



Barenbrug New Zealand Sustainability Report **2023**

From the Managing Director

Sustainability is one of our five strategic pillars, and Barenbrug New Zealand's sustainability framework is built on the interconnectedness between people and nature.

This concept is the cornerstone of Barenbrug New Zealand's approach, centred around Our Environment, Our Communities, and Our People. Guided by the principles of stewardship/Kaitiakitanga, we manage and care for our resources and environment, and foster a responsible outlook for both present and future generations.

Our primary focus is to empower farmers, enabling them to thrive by integrating our world-leading expertise with farmers' financial and environmental objectives, and the principles of stewardship for the prosperity of forthcoming generations.

We take pride on this sustainable path, driven by our commitment to people, communities and the environment, and contributing positively to the collective future of farming in New Zealand.



Michael Hales
Managing Director
Barenbrug New Zealand





Contents

About This Report	4
Our Sustainability Framework	6
Methodology	8
Our Key Metrics	9
Environment	10
Our People	12
Our Community	14
Our Research Station	15
Our Products	16
Our Targets	18

About This Report

As the world's largest privately owned pasture seed company, Barenbrug has played an integral role in New Zealand's pastoral landscape for over 30 years. Our dedication to New Zealand's agricultural future drives us to provide farmers with the pastures, information, and support they need to thrive.

This Sustainability Report aims to establish a baseline for measuring, developing, and monitoring the impact and influence of our operations on the environment, our people, and the communities we serve.

Environmental Efficiencies

Barenbrug is dedicated to enhancing environmental efficiencies. We have identified key areas to make positive changes and reduce our environmental footprint:



Energy Use

We are working towards optimising our energy consumption by implementing innovative solutions and exploring renewable energy sources, reducing our reliance on traditional energy resources.

Scope 1 and 2 Emissions

We are focused on minimising greenhouse gas emissions from our operations. Through adopting sustainable practices and investing in cleaner technologies we strive to reduce our carbon footprint.

Packaging

Recognising the importance of responsible packaging, we are seeking ways to minimise waste and promote sustainable packaging alternatives. Our goal is to make conscious choices that reduce the environmental impact of the packaging we use or provide.



Enhancing Lives

We believe in improving the lives of those who work for us and engage with our company. To achieve this, we have identified some key areas to make a positive impact:

Health, Safety, and Wellbeing

The well-being of our employees is important. We provide a safe and healthy working environment and are dedicated to ongoing improvements in health, safety, and well-being practices.

Learning and Development

We recognise the value of continuous learning and growth. Through various programs and opportunities, we empower our employees to expand their knowledge and skills, fostering personal and professional development.



Reward and Recognition

We are committed to recognising and rewarding the achievements and contributions of our employees. Through creating a culture of appreciation and acknowledgement we promote a positive work environment and cultivate a motivated and engaged workforce.



People and Community Initiatives

We support initiatives that foster community development and well-being. By engaging with local communities, we aim to create positive social change and contribute to the betterment of society.

Improving Environmental Outcomes

As a leading pasture company, we understand the critical role we play in advancing environmental outcomes for the pastoral sector. To accomplish this, we focus on the following:

Better Products

We develop and provide improved pasture solutions that enhance sustainability and resilience in the sector.



Investing in research and development

We offer innovative solutions that optimise agricultural practices while minimising environmental impact.



Targeted Advice

Our commitment to the pastoral sector extends to providing targeted advice and support. We work closely with farmers to understand their unique challenges and offer tailored guidance to help them achieve their environmental objectives while improving their farm profitability.

This report reflects Barenbrug's dedication to prioritising environmental efficiencies, focusing on people, engaging with our communities, and driving improved environmental outcomes for the pastoral sector. We are working towards a more sustainable future.

Our Sustainability Framework

Driving Positive Change

Our sustainability framework is built upon three fundamental pillars: Our Environment, Our People and Communities, and Our Business. We recognise the interconnectedness of these aspects, and we are committed to a sustainable future.



Caring for our Environment




Climate change is affecting farmers. Increasingly extreme weather patterns, including drought and flooding need responding and adapting to. Addressing climate change requires collective action, and we are committed to playing our part. To reduce our Scope 1 and 2 emissions, we strive to be market leaders in providing climate-relevant pastures. We are working to decrease the carbon footprint of our operations, including reducing our reliance on fossil fuels, and adopting reusable or recyclable packaging for our products. Leading by example, we operate our properties in a sustainable manner and have an A-rating for our research station's Farm Environmental Plan.

