



2018/19 ANNUAL REPORT





DairyNZ - your levy in action

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

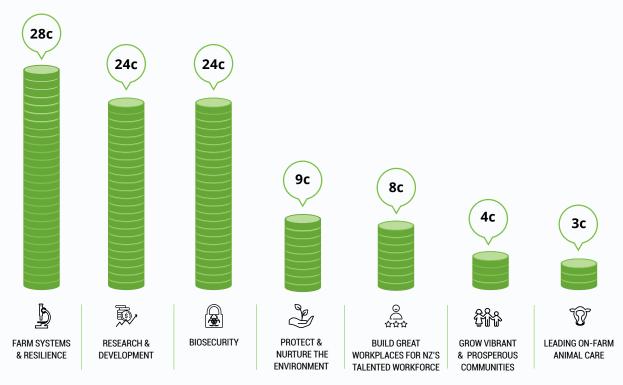
In 2018/19, a total of \$67.8 million was collected through the milksolids levy, plus DairyNZ received government co-funding.

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

2018/19 levy and co-funding investment by objective

2018/19 funding under the sector strategy, Dairy Tomorrow.

For every \$1 of DairyNZ investment:



2019/20 DairyNZ investment commitments 2019/20 funding under the commitments in the sector strategy, Dairy Tomorrow.	FORECAST SPEND
Protect and nurture the environment	\$6.9m
Building competitive and resilient dairy farming businesses	\$58.7m
World leading in on-farm animal care	\$2.9m
্রি Build great workplaces for New Zealand's most talented workforce	\$6.5m
Help grow vibrant and prosperous communities	\$2.4m

In your region

Highlights 2018/19

Northland

Extension 350, a long-term farmer learning and extension programme in its third year, has all 10 farmer cluster groups underway in different stages. Extension 350 has given participating farmers the opportunity to go through Mark and Measure (DairyNZ's business course for farmers), providing a real win for the region.

Waikato

DairyNZ has been preparing for the Healthy Rivers Plan Change 1 council hearings and working to assist dairy farmers to prepare and present their individual submissions. Hearings finished in mid-September 2019 and Hearing Commissioners will now make recommendations. The council will release its decision by March 2020. During the year, 240 discussion groups and 50 other events, including six 'Progressing with Profit' field days, were also held.

Taranaki

An initiative to identify farmers with effluent consents coming up for renewal in the next two years has taken place, along with the delivery of fit-for-purpose workshops to inform them of the process and options.

Top of South/West Coast

The Top of South Island now has a DairyBase benchmark, with 20 percent of farms in the region entering information into DairyBase. 2018/19 saw good support and farmer participation in two West Coast Farmers' Forums. A challenge, as well as a highlight, for the region was the exemplary support by and for farmers around the Nelson fires and the drought state of emergency in Golden

Bay Of Plenty

In response to Mycoplasma bovis, a series of workshops were developed to support farmers to protect their businesses. Another highlight was the on-farm effluent field days hosted by farmers for farmers, where various technologies to more effectively manage dairy shed waste were showcased. An on-farm roadshow 'Informative Plan Change 9 Fieldays' helped farmers prepare for upcoming regional plan change requirements and was run in conjunction with BOP Focus on Dairy.

Lower North Island

A 2018/19 highlight was the launch of the Tararua Plantain Project which involves researchers collecting data on the benefits of plantain in local pastures. The project includes plantain monitor paddocks, case study farmers, and a comprehensive farmer engagement programme.

Canterbury/North Otago

Canterbury and North Otago focused on environmental and labour issues in the area. The Selwyn and Hinds five-year project began with helping farmers put operations plans in place to meet nitrogen loss requirements while focusing on maintaining or improving profit. Year one saw 30 partner farms established. These will showcase a range of options for farmers.

Southland/South Otago

Southland and South Otago focused on wintering systems, with winter crop research at the Southern Dairy Hub and a range of events. To encourage and promote good wintering practices on-farm initiatives included, seven Smart Wintering events. DairyNZ continues to support the Catchment Group Network, with particular focus on the Aparima Catchment Environment Project.



Bay.

Dairy year: productive, rewarding, challenging



The 2018-19 dairy season was like so many before – productive and rewarding, peppered with challenges along the way. And if you're like me, it's the challenges and how we managed them that linger in my mind at the end of a season.

We are a busy sector – key to New Zealand's economy, employing thousands in our local communities and one of the world's best milk producers. But we're also at the forefront of several new and evolving issues, and it's our response to these I believe is putting us ahead of the game.

Farmers working for water quality

Protecting water quality is one that continues to be front and centre for us all.

We've been on this journey for many years and all the hours and financial investment dairy farmers have made fencing waterways, undertaking riparian planting, protecting wetlands and managing nutrient application shows commitment across the whole sector.

As they often say, we are all in this together. One farmer's actions multiplied across the sector means big progress for our communities and New Zealand dairy too.

Our Dairy Tomorrow strategy includes

the commitment to protect and nurture the environment for future generations – something which is now business as usual for many dairy farmers.

DairyNZ has invested significantly in research and on-farm studies. Thanks to this, we now know that forage crops, such as plantain, greatly reduce N loss from soils. And that protecting wetlands and critical source areas are key, among many other results.

Representing you with government

There has been significant commitment this year by DairyNZ on *Mycoplasma bovis* management and climate change policies. We are working with government and other industry players to position dairy farmers for the future and help achieve policies based on science, evidence and doing what is right.

We've been heavily involved in climate change negotiations with government, representing dairy farmers in the Zero Carbon Bill conversations and establishing how farmers can meet the reduced emissions targets.

Something that has dominated much of my time and thinking is our response to M. bovis. This disease has proven to be one of biggest challenges to New Zealand dairy yet – if not the biggest.

We are in the response and working directly with and for farmers. Our

team are here to work with farmers and help manage any issues, as we understand the impact on farmers, farm teams and animals. This response has had a huge impact on everyone involved.

The levy vote

Toward the end of the 2019-20 season, we will also be engaging with you around DairyNZ's levy vote, which comes around every six years. It's your opportunity to vote to keep an organisation that works on your behalf across the raft of challenges and opportunities our sector faces. I often ask farmers to think about the challenges ahead and consider if they are better facing those with DairyNZ working for them, or without.

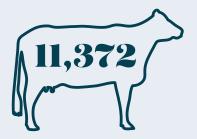
Finally, I'd like to thank firstly our departing director Ben Allomes, who has been with us for eight years and has decided to move on to new things. Ben has made a great contribution to DairyNZ and has always had the best interests of dairy farmers at heart. I am absolutely confident that Ben will continue to play a leadership role in the sector.

And I also thank everyone who contributes to this fantastic industry. Dairy is a great sector to be part of and I look ahead to another prosperous season.

Regards,

Jim van der Poel DairyNZ chair

Sector at a glance



TOTAL NUMBER OF HERDS

(down 218 herds from 2017/18 and the lowest level since 2010/11)

Cows

4.946



MILLION MILKING COWS

(down 46,609 cows from the previous season)



Processed by dairy companies in 2018/2019 (increase of 2.4% on the previous season)



average kg milksolids per cow

(up 13kg/cow on the previous season)



6,507

owner-operators

(57.5% of herds)

3,331 sharemilkers

1,460 contract milkers



Farms

153ha

average farm size (effective ha)



435

average herd size (up 4 cows per herd)

Statistics for the 2018/19 dairy season.

In times of change,

we've got your back



Summarising a year in the life of DairyNZ is a tough one. We're an organisation with so many prongs – so like dairy farmers, our scope has grown far beyond just 'cows and grass'.

Our business reflects the same changes farmers face – encompassing environment, financial resilience, biosecurity, people, policy, public perception of dairy and so much more.

So no longer just focused on research, development and extension, we are now heavily involved in all aspects of the dairy farm business – and everything which could impact it.

This means proposed policy is now one of several key activities for us. We work closely with local and central government, and partners like Federated Farmers, Dairy companies on proposed regulation changes, ensuring those involved with setting the policies know what the impact will be on dairy farm businesses and are working hard to secure workable solutions.

Science informing farming

Your levy is helping develop relevant research and science that can be turned into on-farm actions.

DairyNZ has some of New Zealand's best farm systems and water quality scientists, whose research and on-farm studies are delivering real solutions for dairy farmers. On-farm trials are informing future farming techniques and help identify how proposed policy can be achieved.

In fact, among many highlights from the past year, environmental work is right up there.

First, there's the plantain trials in Tararua. This work is showing great results through plantain reducing nitrogen (N) leaching and the programme is now being extended not only in the lower North Island but in Canterbury and Southland too.

Like several research programmes we have, it's showing huge promise in supporting farmers to deliver on regulation to reduce N leaching.

Dairy Action for Climate Change (DACC) has also been making great strides in understanding how we can reduce our farms' emissions. It has built up the capability of rural professionals and 10 farms nationwide have modelled 44 different farm systems, which will inform all farmers of their options.

Levy investment

The DairyNZ levy is all about delivering for farmers. Every staff member is hugely invested in delivering for dairy farmers and driving our sector into the future. That's because DairyNZ is your organisation.

Delivering what dairy farmers want and need, representing them at every level, is our core focus. I'm proud that we deliver value for the levy.

On that note, I wish to thank all our staff and the board for their dedication. I also want to thank farmers – your can-do attitude, willingness to embrace new ways of doing things and your passion for the land, animals and people, are what make our sector so world-leading.

Regards,

Tim Mackle DairyNZ CEO

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, was re-elected in 2013, becoming chair two 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 Sharemilker of the Year, and Dairy Exporter Primary Performer Award.



Colin Glass

With his wife Paula and their daughters, Colin owns and operates a 650-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 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.



Ben Allomes

Ben lives and runs a dairy farming business in Woodville with his wife Nicky and their four children.

He has a degree in applied science and natural resource management from Massey University, and was a Nuffield Scholar in 2015. Currently the DairyNZ representative on the Primary ITO partnership group, Ben also chairs the Dairy Industry Awards Trust.

In 2018 Ben and Nicky won the Innovative Employment Practices Award and Minister's Award at the Primary Industries Good Employer Awards.



Elaine Cook

Elaine has interests in a 300ha 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 agribusiness, 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.



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, Waikato University, the Environmental Protection Authority, Crop and Food Research, AGMARDT and DairyNZ.

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. 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.



Peter Schuyt

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

Currently he chairs Dairy Investments 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.

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



Jo Coughlan

Jo has some 20 years' experience in senior public relations, communications management and marketing roles for a number of major corporates and organisations, including the New Zealand Tourism Board, The National Bank of New Zealand and AMP. She was also press secretary for former Deputy Prime Minister and Foreign Minister, the RT. HON. Don McKinnon.

Jo launched Coughlan Communications and later, Silvereye Communications, both with client lists including a range of public and private sector organisations across diverse industries.

As a Wellington city councillor, Jo chaired the economic portfolio for six years, and was a board member of Positively Wellington Tourism, and a national board member of the Life Education Trust.



Dr Helen Anderson

Helen Anderson is an experienced director who currently chairs Scion and BRANZ (Building research Association of New Zealand). She is a director of NIWA, Antarctica NZ and ClearPoint, and sits on the National Council of the Institute of Directors where she is also a chartered fellow.

The pro-chancellor of Massey University, Helen is on advisory committees for the New Zealand Police, MPI and MBIE.

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 and a Companion of the Royal Society of New Zealand.



DairyNZ senior leadership team





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 strategy for the New Zealand Dairy Board, having started his working career as a nutrition and milk characteristics scientist at the Dairying Research Corporation. Tim holds a PhD in animal, food and nutritional sciences from Cornell University, New York.



Dr Bruce ThorroldStrategy and investment

Strategy and investment leader – new systems and competitiveness

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

Previously, he was with the Ministry of Agriculture and Fisheries for 15 years, and before that with AgResearch. His work was in soil science and catchment management, including hill country and lowland studies.



Dr Jenny Jago

Strategy and investment leader – farm performance

Jenny stepped into the strategy and investment leader role in June 2018, having previously been the portfolio manager.

She joined DairyNZ as a scientist in 2001 and was involved in the Greenfield Project which researched the application of automatic milking to New Zealand farming systems.

Prior to DairyNZ, Jenny was a researcher at AgResearch CRI and has also spent time at Teagasc Moorepark, the National Dairy Research Centre in Ireland. She holds a Doctorate of Philosophy in animal sciences, animal physiology, behaviour and meat science.



Dr David Burger

Strategy and investment leader – responsible dairy

David is the strategy and investment leader for responsible dairying, which includes environmental sustainability, community engagement and biosecurity.

A water quality scientist by training, he has over 18 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 March 2018.

Prior to DairyNZ, David was a water quality scientist and advisor for Deltares, an independent research institute for water resource management, based in the Netherlands and then Singapore. He holds a PhD in limnology and a MSc in freshwater ecology from Waikato University.



