

Quality over quantity

Genetic passion drives results



2 Decoding rumination data Clues from rumination rates



Plantain in practice Plantain programme progress





Over the fence...

A fresh year can feel like the time to turn over a new leaf for many, whether that be new goals, or considering how you can do things differently next season.

For us at DairyNZ, 2025 isn't a new leaf, but a continued chapter of embedding our strategy in all that we do – ensuring that we are focused on what brings the most value for our farmers.

This includes continuing to roll out our new way of delivering events, bringing more of our scientists and experts in front of our farmers. We have had a range of positive feedback and have already delivered 60 new events this season with around 30 people at each – which is quite an uptick on previous smaller events.

Our events in February and March will be focused on the value of breeding and using farmers like Michelle Burgess (page 6) to share about their focus on genetics and efficiency, alongside the latest science and research from our NZ Animal Evaluation team.

In February, all dairy farmers that pay the milksolids levy which funds industry-good activities, will receive information on a levy rate consultation.

Further details will be with you shortly, including when and where events will be held, and how you can provide feedback.

I genuinely believe the future for dairy is bright, and that DairyNZ's science and research, and farm system expertise, will continue to progress a positive future for our farmers, their families, and our country.

As always, your feedback is welcome at Campbell.Parker@ceo.dairynz.co.nz

Ngā mihi,

Campbell Parker DairyNZ chief executive

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On the cover: Te Poi farmer Michelle Burgess, read her and Bill's story on page 6.

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Inside Dairy is the official publication of DairyNZ Ltd. It is circulated to New Zealand rural dairy letterboxes and online at dairynz.co.nz

Contact DairyNZ | info@dairynz.co.nz

ISSN 1179-4909

This publication was accurate at the time of printing on 20 January 2025.







Access DairyNZ regional support

DairyNZ's regional teams have local area managers throughout the country and are here to support you in finding farm systems solutions for a thriving and sustainable farm

business.

Scan the QR code to find contact details for your regional team or visit **dairynz.co.nz/regional-teams**





Find a DairyNZ event near you

Check out the latest opportunities to hear from our experts and learn what actions local farmers are taking on their farm to drive profitability and sustainability.

Throughout February and March, we'll be running an event series in collaboration with Fonterra focused on the importance of reproduction results and genetic gain talking about how breeding decisions can create future resilience and farm business success.

Our events are designed to deliver greater value for you, focusing on topics that help address specific needs in your region, and the longer-term challenges of the sector.

Explore what's on in your region by visiting the DairyNZ website: **dairynz.co.nz/events**

People Expos coming soon

Are you a dairy farmer managing people? Attend a free People Expo to learn from experts, connect with others, and gain practical tips for your farm team. Hear from thought leaders and discover ways to create a productive workplace. People Expos are coming to Oamaru on 11 March, Ashburton on 13 March, Hawera on 1 April and Hamilton on 2 April. Brought to you by DairyNZ and Dairy Women's Network.

Find out more and register at dairynz.co.nz/peopleexpo

Visit DairyNZ at the NZ Dairy Expo

Discover practical ways to manage your farm's environmental footprint while protecting your profit. Our regional policy advisers and farm systems and environmental specialists will be on site to share the latest news and practical advice.

And if you're thinking about upskilling, come along and find out about the new Dairy Training Feed for Profit short course, and other short courses around the country this autumn.

Join us at the NZ Dairy Expo, 11-12 February, Bedford Park, Matamata. Learn more at **nzdairyexpo.co.nz**



Farmers' Forum is back!

After a "gap year", keep an eye out for Farmers' Forum in 2025.

With the theme of Innovate, Integrate, Collaborate, the events will look at dairy's future outlook, bringing a range of speakers together to showcase continued innovation through science and research, the integration of solutions for more efficient farm systems and who we're working with, on what and why.

A Waikato event will be held in late May, with a further two scheduled in Canterbury and Southland in June.

Find out more and register at **dairynz.co.nz/farmers-forum**



Join us to unite farmers and inspire change

The Dairy Environment Leaders (DEL) Programme is looking for new members. DEL is a farmer-led community of motivated farmers committed to achieving better outcomes for the environment, their businesses and their rural communities by working together and inspiring change.

The DEL Programme operates nationally and in regional communities to engage with farmers who can promote and showcase sustainable practices in the dairy industry.

So if you are looking to connect and learn, regardless of where you are on your environmental journey, we want to hear from you.

Please get in contact with your local DairyNZ area manager to join us.

Levy rate consultation

This coming season DairyNZ is proposing to increase the rate of the milksolids levy that funds our industry-good activities, which would be effective from 1 June 2025.

In early February, all dairy farmers that pay the levy will receive an invitation to provide feedback on the proposal via a secure online form.

The consultation will be open for one month, during which time levy payers can also attend an in-person event or online presentation.

Details of the levy consultation, including when and where events will be held, will be available in February at **dairynz.co.nz**

Advocating for the policies farmers need

At DairyNZ, we actively collaborate with decisionmakers to ensure farmers' perspectives are heard and valued when shaping policies. We aim to achieve practical, sustainable and cost-effective frameworks that support farmers and endure over time.



See the latest updates at dairynz.co.nz/policy-and-advocacy



Gene technology reform

In December the Government introduced draft legislation to modernise New Zealand's gene technology laws. This aims to enable greater use of these technologies, including genetically modified organisms (GMOs), while protecting people's health and safety and the environment. Submissions on the Gene Technology Bill close on 17 February 2025.

If the Bill is passed, a Gene Technology Regulator will be established, including advisory committees and new powers for the Science Minister. There will be a tiered application process based on risk, managed by the Regulator, which will include exempt, non-notifiable, notifiable and licensed activities, as well as joint assessments with overseas regulators.

Processes to address Māori kaitiaki relationships with indigenous species will also be established, and local councils will not be able to impose restrictions on technology use. Offences and penalties for breaches will also be introduced.

What does this mean for farmers?

Greater access to gene technologies offers opportunities and risks for the dairy sector, so farmers need choice. However, it is essential to acknowledge that gene technologies for pastoral farming are still developing (and are possibly as far as 10 years away from on-farm use).

The proposed system aims to make it easier for scientists to develop and test gene technologies under controlled conditions in New Zealand and then for proven technologies to be available on-farm. However, the Bill is high level, with many details to be determined through future regulations.

What is DairyNZ doing?

We agree it is time to update New Zealand's gene technology laws. Scientific advances now enable safer, more precise applications. However, any new system must carefully consider economic and market risks while ensuring farmers have options.

Our policy team is busy analysing the draft legislation and preparing a submission. We are keen to hear from farmers during this process and will host some webinars in late January/early February. Please feel free to share your feedback via our online form.

For more information, see our events page or visit **dairynz.** co.nz/gene-tech

Climate change targets

The Government is considering adjustments to New Zealand's 2050 climate targets, and is determining its next international target under the Paris Agreement for 2031-2035. These decisions are extremely important because agriculture contributes to over half of New Zealand's emissions.

The Paris Agreement requires New Zealand's next international target to be more ambitious than the current one. This is challenging because our current Paris target already requires more emission reductions than we can achieve domestically, meaning the Government will need to purchase offshore reductions.

DairyNZ believes that decisions on the Paris target should be postponed until the Government determines whether New Zealand's domestic 2050 targets will be adjusted. This step is essential to give farmers the certainty they need.

Two separate reviews of the biogenic methane targets were completed in December.

An independent science review of the government-commissioned biogenic methane targets confirmed earlier work on methane's warming impact and provided options for the 2050 target, ranging from 14% to 24%, depending on conditions.

In contrast, the Climate Change Commission's review recommended

Review of the Biosecurity Act 1993

The Ministry for Primary Industries (MPI) completed a review of the Biosecurity Act 1993 last year and consulted on a number of proposed changes. We reviewed the consultation documents and submitted on behalf of New Zealand dairy farmers.

Our submission focused on advocating for you through three key areas: our vision for an integrated and sustainably funded biosecurity system, proposed improvements to the Government Industry Agreement (GIA) and pest management, and adjustments to settings that support strong biosecurity practices, including compensation policies and eligibility criteria.

The Biosecurity Act provides the legal framework for New Zealand's biosecurity system and helps keep unwanted pests and diseases out of the country. The M. bovis response and independent review findings (among other responses and reviews) highlighted areas of the biosecurity system that need strengthening.

The Act has provided a solid foundation over the past 30 years, but growing

tightening the methane target to 35-47%, below 2017 levels, by 2050 (up from the current 24-47%) and going beyond net zero for long-lived gases. DairyNZ considers the Commission's recommendations unrealistic and impractical for farmers, making an already challenging goal even harder.

DairyNZ maintains that climate targets should reflect the latest science on methane's warming impact, take a split gas approach, and consider the tools and technologies available to farmers alongside economic, social and cultural impacts.

Even achieving the lower end of the existing 24-47% methane target will be challenging without new technologies. A pragmatic approach to setting targets is crucial until such tools become widely accessible to farmers.

DairyNZ is committed to supporting dairy farming's transition to lowemissions farming. Farmers' ongoing efforts have helped stabilise agricultural emissions over the past decade.

