DairyNZ

ANNUAL REPORT 2019/20

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DairyNZ your levy in action

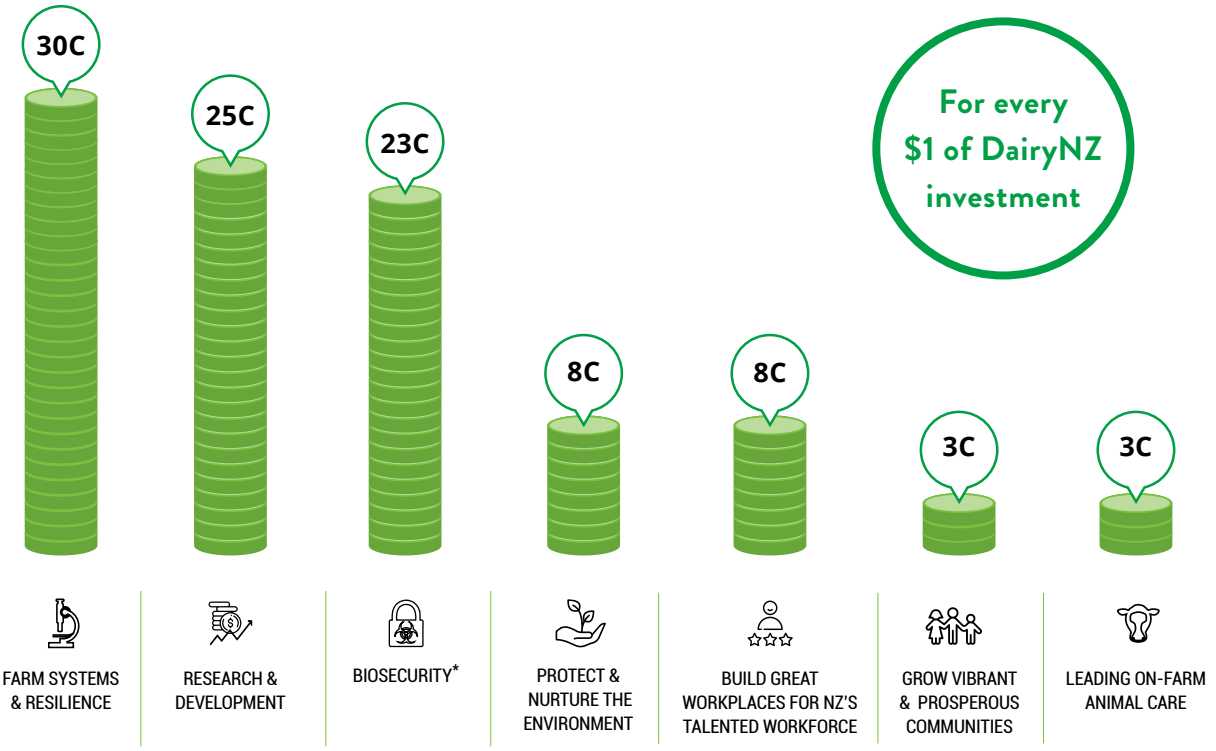
We invest dairy farmers' money into a wide range of programmes, guided by the dairy sector strategy.

In 2019/20, a total of $68.3 million was collected through the milksolids levy, plus DairyNZ received Government co-funding.

Our work includes research and development to create practical on-farm solutions, supporting farmers in the on-farm adoption of good practice farming, promoting careers in dairying and advocating for farmers with central and regional government.

Levy and co-funding investment by objective

2019/20 funding under the sector strategy, Dairy Tomorrow.



2020/21 DairyNZ investment commitments

2020/21 funding under the commitments in the sector strategy, Dairy Tomorrow.

	FORECAST SPEND
Protect and nurture the environment	**$6.5M**
Building competitive and resilient dairy farming businesses	**$56.8M**
World leading in on-farm animal care	**$3.0M**
Build great workplaces for New Zealand's most talented workforce	**$6.3M**
Help grow vibrant and prosperous communities	**$1.8M**

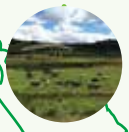
*LARGELY TB CONTROL INVESTMENT SUPPORTING OSPRI

DairyNZ delivering a better future for farmers across New Zealand

Northland

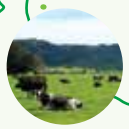
DairyNZ is a partner in Extension 350, a farmer-to-farmer extension program that has so far supported 341 farmers to be better prepared for challenges and feel more confident making decisions. At a recent workshop, farmers who joined the project in 2016 said they wanted to continue being part of Extension 350 beyond the original scope of the project.

DairyNZ has been working with a range of organisations to coordinate drought support. Consulting officers offered free feed budgets, and we helped host free community dinners which attracted over 550 people from local rural communities.



Bay Of Plenty

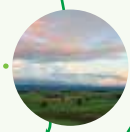
Over 100 farmers joined a series of DairyNZ workshops on contract milking due diligence. Attendees told us the workshops improved their understanding of requirements.The Eastern Bay of Plenty Māori Agribusiness cluster programme was launched in 2019 to better support Māori farming.

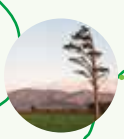


Waikato

DairyNZ has been supporting drought affected farmers by completing free feed budgets, co-hosting Lunch on Us events, and shed meetings. We have also been working with, and for, farmers to prepare a submission on Healthy Rivers Plan Change 1, which achieved some positive changes for farmers.

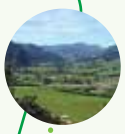
Lye and Scott farms are researching sustainable, profitable on-farm options including plantain, maximum milking times, pasture persistence and validation of the forage value index.





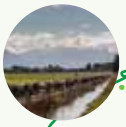
Lower North Island

DairyNZ is working with 118 Tararua farmers to trial using plantain to reduce nitrogen losses to meet stringent regional rules. The project is a blueprint for farmers to meet catchment nitrogen requirements.



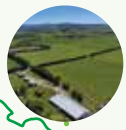
Top of South/West Coast

DairyNZ worked with a range of organisations to support West Coast farmers following adverse weather. A West Coast benchmarking group has been set up to help farmers increase their financial skills and profitability. A benchmarking group for the Upper South now has key environmental performance indicators and three years of data to profile trends.



Canterbury/North Otago

DairyNZ is continuing to work with partner farmers in Selwyn and Hinds to identify options to reduce nitrogen losses and share this with local farmers. A recent survey indicates that widespread change is now occurring in these zones. DairyNZ also hosted a People Expo, and has been working with farmers and stakeholders to put forward strong submissions to a number of plan changes. Local research into '3 in 2 milking' is indicating this may benefit farm teams, with only minor affects on milk production.



Southland/South Otago

DairyNZ delivered a wintering campaign with a range of events which has increased awareness and implementation of good practice. DairyNZ's Southland team hosted 100 farmers at a People Expo, and worked closely with farmers to support them through a significant flood.

An important year for dairy, and a chance to shine

Jim van der Poel

At last year's AGM I reflected that 2018/19 had been a very big year for the dairy sector.

Well each year it seems to be the same – as this past year has been an even bigger one for dairy, and it has highlighted the value and importance of our sector to New Zealand's future.

In October 2019 the Government accepted a farming sector proposal – He Waka Eke Noa – to work together with the Government to build a farm-level emission reduction framework. This is a world leading partnership that will allow farmers and the farming sector to identify practical ways to measure and reduce emissions on farms.

Significant freshwater reforms were released for consultation in 2019. DairyNZ developed a strong submission to address areas of concern. We saw over 2,000 farmers attend our events on the Action for Healthy Waterways proposal. Thousands of farmers lodged submissions too.

From this effort we achieved some significant wins, but there is still further work ahead for farmers and the sector as Action for Healthy Waterways regulations are implemented through regional plan changes.

This year we have made good progress toward the eradication of *Mycoplasma bovis*. The independent review DairyNZ commissioned resulted in some significant changes to the *M. Bovis* programme. Over 1,500 farmers have used the free compensation assistance service offered by DairyNZ and Beef + Lamb New Zealand. This service is producing faster compensation for farmers and helping reduce the stress associated with a claim.

Covid-19 has also shone a light on the important role the dairy sector plays in New Zealand. At a time when some of our major sectors have been adversely affected by Covid-19, dairy is playing an increasingly vital role as a source of income and employment.

It hasn't been an easy year for many farmers. Covid-19 has created a lot of uncertainty about staffing issues for many farms and milk price volatility. A number of regions have been affected by drought too.

However, we are also seeing some significant shifts in the way the community perceives and values dairy which are extremely positive, along with the entry of more Kiwis into the sector.

In May this year, farmers had the opportunity to vote on the milksolids levy. Thanks to everyone who took the time to vote during what was an extremely busy time, amid Covid-19.

I believe that having DairyNZ as an industry organisation is more important than ever in a time of significant change.

With an election looming, DairyNZ is now focusing our activity on sharing your priorities and concerns with political parties through our View from the Cowshed survey. This survey highlighted that uncertainties about regulation are stressful for farmers, on top of the existing challenges inherent in farming.

Over the next year DairyNZ will be continuing to work with you, and for you, to deliver a better future for all New Zealand dairy farmers. Our team is always ready to offer our advice and assistance so please get in touch if you need our help.

Warm regards,

Jim van der Poel

DairyNZ chair

DairyNZ events attract over 20,000 attendees

In 2019/20, 21,973 people participated in 1,182 DairyNZ events including field days, discussion groups, workshops, meetings and forums.

Sector at a glance statistics for the 2019/20 dairy season

11,179
Total number of herds
(down 193 herds from 2018/19)

Cows

4.921
million milking cows
(0.5% decrease from 2018/19)

1.896
billion kg of milksolids
Processed by dairy companies in 2019/20
(up 0.6 percent on 2018/19)

385
average kg milksolids per cow
(up 4kg/cow on 2018/19)

Farmers

6,268
owner-operators
(56% of herds)

3,227
sharemilkers

1,597
contract milkers

Farms

155ha
average farm size
(effective ha)

440 **average herd size**
(up 5 from 2018/19)

DairyNZ and farmers work together in changing times

Tim Mackle

As I reflect on this year, I'm proud of how farmers and our team at DairyNZ have come together to turn challenge into success.

Responding to Covid-19 created a significant number of challenges for New Zealand businesses, and farmers had to rapidly adapt how they farm to meet changing requirements. At the heart of this response was a need to keep everyone safe and still farming to provide Kiwis and global customers with nutrition and much needed export income for New Zealand.

Both farmers and DairyNZ rose to this challenge. Our team worked with other primary sector organisations and the Government to find solutions to enable Moving Day to go ahead, and to successfully advocate for visa extensions for migrant workers. On the ground, farmers were operating in a rapidly changing, complex environment and adapted their farming practices.

DairyNZ worked with the Government to set up a significant GoDairy campaign to offer Kiwis who had lost their jobs due to Covid-19 the opportunity to move into a dairy career. It's been great to meet GoDairy participants and hear about their enthusiasm for the training and dairy farming. Practical training is now underway across New Zealand.

Significant freshwater reforms generated a number of concerns amongst farmers – particularly proposed nutrient limits and requirements to move existing fencing. Across the organisation, staff worked to develop a 240 page submission and submit 27 technical papers to the Government. Strong submissions from DairyNZ and farmers resulted in substantial changes by the Government.

Our Vision is Clear campaign has been successful in improving how the public view dairy. The campaign is reaching over 500,000 people a month through social media. 66 percent of those who have seen or heard stories from the campaign have a favourable view of dairy farming, compared to 43 percent favourability amongst people who had not seen the campaign.

Our research team had a very busy and successful year. There is some exciting research underway into flexible milking, testing fertility traits and how zeolite can reduce the incidence of milk fever.

Two key science programmes were acknowledged through awards. Our Pillars of a New Dairy System programme was recognised with gold status from the Ministry for Business, Environment and Employment, while our long-running Forages for Reduced Nitrate Leaching programme received a significant achievement award. You can read more about these projects and all our activities in this report.

In May, farmers were invited to vote on the continuation of the milksolids levy. As part of the way we work, we want to keep identifying how we can improve and the feedback we received from meetings, Farmers' Forums and discussions is helping shape a strategy refresh which will guide our future focus.

As part of our new approach we will be placing more emphasis on engaging with farmers and communicating the results your levy investment is achieving.

As we refresh our strategy, we will look ahead and focus on prioritising our research and resources to deliver the greatest value to you for your levy investment.

I appreciate the support we have received from farmers and our team at DairyNZ during this busy and successful year.

Warm regards,

Tim Mackle
Chief Executive

DairyNZ Board of directors

Jim van der Poel ► Chair

Jim is a dairy farmer and with his wife Sue has farming interests in Waikato, Southland, Canterbury and in the United States.

He has a long association with DairyNZ that includes being on the foundation board of the organisation's predecessor Dexel, and then becoming chair before taking on a farmer-elected director position on DairyNZ's first board in 2007. He stepped down in 2009, and was re-elected in 2013, becoming chair three years ago.

Jim was previously on the Fonterra board, a position he held for 12 years, and was an inaugural director on the Fonterra Shareholders Fund, as well as serving on the board of New Zealand Cooperative Dairies.

Amongst the industry awards he has received over the years are the A. C. Cameron Memorial Award, Nuffield Scholarship, Sharemilker of the Year and Dairy Exporter Primary Performer Award.

Colin Glass

With his wife Paula and their daughters, Colin owns and operates a 671-cow dairy farm, and two further properties that rear and finish bull beef at Methven in Mid-Canterbury.

He is a chartered accountant fellow and has a commerce degree in farm management and a post-graduate diploma in accountancy and finance from Lincoln University.

Colin is the chief executive of Dairy Holdings Limited which has extensive operations throughout the South Island. He is a director of a number of agri-business companies and is currently chairman of Ashburton Lyndhurst Irrigation Limited.

Elaine Cook

Elaine has interests in a 300 hectare family dairy farm in Otautau, Southland, and lives in Waikato with her three daughters. She and her late husband took the traditional progression through the industry to farm ownership, farming both in Waikato and Southland.

Her governance roles have been with organisations that create value for others in agri-business, research and innovation, industry good, pastoral dairy farming and education. Amongst her current roles is chairing the Southland Dairy Leaders Group, which has a strong environmental focus.

Elaine's corporate career has involved agri-business, local government, information management, health and safety, and human resources.

Tracy Brown

Tracy is the immediate past chair of DairyNZ's Dairy Environment Leaders Forum and the Ballance Farm Environment Awards Alumni. She has also been a trustee of Dairy Women's Network and St Paul's Collegiate School. She was recently awarded a Nuffield Scholarship for 2020.

Her first role was as an economist for the NZ Meat and Wool Board. She has a Bachelor of Agricultural Science (Hons) from Massey University, is a Kellogg Rural Scholar and an Agri-Women's Development Trust 'Escalator' graduate.

In 2010 Tracy and her husband won the Waikato Ballance Farm Environment Supreme Award and in 2019 the Fonterra Farm Source Responsible Dairying Award. She received a Sustainable Business Network's 'Sustainability Superstar' award in 2018, and was recently part of the Essential Freshwater Independent Advisory Panel appointed by Cabinet.

Dr Jacqueline Rowarth

Jacqueline has a background in research, education, management and governance with organisations including AgResearch, Lincoln University, Unitec, the University of Melbourne, Massey University, the University of Waikato, the Environmental Protection Authority, Crop and Food Research and AGMARDT. She is currently a farmer-elected director of DairyNZ and Ravensdown.

A past president and fellow of the New Zealand Institute of Agricultural and Horticultural Science, Jacqueline is also a past president of the New Zealand Grassland Association and a current trustee of the NZ Grassland Trust. She is a Companion of the Royal Society of New Zealand, and a Companion of the New Zealand Order of Merit for services to agricultural science.

Dr Helen Anderson

Helen Anderson is an experienced director who currently chairs Scion, BRANZ (Building Research Association of New Zealand) and Studio Pacific Architecture. She is a director of NIWA and Antarctica NZ.

Helen was Pro-Chancellor of Massey University until December 2019 and she serves on several advisory committees for the New Zealand Government.

She was chief executive of the Ministry of Research, Science and Technology for six years and before that its chief scientific advisor.

Helen is a Companion of the Queen's Service Order, a chartered fellow of the Institute of Directors and a Companion of the Royal Society of New Zealand.

Peter Schuyt

Peter is an independent director for a broad range of New Zealand businesses.

Currently he chairs Dairy Investment Fund Ltd and Tax Management NZ Ltd. He is also on the board and chairs the audit and risk committees of Tatua Co-operative Dairy Company, TSB Bank Ltd, Foodstuffs North Island Ltd and the Alliance Co-operative Group.

Prior to taking on chair and director roles, Peter held senior executive roles, primarily in finance and strategy, for the New Zealand Dairy Board, Fonterra and the New Zealand Post Group.

Peter is a chartered fellow of the New Zealand Institute of Directors.

Jo Coughlan

Originally from a sheep and cropping farm in Mid-Canterbury, Jo married a Southland farmer. Having lived for 25 years in Wellington, she brings diverse thinking and experience to DairyNZ.

Jo's career spans manufacturing; banking and financial services; consulting; politics; not-for-profit and governance. She has held senior corporate roles for organisations such as NZ Aluminium Smelters Ltd, AMP, Ergo, National Bank and was press secretary for then Deputy Prime Minister and Foreign Affairs Minister Right Hon Don McKinnon. She has since built a successful consulting business representing national and international clients and held several leadership and governance roles.

DairyNZ Senior leadership team

Dr Tim Mackle ► Chief executive

Tim has been DairyNZ's chief executive since its inception in 2007 and was chief executive of its predecessor Dexcel.

He leads DairyNZ in its vision to deliver a better future for New Zealand dairy farmers. Previously, Tim was general manager of Fonterra subsidiary, Anchor Ethanol.

He also held a corporate role at Fonterra supporting the first CEO after working in the strategy team for the New Zealand Dairy Board, having started his working career as a nutrition and milk characteristics scientist at the Dairying Research Corporation. Tim has a PhD in animal, food and nutritional sciences from Cornell University, New York.

Dr Jenny Jago ► Strategy and investment leader – farm performance

Jenny oversees strategy and programme investments related to farm business performance, sector capability development and animal care.

Jenny joined DairyNZ as a scientist in 2001 and was involved in the Greenfield Project which researched the application of automatic milking in New Zealand farming systems. She later became a portfolio manager and then a strategy and investment leader in 2018.

Jenny previously worked as a researcher at AgResearch CRI and spent a year at Teagasc Moorepark, the National Dairy Research Centre in Ireland. She has a Doctorate in Philosophy in animal sciences, animal physiology, behaviour and meat science from the University of Waikato.

Dr David Burger ► Strategy and investment leader – responsible dairy

David oversees strategy and programme investments related to environmental sustainability, community engagement and biosecurity.

A water quality scientist by training, David has more than 20 years of national and international experience in applied water resources management generally. He joined DairyNZ as a water quality specialist in 2013 and became manager of the environment team in 2015 before joining the executive team in 2018.

Prior to DairyNZ, he spent seven years working as a scientist and advisor for Deltares, an independent water research institute and consultancy, based in the Netherlands and then Singapore. David holds a PhD in limnology and a MSc in freshwater ecology from the University of Waikato.

Dr Bruce Thorrold ► Strategy and investment leader – new systems and competitiveness

Bruce oversees two strategic investment areas. The first includes research into farm profitability and footprint. The second includes the DairyNZ led national evaluation systems for animals (Breeding Worth) and forages (Forage Value Index), and the sector's core economic database (DairyBase).

Bruce has been a strategy and investment leader since 2008. Before his current role Bruce led the Dexcel farm systems research team and was involved with the Holstein Friesian Strain Trial and the Lake Taupo policy process.

He worked for AgResearch and the Ministry of Agriculture and Fisheries for 15 years researching soil science and catchment management, including hill country and lowland studies. Bruce graduated from Lincoln College with a Bachelor of Agricultural Science (with first class honours) and returned to Lincoln University to do a PhD in Soil science.

Dr David McCall ► General manager – new systems and competitiveness

David's team of scientists and economists create and provide farmers with new solutions that work on-farm. The aim is to increase farmers' profit from productivity by $110 per hectare a year, while achieving future environmental footprint targets, advancing animal husbandry and welfare, and creating more productive and attractive workplaces on-farm.

