz.co.nz/planning](http://dairynz.co.nz/planning) and [dairynz.co.nz/quickplan](http://dairynz.co.nz/quickplan)

## Where are you now? Assess your current situation

Knowing where you are in both your business and personal life allows you to identify areas to focus your efforts in. Benchmarking and tracking progress will help you to do this.

There are no rules around choosing focus areas and it's important to consider all the parts of your farm system, as well as the ones we naturally enjoy or know we're doing well. The DairyNZ Farm Gauge tool can help you to find out where your time and resources are best invested in your business. Visit [dairynz.co.nz/farm-gauge](http://dairynz.co.nz/farm-gauge)

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**“Questions which help create goals and direction include: ‘Where do you want to be? Where are you now? What will you do to get there?’”**

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## What will you do to get there? Build the plan

Everyone has hopes and dreams and when people set goals that excite and motivate them, it can turn their vision of the future into reality. Setting SMART goals (specific, measurable, achievable, realistic and time-bound) will help you do this. Writing down and putting intentional focus on achieving goals sets you up for success. Breaking down your goals into bite-sized chunks and prioritising the actions will help you to make sure you are working on the right things, measure your progress and feel a sense of control and achievement as you do it.



*Use the DairyNZ planning wheel to bring your vision, goals and actions together.*



*It's important to give stock a comfortable and safe journey so they reach their destination in a fit and healthy state.*

# What to consider this moving day

Preparing for moving day on June 1? Here are some tips to make it a smoother process for you, your staff and your animals.

## Transporting stock

Thousands of dairy cows will be transported around New Zealand over the coming month, as sharemilkers and farm owners move to new farms for the 2018/19 dairy season.

Good preparation of stock for transport, including standing them off, will ensure a comfortable and safe journey for cattle, reduce effluent on public roads, and ensure cattle arrive at their destination in a fit and healthy state.

Biosecurity, especially in the wake of *Mycoplasma bovis*, will be at the top of many farmers' minds right now.

For a checklist to get cows ready for transport, visit [dairynz.co.nz/transportingstock](http://dairynz.co.nz/transportingstock) (which includes biosecurity tips).

## Introducing a new employee

Orientation is about introducing your new employee to the farm and their role so they know what to do, why and how. Here are some ideas to start with:

- Keep in touch with new employees before they start.
- Compile important documents that need to be kept for an employee's file.
- Plan the orientation to ensure all areas will be covered, including health and safety.
- Early targets include an overview of your business and values, meeting the team, areas they are responsible for, your expectations, timesheets, a house inspection, key risks and farm rules.

- Assess the new employee's skills as you go and create a training plan to bridge any gaps. Set aside time to ensure this training happens.

Getting orientation right will create great job satisfaction for your employee, and help them to be productive sooner.

For more information, including an orientation kit, visit [dairynz.co.nz/orientation](http://dairynz.co.nz/orientation)

## Updating budgets

Many farmers will have drafted their budgets for next season. As you create your budget, involve everyone who'll play a part in seeing the budget come to life. Organise a meeting with the wider farm team to talk about desired financial outcomes for the year. Then keep them updated about how the business is going at sticking to the budget.

DairyNZ has developed simple budget templates and guides – [dairynz.co.nz/budgets](http://dairynz.co.nz/budgets)

## Access advice

Lastly, DairyNZ's Dairy Connect service is perfect for those new to a farm. The farmer-to-farmer mentoring service is easy to use and can provide information on a wide range of topics from career progression to planning investments in new infrastructure.

To access the service visit [dairynz.co.nz/dairyconnect](http://dairynz.co.nz/dairyconnect)

# Finding a fit for fodder beet

Has the tide turned on the rapid rise in fodder beet use in dairy systems? DairyNZ senior scientist Dr Dawn Dalley explores the issue and looks at the results of two levy-funded research projects.



After a meteoric rise in popularity over the last decade, some in the sector are scaling back fodder beet use, citing increased system complexity, stress on staff and animal health and performance concerns.

Two DairyNZ lead research projects are seeking to better understand the issues relating to milk production and composition, environmental impact, mineral requirements, and system performance when fodder beet is eaten.

## Fodder beet vs maize silage

The Forages for Reduced Nitrate Leaching (FRNL) programme has compared fodder beet with maize silage as a supplement for lactating cows. When offered the same allocation (four kilograms of dry matter per cow per day: kg DM/cow/day) there was no difference in urinary nitrogen (N) concentration between cows eating maize silage and those eating fodder beet, but milksolids production was improved by eight percent with fodder beet. Offering 6kg DM/cow/day of fodder beet reduced urinary N concentration but milk solids did not improve.