The next step is for DairyNZ to engage with the Government's new Pastoral Sector Group on biogenic methane and its practical implications for farm systems.

Find up-to-date information at dairynz.co.nz/climate-change-legislation

pressures on the biosecurity system mean updates are needed to keep it resilient and future-ready. This is an important opportunity to strengthen the system and reduce fragmentation, ensuring it remains robust, efficient, cost-effective and adaptable to meet future challenges.

DairyNZ would like to see a strengthened biosecurity system as a result of changes to the Biosecurity Act, with appropriate governance and sustainable funding mechanisms in place.

This would enable consistent oversight for sustained biosecurity preparedness and risk management, so that sufficient preparation for biosecurity threats can be maintained, even in the event of biosecurity responses.

Submissions closed in December last year and the government has committed to reviewing feedback and making decisions by mid-year, and aims to introduce a bill to the House before the year's end.

For more information check out **dairynz.co.nz/biosecurity-act**

Our work in progress for dairy farmers

Our current policy and advocacy work is focused on five key areas identified by dairy farmers as top issues that require urgent attention.



Improving freshwater policy

Status: regulations pending

Freshwater Farm Plan regulation amendments are pending, with ongoing engagement with regional councils. The National Policy Statement for Freshwater will be replaced, and we're actively collaborating with ministers, officials, dairy companies and industry partners like Beef+Lamb New Zealand and Federated Farmers to socialise our views for an alternative.

Find out more at **dairynz.co.nz/freshwater-policy**



Climate change targets and emissions pricing

Status: under review

An independent review of methane science and targets is with the Government for consideration, alongside an amendment bill to exclude agriculture from the Emissions Trading Scheme. The proposed Emissions Reduction Plan for 2026–2030 prioritises agricultural technology investment.

DairyNZ has submitted feedback on key climate policies (**dairynz.co.nz/ climate-change**) and continues to provide expertise in policy development while collaborating with regional councils to support New Zealand's climate goals.



Resource management reform

Status: under review

Amendment bill introduced that addresses intensive winter grazing, stock exclusion, Significant Natural Areas, and Te Mana o te Wai.

We are working proactively in this space, providing feedback to officials and submissions, developing our views on a replacement for national freshwater legislation, and achieving primary sector alignment on critical issues.

Find out more at dairynz.co.nz/freshwater-policy



Regulatory sector review of the approval process for new agricultural and horticultural products is underway.

DairyNZ, alongside other sector partners, is participating in this review to ensure it addresses the needs of dairy farmers.

DairyNZ's submission can be found on our website **dairynz.co.nz/policy-and-advocacy**



Gene technology reform Status: under review

The Government is modernising New Zealand's gene technology laws to enable innovation while safeguarding human health and the environment. We are engaging with farmers, the government, dairy companies, industry organisations, other research organisations, and other key stakeholders on the draft legislation.

Find out more at dairynz.co.nz/gene-tech

One BW work pushes ahead

Significant progress is on the horizon for New Zealand dairy farmers, with efforts underway to tackle key challenges identified in last year's Industry Working Group report on the state of animal evaluation.

Following the Industry Working Group (IWG) report, workstreams have been established, with stakeholders such as DairyNZ, LIC and CRV steadily progressing towards addressing the challenges identified in the IWG report.

A key recommendation in the report is to reinforce the importance and relevance of the National Breeding Objective (NBO). The NBO is the basis of Breeding Worth (BW), which is used to set breeding goals and select bulls and cows that align with New Zealand's evolving dairy systems and conditions.

"Fonterra's recent announcement that lactose will be added to future payment calculations is a prime example of the need for the NBO to continually evolve," explains DairyNZ's chief science advisor, Bruce Thorrold.

"To be future ready, it needs to be adjusted to reflect the traits and data relevant now and in the future to New Zealand dairy farmers."

The IWG also acknowledged that farmers were encountering multiple versions of BW. A key recommendation is to simplify this for farmers while respecting the prior investments made by stakeholders like LIC and CRV. To support this, a technical working group, with input from NZ Animal Evaluation Limited (NZAEL), is exploring what a system to integrate genomic data and provide a national BW Index could entail.

"A single national BW index will allow farmers to compare the genetic merit of bulls from different breeding companies with a common language, and it will be easier to judge the rate of genetic improvement in their own herd." Enabling other parties to participate is also a key consideration and will be part of the development process.

Another recommendation from the IWG was to improve the quality of phenotypic data from commercial herds to support genomic reference populations and daughter proofs.

This starts with understanding the current data landscape and identifying key opportunities.

"DairyNZ's previous genotyping programme indicated that most

animals lack a complete dataset across the 37 traits required for calculating BW," Bruce says.

Sector update

"This could be an indication of what may be present on a larger scale and highlight the areas where progress can be made."

The report highlights the IWG's confidence that New Zealand has strong opportunities to build a system for faster genetic gain – and it's encouraging to see progress already underway.



Farming under the Kaimai ranges, Bill and Michelle Burgess have a big love for Friesian cows that their children Sophie and Alex share.

Quality over quantity

With a breeding strategy that focuses on genetics and efficiency, Bill and Michelle Burgess of Te Poi are building a herd that's raising the bar for performance.

Bill and Michelle Burgess had an eye-opening realisation when they produced the same with fewer cows.

They had reduced the herd by almost 14% in the 2014/15 season to save money on feed when the payout was low – and that was when "our cows really surprised us", Michelle says. "We'd expected we were going to lose production."

But they didn't, and it helped them fully understand the true power of genetics and efficiency – that having good quality cows, fed well, leads to good production and more isn't necessarily better.

These days their cows produce 700kgMS, with an average liveweight of 550kg. By focusing on cost control, pasture management and strong herd performance, the Burgesses consistently rank in DairyBase's top 20% for operating profit per hectare among farm owner-operators. "We haven't been chasing high production. We just think if we get all the animal health and nutrition right, the rest should fall into place," Michelle says.

She has been interested in genetics since she was young. Her parents, John and Maria Numan, were dairy farmers too and they had one of the first crossbreed bulls marketed by LIC – Numans Lord Nelson.

Michelle is on the external affairs committee for the New Zealand Holstein Friesian Association (NZHFA) and has been a member of the farmer advisory panel for NZ Animal Evaluation (NZAEL) for several years. She is also the founder of the Facebook group The NZ Dairy Genetics Network.

Their herd's Breeding Worth (BW) sits in the top 10% for the country. Everything is DNA tested and parent verified and they register some cow families with the NZHFA.

They started with a crossbreed herd but they have been working towards a full F16 animal to match their goal of lower stocking rates with high per-cow efficiency.

They also find a Friesian herd gives them more options with their calves, especially as they are using more sexed semen on their top cows and beef semen on any cows they don't want replacements from.

Bill and Michelle began building their herd in 2008 by buying 250 empty cows and sending them to grazing while contract milking for Peter and Tracey Thompson in Te Awamutu.

Farm facts:

Location: Te Poi Structure: Owner-operator Effective area: 92ha Herd size: 310 cows System: 5 Production: 2,386kgMS/ha Herd BW: 322/55 Herd PW: 327/71

The empty cows got pregnant at grazing and the following season the couple began leasing a farm in Ruakura. They purchased more cows to reach 480 total.

"I'm pretty fussy so we bought good cows with good breeding, mostly from people retiring from farming," Michelle says.

After their first season, they increased cow numbers to 600 before increasing to over 700 two seasons later.

Since then, they have purchased their farm in Te Poi, near the Kaimai ranges, kept their top 320 cows and transitioned to autumn calving.

They changed to balance their lifestyle and to reduce stress dealing with pugging in winter and heat-stressed cows in summer.

Bill and Michelle aim for capacious, easy-care cows that don't have many health troubles and have strong udders and good fertility. After challenges with udder longevity due



to the high production, they looked to a wider gene pool.

"Even though we'd spent years nominating bulls with good udder traits, we were still finding a lot of cows were blowing their centre udder ligaments after two to four calvings, and their udders were no good after that," Michelle says.

"So it was a big waste factor in our system. In 2020 we decided to try using some overseas Holstein genetics in our breeding programme."

They took a conservative approach initially, as Michelle was aware of the challenges of having overseas bulls recognised in the New Zealand genetic evaluation system. As they don't typically have many daughters milking in NZ, there hasn't been robust data to verify their breeding values (BVs) and accurately determine their BW.

She spent time learning to read international genetic data and translating it to NZ BVs and BW. However, NZAEL's continuous improvements have led to better genetic information conversions for overseas bulls. Michelle has been impressed with the options available.

"The genetics companies now seem to be selecting bulls that are well suited to New Zealand farms. They're moderately sized, not too big, efficient grazers and cope with our seasonal calving systems."

Michelle enjoys exploring the range of bulls available to pick her team of four of five for the season.

"I'm very passionate. I can spend hours reading bull catalogues and playing with spreadsheets," she laughs.

"Bill and I work together for any strategic decisions, but he leaves me to deal with the details when it comes to picking bulls."

They lease a neighbouring support block to graze their youngstock, keeping up to 110 heifers each year. And they have a good market for surplus heifers and beef calves.