David has previously held general manager roles for development and extension, and research and development at DairyNZ. Before this, he was in business development managing technology company start-ups and investments at Celentis. He also worked as a farm systems scientist at AgResearch. He has a PhD in agricultural economics and farm management from Massey.

Jenny Cameron ► General manager – responsible dairy

Jenny was appointed as general manager responsible dairy in 2018 where she oversees the biosecurity, animal welfare, environment, and people and policy teams that advocate the farmer position to government, and seek to ensure policies are workable on-farm.

She was previously the chief executive of the Electricity Retailers' Association of New Zealand, and prior to this, director of external relations for the Brewers' Association of Australia and New Zealand.

Jenny held various roles at the Ministry of Foreign Affairs and Trade for ten years, including in trade negotiations and legal and bilateral policy, was a diplomat in Japan, and worked as a lawyer. She has a Bachelor of Psychology and Law from Victoria University of Wellington.

David Evans ► General manager – corporate services

David has been with DairyNZ since 2007. He was formerly DairyNZ's financial controller and then chief financial officer. He was appointed as general manager corporate services in 2018. Corporate Services covers finance, project management, digital information and communications technology, facilities, procurement and health, safety and welfare.

David is also company secretary for the DairyNZ Group, secretary for the New Zealand Core Database Access Panel, and a DairyNZ appointed director of the Southern Dairy Hub. He brings a wide range of commercial experience to his role. He has a Bachelor of Commerce from the University of Auckland, and is a member of Chartered Accountants Australia and New Zealand.

Julia Murphy ► General manager - people and culture

Julia was appointed as general manager people and culture in September 2019. DairyNZ believes in our people – the better they are supported, the better they support our dairy farmers. The People and Culture team strive to harness the passion of DairyNZ's people, developing their talent to enable the organisation to meet the needs of an everchanging industry and sector, keeping farmers ahead of the curve.

Since joining DairyNZ in 2010, Julia has held a number roles including Senior HR Business Partner and Transformation and Culture Manager. Prior to this she worked for the Royal Bank of Scotland as an HR Business Partner and Project Manager. Julia holds a Bachelor of Arts from Waikato University and a Certificate of Personnel Practice (CIPD) from the University of Strathclyde.

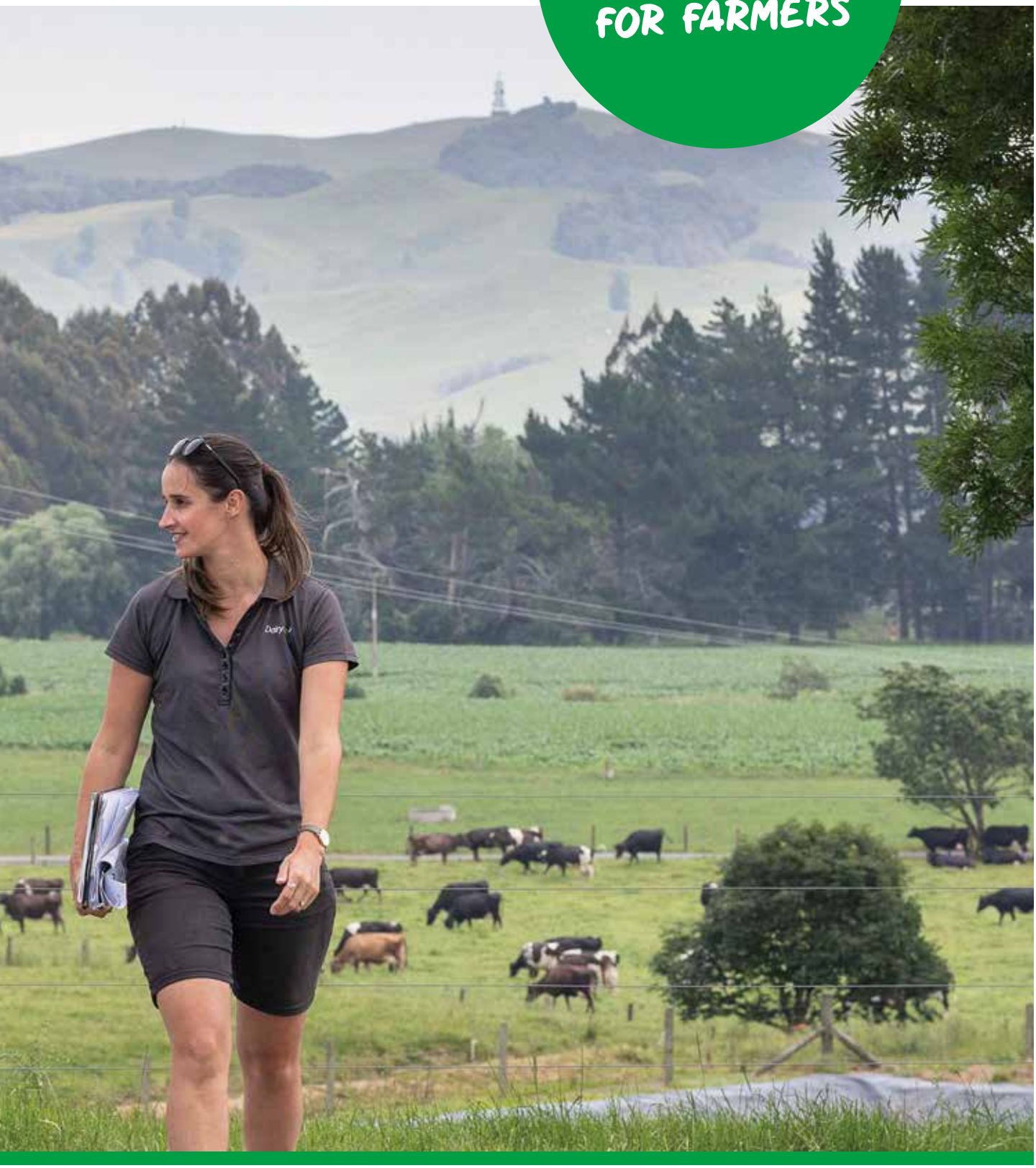
Sharon Morrell ► Acting general manager – farm performance

Sharon's team creates resources, links the wider expertise of DairyNZ and connects with farmers. Their aim is to engage with farmers in their communities, supporting farm business resilience and sector competitiveness. They play a key role in helping farmers respond to adverse events.

With an Agricultural Science degree from Massey University and certificates in nutrient management and adult learning, Sharon has farmed, tutored and consulted prior to joining DairyNZ ten years ago as a consulting officer. Sharon has held a variety of community leadership roles. She is also a Nuffield scholar, and studied how producers cope with change.

HIGHLIGHTS 2019/20

DELIVERING A BETTER FUTURE FOR FARMERS



BETTER SOLUTIONS THROUGH SCIENCE

Improving the fertility of our national herd

A large-scale trial involving 5,000 animals is testing new traits as indicators of cow fertility.

Cow fertility is measured by a Fertility Breeding Value (BV). Currently, the traits used to estimate BV have low heritability. This limits farmers' ability to select for these traits to improve herds.

Researchers have found that high fertility BV heifers reach puberty three weeks earlier, and 25 kg lighter, than low fertility BV heifers. High fertility cows also had a shorter non-cycling period after calving and stronger and longer heats. These characteristics are associated with significantly greater submission and 6-week in-calf rates.

In 2019, the research team estimated puberty timing in around 5,000 heifers. Current findings indicate this puberty measure is 19 percent heritable, making it significantly more useful than existing measures to select sires that produce more fertile daughters.

Researchers are now looking at the fertility of these heifers as lactating cows to confirm the link between heifer puberty and cow fertility. The length of the non-cycling period after calving, strength and length of heat, and conception date, will also be examined as fertility traits.

The trial is part of a partnership programme jointly funded by DairyNZ, the Ministry of Business, Innovation and Employment, and AgResearch. Additional funding and resources are provided by Fonterra, LIC and CRV Ambreed.

Flexible milking creates options to manage farm workload

New research into 'three in two' milking indicates that farmers and their staff could benefit from this system, with only a small reduction in milk production.

A flexible milking trial has been running for a year at the Lincoln University Research Dairy Farm. It involves 116 cows split into four herds. One herd is milked twice-a-day; while three herds are on different variations of 'three in two' milking (three milkings over two days).

The initial trial results show a 0.09 kg decrease in milksolids per cow a day for each day of 'three in two' milking. This equates to a five percent decrease in milksolids for the full-season 'three in two' herd.

Dr Paul Edwards, the DairyNZ Senior Scientist leading the research says the trial results are exciting. "Many Canterbury and Otago farms use 'three in two' milking in mid to late lactation," he says. "Our results indicate that starting 'three in two' milking earlier in the lactation or using it across the whole season could be a good option for many farms."

"Reducing the number of milkings, and changing their timing, can help manage farm workload and open up dairy roles to a wider workforce."

The trial is part of a three-year project investigating flexible milking options. Six farms will pilot 'three in two' milking in 2020 and 2021. To follow the trial visit **dairynz.co.nz/3in2**

Zeolite trial produces promising results

The first stage of a large-scale trial on the use of synthetic zeolite to reduce milk fever and improve reproductive performance has produced promising preliminary results.

Feeding synthetic zeolite before calving binds dietary calcium and other minerals in a cow's rumen, stimulating cows to optimise calcium balance at calving.

As part of the Zeolite Scale-Up Trial, researchers have confirmed that synthetic zeolite reduces the risk of milk fever in grazing cows. Results indicate that synthetic zeolite also reduces the incidence of subclinical milk fever and may improve reproductive performance. The best responses have been obtained when zeolite is delivered using maize silage in troughs or bins, or using concentrate pellets through in-shed feeding systems.

In the 2019/2020 season, 1000 cows joined the trial. Half of these cows will receive zeolite for three weeks prior to calving.

The trial is being repeated this season with 1500 cows. It is a collaboration between DairyNZ and Cognosco (a research division of Anexa Animal Health), and funded by DairyNZ and the Ministry for Business, Innovation and Employment.

To follow the trial visit **dairynz.co.nz/pillars**

Award winning programme enables plantain benefits to be modelled in Overseer

The findings from a significant DairyNZ-led research programme looking at pasture and crop options to reduce nitrate leaching have now been modelled in Overseer.

The long running Forages for Reduced Nitrate Leaching (FRNL) programme was completed in 2019.

"We identified early on that including the effects of mitigation options in the Overseer model would be an important programme outcome," says Dr Ina Pinxterhuis, FRNL programme leader. Research results were collated and proposals for model changes were made.

With a recent update to Overseer, the model now reflects the effects of plantain on urine nitrogen excretion. Depending on the amount of plantain in animals' diets, this can reduce nitrogen leaching. Further research on soil processes is planned and may result in further updates to the model.

Last year FRNL received a Significant Achievement Award from the Canterbury Section of the New Zealand Institute of Agricultural and Horticultural Science.

FRNL project team members with their NZ Institute of Agricultural and Horticultural Science award.

Researching low impact farming systems

DairyNZ is researching the profitability of lower impact kale and fodder beet systems at the Southern Dairy Hub.

Four farm systems are being trialled. The systems are comparing farm profitability and the environmental outcomes of kale and fodder beet wintering systems at two levels of environmental impact.

The kale and fodder beet control systems are based on current industry practice with 3.1 cows per hectare and use up to 200 kg of nitrogen (N) per hectare per year.

Lower impact kale and fodder beet systems have been designed to significantly reduce nitrate leaching. These systems have 2.6 cows per hectare, use less supplement and only 50 kg N per hectare per year.

To date, the lower impact fodder beet system has reduced predicted nitrate leaching losses by 44 percent when compared to the control kale system, and by 32 percent when compared to the control fodder beet system. All systems were profitable, with the control systems being more profitable.

This year, the trial will focus on making adjustments to boost the profitability of the lower impact systems, while maintaining their environmental benefits.

DairyNZ Project lead Dr Dawn Dalley says that the research will help farmers consider how to review their farm systems to manage their environmental impacts, while considering profitability.

"The trial results will also be important to councils and government to understand how changes to environmental regulations may affect farmers and the wider community."

Trait selection in cows may help improve waterways

DairyNZ is leading a Low N Livestock Programme which aims to reduce nitrate leaching to improve our waterways, reduce greenhouse gas emissions and help farmers meet regulatory requirements.

The research is examining which genetic traits are the key contributors to nitrogen leaching on farms, and developing tools to breed cows with lower urinary nitrogen.

Last year, the project examined the link between milk urea nitrogen and urinary nitrogen in approximately 350 cows. This year it is looking at the same correlation in another 150 cows. Traits are being assessed to identify whether they are easy to measure and strongly hereditary.

This eight-year, $21 million programme is funded by DairyNZ and the Ministry of Business, Innovation and Employment, with co-funding from CRV-Ambreed and Fonterra. AgResearch, AbacusBio, Massey University and Lincoln University are research partners.

Summer interns Shobana Reddy and Jessica Dalton and Technical Team Leader Olivia Jordan investigate cow kidney function. Photo: Brendon Welten, AgResearch.

SHAPING A BETTER FUTURE FOR THE SECTOR

The Vision is Clear improves perceptions of dairy farming

The Vision is Clear movement is sharing stories of environmental change with a growing number of Kiwis, and changing the public's views of dairy farming for the better.

In November 2018, DairyNZ launched The Vision is Clear – a movement that aims to improve water quality through raising the profile of dairy farmers' environmental work and inspiring Kiwis to play their part in looking after waterways.

Radio, print, and online videos led 218,000 people to visit The Vision is Clear website in the past year and reached over 525,000 people on social media every month. This shared environmental improvement work occurring nationally.

The work of Southland farmers Chris and Lynsey Stratford to fence off waterways, add 10,000 plants, and begin a pest trapping programme was profiled.

"We wanted good environmental outcomes," Lynsey said. "But that doesn't mean you can't farm. Farmers do a really good job and they now know what good looks like. So, the more they can be empowered, the better the outcomes will be."

'Do something Tree-warding' was also launched in October 2019, and through this initiative 1421 trees have been donated to conservation charity Trees that Count for community waterway planting projects across New Zealand.

The Vision is Clear is part of a wider programme to improve perceptions of dairy farmers which includes school farm visits, providing education resources and proactive media activity.

THE VISION IS CLEAR

LET'S IMPROVE OUR WATERWAYS
Powered by DairyNZ

218,000
visits to the Vision is Clear website

525,000
people saw posts on social media each month

Favourability toward dairy farmers was **66 percent** for those who had been exposed to the Vision is Clear (compared to **43 percent** who had not)

M. bovis eradication on track

Good progress is being made towards dairy farmers being able to farm free from *Mycoplasma bovis (M. bovis)*.

Like Covid-19, *M. bovis* has significantly impacted our community and tested NZ's biosecurity system - all along the chain. We've worked hard to represent farmers in decisions and to advocate for continual improvement. The Government recently recognised that having industry partners at the table has strengthened the *M. bovis* programme. Significant improvements were made in the past year following a DairyNZ commissioned independent review.

We continue to work closely with the Ministry for Primary Industries and Beef + Lamb New Zealand to protect hard won gains, find solutions and ensure farmers have a strong say at the decision table. Our regional recovery team are supporting affected farmers with practical solutions to keep farming and a range of DairyNZ experts support the programme.

Over 1,500 farmers used the free DairyNZ, Beef + Lamb New Zealand Compensation Assistance service, and benefitted from a faster claim payout.

The Biosecurity Response Levy was reduced from 2.9 cents to 2.4 cents per kilogram of milksolids for the 2020/21 season.

Strengthening our biosecurity system

Beyond *M. bovis*, preparedness is a top priority. Over the past year, DairyNZ has been working with farmers, Beef + Lamb NZ and the wider community through our OnFarm Biosecurity programme to collectively respond to these threats.

Our good practice guidance and a growing set of resources support farmers with practical, farm systems based on-farm biosecurity, and we've held nationwide farmer biosecurity workshops.

Responsibility for biosecurity goes well beyond the farmer and we're working closely with other primary sector groups to align our views on the upcoming Biosecurity Act Review. We're engaging with Government policy teams to support sensible outcomes and advocating that the wider biosecurity system is properly resourced, draws on our *M. bovis* learnings and ensures everyone plays their part.

DairyNZ is also the majority investor in the TBfree programme, which has contributed to the number of infected dairy herds dropping from 230 in 1996 to 11.

Your levy is also funding an innovative tool to reduce the risk of biosecurity threats reaching your farm and damaging your business. D-BRiEF (Dairy Biosecurity Risk Evaluation Framework) leverages New Zealand and overseas expertise to better identify and assess these threats in a transparent, scientifically credible manner. It helps us work with Government and other stakeholders to strengthen our biosecurity system, by identifying the likelihood of organisms getting through our borders onto farms, how widely they could spread and their impacts.

Wetland guidance aims to help improve water quality

New guidance on the performance and design of constructed farm wetlands draws on local and international evidence to show how well-planned wetlands can reduce nitrates by 20 to 50 percent.

NIWA - supported and co-funded by DairyNZ - developed the new guidance and performance estimates to assist people who design, review plans for, and construct wetlands. The new analysis will support farmers considering whether to invest in developing wetlands as an on-farm environmental mitigation.

A range of environmental experts and council planners were involved in reviewing the guidelines, which were endorsed by a technical advisory group of key stakeholders.

DairyNZ will draw on the new technical guidance to develop a practical resource for farmers.

World leading emissions partnership signed

In October 2019 the Government accepted a farming sector proposal – He Waka Eke Noa - to work together to build a farm-level emission reduction framework.

The partnership between 11 primary sector and Māori groups and the Government is a world-first and one of the most significant developments on climate action in New Zealand's history.

The partnership means that instead of pricing agricultural emissions through the Emissions Trading Scheme (ETS) as previously proposed, farmers and growers will be incentivised to take action through an appropriate pricing mechanism. The mechanism will be designed in collaboration with the agricultural sector and Māori groups and be in place by 2025, in line with Government legislative requirements.

Farmers benefit from the partnership by avoiding a system through the ETS that would have been similar to a tax on production (of up to $47 million per annum from the sector) rather than a system linked to emissions. This allows farmers and sector bodies to focus on building the appropriate mechanisms and understanding to manage and reduce emissions, and get the settings right.

Primary sector organisations, Māori and Government are combining their expertise to support farmers to measure, manage and reduce emissions on farms. To date, over 140 experts have been involved in mapping out work already underway to support emissions measurement and reduction, and identifying current gaps. Several project workstreams have been created.

The partnership aims to build knowledge so that by 2022 all farmers know their emission numbers, and by 2024 a system for farm level accounting and reporting of emissions is in place.

By drawing on a growing body of knowledge and resources, by 2025 under He Waka Eke Noa, all farmers and growers will be able to include climate change mitigation and adaption activities in their farm environment plans.

Advocacy on freshwater achieves wins for farmers

A comprehensive evidence-based DairyNZ submission - and thousands of submissions from dairy farmers - contributed to positive changes to the Action for Healthy Waterways package this year.