Empowering our People and Communities

We recognise that sustainability is more than just the physical impacts on our environment – it also encompasses our people, farmers, and local communities. We believe businesses have a responsibility to create a positive impact in the communities they serve. We value diversity and inclusion within our workforce, fostering an environment that embraces different perspectives and experiences. By prioritising the wellbeing of our people, and investing in the betterment of our communities, we aim to create lasting positive change.

Our Commitment

As a family-owned business, sustainability lies at the core of our operations. We have a commitment to sustainability through having specific and measurable goals, constantly challenging ourselves to improve, and making a meaningful difference.

Our Priorities	Environmental efficiency	People and community	Our role in the pasture sector
Our focus areas	<ul style="list-style-type: none"> • More efficient use of energy • Reduce scope 1 and 2 emissions • Reduce the environmental impact of packaging we use or provide 	<ul style="list-style-type: none"> • Improve the lives of people working for or engaging with Barenbrug • Positively impact our communities 	<ul style="list-style-type: none"> • Improve environmental outcomes for the pastoral sector through better products and targeted advice • Farm to best practice at our research sites.
Our targets	<ul style="list-style-type: none"> • Lead by example through farming sustainably – Environmental Plans, Toitū Certification • Replace all traditional lighting with LED by June 2026 • Provide 20% of all energy consumed in operations by solar by June 2026 	<ul style="list-style-type: none"> • Make diversity and inclusion part of our culture • Zero harm workplace • 50% female representation on our management team • A fully integrated and embraced Barenbrug learning and development strategy • Improve score on employee engagement survey • Helping with Hands committing staff to helping in our local communities • Staff volunteer days • Sponsorship and donations to local initiatives 	<ul style="list-style-type: none"> • Lead the market in providing climate-relevant pastures. • Be the partner of choice for innovative and sustainable forage solutions. • Be positioned to enter the Ballance Farm Environment awards
UNSDG alignment			



Methodology

Preparation *This Sustainability Report has been prepared in accordance with the Global Reporting Initiatives (GRIs) Standards, ensuring comprehensive coverage of our sustainability performance. To accurately capture data, we have employed quantification and recording methods aligned with the GHG Protocol and ISO 14064-1. We have also aligned our efforts with the United Nations' Sustainable Development Goals (UNSDGs) to contribute to the global sustainability agenda.*

Data Assurance and Certification

While the data presented in this report have not undergone independent auditing, Barenbrug is committed to ensuring the highest level of transparency and accountability. We are working towards Toitū Certification for the 2024 financial year.

Reporting Period

This report reports on Barenbrug New Zealand's performance for the period of 1 July 2021 through 30 June 2022, corresponding with our financial year.

Scope

The emissions, operations and activities outlined in this report cover all Barenbrug New Zealand operating sites, including:

Courtenay Research Station – 2547 Old West Coast Road, RD 1, Christchurch

Seed Treatment Plant & Warehouse – 45 Izone Drive, Rolleston, Christchurch

Seed Treatment Plant & Warehouse – 8b De Leeuw Place, Hamilton



Our Key Metrics



219,878 km in air travel domestically and internationally in FY22.



92,384m³ water consumed on our Courtenay Research station in FY22.



1,480,026 kWh consumed across all sites in FY22.



21% female representation on our management team



114,270kg of fertiliser applied in FY22



\$50,000 invested in the local community in FY22 through sponsorships and donations



98,089 litres of fuel consumed in our vehicles in FY22.



650+ hours of community service in FY22

Environment

Our Commitment To Sustainable Innovation

Initiatives and Targets

LED Lighting

We have replaced 252.25m² of greenhouse lighting with LED lights. As part of our ongoing commitment, we have set a target to replace all remaining incandescent lighting in our operations with LED technology by the end of June 2026.

Electric Forklifts

To safeguard the well-being of our people and the environment, we use electric forklifts in our cool stores. As part of our ongoing effort to reduce emissions and enhance operational sustainability, we aim to have 100% of our forklifts powered by electricity by the end of June 2026.



Packaging

We are working to reduce the amount of plastic waste generated by the business. Recent initiatives have led to a 30% reduction in our plastic consumption, and we are looking at initiatives to shift to alternative materials wherever feasible.

Our business is committed to industry-led initiatives to reduce waste and we are taking a lead in the Seed Industry Research Centre project considering alternative packaging options to poly-woven plastic seed bags.