On the farm, pasture is their key focus. They keep a close eye on round lengths and residuals to ensure optimal use. The cows are on 24-hour grazing, going into a fresh paddock at night. After the morning milking, Michelle or their 2IC, Phillip Boshoff, checks the paddock to assess feed availability and coordinates with Bill to adjust the supplements as needed. They use the feedpad daily.

"Pasture comes first, and then, depending on pasture availability,



From a young age, Michelle Burgess has been passionate about dairy genetics, aiming for a moderately sized Friesian herd that's efficient, healthy and long-lasting.



we adjust what's fed on the feedpad accordingly."

"Early in our farming career, we would measure and analyse as much as possible, adjusting feed, changing stocking rates, drying off at different times, and as we've built our knowledge and skill."

Towards the end of lactation and over the dry period when they don't need as much grass, 20 hectares of the farm is planted in maize. They also grow 4.4ha of lucerne.

Bill spent years refining the herd's diet, balancing cost and availability with the herd's nutrient requirements. Now he has a simple process, using a base of maize with palm kernel expeller (PKE), molasses and, depending on the time of year, some soy hull, and lucerne in winter.

They also feed a couple of kilograms of dried distiller's grains (DDG) through in-shed feeding, which helps cow flow.

"We use an automatic gate release so the herd come in before milking to the feedpad," Bill says.

"

I'm very passionate. I can spend hours reading bull catalogues and playing with spreadsheets.

"They'll have their feed then get milked and back to their paddock. It doesn't take long to clean up afterwards too. We like to keep it simple," Bill says.

"We never have any problems with body condition in our cows," Michelle laughs.

The love of cows seems to be flowing into their children Sophie and Alex, who are excited about Calf Club.

Bill and Michelle are proud of their herd and what they are achieving.

"I think it's exciting times for the Friesian breed in New Zealand and look forward to seeing the evolution over the next wee while. Genetics is a continual process, always analysing the herd's performance to see what's working best."



Trust high on the agenda as global dairy meets

The 2024 World Dairy Summit delivered a clear message to dairy farmers worldwide about society's confidence in their work and farm systems.

The 2024 World Dairy Summit, held in Paris in October, clearly communicated the importance of trust.

"Society wants to trust farmers, even without fully understanding farming. They expect you to manage your business responsibly. If that trust is broken, they will step in," was the message from Dr Marina von Keyserlingk, a professor at the University of British Columbia, during a session on dairy calf welfare.

The need to accelerate sustainable practices to ensure dairying is resilient into the future was echoed throughout the summit.

Horowhenua dairy farmer and newly elected DairyNZ board member Richard McIntyre attended the summit as Federated Farmers' dairy industry chair.

He observes that many farmers overseas, particularly in North America and Europe, have been quicker to acknowledge the reality of climate change and are already discussing how to adapt their systems accordingly.

The bluetongue outbreak in Europe is a clear example of how climate change is directly affecting farmers, as warmer temperatures allow midges – the disease's main carriers – to survive longer.

The summit included extensive discussions on the significant disease challenges many countries face, which aligns with the ongoing review of the Biosecurity Act in New Zealand.

Richard highlights that animal health and wellbeing is a global focus, with specific systems facing challenges.

"

Prioritising animal health and wellbeing is not just a responsibility; it's a commitment to ensuring the long-term sustainability of our farms and the trust of our consumers.

"For example, during our visit to several French dairy farms, they provided detailed insights into calf management regulations," Richard says.

"Traditionally, they kept calves in individual pens due to disease challenges in their housed systems, but they're now expected to house them in groups to enhance their wellbeing. The compromise is to house them individually for the first couple of weeks, then integrate them together."





Global dairy leaders, including Richard McIntyre and Jenny Jago, met in Paris for the 2024 World Dairy Summit to discuss the future of global dairy production and the importance of sustainable practices.

The focus on animal health and wellbeing also meets consumers' expectations for transparency. The International Dairy Federation's (IDF) work aims at global consistency in this space.

Jenny Jago, a principal scientist at DairyNZ, notes the shift in the conversations surrounding the topic at the summit.

"Prioritising animal health and wellbeing is not just a responsibility; it's a commitment to ensuring the long-term sustainability of our farms and the trust of our consumers," says Jenny.

"And that theme was consistent at the summit, where the importance of animal health and wellbeing was recognised as key to building consumer confidence and securing the future of the dairy sector."

She is pleased there is also an emphasis on the nutritional value of milk products, and that this important profile is being raised alongside sustainability challenges.

A presentation from Fonterra's sustainable food systems programme leader, Andrew Fletcher, showcased NZ-led work to develop a common carbon footprint approach for dairy and highlighted the role we can play in shaping the response to global environmental targets.

New Zealand farmers can be assured that a strong representation of the NZ dairy sector attends the event regularly, staying informed about global developments and bringing that knowledge back to NZ.

"It's important to understand what's coming down the line and what solutions other countries are using," Jenny says.

"And that's why New Zealand is actively involved with the International Dairy Federation – to examine all the issues, identify those that could have the greatest impact on New Zealand, and ensure we're part of the discussions."

More than 1,600 participants from 62 countries attended the summit, representing every part of the dairy supply chain. Richard, Jenny and Bridget Maclean, the general manager of research and science at DairyNZ, were among 18 NZ delegates.

The IDF hosts the event in different locations each year. This year, it will be in Chile, and in November 2026 it will be held in Auckland. Look out for more information closer to the event.

New Zealand is a member of the IDF, a leading source of scientific and technical expertise for the dairy sector since 1903. With more than 1,200 experts in 39 countries, the members represent 74%

of global milk production. The IDF plays a key role in developing science-based standards, policies and regulations to ensure the safety and sustainability of dairy products.

Find out more at fil-idf.org



Your on-farm earlywarning system

Comparing your operation with similar farms through DairyBase will help to identify necessary system tweaks before they show up on the bottom line. That was the experience of Horsham Downs sharemilkers Danielle and Bevan Cornelius.

Danielle and Bevan Cornelius were alarmed to find their animal health and breeding costs were significantly higher than comparable farms last season. Realising they were spending 15 cents more per kilogram of milksolids than the top 50% of herdowning sharemilkers, they worked with their support network to identify how they could reduce expenses.

It's a nice, black-andwhite way to see whether a role is profitable.

"We had 100 cows go down last season – not just during calving too, they were happening in the autumn and at drying-off, which is costly in a lot of areas and affects efficiency," Danielle says.

"But by working with our farm owner, farm adviser and nutritionists we uncovered a phosphorus deficiency that was impacting the herd. We have started a lime programme for the farm and introduced a mineral mix we give to the cows. "It's made a huge difference, not only to the herd's health but also to our time as farmers. Our mating started a lot smoother this season too."

They are looking forward to the end of the financial year to see how they have progressed. Monthly monitoring indicates they are on track.

This is their third season sharemilking 455 cows in Horsham Downs, north of Hamilton. They are a System 3 with 80% of total feed being homegrown and they feed maize and palm kernel year round, not just in the shoulders.

They have expanded their team this season, which has created more flexibility for everyone. Danielle and Bevan are both full time and they have a full-time farm assistant and now a part-time milker to alleviate some pressure.

Neither Bevan nor Danielle comes from a farming background. Bevan entered the dairy sector as a teenager, motivated by the search for a suitable home for the two of them. Danielle holds a Bachelor of Communication and was working as a marketing coordinator for a construction company when she and Bevan began exploring contract milking opportunities nearly a decade ago.

The first farm was in Gordonton. They then tried Bay of Plenty for a lifestyle change but Waikato drew them back to contract-milk 700 cows in Tokoroa. It was there that a previous farm adviser reached out to them about their current sharemilking role.



Monitoring expenses with their DairyBase data allowed Danielle and Bevan Cornelius to uncover areas where they could save money and improve their herd's health.



"It was a bit of a whirlwind. Sharemilking wasn't really our plan then but we got the call out of the blue, and we know that you need to be ready to explore every opportunity."

They began going to their local discussion group to get to know the area and community and it was there they were advised to try DairyBase. They also entered the New Zealand Dairy Industry Awards, which uses information from DairyBase for judging.

They have continued to use DairyBase to monitor their business performance.

"As herd-owning sharemilkers we are limited where we can cut costs without having a negative impact on the business and there are only so many milksolids you can get from a cow," says Danielle.

"A profitable business keeps costs down where possible, so we must keep our eyes on everything and focus on the opportunities to improve and strengthen decision making."

On the flip side, she enjoys seeing where they are doing well and what areas of their current management practices are effective.

Danielle advocates for contract milkers to consider DairyBase too, to help them find the best opportunities and ensure they are in the best position.

"It's a nice, black-and-white way to see whether a role is profitable and helping you head in the right direction or whether there's an opportunity for a conversation with the farm owner, with independent data to base the conversation on. I wish we'd started using it sooner."

Find out more and join DairyBase free here: **dairynz.co.nz/** dairybase



Autumn smarts



Essential tools and resources for success on farm over autumn.

dairynz.co.nz/ autumn-smarts

Be autumn-ready with essential tools and resources in your kit.