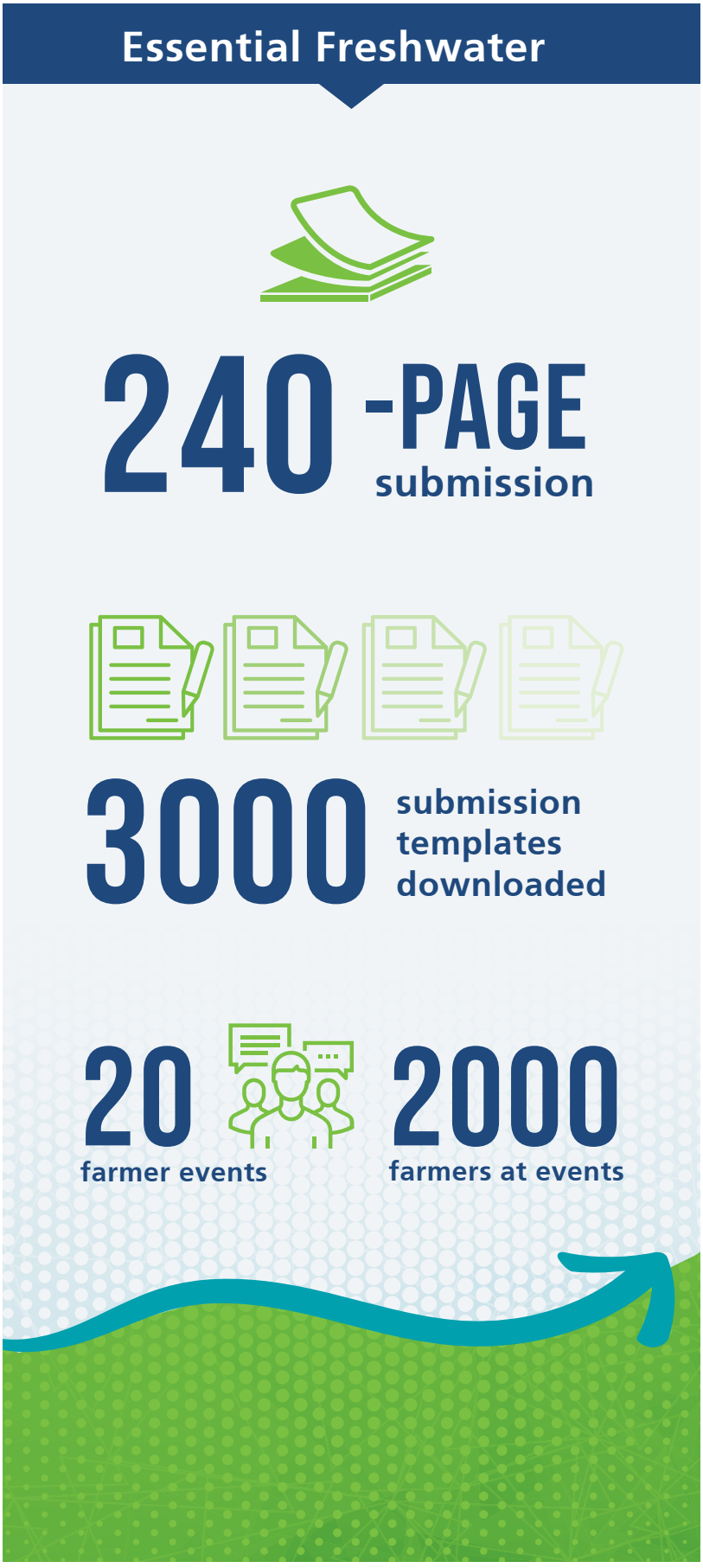
In September 2019, significant freshwater reforms were released for consultation. Over 2000 farmers and rural professionals attended DairyNZ hosted farmer meetings, submission drop-in sessions and webinars to explain the proposals.

Farmer feedback helped shape our submission. We supported some aspects of the package – such as mandatory farm environment plans, but not others. Farmers expressed concerns that the proposed nutrient limits, and requirements to move existing fencing, would impose substantial costs on rural communities without delivering the outcomes sought by the package.

Analysis by DairyNZ water quality scientists showed that the nutrient limits proposed in the package were not based on robust causal relationships. Our modelling indicated that the proposed package could reduce New Zealand's Gross Domestic Product (GDP) by over $80 billion over 30 years.

In August, the Government released its final decisions on the Essential Freshwater reforms. One of the more impractical and expensive proposals - moving existing fence lines – was dropped, while proposed dissolved inorganic nitrate (DIN) measures are on hold.

While these are substantial wins, we know that it will be challenging for some farmers to meet the requirements in the package. DairyNZ will continue to advocate to ensure that new rules are pragmatic, evidence-based and implemented across appropriate timeframes as the freshwater reforms are rolled out through regional policy processes.



Good boss campaign kicks off in 2020

A campaign to increase awareness of what makes a good boss, and encourage and support employers to become better bosses, got underway in 2020 and will run until 2025.

The Good Boss campaign is a joint initiative between DairyNZ, Federated Farmers, Dairy Women's Network, New Zealand Young Farmers and farming leaders.

It was launched in February at DairyNZ People Expos in Canterbury and Southland. Around 200 farmers attended. Farm teams at the expos told us that good communication and clarity about expectations were key to being a good boss. Being willing to train and mentor staff was also important.

The first phase of the campaign focused on sharing what makes a good boss; providing farmers with tools to assess their activities against good farming practices and providing resources to make positive changes. The final goal is to support employees to understand their responsibilities and rights.

In 2020 a webinar was delivered on how employers can support Kiwis new to dairy to settle into their roles, to support the GoDairy campaign.

The Good Boss campaign has an important role to play as our newest recruits come into dairy farming roles from other careers and fewer immigrants are able to work in New Zealand.

DairyNZ has also developed additional web information for farmers, and launched an employee support line to offer advice on accessing support and employee rights and responsibilities.

Advocating for farmers locally

Working with, and for, farmers to represent their views to regional councils is a key part of DairyNZ's work.

Over the past year DairyNZ economic, water quality and planning experts presented evidence on plan changes affecting Waikato, Waimakariri and South Canterbury. Following consultation with farmers, DairyNZ worked with sector partners including Federated Farmers, dairy companies, irrigation companies and farmer groups to develop, test and reach alignment on key positions on these plan changes so that our input can be more influential.

In Otago, DairyNZ is representing farmers to achieve workable, evidence-based effluent and wintering rules. Otago Regional Council accepted the wintering rules proposed by DairyNZ, ensuring farmers have a practical pathway to manage wintering activities. We were pleased to see the council modify a proposal that would have required farmers to get resource consent for effluent storage systems that meet industry standards. This is now proposed as a permitted activity.

We also work to help farmers meet council requirements. For example, in the Bay of Plenty, we are working with farmers and the regional council to enable farmers to use water to cool milk and wash down milking sheds.

SUPPORTING BETTER FARMING LOCALLY

Dairy farmers keep farming and feeding Kiwis through Covid

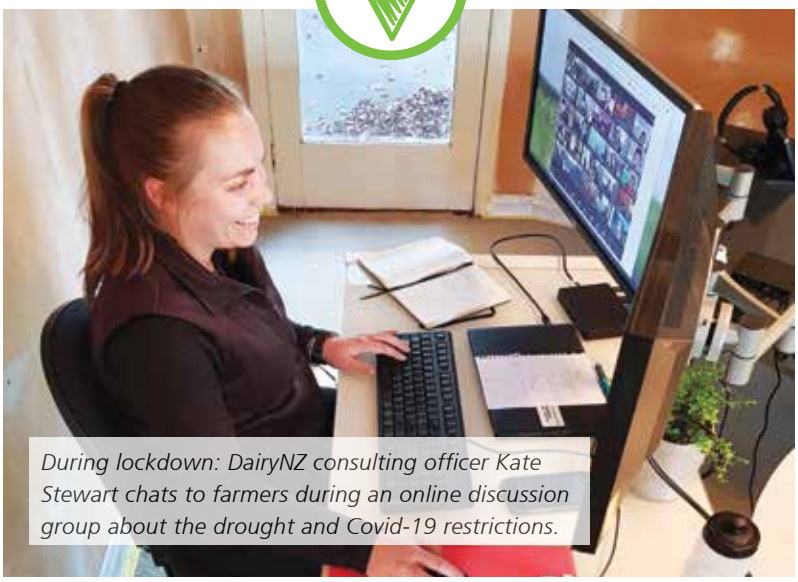
The dairy sector has played an important role in supporting New Zealand through Covid-19 by providing food and export income at a time when this was vital.

Covid-19 required farmers to make rapid changes to ensure employees were protected. DairyNZ supported farmers in a range of ways. As alert levels changed, we communicated these requirements to farmers. Our discussion groups and webinars moved online. We worked with the Ministry for Primary Industries (MPI), Federated Farmers and supply companies to seek solutions for immigration issues, Moving Day and staff shortages. Moving Day guidance was developed for a range of alert levels.

We were pleased to see the Government announce an extension for many temporary visa holders in March, after DairyNZ advocated for this change. This enabled workers to stay on-farm over the calving season. We're continuing to work closely with the Government to resolve immigration and visas for highly skilled migrant workers.

With key industries such as tourism and education continuing to be affected by the impacts of Covid-19, dairy looks set to become even more important to New Zealand's future.

Before lockdown: Lower North Island farmers meet up for an in-person discussion group.



During lockdown: DairyNZ consulting officer Kate Stewart chats to farmers during an online discussion group about the drought and Covid-19 restrictions.

GoDairy gears up to train Kiwis for a dairy career

In 2020, DairyNZ prepared and launched a significant campaign to attract and train Kiwis for dairy farming jobs.

The GoDairy campaign was launched in June by DairyNZ, in partnership with the Ministry for Primary Industries, the Ministry for Social Development (MSD), and with support from Federated Farmers. It offers New Zealanders who have lost their jobs due to Covid-19 the opportunity to take part in free Farm Ready Training.

GoDairy is an existing DairyNZ programme which has supported people into dairy careers for 15 years. The Government and the sector have invested up to $3.5 million in the programme to fund and promote entry level farm training.

GoDairy online training covers the New Zealand dairy sector, farm technology, pasture, rural living and finding a job. The practical training covers working with animals, health and safety and operating farm vehicles.

The training will continue to be offered during 2020, with practical training taking place throughout New Zealand. It has attracted strong interest from Kiwis of all backgrounds, and from dairy farmers wanting to employ career changers.

For more information on GoDairy see **godairy.co.nz**

Tararua project trials how plantain can reduce nitrogen losses

DairyNZ is working with 120 farmers in the Upper Manawatu to trial using plantain to reduce nitrogen losses.

Under regional rules, farmers need to significantly reduce their nitrogen losses. Local dairy farmers initiated this project to encourage farmers to use plantain to help meet this requirement, while remaining profitable.

The Tararua Plantain Rollout project is funded by DairyNZ and the Ministry for Primary Industry's Sustainable Farming Fund. It builds on DairyNZ's Forages for Reduced Nitrate Leaching programme which found that plantain could reduce nitrogen leaching by up to 30 percent.

In Tararua, plantain is being trialled on eleven farms, and farmers are sharing knowledge about how to incorporate plantain into their farm systems. A recent farmer field day looked at weed management options for buttercup. The community was introduced to the project and the benefits of plantain at a public field day.

A national plantain group is planned to share knowledge from Tararua with farmers nationwide.

Keeping cows cool pays off for everyone

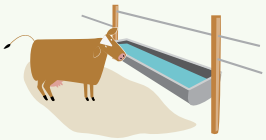
Supported by DairyNZ, dairy farmers have been making on-farm changes to keep cows comfortable in the heat of summer.

Heat causes cows discomfort and reduces their feed intake. Minimising heat stress could increase milk production by the equivalent of $15,000 for the average Waikato herd.

Research indicates that cows are affected by heat at lower temperatures than previously thought. Providing shade and shelter for cows is a key part of New Zealand dairy farmers' commitment to being world leading in animal care.

DairyNZ provides an online heat risk calculator and farmers can sign up for weekly emails on heat risk with advice on managing current conditions. Tips and stories from farmers on keeping cows cool are shared through social media, Inside Dairy and rural media.

School science challenge students were also asked to design solutions to keep cows cool, providing them with an opportunity to problem solve and find out how farmers are already working to keep their cows comfortable.



2/3 of 300 farmers surveyed made changes to reduce heat stress

58% altered milking times or frequencies (up 10 percent from 2018/19)

60% of farmers can name 3 ways they can reduce heat stress (up from 30 percent in 2018/19)

Supporting farmers through tough times

Through drought and flooding, farmers have kept farming, and DairyNZ's regional teams have been by their side supporting them.

Both Southland and South Canterbury were hit by flooding over the past year, while in Westland heavy rainfall closed roads. DairyNZ was in contact with affected farms to understand their needs, and connect them with support – for example help with animal evacuations.

In Southland, we hosted two farmer barbeques where farmers were able to receive expert recovery advice from vets, pasture specialists, farm advisors, and regional council staff.

Drought conditions affected many areas in 2020, with Northland, Waikato, Hawke's Bay, North Canterbury and Golden Bay some of the worst affected regions. DairyNZ and a number of other organisations hosted 'Lunch on Us' events in Waikato and free community dinners in Northland, providing farmers with a chance to relax and share drought advice with each other.

Feed availability became a challenge over autumn, with reduced capacity at meat processing plants contributing to this issue. We worked with the Government and other stakeholders on national feed management planning, and helped develop a winter feed management toolkit for Otago and Southland. Our consulting officers provide a free feed planning service, and have facilitated local discussion groups to share ideas on managing feed shortages.

Northland study examines resilient farming systems

A three year farm systems experiment at the Northland Agricultural Research Farm is studying the use of palm kernel extract, supplements and pasture only farm systems to help farmers develop more profitable, resilient and sustainable farming systems.

The study is delivered by Northland Dairy Development Trust, and funded by DairyNZ and the Ministry for Primary Industries through their Sustainable Food and Fibres Futures programme.

It is tracking results from a farm that does not import supplements, a farm that only imports palm kernel extract (PKE), and a farm that imports PKE and other supplements. The two farms using PKE have higher stocking rates. The study compares a range of farm production, profitability and environmental measures.

During the first season, the study found that careful use of PKE to fill feed gaps can be profitable at a milk price above $6/kgMS. More expensive supplements such as dried distillers' grain (DDG) were unprofitable at this price. The findings were shared at DairyNZ's Northland Farmers Forum in February.

Southern farmers and DairyNZ improve wintering practices

A Southern Wintering project has significantly improved awareness and implementation of wintering good management practice (GMP) amongst Southland and South Otago farmers.

The project focused on supporting and motivating farmers as they implemented wintering GMP. It addressed feed shortages following flooding, regional council flyovers and Covid-19 impacts.

Tailored resources were developed to upskill farmers, rural professionals and stakeholders on wintering GMP. DairyNZ worked closely with other key organisations to plan communications and media activity.

Wintering events were well attended by farmers and rural professionals, and received excellent feedback. Examples of farmer change the project shared were rated as very useful by farmers, rural professionals and contractors. Case studies were developed showing how farmers had changed wintering practices.

The wintering programme will continue to focus on achieving farm-level change and increase efforts to research wintering solutions.

Sponsorship supports farmer focused initiatives

DairyNZ was proud to sponsor a new Open Farms programme which allowed over 3,500 Kiwis to visit a farm in 2020.

45 farms, including dairy, sheep, and horticultural farms, welcomed the community to their property to join farm tours, meet their animals and see farm demonstrations. Highlights for visitors were learning about the science of farming, seeing farm animals and meeting farming families. 91 percent of farm visitors said they would like to attend another open farm day and most felt more positive about the environmental sustainability of farming after attending.

DairyNZ is a national sponsor of the Ballance Farm Environment Awards and sponsors regional DairyNZ Sustainability and Stewardship Awards. These regional awards recognise innovative dairy farmers who are committed to protecting and enhancing their environment.

DairyNZ supports the NZ Dairy Industry Awards. We sponsor the Practical Skills Award, Employee Engagement Award and Human Resources Award. DairyNZ supports the awards programme in a number of other ways including facilitating field days.

dairy tomorrow

The future of New Zealand dairying.

The Dairy Tomorrow Strategy is focussed on the key challenges and opportunities that face the dairy sector today – and importantly, into the future.

The current pace and amount of change is greater than ever and the Dairy Tomorrow Strategy is the dairy sector's plan to navigate this change, adapt, and continue to hold New Zealand's place as one of the most sustainable producers of milk in the world.

With input from across the sector, the strategy brings together key partners who are working towards a shared vision for the future of dairy. It guides us as we tackle challenges and work together to do the right thing.

Having a shared vision and strategy allows us to take control of our own destiny, set our own path and give us a compelling voice in the face of unprecedented change.

Through working together to adapt and thrive, we will ensure New Zealand dairy has a strong future.

Dairy Tomorrow Commitments

Launched in November 2017 by partners representing the dairy sector – DairyNZ, Dairy Women's Network, Federated Farmers and Dairy Companies Association of New Zealand – the strategy encompasses the sustainability of dairy farming, and has six key commitments:

- protecting and nurturing the environment
- building resilient and competitive farm businesses
- producing the highest quality and most valued dairy nutrition
- practicing world leading animal care
- building great workplaces for New Zealand's most talented workforce
- growing vibrant and prosperous communities.

Our beliefs and positions

- We believe that sustainable dairy farming has a critical role to play in New Zealand's future prosperity and wellbeing.
- We are committed to maximising value from New Zealand milk while preserving the benefits of our pasture-based system.
- We take responsibility for caring for our people, animals and the environment, and will not tolerate failure to comply with the rules that protect them.
- We are committed to successfully farming within environmental limits.
- We are committed to greater transparency, openness and working together.

Our guiding principles

Bold – we will be bold in our aspirations and fronting our challenges.

Open – we will be open and transparent in our positions, progress, and performance.

Innovative – we will embrace new technology and new ways of working to solve our challenges and secure our opportunities.

Collaborative – we will partner and collaborate with other sectors and civil society.

In addition to these commitments, work has begun to bring the strategy together at farm level, to help farmers navigate the changes ahead.

Dairy Tomorrow belongs to the entire New Zealand dairy sector. DairyNZ has a key role, as we lead four of the six commitments and coordinate overall implementation. The strategy shapes all our investments.

Piloting animal care measures on NZ dairy farms

Consumers, the public and farmers are increasingly asking how animal welfare on farms can be monitored and improved.

As part of the Dairy Tomorrow Strategy, the dairy sector has committed to developing and implementing a framework showing that every animal is valued and treated with care and respect. DairyNZ and the Dairy Companies Association of New Zealand (DCANZ) are leading this commitment.

Today there are around five million dairy cows in New Zealand on over 11,000 farms, and currently there is no simple way to assess the welfare of cows.

In Autumn 2020, the Dairy Tomorrow working group animal care pilot visited 42 dairy farms nationwide to record a range of animal care measures. The goal was to find a group of high-level measures that could identify areas for improvement, provide value to farmers, and assure the public and consumers that the dairy sector is proactively addressing animal care.

The project also engaged with farmers, the public and animal welfare experts to guide this work.

The animal care pilot looked at input measures, including self-reported animal care practices, resources and environmental data. It also looked at output measures, including seasonal animal health and production data, point in time animal measures and some newer assessment methods. Each measure was assessed for its practicality and value.

Statistical analysis showed that while relationships between measures did exist, there was considerable variation between regions and farm systems. This indicated that farms are unique in how they approach animal care. A collection of indicators and measures are needed to provide a clear picture of animal care on farm.

These measures will be piloted on another group of farms this spring to help further refine the measures.

DAIRYNZ ACTIVITY TO SUPPORT DAIRY TOMORROW

LOOKING AHEAD 2020 / 21

COMMITMENT 1

WE WILL PROTECT THE ENVIRONMENT FOR FUTURE GENERATIONS

As part of our commitment to protecting the environment for future generations, DairyNZ will carry out the following activities.

We will undertake work to understand the implications of the Essential Freshwater policy package. In partnership with regional councils and central government we will work to ensure we achieve practical outcomes for implementation, including farm plan requirements, and that catchment limits are evidence-based and fair.

We will support the delivery of the primary sector-Government climate change agreement - He Waka Eke Noa.

Building on the good progress made to date, we will continue to deliver the Aparima, Selwyn-Hinds and Tararua catchment projects. These projects provide farmers with options to meet environmental regulations while achieving profitable, resilient businesses.

DairyNZ also plans to develop guidance on the performance of edge of field mitigation options. These options - such as constructed wetlands - will support on-farm and catchment water quality improvement.

We will also demonstrate dairy sector progress on water quality improvement across priority catchments.

COMMITMENT 2

WE WILL BUILD THE WORLD'S MOST COMPETITIVE AND RESILIENT DAIRY FARMING BUSINESSES

Under this commitment, DairyNZ engages with farmers and their communities to achieve on-farm change, resilience and competitiveness across a range of projects.

As part of this commitment, we will continue to bring research to life through work such as the southern wintering, flexible milking, and the future of work projects. These provide practical, cost-effective solutions that support sustainable and resilient dairy farming. A range of research projects support the New Zealand dairy sector's leading position globally – such as research to test new fertility traits as indicators of cow fertility.

Helping farmers grow their profitability and return on investment is also part of this commitment. A wide range of farm assessment and planning resources such as Farm Gauge, farm assessment and planning groups, Mark and Measure, sharemilking and progression groups support farmers to achieve their business objectives.