Vanessa Winning

General manager – farm performance

Vanessa leads a team comprising the farmer experience, farm practice change, marketing, product development and engagement areas of DairyNZ.

She was appointed to this role in March 2018, having joined DairyNZ as general manager marketing and communications in 2015.

Vanessa's experience includes 15 years in banking in various product, marketing and relationship roles, and a stint at the Heart Foundation of New Zealand, where she was head of marketing and fundraising.

She has a postgraduate Diploma in Marketing from the University of Auckland and is an Agri-Women's Development Trust Escalator alumni.



Dr David McCall

General manager – new systems and competitiveness

David was appointed general manager of new systems and competitiveness in January 2018. This team develops and provides farmers with new solutions that work on-farm.

The aim is to increase farmers' profit from productivity by \$110/ ha/year, while achieving future environmental footprint targets, advancing animal husbandry and welfare, and creating more productive and attractive workplaces on-farm.

David, who was previously with Dexcel, has held general manager development and extension and research roles with DairyNZ. Prior to this, he was with Celentis where he was in business development managing technology company start-ups and investments.

He has also been a farm systems scientist at AgResearch. David holds a PhD in agricultural economics and farm management.



Jenny Cameron

General manager – responsible dairy

Jenny was appointed as general manager responsible dairy in August 2018.

Before joining DairyNZ she was the inaugural chief executive of the Electricity Retailers' Association of New Zealand, and prior to this she was 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 10 years, including

Ministry of Foreign Affairs and Trade for 10 years, including in trade negotiations and legal and bilateral policy, and was a diplomat in Japan for four years. She comes from a legal background with a Bachelor of Psychology and Law from Victoria University of Wellington.



David Evans

General manager – corporate services

David has been with DairyNZ since 2007 and in 2018 was appointed to the position of general manager of corporate services, as well joining the strategy and investment team.

Initially DairyNZ's financial controller, he has also been chief financial officer. Corporate services includes DairyNZ's finance, digital ICT, facilities and procurement, human resources, and health and safety teams.

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 current position, including previous roles with Fonterra. David has a Bachelor of Commerce and is a member of Chartered Accountants Australia and New Zealand.









Supporting farmers through

Mycoplasma

bovis

BIOSECURITY & POLICY SUPPORT

DairyNZ staff involve in response

Dairy NZ 3 0 attended over 3 overnance and ministerial sessions

0ver **500**

claims made through the DairyNZ Beef + Lamb NZ Compensation Assistance Team

NZ's largest

ever biosecurity incursion

100,000 views

dairynz.co.nz's *M. bovis* webpage

DairyNZ continues to be actively involved across the Mycoplasma bovis (M. bovis) programme.

Significant work has been undertaken in the past 12 months, the first year of the eradication programme, with hundreds of thousands of tests carried out, including a spring bulk milk testing on every dairy farm nationwide.

DairyNZ staff are assisting farmers and we continue to work closely with the Ministry for Primary Industries (MPI) and Beef + Lamb New Zealand.

Staff involvement

DairyNZ staff range from farm systems experts to communication specialists. We are heavily involved at a governance level in the National Control Centre in Wellington and on the ground in the regions where the team is helping affected farmers, ensuring they recieve practical solutions and can keep farming as close to normal as possible.

Compensation assistance

In September 2018, the DairyNZ, Beef + Lamb New Zealand Compensation Assistance Team was established. Managed by DairyNZ, 17 rural professional contractors assisted with over 535 claims. Farmers using this free service have had their claims paid out (on average) seven working days faster than those not using the service.

Independent review

In April, MPI announced a backlog of risk animal movements. Following the discovery, DairyNZ commissioned an independent disease management expert to review the cause and effects of the backlog. The review identified many areas for improvement and DairyNZ continues to work closely with MPI to ensure recommendations from the review are followed through. The full review report is available at dairynz.co.nz/mbovis.

Biosecurity Response Levy

In February, DairyNZ consulted with farmers about a new biosecurity levy on milksolids needed to fund the dairy sector's contribution to the *M. bovis* response. We asked farmers whether they supported DairyNZ managing the biosecurity levy and representing them in biosecurity decision-making.

We received 1794 submissions with 61 percent supportive of DairyNZ managing the levy on behalf of farmers, and raising the maximum cap to 3.9c cents per kilogram of milksolids per year.

The Biosecurity Response Levy, set at 2.9c/kg milksolids will be in place in September 2019.

/ dairynz.co.nz/mbovis

Investment in TB pays off

Investment in bovine tuberculosis (TB) eradication is working. Since 1996, the number of infected dairy herds has dropped from 230 to just 11.

DairyNZ is the majority investor in TBfree's national TB control programme which aims to control the spread of TB through disease management – detecting TB within herds through an extensive testing programme.

It also carries out wild animal (vector) control to eliminate TB from wildlife, particularly possums as the main carriers and transmitters of TB to farmed cattle and deer. This work covers movement control, minimising the risk of infection being spread between herds.

/dairynz.co.nz/tb

Representing farmers on climate change

Over the last year, climate change has been a significant work programme for DairyNZ, as we work on behalf of farmers to ensure dairy's perspective is heard by policymakers.

With the introduction of the Zero Carbon Bill and the Interim Climate Committee report on the pricing of agricultural emissions, DairyNZ has played a key role in engaging with government officials.

In December 2018, DairyNZ launched the Biological Emissions Reference Group (BERG) report, along with other agricultural sector organisations and



Dairy Action for Climate Change

DairyNZ completed stage one of Dairy Action for Climate Change (DACC).

This 18-month work programme launched in June 2017 and includes commitments to build capability of rural professionals through training courses, raising the awareness of farmers and undertaking dairy farm greenhouse gas pilot case studies.

Ten farms across New Zealand took part in the Partnership Farm Project, modelling 44 different farm systems.

The DACC work identified one clear message – that every farm is different and there isn't a 'one-size-fits-all' package of changes every farmer can use. However, they can learn from case studies to compare what might be possible on their farm.

/ dairynz.co.nz/climatechange



Farm Gauge – a tool to help lift on-farm performance

In response to feedback from farmers, DairyNZ's Farm Gauge was further enhanced in 2018/19. The self-assessment tool can now be accessed from anywhere at any time with results now more easily shared among others in the farm team.

DairyNZ's Farm Gauge is an online tool that allows dairy farmers to assess areas of the farm system: strategy, feed, finance, health, safety and wellbeing, herd management, people, environment and infrastructure. It identifies areas where time and resources are best invested and links users to advice and information to support them in taking the next step.

Rural professionals are also using Farm Gauge alongside their clients, allowing more informed and in-depth conversations.

South Waikato dairy farmers Marc and Nia Jones say Farm Gauge has helped



clarify exactly where they need to grow.

"Farm Gauge has brought huge value to our business," says Marc.
"The first time we used it I thought we'd found gold. We've used it to find our weaknesses and understand our strengths. I don't know why you wouldn't use it."

/ dairynz.co.nz/farmgauge

By the numbers

795 dairy farmers used Farm Gauge in **2018-19**

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of surveyed farmers said they have been **prompted to act** after using Farm Gauge



Feed and **strategy** are the most popular sections



DairyNZ's Farm Gauge tool is most powerful when shared with others. In a recent survey of Farm Gauge users **70 percent** said they shared their results with someone else.

Tiller Talk

The first round of DairyNZ's Tiller Talk programme wrapped up at the end of 2018/19 after two years. The programme has provided like-minded dairy farmers with a forum to share and trial new ideas and access timely tools and information to improve their bottom-line through better pasture management.

The programme followed 17 key farmers throughout the country. They hosted four to six small, closed, on-farm



workshops each year, facilitated by a local agronomist. These workshops focused on the principles of ryegrass growth and management, as well as other strategic factors that can affect pasture yield and quality. Each of the key farms was joined by neighbouring farmers who participated in discussion and helped provide their perspective on different issues.

/ dairynz.co.nz/tillertalk

Including FRNL research results in Overseer

Results from the DairyNZ-led Forages for Reduced Nitrate Leaching (FRNL) research programme show that plantain, low nitrogen (N) feeds such as fodder beet, and catch crops all work by increasing the N use efficiency within farm systems.

For farmers to get credit for using these mitigation options, regional councils have requested that the information is reflected in Overseer. Overseer is the nutrient budgeting model many councils use, or intend to use, to develop policy, and for regulation, compliance and advice to farmers.

FRNL researchers have been collaborating with Overseer Ltd on how to incorporate research findings into the Overseer model. Some aspects are still being tested but the changes necessary to reflect the FRNL research results are expected to be included in Overseer by mid-2020.

FRNL receives principal funding from the Ministry of Business, Innovation and Employment and co-funding from research partners DairyNZ, AgResearch, Plant & Food Research, Lincoln University, the Foundation for Arable Research and Manaaki Whenua – Landcare Research.

Breeding cows with less urinary nitrogen

Low N Livestock is a DairyNZ-led collaborative research partnership delivering science for better farming and environmental outcomes and to help farmers meet new regulatory requirements.

The aim is to develop the knowledge and tools required to breed cows with urinary nitrogen excretion characteristics that reduce the risk of nitrogen leaching into waterways. The project's main funders are DairyNZ and the Ministry of Business, Innovation and Employment, with co-funding from CRV-Ambreed and Fonterra. Research partners include AgResearch, AbacusBio, Massey University and Lincoln University.

The eight-year \$21 million research programme has been underway for 18 months. To date, most effort has focused on finalising Intellectual



Property Agreements, a pilot study and completing Phase 1 of the initial data collection on about 350 cows. AbacusBio developed a draft framework for creating a new Environmental Breeding Value dividing potential predictor traits into two categories – physiological (e.g. urinary nitrogen concentration) and urine

patch traits (e.g. how cows distribute urine).

Using the data collected, the programme aims to identify traits that are key drivers of farm-level nitrogen leaching, easy to measure, under strong genetic control, and have no trade-offs with other economically important traits.

Supporting farmers to improve environmental outcomes

At a time when meeting national and regional pressure has never been greater, levy funding is helping turn science into effective action by farmers to meet environmental obligations.

DairyNZ is assisting farmers to determine effective mitigations to reduce the contaminants entering waterbodies, and ensure their performance is recognised in farm nutrient budgets.

Levy funding is also being used to better define the relationship between the slimes (periphyton) that grow in streams and rivers and the other variables influencing their growth. This is important as councils nationwide are required to manage nuisance growths.



In upper Manawatu, many dairy farms are faced with reducing nitrogen (N) leaching by an average of 60 percent to meet Horizons Regional Council One Plan targets.

The Tararua Plantain Project, launched in 2018, sees a new approach by DairyNZ to fast-track the development of solutions through simultaneous research. DairyNZ scientists are working with local farmers on this project.

It is one of three catchment-specific projects helping farmers reduce their farm's environmental footprint. Similar projects have also been launched in Canterbury through a farm-systems focus, and Southland where Farm Environment Plans are helping farmers to target the most pressing environmental challenges.

/ dairynz.co.nz/tararua



The Vision is Clear movement

In November 2018, DairyNZ launched The Vision is Clear, a dairy-led national campaign to motivate all New Zealanders to play their part in improving water quality.

The movement started with a bang and during seven months of 2018/19 positive stories, from all walks of life and a variety of sectors, celebrated Kiwis' actions to look after waterways.

Radio, print and online video, along with emotive and engaging advertising drew attention and generated conversations, and engagement with the web hub – leading to 250,000 people visiting the Vision is Clear website.

Two promotions, Pledge and Win and The Clear Favourite, generated thousands of responses – people sharing what they are doing to look after waterways and celebrating their favourite rivers, lakes and beaches.

Throughout the movement, the Vision is Clear raised awareness about the work of dairy farmers to look after their waterways. After only five months in market (at March 2019), The Vision is Clear achieved an improved result in the way public view dairy.



A group of community-minded Southland farmers has been tackling local water quality issues by getting good farming practices adopted on 600 properties, including 218 dairy farms.

The Aparima Project involves six catchment groups, Environment Southland, Beef + Lamb New Zealand, Fonterra and DairyNZ.

Field days have been held on three farms to demonstrate good wintering practices and to provide advice that complements animal care best practice.

Environmental management plans have been completed by 40 Fonterra farmers, with the balance due by June 2021.

A further 50 farmers, having completed good environmental wintering plans are receiving follow-up visits to provide them with support.

Catchment group leader John White hosted a 'stop, crop and roll' bus tour so farmers could see best-practice in action.

Robust science guides decision making

Under regional limit-setting processes, many farmers are identifying and implementing mitigations to reduce the contaminants entering waterbodies. Constructed wetlands and riparian buffers are key to achieving this.

DairyNZ is using levy funding, leveraged through Ministry of Business, Innovation and Employment funding, to help farmers understand how to better use these mitigations, and ensure their performance is recognised in farm nutrient budgets.