Preparation and strategic decision making in autumn set the stage for a successful year on your farm. Strategic decisions around milking and breeding can help increase profitability in the seasons ahead, and a focus on cow care, winter preparation and people will keep your business running efficiently.

Attracting good staff

When recruiting new staff, balancing your needs as an employer with employee needs is key to attracting top talent and building a productive workplace. While it's no surprise that higher pay attracts more applicants, clearly stating hourly rates can also make your role stand out. Reliable, fair, rostered days off are also crucial, and fostering a positive team culture is just as important as the hours worked.

Use our Job Competitiveness Calculator to see how your offer compares dairynz.co.nz/job-calc



Preparing cull cows for transport

Care and preparation on farm prior to transport will help your cows stay healthy on their journey.

- Provide water right up to loading.
- Minimise time spent in the yard on farm before loading.
- Take cows off lush pasture for 4-6 hours before the trip to reduce effluent.
- Provide roughage instead and hold them on a grazed-out paddock so they can rest.

Lactating cows have a higher risk of metabolic issues during transport and need extra attention. Always double check their destination on the day, and if its further than normal, keep older or lighter cows back.

Visit our website for other considerations dairynz.co.nz/transport

Breeding decisions for genetic gain

Research shows that more than half of on-farm productivity gains come from animal genetics. Herd improvement begins in late summer and autumn by selecting top bulls to breed with your highest BW cows in spring. Using high genetic merit sires will accelerate the rate of genetic improvement in your herd, as the top 5% of sires

on the RAS list are over 80 BW points higher than the bottom 5%. Using AI over your heifers increases the rate of genetic gain in two ways: increasing the number of heifer replacement calves to select from, and higher genetic merit animals providing replacements earlier in your herd. Make better informed breeding decisions with our Ranking of Active Sires tool **dairynz.co.nz/ras**



Preparation for a successful winter

Prepare for a successful winter by having a clear plan for managing cow lying time during wet weather and grazing. Share this plan with your team so you're all prepared.

Gradually transition cows onto crop to help their gut bacteria adjust to new feed, and make sure they have access to fresh water, plenty of space to rest, and shelter. To reduce soil damage, use strategies like directional grazing, back fencing and portable troughs to limit cow movement. Visit our website for options that will help allow cows to lie down in wet weather and use our Winter Grazina Plan Template to get started dairvnz.co.nz/winter



Considering OAD late lactation

Switching to once-a-day (OAD) milking in mid to late lactation is a strategy used by about 40% of farmers. Consider the full farm system in your decision. Milk production will decrease by about 13%, while staff management, wellbeing and cow health will benefit from the reduced workload.

Removing the afternoon milking can reduce stress on staff and allows for greater flexibility. For the cows, it lowers their energy demands, enabling them to start building body condition in preparation for calving. See if OAD mid-late lactation is right for you **dairynz.co.nz/mid-lactation-oad**

Focus on achieving BCS targets early

Achieving Body Condition Score (BCS) targets now will make it easier to manage cow condition before and after calving, positively impacting reproduction, production and your bottom line. While herd averages are helpful, it's crucial to identify individual cows that are above, below or on target. Ensure cows are dried off early enough to reach their BCS target before calving (5 for mixed age cows and 5.5 for first and second calvers). Waiting until the month before calving won't be effective as during this time cows gain very little condition (even when fed generously) due to the high energy demands of pregnancy. Use the BCS app to check the condition of your cows is on track ahead of calving. dairvnz.co.nz/bcs-app



Five strategies to boost your herd's BW

Genetic merit sets the foundation for the profitability of your dairy herd. This infographic shows five strategies to enhance your herd's Breeding Worth (BW). Each action contributes to building a stronger herd, and the more strategies you combine, the better the results.

The national herd improves every year, and the value of this compounds over time. However, the underlying foundation is herd reproductive performance. Getting more of the right cows in-calf to high genetic merit bulls will enable options to select the best replacements and accelerate genetic gain.

Target replacements from your top BW cows and heifers

Keeping replacements from top BW cows and using artificial insemination over your heifers gives you more options when selecting heifer calves to rear. It also means calves from those top heifers will be in the herd one year sooner – a boost to genetic gain.

dairynz.co.nz/heifer-mating

Use high Breeding Worth sires

If you can do only one thing, choose high BW sires. Select the bull team that aligns with your goals for the animals you want to be milking.

The higher the BW of the bulls you use, the faster your herd's genetic gain.

dairynz.co.nz/ras

Measure cow performance

Regular herd testing helps you accurately identify which cows are productive and which cows are costing you. Liveweight is a key component of BW.

Consider weighing the herd to gain insights into overall efficiency, and to identify individual cow performance.

dairynz.co.nz/bw-performance

"

From pregnancy scanning through to accurate calving records, data is key to your herd BW and reproductive performance.

Keep accurate and detailed records

From pregnancy scanning through to accurate calving records, data is key to your herd BW and reproductive performance.

Detailed calving and mating records support better mating and culling decisions, including tracking cases of calving difficulties.

dairynz.co.nz/parentage

Use DNA parentage verification

Around 25% of calves are mismothered at birth or when completing data entry. DNA parentage verification helps avoid accidentally keeping replacements from lowperforming cows, preventing a loss in genetic gain.

dairynz.co.nz/genomics



Herd reproduction

Leighton and Hayley Parker are achieving excellent reproduction results. View their spring 2024 Pasture Summit event workbook at **pasturesummit.co.nz/2024-spring-events**



NEXT GENERATION IMPROVEMENTS.

Genetically informed breeding decisions for profitable, world-leading animal genetic gain.



Improve your herd

dairynz.co.nz/nzael

Tools and tactics for a successful dry-off

One of the most important decisions will be which cows receive antibiotics, particularly given the rise of antimicrobial resistance awareness.

As we approach the dry-off period, the focus shifts increasingly to protecting all cows from mastitis effectively and determining which ones should receive antibiotic dry-cow therapy (DCT).

Since 2016, we have collaborated with veterinary researchers to explore the selective use of DCT. We've identified the best outcomes for farms and



used these results to help update SmartSAMM. In the coming months, we will share the latest insights with veterinarians, aiding discussions during your milk quality consultation.

When determining which cows should receive DCT, use all available information, including clinical cases, sore teats and other health records, to assist in decision-making. If a cow has been treated for clinical mastitis within

Identifying cows to consider for DCT

Several tools are available to determine the potential candidates for DCT, and your vet can help develop the plan.

At dry-off, DCT should only be used for cows showing signs of infection or those classified as high risk, including cows that:

- Have been treated for clinical mastitis
- Have sore teat ends
- Have a high SCC

Cows that don't meet these criteria can be protected with ITS alone.





the past 12 months or has damaged teat ends, she is a good candidate for DCT.

Also, consider how often a cow has been treated for mastitis or other diseases and decide if she should be on the cull list.

Over the past 25 years, research indicates that herd-test individual cow somatic cell count (SCC) results remain an effective tool for selecting cows for antibiotic DCT. If a cow's SCC exceeds 150,000-250,000 cells/mL in any of her last four herd tests within the lactation or at a test within the last 80 days of drying off, she could benefit from DCT.

For cows not receiving DCT, using internal teat sealant (ITS) can provide valuable protection during the dry period.

"

Use all available information, including clinical cases, sore teats and other health records.

To increase the chances of a successful dry-off, consider how good management practices and nonantibiotic alternatives can play a key role alongside proper administration techniques. Ensuring your team is up-to-date on training and ordering sufficient products well in advance can help things run smoothly.

Drying off cows in manageable batches and timing it to avoid rain reduces risks and promotes better outcomes.

Decoding rumination data

Wearables such as collars and ear tags can provide valuable insights into your cows' wellbeing, but they work best alongside visual monitoring and physical examinations.

Wearable technology has made monitoring rumination easier. However, there can be some confusion around the optimal rates to aim for.

Dairy cows typically ruminate for around eight or nine hours daily, with steady periods of chewing throughout the day and night.

Stable rumination is important for healthy rumen function and supports optimal digestion and nutrient absorption.

The amount of time a cow spends ruminating can be highly variable and influenced by individual differences and a range of factors, including



weather, amount and type of feed, stage of lactation and overall health and wellbeing. And there aren't necessarily specific targets or ranges.

Studies of housed cows have shown a noticeable drop in rumination time could indicate the onset of metabolic or infectious diseases, but there is less data available for grazing cows in pasture-based systems like New Zealand's.

A change in rumination time relative to a cow's own baseline may offer more valuable insights than comparing daily rumination times across the herd.

Adding straw or hay to the diet to meet a rumination target is generally not advisable, especially during the transition period when cows are more



vulnerable to health challenges and need high-quality feed.

Dietary fibre recommendations for healthy rumen function depend on the base diet, but fibre levels are usually sufficient when good-quality pasture forms the majority of the diet.

Try to resist the urge to adjust the herd's diet just to hit rumination rate targets. Whether or not you use wearable technology, sticking to the basics of good transition cow management, like reaching pre-calving body condition targets, providing quality feed, and supplementing with magnesium and calcium, will help reduce transition cow disorders, set cows up for a successful lactation, and support herd reproduction. Wearables can provide valuable insights into your cows' wellbeing, but they work best alongside visual monitoring and physical examinations.