We will also provide a range of training products that help upskilling of rural professionals and farmers including InCalf, FeedRight, HealthyHoof, the BCS Assessor certification programme, SmartSAMM - an advanced mastitis course, and MilkSmartPro.

We will continue to provide groups, events and forums for farmers to learn, network and share. We will also support farming network organisations such as Small and Medium Supply Herds, Dairy Women's Network and New

Zealand Young Farmers. These provide opportunities for farmers to learn and share knowledge.

DairyNZ will also deliver improved biosecurity outcomes for dairy farmers and the sector by actively working to improve, and influence, New Zealand's biosecurity system. This includes making a submission on the Biosecurity Act Review.

DairyNZ is also leading research on six commercial farms in Canterbury and Southland to track how fodder beet affects the health of 6,000 cows including their reproduction and milk production. This research will help update advice on fodder beet feeding.

Step Change - farming with confidence

The objective of the Step Change project is to ensure that by 2025, farmers know what they need to do to successfully meet changes to national environmental and farm performance goals.

In the coming year, the project will focus on 'knowing your numbers' – both for the farm business and for environmental goals. A campaign to support farmers to have confidence and pride in their sector will be launched this year. Farmers will have the opportunity to participate in a range of workshops, groups and discussions on farm systems and business improvement to achieve their goals.

Integrated Farm Planning Framework – simplifying reporting

Work will continue to bring together the on-farm aspirations of Dairy Tomorrow into one framework that simplifies goals and expectations for animals, people, environment and business performance. This will support farmers by providing a consistent planning and reporting approach which is implemented in partnership with dairy companies.

Supporting Ma-ori agribusiness

This project seeks to engage purposefully with Māori dairy farming businesses to support their operational performance. Through a designated Māori agribusiness specialist, DairyNZ is facilitating Māori working with Māori in pilot clusters in the Bay of Plenty. We are also championing both DairyBase and the Ahuwhenua Excellence in Māori Dairy Farming competition as vehicles for benchmarking and inspiring collective improvement.

Testing and improving the Forage Value Index

The Forage Value Index (FVI) validation trial is comparing the productivity and profit of farm systems using some high and low FVI-ranking perennial ryegrass cultivars. This will confirm if the trial results align with the results predicted in the FVI, and whether any adjustments are needed to the index. This work aims to provide farmers, breeders and the agricultural sector with confidence when breeding and sowing perennial ryegrass cultivars and help improve farm profitability.

Improving the New Zealand dairy sector's competitiveness

A number of projects are underway to identify how to boost the financial performance and resilience of New Zealand dairy farms. This programme includes an economic analysis of the 'mega dairy' sector in the United States to identify what New Zealand farmers can learn from these businesses, and how activity by this sector affects New Zealand farmers. Other projects are examining how we can make more milk from pasture, and how farmers can survive and thrive during low milk prices.

Southern Dairy Hub researches environmental solutions for farmers

In its third year, a DairyNZ research project looking at the profitability and environmental outcomes of lower impact and standard kale and fodder beet systems will identify what refinements could be made to the lower impact systems to improve profitability, while maintaining the gains made in nutrient loss reduction.

Work will also begin to design and build a lower cost off-paddock facility. Local farmers were keen to see if an affordable wintering infrastructure solution can be designed for pasture-based farm systems which meets environmental, animal welfare and profitability requirements.

Accelerating genetic improvements to herds

DairyNZ subsidiary NZAEL is focused on achieving more rapid genetic improvement of the New Zealand dairy herd. It delivered on this by updating the economic weights used in National Breeding Objectives and implementing an upgraded genetic evaluation system to incorporate ten years of New Zealand and international research.

In 2020/21, NZAEL is planning to complete the DIGAD (dairy industry good animal database) upgrade and a further enhancement to its genetic evaluations so they incorporate genomic data. It has also commenced a major review of processes for maintaining the national breeding objective.

COMMITMENT 4

WE WILL BE WORLD LEADING IN ANIMAL CARE

We are working with Dairy Tomorrow partners to develop a world leading framework that ensures every animal is valued and treated with care and respect. This year the project is completing the piloting of high-level welfare metrics, and researching novel measures for animal welfare. It will also be assessing farmer attitudes to aspects of New Zealand farming systems and ensuring the natural behaviours of cows are met in challenging climatic conditions.

DairyNZ will continue to work with a wide range of organisations to support the dairy sector to achieve good animal care outcomes. There will be an emphasis on wintering, providing shade and shelter and general animal husbandry skills. Farmers will be able to attend smart wintering events to help implement good practice management, and CalvingSmart workshops to help the whole team get ready for the new season.

Early Response Service – working together with farmers to care for cows

The Early Response Service identifies and supports farmers facing personal challenges that may put their stock at risk. The service has been running for nearly a decade and supports farmers to farm their way out of welfare risks by partnering with dairy companies, the Rural Support Trust, vets and the farm's own trusted rural professionals to find solutions.

Animal care consultations – improving on-farm care

Five hundred one-to-one coaching sessions will be offered through funded animal care consults. This supports farmers to identify where they are performing well and where improvements can be made. These consults also enable benchmarking over time, and highlight where the sector is excelling and where opportunities to improve practice exist. Information from the consults is used to inform Government policy, so that policy decisions make a positive difference on-farm.

Exploring alternative options for bobby calves

We will build on initial work to continue exploring options to increase the value of young calves that are currently processed as bobby calves. This project will work with key primary sector partners to establish a substantial programme of work that seeks to understand how farmers are currently implementing viable alternatives to bobby calves then develop new options.

COMMITMENT 5

WE WILL BUILD GREAT WORKPLACES FOR NEW ZEALAND'S MOST TALENTED WORKFORCE

A focus for this year will be continuing the GoDairy campaign to promote the opportunities associated with working in dairy, and offer farm ready training to those looking to change their career.

Work will continue to develop a primary sector skills system which delivers training in a way that meets the needs of farmers and their staff, and supports dairy workers to gain the skills needed to deliver on our Dairy Tomorrow commitments. This will ensure the dairy sector has input into the development of systems which support a reformed vocational education and training system.

A project is underway to provide options to reduce working hours on farm by developing more flexible milking routines, and design future dairy workplaces.

We will continue to invest in developing future dairy sector leaders by offering well regarded development programmes, and increase our focus on supporting farmer leadership of teams on-farm.

COMMITMENT 6

WE WILL HELP GROW VIBRANT AND PROSPEROUS COMMUNITIES

The Vision is Clear public perception campaign continues in its third year to showcase all the great work dairy farmers and others are doing to improve the quality and health of our waterways. The project builds on a public education programme (vibrant communities) to deliver a multimedia campaign that restores trust, regains respect and instils pride in dairy farmers.

THE VISION IS CLEAR

Independent report on value of DairyNZ Investments for 2019/20

DairyNZ audits its investment portfolios annually to provide confidence to levy payers that the levy is being invested in their best interests.

The Board of DairyNZ Incorporated appoints a panel of New Zealand dairy farmers to review DairyNZ's progress against annual performance targets. The Farmer Auditor Panel consists of two independent farmers and one independent consultant as the facilitator. The current members are Ian Brown, Anne-Marie Wells and independent consultant James Morrison.

The panel's purpose is to review the annual Key Indicators of Success (KIS) outcomes and determine if the targets have been achieved to a level of satisfaction to provide levy payers with confidence that DairyNZ is delivering value to them.

For the 2019/20 year there were 16 KIS across all investment areas of DairyNZ. The Farmer Auditors Panel met in June 2020 to review the KIS achievements and have completed an independent report on their findings.

The auditors reviewed summary evidence and interviewed DairyNZ strategy and investment leaders and general managers, and were satisfied with the KIS achievements.

The auditors concluded that DairyNZ has fully achieved six of the 16 KIS in 2020. Six of the remaining ten KIS targets were partially achieved. Four were not achieved .

The auditors recognised the significant impact the COVID-19 lockdown had on DairyNZ's ability to achieve all the targets. Other factors were the stretch in targets, the need to reprioritise resources to respond to Essential Freshwater proposals and other priorities, and difficulties coordinating with external parties over lockdown.

- Ten KIS were aligned with Dairy Tomorrow commitment 2 (competitive and resilient dairy businesses). Four were fully achieved, two partially achieved and four not achieved.
- Two KIS were aligned with commitment 1 (environment). Both targets were partially achieved.
- Two KIS were aligned with commitment 5 (great workplaces). Both were achieved.
- One KIS was aligned with commitment 4 (animal care). This was partially achieved.
- One KIS was aligned with commitment 6 (vibrant communities). This was partially achieved.

The auditors were comfortable with the self-assessments by DairyNZ staff. As a result, they made no adjustments to the self-assessment on 'achieved' targets by DairyNZ management.

The suggestion to use a 'partially achieved' assessment was adopted where the KIS had multiple components and some were achieved. In the cases where the auditors have not recorded 'achieved' there has still been progress worthy of recognition.

PROJECTS 2019/20

The following section summarises DairyNZ investment into projects according to the Dairy Tomorrow Strategy.

Additionally, there are other investments made into this strategy by our partners which are not included in this report.

Commitment 1

We will protect and nurture the environment for future generations

New Zealand dairy farmers are committed to farming within environmental limits and a collaborative approach between communities, government and other land users will help lead efforts to improve the health of our rivers and streams, protect and enhance biodiversity, and develop a vision of sustainable land use in New Zealand.

Farmers will also lead efforts on agriculture's contribution to meeting New Zealand's climate change goals through identifying and implementing strategies to reduce or offset greenhouse gas emissions from dairy farming.

Aparima Good Farming Practice

This project will achieve the rapid adoption of good farming practice at pace and scale by 2022 by supporting dairy farmers and dairy graziers to develop a Farm Environmental Management Plan, and by providing extension support to support the adoption of good farming practice on farm.

Provider: DairyNZ

Funding: $361,091 (ex. GST)

Healthy Waterways

Healthy Waterways, via strong links to the Farming Within Limits Project, is providing the science that quantifies the dairy sector's contaminant footprint, the impacts of this footprint, and options to reduce this. Importantly, this programme provides catchment-based examples which have been successfully implemented and have improved water quality outcomes.

The catchment accounting framework is continuing to be refined to estimate contaminant loads, enabling the source and amount of nitrogen and phosphorus entering waterways to be estimated across all catchments throughout the country. With this information, we can calculate the dairy contaminant load relative to other land uses, and better direct efforts to improve water quality to where they will make the most difference.

The Healthy Waterways Project is also responsible for developing a more robust understanding of the relationship between land use pressure and mitigations that reduce this pressure, and water quality outcomes (including co-benefits). This framework supports future national and regional limit setting processes and integrates and builds on the knowledge and products developed through four related projects – Systems for the Environment, Systems that Work, Designing the Future and Productive Pastures.

Provider: DairyNZ

Levy Funding: $1,308,462 (ex. GST)

Farming Within Limits

The Farming Within Limits Project supports farmers to understand regional and national environmental issues, their environmental impact, how to improve their environmental performance and fulfilling their environmental obligations, demonstrating leadership and motivation to achieve continuous improvement – dairy farmers farming within environmental limits.

Through this project, national and regional policy work ensures that dairy farmers are represented and advocated for in policy processes. Most relevant over the last 12 months has been the Essential Freshwater submission that was underpinned by significant science, economic and policy analysis. Regional environmental work plans encompassing all science, policy, economic and engagement activities related to current and future regional limit setting processes are supported across ten regions through the Farming Within Limits Project. This ensures a targeted and coordinated response to environmental issues for farmers and stakeholders in each region.

Once regional policies become operative and on-farm change is required, support with implementation will be provided through the Step Change Project and through regional dairy environmental leaders

Provider: DairyNZ

Levy Funding: $2,996,480 (ex. GST)

Blueprint for Sustainable Land Use

The Blueprint for Sustainable Land Use project at DairyNZ seeks to assist dairy farmers to explore their short, medium and long-term future in a structured way. The project aims to develop and apply a credible process to explore alternate pathways for action, with a focus on actions today and in the future that allow farmers to remain responsive to opportunities and challenges. The project has initially focused on the Tararua catchment where dairy farmers are needing to consider options in response to regulatory changes but will extend to other locations as tools are developed.

Provider: DairyNZ

Funding: $246,111 (ex. GST)

Climate Change Policy

The Climate Change Project supports the dairy sector to address greenhouse gas emissions and prepare farmers for the future where they will be priced on their biological emissions. The project takes a comprehensive research and development, science, policy and advocacy, extension, marketing and communications approach through five workstreams. This includes policy, mitigation, adaptation, extension and He Waka Eke Noa workstreams. It aims to ensure that farmers are supported to prepare for the future, and have the right tools, support and infrastructure to respond, while ensuring their businesses remain viable.

Collectively, this work supports He Waka Eke Noa, our primary sector climate change commitment and joint Government industry agreement to report, manage and reduce on-farm biological emissions through a policy pricing mechanism. This will also provide the New Zealand public with confidence that we are committed to a low emission economy.

Provider: DairyNZ

Funding: $561,220 (ex. GST)

Commitment 2

We will build the world's most competitive and resilient dairy farming businesses

International competitiveness and resilience are essential for long-term success of the dairy sector. To support this, benchmarks and targets will be developed for international competitiveness, resilience, sustainability and community expectations for future farm systems.

Technology solutions will be researched, aiming to provide solutions for future farm systems, and whole farm system assessments will capture on-farm improvements. New initiatives will also reduce the risk and impact of biosecurity incursions on farm profitability and productivity.

Farm Engagement

The purpose of print and digital Farmer Engagement activities is to inform and inspire farmer change through the DairyNZ website and the Inside Dairy publication.

Dairynz.co.nz is the largest site of its kind in the world with over 3,300 pages of content and is the highest-rated of all DairyNZ's touchpoints by farmers. Inside Dairy continues to have a very high readership at 89 percent. The goal is to inform better decisions through creating and presenting information that is easy to understand, actionable, timely, and relevant. The target audience is farmers and those who support farmers.

Provider: DairyNZ

Funding: $1,076,730 (ex. GST)

Dairy Sector Competitiveness

Increasing global market share requires an understanding of how to profitably flex production across time in the New Zealand dairy sector, in response to variable milk prices. The primary objective of this project is to identify the critical management decisions that govern the financial performance of New Zealand dairy farms across time. This will be complemented with an economic analysis of the growth in milk production in the US dairy sector, plus the provision of economic data to meet the demand of internal and external stakeholders.

Provider: DairyNZ

Funding: $328,390 (ex. GST)

Step Change

Step Change is a five-year programme that aims to help farmers increase profit and reduce their environmental footprint through an integrated approach. This approach considers profit, water quality and greenhouse gas emissions as a package. The project has confirmed metrics and processes to help farmers know their numbers and understand the principles, drivers and levers for change. This will make it easier for farmers to take action toward building resilient and adaptable farm systems. The project also has new integrated focus topics which will be incorporated into field work and online resources.

Step Change is about getting ahead of the game. It's DairyNZ's response to customer needs, not to regulation. This ensures that dairy farmers are both financially and environmentally sustainable, to preserve NZ dairy farmers' position as the most sustainable dairy farmers in the world.

Provider: DairyNZ

Funding: $864,505 (ex. GST)

TB National Pest Management Strategy - TB Free

This investment aims to control the spread of tuberculosis (TB) through disease management by detecting TB within herds through an extensive testing programme. It also completes wild animal (vector) control to eliminate TB from wildlife, particularly possums as the main carriers and transmitters of TB to farmed cattle and deer. Lastly, this work covers movement control by minimising the risk of infection being spread between herds.

Provider: OSPRI

Funding: $14,500,000 (ex. GST)

NZAEL Operations and Research

Genetic gain in dairy cattle has a proven track record in delivering higher productivity and profitability to farmers. The NZAEL-owned Breeding Worth (BW) system provides the measure for genetic gain. This genetic gain is delivered to farmers by bull breeders and animal breeding companies. Maintaining and improving the BW system and the underpinning phenotypic data, genetic research and delivery systems is vital in achieving sector targets, especially in profitability, and is the focus for this project. The project ensures NZAEL applies robust and world-leading science to animal evaluation, thereby ensuring optimal rates of genetic gain are achievable.

Provider: New Zealand Animal Evaluations (NZAEL)

Funding: $3,404,800 (ex. GST)

Forage Value - Supporting Research

This project aims to lay the basis for a Forage Value Index (FVI) that is scientifically based, objective, appropriately weighted for all critical traits and accurately calibrated for on-farm conditions. The FVI trial will define key plant traits for sustainable and competitive dairy systems.

Provider: DairyNZ

Funding: $1,650,000 (ex. GST)

Southern Dairy Hub Research

The objective of this project is to measure the animal welfare and husbandry risks of new and existing dairy farm systems and practices, and new systems being developed by researchers and/or farmers. The practice of wintering cows on crop (kale and fodder beet) has been identified as a topical issue. There is growing concern about animal health and welfare issues when cows consume high quantities of fodder beet; a high-energy feed that is deficient in some essential minerals (such as phosphorus) and low in protein. A monitoring study is underway at Southern Dairy Hub. Four groups of 80 cows are being studied to assess the impact of different winter feeding options and their effects on lactation.

Provider: DairyNZ

Funding: $952,994 (ex. GST)

Farm Assessment and Planning

The Farm Assessment and Planning project objectives are to deliver and embed a suite of farm assessment approaches to give stakeholders the tools and understanding to evaluate, capture and deliver continuous improvement gains.

This project delivers on the Dairy Tomorrow sector strategy commitment to build the world's most competitive and resilient dairy farming businesses - and has inputs across commitments one, four and five. It focuses on partnerships and engagement with all DairyNZ business discipline teams, regional hub leads and key stakeholders across three key workstreams. Combined learnings will support a five-year plan to ensure a farm assessment process is embedded into everyday activity at farm business level, now and into the future.

Provider: DairyNZ

Funding: $550,202 (ex. GST)

Dairy Biosecurity Risk Evaluation Framework

The biosecurity programme aims to ensure current and future biosecurity risks to the dairy sector are properly understood and communicated to relevant stakeholders, and appropriate readiness and response systems are in place at farm, industry and national level.

Provider: DairyNZ

Funding: $932,620 (ex. GST)

MBIE (Ministry of Business, Innovation and Employment) Low N Livestock

The objective of this project is to deliver transformational animal genetics that, according to previous farm systems and hydrological modelling, will reduce nitrogen leaching and greenhouse gas emissions as well as provide improved tools for evaluating and regulating environmental impacts. By 2026, nitrogen excretion breeding values to reduce nitrogen leaching will be available for all dairy cattle and widely marketed to, and used by, dairy and beef farmers through commercial breeding companies. The effects of improving herd-level nitrogen excretion by combining genetic and management mitigations will be successfully integrated into Overseer, allowing farmers and regional councils to understand their impacts on nitrogen leaching and develop strategies to meet environmental targets. Farmers will use these tools to transform their herds and minimise their environmental impacts.

Provider: DairyNZ

Funding: $2,113,888 (ex. GST), funding matched by MBIE

MBIE Partnership – Pillars of a Competitive and Responsible Dairy System: Improved Longevity and Reproductive Performance

DairyNZ and the MBIE have a seven-year partnership programme (Pillars of a New Dairy System) that aims to deliver innovative management and genetic solutions that improve the fertility, health and longevity of New Zealand dairy cows. There are two main research areas: reducing premature mortality and increasing lifetime productivity in dairy herds (lifetime productivity); and achieving sector targets for reproductive performance on dairy farms (fertility).

Provider: DairyNZ

Funding: Lifetime productivity - $349,703 (ex. GST)
Fertility - $1,617,345 (ex. GST). Funding matched by MBIE.

Governance of MBIE Pillars Partnership Programme

As part of this partnership, there is a requirement to have in place a governance structure that oversees the programme of work to ensure compliance with budget and research aims, to offer external peer review and strategic advice, and provide a communication platform to the sector.

Provider: DairyNZ

Funding: $202,000 (ex. GST)

Hybrid Grasses

A work programme has been developed that will see the first commercial hybrid cultivars available in 2023. There is clear proof of concept for the technology and this project aims to develop a 'turn-key' technology package that includes parent lines and heterosis maps required for other commercial players to pick up the technology. Research work includes testing the proof of concept in New Zealand, including understanding the agronomy and physiology behind superior performance.