Dairy farmers around the country are being asked to significantly reduce N leaching. DairyNZ is fast-tracking development solutions through simultaneous research (locally and on research farms). DairyNZ scientists are working with farmers in priority catchments to help reduce farm environmental footprint.

Smart wintering

A wintering project focusing on good management practices in Southland/ Otago kicked off in December 2018. Farmers were supported to develop a contingency plan for winter 2019.

To help farmers with winter grazing, a multi-channel marketing and communications plan was implemented. This involved updating resources, the DairyNZ website, discussion groups, and sending emails and text messages from DairyNZ.

Events for farmers and rural professionals were key with seven Smart Wintering events held across Southland in April. The sessions were tailored to all experience levels, so the whole farm team could learn how to improve wintering practices to ensure the best outcomes for their cows, the environment and the team.

Another project highlight was the 'Spotlight on the future of Southern farming' event attracting over 150 farmers and rural professionals who heard about managing ever-changing expectations and perception.

/ dairynz.co.nz/wintering



Early Response Service

DairyNZ's Early Response Service (ERS) has been running for over eight years now. A partnered approach with dairy companies, it helps identify and support farmers facing animal welfare challenges on their farm.

In the 2018/2019 season, the service found welfare was compromised in situations where there were contractual disputes, lack of feed at the end of the season after periods of drought, and decision-makers dealing with mental health issues. In the 2018/19 season, ERS responded to 63 reported cases, and 92 percent of those referrals were valid welfare concerns.

Awareness of the service widens each year, with more organisations and individuals reaching out to use the service for clients or neighbours. The service is being used more quickly once a risk to dairy cattle welfare has been identified, which subsequently means earlier intervention and support for farmers. This emerging pattern shows that situations which could lead to poor dairy cattle welfare outcomes are being identified earlier as the expectations around cow care become clearer.

Healthy Hoof

In 2018 the Healthy Hoof app was launched to provide a national standardised lameness recording system. The variability of recording across herds, resulting in most herds having ineffectual recording metrics, had hindered progress in the management of this painful condition.

No prior knowledge or training is needed before using the app. The aggregated data collected in the app can be used by rural professionals to work with farmers to identify lameness issues and implement management strategies to reduce lameness.

/ dairynz.co.nz/healthy-hoof

Developing farm teams

Immigration

During the year, DairyNZ worked closely with Government on proposed policy changes affecting access to potential employees from overseas. We talked with many farmers reliant on employees from overseas to understand the challenges of the current and proposed system, hear their concerns and feed that back to Government as part of policy discussions.

Improving farm work environments

DairyNZ refreshed the Workplace Action Plan with the help of Dairy Women's Network, Federated Farmers and the New Zealand Young Farmers. Together, we continue to work closely with dairy companies to support improved workplaces on dairy farms, including addressing hours of work and ensuring conditions line up with international customer expectations. DairyNZ is investing in future workplace design and more research into strategies such as variable milking intervals.

Attracting talent

DairyNZ worked with Young Farmers and other primary sector organisations on programmes to increase awareness of the rewarding career opportunities in dairy. This included four NZ Careers Expos, seven Teachers' Days Out, a Year 13 Careers Day at DairyNZ's Lye Farm, and participation in the Careers and Education Hub at National Fieldays.

/dairynz.co.nz/people

Connecting with farmers at events

People Expo 2019

The DairyNZ People Expo, held in Canterbury in March, attracted more than 120 farmers and rural professionals interested in better people management. Speakers shared tips and tools for improving communication, creating flexibility and prioritising people to improve employee retention, satisfaction and performance. Attendees said they would be most likely to make changes to better communication through regular structured meetings, moving to hourly pay schedules and being more flexible with rosters.

National Fieldays 2019

Fieldays is always an exciting platform to connect with farmers and members of the public. The main DairyNZ site encouraged farmers in for a chat to learn about Farm Gauge and to take part in the Dairy Mastermind quiz. DairyNZ was also involved in the Education and Careers and Health and Wellbeing hubs, and Rosie entertained at the Ag Heritage Village and on the main stage.



Farmers' Forum 2019

The annual Farmers' Forum went to the regions with events in Timaru, Westport, Rongotea, Stratford, Whangarei and Rotorua. The theme 'future perspectives – local and global impact' gave insight into dairy's future through science, technology and speakers. Regionally tailored workshops and snapshots of the latest dairy science were a particular highlight.

South Island Dairy Event (SIDE) 2018

DairyNZ is a proud partner and sponsor of SIDE, a forum that facilitates farmer-to-farmer learning, knowledge transfer and social interactions. More than 400 people gathered in Dunedin where industry experts, networking sessions, inspiring keynote speakers and over 20 practical workshops addressed the 2018 theme 'It starts with us'. The theme acknowledged the challenge to reach further and set higher standards, being open to technology and innovative solutions, having the ability to bring teams on our journey of growth, support and celebrate successes, and take pride in dairy and our communities.

MilkSmart

The focus for MilkSmart 2018/19 was working directly with rural professionals on delivering information and advice directly to farmers by way of closed discussion groups. Farmers have engaged with it overwhelmingly - and not only to save money, but also improve working hours for their employees and create more attractive workplaces.

/ dairynz.co.nz/events



Once children have visited a dairy farm, they are significantly more likely to want a career in the sector – a key finding of the DairyNZ Education Programme Impact on Public Perception Report undertaken in 2018.

Fuelling these aspirations has been made possible through the continued support of farmers who volunteer their farms and time to host in the DairyNZ School Farm Visit Programme.

During the year, 5300 children visited dairy farms, with a DairyNZ transport subsidy enabling visits by low decile urban schools.

Experiential learning

Fun, engaging learning about dairying was part of the classroom curriculum with teachers enthusiastic about the 1000 education kits delivered, reaching more than 40,000 children aged 5-12 years. The resources were in three modules and came complete with teachers' guides and support materials.



One new maths resource, Track the Tanker, was distributed to schools from Ahipara in the Far North, to Pitt Island in the Chatham Islands.

Rosie's world

Rosie, DairyNZ's official cowbassador, connected with more than 680,000 users through her campaign hub at Rosiesworld.co.nz

Added to the Dairy Doing Good campaign this year was a Good to Know science and technology module featuring cow, science and technology facts. Targeted at children 4-12 years and their parents, it was supported by educational content, competitions, videos and slots on TVNZ's children's programme, What Now.

Rosie starred at Owl Farm Open Day in March and at National Fieldays

where she attracted hundreds of children and parents to her classroom and Rosie Show.

To read blogs about schools' on-farm experiences and classroom activities visit

dairynz.co.nz/education

Sponsorships: recognising talent and supporting a sustainable future

DairyNZ supports a number of key industry partners, initiatives and community activities which have a clear benefit for New Zealand dairy farmers.



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. The awards aim to raise awareness and understanding of the value of New Zealand's dairy sector, along with promoting business excellence. Building a talented workforce is crucial to a sustainable future for the dairy sector.

/ dairyindustryawards.co.nz

NZ Institute of Primary Industry Management

DairyNZ supports this important sector body that builds capability and capacity amongst rural professionals.

/ nzipim.co.nz

NZ Farm Environment Trust

The annual Ballance Farm
Environment Awards recognise and
celebrate good farming practices
which promote sustainable land
use. Awards are run in 11 regions.
A specific focus is on sustainable
profitability, environmental
awareness, overall good business
practice, and social and community
responsibility. DairyNZ sponsors
the DairyNZ Sustainability and
Stewardship Award.

/ nzfeatrust.org.nz

A range of other organisations important to dairying also receive sponsorship support from DairyNZ. Amongst them are the NZ Society of Animal Production, NZ Grassland Association, Ahuwhenua Trophy, NZ Association of Resource Management, and Fertiliser and Lime Research Management.

/ dairynz.co.nz/sponsorship

DairyNZ scholarships

The DairyNZ scholarship programme continues to go from strength to strength.

More than 300 students have graduated from the undergraduate scholarship programme and four from the postgraduate farm systems Masters scholarship programme.

With Dairy Trust Taranaki, DairyNZ also co-funds two post-graduate Colin Holmes Dairy Scholarships annually and provides up to six post-graduate DairyNZ Masters scholarships each year to University of Waikato students with projects relevant to the dairy sector.

/ godairy.co.nz / dairynz.co.nz/scholarships

Dairy careers

DairyNZ works with Dairy Tomorrow partners, the Government and other primary sector groups to attract, grow and retain the people the dairy sector needs.

/ dairynz.co.nz/dairy-careers



We are at an exciting time in the dairy sector. The growth that dominated the last 20 years, is ending – and we're now in a period of increasing innovation, science and technology to build and empower Kiwi farmers to operate in the most sustainable way they can.

Dairying faces significant challenges across several areas. The way we farm is changing. The impact of rapid advancements in ICT technology, social media development, automation technology, alternative nutrition sources and environmental needs are influencing our farms.

As a sector, we want to get ahead and take advantage of the opportunities these changes present and demonstrate leadership – both within the global dairy sector and domestically within the primary industries.

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.

DAIRY TOMORROW IS OUR STRATEGY AND ROADMAP TO THE FUTURE

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:

- 1 PROTECTING AND NURTURING THE ENVIRONMENT
- 2 BUILDING COMPETITIVE AND RESILIENT FARM BUSINESSES
- 3 PRODUCING THE HIGHEST QUALITY AND MOST VALUED DAIRY NUTRITION
- 4 BEING WORLD LEADING IN ON-FARM ANIMAL CARE
- 5 BUILDING GREAT WORKPLACES FOR NEW ZEALAND'S MOST TALENTED WORKFORCE
- 6 GROWING VIBRANT AND PROSPEROUS COMMUNITIES.

LIVING OUR PRINCIPLES

Feedback received during Dairy Tomorrow's development told us we need to do things differently to achieve our goals and regain the confidence of New Zealand's public and other stakeholders.

The strategy includes four key principles that guide our actions:

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.

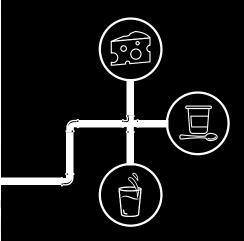
OTHER EXAMPLES OF DAIRY TOMORROW PRINCIPLES IN ACTION

- DairyNZ is working closely with Federated Farmers,
 Dairy Women's Network and New Zealand Young
 Farmers on work environment and skills issues. The
 'New Workplace Design' project is creating a bold
 vision of future dairy farming workplaces using
 a co-development approach with farmers and
 taking inspiration from ICT and other knowledge
 sectors. The design-thinking approach has led to
 six innovative ideas for testing in 2019/20.
- A bold commitment to achieve world-leading animal care goes beyond the minimum standards required by New Zealand's general public and our customers.
- Collaboration with the Ministry for Primary Industries, other primary sector groups and regional councils is developing an integrated approach to farm planning and assurance that will support farmer change and provide confidence to stakeholders.

A GREAT EXAMPLE OF THESE PRINCIPLES IN ACTION IS THE NEW WORKPLACE DESIGN PROJECT.

- This project is creating a bold vision of what dairy farming workplaces might look like in 2030 and who our future employees might be.
- It is built from an open assessment of workplace issues that make dairying less attractive as a job or career choice.
- It takes inspiration from work environments in the ICT and other knowledge sectors, including workplace leadership and cultural experts.
- The project involves a co-development approach with farmers, applying designthinking that led to six innovative prototype ideas tested in 2019/20.
- It also involves a nationwide farmer community of interest that is developing scenarios of future dairy workplaces based on international workplace and talent trends.

visit dairytomorrow.co.nz



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The future of New Zealand dairying.

dairy tomorrow

The future of New Zealand dairying.





COMMITMENT 1

WE WILL PROTECT AND NURTURE THE ENVIRONMENT FOR FUTURE GENERATIONS

2018/19 DAIRYNZ HIGHLIGHTS

CATCHMENT-SCALE CHANGE FOR WATER QUALITY IMPROVEMENT

DairyNZ has worked to establish three farmer-led, catchment-scale environmental change projects to support farmers to meet environmental outcomes, while ensuring their businesses remain profitable and resilient. Farmers in the Aparima catchment (Southland) are implementing farm plans and good farming practice principles to lead and demonstrate improvements in river water quality and estuarine health. In the Selwyn-Hinds (Canterbury) catchments farmers are co-developing farm system solutions to meet a 36 percent reduction in baseline nitrogen loss. Farmers in the Tararua catchment are adopting plantain to reduce nitrogen loss, maintain business viability and demonstrate action towards water quality improvement. These case studies will provide significant learnings for farmers in other regions.

UNDERSTANDING OUR FOOTPRINT

DairyNZ water quality scientists developed a nutrient accounting framework to help understand dairy environmental footprint. This can now be used to help dairy develop and understand the impacts of different policy solutions at catchment and regional scales.