If changes in rumination are detected, combining these tools can help identify the underlying cause and guide appropriate interventions or management adjustments.

Find out more about:

Transition cow management dairynz.co.nz/ transitioncows



Fibre dairynz.co.nz/ fibre



Plan now for a better winter

A successful farm system depends on having the right wintering system in place. It minimises animal, environmental and compliance risks while supporting your investment decisions.

At this stage of the season, the focus shifts to how decisions made now will shape next season's outcomes. Planning for winter with strategies for managing animals and paddocks is key to reducing risk and stress.

A successful winter grazing system is unique to your system and considers cow experience along with environmental, financial and practical factors. Identifying risks to animal welfare and the environment and preparing paddocks ahead of time will help you and your team get ready for winter.

Finalise your plan

Now is a great time to start your winter plan, or review the plan you created in spring before crop establishment. Involve the whole team so everyone understands the plan, the thinking behind it, and the contingencies for changing conditions such as extended wet weather, snow or floods. Understanding the "why" makes it easier for the team to follow the plan and make informed decisions.

An effective winter grazing system:

- Supports good animal health and welfare by keeping your stock comfortable
- Minimises soil and nutrient loss to the environment
- Protects valuable topsoil
- Has a contingency plan for extended wet weather and adverse events
- Complements the overall dairy farm system and the farm team's work
- Creates clear expectations for the farm team
- Records all environmental risks and proof of good practice for your dairy company and complies with regional and national regulations





Dr Dawn Dalley DairyNZ senior scientist

Your plan can be very simple – for example, a grazing plan could be a hand-drawn picture of the paddock, with directions for grazing, the transition area and buffer zones, stepping through what needs to happen and the contingency for wet weather and adverse events.

Make sure your plan provides cows with access to fresh water, enough space for comfortable rest and, ideally, shelter. Directional grazing, back fences and portable troughs help limit cow movement and reduce soil damage, creating better lying conditions.

Minimising soil damage during winter allows for earlier cultivation and resowing with fewer passes. And grazing towards waterways and swales, and including buffer zones, will help reduce sediment loss.

Know what you need to achieve

Body condition score (BCS) targets at calving represent the optimum "sweet spot", and impact dry matter intake, milk production, reproduction and health post-calving.

Extensive research shows that mature cows (four years and older) should be at BCS 5.0 at calving, and two- and three-year-olds (first and second calvers) should be at BCS 5.5.

Individually scoring your cows' body condition in early autumn helps you identify the steps needed to meet calving targets.

Using BCS data alongside herd test and pregnancy results allows for informed decisions on culling, adjusting milking frequencies, and setting dry-off dates.

Complete your autumn and winter feed budgets, including crop yield measurements from early to mid May. When feeding crops, make sure the entire team understands the transition plan and knows how to spot animals that may be struggling to adapt.

It's also important to consider what you are going to be feeding and whether the diet will meet the herd's requirements so they do not experience deficiencies in energy, protein, fibre or minerals.

This is where DairyNZ's FeedChecker calculator comes in. This tool





A simple hand-drawn grazing plan showing the paddock layout, grazing directions, and buffer zones, along with steps and contingencies for wet weather, can be effective.

estimates the nutrient demands for a selected mob of cows and compares this to what is supplied in the diet, indicating where deficiencies are occurring.

Communicate the plan

A plan that everyone understands is your best chance of wintering success, particularly when wintering on crop. Share the plan with the team and your support network so they are clear about expectations and know how to respond to all situations. If you use a grazier during winter, discuss your wintering requirements and support them in developing a plan.

Visit **dairynz.co.nz/wintering** for more information.



Hear insights from DairyNZ Senior Scientist Dawn Dalley on managing cows in wet winter conditions, covering paddockbased wintering, grazing strategies and cow comfort. dairynz.co.nz/podcast-80

Download the winter grazing plan template to help you plan at dairynz.co.nz/ winter-plan



The FeedChecker calculator helps optimise feed allocation yearround dairynz.co.nz/



dairynz.co.nz/ feed-checker



Genetics driving Jersey power



Managing a herd of 620 Jersey cows, Mike Robinson and Sheree Irwin have focused on breeding for greater efficiencies, achieving impressive results in the process.

Mike Robinson and Sheree Irwin from Inglewood take great pride in ranking in the top 3% for both breeding worth (BW) and production worth (PW) in New Zealand.

With a herd average BW of \$346 and PW of \$368, their deep passion for their cows drives their commitment to making rapid genetic progress.

"I'm proud of where our herd sits. They average 450kg in liveweight and produce an average of 444kg of milksolids. Our top performing cows can pump up to 650-700kgMS which I think is especially impressive for Jerseys," Mike says.

They milk 620 predominantly Jersey cows and place a strong emphasis on udders, type and stature when choosing bulls. Mike wants a big, robust Jersey cow that milks well and lasts a long time in the herd.

"I want big cows with nice udders and high figures who produce well.

"I have always been fussy with my cows. Animals are my passion for farming. I can recall random information about where on the farm certain cows were born and who their mothers and grandmothers are."

The goal is to have a full Jersey herd. They use Jersey bulls for their mating strategy, and there are only a few crossbreeds in the herd from when they increased numbers.

"

Animals are my passion ... I can recall random information about where on the farm certain cows were born and who their mothers and grandmothers are.

When Mike plans his mating programme, he assesses the cows and identifies any who have specific traits he wants to improve. Then he uses CRV's SireMatch programme to match bulls who are strong in those desired traits to mate to those cows.

The rest of the herd is mated to a combination of LIC premier sires

and sexed semen. They artificially inseminate for 10 weeks total – four weeks of Jersey semen followed by six weeks of short-gestation semen. They don't use any bulls for natural mating.

LIC has contract-mated a number of Mike and Sheree's cows and invited them to become part of the VikingGenetics programme, which is designed to help bring some diversity into the Jersey genetics pool in NZ.

"It's in collaboration with a Danish breeding company, aiming to improve the diversity around Jersey breeding with some different blood lines. We used 35 straws last year and I'm looking forward to seeing how the progeny look and produce"

One of their heifers was also selected for some embryo work with LIC. Mike was excited to have his genetics recognised and was fortunate to get 10 heifers from some of the embryos himself.

"Must be something good in that family we've been working on that they liked," he says. "Pretty interesting and special to be part of!

"It's exciting to be seeing the results, it's taken years of breeding and management to get the herd where it is now. And we haven't gotten too carried away with feeding lots of supplements to achieve high production."

His focus is cow condition. He monitors it throughout the season and if he has any concerns, he preferentially feeds or dries certain cows off early.

The farm has in-shed feeding and they feed a basic blend of palm kernel extract (PKE), dried distillers grain (DDG) and some tapioca and kibbled maize year round. If conditions change, like a shortage of pasture, Mike might adjust the amount of feed, though he usually keeps the blend consistent.

A stand-off shelter that can house 500 cows was built on the farm a few years ago. It is mainly used from May to September to protect the pasture as they keep the cows and weaner heifers on farm during winter.

Farm facts:

Location: Inglewood Structure: Owner-operator Effective area: 200ha Herd size: 620 cows System: 3 Production: 1,375kgMS/ha Herd BW: 346/51 Herd PW: 368/76

The cows are run in three mobs on a two-day grazing rotation and every second day they come into the shelter for a top-up of silage and palm kernel overnight.

Sheree is in charge of calf rearing and they rear around 160-170 heifers every season but need only 120-130 for themselves, so there is always a surplus to sell. Mike selects which calves he wants to keep by assessing their breeding values (BVs) and their mother's performance. They find the surplus calves easy to sell being highindex Jerseys.

The basis of their herd came from Mike's parents, Graham and Vanda Robinson, who own a farm close by.

After school, Mike launched into a Taratahi Agricultural course in Stratford, and worked on his parents' home farm for 18 months, milking 550 cows. Then an opportunity came up on another of his parents' farms and he got the chance to be a herd manager.

He worked up to the manager role and bought into the herd till he reached 50:50. After a few years he and Sheree, who he had met through New Zealand Young Farmers, purchased the farm from his parents. That was in 2015.

In 2018 they also purchased a neighbouring dairy farm that they have kept separate from the main farm. They had managers running it for the first three years, but it was challenging to manage everything, especially staff time off.



Mike Robinson and Sheree Irwin's Inglewood farm is a testament to the passion and precision behind their top-performing Jersey herd.

They have had contract milkers, Brett and Kunthea Matthews, running it for the past three seasons, which has alleviated some pressure.

"

This herd has taken years of breeding and management without getting too carried away with feeding lots of supplements.

"It's working really well. It has taken the pressure off us and we can still see what's going on, being right next door, and we catch up with them weekly."

Mike tries to keep things simple across both farms and both run similar systems.

On the main farm, there are three working full time, including Mike: Adam Murphy the 2IC and a farm assistant Jason Goble, while Adam's partner Jordan Lee Mawkes helps Sheree with the calves too.

With a capable team, they have been able to split the cows into two herds

for the first time, which Mike had been keen to do for a few years.