Provider: Dairy Australia

Funding: $954,663 (ex. GST)

DairyBase

DairyBase is the New Zealand dairy sector's platform for the analysis, storage and comparison of standardised dairy farm data. This project provides individual farm financial, physical and benchmark reporting to farmers. It also provides industry good data for research, policy and advocacy purposes to the dairy sector.

On their own, or with the assistance of accountants, consultants or DairyNZ consulting officers, farmers can compare their business to New Zealand benchmarks or models and make informed decisions on farm management.

DairyBase is developing integration relationships with external industry partners with the objective of automating data collection of DairyBase physical and financial data with farmer permission. This will reduce the effort required by farmers to have their data entered into DairyBase.

Provider: DairyNZ

Funding: $1,148,236 (ex. GST)

Selwyn-Hinds

Under Plan Change 1 and Plan Change 2, a total of 460 dairy farmers in the Selwyn and Hinds catchments need to comply with several environmental obligations, including a percentage reduction in nitrogen loss from the baseline period (2009-2013) for their properties by specific dates. This five-year project aims to support farmers in both catchments to meet plan change requirements while maintaining profitable and resilient businesses.

The success of this project will be demonstrated in three ways: by farmers in Selwyn and Hinds making the necessary changes to meet their environmental regulations while running resilient and profitable businesses; their on-farm changes being properly reported and contributing to the positive reputation of farmers in the area; and the reduced environmental footprint at a farm level clearly contributing to a lower environmental footprint at a catchment level.

Provider: DairyNZ

Funding: $635,110 (ex. GST)

GM Forages

AgResearch has developed a genetically modified (GM) ryegrass that in glasshouses has produced both higher levels of energy (through increased lipids) and higher growth rates (an increase of 40 percent) through more efficient photosynthesis. To progress the development of these plants and potentially release them in New Zealand requires further research including field trialing off-shore. Without compelling field data, there will not be a basis for a fact-based discussion on the merits and costs of a GM ryegrass release in New Zealand.

Provider: AgResearch

Funding: $750,000 (ex. GST)

Plantain Research

The aim of this project is to support wide-spread adoption of plantain in targeted catchments by providing evidence of the farm scale nitrogen leaching and systems impacts.

The project covers a critical phase in the development and delivery of a longer-term, multi-disciplinary, multi-institution research and development programme which aims to build farmer, general industry, and regional council confidence in the effectiveness of plantain-based forages for reducing nitrate leaching from grazing dairy systems. As part of this outcome, farmers and the dairy sector in general, require robust evidence that dairy systems based on plantain forages can match or exceed traditional ryegrass-based systems in production and profit. Or, if they cannot achieve this, show how the benefits of plantain for nitrogen leaching give farmers an alternative option to continue low-cost dairying rather than change to capital-intensive options such as housing animals.

Provider: DairyNZ

Funding: $1,039,308 (ex. GST)

Pastoral Genomics

Pastoral Genomics is a New Zealand research consortium for forage improvement through biotechnology. The programme has focused on developing genomic selection for ryegrass and clovers to give sustainable gains in forage productivity while maintaining and enhancing the sustainability and competitiveness of our country's meat and dairy industries.

The programme has been highly successful in developing proof of concept for the use of genomic selection in both ryegrass and clover, with AgResearch scientists working with the seed industry partners to rapidly develop and test the phenotype data collection methods as well as genotyping methods and bio-informatics. This technology is now ready to be commercialised by the seed industry.

Pastoral Genomics is funded by the Ministry of Business, Innovation and Employment; DairyNZ; Beef + Lamb New Zealand; Grasslands Innovation Ltd; Dairy Australia; Barenbrug NZ (formerly Agriseeds) and AgResearch.

Provider: Pastoral Genomics

Funding: $1,302,000 (ex. GST)

Tararua Plantain Rollout

Research shows use of plantain within farm systems can reduce nitrogen leaching. Recognising the benefits of plantain, DairyNZ is coordinating a seven-year project to encourage farmers in the Tararua region to incorporate the plant into their farm system, and implementing an extension programme to ensure local farmers are well supported and get access to the very latest research.

The aim is for 125 farms in the region to utilise plantain to help increase farm business resilience and improve water quality. The project will also demonstrate to the wider community that farmers are committed to reducing their environmental footprint. DairyNZ is working with local dairy farmers and their farm consultants, Horizons Regional Council, Massey University, AgResearch, Agricom, agronomists and a six-strong project team to achieve success.

Provider: DairyNZ

Funding: $525,845 (ex. GST)

Farm Business Capability

The Farm Business Capability project provides farmers with the support needed to become capable and confident farm business managers. Working with farmers, DairyNZ consulting officers and other sector organisations, this project provides a suite of farm business management tools, resources, training and support services to both farmers and the rural professionals supporting them. Key areas of setting up for success in business, planning, budgeting and business analysis are covered. DairyNZ is also working closely with training providers to influence the range of business management training available, and to build a culture where actively working on your business is valued as much as working in it.

Provider: DairyNZ

Funding: $439,709 (ex. GST)

Farmer Insight

The goal of this project is to enhance DairyNZ and sector performance by developing and implementing a data strategy that ensures core activities and internal decision making is well informed. It will establish the platform to support DairyNZ's data analysis needs for the future.

Provider: DairyNZ

Funding: $507,000 (ex. GST)

Baseline

The main objective of the Baseline project is to alert stakeholders to any developing impacts, specifically financial, on the business performance and viability of dairy farming from increasing environmental regulation.

This work is carried out by collecting data which enables a full analysis to be undertaken in DairyBase, along with an Overseer file being created.

DairyNZ uses this data to respond to policy pressures, including water quality policies set by regional councils under the National Policy Statement for Freshwater Management (NPSFM) and greenhouse gas legislation. This is used to advocate on farmers' behalf. Information from the Baseline project is also used for dairy industry statistics, and other DairyNZ projects and research.

Provider: DairyNZ

Funding: $275,664 (ex. GST)

Taranaki Research

This experiment run on the Taranaki Research farm will investigate the profitability of using palm kernel extract (PKE) at a high stocking rate relative to a pasture only system, but within the limitations of Fonterra's fat evaluation index. This will be compared with using locally grown maize grain. The experiment will investigate the benefits and costs of autumn calving. There has been increased interest in autumn calving, particularly along the coastal belt of Taranaki, but also in many other regions of New Zealand that experience dry summer conditions but mild winters with reasonable pasture growth.

Provider: Dairy Trust Taranaki

Funding: $400,000 (ex. GST)

Forage Value - Operational

This project aims to establish a comprehensive system for evaluating and communicating the economic value of perennial and short-term ryegrass cultivars to dairy farm businesses, allowing farmers to confidently select cultivars that will maximise on-farm profitability. The evaluation system also sends clear signals to plant breeders regarding traits that are important to dairy farmers and the economic value of changes in trait values. It also provides a framework for measuring and tracking the rate of genetic gain in pasture plant material. DairyNZ is collaborating with the New Zealand pasture plant breeding industry on this project.

Provider: DairyNZ

Funding: $226,079 (ex. GST)

Māori Agribusiness

A significant proportion of dairy land in New Zealand, particularly in the Bay of Plenty, is Māori owned and/or operated. The Māori Agribusiness project was established in recognition of the need to better connect Māori dairy farmers with resources available through DairyNZ. The first goal was to equip DairyNZ to effectively engage with Māori farmers, with a Māori agribusiness specialist, or Kaiārahi Ahuwhenua, being appointed.

The project also builds on existing relationships, such as with the Ahuwhenua Excellence in Māori Farming Awards team, alumni and prospective entrants. This is a logical link as the Ahuwhenua Awards provide an established, beneficial network and framework for both inspiring and assessing all-round Māori farming aspirations and performance.

Provider: DairyNZ

Funding: $299,009 (ex. GST)

International Dairy Federation

The New Zealand National Committee of the International Dairy Federation (IDF) is the national body responsible for coordinating and managing New Zealand dairy sector input and influence on issues relating to the IDF. IDF NZ also manages the dairy committee for International Organisation for Standardisation (ISO) within New Zealand. It is important that the New Zealand dairy sector voice is heard by the IDF because of its role in coordinating global dairy sector input into the establishment and modification of food standards, methods of analysis and various policies, guidelines and practices in a wide range of areas.

Provider: IDF New Zealand

Funding: $258,000 (ex. GST)

Farm Systems Modelling

This project will develop and apply computer models to explore farm systems, components of farm systems and environmental questions that are expensive and difficult to answer with traditional research methods.

Provider: DairyNZ

Funding: $277,920 (ex. GST)

Dairying in a Variable Climate

Palm kernel expeller has assisted farmers to manage variability in pasture supply. However, its use affects the processability of milk and it can increase the cost of processing. The introduction of milk fat evaluation index (FEI) penalties will impact farmers ability to manage pasture supply gaps.

This project will measure the economic and environmental impacts of three different management strategies for producing milk within a variable climate and milk FEI constraints. Data collected will allow examination of the effects of these systems on milk production, profitability, environmental sustainability, cow welfare, labour and capital requirements.

Provider: DairyNZ

Funding: $160,000 (ex. GST)

Dairy Statistics

Dairy Statistics provides a range of statistical analyses on current, historic and emerging trends in the New Zealand dairy sectors. It also reports on the initiatives being undertaken to eradicate disease (EBL, TB, etc). Dairy Statistics is considered an essential reference by a variety of organisations, including universities, local government, dairy companies, industry support organisations, rural professionals and farmers.

Provider: LIC

Funding: $72,000 (ex. GST)

Bay of Plenty Focus on Dairying

This farmer-led project works with farmers in the Eastern Bay of Plenty to make their operations more profitable and sustainable. Many activities and events have been undertaken to achieve this, including sharing progress updates, yellow bristle grass prevention and management advice, DairyBase use and Lucerne data collection.

Provider: BOP Focus on Dairying Charitable Trust

Funding: $66,000 (ex. GST)

Improved Management of Home-Grown Feed

This project encourages farmers to change on-farm practices to better manage profitable pasture and feed. Pasture Plus and Tiller Talk are two programmes offering the opportunity to evaluate farmer-to-farmer learning around pasture management.

Provider: DairyNZ

Funding: $602,743 (ex. GST)

St Peter's School/Lincoln University Demonstration Dairy Farm – Owl Farm

The goal of Owl Farm, the St Peter's School/ Lincoln University Demonstration Dairy Farm, is to apply proven research, good on-farm practices and scientific monitoring to become an exemplar in dairy production, economic performance and environmental footprint management.

Provider: St Peter's School Trust Board

Funding: $33,750 (ex. GST)

Commitment 4

We will be world leading in animal care

Dairy farmers take great pride in their animals and on-farm animal care and welfare are recognised as highly important, while evolving to meet farm system changes.

To support this, the New Zealand dairy sector will work towards the development and implementation of a framework that ensures every animal is valued and treated with care and respect. This includes working towards the implementation and reporting of all farmers under the developed framework.

Animal Care Programme

Practice Change

This project provides motivation and easily implemented solutions to encourage practice change. It includes opportunities to be ahead of emerging issues, preparing farmers for regulation changes and updating on-farm practices with the latest research findings.

Early Response Service

This service links farmers on at-risk farms with the support required to farm their way out of the risk. This area of work partners with other businesses and NGOs in the dairy sector.

Monitor and Measure

To help target resources to areas of greatest need, the Monitor and Measure team carries out 500 on-farm animal care consultations to better understand existing and emerging animal care practices, and provide support as needed.

Plan for the Future

This work helps guide government policy and looks at future national requirements. Cross sector work ensures balance across all species of livestock, as well as ensuring good welfare for dairy cattle after they leave the farm. This is achieved through multi-agency working groups.

Provider: DairyNZ

Funding: $1,454,030 (ex. GST)

World Leading Animal Care

This project is working towards Dairy Tomorrow's commitment to be world leading in animal care. The project has been working with farmers to develop the commitment framework, as well as defining world leading animal care with the public, farmers and animal welfare researchers.

Provider: DairyNZ

Funding: $407,110 (ex. GST)

Commitment 5

We will build great workplaces for New Zealand's most talented workforce

Talented people provide the skills and motivation to support the dairy sector. To support this, farm businesses will have best employment practices and quality work environments, and ensure everyone gets home safe and well each day.

Sector initiatives will inspire, attract, grow and retain dairy talent, and implement new programmes to support and integrate new entrants into the sector and our rural communities. New programmes to build and sustain our governance and management base through diversity and leadership will also be developed.

Flexible Milking (3-in-2)

This project is part of a bold initiative to optimise and increase the use of an innovative farm management strategy (three milkings in two days; 3-in-2) to ensure future NZ dairy-farm systems meet people and animal health expectations in a profitable manner. The number, timing and duration of milking events within a farm system (typically two per day) significantly contributes to people health concerns (burnout, exhaustion, sleep-problems) and cow health issues (lameness, low body condition).

Reducing milking events to once-a-day (OAD) can mitigate these issues, however, there is often substantial loss in milk production and profitability in high producing herds.

Milking cows 3-in-2 is an innovative approach currently employed by seven percent of New Zealand farmers to achieve some of the benefits of OAD milking without the associated production loss.

A key barrier to greater industry adoption is a lack of knowledge on the impact of 3-in-2 on system performance, which results in a lack of confidence to adopt this management practice. This project will use a multidisciplinary approach involving farmers and their teams, scientists, and industry experts to optimise and increase the use of 3-in-2 to improve people wellbeing, cow health and system profitability.

Provider: DairyNZ

Funding: $200,000 (ex. GST)

Quality Work Environments

This project leads implementation of the Workplace Action Plan, supporting employers and employees to build quality work environments on dairy farms. A key focus is working with farmers to support knowledge and implementation of improved workplace practices.

The project also involves other stakeholders in developing and maintaining tools and resources, and monitoring and evaluating the impact of good people management. It is also working with government agencies around immigration law and farm safety regulations.

Provider: DairyNZ

Funding: $770,400 (ex. GST)

Workplace Design

Future dairy workplaces will need to be attractive places to work so the best and brightest want to choose a dairy career. However, what makes a workplace attractive is constantly changing and is influenced by a variety of factors, both on and off farm. DairyNZ's Workplace Design project takes a future-looking perspective in creating great dairy workplaces for 2030.

Farmers are involved in co-developing solutions that work for them, as well as actively researching the impact and performance of people management and workplace solutions.

This will give farmers added certainty about the value of investing in different approaches to people management. They will also have more certainty about which approaches fit their context, and how to implement them in practice.

Provider: DairyNZ

Funding: $444,080 (ex. GST)

Dairy Learn

Dairy Learn aims to develop the evidence base for strategic decision making around the dairy sectors capability requirements, and help guide investment. This will be achieved through understanding current and future capability needs across on-farm, rural professional and science audiences, influencing sector level systems required to deliver effective education and training to meet industry demands and support innovation.

Much of the focus for 2019/20 has been on the Reform of Vocational Education (RoVE) which aims to make the system more responsive to industry needs. This represents a significant opportunity for the dairy sector to build a training system that effectively enables learning on farm. The project has delivered policy input to help shape the system, supported by analysis of capability needs and farmer learning preferences.

Provider: DairyNZ

Funding: $690,000 (ex. GST)

Getting into Dairy

This project promotes dairy careers to youth to attract them into the sector, either on-farm or in the service and support sector. It aims to assist the sector to attract, develop and retain highly skilled, motivated people, including farm managers, scientists, research technicians and rural professionals.

Provider: DairyNZ

Funding: $826,520 (ex. GST)

Secondary School Education

Centre of Excellence for Agricultural Science and Business Programme

This project aims to deliver an education programme to secondary school students that will stimulate careers in agricultural science and business, helping to meet the sector's long-term needs for highly skilled and motivated young people.

Provider: Waikato Anglican College Trust

Funding: $100,000 (ex. GST)

20.5% of NZ secondary schools taught agribusiness achievement standards in the past 3 years

2,239 students studied agribusiness in 2019 – up from 260 in 2017

Primary ITO Funding

DairyNZ and the Primary ITO are jointly developing capable people to grow the productivity, profitability and sustainability of New Zealand's dairy sector. The Primary ITO contributes to this objective by developing qualifications and programmes, identifying dairy workers' skill gaps, and promoting, brokering and supporting training to meet the competencies required for sector standard roles.

Provider: Primary Industry Training Organisation

Funding: $1,057,767 (ex. GST)

Dairy Levy investment through the PITO supported **6,166 people** in training to achieve **151,556 credits** and **complete 2,279 programmes.**

Improving Dairy Production Capability

This project is a co-investment by DairyNZ with Massey University and provides joint funding for a Professor of Dairy Production Systems based at Massey University. The ongoing funding of this position will boost the research, teaching and training capability in dairy production and dairy systems, and provide stronger alignment between Massey University academics and the dairy sector.

Provider: Massey University

Funding: $90,000 (ex. GST)

Leadership and Governance Development for Dairy Women

This project seeks to actively develop and support dairy women to reach their leadership potential. Working with Dairy Women's Network (DWN), two talented and committed women are identified who have the passion and potential to take on leadership and/or governance roles in the sector and community. These women participate in the escalator programme – a 10-month leadership, governance and business capabilities programme designed for agri-women. Dairy Investment also supports the participation of dairy women in the It's all about You leadership development programmes delivered by the Agri-Womens Development Trust.

Provider: The Agri-Women's Development Charitable Trust (AWDT)

Funding: $50,000 (ex. GST)

New Zealand Dairy Industry Awards

DairyNZ, together with other sponsors, supports the Sharemilker/Equity Farmer of the Year, Farm Manager of the Year and Dairy Trainee of the Year competitions, with the aim of raising awareness and understanding of the value of New Zealand's dairy sector, along with promoting business excellence.

Provider: New Zealand Dairy Industry Awards Trust

Funding: $308,830 (ex. GST)

Primary Industry Capability Alliance (PICA)

Continued improvements in dairy business performance are essential if New Zealand is to capitalise on changing market trends and associated emerging opportunities. Developing the people within dairying, with increased numbers and improved skill levels, is central to capturing this opportunity. PICA provides a collaborative forum to assist like-minded organisations to plan, implement and evaluate capability development.

Provider: Primary Industry Capability Alliance Inc

Funding: $150,000 (ex. GST)

Kellogg Rural Leadership Programme and Nuffield Scholarships

The Kellogg Rural Leadership Programme and Nuffield Scholarships develop leaders for the rural and primary industry sectors, particularly to support Government and industry strategies around export targets and human resources. The four-phase Kellogg programme includes leadership tools and skills development, understanding of the New Zealand primary sector, national and international industry issues, and network development across industry sectors. Nuffield Scholars join a global programme that involves travel to four continents to study agricultural, political and social strengths and culminates in a research project.

Provider: Lincoln University

Funding: $150,000 (ex. GST)

Develop Rural Youth

Growing leadership in dairy is key to ensuring a positive and secure future for the sector. This project expands the leadership talent pool, attracting and retaining young people from the wider agricultural industry, by expanding leadership training and opportunities available to them.

Provider: New Zealand Young Farmers

Funding: $80,000 (ex. GST)

Commitment 6

We will help grow vibrant and prosperous communities

Vibrant and prosperous communities is about the dairy sector's involvement and contribution to local communities. This includes helping strengthen communities through growing community leadership and building stronger connections, including urban-rural relationships.

This includes influencing the delivery of infrastructure and services in rural areas that support regional economic and social wellbeing, and work towards becoming a highly trusted business sector in New Zealand.

The Vision is Clear

Powered by DairyNZ, The Vision is Clear is a movement that showcases the work that dairy farmers and other Kiwis are doing while inspiring everyone to take an active role in looking after New Zealand's waterways.

The Vision is Clear is about the dairy sector openly acknowledging the role we play in the country's water quality challenge, openly showcasing what we are doing about it and celebrating the great work that is being done by people all over the country, including farmers. It's about helping us understand what part we can all play in helping to look after waterways, with the belief that if we all work together as a country, then big change can happen.