GREENHOUSE GASES

Stage one of the Dairy Action for Climate Change plan is complete, including roadshows, workshops and training for farmers and rural professionals to build awareness of climate change issues and mitigation options. This also includes the establishment of partnership farms to understand mitigation opportunities in the context of productivity and profitability. DairyNZ continues to advocate for farmers through the Zero Carbon Bill process.

2019/20 LOOKING AHEAD

CATCHMENT WATER QUALITY CASE STUDIES

DairyNZ will focus on further delivery of the three catchment-scale change pilots established in 2018 to drive and demonstrate viable options for on-farm change for water quality improvement at pace and scale (Tararua, Selwyn-Hinds and Aparima). Year two is focused on achieving greater levels of engagement and uptake with farmers in each catchment, including progress towards improved farming practices and system changes across more farms.

WATER QUALITY POLICIES

New national polices and regulations to improve freshwater management are expected to be announced by government later this year.

DairyNZ science, economic and policy teams will continue to work to understand implications and respond with dairy sector views.

TRANSITION OF WATER ACCORD TO DAIRY TOMORROW

A new metrics and reporting framework will be established and implemented to transition the Sustainable Dairying: Water Accord and deliver on Dairy Tomorrow's Commitment 1 water quality goals. This will be aligned to good farming practice principles and farm environmental plans.

GREENHOUSES GASES

DairyNZ will lead efforts to respond to the Zero Carbon Bill through the policy development process as well as establishing an implementation plan to support farmers to prepare and work towards meeting future targets.

WATER QUALITY SCIENCE AND POLICY

DairyNZ continues to support farmers through several regional council plan changes, including significant limit-setting processes in Southland, Waikato and Northland. Research on water quality has been undertaken to support an evidence-based approach to policy development, and develop and test on-farm tools for farmers to meet limits.





COMMITMENT 2

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

2018/19 DAIRYNZ HIGHLIGHTS

FARM ASSESSMENT AND PLANNING

DairyNZ has supported 715 farmers to analyse their businesses using a suite of farm assessment and planning tools including Farm Gauge (an online tool), farm assessment and planning discussion groups, and Mark and Measure (a three-day intensive course). Benchmarking has been used extensively in all approaches. Farmers have benefited through understanding performance gaps in the context of their goals and obligations, and supported with opportunities to develop and implement their action plans.

DAIRYNZ SUPPORTING FARMERS

4330 farms (25,317 people) participated in DairyNZ events including field days, discussion groups, specialist groups, workshops and forums. There was an 18 percent increase in engagement via our social media channels, which now reach 39,490 people. There were over 2.5 million page views on the DairyNZ website and 636,000 views of DairyNZ videos which have become one of the most effective engagement channels.

BIOSECURITY

With the Ministry for Primary Industries, DairyNZ continued to support farmers impacted by *Mycoplasma bovis*. Operating and cost share agreements were developed and signed off with Government.

RESEARCH HIGHLIGHTS

Fertility project

Dairy cow fertility project herds finished their second lactation with results very consistent with the first lactation. The high fertility Breeding Value herd had a three-week submission rate of 87 percent and 88 percent in the first and second lactation, compared with the low fertility herd results of 49 percent and 63 percent.

Six-week pregnancy rates were 30 percent greater in the high fertility herd compared with the low fertility herd for lactation one and two. The differences in reproductive performance are greater than suggested by the difference in the fertility breeding value which predicts a 10 percent difference in re-calving rate after six weeks of calving. Understanding the reason for the size of these differences and the implications (if any) for Breeding Worth is a priority for 2019/20.

Forages for Reduced Nitrate Leaching

The Forages for Reduced Nitrate Leaching programme is nearing completion, with important work being done with Overseer to ensure science results are incorporated in this important tool and farmers can better judge the impact of new management practices and get credit for them.

Ryegrass breeding

The levy investment in ryegrass breeding technology continues to show good progress. Genomic selection methods developed in Pastoral Genomics are providing sufficient accuracy to be useful in speeding up the preselection breeding programmes. The F1 hybrid ryegrasses developed by DairyBio are showing encouraging results in early field trials in New Zealand and Australia. Field trials in the US with the high-lipid, high yield GM ryegrass with AgResearch are producing encouraging results particularly with the lipid trait which will be crucial for methane reduction.



2019/20 LOOKING AHEAD

INTEGRATED FARM PLANNING FRAMEWORK

Work will continue to bring together the on-farm aspirations of Dairy Tomorrow into one framework that simplifies the goals and expectations across animals, people, environment and business performance. The aim is to support farmers through a consistent planning and reporting approach.

FARMING WITH CONFIDENCE

DairyNZ will initiate a significant integrated project to ensure farmers have the support they need to successfully manage their way through changes required to meet national environmental (water quality and GHG) requirements, while achieving farm performance goals.

Investment in Maori farm business development will increase through expansion of the cluster farms project in the Bay of Plenty.

BIOSECURITY

Alongside on-going support with M. bovis, DairyNZ will develop a framework for a biosecurity on-farm change programme to safeguard the risk and impacts of further incursions over the longterm, including traceability.

RESEARCH PLANS

Forage Value Index

The Forage Value Index (FVI) validation trial will complete year two. After a drought disrupted

year one, results will be closely examined by the research team, the seed industry and farmers to build confidence in the trial design and management. This is vital to ensure trial results at the end of three to four years are genuine, along with any implications for the scaling up of plot trial data to farm systems that the FVI relies on.

Low N research

The Low N Livestock programme will complete its second season of field measurements of urine concentration and milk urea nitrogen (among a raft of data). Results will reveal the extent to which selecting cows on the basis of low milk urea N is a tool to manage N leaching.

Heifer study

Field scale data collection of puberty from over 5000 heifers nationwide will be completed. This is the first step in testing the role of heifer puberty as an early predictor of cow fertility.

New Zealand Animal Evaluation Ltd (NZAEL)

Important projects underway in 2019-20 include the final stages of the Dairy Industry Good Animal Database (DIGAD) build, with CRV Ambreed and the breed societies both connected directly to DIGAD. Development of a model for the future of genomic information in the National Breeding Objective and Breeding Worth will also take place, along with development of an InfoHerds concept for improving the data quality underpinning Breeding Worth.



COMMITMENT 3

WE WILL PRODUCE THE HIGHEST QUALITY AND MOST VALUED DAIRY NUTRITION

This commitment is a responsibility of the dairy supply companies involved in the Dairy Tomorrow strategy.

Initiatives to support this commitment will be led by the dairy companies and supported by achievements in several of the other commitments.





WE WILL BE WORLD LEADING IN ANIMAL CARE

2018/19 DAIRYNZ HIGHLIGHTS

FARMERS DEFINE WORLD-LEADING CARE

Fifteen farmers in the central North Island and Canterbury have been helping develop a description of what world-leading animal care looks like when implemented on-farm. The definition of world-leading was developed by experts in animal welfare, farmer views and the New Zealand general public's views.

CHANGING DISBUDDING PRACTICES

There has been a positive change in farm practices for managing tails and disbudding. Farms carrying out routine tail shortening (third vertebrae) have reduced from 28 percent in 2015/16 to seven percent in 2018/19. Farms providing local anaesthetic prior to disbudding has increased from 45 percent (2015/16) to 75 percent (2018/19) ahead of regulation charge in October 2019.

BOBBY CALF PROJECT

The first phase of a project to identify the options to reduce reliance on the bobby calf industry was completed with a range of solutions being identified. These will now be developed into a strategy and a plan for implementation.

2019/20 LOOKING AHEAD

FARM PILOT

A world leading framework that ensures every animal is valued and treated with care and respect will be piloted with 50 farms across New Zealand before wider implementation.

WORKSHOPS AND EVENTS

DairyNZ will continue to engage with a wide range of organisations to focus on supporting the dairy sector to achieve good animal care outcomes. The emphasis will be on wintering, provision of shade and shelter, pain relief and general husbandry skills. Farmers will be able to attend Smart Wintering workshops to help implement good practice management over the dry period, followed by CalvingSmart workshops to help the whole team get ready for the new season.

BOBBY CALF ALTERNATIVES

We will work with primary sector partners to develop viable alternatives to bobby calves.

SMART WINTERING

1063 farmers and rural professionals took advantage of the support available to achieve good practice in managing cows on winter crops and calving management through Smart Wintering and CalvingSmart events.





COMMITMENT 5

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

2018/19 DAIRYNZ HIGHLIGHTS

WORKPLACE DESIGN PROJECT

The new workplace design project was established supporting farmers to work with researchers and experts in and beyond the dairy sector to design great dairy workplaces for 2030. The approach is based on codesign with farmers to identify workplace initiatives to both improve today and invest in tomorrow.

MILKING INJURIES STUDY

DairyNZ and Worksafe worked together to study what causes high levels of milking-related injuries. The project determined common causes and links between injuries, facility design and management practices.

IMMIGRATION CHANGES

DairyNZ worked closely with farmers and government agencies to respond to significant policy reviews relating to changes that will impact the immigrant workforce and the vocational education and training sector.

SECTOR LEADERSHIP

Investment in leadership programmes delivered through the Agri-Women's Development Trust and New Zealand Rural Leaders Trust (Kellogg and Nuffield) helped develop the next generation of sector leaders.



COMMITMENT 6

WE WILL HELP GROW VIBRANT AND PROSPEROUS COMMUNITIES

2018/19 DAIRYNZ HIGHLIGHTS

THE VISION IS CLEAR

In November, DairyNZ launched The Vision is Clear: Let's Improve our Waterways, a movement that aims to share how Kiwis – rural and urban – value the water, inspiring them to join a nationwide movement where every New Zealander is looking at the actions they can take to improve our rivers, streams, lakes and beaches.

2019/20 LOOKING AHEAD

THE VISION IS CLEAR - YEAR TWO

Year two of The Vision is Clear: Let's Improve our Waterways movement aims to inspire action throughout New Zealand by increasing our reach and making sure the movement endures. We want to see people taking action to improve water quality at a large scale.

2019/20 LOOKING AHEAD

PRIMARY SECTOR SKILLS SYSTEM

Development will continue on a primary sector skills system which delivers training in a way that meets the needs of farmers and their staff, and supports the dairy workforce to obtain the skills needed to deliver on the outcomes of Dairy Tomorrow. A skills-needs analysis will be carried out to ensure training addresses the right skill gaps.

MILKING INJURIES

A suite of projects which address current concerns with milking-related injuries, boost efforts to reduce hours of work through more flexible milking routines, and design the future dairy workplace will enter the second year of development.

DEVELOPING LEADERS

DairyNZ will continue to invest in developing the future leaders of the dairy sector through well-established programmes and lift our focus on supporting farmer leadership of on-farm teams.









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 (GFP) at pace and scale by 2022 by supporting dairy farmers and dairy graziers in getting a Farm Environmental Management Plan in place by May 2020, and providing extension support to demonstrate GFP on-farm.

Provider: DairyNZ Ltd

Funding: \$217,708 (ex. GST)

Environmental Reporting

Through this project, tools have been developed to help dairy farmers estimate the environmental footprint and record and report on the array of environmental initiatives undertaken to improve water quality.

In collaboration with the Our Land & Water National Science Challenge, the Catchment Accounting Framework modelling tool has been developed 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 dairy load relative to other land use, and better direct efforts to improve water quality to where it will make the most difference.

The Environmental Reporting project was also responsible for delivering the fifth year of the Sustainable Dairying: Water Accord – one of the sector's most significant commitments to improving water quality across a broad range of farm system and mitigation management. The Accord has led the way in demonstrating how dairy farmers can and do respond without the need of regulatory drivers when there is a clear challenge to solve.

Provider: DairyNZ Ltd **Funding:** \$471,028 (ex. GST)

Climate Change Policy

This project is focused on the impacts of potential climate change-related policy frameworks on dairy farmers, dairy processors and the national economy. It provides scientific modelling and economic analysis, interpretation and commentary on the sector's on-farm greenhouse gas trajectory, and current and future mitigations. It also ensures the sector is well-placed to contribute to a domestic climate change policy framework.

Provider: DairyNZ Ltd **Funding:** \$759,918 (ex. GST)

Environmental Readiness/Productive Riparian Buffers

Understanding and being prepared for future environmental regulations are central to this project. Included is understanding environmental risks and drivers, dairy's environmental footprint and potential on-farm and catchment solutions, and the implications of different policy options on farm businesses and catchment regional national environmental, economic and social values.

Additional workstreams will develop and integrate the farm and catchment tools required to derive this understanding, and develop policies, strategic positions, and a vision of how the sector can operate under increasing environmental regulation over the longer-term.

Collectively, this framework supports future regional limit setting process and integrates and builds on the knowledge and products developed through four allied

projects – Systems for the Environment, Systems that Work, Designing the Future and Productive Pastures.