"I always knew the benefits of running separate herds as that's what they do on my parents' farm. Now we are able to preferentially feed the younger cows and prevent competition from the older cows. We just had to wait till we had a good team to support it," Mike says.

"We run two herds now. The young girls are all together in a herd of 240 and the older girls are in another of roughly 400. It gives us a chance to look after the younger cows more and try to maximise production and in-calf rates."

This season Mike and Sheree have started leasing a 90 hectare support block from Mike's parents, where they are running all of their youngstock. Eventually they hope to purchase it.

It's been a busy few years building their business but Mike and Sheree have enjoyed the journey.

For now, it's about breeding goodproducing Jersey cows and continuing to enjoy the farm, the cows and family life with their four children: rugby-mad Raigan, 10 and Tyler, 6, and Lucia, 3 and Lochlainn, 1.



Research shows Ecotain® plantain can help farmers reduce their environmental footprint by decreasing nitrogen losses without requiring major changes to their farm systems or management.

Plantain is proving Its potency

In farmlet trials and on farms across the country, the grazing herb is demonstrating its value as an N loss reduction tool.

The Plantain Potency and Practice programme led by DairyNZ has measured an average reduction in nitrogen (N) leaching of 26% over four years at Massey University and 23% over two years at Lincoln University from ryegrass/clover based pastures with 20-30% plantain compared with standard ryegrass/clover pastures.

These results come from farmlet experiments at both universities, which are testing whether the positive outcomes seen in smallscale lysimeter studies also work on a full farm system. The research will increase understanding of how using the grazing herb plantain variety Ecotain® can help reduce N loss.

The programme (co-funded by the Ministry for Primary Industries through Sustainable Food and Fibre Futures) also collaborates with 20 farmers across New Zealand who integrate plantain into their farming systems in diverse ways (Figure 1).

"

Plantain is now recognised as an N leaching mitigation option by regional councils in Southland, Canterbury, Manawatū, Bay of Plenty and Waikato.



These farmers are working on ways to establish, maintain and manage plantain pastures. So far, they've achieved up to 20% plantain across their farms by sowing it in new pastures and broadcasting seeds into existing ones.

An independent review of the Plantain Potency and Practice programme concluded that "the scientific inquiry being undertaken is of a high standard and leading to strong evidence that supports the adoption of plantain as a tool to reduce nitrate leaching."

The science director at Environment Canterbury (ECan), Tim Davie, welcomed the review's findings.

"It's encouraging to see the growing scientific evidence supporting plantain's role in reducing nitrogen leaching. ECan acknowledges plantain as an effective tool to help farmers meet nutrient limits and reduce their environmental footprint." Plantain is now recognised as an N leaching mitigation option by regional councils in Southland, Canterbury, Manawatū, Bay of Plenty and Waikato, where N leaching limits are in place.

Stephanie Fraser from Bay of Plenty Regional Council explains that Lake Rotorua is subject to strict nutrient management regulations aimed at reducing nitrogen levels to improve its water quality.

"These regulations pose both challenges and opportunities for local farmers. As a result, the farming community is increasingly adopting

Higher urination frequency and volume

2 Partitioning: More N partitioned to dung and milk vs urine

3 Nitrogen retention

(root exudates):

4 Nitrogen retention

5 Reduced drainage:

(urine):

nitrification

Secondary compounds from plantain roots and litter slowing nitrification.

Derivatives of plant secondary

compounds in urine slowing

Reduced water draining below the root zone

1 Dilution:



This figure shows five ways plantain reduces nitrogen leaching. Animal effects (1 and 2) are in OverseerFM, while soil effects (3–5) are the Plantain programme's focus.





plantain, with approximately threequarters of dairy farmers in the catchment area planning to make the transition to plantain use by 2032," she says.

Farmers facing N loss targets need to be recognised for their gains. Research has shown plantain's potential as a cost-effective tool for mitigating nitrogen loss.

"

It seemed like a bonus – it was a tool which would help us to reduce nitrogen leaching but allow us to keep cow numbers up.

A better understanding of how plantain works is helping to measure its impact more accurately. The well-proven mechanisms – such as reduced urine nitrogen due to dilution and changes in how animals process nitrogen – are now included in the OverseerFM model.

The next step for the Plantain Potency and Practice programme is to deepen knowledge of plantain's effects on soil processes across different soil types and climates. This will allow these benefits to be added to OverseerFM and acknowledged in farmers' N budgets.

This research will also help evaluate how new plantain cultivars and other forages, like chicory or Italian ryegrass, impact N leaching. DairyNZ is expanding this important forage-based work through the LowN system project.

Find out more dairynz.co.nz/low-n

Why do we need to reduce nitrogen leaching?

When grazing livestock eat highnitrogen pastures or crops, they use only a fraction of the N consumed to support the production of milk and meat.

The rest is excreted and can create concentrated N patches in the soil that exceed plant growth requirements. This N can't be fully used and is lost (leached) in the form of nitrate below the plant's root zone, or lost to the atmosphere as nitrogen gasses, including nitrous oxide, which is a potent greenhouse gas.

Leached N can reach waterways and, at high levels, can harm aquatic ecosystems, reduce biodiversity and impact water quality for human use. Addressing N leaching contributes to improving overall waterway health.

Providing farmers with cost-effective options for reducing N leaching is important for meeting current and future environmental regulations in catchments where N loss reduction is a priority.

Check out **dairynz.co.nz/plantain** to find out more about plantain.

Find the latest updates here dairynz.co.nz/ plantain-programme



Efforts in the Bay of Plenty

Farming in the Lake Rotorua catchment, Richard Fowler knew he would need to make some changes to meet the strict nutrient management regulations. Working toward his 2032 nutrient discharge limit of 40kg/ha of nitrogen, he's made significant progress, with plantain as a key tool in reducing nitrogen leaching.

"When we were looking at options to reduce our leaching, plantain came up," Richard says.

"It seemed like a bonus really. It was a tool we could use which would help us to reduce nitrogen leaching but allow us to keep cow numbers up."

Richard has been broadcasting plantain seed over the whole farm with his annual fertiliser applications for the past five years. In the first year, he used a rate of 4 kilograms of seed per hectare, which resulted in 20% plantain content, and he has continued to apply 2kg since, maintaining 20% plantain across the farm.

"We didn't see much in the first summer, but it really started showing up in the autumn and the following season. It seems to be cost effective and working well in our catchment."

The farm is 100ha milking 260 crossbreed cows. Along with adopting plantain, Richard has reduced his total stocking rate, removes cull cows early and winters about 100 cows off the farm. He has also used less N fertiliser across the system.

"We have gone for a low nitrogen input system as well, which seems to work hand in hand with plantain. So by using less N, we're giving it a good chance to get established.

"I have been quite aggressive taking nitrogen fertiliser out and it's going well. It's a win-win for me and the farm – we've dropped our nitrogen leaching and, as a bonus, we've simplified the system. It's saving money and time, and I don't feel like I'm chasing nitrogen fertiliser."

OverseerFM modelling is showing a 6kg/ha (14%) reduction in N leaching from the 20% plantain, which is a significant figure towards their target.

"When I first modelled our 2032 target, I thought we would have to drop some cows and retire some land, but at this stage, I don't think we'll need to, thanks to our efforts, including plantain.

"We may still retire some of the steeper land, but I don't think we'll need to reduce cow numbers as much."

Richard's recommendation to other farmers is to consider plantain and try adding it to fertiliser applications. He also promotes having a go at reducing N fertiliser usage, even for a period to gain some confidence.



Waterway health is taking root

Contaminant reduction is central to improving water quality, but we also need to take a more holistic approach to better address the overall health of waterways, including things like riparian planting.

Healthy waterways are resilient ecosystems that support wildlife, allow for safe recreational use and benefit surrounding communities as well as the environment.

Current regulations focus mostly on reducing single contaminants, such as nitrogen. However, this approach may not be the most effective for improving waterway health for many of our streams and rivers, and we're pushing for a stronger emphasis on ecosystem health in both policy and practical actions.

Farmers have made significant progress in adopting good management practices, such as excluding stock and reducing contaminants, to restore water bodies on farm, but there is still work to be done to achieve waterway health in many catchments. A holistic approach combines various tools to enhance the overall health of waterways.

Measures such as riparian planting– which helps create the right instream environment for aquatic insects and fish–can have a significant positive impact on achieving ecological goals.



farm solutions and policy

 Dr Belinda Margetts

 DairyNZ senior freshwater

Riparian planting efforts also help with carbon capture and actively support biodiversity, both

of which are important for our

international markets.

coloaist

There are benefits to the sector in being proactive in improving waterway health ahead of regulation, and the gains from restorative actions are far reaching.

The gains from restorative actions are far-reaching.

Fenced-off waterways save farmers time by reducing the need to retrieve stock from those areas. Shade from planting lowers water temperatures and reduces the sunlight that nuisance algae (periphyton) need to grow.

Some councils require lower nitrogen load reductions on farms for waterways that are shaded. Shade also cuts weed growth, reducing maintenance needs and lowering flood risks from clogged channels.