Our goal is for our packaging waste to be part of an accredited recycling scheme by June 30, 2024.

Air Travel

As a geographically dispersed organisation, we understand the importance of fostering

collaboration and an inclusive culture through face-to-face interactions. However, we also recognise that air travel comes at an environmental cost.

Using the 2022 financial year as a benchmark, where our organisation undertook 219,878 km in air travel domestically and internationally, we aim to achieve a 20% reduction in both domestic and international flights by the end of 2026. We will prioritise digital meetings and gatherings whenever possible, reducing the need for unnecessary air travel. We are taking steps to reduce air travel, while recognising the need to maintain connections among our staff, customers, and international counterparts.



Electricity

Our seed treatment plants and warehouse operations consumed 1,480,026 kWh across all sites in the 2022 financial year.

Solar power is a key opportunity to transition toward greater energy self-sufficient. As part of our sustainability commitment, we have set a target to have 25% of our energy needs provided by solar power by 30 June 2026.





Vehicles

Vehicles in our organisation consumed 98,089 litres of fuel in the 2022 financial year. We acknowledge the necessity of four-wheel drives, particularly utility vehicles, to support our operations in remote and off-road areas. However, we are also mindful of the emissions generated by our vehicles and their impact on the environment. Our vehicle policy is aimed at reducing emissions and prioritising the adoption of more fuel-efficient vehicles.



We recognise the role electric vehicles (EVs) play in achieving our sustainability objectives. By 30 June 2026 our aim is for 10% of our vehicle fleet to consist of electric vehicles.

While we understand the limitations of alternative transportation options for road and off-road vehicles, we remain dedicated to minimising emissions across our vehicle and farm machinery fleet. We will continue to explore and evaluate the feasibility of more sustainable alternatives, including hybrid and other low-emission technologies, to enhance our environmental performance.

CO₂-e Emissions

We are committed to reducing our CO₂-equivalent (CO₂-e) emissions. We have set ourselves a target to reduce CO₂-e emissions from our operations by 15% by June 2026.

A comprehensive inventory of our greenhouse gas (GHG) emissions can be accessed in the supplementary document 'Barenbrug New Zealand Greenhouse Gas Emissions Inventory Financial Year 2022'. This document details our GHG emissions, including the sources, quantities, and methodologies used for measurement. It serves as a transparent and accountable record of our environmental impact, providing stakeholders insight into our efforts to manage and reduce emissions.



Our People

Fostering Well-Being And Social Impact

We believe our people drive our success. With a nationwide team of over 60 dedicated professionals, we recognise the value of diversity and inclusion within our workforce. Our commitment to creating positive impacts extends beyond our organisation, into the communities we serve.

Safety and wellbeing

Ensuring the health and well-being of our workforce is a top priority for Barenbrug. We recognise the significance of maintaining a safe and supportive workplace that promotes both physical and mental health. To achieve this, we have implemented various initiatives and support systems.

We foster an open and supportive workplace that prioritises the well-being of every individual. As part of our commitment, we provide access to a company-funded Employee Assistance Programme (EAP) that offers free to staff independent, confidential support. This supports our employees with access to resources to address any personal challenges they may face.

Comprehensive medical and life insurance coverage is extended to all eligible employees. We believe that by taking care of our employees' health, we empower them to perform at their best both inside and outside the workplace. We also conduct regular health assessments, including hearing, lung function and skin checks, and provide flu vaccines, as part of our commitment to proactively support our employee's well-being.



Diversity

We create an inclusive environment where individuals from all backgrounds can thrive. We offer equal employment opportunities to all employees and applicants, regardless of age, race, national origin, sexual orientation, gender, gender identity, disability, or religion. At present 21% of our management positions are held by women. As part of our ongoing commitment, we have a target of achieving a balanced gender representation of 50% across our organisation.

New Zealand is a multi-cultural society with a unique identity forged through a true fusion between Māori and non-Māori world views. Our sustainability platform is aligned with the concept of Te Taiao which signifies the interconnectedness between people and nature – the encompassing of land, water, climate, and all living beings.





Training & Personal Development

Capability is a core value at Barenbrug. We measure our success not only by the results we achieve, but also by how we achieve them. This approach cultivates a safe and trusting work environment and ultimately creates a company culture that offers opportunities for individual growth and success.