Provider: DairyNZ Ltd

Funding: \$1,021,757 (ex. GST)

Rural Land Use

This project's main objective is to help rural communities think about how to get to the future 50 years from now. It is a stretch goal to reframe what it means to farm, taking thinking past what is currently known. The project does not specify what the future spatial distribution of land uses, resources or intuitional arrangements will be. Land use change is not an outcome – instead the project it will prepare people for change.

Provider: DairyNZ Ltd **Funding:** \$156,869 (ex. GST)

Farming with Limits

Through this project regional environmental work plans encompassing all science, policy, economic and engagement activities related to current regional limit setting processes will be re-established across 10 regions. This ensures a targeted and coordinated response to environmental issues for farmers and stakeholders in each region, and lays a platform that will integrate with plans for the regions.

Once regional policies become operative and on-farm change is required, support with implementation will be provided through the Meeting Environmental Obligations project and through regional dairy environmental leaders. Three priority regions for supporting famers in meeting environmental obligations have been identified – Waikato, Canterbury and Horizons.

Provider: DairyNZ Ltd

Funding: \$2,727,202 (ex. GST)

Sustainable nutrient management on Waikato peat soils

This project's goal is to gather data from farmed peat soils to quantify nutrients lost in order to provide accurate information on potential nutrient losses so that farmers can modify their management to help reduce their environmental footprint.

Provider: AgResearch **Funding:** \$22,500 (ex. GST)



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.

TB National Pest Management Strategy TB Free

This investment aims to control the spread of tuberculosis (TB) through disease management – 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 – 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 system (\$BW) 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 Evaluation Ltd

Funding: \$1,982,400 (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 will define key plant traits for sustainable and competitive dairy systems.

Provider: DairyNZ Ltd

Funding: \$1,700,000 (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 aims to increase the uptake and adoption of DairyBase among farmers, to improve and inform the quality of the benchmarking data sets and farm business data for analyses and research. 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 investigating ways to improve connectivity with third parties using Data Linker (where possible) to facilitate data exchange.

Provider: DairyNZ Ltd **Funding:** \$938,688 (ex. GST)

Biosecurity Risk Assessment & Policy

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 NZ Inc. level.

Provider: DairyNZ Ltd **Funding:** \$829,887 (ex. GST)

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

This project's objective 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 improved tools for evaluating/regulating environmental impacts. By 2026, 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 herdlevel 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 Ltd

Funding: \$1,274,708 (ex. GST) Funding matched

by MBIE.

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

DairyNZ and MBIE have a seven-year partnership programme Pillars of a New Dairy System that aims to deliver innovative, management and genetic solutions to 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)
- achieving sector targets for reproductive performance on dairy farms (fertility).

Provider: DairyNZ Ltd

Funding: Lifetime productivity - \$550,000 (ex. GST) levy funding. Fertility - \$1,900,000 (ex. GST) levy funding. Funding matched by MBIE.

Governance of MBIE partnership programme

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

Provider: DairyNZ Ltd **Funding:** \$216,000 (ex. GST)

Forages for reduced Nitrate leaching

Forages for Reduced Nitrate Leaching (FRNL) is a DairyNZ-led collaborative research programme across the primary sector delivering science for better farming and environmental outcomes. The aim is to reduce nitrate leaching through research into diverse pasture species and crops for dairy, arable and sheep and beef farms. The main funder is MBIE, with co-funding from research partners DairyNZ, AgResearch, Plant & Food Research, Lincoln University, Foundation for Arable Research and Landcare Research.

Provider: DairyNZ Ltd **Funding:** \$381,179 (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 the '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 any superior performance.

Provider: Dairy Australia **Funding:** \$968,498 (ex. GST)



Southern Dairy Hub research

This project aims 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 a growing concern of animal health and welfare issues when cows consume high quantities of fodder beet, a high-energy feed that is deficient in some essential minerals (namely 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 carry-over effects into lactation.

Provider: DairyNZ Ltd

Funding: \$909,000 (ex. GST)

Plantain Research

This project aims 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, multiinstitution 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. Inextricably linked to this outcome, for farmers and the dairy sector in general, is 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, identify the circumstances under which the expected benefits of plantain for nitrogen leaching give farmers a clear option to continue low-cost dairying rather than change to capital-intensive options such as housing animals.

Provider: DairyNZ Ltd **Funding:** \$811,778 (ex. GST)

Improved management of home-grown feed

This project encourages farmers to change on-farm practices to better manage profitable pasture and feed. Tiller Talk continues to be a key part of the project, offering the opportunity to evaluate farmer-to farmer learning around pasture management.

Provider: DairyNZ Ltd **Funding:** \$709,875 (ex. GST)

Improving Herd Performance

This project has two herd performance aims – one for mastitis management and the other for in-calf rates. For mastitis, the project aims to achieve and sustain reductions in national bulk milk somatic cell counts and improved Mastitis Focus udder health star ratings, through better mastitis control and milk quality management systems, and prudent use of antimicrobials. For in-calf performance, the aim is to achieve sustained increases in actual six-week in-calf rate (NZ Dairy Statistics), through improved reproductive performance management systems, while using minimal hormonal intervention.

Provider: DairyNZ Ltd **Funding:** \$681,467 (ex. GST)

Selwyn-Hinds

Under Plan Change 1 and Plan Change 2, a total of 460 dairy farmers in the Selwyn-Hinds catchments need to comply with several environmental obligations, including a percentage reduction in nitrogen loss from the baseline period (2009/13) for their properties at set timeframes.

This five-year project aims to support farmers in both catchments to achive plan change obligations while maintaining profitable and resilient businesses.

The success of this project will be demonstrated in three ways - by farmers in Selwyn-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 lower environmental footprint at a catchment level.

Provider: DairyNZ Ltd **Funding:** \$571,719 (ex. GST)

GM Forages

AgResearch has developed a genetically modified (GM) ryegrass that in the glasshouse has produced both higher levels of energy (through increased lipids) and higher growth rates (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 trialling 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)

Farm Assessment and Planning

The Farm Assessment and Planning (FAP) 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.

Farmers are aware of their performance gaps in the context of their goals and obligations, and are committed to closing these gaps and knowing where to get support to implement their plans.

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 Ltd **Funding:** \$649,539 (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 Ltd **Funding:** \$510,291 (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 Ltd **Funding:** \$377,690 (ex. GST)

Farmer Insight

This project aims to enhance DairyNZ and sector performance by developing and implementing a data strategy that ensures core activities and internal decision-making are well-informed. It will establish the platform to support DairyNZ's credible evidence needs for the future.

Provider: DairyNZ Ltd **Funding:** \$550,000 (ex. GST)

Lifting the financial capability of our dairy businesses through New Zealand's dairy women

A key focus for Dairy Women's Network is increasing the financial capability of members, which is achieved through financial training modules on topics identified as development areas.

Provider: Dairy Women's Network **Funding:** \$441,997 (ex. GST)



Taranaki Research

This experiment investigates the profitability of using PKE at a high stocking rate relative to a pasture-only system, but within the limitations of Fonterra's fat evaluation index, and compare this with utilising locally-grown maize grain. It will also 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)

Baseline

The Baseline project's main objective is to be the dairy sector's 'canary in the mine', alerting stakeholders to any developing impacts, specifically financial, on the business performance and viability of dairy farming resulting 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 for Freshwater Management (NPSFM), greenhouse gas legislation and to advocate on farmers' behalf. Information from the Baseline Project is also used for dairy industry statistics, including other DairyNZ projects and research.

Provider: DairyNZ Ltd **Funding:** \$499,716 (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 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 Ltd **Funding:** \$287,429 (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 Ltd **Funding:** \$262,096 (ex. GST)

Māori Agribusiness

A significant proportion of dairy land in New Zealand, in particular in 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 Ltd **Funding:** \$94,991 (ex. GST)

International Dairy Federation (IDF)

The New Zealand National Committee of the International Dairy Federation (IDF NZ) 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 Standards Organisation (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:** \$318,000 (ex. GST)

Southern Wintering

This project aims to address concerns over cropbased wintering impacts on animal welfare and the environment. It builds off the focus that the Aparima project is creating, using it as a catalyst for good animal welfare and environmental practices in wintering in Southland/Otago. The project will work collaboratively with organisations across the primary sector to provide farmers with the information, support and urgency required to achieve rapid adoption. It aims to increase awareness and adoption of good wintering practice among 75 percent of dairy farmers in the region. The project starts in November 2018 and the objectives aim to be achieved by May 31 2020.

Provider: DairyNZ Ltd **Funding:** \$204,063 (ex. GST)



Fodder Beet

Part of a strategy to address animal welfare risks associated with new systems and technologies for environmental management, this project aims to identify the health and lifetime productivity risks of feeding fodder beet to dairy cows. It will provide recommendations and decision support for appropriate feeding strategies to mitigate these risks.

Fodder beet is important for profit outcomes, especially in the South Island, and has now been identified as key in managing nitrate leaching. This is an SFF confident project.

Provider: DairyNZ Ltd **Funding:** \$233,453 (ex. GST)

Prudent use of Antimicrobials for Mastitis – Dry Cow Study

There is growing international pressure for the dairy sector to demonstrate careful use of antimicrobials in agriculture to help mitigate the risk of antimicrobial resistance affecting human health. As a result, use of antibiotic dry cow treatments to protect low somatic cell count cows at dry-off is increasingly viewed as unacceptable. In future, dry cow antibiotics will be targeted to individual animals that have sufficient diagnostic information to justify treatment. Deciding these criteria, at a herd and cow level, are important outcomes of this project. In addition, the project will provide necessary knowledge and tools to support veterinarians and farmer clients by increasing their confidence in non-antibiotic alternatives.

Provider: DairyNZ Ltd **Funding:** \$180,622 (ex. GST)

Dairy Industry Datacentre

This work provides economic analysis, interpretation and commentary on a broad range of issues affecting dairy farm profitability, sustainability and competitiveness.

Provider: DairyNZ Ltd **Funding:** \$177,154 (ex. GST)

Dairy Connect

Dairy Connect facilitates short-term partnerships between farmers. It encourages the sharing of information and experiences across a range of on-farm topics, providing farmers the opportunity to talk to other farmers who have been there and done that, often giving them the confidence they need to make and improve on-farm and business decisions.

The Dairy Connect team facilitated 200 farmer-to-farmer connections in 2018/19 covering a range of on-farm topics including once-a-day milking, progression options, feed and financial budgeting support and staff management.

Provider: DairyNZ Ltd **Funding:** \$130,566 (ex. GST)

Dairy Tomorrow Measures

This project has developed a comprehensive understanding of what drives the competitiveness and resilience of the New Zealand dairy sector. It has a strong tie to the Dairy Tomorrow strategy, given Commitment 2 focuses on the development of benchmarks and targets for both international competitiveness and resilience. This work revealed that New Zealand has a comparative advantage for milk production, highlighting the combined strength of the multiple factors that drive competitiveness in world markets. A competitiveness framework has been developed for the production and processing components of the value chain, measuring progress against competitors, as well as identifying threats and opportunities.

Provider: DairyNZ Ltd **Funding:** \$136,868 (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 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: Northland Dairy Development Trust

Funding: \$160,000 (ex. GST)

Improving Forage Legume – Rhizobia Performance

Forage legumes, such as clovers, are an essential component of New Zealand pastoral systems. They provide a valuable contribution to forage production, pasture feed quality and provide nitrogen inputs through biological nitrogen fixation (BNF) carried out by rhizobia. These micro-organisms live in nodules on clover roots and form a symbiotic partnership with the plant. This research programme will investigate opportunities to increase BNF and, thereby, increase pasture production and the profitability and sustainability of the pastoral sector. By increasing BNF, farmers will be able to offset equivalent requirements for inorganic nitrogen fertiliser with associated cost savings.

Provider: AgResearch **Funding:** \$100,000 (ex. GST)

South Island Dairying Development Centre

Partners Networking to Advance South Island Dairying – The South Island Dairying Development Centre is a partnership between seven key New Zealand organisations involved in South Island dairying.

Provider: DairyNZ Ltd **Funding:** \$50,000 (ex. GST)

Genomics for Production and Security in a Biological Economy

This programme has been developed in consultation with end-users and primary industries of New Zealand including dairy, mixed livestock, forage seed and biosecurity. It enables the development, enhancement and accelerated adoption of a novel, open-source and cost-effective genetic analysis platform known as Genotyping by Sequencing. This system produces detailed genotype profiles of the full range of biological materials relevant to improving and sustaining New Zealand's economic performance. Programme elements include end-user workshops and co-development of applications for sector-specific needs and proof-ofconcept, particularly related to genetic improvement of plants and animals. Value and end-user adoption will link to scientists and organisations with interests in genetic data for biosecurity, product traceability and systems for genetic improvement of economic species.

Provider: AgResearch **Funding:** \$100,000 (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 monitor farm emails, 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)

Dairy Statistics

Dairy Statistics provides a range of statistical analyses on current, historic and emerging trends in the New Zealand dairy sector, those statistics being largely based on the previous Dairy Statistics publications produced by LIC. 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 and farmers.