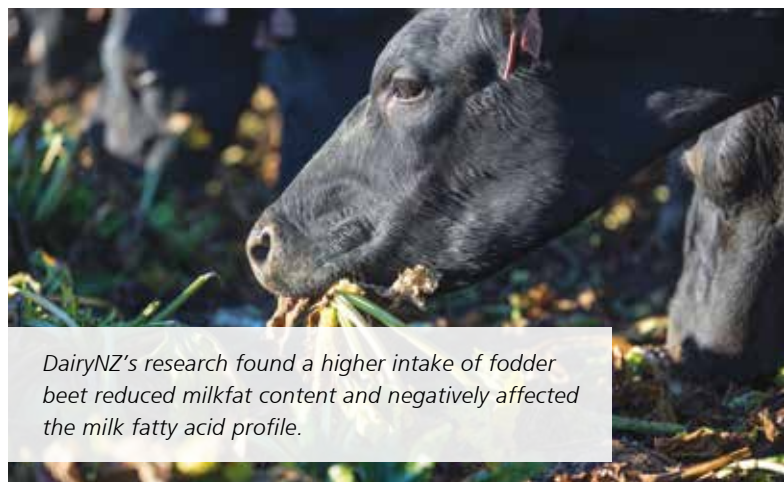
We observed that cows were refusing fodder beet at the higher allocation. And while clinical acidosis was not observed, behavioural observations suggested 6kg DM/day was at the upper limit of fodder beet allocation, and that some cows may have been experiencing sub-clinical acidosis. Milk composition results support this conclusion: increasing fodder beet intake reduced milkfat content and had a significant negative effect on the milk fatty acid profile, increasing the proportion of short chain fatty acids. Results of this study support the recommended upper limit of 40 percent of dry matter intake (DMI) as fodder beet for lactating cows.

## Fodder beet vs kale

At the Southern Dairy Hub (SDH) last winter, we investigated the immediate and carry-over effects of crop type (kale vs fodder beet) on cow performance. In the first six weeks of winter, and in the absence of phosphorus (P) supplementation, blood P concentrations of cows eating fodder beet halved from two to one millimole/litre (mmol/l).

This highlights the importance of providing P supplementation when feeding fodder beet.

Blood magnesium concentrations were lower in cows grazing



*DairyNZ's research found a higher intake of fodder beet reduced milkfat content and negatively affected the milk fatty acid profile.*

kale and were at the low end (0.75-0.8 mmol/l) of the normal range. Cows wintered on fodder beet lost less body condition in early lactation. The six-week in-calf rate (77 to 81 percent) and not-in-calf rate (two to eight percent) were similar between winter diets, but five percent more fodder beet cows were treated as non-cyclers.

In June this year, the team at SDH will begin farm systems comparisons to investigate the finer details of fodder beet feeding on animal performance and the environment. Keep an eye out for the results.

Research was completed as part of the FRNL programme with principal funding from the New Zealand Ministry of Business, Innovation and Employment. The programme is a partnership between DairyNZ, AgResearch, Plant & Food Research, Lincoln University, the Foundation for Arable Research and Landcare Research. Learn more at [dairyNZ.co.nz/FRNL](http://dairyNZ.co.nz/FRNL)

## Key points



1. Fodder beet and maize silage reduce urinary N concentration by similar amounts when offered at the same level.
2. Avoid feeding more than 40% of DMI as fodder beet to lactating cows.
3. Supplement over-wintering fodder beet diets with phosphorus.

# M. bovis and off-farm grazing

The *Mycoplasma bovis* outbreak has highlighted the need for biosecurity practices to be applied both on the milking platform and at the runoff or grazing block. The following tips will help protect cattle from the spread of *M. bovis* and other diseases while they are away at wintering or grazing.

## Boundaries and gates

Ensure the grazing property's fences and gates are maintained and boundary fences are secure. Two-metre buffer zones should be in place along fencelines to prevent cattle contact, this includes roadways and lanes.

Ensure that your stock are not grazed in the same paddock as other herds. If this is unavoidable, request that the grazier creates a semi-permanent double fence using rows of warratahs two metres apart, and graze cattle away from each other. The feed in buffer zones can be used before or after cattle are on both sides of the fence.

## Yards

Yards are contaminated with fluid from the noses and mouths of cattle during periods of heavy use. Allowing a day between groups of arriving cattle can let sunshine and wind do much of the work and reduces the need for disinfection. Work with your grazier to arrange a suitable time that your cattle can arrive – and avoid them having contact with other herds.

## Machinery

The risk of *M. bovis* transmission by machinery at grazing is low. Machinery can be contaminated by saliva when licked by curious cattle. Where multiple herds are on the same property, graziers should park farm bikes outside of paddocks when shifting fences and feeders and avoid leaving tractors and wagons sitting in paddocks. Disinfection is an option, but it doesn't work unless the surface has been cleaned first.

## Feeders and troughs

Ringer feeders get covered in saliva. Graziers should keep feeders and troughs in the same herd for the grazing season.