The Barenbrug Learning and Development Strategy empowers our employees to enhance their skills, advance their careers, and receive ongoing support in their personal growth. We are committed to employing skilled and capable staff while providing opportunities for all employees to expand their knowledge and expertise. Within our Learning and Development Strategy, our 'Not Just a Job' programme enables employees to develop their skills and experience through both internal and external opportunities.

Each employee has a personal development plan, including regular meetings with their managers to ensure their growth and progress. Remuneration at Barenbrug is benchmarked against market standards. Additionally, we offer a discretionary profit-share scheme for eligible employees, providing them with the opportunity to share in the success of the business with our owners.

As a global company, we recognise the importance of offering our employees broader experiences and exposure. Through Barenbrug's Global Mobility Policy, we provide international development opportunities through short-term or long-term secondments, enabling our employees to broaden their perspectives and enrich their professional and personal growth.

Our Community

Making a positive difference

At Barenbrug, we understand the significance of engaging with and contributing to the communities in which we operate. We are committed to making a positive difference by participating in various charitable endeavours and initiatives that align with our values, and have a meaningful impact on society and seed production professionals.



Helping with Hands

Through our 'Helping with Hands' initiative, we are dedicated to lending a helping hand to those in need. This year, we contributed 650 hours of community service. This initiative enables us to support local community projects focused on areas such as education, environmental conservation, and social welfare. By leveraging our resources and expertise, we aim to create lasting positive change in the communities we serve.



One community project we have assisted with over the past three years is the Waimakariri Ecological and Landscape Restoration Alliance wilding conifer control initiative to help address the adverse effects of uncontrolled wilding pine plantations on our ecological systems and environment.

Staff Volunteer Days

We encourage our employees to engage in volunteer activities. Throughout the year, we organise dedicated staff volunteer days, enabling our team members to contribute their time, skills, and passion to various community projects. By volunteering, we strengthen the bond between our employees and the community, fostering a sense of purpose and shared responsibility.



Sponsorships and Donations

Barenbrug seeks opportunities to support organisations and events that align with our values and goals. This year, we contributed to the local community through sponsorships and donations. Through these contributions, support local initiatives, programmes, and projects.

Examples of sponsorship initiatives are:

- Westpac Rescue Helicopter
- Federated Farmers
- Arable Awards of New Zealand
- Rural Support Trust
- Dairy Development Trust Taranaki
- New Zealand's Grasslands Association
- New Zealand Grain and Seed Trade Association

Native Tree Regeneration

As part of our commitment to improving ecological diversity, we have planted more than 14,000 native trees and shrubs at Courtenay over the past seven years. This will continue as we plant more of our property through a planned regenerative planting programme.





Our Research Station

Improved farming practices

We have implemented improved irrigation systems and precision agriculture techniques to reduce water consumption, chemical usage, and fertiliser application.

Irrigation

In the past year we used 92,384m³ of water on our Courtenay Research Station. Barenbrug is a member of the Central Plains Water scheme, which is gravity fed and does not use electricity to pump water through the scheme. For more efficient control of water consumption, we have made significant investments in variable rate irrigation (VRI) technology.

Farm policies

Our farm policies prioritise responsible land management practices.

- We have adopted minimum tillage practices
- We do not burn stubble.
- Our fertiliser use target is to operate at less than 75% of the ECAN limits.
- Soil C levels/soil assessment.

Our objective is to stop or replace any activities that can have adverse environmental impacts.



We maintain a robust environmental plan and undergo regular audits, and we are working towards nationally recognised sustainability compliance standards, EnviroMark and Toitu certifications.

Pest management

We support initiatives such as Predator Free Kirwee, aiming to restore ecological balance by implementing effective pest management strategies that protect native flora and fauna.

15 LIFE ON LAND



Our Products

We prioritise breeding objectives that align with our commitment to sustainable agriculture. These focus on improving pasture resilience, reducing nitrogen leaching, optimising water usage, and improving overall farm sustainability. Some examples are:

Array NEA2 perennial ryegrass:

In trials, Array has grown significantly more feed under low N conditions than other ryegrass cultivars, through its ability to extract more nitrogen from the soil. This means more even pasture growth at times when soil nitrogen is deficient, as well as providing the potential to utilise nitrogen more efficiently.

Forge NEA hybrid ryegrass:

Forge has demonstrated extra winter yield to better mitigate nitrate leaching through the high-risk cool season when soils are wet. Its palatability and high feed value lift per animal performance, which is a mechanism to lower greenhouse gas emissions.