Provider: LIC

Funding: \$72,000 (ex. GST)

Hauraki Plains Focus Farm

This project aims to increase the wealth, value and satisfaction of dairy farmers on the Hauraki Plains. It promotes best practice by top farmers across a variety of locations, soil types and operating structures. Included are weekly monitoring of grass growth rates, use of pasture management software, how to achieve condition score five cows at calving, and much more.

Provider: P3 Trust

Funding: \$55,000 (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, utilising good on-farm practice and scientific monitoring for the farm to become an exemplar in dairy production, economic performance and environmental footprint.

Provider: St Peter's School Trust Board

Funding: \$45,000 (ex. GST)



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.

Improved Colostrum Management Practices for New Zealand Dairy Calves

Ingesting high quality colostrum within the first few hours of a calf's life is important because newborn animals rely on the passive transfer of antibodies via colostrum to provide immunity against diseases until they develop their own immunity. However, this vital process can easily fail when a calf has not ingested colostrum within 6 to 12 hours of birth, is ingesting unsuitable or contaminated colostrum, or is simply not ingesting enough colostrum. This inadequate colostrum intake is known as failure

of passive transfer (FPT) of immunity. This Sustainable Farming Fund project aims to determine the regional and national prevalence of FPT on New Zealand dairy farms, identify the key management factors involved and develop improved practical guidelines on colostrum management for farmers and veterinarians. This includes co-funding by Ministry for Primary Industries, through the Sustainable Farming Fund.

Provider: Veterinary Enterprises Group Ltd (VetEnt)

Funding: \$25,000 (ex. GST)

Facial Eczema

A better managed facial eczema (FE) programme will favourably impact the welfare, productivity and sustainability of national pastoral farming operations. This project aims to provide a clear understanding of the effects this disease is having on adult dairy cattle in the short and long-term so as to enable farmers to improve their management of FE.

Provider: Veterinary Enterprises Group Ltd (VetEnt)

Funding: \$35,400 (ex. GST)

Animal Care Progamme

Practice Change:

This project provides motivation and easily implemented solutions to encourage practice change. Included are opportunities to be ahead of emerging issues, preparing farmers for regulation changes and updating well understood 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 Ltd

Funding: \$1,428,246 (ex. GST)



World Leading Animal Care

This project is working towards Dairy Tomorrow's Commitment Four – 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 Ltd **Funding:** \$169,423

Managing Welfare Risks in Pastoral Dairy Farming

The goal of this research programme is to reduce specific areas of welfare risk to New Zealand's dairy-based economy, and to provide knowledge that can be used to guide farming practices, improve market success and ultimately enhance animal welfare on New Zealand dairy farms.

Provider: AgResearch

Funding: \$300,000 (ex. GST)

Opportunity and Challenges of Bobby calves

This project will provide industry leaders with the information required to form a pan-sector strategy to meaningfully reduce, or even eliminate, the slaughtering of bobby calves in New Zealand, while considering the implications on productivity and the environment. It will provide recommendations, including priorities, to form the basis of a future funding proposal to drive this required change and culture shift in the New Zealand food sector.

Provider: AbacusBio

Funding: \$15,000 (ex. GST)



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.

Quality Work Environment

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 learning 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 on immigration law and farm safety regulations.

Provider: DairyNZ Ltd

Funding: \$1,055,000 (ex. GST)

Skilled Workforce in Canterbury

Through an employment survey of farmers and a survey of dairy industry stakeholders, this project has researched the barriers to attracting and retaining employees on South Island dairy farms. The stakeholder survey obtained views on issues around employment of immigrant labour. The effectiveness and impact of existing initiatives to improve staff recruitment and retention were also assessed. Based on the research information and farmer feedback a project has been planned for the 2019/20 year to attract more young people to dairy farming by increasing the numbers of high school students gaining work experience on dairy farms, by giving a great start to new entrant employees, and by promoting good staff management practices across the South Island. The delivery project will run for two years with potential to scale up in a later phase.

Provider: DairyNZ Ltd **Funding:** \$108,113 (ex. GST)

Dairy Delivery Hub

The Dairy Delivery Hub Transition Project's main objective is to improve the delivery of learning, improve the quality of learning resources, and increase the uptake of fit-for-purpose farmer learning. There are four workstreams that aim to achieve this work.

Provider: DairyNZ Ltd **Funding:** \$330,360 (ex. GST)

Dairy Learn

This project is responding to the year-on-year decline in the number of people participating in learning experiences, both in a formal setting with the Primary ITO and informal settings such as discussion groups. The project aims to ensure the learning system for the dairy sector is fit-for-purpose and delivers required learning in a way that meets dairy farmers' needs. It focuses on:

- Review of learning needs to ensure focus on the right things at the right time for employers and employees.
- Coordination of sector organisations to consolidate effort, leverage efficiency and integrate formal and non-formal learning. Significant reform in the vocational education sector has overtaken this initiative.
- Investigating both how people are engaged into learning and how learning is delivered.

Provider: DairyNZ Ltd **Funding:** \$440,000 (ex. GST)

Getting into Dairy

This project promotes dairy 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, be they farm managers, scientists, research technicians and rural professionals.

Provider: DairyNZ Ltd **Funding:** \$876,787 (ex. GST)

New 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 New 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 greater certainty about which approaches fit their context, and how to implement them in practice.

Provider: DairyNZ Ltd **Funding:** \$436,940 (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 (St Pauls

Funding: \$100,000 (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)

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. Another five dairy women take the first steps in developing their potential in a two-day self-development programme that helps reframe their skillset and boost their confidence.

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: \$155,000 (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)



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: \$1,071,546 (ex. GST)



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.

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 Ltd

Funding: \$1,622,742 (ex. GST)

Events

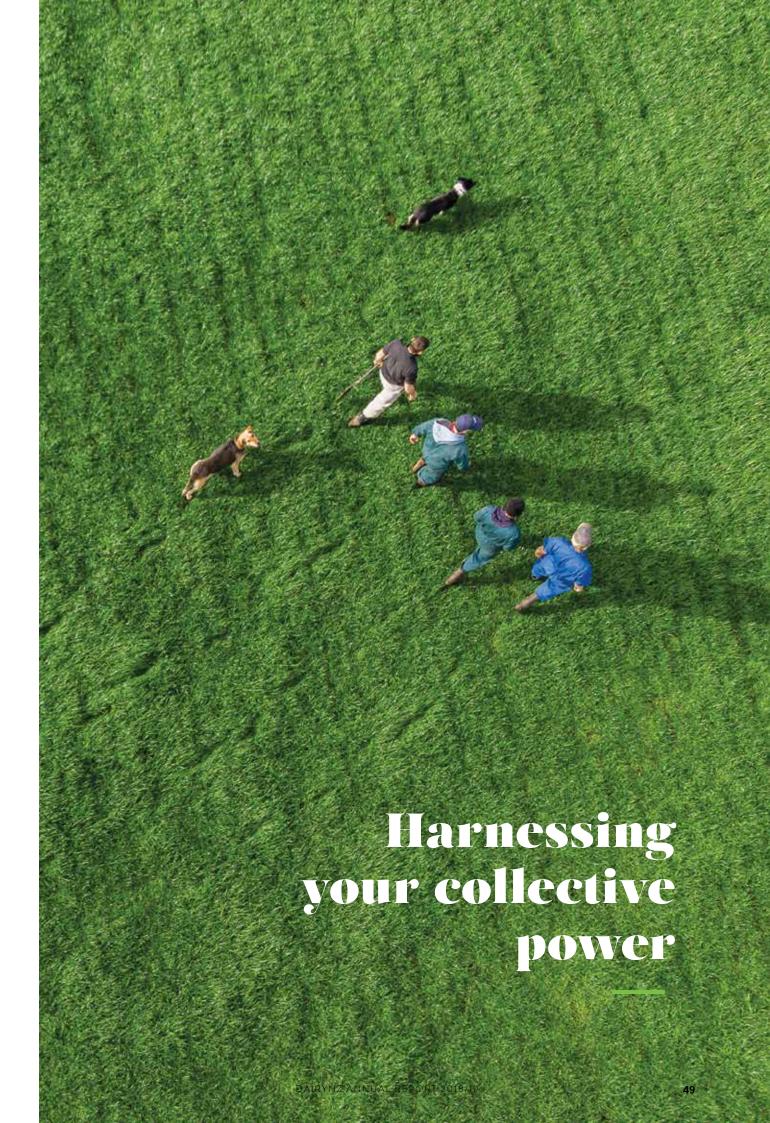
By sponsoring dairy sector events and conferences, DairyNZ helps facilitate education and knowledge sharing relevant to New Zealand dairy farmers. Events help increase farmers' access to new knowledge, networking and opportunities for discussion, debate and information sharing. Successful sponsorships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

Provider: DairyNZ Ltd **Funding:** \$579,900 (ex. GST)

Education

This project aims to increase understanding of the dairy sector among school children, their families and teachers. rosieseducation.co.nz provides teachers with information about the sector and its importance to the national economy. It also offers practical and creative teaching materials using dairy farming as a context for learning. rosiesworld.co.nz is where children can learn about dairy farming and the sector.

Provider: DairyNZ Ltd **Funding:** \$531,173 (ex. GST)







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 57 to 80:

- present fairly in all material respects the incorporated society's and group's financial position as at 31 May 2019 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 2019;
- 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 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 a 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.

Hamilton 31 July 2019

DAIRYNZ ANNUAL REPORT 2018/19

Statutory information

For the year ended 31 May 2019

The Directors present the Annual Report along with the audited accounts for DairyNZ Incorporated and Subsidiary Companies for the year ended 31 May 2019.

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 income for the year was \$541,742.

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
B. Allomes	Director Elected	DairyNZ Ltd
H. Anderson	Director Appointed	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
T. Mackle		New Zealand Animal Evaluation Ltd and DairyNZ Accreditation Ltd
D. Evans		DairyNZ Accreditation Ltd, Dairy Insight (PGGR Consortia) Ltd and SDH GP 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					
V. Winning	Officer	New Zealand Insitutue of Primary Industry Management Incorporated			
J. Jago	Officer	Primary Industry Capability Alliance Incorporated			
T. Mackle	Officer	South Island Dairying Development Centre (SIDDC)			
J. Cameron	Officer	IDF National Committee			
B. Allomes	Trustee	New Zealand Dairy Industry Awards			
A. Body	Trustee	New Zealand Dairy Industry Awards			
A. Wilcock	Trustee	AgRecovery Foundation			

Changes during the year

- B. Harris resigned as Director of DairyNZ Limited on 31 October 2018.
- J. Coughlan appointed as Director of DairyNZ Limited on 31 October 2018.
- J. Rowarth appointed as Director of DairyNZ Limited on 31 October 2018.

Directors' interest

The Board have not received any notices from Directors that they have any interest in transactions, or proposed transactions with the Group during the financial 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

	BOARD	ARC	ARD
B. Allomes	8/8	-	4/4
H. Anderson	7/8	2/2	2/2
E. Cook	8/8	-	4/4
J. Coughlan	5/5	-	1/2
P. Schuyt	8/8	3/3	-
J. van der Poel	8/8	3/3	4/4
J. Rowarth	5/5	1/1	-
C. Glass	8/8	1/3	-
B. Harris	4/4	-	2/2
Total meetings	8	3	4

DairyNZ has two permanent Board Committees; the Audit Risk Committee (ARC) and the People and Culture 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. The People and Culture Committee 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.