Tools to support healthy waterways

Riparian planting

Riparian plants act as filters to trap contaminants such as chemicals, nutrients, sediment and bacteria before they enter the waterway. They're also great for shade, and support a biodiverse habitat.

Managing and protecting wetlands

Wetlands help reduce flooding by acting as a sponge, and they improve water quality by trapping, filtering and removing nutrients and contaminants, especially sediment, nitrogen and phosphorus. They also provide a habitat for biodiversity.

Improving fish passage

Fish need to move up and down waterways to feed, breed and migrate between the sea and freshwater to complete their life cycle. Anything that stops fish movements is called a "fish passage barrier" and should be removed where possible.

Farm management practices

Good management practices reduce the leaching and loss of contaminants that affect both human health and the health of ecosystems and waterways.

Check out **dairynz.co.nz/waterways** for more information





An ongoing planting effort

With Mt Harding stream running through her Methven farm, Cate McIntosh recognised the need to support the waterway's health. She has been chipping away at this for the past eight years, planting two-thirds of the waterway with only a kilometre left to cover.

"I knew direct sunlight wasn't good on the waterbody and some form of cover and shade are good for the fish and things living in the water," Cate says.

"I started by planting some plants funded by Environment Canterbury, then began growing my own. I've been doing one section at a time to keep it manageable."

As the plants have become established, management has become easier. She enjoys seeing her efforts pay off with mature plants, fewer weeds, shelter for stock, and thriving birdlife.

Pōkaiwhenua catchment support

Extensive planting is taking place in the Pōkaiwhenua catchment this summer. DairyNZ is working alongside the Raukawa Charitable Trust and Pōkaiwhenua Catchment Group in a holistic, collaborative effort to improve waterway health, aligned with the outcomes desired by the community.

More than 15,000 plants are being planted around Tokoroa's Whakauru Stream. This work aims to improve water quality so native species can thrive in and around the stream, a tributary of the Pōkaiwhenua Stream.

Monitoring shows good existing numbers of native eels (tuna), freshwater crayfish (kõura) and many more species.

Learn more at **pokaiwhenua.org.nz** or about catchment groups at **dairynz.co.nz/catchment-groups**

Wintering well is becoming the norm



Dairy farmers have made great strides in winter management, though there's still room for improvement – particularly when it comes to portable troughs and back fencing.

Farmers are making significant strides in improving winter management practices, as highlighted by the impressive progress shown in the results from our recent DairyNZ wintering survey.

According to the survey, 80% of farmers now have written wintering



plans in place (see Figure 1). And 74% of farmers report having a written contingency plan for wet weather or adverse events, up from 52% in 2022.

There is growing recognition of the importance of assessing risks, implementing suitable management strategies and communicating with the wider team, especially as significant weather events become more frequent.

Figure 1. Respondents with written plans identifying environmental risks*.



*In a national survey of randomly selected New Zealand dairy farmers on winter management in 2024.

Nationally, 83% of farmers report implementing at least five effective winter management practices (see Figure 2). The most improvement can be seen in Southland and South Otago, where wintering is predominantly on crops. Further north the practices are slightly different because of more pasture integration.

The winter practice survey has been carried out annually for the past five years in Southland and South Otago and over the past three years for the rest of the country, and highlights that farmers have significantly improved planning and management.

Driving around the countryside, there is even more evidence of this. Big-ticket items backed by scientific evidence, such as riparian buffers and protecting critical source areas, are well embedded into farm practices.

The increased focus on wintering practices in the last few years may have encouraged farmers to better consider and effectively manage risks on their farms.

However, despite the positive progress in some areas, the survey shows that the use of portable troughs and back fencing remains low and has not increased over the past three seasons.

Incorporating portable troughs and back fencing into winter grazing routines offers clear benefits that every farmer may want to consider.

Farmers using this approach often point to improved soil structure as a key advantage, with paddocks drying faster, making them accessible to tractors sooner and allowing for earlier re-grassing.

Additionally, with less soil damage, extending or removing back fences when wet conditions set in provides cows with more comfortable space to rest.

Science and research

Cows need a minimum of eight to 10 hours of lying time per day and prefer 10-12 hours. So during extended wet periods, when paddocks become too wet, having a contingency plan is essential and back fencing can play a part in this.

Farmers also use options like moving cows to drier, lower-risk paddocks or grazing crops in more sheltered areas.

Additional strategies include standing cows off in tree blocks, using feed pads or stand-off pads, allocating grass strips in crop paddocks, and spreading straw to create dry-lying areas.

Farmers really are doing great work, and it's important to keep focusing on positive changes and building on those successes.

Staying on top of contingency planning will help prevent it from becoming a bigger challenge down the line.

By proactively addressing these challenges now, farmers are not only staying ahead of potential regulations but also shaping how regulations might affect their farms.

When regulations come unexpectedly, they're often more restrictive, but taking early action can help reduce their impact – and it demonstrates the commitment farmers have to doing things right.

Download wintering resources

Improving your wintering system guide dairynz.co.nz/ improve-wintering



What to look out for in the paddock during winter poster dairynz.co.nz/ winter-paddock



Figure 2. Respondents implementing at least five winter management practices*.



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Is focusing on low-heritability traits valuable when making breeding decisions?

Although some traits have low heritability, genetics still drive valuable improvements over time. NZ Animal Evaluation scientist Rhiannon Handcock explains.

Heritability measures the proportion of variation in a trait that is due to genetics rather than environmental factors. It is expressed from 0 to 100%, where 0 means all variation is due to environmental factors, and 100% means all variation is genetic. Traits with higher heritability respond more quickly to selection, while traits with lower heritability improve at a slower pace.

By knowing the heritability of specific traits, breeders can make more informed decisions. Farmers might tend to focus on more heritable traits, as these often show progress more quickly. However, this approach can sometimes overlook valuable lowheritability traits.

An index like Breeding Worth (BW) helps maintain a balanced focus, ensuring that economically important traits with lower heritability still receive the attention they deserve.

Low-heritability traits, such as survival (2%), calving difficulty (2%) and fertility (between 2 and 10%) improve slowly over generations, yet they are



crucial for overall herd productivity and wellbeing.

In contrast, high-heritability traits, such as liveweight (60%), gestation length (50%) and milk production (30%), are more responsive to selection, showing faster genetic gains.

Fertility is a good example of a low-heritability trait that is still important to select for. While its low heritability suggests genetic improvement can be challenging, research from DairyNZ's Pillars of a New Dairy System programme demonstrated clear differences in reproductive performance between heifers with high (+5) and low (-5) fertility breeding values (BVs) under the same management.

Heifers with higher BVs consistently achieved significantly better reproductive outcomes than those with lower BVs, including a 30% difference in their 6-week in-calf rates in each of their first two lactations. The research highlighted that even a low-heritability trait like fertility can still significantly influence farm outcomes.



Heritability helps us understand how quickly traits can be improved through selection.

Importantly, even low-heritability traits like fertility and survival are worth the investment as the progress compounds over each generation.

Small genetic improvements can often lead to long-term herd-level benefits.

Myth There's no value in focusing on low heritability traits such as fertility.

Busted

While progress with low-heritability traits may be gradual, each small gain accumulates across generations, ultimately leading to meaningful change.

Collaborative communication

We're focusing our efforts on ensuring farmers gain greater value through shared knowledge, aligned resources and unified support.

Farmers have told us they feel better supported when they hear similar or complementary messages coming from the range of organisations they interact with – so we're working harder to deliver that.

Our new strategy brings a fresh approach to building partnerships. We've started by collaborating with a few key milk processors and organisations, seeking ways to align events and maintain consistent information.

For example, we have partnered with Fonterra to deliver events focused on animal improvement, covering reproductive performance, genetic gain and how improvements impact financial performance and emissions efficiency.

These are taking place in February and March throughout New Zealand.

We have also been involved with Fonterra in Taranaki in delivering pilot workshops, Powering up Dairying – Working together to win together. The workshops are aimed at exploring farm systems with a "future fit" lens.

The first workshop in the series explored trends in pasture and crops, particularly supplement use. Participants also examined available tools and resources, along with insights on feed efficiency from the Fonterra Insights report in sessions designed to support sustainable farming systems.

Other examples were the Managing Risk in Share Farming events organised by Federated Farmers with support from FMG, DairyNZ and others.

By aligning our messaging we defined

messaging we can provide clear, practical guidance that's easier to access and act on.

We're also building opportunities for farmer-facing teams to strengthen their whole farm system skills, enabling them to support farmers with a well-rounded perspective that considers impacts on people, the environment, farm economics, animal health and more.

The goal is to improve efficiency and deliver a unified, consistent message, reducing duplication in the process. By aligning our messaging on key topics and collaborating on events that feature subject matter experts – whether from DairyNZ or beyond – we can provide clear, practical guidance that's easier to access and act on.

You can expect to see events and collaborative communications as key components of our new approach. Ultimately, our goal is to partner with others to expand our reach and enhance support for farmers.

Look out for DairyNZ working with sector partners in your region to provide increased access to resources and information.