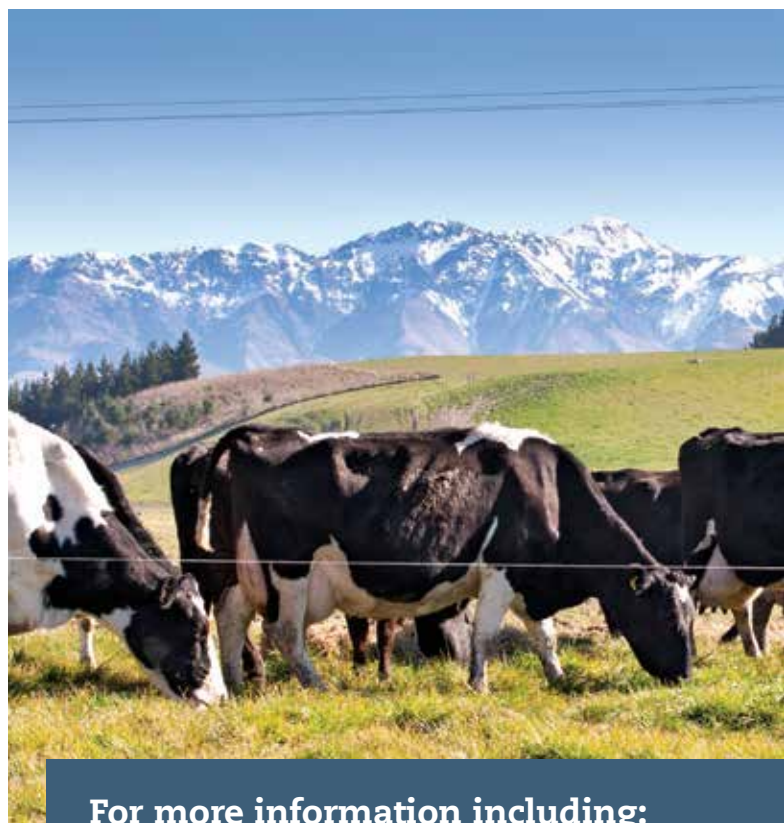
## Visitors and biosecurity

Visitors, gumboots, dogs and vehicles are potential sources of many diseases and pests. Having a sign at the entrance to the property that directs unexpected visitors to stay on the farm track and to call the farm manager is a sensible general biosecurity strategy. Being prepared for visitors with spare gumboots and overalls, or having a disinfection station for boots when people enter and leave the property, can also be helpful. A 'clean on, clean off' policy for visitors and their gear will minimise the

risk of transferring diseases and pests between farms. Consider involving your vet or other biosecurity expert in the development of your farm biosecurity plan either on the home farm or at the grazing block.

## Farm team

It's a good idea to involve staff with the planning of procedures on-farm. Create Standard Operating Procedures (SOPs) so the team has a clear understanding of expectations during most situations.



## For more information including:

- our Biosecurity WOF
- our *Protecting your farm* checklist
- the latest news on *M. bovis*

see [dairynz.co.nz/mbovis](https://dairyNZ.co.nz/mbovis)



## Latest scoop: make your own ice cream!



DairyNZ's in-school education programme is dishing up a dairy delight in what's proving to be one of our most popular learning modules. And why not? It features ice cream!

*Can it ice cream* is DairyNZ's latest in-school education programme learning module. The science lesson for years one to six investigates an element's change in state (a compulsory part of the New Zealand curriculum). In this case, from cream to ice cream: liquid to solid.

The lesson also introduces different types of mixtures, helping children learn the science behind what makes them different – suspensions, colloids and solutions (colloids are made up of a fine substance scattered throughout another substance – examples include marshmallow or gelatine).

The learning module also looks at the ingredients that go into making ice cream and links that back to where food (in this case, cream and milk) comes from.

To make the learning really come to life, DairyNZ provided an ice cream making kit to the first 350 teachers who signed up via the School Kit teacher database. The kits provided everything the class needed to make a batch of ice cream. Not surprisingly, 350 educators were fully subscribed within 19 minutes of the registration opening. It seems everyone wants a churn.

Teachers who received the kits modelled the basic experiment of making ice cream using the fail-proof method provided, showing the mixture change from liquid to solid in a plastic bag combined with ice and demonstrating the principles of heat transfer. The twist for children came with the challenge to make a 'breakfast' flavoured ice cream with the kit, including flavours like baked beans, marmite, rolled oats and fruit.

The purpose is to get children thinking innovatively and



DairyNZ's ice cream kit – giving classroom learning a shake-up.