4front NEA2 tetraploid ryegrass:

4front is a highly palatable tetraploid, which has been promoted to dairy farmers with the '4front System' of dairy farm management. This comprises grazing 4front later, growing more, with a lower nitrogen content and higher per cow performance. The result is less nitrate leaching and greenhouse gas emissions.

Bombardier EG kale:

Bombardier is an easy-graze (EG) kale, bred with very soft, digestible stems. This allows winter grazing at lower stocking rates, thus improving animal welfare through winter, and reducing nitrate leaching.



Maxsyn NEA4 perennial ryegrass & Rohan spreading perennial ryegrass:

These cultivars were specifically bred for resilience, to provide longer lived pastures, Maxsyn for more intensive farming and Rohan for hill country. This provides environment benefits as it reduces the need for pasture renewal, a process that uses fossil fuels and releases carbon from the soil.

Biodiversity

Biodiversity is an important factor in New Zealand's pasture-based agriculture system and can improve outcomes for our land, water and environment as well as for our animals and climate. We have a range of products (grasses, legumes and herbs) and systems solutions, with data, that allows us to support biodiversity claims in the market. We are also involved in a number of research projects which focus on biodiversity.

We are industry partners in two MPI Sustainable Food & Fibre Futures projects. The first, Evaluating Regenerative Farming Principles and Developing





Farmer Resilience on a Dryland Demonstration Farm, is in association with On-Farm Research and the Poukawa Research Station. This project will scientifically test and incorporate new forage management practices and principles of regenerative farming into a dryland sheep and cattle farming system.

The second is Whenua Haumanu: Nurturing the land through exploring pastoral farming. This is a pan-industry project involving researchers, industry bodies and commercial organisations. It focuses on both standard and diverse pastures and conventional and regenerative management practices. It is taking place across several research sites to assess the suitability and relevance of regenerative agriculture in New Zealand. The project will measure multiple aspects across the farm system, exploring the impact on soils, pasture performance, animal production and welfare (dairy and sheep), nutrient levels and losses, carbon production and storage and product quality.

Packaging

Reduced plastic use:

We have successfully reduced our plastic consumption in sacks by 30% in the last year, by shifting to a new manufacturing process. We have also reduced sack use significantly by holding seed in reusable bins with reusable liners wherever possible. We are currently investigating the use of alternative sack materials where feasible.

Recycling initiatives:

Barenbrug participates in plastic recycling programs, aiming to minimise plastic waste and promote circular economy principles.

By integrating sustainability into our business practices, we strive to be amongst leaders in sustainable agriculture, foster environmental stewardship, and contribute to the well-being of our environment and communities. We remain committed to continuous improvement and innovation, driving positive change across our operations and supply chain.



Our Targets

Focus area	Target	Target date	Measure as at 30 June 2022
Environment	• 100% LED lighting across all Barenbrug sites	June 2026	40%
	• 100% electric forklift fleet	June 2025	44%
	• 100% of packaging covered by an accredited recycling initiative	June 2024	To Commence
	• Air travel miles reduced by 20% from 2022 base	December 2025	219,878 km
	• 25% of electricity requirements from Barenbrug-generated solar power	December 2026	0%
	• No vehicles in the Barenbrug fleet >10 years old	June 2025	4
	• 10% of company vehicles to be EV/ hybrid	December 2024	2%
	• CO ₂ -e emissions decreased by 15% from 2022 base	June 2026	1,182.73t CO ₂ -e
People & Community	• Zero serious harm injuries	Immediate	0
	• 50% gender mix in Barenbrug's management team	June 2027	21%
	• Bi-annual salary review to ensure remuneration in the 75th percentile for all roles	June 2024, 2026	To Commence
	• Managers conduct personal development plan meetings with 100% of staff	Annually	98%
	• 8.5 or greater score in employee engagement survey.	Every 3 years	8.1
	• Minimum of 700 hours of company-wide local community support through 'Helping with Hands'	Annually	650
Our Business	• A-grade for farm environment plan	Every 3 years	A
	• Begin Toitu accreditation process	December 2023	To Commence



Throughout this report, we have outlined our sustainability initiatives and targets.

By setting measurable goals and continuously challenging ourselves, we aim to drive positive change and make a meaningful difference.

We will continue to prioritise environmental efficiencies, enhance the lives of our people and engage with our communities, and drive improved environmental outcomes for the pastoral sector.

Together, with our employees, customers and stakeholders, we are working towards a more sustainable future.

Barenbrug New Zealand Limited
June 2023