Directors Remuneration

Remuneration paid during the period was as follows:

	2019
B. Allomes	61,618
H. Anderson	49,542
E. Cook	48,537
J. Coughlan	28,170
P. Schuyt	50,662
J. van der Poel	97,575
J. Rowarth	28,170
C. Glass	47,787
B. Harris	20,752
A. Body	6,000
A. Wells	6,300
Directors of DairyNZ subsidiarie	s
R. Anderson	25,000
H. Blair	23,000
E. Coats	20,000
A. Kempthorne	20,000
W. Larsen	40,000
S. Montgomerie	20,000
	593,112

Employees Remuneration

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

	NUMBER OF E	MPLOYEES
SALARY BAND	2019	2018
100,000 - 110,000	22	22
110,000 - 120,000	16	11
120,000 - 130,000	13	18
130,000 - 140,000	8	4
140,000 - 150,000	5	7
150,000 - 160,000	9	7
160,000 - 170,000	4	6
170,000 - 180,000	3	1
180,000 - 190,000	1	2
190,000 - 200,000	1	3
200,000 - 210,000	1	3
210,000 - 220,000	1	-
220,000 - 230,000	2	1
230,000 - 240,000	-	2
240,000 - 250,000	1	2
250,000 - 260,000	1	-
270,000 - 280,000	1	2
280,000 - 290,000	-	1
570,000 - 580,000	-	1
580,000 - 590,000	1	-

Auditors Remuneration

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

	FOR AUDIT WORK	FOR OTHER SERVICES
KPMG	77,950	15,887

J VAN DER POEL, CHAIRMAN

31 July 2019

P.M. Schub

P SCHUYT, DIRECTOR

31 July 2019

Statement of Comprehensive Income

For the year ended 31 May 2019

In thousands of New Zealand dollars		Consolidated		P	Parent	
	NOTE	2019	2018	2019	2018	
Continuing operations						
Revenue and other income	3	86,013	83,196	71,287	71,533	
Operational expenses	4	(85,389)	(86,669)	(70,916)	(72,493)	
Profit/(loss) before finance activities		624	(3,473)	371	(960)	
Finance income		289	369	4	7	
Finance expenses		(9)	-	-		
Net finance income	5	280	369	4	7	
Profit/(loss) before income tax		904	(3,104)	375	(953)	
Tax expense	6	-	-	-	-	
Profit/(loss) for the period		904	(3,104)	375	(953)	
Other comprehensive income						
Net change in fair value of available for sale financial assets		(362)	(262)	-	-	
Income tax on other comprehensive income		-	-	-	_	
Other comprehensive income for the period, net of income tax		(362)	(262)	-	-	
Total comprehensive income/(loss) for the peri	od	542	(3,366)	375	(953)	

Statement of Changes in Equity

For the year ended 31 May 2019

In thousands of New Zealand dollars	Consolidated				
	CONTRIBUTION BY OWNERS	INVESTMENT FAIR VALUE RESERVE	RETAINED EARNINGS	TOTAL EQUITY	
Balance as at 1 June 2017	33,783	530	12,890	47,203	
Total comprehensive income for the period					
Profit/(loss) for the period	-	-	(3,104)	(3,104)	
Other comprehensive income					
Net change in fair value of available for sale financial assets	-	(262)	-	(262)	
Total other comprehensive income	-	(262)	-	(262)	
Total comprehensive income for the period	-	(262)	(3,104)	(3,366)	
Balance as at 31 May 2018	33,783	268	9,786	43,837	
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	
In thousands of New Zealand dollars		Parent			
	CONTRIBUTION BY OWNERS	INVESTMENT FAIR VALUE RESERVE	RETAINED EARNINGS	TOTAL EQUITY	
Balance as at 1 June 2017	33,783	-	(18,004)	15,779	
Total comprehensive income for the period					
Profit/(loss) for the period	-	-	(953)	(953)	
Other comprehensive income					
Net change in fair value of available for sale financial assets	-	-	-	-	
Total other comprehensive income	-	-	-	-	
Total comprehensive income for the period	-	-	(953)	(953)	
Balance as at 31 May 2018	33,783	-	(18,957)	14,826	
Balance as at 1 June 2018	33,783		(18,957)	14,826	

33,783

375

375

(18,582)

375

375

15,201

Total comprehensive income for the period

Total comprehensive income for the period

Net change in fair value of available for sale financial assets

Profit/(loss) for the period

Other comprehensive income

Total other comprehensive income

Balance as at 31 May 2019

Statement of Financial Position

As at 31 May 2019

In thousands of New Zealand dollars		Cons	solidated	Pa	Parent	
	NOTE	2019	2018	2019	2018	
Assets						
Property, plant and equipment	7	22,229	22,752	-	-	
Intangible assets	8	4,880	5,091	-	-	
Biological assets - livestock	9	1,398	1,325	-	-	
Investment in subsidiaries	17	-	-	34,865	35,272	
Investment in associates	18	4,821	5,042	4,805	5,029	
Other investments	10	1,446	1,808	-	-	
Total non-current assets		34,774	36,018	39,670	40,301	
Cash and cash equivalents	12	15,744	18,966	626	89	
Inventories		112	101	-	-	
Trade and other exchange receivables	11	7,740	334	3,903	-	
Trade and other non-exchange receivables	11	3,881	6,902	3,881	6,902	
Total current assets		27,477	26,303	8,410	6,991	
Total assets		62,251	62,321	48,080	47,292	
Members' funds						
Contribution by owners		33,783	33,783	33,783	33,783	
Investment fair value reserve		(94)	268	-	-	
Retained earnings		10,690	9,786	(18,582)	(18,957)	
Total members' funds	16	44,379	43,837	15,201	14,826	
Liabilities						
Employee entitlements	14	334	348	-	-	
Total non-current liabilities		334	348	-	-	
Trade and other payables	15	13,885	14,871	31,983	31,759	
Deferred income		1,188	796	896	707	
Employee entitlements	14	2,465	2,469			
Total current liabilities		17,538	18,136	32,879	32,466	
Total liabilities		17,872	18,484	32,879	32,466	
Total members' funds and liabilities		62,251	62,321	48,080	47,292	

J VAN DER POEL, CHAIRMAN

31 July 2019

P.M. Schub

P SCHUYT, DIRECTOR

31 July 2019

Statement of Cash Flows

For the year ended 31 May 2019

In thousands of New Zealand dollars		Consolidated		Parent	
	NOTE	2019	2018	2019	2018
Net cash from/(used in) operating activities					
Cash provided from:					
Dairy industry good levies		67,458	66,479	67,458	66,479
Other funding		13,567	20,200	2,947	8,211
Interest income received		289	369	4	7
		81,314	87,048	70,409	74,697
Cash applied to:					
Payments to suppliers and employees		82,421	86,511	67,570	73,076
Interest expense paid		9	-	-	-
		82,430	86,511	67,570	73,076
Net cash from/(used in) operating activities	23	(1,116)	537	2,839	1,621
Net cash from/(used in) investing activities					
Cash provided from:					
Proceeds from sale of biological assets		168	892	-	_
Proceeds from sale of property, plant and equipment		62	201	-	-
		230	1,093	-	-
Cash applied to:					
Investments in subsidiaries		-	-	2,302	2,302
Investments in associates		-	(5)	-	(5)
Purchase of biological assets		8	-	-	-
Acquisition of property, plant and equipment, and intangibles		2,328	3,384	-	-
		2,336	3,379	2,302	2,297
Net cash from/(used in) investing activities		(2,106)	(2,286)	(2,302)	(2,297)
Net cash from/(used in) financing activities		-	-	-	-
Net increase/(decrease) in cash balances		(3,222)	(1,749)	537	(676)
Cash balances at beginning of period		18,966	20,715	89	765
Closing cash balances		15,744	18,966	626	89

Notes to the Financial Statements

For the year ended 31 May 2019

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 2019 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 31 July 2019.

The accounting policies set out below have been applied consistently to all periods presented in these financial statements. The accounting policies 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 IPSAS 34 'Separate financial statements', PBE IPSAS 35 'Consolidated financial statements', PBE IPSAS 36 'Investments in Associates and Joint Ventures', PBE IPSAS 37 'Joint arrangements' and PBE IPSAS 38 'Disclosure of interests in other entities'. These are effective for annual periods beginning on or after 1 January 2019. The new standards supersede the existing PBE IPSAS 6 to 8.
- ii) 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.
- iii) PBE IPSAS 39 'Employee Benefits' which is effective for annual periods beginning on or after 1 January 2019, replaces PBE IPSAS 25. Substantive changes relate to the accounting for defined benefit plans.
- iv) 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	Cons	olidated	Par	ent
REVENUE FROM EXCHANGE TRANSACTIONS	2019	2018	2019	2018
Farm income	2,003	2,620	-	-
Research commercial income	2,670	1,602	-	-
Dairy Training course fees	977	1,079	-	-
Other revenue	4,393	902	-	-
Total exchange revenue	10,043	6,203	-	-

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	Cons	olidated	Pa	rent
REVENUE FROM NON-EXCHANGE TRANSACTIONS	2019	2018	2019	2018
Levy income Levy revenue is collected from farmers via the following companies				
Fonterra	54,819	54,184	54,819	54,184
Open Country Dairy	5,576	4,953	5,576	4,953
Synlait	2,284	2,290	2,284	2,290
Westland	2,363	2,276	2,363	2,276
Miraka	934	966	934	966
Oceania Dairy	784	753	784	753
Tatua	521	529	521	529
Other Dairy Companies	544	279	544	279
Total levy income	67,825	66,230	67,825	66,230
Other funding				
MBIE research funding	7,819	8,118	3,462	2,815
Primary Growth Partnership	-	2,488	-	2,488
Sustainable Farming fund	326	157	-	-
Total other funding	8,145	10,763	3,462	5,303
Total non-exchange revenue	75,970	76,993	71,287	71,533
Total revenue	86,013	83,196	71,287	71,533

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	
	2019	2018	2019	2018
Amortisation	1,054	982	-	-
KPMG – audit fees	78	74	-	-
KPMG – other services	16	-	-	-
Commodity levy collection fee	339	331	339	331
Depreciation	1,977	1,896	-	
Directors' fees (includes directors of subsidiaries)	595	577	-	
Directors' and governance expenses	186	157	-	
Impairment in investment in subsidiaries	224	-	2,932	1,975
Operating leases	600	584	-	-
Personnel expenses	26,809	27,348	-	
Professional fees – legal	140	106	-	
Provision for employee entitlements	(18)	110	-	-

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 \$53.57 million (2018; \$53.64 million). The Parent's research and development costs for the period were \$31.50 million (2018; \$31.96 million).

Audit

Other services include a review of the privacy compliance framework. (2018; none)

5. Net finance income

In thousands of New Zealand dollars	Со	nsolidated		Parent
	2019	2018	2019	2018
Interest income on loans and receivables	289	369	4	7
Finance income	289	369	4	7
Interest payable on loans and payables	(9)	-	-	-
Finance expense	(9)	-	-	-
Net finance income	280	369	4	7

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

Consolidated

In thousands of New Zealand dollars

	LAND	BUILDINGS	LEASEHOLD IMPROVEMENTS	FARM DEVELOPMENT	PLANT AND EQUIPMENT	VEHICLES	TOTAL
For the year ended 3	31 May 20	18					
Cost or deemed cost	t						
Balance at 1 June 2017	13,196	12,356	855	1,053	8,673	3,554	39,687
Additions	-	-	-	227	593	1,182	2,002
Disposals	-		-	-	(3,035)	(1,253)	(4,288)
Balance at 31 May 2018	13,196	12,356	855	1,280	6,231	3,483	37,401
Depreciation and im	pairment	losses					
Balance at 1 June 2017	146	5,871	832	688	6,813	2,616	16,966
Depreciation for the year	-	565	12	74	746	499	1,896
Disposals	-	-	-	-	(2,969)	(1,244)	(4,213)
Balance at 31 May 2018	146	6,436	844	762	4,590	1,871	14,649
Carrying Amount as at 31 May 2018	13,050	5,920	11	518	1,641	1,612	22,752
For the year ended 3		19					
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 im	pairment	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

Parent

No property, plant and equipment are 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

Consolidated

In thousands of New Zealand dollars

	SOFTWARE
For the year ended 31 May 2018	
Cost or deemed cost	
Balance at 1 June 2017	7,293
Acquisitions	1,381
Balance at 31 May 2018	8,674
Depreciation and impairment losses	
Balance at 1 June 2017	2,601
Amortisation for the year	982
Balance at 31 May 2018	3,583
Carrying Amount as at 31 May 2018	5,091
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

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 5 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
III INOUSANOS OI NEW ZEAIANO OONAIS	CONSOLIDATED

	2019	2018
Balance at 1 June	1,325	1,814
Increase due to acquisitions	8	-
Decrease due to sales	(325)	(892)
Change in fair value less estimated point-of-sale costs	390	403
Balance at 31 May	1,398	1,325
Non-current	1,398	1,325
Current	-	-
Number of Livestock held at 31 May	927	886

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

	2019	2018
Available-for-sale financial assets	1,446	1,808
Balance at 31 May	1,446	1,808

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

In thousands of New Zealand dollars	Consolidated			Parent	
	2019	2018	2019	2018	
Trade receivables due from related parties	277	194	521	-	
Other trade receivables	11,262	6,168	3,360	3,765	
Intercompany prepayments	-	14	3,903	3,137	
Prepayments	82	860	-	-	
Balance at 31 May	11,621	7,236	7,784	6,902	

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) M.Bovis response receivable

Other trade receivables includes an amount of \$4,162,415 from the Ministry for Primary Industries. This relates to the recovery of M.bovis costs incurred in 2017/18 and 2018/19.

12. Cash and cash equivalent

In thousands of New Zealand dollars	Cor	Consolidated		Parent	
	2019	2018	2019	2018	
Bank balances	3,744	3,466	626	89	
Call deposits	12,000	15,500	-	-	
Cash and cash equivalents	15,744	18,966	626	89	

Cash and cash equivalents are measured at amortised cost using the effective interest method. The effective interest rate on call deposits in 2019 was 2.93 percent (2018: 3.28 percent). The deposits had an average maturity of 73 days (2018: 113 days).