Provider: DairyNZ

Funding: $1,158,250 (ex. GST)

Events & Sponsorship

By sponsoring dairy sector events and conferences, DairyNZ helps facilitate education and knowledge sharing to New Zealand dairy farmers. Events help increase farmers' access to new knowledge, networking, and opportunities for discussion, debate and information sharing. Successful sponsorships also help create future leaders for the dairy sector and promote and encourage best practice and excellence within the farming community.

Provider: DairyNZ

Funding: $615,460 (ex. GST)

Public Perception

This project's aim is for DairyNZ to be known and trusted by external stakeholders to work collaboratively to identify issues (environmental, social and economic), pinpoint options and solve problems where dairying is contributing to them. It will seek to foster strategic relationships with a network of influential leaders and create a public programme of activities to assist in building a more positive perception of dairy farming and the dairy industry with the New Zealand public. An example of project work is The Vision is Clear movement which aims to influence public perception by raising awareness of the work being done by dairy farmers to care for their waterways and encouraging all Kiwis to follow the example and play their part in improving water quality.

Provider: DairyNZ

Funding: $377,750 (ex. GST)

Education

This project aims to increase understanding of the dairy sector among school children, their families and teachers. DairyNZschools.co.nz provides teachers with curriculum-based learning resources to help teach children about dairy farming and where milk comes from, and DairyNZ's school farm visit programme offers schools an authentic dairy farm experience. Rosiesworld.co.nz is where children can learn about dairy farming and the sector through fun and engaging activities.

Provider: DairyNZ

Funding: $668,647 (ex. GST)

FINANCIALS 2019/20

Independent auditor's report

To the members of DairyNZ Incorporated

Report on the audit of the Incorporated Society and Group financial statements

Opinion

In our opinion, the accompanying Incorporated Society and Group financial statements of DairyNZ Incorporated (the 'Incorporated Society') and its subsidiaries (the 'Group') on pages 59 - 82:

i. Present fairly in all material respects the Incorporated Society's and Group's financial position as at 31 May 2020 and its financial performance and cash flows for the year ended on that date; and

ii. Comply with Public Benefit Entity Standards (Not For Profit).

We have audited the accompanying Incorporated Society and Group financial statements which comprise:

- The Incorporated Society and Group statement of financial position as at 31 May 2020;
- The Incorporated Society and Group statements of comprehensive income, changes in equity and cash flows for the year then ended; and
- Notes, including a summary of significant accounting policies and other explanatory information.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (New Zealand) ('ISAs (NZ)'). We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

We are independent of the Incorporated Society and Group in accordance with Professional and Ethical Standard 1 (Revised) Code of Ethics for Assurance Practitioners issued by the New Zealand Auditing and Assurance Standards Board and the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants ('IESBA Code'), and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code.

Our responsibilities under ISAs (NZ) are further described in the auditor's responsibilities for the audit of the Incorporated Society and Group financial statements section of our report.

Our firm has also provided other services to the Incorporated Society and Group in relation to tax and other advisory services. Subject to certain restrictions, partners and employees of our firm may also deal with the Incorporated Society and Group on normal terms within the ordinary course of trading activities of the business of the Incorporated Society and Group. These matters have not impaired our independence as auditor of the Incorporated Society and Group. The firm has no other relationship with, or interest in, the Incorporated Society and Group.

Other information

The Directors, on behalf of the Incorporated Society and Group, are responsible for the other information included in the entity's Annual Report. Our opinion on the Incorporated Society and Group financial statements does not cover any other information and we do not express any form of assurance conclusion thereon. In connection with our audit of the Incorporated Society and Group financial statements our responsibility is to read the other information and, in doing

so, consider whether the other information is materially inconsistent with the Incorporated Society and Group financial statements or our knowledge obtained in the audit or otherwise appears materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Use of this independent auditor's report

This independent auditor's report is made solely to the members as a body. Our audit work has been undertaken so that we might state to the members those matters we are required to state to them in the independent auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the members as a body for our audit work, this independent auditor's report, or any of the opinions we have formed.

Responsibilities of the Directors for the Incorporated Society and Group financial statements

The Directors, on behalf of the Incorporated Society, are responsible for:

- The preparation and fair presentation of the Incorporated Society and Group financial statements in accordance with generally accepted accounting practice in New Zealand (being Public Benefit Entity Standards (Not For Profit));
- Implementing necessary internal control to enable the preparation of an Incorporated Society and Group set of financial statements that is fairly presented and free from material misstatement, whether due to fraud or error; and
- Assessing the ability to continue as a going concern. This includes disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless they either intend to liquidate or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the Incorporated Society and Group financial statements

Our objective is:

- To obtain reasonable assurance about whether the Incorporated Society and Group financial statements as a whole are free from material misstatement, whether due to fraud or error; and
- To issue an independent auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs NZ will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error. They are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these Incorporated Society and Group financial statements.

A further description of our responsibilities for the audit of these Incorporated Society and Group financial statements is located at the External Reporting Board (XRB) website at:

http://www.xrb.govt.nz/standards-for-assurance-practitioners/auditors-responsibilities/audit-report-7/

This description forms part of our independent auditor's report.

KPMG
Hamilton
30 July 2020

Statutory Information

For the year ended 31 May 2020

The Directors present the Annual Report along with the audited accounts for DairyNZ Incorporated and Subsidiary Companies for the year ended 31 May 2020.

1. Activities

DairyNZ's main income is provided by the Commodity Levies (Milksolids) Order 2014, as well as the undertaking of dairy research, development and extension activities.

2. Results

DairyNZ Group's total comprehensive loss for the year was $267,209.

3. Disclosures

Pursuant to Clause 24.1(c) and 24.1(d) of the Rules of DairyNZ Incorporated and/or Section 211(1) of the Companies Act 1993, we disclose the following information:

DIRECTORS	DAIRY NZ INCORPORATED	SUBSIDIARY AND OTHER DIRECTORSHIPS
H. Anderson	Director Appointed	DairyNZ Ltd
T. Brown	Director Elected	DairyNZ Ltd
E. Cook	Director Elected	DairyNZ Ltd
J. Coughlan	Director Appointed	DairyNZ Ltd
P. Schuyt	Director Appointed	DairyNZ Ltd
J. van der Poel	Director Elected (Chairman)	DairyNZ Ltd
J. Rowarth	Director Elected	DairyNZ Ltd
C. Glass	Director Elected	DairyNZ Ltd
R. Anderson		New Zealand Animal Evaluation Ltd
H. Blair		New Zealand Animal Evaluation Ltd
E. Coats		New Zealand Animal Evaluation Ltd
A. Kempthorne		New Zealand Animal Evaluation Ltd and SDH GP Ltd
W. Larsen		New Zealand Animal Evaluation Ltd
S. Montgomerie		New Zealand Animal Evaluation Ltd
D. Evans		New Zealand Animal Evaluation Ltd, DairyNZ Accreditation Ltd, Dairy Insight (PGGR Consortia) Ltd and SDH GP Ltd
T. Mackle		DairyNZ Accreditation Ltd
R. Pridmore		Dairy Insight (PGGR Consortia) Ltd & Pastoral Greenhouse Gas Research Ltd
A. Body		Insight Genomics Ltd and Pastoral Genomics Ltd
B. Thorrold		Insight Genomics Ltd, Data Linker Ltd and Farm Data Accreditation Ltd
D. McCall		Dairy Training Ltd
M. Julian		Dairy Training Ltd

POSITIONS HELD IN OTHER DAIRY INDUSTRY GOOD ENTITIES		
J. Jago	Officer	Primary Industry Capability Alliance Incorporated
T. Mackle	Officer	South Island Dairying Development Centre (SIDDC)
J. Cameron	Officer	IDF New Zealand National Committee
B. Allomes	Trustee	New Zealand Dairy Industry Awards
A. Wilcock	Trustee	AgRecovery Foundation

Changes during the year

B. Allomes resigned as Director of DairyNZ Limited on 22 October 2019.

T. Brown appointed as Director of DairyNZ Limited on 22 October 2019.

T. Mackle resigned as Director of NZ Animal Evaluation Limited on 13 May 2020.

D. Evans appointed as Director of NZ Animal Evaluation Limited on 13 May 2020.

Directors' interest

A Directors interest register is maintained throughout the year.

Use of company information

The Board received no notices during the year from Directors required to use Company information received in their capacity as Directors, which would not have been otherwise available to them.

Share dealings

No Directors hold any shares in any DairyNZ entity within the Group.

Donations

There were no donations made in the current year.

Board and committee attendance

DairyNZ has two permanent Board Committees; the Audit Risk Committee (ARC) and the People & Culture (P&C) Committee. The ARC assists the Board in fulfilling its governance responsibilities in relation to the Group's management of key strategic and operational risks, policies and procedures for managing and mitigating risks, financial reporting, audit activities, treasury matters, financial risk management and internal control frameworks. People & Culture assists the Board in fulfilling governance responsibilities in relation to recruitment, retention, remuneration and development of directors, executives and other employees and to promote a safe and healthy working environment.

	BOARD	ARC	P&C
B. Allomes	5	-	1
H. Anderson	8	-	3
E. Cook	8	-	3
J. Coughlan	8	-	3
P. Schuyt	8	4	-
J. van der Poel	8	4	3
J. Rowarth	8	4	-
C. Glass	8	4	-
T. Brown	2	-	-
Total meetings	**8**	**4**	**3**

Directors remuneration

Remuneration paid during the period was as follows:

	2020
H. Anderson	53,000
T. Brown	19,959
E. Cook	50,500
J. Coughlan	49,000
C. Glass	50,500
J. Rowarth	49,000
P. Schuyt	53,000
J. van der Poel	94,500
B. Allomes	22,208
A. Body	4,800
M. Herbert	5,600
A. Wells	1,600
Directors of DairyNZ subsidiaries	
R. Anderson	20,000
H. Blair	22,500
E. Coats	20,000
A. Kempthorne	20,000
W. Larsen	40,000
S. Montgomerie	20,000
	596,167

Employees remuneration

The following number of employees received remuneration and other benefits (including redundancies) totalling more than $100,000 during the year:

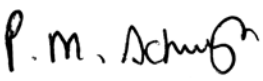
	NUMBER OF EMPLOYEES	
SALARY BAND	2020	2019
100,000 - 110,000	30	22
110,000 - 120,000	17	16
120,000 - 130,000	10	13
130,000 - 140,000	10	9
140,000 - 150,000	6	3
150,000 - 160,000	8	9
160,000 - 170,000	6	3
170,000 - 180,000	4	1
180,000 - 190,000	2	3
190,000 - 200,000	1	-
200,000 - 210,000	3	4
210,000 - 220,000	-	1
220,000 - 230,000	-	1
230,000 - 240,000	2	1
240,000 - 250,000	1	-
250,000 - 260,000	-	1
260,000 - 270,000	1	1
270,000 - 280,000	2	-
280,000 - 290,000	1	1
600,000 - 610,000	1	1

Auditors remuneration

The following amounts were payable to the auditors of DairyNZ Incorporated and its subsidiaries:

	FOR AUDIT WORK	FOR OTHER SERVICES
KPMG	73,000	18,846

J VAN DER POEL, CHAIRMAN
30 July 2020



P SCHUYT, DIRECTOR
30 July 2020

Statement of Comprehensive Income

For the year ended 31 May 2020

In thousands of New Zealand Dollars		*Consolidated*		*Parent*	
	NOTE	2020	2019	2020	2019
Continuing operations					
Revenue and other income	3	83,827	86,013	72,284	71,287
Operational expenses	4	(84,179)	(85,389)	(74,991)	(70,916)
Profit/(loss) before finance activities		**(352)**	**624**	**(2,707)**	**371**
Finance income		209	289	34	4
Finance expenses		-	(9)	-	-
Net finance income	**5**	**209**	**280**	**34**	**4**
Profit/(loss) before income tax		**(143)**	**904**	**(2,673)**	**375**
Tax expense	**6**	**-**	**-**	**-**	**-**
Profit/(loss) for the period		**(143)**	**904**	**(2,673)**	**375**
Other comprehensive income					
Net change in fair value of available for sale financial assets		(124)	(362)	-	-
Income tax on other comprehensive income		-	-	-	-
Other comprehensive income for the period, net of income tax		**(124)**	**(362)**	**-**	**-**
Total comprehensive income/(loss) for the period		**(267)**	**542**	**(2,673)**	**375**

Statement of Changes in Equity

For the year ended 31 May 2020

In thousands of New Zealand Dollars — *Consolidated*

	CONTRIBUTION BY OWNERS	INVESTMENT FAIR VALUE RESERVE	RETAINED EARNINGS	TOTAL EQUITY
Balance as at 1 June 2018	33,783	268	9,786	43,837
Total comprehensive income for the period				
Profit/(loss) for the period	-	-	904	904
Other comprehensive income				
Net change in fair value of available for sale financial assets	-	(362)	-	(362)
Total other comprehensive income	**-**	**(362)**	**-**	**(362)**
Total comprehensive income for the period	**-**	**(362)**	**904**	**542**
Balance as at 31 May 2019	**33,783**	**(94)**	**10,690**	**44,379**
Balance as at 1 June 2019	33,783	(94)	10,690	44,379
Total comprehensive income for the period				
Profit/(loss) for the period	-	-	(143)	(143)
Other comprehensive income				
Net change in fair value of available for sale financial assets	-	(124)	-	(124)
Total other comprehensive income	**-**	**(124)**	**-**	**(124)**
Total comprehensive income for the period	**-**	**(124)**	**(143)**	**(267)**
Balance as at 31 May 2020	**33,783**	**(218)**	**10,547**	**44,112**

In thousands of New Zealand Dollars — *Parent*

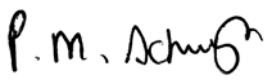
	CONTRIBUTION BY OWNERS	INVESTMENT FAIR VALUE RESERVE	RETAINED EARNINGS	TOTAL EQUITY
Balance as at 1 June 2018	33,783	-	(18,957)	14,826
Total comprehensive income for the period				
Profit/(loss) for the period	-	-	375	375
Other comprehensive income				
Net change in fair value of available for sale financial assets	-	-	-	-
Total other comprehensive income	**-**	**-**	**-**	**-**
Total comprehensive income for the period	**-**	**-**	**375**	**375**
Balance as at 31 May 2019	**33,783**	**-**	**(18,582)**	**15,201**
Balance as at 1 June 2019	33,783	-	(18,582)	15,201
Total comprehensive income for the period				
Profit/(loss) for the period	-	-	(2,673)	(2,673)
Other comprehensive income				
Net change in fair value of available for sale financial assets	-	-	-	-
Total other comprehensive income	**-**	**-**	**-**	**-**
Total comprehensive income for the period	**-**	**-**	**(2,673)**	**(2,673)**
Balance as at 31 May 2020	**33,783**	**-**	**(21,255)**	**12,528**

Statement of Financial Position

As at 31 May 2020

In thousands of New Zealand Dollars		*Consolidated*		*Parent*	
	NOTE	2020	2019	2020	2019
Assets					
Property, plant & equipment	7	21,248	22,229	-	-
Intangible assets	8	4,995	4,880	-	-
Biological assets - livestock	9	1,427	1,398	-	-
Investment in subsidiaries	17	-	-	34,954	34,865
Investment in associates	18	4,699	4,821	4,699	4,805
Other investments	10	1,322	1,446	-	-
Total non-current assets		**33,691**	**34,774**	**39,653**	**39,670**
Cash and cash equivalents	12	18,545	15,744	428	626
Inventories		106	112	-	-
Trade and other exchange receivables	11	2,891	7,740	4,473	3,903
Trade and other non-exchange receivables	11	7,618	3,881	7,302	3,881
Total current assets		**29,160**	**27,477**	**12,203**	**8,410**
Total assets		**62,851**	**62,251**	**51,856**	**48,080**
Members' funds					
Contribution by owners		33,783	33,783	33,783	33,783
Investment fair value reserve		(218)	(94)	-	-
Retained earnings		10,547	10,690	(21,255)	(18,582)
Total members' funds	**16**	**44,112**	**44,379**	**12,528**	**15,201**
Liabilities					
Employee entitlements	14	310	334	-	-
Total non-current liabilities		**310**	**334**	**-**	**-**
Trade and other payables	15	14,358	13,885	38,303	31,983
Deferred income		1,521	1,188	1,025	896
Employee entitlements	14	2,550	2,465	-	-
Total current liabilities		**18,429**	**17,538**	**39,328**	**32,879**
Total liabilities		**18,739**	**17,872**	**39,328**	**32,879**
Total members' funds and liabilities		**62,851**	**62,251**	**51,856**	**48,080**

J VAN DER POEL, CHAIRMAN
30 July 2020



P SCHUYT, DIRECTOR
30 July 2020

Statement of Cash Flows

For the year ended 31 May 2020

In thousands of New Zealand Dollars		*Consolidated*		*Parent*	
	NOTE	2020	2019	2020	2019
Net cash from/(used in) operating activities					
Cash provided from:					
Dairy industry good levies		67,856	67,458	67,856	67,458
Biosecurity response levies collected		47,005	-	47,005	-
Other funding		19,697	13,567	3,461	2,947
Interest income received		209	289	34	4
		134,767	**81,314**	**118,356**	**70,409**
Cash applied to:					
Payments to suppliers and employees		82,810	82,421	69,447	67,570
Biosecurity response levies paid		47,005	-	47,005	-
Interest expense paid		-	9	-	-
		129,815	**82,430**	**116,452**	**67,570**
Net cash from/(used in) operating activities	**23**	**4,952**	**(1,116)**	**1,904**	**2,839**
Net cash from/(used in) investing activities					
Cash provided from:					
Proceeds from sale of biological assets		186	168	-	-
Proceeds from sale of property, plant & equipment		-	62	-	-
		186	**230**	**-**	**-**
Cash applied to:					
Investments in subsidiaries		-	-	2,102	2,302
Investments in associates		-	-	-	-
Purchase of biological assets		117	8	-	-
Acquisition of property, plant & equipment and intangibles		2,220	2,328	-	-
		2,337	**2,336**	**2,102**	**2,302**
Net cash from/(used in) investing activities		**(2,151)**	**(2,106)**	**(2,102)**	**(2,302)**
Net cash from/(used in) financing activities		**-**	**-**	**-**	**-**
Net increase/(decrease) in cash balances		**2,801**	**(3,222)**	**(198)**	**537**
Cash balances at beginning of period		15,744	18,966	626	89
Closing cash balances		**18,545**	**15,744**	**428**	**626**

Notes to the Financial Statements

For the year ended 31 May 2020

A) Accounting policies

1. Accounting entity

DairyNZ Incorporated ("DairyNZ") is an Incorporated Society incorporated under the Incorporated Societies Act 1908 and domiciled in New Zealand. DairyNZ's registered office is at the corner of Ruakura Road and Morrinsville Road, Hamilton. These financial statements have been prepared in accordance with the Financial Reporting Act 2013.

DairyNZ is primarily involved in the promotion and funding of dairy industry good activities. Accordingly, DairyNZ has designated itself as a public benefit entity for the purpose of financial reporting.

Financial statements for DairyNZ Incorporated (separate financial statements) and consolidated financial statements are presented. The consolidated financial statements of DairyNZ as at, and for the year ended 31 May 2020 comprise DairyNZ and subsidiaries (together referred to as the "Group") and the Group's interests in associates and jointly controlled entities.

2. Basis of preparation

i) Statement of compliance

These financial statements have been prepared in accordance with New Zealand Generally Accepted Accounting Practice ("NZ GAAP"). They comply with Public Benefit Entity International Public Sector Accounting Standards ("PBE IPSAS") and other applicable Financial Reporting Standards, as appropriate for Tier 1 not-for-profit public benefit entities. The Group qualifies as a Tier 1 reporting entity as total expenses for the Group exceeds $30 million.

The financial statements were approved by the Directors on 30 July 2020.

The accounting policies set out below have been applied consistently to all periods presented in these financial statements. The accounting polices have been applied consistently to Group entities.

ii) Basis of measurement

The financial statements have been prepared on the historical cost basis except for the following:

- Biological assets are measured at fair value less point-of-sale costs.
- Available for sale assets are measured at fair value.

iii) Functional and presentation currency

These financial statements are presented in thousands of New Zealand dollars, which is DairyNZ's functional currency.

iv) Use of estimates and judgements

Estimates and judgements are made by management in applying the Group's accounting policies.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected.