See what's on near you at dairynz.co.nz/ events



Finding your farming family

The future of dairy farming doesn't exist without young people entering and engaging with the sector. Recognising this, DairyNZ collaborates with New Zealand Young Farmers (NZYF) to run various initiatives that foster the growth of young farmers and new producers, contributing to a strong and positive future for the dairy industry.

From suits to gumboots

Farming wasn't on Robin Buser's radar whatsoever when his stepfather-in-law offered him an opportunity to learn about dairying.

Coming from a corporate background and working in a marketing role, he had no idea about farming but he fell for a farmer's daughter, Mandy.

He decided to give it a crack, knowing that his best shot was to immerse himself in the community, with New Zealand Young Farmers (NZYF) at the top of his list.

Since joining in 2020, he can't speak highly enough about the support he's received from the network.

"It goes beyond your club mates," he says.

"You've got this extensive network of people connected to Young Farmers in some way, from speakers to past members to industry supporters. It's so valuable as some of them are your potential employers too." He loves having a group of likeminded people to bounce ideas off and learn from.

"We regularly go to each other's farms for barbecues and a look around. It's good to get a different perspective."

Since entering the dairy sector, Robin has been managing and contract milking, and he now runs a relief farming business, stepping in whenever extra help is needed for milking and more. He and Mandy are expecting their second child and are on the lookout for the right sharefarming opportunity.

"We are ready to set our roots down somewhere and enjoy the lifestyle farming offers for a young family."

He encourages anyone connected to agriculture to get involved in NZYF.

"It's worth heading along to a local meeting or event. Most clubs are active on Facebook and they're really welcoming if you just reach out and ask any questions."



Robin Buser moved from a corporate career to dairy farming, joining Young Farmers before putting on his gumboots – a decision that proved invaluable.

Danielle Houmand values how Young Farmers helped her build a community, easing her transition to a new region and fostering connections.



Connecting through farming

Being so community focused, Danielle Hovmand found moving to a new area daunting, but she says joining the local New Zealand Young Farmers (NZYF) club, Morrinsville Ngarua, was a game changer.

"The club allowed me to build a community around me," Danielle says.

"When you're new to a place, being able to go into town and someone waves and says hi because they recognise you makes you feel like you have a place."

She got into dairying after studying Agricultural Science at Massey University, progressing from summer placements to a junior manager role on her grandparents' Katikati Hereford stud.

New Zealand Young Farmers connects, mentors and empowers young people throughout rural communities nationwide. Its core work centres on community clubs, like those Robin and Danielle joined.

It also includes Donald's Farm in Auckland, which serves to introduce dairy farming to future generations; contests such as AgriKids and Young Farmer of the Year; TeenAg; and an extensive alumni network.

DairyNZ partners with NZYF to assist in coordinating initiatives that foster

After a few seasons there, she moved to Patetonga, Waikato, where she joined Young Farmers. Now, Danielle and her partner, builder Harry Phipps, are sharemilking 250 cows near Morrinsville. The couple met through Young Farmers too.

Danielle has been involved in committees and volunteered her time to organise events. A lot of club activities raise funds for charity too.

"When I moved to Morrinsville, I didn't know anyone, but thanks to the network I've built through Young Farmers, I can go into the community and ask for help and ask them to be involved.

"It's nice to be out there with the people and do something for others."

the next generation of farmers. Its strength is nurturing and upskilling young people, and DairyNZ believes the partnership benefits both organisations and the wider sector, as it helps bring more passionate young farmers into dairy.

Mz **Young Farmers**

Head over to **youngfarmers.co.nz** to find out more.



Learning the language of contracts

Matt Hoets has a strong enthusiasm for learning and has completed several Dairy Training courses, which he finds incredibly beneficial.

One course that particularly stood out to him was the Contract Milking Course. It gave him valuable insights into the complexities of contracts in various situations and their real-life implications on farming systems.

"I'm a typical practically minded farmer and I only had a basic understanding so there was a lot I didn't understand when I was going through those contracts," Matt says.

"But the Dairy Training course got into the nitty-gritty and helped me understand.

"It connected the clauses to what actually happens and how the farm and farm policies work with the contract and farm owner relationship, especially when there is a change in the system or issues arise."

He and his partner, Amanda McSweeney, are in their third season contract milking 1300 cows in Mayfield, Canterbury.

Matt has completed three courses through Dairy Training – Contract Milking, Business by Numbers and Write a Business Plan.

"The courses are great. I found the best part was discussing the learnings with other people because when you read something you have your ideas but other people can read the same thing and come up with completely different ideas."



" It connected the clauses to what actually happens and how the farm and farm policies work with the contract.

He recommends the courses for a range of farmer types.

"I think managers should definitely do these courses. It helps you understand what you need to do and what steps you need to take to get where you want to be."

And he's already looking ahead: "If I'm ever in a position to hire a contract milker myself, I'll keep an eye out for people who have also completed these courses. There's a really good circle of valuable people who are minimising risk by developing their knowledge and skills."

After leaving school in Year 12, Matt went farming, but then decided to build on his practical knowledge with a Diploma in Agriculture from Lincoln University. Since then he has also completed courses through Primary ITO, and the Dairy Training courses have continued to build his skill set.

"It takes a range of practical and technical skills to farm. Ultimately as contract milkers we're self-employed but we're also a service provider to

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Who is it for?

2ICs, managers, selfemployed farmers, farm owners.

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another business. So understanding things like contracts is important as it's the foundation of how your business is going to operate and how the relationship is going to work."

Find out more about Dairy Training short courses and enrol at dairytraining.co.nz

GOD Learn fast with that fit around capabilities a Dairy Training education that fits a Dairy Training education that fits

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Dairy Training provides practical, accessible education that is designed with dairy farmers, for dairy farmers.

dairytraining.co.nz





Snapped on and off farm

A snapshot of DairyNZ at work in the regions with and for farmers.



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Champion in Rearing and Leading

at Ag Day Maddy Crawford from Gordonton School with steward Willie McKnight, DairyNZ area manager for Central Waikato.



Farmers turn out for new DairyNZ events around the country to hear from our experts and learn what actions local farmers are taking to drive profitability and sustainability



Campbell Parker delivers insights as the keynote speaker at Fonterra's Grass Fed Sustainability Summit.

NUFFIELD

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DairyNZ conducted an eDNA waterway test on DairyNZ chair Tracy Brown's farm in the Piako catchment. From left are Tracy, Johan van Ras and Wynn Browr.



Taranaki dairy farmers learn biosecurity essentials with tutor Julie Morgan in a Dairy Training class.



Regional teams proudly support community events like Calf Clubs, Group Days, and Ag Days, which produce a crop of champions from around the country.



Tracy Brown celeb<mark>rates with Nuffield Scholars Alan McDermott, Dani Darke,</mark> Lisa Portas and Jon Pemberton at their awards night.



Average per-cow milk production hits magic 400kgMS

The 2023/24 New Zealand Dairy Statistics report reveals trends in the dairy sector. Mark Storey, DairyNZ's head of economics, offers insight into the numbers.

The 2023/24 season saw a near-record average milk production per cow of 400 kilograms of milksolids, consisting of 225kg of milkfat and 176kg of protein. This figure is 6kg higher than the five-year average of 394kgMS per cow.

Dairy companies processed 20.5 billion litres of milk, containing 1.88 billion kg of milksolids. This marks a 0.8% decrease (approximately 161 million litres) in the quantity of milk processed, while there was a 0.5% increase (around 9 million kg) in kilograms of milksolids compared to the previous season.

Nationally, farmers are focused on rearing high-producing cows with good-quality milk, highlighted by record-high milkfat, protein and milksolids percentages in herd-tested cows and the lowest-ever average somatic cell count of 161,000 cells/mL.

With rising costs and increasing regulatory pressure, farmers emphasise the need for efficiency. The shift towards crossbred cows continues as farmers seek the benefit from the efficiencies of hybrid vigour and get the best traits from the two main dairy breeds.

For the first time in a while, cow numbers slightly increased by 0.57% in 2023/24, reaching 4.70 million, which is still 2% below the five-year average of 4.80 million. But the trend

of fewer but larger herds continues, with 10,485 last season – 116 fewer than the previous season. The national average herd size was 448, seven cows higher than the previous season.

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The national average herd size was 448, seven cows higher than the previous season.

The increase in cows will contribute to the rise in production, but we can also credit genetic improvements across all breeds and favourable weather conditions during the 2023/24 season.

The number of cows herd tested and artificially inseminated has declined following record levels in the previous season, which is likely due to the economic challenges farmers have faced in recent years.

A total of 3.62 million cows were herd tested in 2023/24, a 4% decrease from the previous season. That equates to 77.1% of cows in the national herd being herd tested in 2023/24, which

The 2023/24 season saw farmers focus on quality and efficiency, with record-low somatic cell counts and continued genetic improvements across herds.

was lower than the five-year average of 74.8%.

Although the 2023/24 co-operative payout (\$8.90 per kilogram of milksolids) was higher than the fiveyear average in nominal terms, when adjusted for inflation, it was \$0.35 below the five-year inflation-adjusted average of \$9.25 per kg milksolids. Find the latest New Zealand Dairy Statistics report, published jointly with LIC, on our website here

dairynz.co.nz/dairy-stats

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