### What is DairyNZ's education programme?

DairyNZ's education programme in schools is delivered by an organisation called School Kit. Together, we develop and deliver learning resources that explore different curriculum subjects through a dairying lens. Our aim is to improve children's understanding of dairy farming and spark their interest in dairying as an exciting career option. To find out more visit [dairynz.co.nz/education](http://dairynz.co.nz/education)

# WIN!



To go in the draw to win your own ice cream kit to complete with your children, email [insidedairy@dairynz.co.nz](mailto:insidedairy@dairynz.co.nz) with 'Ice cream kit' as the subject.

outside the box through getting them to taste test their flavours. They trial and evaluate a prototype ice cream sample against key attributes to select and develop an outcome. The children judge the different flavours and rank each one out of five using the judging sheet included. The leftovers are then polished off with great gusto (a great way to avoid a meltdown in the classroom).

You might say that when it comes to making learning easy to swallow – DairyNZ's got it licked.



# New tool could be a game-changer

We all want to make our businesses more profitable, productive, efficient, and enjoyable. But how do we work out which areas to focus on without feeling overwhelmed? DairyNZ's new tool, Farm Gauge, can help.

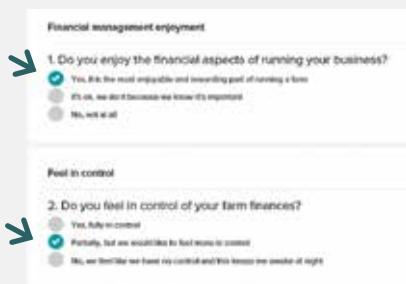
DairyNZ's Farm Gauge was developed to help dairy farmers assess their business, identify areas to focus on and to support them to take action. The online tool looks at eight areas of the farm system: strategy, feed, finance, health/safety and wellbeing, herd management, people, environment, and infrastructure.

Each section includes a series of questions which identify areas where there is an opportunity to improve (a score of ten indicates you're doing extremely well). The results section provides advice, resources, and suggests actions in relation to how each question has been answered.

## Step 1

### Multi-choice questions

These cover a range of topic areas. Tick the answers that best describe your farm and/or situation.



## Step 2

### Review results summary

Use the results dashboard to help you see at a glance where to focus your time and effort.



## Step 3

Once you've decided on areas to focus on, explore some of the resources to get you started or follow the links to contact someone for more advice and support.

### Review results detail and click through to view actions

You'll need to decide what is relevant and which actions you'll take and when.



## Lime hits black beetle for 6 (pH)

You know that keeping soil pH in the right range is important for maintaining healthy pastures and soil organisms. But did you know it also helps keep the troublesome black beetle at bay?

### Pesky pasture pest

Black beetle is present in the upper North Island, East Coast, Taranaki, and the upper South Island. It has become a chronic pest in the upper North Island with populations encouraged by warmer temperatures, sub-tropical grasses (summer grass, kikuyu, paspalum) and ryegrasses without black beetle-active endophyte.

Black beetle adults and larvae feed on pasture grasses and some other forages, but not clovers. The root-feeding larvae are capable of severe summer pasture damage, and adults chew through the base of the plant, with autumn-establishing ryegrass at particular risk.

### Lime for black beetle

On-farm research has found that applying lime can help suppress the black beetle, so it's beneficial to raise soil acidity in susceptible areas to around pH 6.

In the levy-funded research project, which began in 2015, enough lime was applied to shift soil pH by 0.2 on average. Over the next three summers, the research team sampled black beetle numbers. The number of eggs laid were not affected but, where pH lifted, there were lower populations of mature larvae, pupae and adult black beetle, and the extent of this effect has lasted three summers.

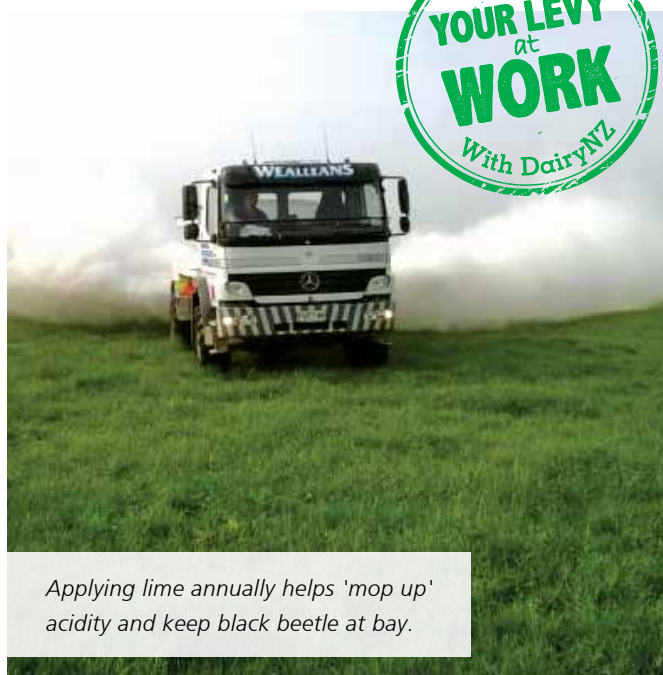
### Lime for healthy pastures?