Significant areas involving high levels of estimation or judgement are:

- Note 7 - useful lives and impairment of property, plant and equipment.
- Note 8 - useful lives and impairment of intangible assets.
- Note 14 - employee entitlements and long term benefits.
- Note 18 - measurement of associates.
- Note 22 - recognition of contingent liabilities.

v) New or amended standards adopted in current year and standards issued but not yet effective

i) PBE IFRS 9 'Financial instruments' which is effective for annual periods beginning on or after 1 January 2021. The standard will simplify the mixed measurement model as well as establish three primary measurement categories for financial assets: amortised cost, fair value through other comprehensive income and fair value through financial performance.

ii) PBE IPSAS 48 'Service Performance Reporting' which is effective for annual periods beginning on or after 1 January 2021, introduces requirements for preparation of a Statement of Service Performance.

B) Performance

3. Revenue

Revenue is recognised and measured at the fair value of consideration received or receivable to the extent it is probable that the economic benefits will flow to the Group and the amount of revenue can be reliably measured.

The following specific recognition criteria in relation to the Group's revenue streams must also be met before revenue is recognised.

i) Revenue from exchange transactions

Services

Revenue from services rendered is recognised in proportion to the stage of completion of the transaction at the reporting date. The stage of completion is measured with reference to project milestones.

Other income

Other income comprises of the following;

- **Dividend income** - recognised as income on the date that the Group's right to receive payment is established.
- **Gain/(loss) on disposal of assets** - difference between the carrying value and proceeds from disposal of assets.
- **Movement in fair value of livestock** - movement in the fair value of the asset.
- **Surplus/(deficit) in associates** - recognised as share of surplus/(deficit) in associates.

In thousands of New Zealand Dollars	*Consolidated*		*Parent*	
REVENUE FROM EXCHANGE TRANSACTIONS	**2020**	**2019**	**2020**	**2019**
Farm income	2,243	2,003	-	-
Research commercial income	1,882	2,670	-	-
Dairy Training course fees	1,198	977	-	-
Other revenue	3,256	4,393	-	-
Total exchange revenue	**8,579**	**10,043**	**-**	**-**

ii) Revenue from non-exchange transactions

NON-EXCHANGE TRANSACTIONS ARE THOSE WHERE THE GROUP RECEIVES AN INFLOW OF RESOURCES (I.E. CASH AND OTHER TANGIBLE OR INTANGIBLE ITEMS) BUT PROVIDES NO (OR NOMINAL) DIRECT CONSIDERATION IN RETURN.

Industry good levy

DairyNZ has the power to raise a levy from dairy industry participants under the Commodities Levies Act 1990. Revenue from the industry good levy is recognised when the levy becomes receivable.

Government grants and funding

Inflow of resources from government grants and funding are recognised as revenue in the period for which the funding received is utilised. Funds that are not utilised as stipulated are either returned, resulting in the recognition of a non-exchange liability or recognised as income in advance to be utilised over future periods.

In thousands of New Zealand Dollars	*Consolidated*		*Parent*	
REVENUE FROM EXCHANGE TRANSACTIONS	**2020**	**2019**	**2020**	**2019**
Levy income *Levy revenue is collected from farmers via the following companies*				
Fonterra	54,612	54,819	54,612	54,819
Open Country Dairy	5,617	5,576	5,617	5,576
Synlait	2,756	2,284	2,756	2,284
Westland	2,313	2,363	2,313	2,363
Miraka	947	934	947	934
Oceania Dairy	816	784	816	784
Tatua	547	521	547	521
Other Dairy Companies	645	544	645	544
Total levy income	**68,253**	**67,825**	**68,253**	**67,825**
Other funding				
MBIE research funding	6,037	7,819	3,521	3,462
Sustainable Farming fund	852	326	-	-
Other	106	-	510	-
Total other funding	**6,995**	**8,145**	**4,031**	**3,462**
Total non-exchange revenue	**75,248**	**75,970**	**72,284**	**71,287**
Total revenue	**83,827**	**86,013**	**72,284**	**71,287**

4. Expenses

Operational expenses by nature

Operational expenses include costs incurred by DairyNZ and it's subsidiaries for undertaking research, development and extension activities. These activities are funded through levy investment and government funding.

The following items of expenditure are included in operational expenses:

In thousands of New Zealand Dollars	*Consolidated*		*Parent*	
	2020	**2019**	**2020**	**2019**
Amortisation	1,143	1,054	-	-
KPMG - audit fees	73	78	-	-
KPMG - other services	19	16	-	-
Commodity levy collection fee	360	339	360	339
Depreciation	1,874	1,977	-	-
Directors' fees (includes directors of subsidiaries)	596	595	-	-
Directors' and governance expenses	149	186	-	-
Impairment in investment in subsidiaries	106	224	2,119	2,932
Operating leases	525	600	-	-
Personnel expenses	29,006	26,809	-	-
Professional fees - legal	141	140	-	-
Provision for employee entitlements	61	(18)	-	-

Research and development

Research and development costs are included in operational expenses. Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognised when incurred.

The Group's research and development costs for the period were $53.33 million (2019; $53.57 million).

The Parent's research and development costs for the period were $33.17 million (2019; $31.50 million).

Audit

Other services include a review and support provided with the application of R&D Tax credits and accounting for the Biosecurity response levies. (2019; Privacy compliance framework).

5. Net finance income

	Consolidated		*Parent*	
	2020	**2019**	**2020**	**2019**
Interest income on loans and receivables	209	289	34	4
Finance income	**209**	**289**	**34**	**4**
Interest payable on loans and payables	-	(9)	-	-
Finance expense	**-**	**(9)**	**-**	**-**
Net finance income	**209**	**280**	**34**	**4**

Finance income

Finance income comprises interest income on funds invested. Interest income is recognised as it accrues, using the effective interest rate.

6. Income tax

Income derived from DairyNZ Incorporated and certain subsidiaries is exempt income under Section CW51 of the Income Tax Act 2007.

Income derived from DairyNZ Limited has been granted exemption in accordance with Section CW49 (1) of the Income Tax Act 2007.

C) Net Assets

7. Property, plant and equipment

In thousands of New Zealand Dollars — *Consolidated*

	LAND	BUILDINGS	LEASEHOLD IMPROVEMENTS	FARM DEVELOPMENT	PLANT AND EQUIPMENT	VEHICLES	TOTAL
For the year ended 31 May 2019							
Cost or deemed cost							
Balance at 1 June 2018	13,196	12,356	855	1,280	6,231	3,483	37,401
Additions	-	136	40	22	905	381	1,484
Disposals	-	-	-	-	(1)	(182)	(183)
Balance at 31 May 2019	**13,196**	**12,492**	**895**	**1,302**	**7,135**	**3,682**	**38,702**
Depreciation and impairment losses							
Balance at 1 June 2018	146	6,436	844	762	4,590	1,871	14,649
Depreciation for the year	-	556	11	81	758	571	1,977
Disposals	-	-	-	-	(1)	(152)	(153)
Balance at 31 May 2019	**146**	**6,992**	**855**	**843**	**5,347**	**2,290**	**16,473**
Carrying Amount as at 31 May 2019	**13,050**	**5,500**	**40**	**459**	**1,788**	**1,392**	**22,229**
For the year ended 31 May 2020							
Cost or deemed cost							
Balance at 1 June 2019	13,196	12,492	895	1,302	7,135	3,682	38,702
Additions	-	296	-	19	556	22	893
Disposals	-	-	-	-	-	-	-
Balance at 31 May 2020	**13,196**	**12,788**	**895**	**1,321**	**7,691**	**3,704**	**39,595**
Depreciation and impairment losses							
Balance at 1 June 2019	146	6,992	855	843	5,347	2,290	16,473
Depreciation for the year	-	622	14	78	687	473	1,874
Disposals	-	-	-	-	-	-	-
Balance at 31 May 2020	**146**	**7,614**	**869**	**921**	**6,034**	**2,763**	**18,347**
Carrying Amount as at 31 May 2020	**13,050**	**5,174**	**26**	**400**	**1,657**	**941**	**21,248**

Parent

No property, plant and equipment is held by the Parent entity.

i) Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and impairment losses.

ii) Depreciation

Depreciation is recognised in the statement of comprehensive income on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment. Land is not depreciated.

Where assets are purchased for a specific project use, they are depreciated over the life of the project where it is determined that there is no further benefit for the Group.

The estimated useful lives for the current and comparative periods are as follows:

- Buildings -- 4-50 years
- Leasehold improvements -- Lease period being 1 to 34 years
- Farm development -- 5-20 years
- Plant and equipment -- 2-12.5 years
- Vehicles -- 2-10 years

Depreciation methods, useful lives and residual values are reassessed at each financial year-end.

iii) Leased assets

Leases in terms of which the Group assumes substantially all the risks and rewards of ownership are classified as finance leases. Upon initial recognition the leased asset is measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset.

iv) Impairment

The carrying amount of all tangible and intangible assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). The Group recognises any impairment loss in the statement of comprehensive income and the carrying amount of assets are adjusted to the recoverable amount which is the higher of fair value less costs to sell and value in use.

8. Intangible assets

In thousands of New Zealand Dollars	*Consolidated*
	SOFTWARE
For the year ended 31 May 2019	
Cost or deemed cost	
Balance at 1 June 2018	8,674
Additions	843
Balance at 31 May 2019	**9,517**
Depreciation and impairment losses	
Balance at 1 June 2018	3,583
Amortisation for the year	1,054
Balance at 31 May 2019	**4,637**
Carrying Amount as at 31 May 2019	**4,880**
For the year ended 31 May 2020	
Cost or deemed cost	
Balance at 1 June 2019	9,517
Additions	1,328
Balance at 31 May 2020	**10,845**
Depreciation and impairment losses	
Balance at 1 June 2019	4,637
Amortisation for the year	1,143
Impairment loss	70
Balance at 31 May 2020	**5,850**
Carrying Amount as at 31 May 2020	**4,995**

Parent

No intangible assets are held by the Parent entity.

i) Acquired software

Acquired computer software licences are capitalised on the basis of the costs incurred to acquire and bring to use the specific software. Computer software assets acquired in a non-exchange transaction are measured at fair value. These costs are amortised over their estimated useful lives, being up to five years. The amortisation period and amortisation method is reviewed at each financial year-end.

ii) Developed software

Costs associated with developing or maintaining computer software programmes are recognised as an expense as incurred. Costs that are directly associated with the development of identifiable and unique software products controlled by the Group and that will probably generate economic benefits exceeding costs beyond one year, are recognised as intangible assets. Costs include the employee costs incurred as a result of developing software and an appropriate portion of relevant overheads. Computer software development costs recognised as assets are amortised over their estimated useful lives, between 2 to 7 years. The amortisation period and amortisation method is reviewed at each financial year-end.

9. Biological assets

In thousands of New Zealand Dollars	*Consolidated*	
	2020	**2019**
Balance at 1 June	1,398	1,325
Increase due to acquisitions	117	8
Decrease due to sales	(403)	(325)
Change in fair value less estimated point-of-sale costs	315	390
Balance at 31 May	**1,427**	**1,398**
Non-current	1,427	1,398
Current	-	-
Number of Livestock held at 31 May	**897**	**927**

Biological assets comprise of livestock held by the Group and are measured at fair value less point-of-sale costs. Point-of-sale costs include all costs that would be necessary to sell the assets. The fair value of livestock is based on the market price of livestock of similar age, breed and genetic make-up.

Risks

The Group is exposed to a number of risks related to its livestock.

i) Regulatory and environmental risks

The Group is subject to laws and regulations in New Zealand. The Group has established environmental policies and procedures aimed at compliance with local environmental and other laws.

ii) Climate and other risks

The Group's livestock are exposed to the risk of damage from climate changes, diseases and other natural forces. The Group has extensive processes in place aimed at monitoring and mitigating those risks, including regular industry pest and disease surveys.

10. Investments

In thousands of New Zealand Dollars	*Consolidated*	
	2020	**2019**
Available for sale financial assets	1,322	1,446
Balance at 31 May	**1,322**	**1,446**

The Group's investments in equity securities are classified as available-for-sale financial assets within level 1 of the fair value hierarchy as quoted prices in an active market are available. Subsequent to initial recognition, they are measured at fair value by reference to published price quotations and changes therein, other than impairment losses, are recognised directly in equity.

Gains or losses arising from changes in the fair value are recognised in other comprehensive income.

Impairment

Equity investments are deemed to be impaired whenever there is a significant or prolonged decline in fair value below the original purchase price. Any subsequent recovery of an impairment loss in respect of an investment in an equity instrument classified as available-for-sale is not reversed through the statement of comprehensive income. (For this purpose prolonged is regarded as any period longer than nine months and significant as more than 20 percent of the original purchase price of the equity instrument).

11. Trade Receivables

	Consolidated		*Parent*	
	2020	**2019**	**2020**	**2019**
Trade receivables due from related parties	32	277	32	521
Other trade receivables	10,427	11,262	7,270	3,360
Intercompany prepayments	-	-	4,473	3,903
Prepayments	50	82	-	-
Balance at 31 May	**10,509**	**11,621**	**11,775**	**7,784**

i) Recognition and measurement

Trade receivables are initially measured at fair value, then adjusted for any impairment. Trade receivables classified as 'loan and receivable' financial instruments are stated at amortised cost using the effective interest method, less any impairment losses.

ii) Impairment

For trade receivables which are not significant on an individual basis, collective impairment is assessed on a portfolio basis based on number of days overdue, and taking into account the historical loss experience in portfolios with a similar amount of days overdue.

The recoverable amount of the Group's loans and receivables carried at amortised cost is calculated as the present value of estimated future cash flows, discounted at the original effective interest rate.

iii) Biosecurity response levy receivable

Other trade receivables includes an amount of $3,024,005 receivable from dairy processors in relation to the May 2020 biosecurity response levy. This amount is also payable to the Ministry for Primary Industries.

12. Cash and cash equivalent

	Consolidated		*Parent*	
	2020	**2019**	**2020**	**2019**
Bank balances	13,545	3,744	428	626
Call deposits	5,000	12,000	-	-
Cash and cash equivalents	**18,545**	**15,744**	**428**	**626**

Cash and cash equivalents are measured at amortised cost using the effective interest method. The effective interest rate on call deposits in 2020 was 2.06 percent (2019: 2.93 percent). The deposits had an average maturity of 83 days (2019: 73 days).

13. Operating leases

Leases as lessee

Non-cancellable operating lease rentals are payable as follows:

In thousands of New Zealand Dollars	*Consolidated*	
	2020	**2019**
Less than one year	301	273
Between one and five years	856	457
More than five years	183	54
	1,340	**784**

The Group leases a number of facilities under operating leases. The leases typically run for a period of 3 years, with an option to renew the lease after that date. Lease payments are increased periodically to reflect market rentals.

Lease payments

Payments made under operating leases are recognised in the statement of comprehensive income on a straight-line basis over the term of the lease. Lease incentives received are recognised as an integral part of the total lease expense, over the term of the lease.

14. Employee entitlements

In thousands of New Zealand Dollars	*Consolidated*	
	2020	**2019**
Non-current	310	334
Current	2,550	2,465
Balance at 31 May	**2,860**	**2,799**

The provision for employee entitlement relates to at-risk incentive provisions, long service leave, accrued annual leave and retirement allowances.

i) Long-term benefits

The Group's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and the fair value of any related assets is deducted. The discount rate is 0.78% which was the 10-year government bond rate bill rate as at 31 May 2020. The calculation is performed using the projected unit credit method. Any actuarial gains or losses are recognised in the statement of comprehensive income in the period in which they arise.

ii) Short-term benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A provision is recognised for the amount expected to be paid under short-term cash bonus plans if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

iii) Defined contribution plans

Obligations for contributions to defined contribution pension plans are recognised as an expense in the statement of comprehensive income when they are due.

15. Trade and other payables

In thousands of New Zealand Dollars	*Consolidated*		*Parent*	
	2020	**2019**	**2020**	**2019**
Trade payables due to related parties	1,987	1,320	33,456	30,202
Other trade payables	8,994	10,164	4,275	796
Non-trade payables and accrued expenses	3,377	2,401	572	985
Balance at 31 May	**14,358**	**13,885**	**38,303**	**31,983**

i) Recognition and measurement

Trade payables are recognised at cost when the company becomes obliged to make future payments resulting from the purchase of goods and services. Trade payables are classed as an "other amortised cost financial liability".

ii) Provisions

A provision is recognised if, as a result of a past event the Group has a present legal or constructive obligation that can be estimated reliably and it is probable that an outflow of economic benefits will be required to settle the obligation.

16. Members' funds and Reserves

DairyNZ's capital is its equity (or members' funds) which comprise retained earnings, fair value reserves and contributions by owners. Equity is represented by net assets.

DairyNZ manages its revenues, expenses, assets, liabilities, and general financing dealings prudently. DairyNZ's equity is largely managed as a by-product of managing income, expenses, assets, liabilities, and compliance with the Directors instructions.

The objective of managing DairyNZ's equity is to ensure that DairyNZ effectively achieves its goals and objectives for which it has been established, while remaining a going concern.

Fair value reserve

The fair value reserve comprises the cumulative net change in the fair value of available-for-sale financial assets until the investment is derecognised or impaired.

The Group is not subject to any externally imposed capital requirements.

The Group's policies in respect of capital management and allocation are reviewed regularly by the Directors.

There have been no material changes in the Group's management of capital during the period.

17. Subsidiaries

Subsidiaries are entities controlled by the Group. Control exists when the Group has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. Benefits from activities may be both of a financial and non-financial nature. Benefits of a non–financial nature could be if those benefits are meeting the Group's social objectives. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

The Group has the following significant subsidiaries:

NAME	COUNTRY	CLASS OF SHARE	VOTING INTEREST HELD %		BALANCE DATE	PRINCIPAL ACTIVITY
			2020	2019		
DairyNZ Limited	NZ	Ordinary	100	100	31-May	Dairy industry research, development and extension
Dairy Training Limited	NZ	Ordinary	100	100	31-May	Dairy industry training
New Zealand Animal Evaluation Limited	NZ	Ordinary	100	100	31-May	Maintenance of a national breeding index
Dairy Insight (PGGR Consortia) Limited	NZ	Ordinary	100	100	31-May	Greenhouse gas emission research
Insight Genomics Limited	NZ	Ordinary	100	100	31-May	Pastoral genomics ryegrass research
DairyNZ Accreditation Limited	NZ	Ordinary	100	100	31-May	Accreditation of dairy industry services
Data Linker Limited	NZ	Ordinary	50	50	31-May	Industry database

i) Transactions eliminated on consolidation

Intra-group balances, and any unrealised income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity accounted investees are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

18. Joint ventures and associates

a) Joint ventures

In thousands of New Zealand Dollars

	PASTORAL GREENHOUSE GAS RESEARCH CONSORTIUM	PASTORAL GENOMICS LTD	FARM DATA ACCREDITATION LTD	TOTAL (SHARE IN JOINT VENTURE)
For the year ended 31 May 2019				
Ownership	27.38%	49.66%	14.30%	
Current assets	953	1,550	-	2,503
Non-current assets	-	-	-	-
Total assets	**953**	**1,550**	**-**	**2,503**
Current liabilities	376	997	-	1,373
Non-current liabilities	-	-	-	-
Total liabilities	**376**	**997**	**-**	**1,373**
Revenues	653	751	-	1,404
Expenses	(1,845)	(2,281)	-	(4,126)
Profit/(loss)	**(1,192)**	**(1,530)**	**-**	**(2,722)**
For the year ended 31 May 2020				
Ownership	28.59%	49.66%	14.30%	
Current assets	1,309	1,292	-	2,601
Non-current assets	-	-	-	-
Total assets	**1,309**	**1,292**	**-**	**2,601**
Current liabilities	321	1,043	-	1,364
Non-current liabilities	-	-	-	-
Total liabilities	**321**	**1,043**	**-**	**1,364**
Revenues	665	762	-	1,427
Expenses	(1,055)	(2,368)	-	(3,423)
Profit/(loss)	**(390)**	**(1,606)**	**-**	**(1,996)**

Joint ventures

Joint ventures are those entities over whose activities the Group has joint control, established by contractual agreement and requiring unanimous consent for strategic financial and operating decisions. Joint ventures are accounted for using the proportionate consolidation method whereby the Group's share of each of the assets, liabilities, income and expenses of a jointly controlled entity is combined line by line with similar items in the Group's financial statements. The liabilities recognised include the Group's share of those liabilities for which the Group is jointly liable.

b) Associates

In thousands of New Zealand Dollars

	SDH GP LTD	BLINC INNOVATION LTD	TOTAL
For the year ended 31 May 2019			
Ownership	37.50%	20.00%	
Current assets	814	314	1,128
Non-current assets	20,841	151	20,992
Total assets	**21,655**	**465**	**22,120**
Current liabilities	18	385	403
Non-current liabilities	8,823	-	8,823
Total liabilities	**8,841**	**385**	**9,226**
Revenues	422	1,882	2,304
Expenses	(764)	(1,867)	(2,631)
Profit/(loss)	**(342)**	**15**	**(327)**
Share of profit/(loss)	(128)	3	(125)
Value of investment	4,805	16	4,821
For the year ended 31 May 2020			
Ownership	37.50%	0%	
Current assets	790	-	790
Non-current assets	20,646	-	20,646
Total assets	**21,436**	**-**	**21,436**
Current liabilities	39	-	39
Non-current liabilities	8,866	-	8,866
Total liabilities	**8,905**	**-**	**8,905**
Revenues	426	-	426
Expenses	(705)	-	(705)
Profit/(loss)	**(279)**	**-**	**(279)**
Share of profit/(loss)	(105)	-	(105)
Value of investment	4,699	-	4,699

Equity accounted associates

Associates are those entities in which the Group has significant influence, but not control, over the financial operating policies. Investments in associates are accounted for using the equity method and are recognised initially at cost. The cost of the investment includes transaction costs. The consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity accounted investees.