13. Operating leases

Leases as lessee

Non-cancellable operating lease rentals are payable as follows:

In thousands of New Zealand dollars

Consolidated

	2019	2018
Less than one year	273	269
Between one and five years	457	523
More than five years	54	163
	784	955

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

	2019	2018
Non-current	334	348
Current	2,465	2,469
Balance at 31 May	2,799	2,817

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 1.71% which was the 10-year government bond rate bill rate as at 31 May 2019. 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	Со	Consolidated		Parent	
	2019	2018	2019	2018	
Trade payables due to related parties	1,320	1,059	30,202	26,986	
Other trade payables	10,164	11,474	796	4,283	
Non-trade payables and accrued expenses	2,401	2,338	985	490	
Balance at 31 May	13,885	14,871	31,983	31,759	

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	INT	VOTING INTEREST HELD %		INTEREST		PRINCIPAL ACTIVITY
			2019	2018				
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 2018				
Ownership	27.16%	49.66%	14.30%	
Current assets	996	1,081	-	2,077
Non-current assets	-	-	-	-
Total assets	996	1,081	-	2,077
Current liabilities	226	363	-	589
Non-current liabilities	-	-	-	-
Total liabilities	226	363	-	589
Revenues	648	745	-	1,393
Expenses	(1,295)	(2,073)	-	(3,368)
Profit/(loss)	(647)	(1,328)	-	(1,975)
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)

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	LINCOLN HUB LTD	TOTAL
For the year ended 31 May 2018			
Ownership	37.50%	20.00%	
Current assets	1,391	767	2,158
Non-current assets	20,609	180	20,789
Total assets	22,000	947	22,947
Current liabilities	58	881	939
Non-current liabilities	8,778	-	8,778
Total liabilities	8,836	881	9,717
Revenues	619	2,274	2,893
Expenses	(637)	(2,251)	(2,888)
Profit/(loss)	(18)	23	5
Share of profit/(loss)	(7)	4	(3)
Value of investment	5,029	13	5,042
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

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 2019	IMPAIRMENT 2019	GROSS RECEIVABLE 2018	IMPAIRMENT 2018
Trade receivables				
Not past due	6,999	-	5,707	-
Past due 0-30 days	2,039	-	207	-
Past due 31-120 days	2,491	-	433	-
Past due 121-360 days	10	-	15	-
Past due more than 1 year	-	-	-	-
Balance at 31 May	11,539	-	6,362	-

In thousands of New Zealand dollars

Parent

	GROSS RECEIVABLE 2019	IMPAIRMENT 2019	GROSS RECEIVABLE 2018	IMPAIRMENT 2018
Trade receivables				
Not past due	3,666	-	3,691	-
Past due 0-30 days	215	-	74	-
Past due 31-120 days	-	_	=	
Past due 121-360 days	-	-	-	
Past due more than 1 year	-	_	-	
Balance at 31 May	3,881	-	3,765	-

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

		2019			2018	
	BALANCE	MATURITY DATE	EFFECTIVE INTEREST RATE	BALANCE	MATURITY DATE	EFFECTIVE INTEREST RATE
Short-Term Deposit	5,000	24/06/2019	3.00%	1,000	20/06/2018	3.60%
Short-Term Deposit	5,000	4/06/2019	2.87%	600	20/06/2018	3.30%
Short-Term Deposit	2,000	4/06/2019	2.87%	3,000	20/06/2018	3.17%
Short-Term Deposit				1,000	20/06/2018	3.72%
Short-Term Deposit				1,000	20/06/2018	3.67%
Short-Term Deposit				1,000	11/06/2018	3.45%
Short-Term Deposit				1,200	9/07/2018	3.15%
Short-Term Deposit				3,200	20/07/2018	3.25%
Short-Term Deposit				800	23/07/2018	3.13%
Short-Term Deposit				1,200	6/08/2018	2.53%
Short-Term Deposit				1,500	20/08/2018	3.12%
	12,000			15,500		
Average effective interest rate			2.91%			3.28%

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 \$115,149 (2018; \$115,508). 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 2019, DairyNZ Group has capital commitments for the development of the Dairy Industry Good Animal Database (DIGAD; \$925,000) and the Scott farm dairy shed upgrades (\$315,000) (2018; \$2,097,750).

21. Committed funds

The Group is contracted to provide funds to a number of projects on a multi-year 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

	2019	2018
Less than one year	19,692	23,780
Between one and five years	75,489	66,999
More than five years	14,500	14,500
	109,681	105,279

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

	2019	2018
Less than one year	3,723	1,543
Between one and five years	35	1,872
More than five years	-	-
	3,758	3,415

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

In thousands of New Zealand dollars	Consolidated		Pa	rent
	2019	2018	2019	2018
Profit/(loss) for the period	904	(3,104)	375	(953)
Adjustments for:				
Depreciation	1,977	1,896	-	-
Amortisation of intangible assets	1,054	982	-	-
Change in fair value of biological assets	(390)	(403)	-	
Loss on disposal on biological assets	157	-	-	
Gain on sale of fixed assets	(31)	(194)	-	
Loss on sale of fixed assets	=	69	-	-
Impairment of investment in joint ventures and associates	224	-	2,932	1,975
Share of associated earnings	(3)	(5)	-	
	2,988	2,345	2,932	1,975
Change in inventories	(11)	12	-	-
Change in trade receivables	(4,385)	3,173	(881)	1,758
Change in trade and other payables	(594)	(2,186)	413	(1,294)
Change in provisions and employee benefits	(18)	297	-	135
	(5,008)	1,296	(468)	599
Net cash from operating activities	(1,116)	537	2,839	1,621

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	Consc	olidated
	2019	2018
Employee benefits - short term	2,574	3,015
	2,574	3,015

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:

B. Allomes Shareholder of Fonterra Co-operative Limited, Livestock Improvement Corporation Limited,

Ravensdown Fertiliser Co-operative Limited, Farmlands Trading Society and Ballance Agri-Nutrients

Limited and Trustee of the New Zealand Dairy Industry Awards Trust.

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

Massey University Council and Institute of Directors Council.

J. Coughlan None.

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

Ravensdown Fertiliser Co-operative Limited.

E. Cook Shareholder of Farmlands and Ravensdown Fertiliser Co-operative Limited.

J. van der Poel Shareholder of Fonterra Co-operative Limited, Livestock Improvement Corporation Limited,

Ravensdown Fertiliser Co-operative 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.

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

	TR	TRANSACTION VALUE		BALANCE OUTSTANDING		
	2019	2018	2019	2018		
DairyNZ Limited	44,165	39,343	26,733	25,087		
Pastoral Genomics Limited	1,302	1,302	651	651		
Insight Genomics Limited	14	21	425	415		
New Zealand Animal Evaluation Limited	2,832	2,332	-	-		
Pastoral Greenhouse Gas Research Consortia	1,000	1,000	-	-		
Tbfree NZ Ltd (Ospri)	14,500	14,500	1,390	6		
	63,809	58,498	29,199	26,159		

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.

In thousands of New Zealand dollars

Receivables

	TRANSACTION VALUE		BALANCE OUTSTANDING	
_	2019	2018	2019	2018
Dairy Training Ltd (subsidiary)	89	380	25	39
Massey University	4	-	5	-
NIWA	50	38	-	-
Pastoral Greenhouse Gas Research Consortia (joint venture)	266	-	231	-
Pasture Conference Ltd	210	-	-	-
Primary ITO	8	29	-	111
Southland Demonstration Farm Limited	-	125	-	22
Southern Dairy Hub (associate)	10	240	-	-
Tatua Co-op Dairy Co. Ltd	521	529	16	22
	1,118	1,341	277	194

In thousands of New Zealand dollars

Payables

	TRANSACTION VALUE		BALANCE OUTSTANDING	
	2019	2018	2019	2018
Agriculture Services Ltd*	-	33	-	-
Dairy Training Ltd (subsidiary)	20	37	-	9
Institute of Directors	-	2	-	-
Blinc Innovation Ltd (associate)	202	250	-	-
Massey University	772	576	236	223
NIWA	421	295	141	103
NZ Dairy Awards Trust	155	155	45	45
NZ Young Farmers*	-	566	-	47
Pasture Conference Ltd	7	-	-	-
Primary ITO	1,100	2,604	884	606
Southland Demonstration and Research Farm Limited	343	23	14	26
WINTEC*	-	2	-	-
	3,020	4,543	1,320	1,059

^{*}Agriculture Services Ltd, NZ Young Farmers and WINTEC are no longer related parties.

25. Subsequent events

As a partner to the Operational Agreement, DairyNZ will undertake the commitment for the recovery of costs of the dairy sector share of the biosecurity response.

The Biosecurity Response Levy is due to begin on 1 September 2019. It will be collected and paid in the same manner as milk solid levies under the Commodity Levies (Milksolids) Order 2014, i.e. dairy processors will collect the levy from farmers and pay the levy to DairyNZ will then pay the levy to the Ministry for Primary Industries.

Income & Expenditure Plan 2019/20

As per the rules of DairyNZ Incorporated, DairyNZ must provide an income and expenditure plan for the next financial year.

In thousands of New Zealand dollars

	2020	2019	
	BUDGET	ACTUAL	MOVEMENT
Revenue			
Milksolids levy	67,057	67,825	-768
Primary Growth Partnership	0	-	0
MBIE Partnership	4,302	3,461	841
Other income	66	4	62
	71,425	71,291	134
Levy funds invested in			
Build great workplaces for NZ's talented workforce	6,514	5,417	-1,097
Competitive and resilient dairy farming business	58,686	48,804	-9,882
Grow vibrant and prosperous communities	2,424	2,021	-403
Leading in on-farm animal care	2,943	5,094	2,151
Protect and nurture the environment	6,928	2,734	-4,194
Total investment expenses	77,495	64,070	-13,425
DairyNZ subsidiary companies*			
Revenue			
Levy income from DairyNZ Incorporated	54,068	43,513	10,555
Other income from DairyNZ Incorporated	4,302	3,461	841
Other operating income	10,742	15,010	-4,268
	69,112	61,984	7,128

In thousands of New Zealand dollars

	2020	2019	
	BUDGET	ACTUAL	MOVEMENT
Operational expenses			
Amortisation	1,072	1,054	-18
Auditors remuneration	95	107	12
Building costs	725	793	68
Commodity levy collection fee	335	339	4
MBIE Management fee	202	226	24
Computing costs	2,507	1,955	-552
Depreciation	2,108	1,977	-131
Directors fees	628	595	-33
Directors governance expenses	241	186	-55
External services (legal)	287	140	-147
Office costs	1,000	1,197	197
Other operating costs	10,265	11,199	934
Operating Leases	559	600	41
Personnel expenses	28,470	26,791	-1,679
Provider services and sub-contracts	17,836	18,861	1,025
Repairs and maintenance	328	456	128
Travel costs	1,902	1,826	-76
Total operational expenses	68,560	68,301	-259
Profit/(Loss) before income tax	-5,518	904	-6,422

DairyNZ: investing in you



Publications

DairyNZ experts write for a number of publications throughout the year so that farmers and the wider dairy sector have access to our knowledge. Communication is now made through a range of online, print, event and media channels. For a complete list of science publication articles, visit dairynz.co.nz/annualreport.

Media

297 media



have been written by DairyNZ specialists in 2018/2019



Inside Dairy

articles have been published, reaching **14,200** readers per month

Around **7%** of all dairy news coverage originates from DairyNZ, which makes DairyNZ one of the largest suppliers of dairy stories to media.

Over **775** proactive and reactive contacts with media in 2018/19.

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

Science publications

Chapters for scientific books: 1



Papers for:

scientific conferences: 34 dairy industry conferences: 5

Papers published in:

science journals: 31

DairyNZ Technical Series: 14

85 Total

Social media followers

19,726

FACEBOOK increase of 2,402

LINKEDIN increase of 1,562

7,335

10,178

TWITTER increase of 1,011

2,251

INSTAGRAM increase of 1,229



increase in followers across DairyNZ's social media channels

An average of 520 people engage with DairyNZ on social media per day.

An average DairyNZ post on Facebook reaches 4900 people.

DairyNZ website & apps

491.083



During 2018/19, DairyNZ website users increased by 3.53%.

dairynz.co.nz





During 2018/19 there were 11,901 downloads of DairyNZ apps.

3931



users —
DairyNZ Newslink
dairynznewslink.co.nz



60.288 dairynz.co.nz highest monthly traffic

Our highest monthly traffic for the year was 60,288 users in May 2019.

235,724



visitors to thevisionisclear.co.nz

DairyNZ's purpose

DELIVERING A BETTER FUTURE FOR FARMERS



The future of New Zealand dairying

DAIRYTOMORROW.CO.NZ





VISIT DAIRYNZ.CO.NZ FOR MORE INFORMATION

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