Even if black beetle isn't an issue for you, applying lime is still important to maintain pasture production.

Under pasture, soil pH declines over time and this results in increased soil acidity. So for most farms, 400kg to 500kg of ground lime per hectare is required annually to 'mop up' this acidity. It doesn't matter whether lime is applied in small amounts often, or in large amounts infrequently. General practice on dairy farms is to apply 2 to 2.5 tonnes of lime per hectare every four to five years to save on spreading costs.

The optimal soil pH depends on the soil (mineral or peat) and the crop. However, soil microbial activity is optimised when pH levels are around 6.0. Liming soils can increase biological activity and nutrient cycling in the soil.

'Mopping up' acidity increases the availability of phosphorus in



*Applying lime annually helps 'mop up' acidity and keep black beetle at bay.*

some soils and the availability of the trace element molybdenum, which increases clover growth. Liming soils with a pH lower than 5.5 removes available aluminium and manganese, which are toxic to pasture plants, especially clover.

### Who's involved in this project?

- Waikato Black Beetle Action Group led by farmer Martin Henton
- AgResearch team led by Dr Pip Gerard
- Funded by Sustainable Farming Fund with sponsorship from DairyNZ, Ballance Agri-Nutrients and Graymont



# Farmers' Forum: setting the tone for dairy's future

One of the biggest events on the dairy sector's calendar takes place on May 8 and 9 at Mystery Creek in Hamilton. The DairyNZ Farmers' Forum is a valuable opportunity to hear the latest insights into current global trends from influential dairy leaders and commentators. Register now!

## DAY 1

**TUESDAY 8<sup>TH</sup> MAY 8AM-4.20PM**

MC Richard Loe

**8am Registration – tea, coffee & muffins**

**8.50am Welcome**

Jim van der Poel – DairyNZ chair

### GLOBAL AND POLITICAL PERSPECTIVE

**9am Future of dairy farming from government perspective – Priorities for food production**

Hon. Damien O'Connor – Minister for Agriculture, Rural Communities, Biosecurity

**9.20am Factors affecting the future of dairying – insights from an economist**

Cameron Bagrie – economist

**10am Priorities for food production – Q&A**

Hon. Damien O'Connor – Minister for Agriculture, Rural Communities, Biosecurity

**10.30am Morning tea**

**11am Climate Change and GHG - Opportunities and challenges for dairy – how we can all work together**

Hon. James Shaw – Minister for Climate Change

**11.30am The only thing constant is...**

Roger Dennis – futurist

**12.15pm Lunch**

### ON THE GROUND

**1.15pm 'What does the new strategy mean for you and your view of the future of dairy?'**

Stephen Allen – Tatua, Steve Koekemoer – Open Country Dairy  
John Wilson – Fonterra, Richard Wyeth – Miraka

**2.15pm Pushing past the pasture plateau**

Bruce Thorrold – DairyNZ strategy & investment leader

**3pm Afternoon tea**

### THE FUTURE OF NZ DAIRYING

**3.30pm Where are we headed? Where are the opportunities?**

Farmer Panel: Sam Howard, Rachael Foy, George Moss, Carlos and Bernice Delos Santos

**4.20pm Networking drinks, featuring Christopher Luxon – Air New Zealand**

**6.30pm Close**

## DAY 2

**WEDNESDAY 9<sup>TH</sup> MAY 8AM-4.30PM**

MC Richard Loe

**8am Registration – tea, coffee & muffins**

**8.30am Seizing the challenges and turning them into opportunities**

Tim Mackle – DairyNZ chief executive

**8.50am The future of food**

Julian Cribb – author and science communicator

**9.30am Consumer impact on strategy**

Toni Brendish, chief executive Westland Milk Products

**9.50am Morning tea**

### TAKING CONTROL – LOOKING AFTER YOU AND YOUR PEOPLE

**10.20am The power of networks and collaboration**

Katie Milne – Federated Farmers  
Corrigan Sowman – Dairy Environment Leaders Forum  
Pamela Storey – Dairy Women's Network

**10.45am Morning workshop 1**

**11.30am Morning workshop 2**

**12.15pm Lunch**

### MAKING THE MOST OF OUR COMPETITIVE ADVANTAGE

**1.00pm Public perception and telling your story**

Mark Stevens – Stuff

**1.45pm Afternoon workshop 1**

**2.30pm Afternoon workshop 2**

**3.15pm Afternoon tea**

**3.45pm Keynote address**

Mike King – comedy icon and mental health campaigner

**4.20pm Final words**

**4.30pm Close**

**Check out the programme and register today at**

**[DAIRYNZ.CO.NZ/FARMERSFORUM](http://DAIRYNZ.CO.NZ/FARMERSFORUM)**

**8-9TH MAY  
2018  
MYSTERY CREEK  
EVENTS CENTRE**

## Fieldays fever to hit Mystery Creek

Catch DairyNZ at the National Agricultural Fielddays at Mystery Creek in Hamilton next month.