Ospri Limited (associate)

DairyNZ has a 45.45% shareholding in OSPRI Limited which was established on 30 May 2013. This company operates the national animal identification and tracking scheme for cattle and deer.

OSPRI Limited is an associate however is not equity accounted as it is a charitable entity - registration number CC49247. DairyNZ will not receive any future tangible financial benefit from OSPRI Limited or be entitled to any distributions on winding up.

D) Other disclosures

19. Financial instruments

Risks

Exposure to currency, interest rate and credit risk arises in the normal course of the Group's business. Derivative financial instruments are used as a means of reducing exposure to fluctuations in foreign exchange rates and interest rates. While these financial instruments are subject to the risk of market rates changing subsequent to acquisition, such changes would generally be offset by opposite effects on the items being hedged.

i) Credit risk

Credit risk is the risk that the counterparty to a transaction with the Group will fail to discharge its obligations, causing the Group to incur a financial loss. The Group is exposed to credit risk through the normal trade credit cycle and advances to third parties. No collateral is required in respect of financial assets. Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis.

Reputable financial institutions are used for investing and cash handling purposes. The maximum exposure to credit risk is represented by the carrying value of each financial asset in the Statement of Financial Position.

The status of trade receivables at the reporting date is as follows:

In thousands of New Zealand Dollars — *Consolidated*

	GROSS RECEIVABLE 2020	IMPAIRMENT 2020	GROSS RECEIVABLE 2019	IMPAIRMENT 2019
Trade receivables				
Not past due	10,094	-	6,999	-
Past due 0-30 days	161	-	2,039	-
Past due 31-120 days	92	-	2,491	-
Past due 121-360 days	112	-	10	-
Past due more than 1 year	-	-	-	-
Balance at 31 May	**10,459**	**-**	**11,539**	**-**

In thousands of New Zealand Dollars — *Parent*

	GROSS RECEIVABLE 2020	IMPAIRMENT 2020	GROSS RECEIVABLE 2019	IMPAIRMENT 2019
Trade receivables				
Not past due	7,302	-	3,666	-
Past due 0-30 days	-	-	215	-
Past due 31-120 days	-	-	-	-
Past due 121-360 days	-	-	-	-
Past due more than 1 year	-	-	-	-
Balance at 31 May	**7,302**	**-**	**3,881**	**-**

ii) Market risk

a) Foreign currency risk

Foreign currency risk is the risk that the value of the Group's assets and liabilities will fluctuate due to changes in foreign exchange rates. The Group has no current exposure to foreign currency risk.

b) Interest rate risk

Interest rate risk is the risk that the value of the Group's assets and liabilities will fluctuate due to changes in market interest rates. The Group is exposed to interest rate risk primarily through its cash balances.

In thousands of New Zealand Dollars *Consolidated*

	2020			2019		
	BALANCE	MATURITY DATE	EFFECTIVE INTEREST RATE	BALANCE	MATURITY DATE	EFFECTIVE INTEREST RATE
Short Term Deposit	5,000	27/07/2020	1.21%	5,000	24/06/2019	3.00%
Short Term Deposit				5,000	4/06/2019	2.87%
Short Term Deposit				2,000	4/06/2019	2.87%
	5,000			**12,000**		
Average effective interest rate			**1.21%**			**2.91%**

Sensitivity analysis

In managing cash flows the Group aims to reduce the impact of short-term fluctuations on the Group's earnings by investing in short term deposits. Over the longer-term, however, permanent changes in interest rates will have an impact on profit. A decrease in interest rates of one percent would reduce interest income by $147,241 (2019; $115,149). Cash deposits made on DairyNZ's behalf are made only with New Zealand registered banks with an appropriate credit rating.

20. Capital commitments

As at 31 May 2020, DairyNZ Group has capital commitments for the development of the Dairy Industry Good Animal Database (DIGAD; $370,881), NZAEL State-of-the-Art database ($96,703) and building upgrades ($81,511) (2019; $1,240,000).

21. Committed funds

The Group is contracted to provide funds to a number of projects on a multiyear basis, in exchange for services provided, however, certain conditions in the contract must be met annually before the funds are paid out. Funds committed for future projects which are subject to certain conditions being met are as follows:

In thousands of New Zealand Dollars	*Consolidated*	
	2020	**2019**
Less than one year	17,437	19,692
Between one and five years	72,750	75,489
More than five years	-	14,500
	90,187	**109,681**

22. Contingent liabilities

The Group recognises a contingent liability when there is a possible obligation that arises from past events, and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group.

The Group has agreed to co-fund a number of industry good projects, but the providers of these projects are required to secure funding from other sources before DairyNZ will provide the agreed funding. As this ability to secure other funding is outside the control of DairyNZ, DairyNZ's committed funding is recognised as a contingent liability.

In the normal course of business DairyNZ, as an investor, agrees to co-fund industry good projects pending the providers ability to secure funding from other sources.

In thousands of New Zealand Dollars	*Consolidated*	
	2020	**2019**
Less than one year	187	3,723
Between one and five years	-	35
More than five years	-	-
	187	**3,758**

23. Reconciliation of the profit for the period with the net cash from operating activities

In thousands of New Zealand Dollars	*Consolidated*		*Parent*	
	2020	**2019**	**2020**	**2019**
Profit/(loss) for the period	**(143)**	**904**	**(2,673)**	**375**
Adjustments for:				
Depreciation	1,874	1,977	-	-
Amortisation of intangible assets	1,143	1,054	-	-
Change in fair value of biological assets	(315)	(390)	-	-
Loss on disposal on biological assets	217	157	-	-
Gain on sale of fixed assets	-	(31)	-	-
Loss on sale of fixed assets	71	-	-	-
Impairment of investment in joint ventures and associates	104	224	2,119	2,932
Share of associated earnings	16	(3)	-	-
	3,110	**2,988**	**2,119**	**2,932**
Change in inventories	6	(11)	-	-
Change in trade receivables	1,111	(4,385)	(3,991)	(881)
Change in trade and other payables	806	(594)	6,449	413
Change in provisions and employee benefits	62	(18)	-	-
	1,985	**(5,008)**	**2,458**	**(468)**
Net cash from operating activities	**4,952**	**(1,116)**	**1,904**	**2,839**

24. Related parties

Parent and ultimate controlling party

The immediate parent and controlling party of the Group is DairyNZ Incorporated.

Transactions with key management personnel

Key management personnel compensation comprised:

In thousands of New Zealand Dollars	*Consolidated*	
	2020	**2019**
Employee benefits - short term	2,955	2,676
	2,955	**2,676**

DairyNZ Directors also act as Directors and are Shareholders of the following various entities, with which the Group transacts with as part of ordinary business:

H. Anderson Director of the National Institute of Water and Atmospheric Research (NIWA).

J. Coughlan None

J. Rowarth Director of Ravensdown Limited. Shareholder of Fonterra Co-operative Limited, Livestock Improvement Corporation Limited and Ravensdown Limited.

E. Cook Shareholder of Farmlands and Ravensdown Limited.

J. van der Poel Shareholder of Fonterra Co-operative Limited, Livestock Improvement Corporation Limited, Ravensdown Limited and Ballance Agri-Nutrients Limited.

P. Schuyt Director of Tatua Co-operative Dairy Company Limited.

C. Glass Director of Pasture Conferences Limited and CEO of Dairy Holdings Limited. Shareholder of Fonterra Co-operative Limited, Livestock Improvement Corporation Limited and Ravensdown Limited.

T. Brown Shareholder of Fonterra Co-operative Limited, Livestock Improvement Corporation Limited and Ravensdown Limited.

Other related party transactions

DairyNZ enters into funding and investment transactions (programme expenses) with its subsidiaries, associates, and joint ventures in the ordinary course of business.

In thousands of New Zealand Dollars	*Transaction Value*		*Balance Outstanding*	
	2020	**2019**	**2020**	**2019**
DairyNZ Limited	49,321	44,165	30,563	26,733
Pastoral Genomics Limited	1,302	1,302	651	651
Insight Genomics Limited	27	10	452	425
New Zealand Animal Evaluation Limited	3,405	2,832	-	-
Pastoral Greenhouse Gas Research Consortia	800	1,000	400	-
Tbfree NZ Ltd (Ospri)	14,500	14,500	1,390	1,390
	69,355	**63,809**	**33,456**	**29,199**

Other related party transactions

All transactions and outstanding balances with these related parties are to be settled in cash within six months of the reporting date. None of the balances are secured.

Receivables

In thousands of New Zealand Dollars	*Transaction Value*		*Balance Outstanding*	
	2020	**2019**	**2020**	**2019**
Dairy Training Ltd (subsidiary)	89	89	-	25
Massey University *	-	4	-	5
NIWA	252	50	-	-
Pastoral Greenhouse Gas Research Consortia (joint venture)	421	226	-	231
Pasture Conferences Ltd	-	210	-	-
Primary ITO *	-	8	-	-
Ravensdown Limited	1	-	-	-
Southern Demonstration and Research Farm Limited	-	-	-	-
Southern Dairy Hub (associate)	10	10	-	-
Tatua Co-op Dairy Co. Ltd	562	521	32	16
	1,335	**1,118**	**32**	**277**

	Payables			
In thousands of New Zealand Dollars	*Transaction Value*		*Balance Outstanding*	
	2020	**2019**	**2020**	**2019**
Dairy Training Ltd (subsidiary)	143	20	-	-
Blinc Innovation Ltd *	92	202	-	-
Massey University *	945	772	309	236
NIWA	107	421	52	141
NZ Dairy Awards Trust *	309	155	-	45
Pasture Conferences Ltd	210	7	-	-
Primary ITO *	1,063	1,100	230	884
Ravensdown Limited	3	-	-	-
Southern Demonstration and Research Farm Limited	254	343	7	14
	3,126	**3,020**	**598**	**1,320**

**Massey University, Primary ITO, Blinc Innovation and NZ Dairy Awards Trust are no longer related parties at 31 May 2020.*

25. Subsequent events

There were no subsequent events that have occurred since balance date.

26. Other disclosures

i) Covid-19 impact

In preparing these financial statements, the directors have considered the potential impacts of Covid-19 on future revenues, asset values and other areas, and believe there has been minimal impact on the Group. DairyNZ remains mindful of the ongoing impact of Covid-19 to the New Zealand economy and continues to monitor it closely.

ii) Biosecurity response levy

DairyNZ acts as an agency that collects Biosecurity Response Levies from milk processors and passes them on to MPI in the month of collection. All Biosecurity Response Levy cash collected and paid is accounted for in the balance sheet and is clearly disclosed in the Statement of Cashflows. DairyNZ choose not to retain a commission for their services with regards to the collection and payment of the Biosecurity Response Levy, therefore there is no impact on the Statement of Comprehensive Income.

iii) Milksolids levy order renewal

At the time of preparation of these financial statements, the amendments to the Commodity Levies Milksolids Order (a consequence of the successful levy vote in May) was progressing through the legislative process. Support from the Minister of Primary Industries has been received with the expectation that the new levy order will be in place by 1 December 2020.

Income & Expenditure Plan 2020/21

	2021 BUDGET	2020 ACTUAL	MOVEMENT
Revenue			
Milksolids levy	67,147	68,253	(1,106)
MBIE partnership	3,942	3,521	421
Other income	12,778	12,261	517
	83,867	**84,035**	**(168)**
Operational Expenses			
Auditors remuneration	75	73	(2)
Building costs	798	827	29
Commodity levy collection fee	336	360	24
Computing costs	2,107	1,692	(415)
Depreciation and amortisation	3,193	3,016	(177)
Directors fees	611	596	(15)
Directors governance expenses	153	149	(4)
External services (legal)	322	141	(181)
Office costs	2,083	1,967	(116)
Other operating costs	3,004	3,622	618
Operating leases	403	523	120
Personnel expenses	29,033	29,006	(27)
Provider services and sub-contracts	41,171	40,088	(1,083)
Repairs and maintenance	367	482	115
Travel costs	1,136	1,637	501
Total operational expenses	**84,792**	**84,179**	**(613)**
Profit/(Loss) before income tax	**(925)**	**(144)**	**(781)**

LEVY FUNDS INVESTMENT BY COMMITMENT	2021 BUDGET	2020 ACTUAL	MOVEMENT
Protect and nurture the environment	6,512	5,533	(979)
Competitive and resilient dairy farming business	56,824	53,319	(3,505)
Leading in on-farm animal care	3,006	2,185	(821)
Build great workplaces for NZ's talented workforce	6,336	5,473	(863)
Grow vibrant and prosperous communities	1,838	2,349	511
Total investment expenses	**74,516**	**68,860**	**(5,656)**

Levy and co-funding investment expenditure is represented across the operational expenditure categories above. Where levy funds are invested externally by DairyNZ Incorporated the expenditure is included in provider services and sub-contracts.

DairyNZ Publications 2020

DairyNZ experts write for a number of publications throughout the year so that farmers and the wider dairy industry have access to our knowledge. We share information through a range of online, print, event and media channels.

Media

207
Media Releases
and articles have been written by DairyNZ specialists in 2019/20

155
Inside Dairy Articles
have been published, reaching 14,256 readers per month

700+
Proactive & Reactive
contacts with media in 2019/20

Media reporting (across all forms of media) of dairy farming is on average **90% positive/neutral**

Around **11% of all news coverage** originates from DairyNZ, which makes DairyNZ one of the largest suppliers of dairy stories to media.

In 2019/20, DairyNZ specialists wrote **108 articles for media publications**

47 media stories have been published on NZ Herald online for The Vision is Clear reaching over 30,000 readers per month.

Science publications

9 Papers for scientific conferences

4 Papers for dairy industry conferences

35 Papers published in science journals

14 Papers published in DairyNZ Technical Series

62 TOTAL

Social media followers - 2019/20 season

FACEBOOK
22,989
▲ 3,263 Increase

TWITTER
11,169
▲ 991 Increase

LINKEDIN
9,949
▲ 2,614 Increase

INSTAGRAM
3,540
▲ 1,289 Increase

17% INCREASE
in followers across DairyNZ's social media channels*

THE VISION IS CLEAR

On average, posts on The Vision is Clear Facebook page reached 525,000 people per month, and an average of 44,000 people engaged with the page each month.

On average, posts on The Vision is Clear Instagram page reached 93,000 people each month.

*This excludes The Vision is Clear

DairyNZ website & apps

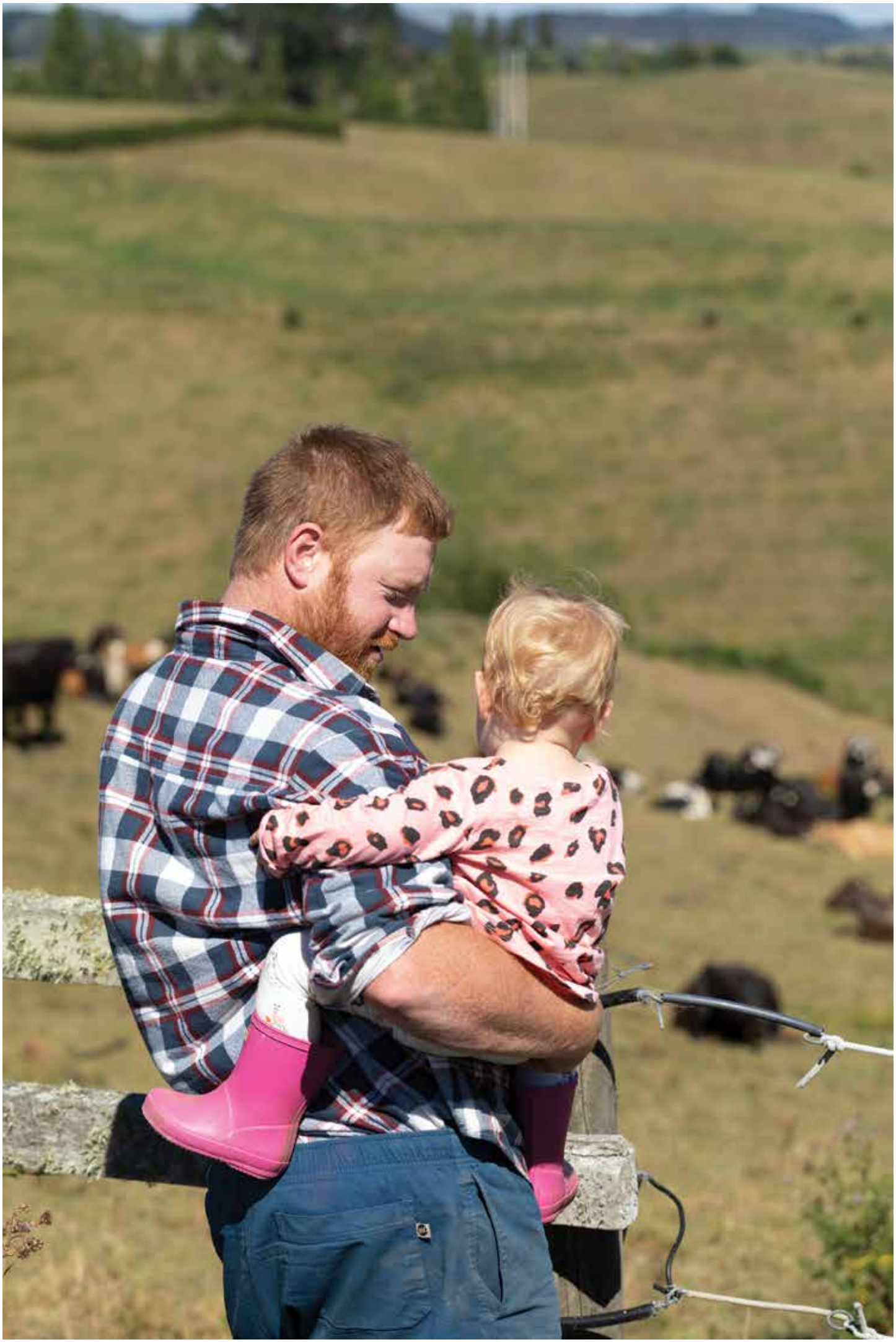
552,066
WEBSITE USERS
During 2019/20, DairyNZ website users increased by 12.4%

71,323
USERS
Our highest monthly traffic for the year was 71,323 users in April 2020

10,166
DOWNLOADS
During 2019/20 there were 10,166 downloads of DairyNZ apps

6,777 Newslink USERS

218,438 thevisionisclear.co.nz VISITS



DairyNZ

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