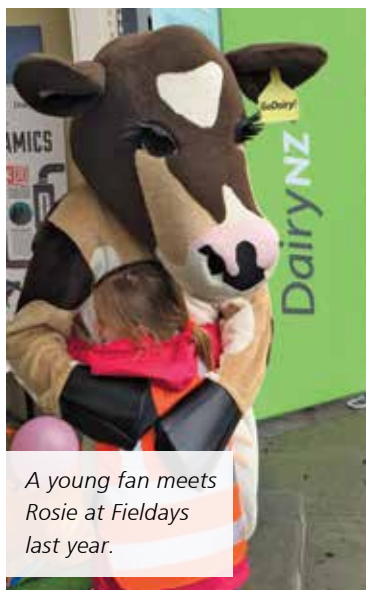
In line with this year's Fielddays theme of 'The future of farming', DairyNZ's main stand will focus on the new *Dairy Tomorrow* strategy for the future of New Zealand dairying.

We look forward to welcoming you to our site for a chat and to share the tools, resources and expertise of DairyNZ specialists.

Discuss where your levy money goes and give us your view on what our future spending priorities should be.

Find us at stand PC 46 in the main Mystery Creek Pavilion. We're also in the Careers & Education Hub, and our cowbassador Rosie will be making appearances too.

Follow us on Facebook to see how you can be part of our site – even if you're not there in person!



*A young fan meets Rosie at Fielddays last year.*



*DairyNZ director Elaine Cook awarding the DairyNZ Practical Skills Award to Taylor Macdonald, 2017 Dairy Trainee category.*

## Celebrating dairying excellence

DairyNZ is proud to support and partner with the New Zealand Dairy Industry Awards, celebrating dairying excellence regionally and nationally. The awards showcase dairying's best practice, innovation, and talent. Entrants have the chance to analyse their performance, critically assess their business and provide continuous improvements.

DairyNZ's partnership offers financial assistance and significant in-kind support by way of judges and facilitators, both regionally and nationally, as well as providing the DairyNZ Practical Skills Award for the Dairy Trainee competition; the DairyNZ Human Resources Award in the Share Farmer competition; and the DairyNZ Employee Engagement Award in the Dairy Manager competition.

To view the 2018 regional award winners and purchase tickets for the national final (in Invercargill, Saturday May 12), visit [dairyindustryawards.co.nz](http://dairyindustryawards.co.nz)

## Young people encouraged into dairy sector

DairyNZ has launched Go Dairy, an interactive website designed to encourage young people to consider a career in the diverse and vibrant dairy sector.

The website is aimed at high school students, people in their 20s, people seeking a career change, parents and teachers. It includes information on recommended study and training, job search sites and DairyNZ's awards and scholarships.

DairyNZ encourages you to share the website with your children and other young people you know. Visit [godairy.co.nz](http://godairy.co.nz)



*Sam Robinson, a fodder beet technical specialist, is one of many young professionals profiled on Go Dairy.*

# Move aSIDE: Dunedin delivers dairy event



Last month we told you about New Zealand’s premier dairy event, SIDE 2018. The South Island Dairy Event’s move to South Otago this year will give it a distinctly different look and feel, as we celebrate SIDE’s 20th anniversary in June.

DairyNZ has been a proud partner with SIDE since its first event in 1999. Run by farmers for farmers, SIDE lines up sector experts to deliver keynote addresses, networking sessions and practical workshops in a revitalised format. SIDE event chairperson Robyn Williams says the anniversary of the event was the perfect opportunity to give SIDE a makeover.

There’s also an excellent opportunity for fun before SIDE kicks off, with the All Blacks third test against France being played in Dunedin beforehand (Saturday June 23). “SIDE 2018 is on Monday June 25 and Tuesday June 26. If you’re travelling to SIDE, why not make a weekend of it and enjoy the game before the conference?” suggests Robyn. “Either way, both events will feature plenty of teamwork and goal-setting!”

The Dunedin Centre provides an ideal location to celebrate the twentieth year of SIDE, adds Robyn. “The 2018 SIDE organising committee is on a journey to make our great conference even better. We’ve worked hard to develop and deliver a programme that takes delegates on a journey too, making sure there is some fun along the way.”

This year’s keynote and workshop speakers will be putting a strong emphasis on delivering in-depth information and applicable tools for delegates to implement on-farm immediately. The rejuvenated format includes some longer session times where there will be time to delve deep, and high energy, shorter workshops with practical applications. The conference dinner will be held at the world-leading grass turf Forsyth Barr Stadium.

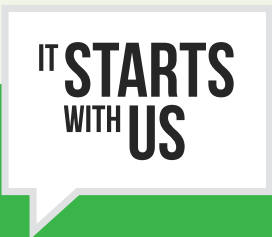
The theme of SIDE 2018, *It Starts with Us*, acknowledges the



*SIDE 2016 committee: the conference has always been high-energy but things will go up a notch for the 20th anniversary this year.*

importance of each and every person working in the dairy sector. “We’re responsible for making positive changes in our lives to sustain our mental and physical wellbeing,” says Robyn. “From there we can embrace the responsibility of effectively leading the people around us to help them grow, mentor them in their development.”

“We all know change is inevitable – it’s up to us to learn about and adopt innovation and technology into our businesses to keep up with those changes. We’re part of an extremely successful sector that is envied around the world. Let’s take the pride we have in dairying and educate ourselves about how to work with the media, engage with our communities, and tell everyone our positive stories.”



**SIDE 2018 :: JUNE 25/26, DUNEDIN CENTRE**

Don’t miss out! There’s still time to register for this event. Visit [side.org.nz](http://side.org.nz)



For the full list of what's on near you, visit [dairynz.co.nz/events](http://dairynz.co.nz/events)

## May events

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	<b>1 BAY OF PLENTY</b> People Expo: hear well-known speakers share what it takes to create a great team culture.		<b>3 LOWER NORTH ISLAND</b> Heifer Rearing Field Day: showcasing the best heifer management practices.		<b>5</b>	<b>6</b>
<b>7</b>	<b>8</b>	<b>9 SOUTHLAND/STH OTAGO</b> People Expo: find out what it takes to become an employer of choice.		<b>11</b>	<b>12</b>	<b>13</b>
<b>14</b>	<b>15 NORTH WAIKATO</b> Waihi Discussion Group: chat about the host farmer's system and management practices, plus seasonal issues.		<b>17 CANTERBURY/NTH OTAGO</b> Banks Peninsula Discussion Group: chat about the host farmer's system and management practices, plus seasonal issues.		<b>19</b>	<b>20</b>
<b>21-23</b>	<b>TAUPO</b> Mark & Measure: a two-day course for owners, sharemilkers and contract milkers to gain skills for personal and business success.		<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>			

[DAIRYNZ.CO.NZ/EVENTS](http://DAIRYNZ.CO.NZ/EVENTS)

### NORTHLAND

Extension 350, Northland's innovative farmer-led mentoring programme, continues to provide opportunities for local farmers to improve profitability, environmental sustainability, on-farm performance and wellbeing.

The programme has recently expanded with new target and mentor farmers now being identified in the Far North and Ruawai, to go along with the South Whangarei and North Whangarei dairy clusters. This will be closely followed by the search for associate farmers to join the clusters.

For more information, or to find out how you can be a part of Extension 350, visit [dairynz.co.nz/northland-projects](http://dairynz.co.nz/northland-projects)

### BAY OF PLENTY

Learn how you can lift team performance and ensure your business attracts the best applicants when recruiting – at the Bay of Plenty People Expo. It's being held in Rotorua on May 1.

Guest speakers will include Team New Zealand crewman and Olympic gold medal rower Joseph Sullivan; Rural Safe founder and managing director Debbie Robertson; and DairyNZ Canterbury consulting officer Natalia Benquet.

Register now at [dairynz.co.nz/peopleexpo](http://dairynz.co.nz/peopleexpo)



### WAIKATO (NORTH & SOUTH)

One of the biggest events on the dairy sector's calendar is on May 8 and 9 at Mystery Creek in Hamilton – the 2018 DairyNZ Farmers' Forum.

Don't miss this valuable opportunity to hear about current global trends from some of the sector's influential leaders and commentators, featuring insights from Minister for Agriculture Damien O'Connor, Minister for Climate Change James Shaw, and comedian and mental health campaigner Mike King.

For more information, see the back page of this issue or visit [dairynz.co.nz/farmersforum](http://dairynz.co.nz/farmersforum)

## TARANAKI

Taranaki farmers visiting their local Fonterra Farm Source store this month will be able to take advantage of a free health check.

DairyNZ's Health PitStops will be in stores in mid-May, and we're encouraging farmers to take a moment while in town to get a health check-up. It'll provide you with a little peace-of-mind ahead of the busy winter months.

Find out dates and more details at [dairyevents.co.nz](http://dairyevents.co.nz)

## LOWER NORTH ISLAND

The popular Heifer Rearing Field Day is back for 2018, coming up early this month on May 3 in Mauriceville.

Showcasing the best heifer management practices, this field day aims to provide a forum for both stock owners and graziers to discuss current and regional issues, and provide practical tools and information.

Open to all farmers, the session will include a variety of discussion topics including winter plans for the R1 heifers, biosecurity and stock feeding.

Find out more at [dairynz.co.nz/events](http://dairynz.co.nz/events)



## TOP OF THE SOUTH/WEST COAST

West Coast's Mawhera Incorporation has been named as a finalist for the Ahuwhenua Trophy – BNZ Māori Excellence in Farming Award. The Mawhera Incorporation Farm is a 348ha property in the Arahura Valley, north of Hokitika, that produces 190,000kg of milk solids. The other finalist is Onuku Māori Lands Trust from Rotorua.

The awards dinner and announcement of the winner will be held in Christchurch on May 25.

Read more about the Mawhera Incorporation at [ahuwhenuatrophy.maori.nz](http://ahuwhenuatrophy.maori.nz)

## CANTERBURY/NORTH OTAGO

Do you or your staff hold an Essential Skills Work Visa and have completed at least five years' employment in the South Island? If so, you may be eligible for the South Island Contribution Work Visa. This visa was introduced last year, after the government announced a new policy to provide a one-off pathway to residence for migrant workers and their families living in the South Island.

Applications close on May 23. More information at [immigration.govt.nz](http://immigration.govt.nz)

## Upper North Island

Head of Upper North Island	Sharon Morrell	027 492 2907
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### Northland

Regional Leader	Chris Neill	027 499 9021
Far North	Denise Knop	027 807 9686
Lower Northland	Mark Forsyth	021 242 5719
Whangarei West	Aaron Traynor	021 809 569

### Waikato

Regional Leader	Wade Bell	027 285 9273
Senior Consulting Officer Lead	Phil Irvine	027 483 9820
South Auckland	Jamie Haultain	027 486 4344
Hamilton North	Jaimee Morgan	021 245 8055
Matamata/Kereone	Frank Portegys	027 807 9685
Morrinsville/Paeroa	Euan Lock	027 293 4401
Hauraki Plains/Coromandel	Annabelle Smart	021 242 2127
Te Awamutu	Stephen Canton	027 475 0918
Otorohanga	Michael Booth	027 513 7201
South Waikato	Kirsty Dickins	027 483 2205

### Bay of Plenty

Regional Leader	Sharon Morrell	0274 922 907
Consulting Officer, Special Projects	Wilma Foster	021 246 2147
Central BOP (Te Puke, Rotorua)	Kevin McKinley	027 288 8238
Eastern BOP (Whakatane, Opoitiki)	Ross Bishop	027 563 1785
Central Plateau (Reporoa, Taupo)	Colin Grainger-Allen	021 225 8345
Katikati, Galatea, Waikite/Ngakuru	Jordyn Crouch	021 619 071

## Lower North Island

Head of Lower North Island	Rob Brazendale	021 683 139
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### Taranaki

Acting Regional Leader	Simon Sankey	021 228 3446
South Taranaki	Ryan Orchard	021 246 5663
Central Taranaki	Sarah Payne	027 704 5562
Coastal Taranaki	Anna Arends	021 276 5832
North Taranaki	Lauren McEldowney	027 593 4122

### Lower North Island

Horowhenua/Wanganui/South Taranaki/Southern and Coastal Manawatu	Scott Cameron	027 702 3760
Wairarapa/Tararua	Abby Scott	021 244 3428
Hawke's Bay	Gray Beagley	021 286 4346
Central/Northern Manawatu/Rangitikei	Jo Back	021 222 9023

## South Island

Head of South Island	Tony Finch	0277 066 183
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### Top of South Island/West Coast

Nelson/Marlborough	Mark Shadwick	021 287 7057
West Coast	Angela Leslie	021 277 2894

### Canterbury/North Otago

Regional Leader	Virginia Serra	021 932 515
North Canterbury	Virginia Serra	021 932 515
Central Canterbury	Natalia Benquet	021 287 7059
Mid Canterbury	Stuart Moorhouse	027 513 7200
South Canterbury	Erin Christian	021 243 7337
North Otago	Trevor Gee	021 227 6476

### Southland/South Otago

Regional Leader	Richard Kyte	021 246 3166
South Otago	Mark Olsen-Vetland	021 615 051
Central/North Western Southland	Nicole E Hammond	021 240 8529
West Otago/North Eastern Southland	Liam Carey	027 474 3258
Eastern Southland	Nathan Nelson	021 225 6931
Western Southland	Teresa Anderson	027 702 2219

8-9TH MAY | MYSTERY  
**2018** CREEK  
EVENTS  
CENTRE

DairyNZ  
**Farmers'**  
forum

DAIRY  
TOMORROW  
▶ TODAY

FEATURING:

- ➔ Hon. Damien O'Connor
- ➔ Hon. James Shaw
- ➔ Mike King
- ➔ Dairy company leaders



FEATURING INSIGHTS ON:

- what is driving change in global markets and what it means for us
- how we respond to the challenges and opportunities
- emerging technologies and techniques on-farm.

FACE THE FUTURE WITH CONFIDENCE

View the full programme and register at

[DAIRYNZ.CO.NZ/FARMERSFORUM](http://DAIRYNZ.CO.NZ/FARMERSFORUM)