



100% MADE OF NEW ZEALAND

Greenhouse Gas Inventory

Our 2025 Carbon Footprint

Good by nature 

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01

Introduction

Agriculture has a key role to play in New Zealand’s transition to a net zero economy, and in making progress to meet our national and international climate targets.

As a large emitter, Silver Fern Farms prioritises transparency and rigour in the way we measure, report and reduce emissions across our value chain.

This document reports our greenhouse gas (GHG) inventory and reduction targets.

This report is a full Greenhouse Gas (GHG) Inventory of our 2025 GHG emissions, performance against our emissions targets and action to reduce emissions.

All emissions reported have been certified by Toitū Envirocare.

Previous emissions reports and other sustainability disclosures can be found in the **Key Sustainability Documents** section of our website.

This Greenhouse Gas (GHG) Inventory Report 2025 has been prepared by Silver Fern Farms for the 2025 calendar year, and emissions values have been independently certified by Toitū Envirocare (30 March 2026). We have used reasonable efforts to ensure the accuracy of this report as at that date, based on the information available. This report contains forward-looking statements and these cannot be relied upon. There are many factors that could cause Silver Fern Farms’ actual results, performance or achievement of emissions-related targets to differ materially from those described. We reserve our right to revise statements made and/or our strategies and business activities described in this report without notice.

Nothing in this report should be interpreted as capital growth, earnings or any other legal, financial, tax or other advice or guidance. To the greatest extent permitted by law, Silver Fern Farms (including its directors, officers and employees) do not accept and expressly disclaim any liability for any direct, indirect and/or consequential loss arising from any use or inability to use the information in this report, arising from any cause whatsoever (including contract, tort, equity or otherwise).



Message from the CEO

At Silver Fern Farms, we operate in a sector where our performance is inseparable from the environment and farming systems that sustain us. Managing greenhouse gas emissions is not a peripheral activity for our business; it is central to protecting the long term value of our farmers’ products and maintaining market access.

This 2025 Greenhouse Gas Inventory sets out, in full, our emissions profile across our value chain and the actions we are taking to manage it. It reflects our commitment to transparent, independently assured reporting and to continuous improvement in how we measure, understand, and reduce emissions. We publish this inventory voluntarily, using internationally recognised standards and third party verification, because credible progress depends on clear evidence, not storytelling.

We are pleased to report that in 2025, we have achieved a 2% reduction in total emissions on the previous year, and an 18% reduction on the base year.

The majority of our emissions are created by livestock naturally as they graze and grow. Addressing this reality requires long term investment in practical, science-based solutions that work for farmers. That is why we continue to invest in AgriZero NZ, a public-private partnership focused on accelerating the development of methane and nitrous oxide reduction technologies into the hands of New Zealand farmers. It’s also why we have had a focus on improving our on farm emissions reporting.

We know that farmers are making decisions every day that improve their productivity — such as improved pasture and crop utilisation and livestock growth rates — and as a result their emissions efficiency.

This inventory reflects the wider evolution of our reporting. We have expanded our Scope 3 boundaries, recalculated our 2021 base year, and incorporated more granular Life Cycle Assessment data to better represent emissions across our supply chain. These changes increase transparency over time, even where they result in higher reported emissions, because decision-grade data is essential for credible emissions management.

We continue to make good progress towards our processing targets. 2025 saw us achieve a 25.6% decrease in Scope 1 and 2 emissions. Removing coal use from our operations continues to be a key focus for us, and our Belfast Site achieved that in 2025. This milestone demonstrates how disciplined capital allocation and operational focus can deliver measurable emissions reductions.

While we cannot directly influence emissions reductions within our broader supply chain, our strong commercial relationships with M2X and Kotahi are starting to show dividends for transparent Scope 3 reporting and progress towards target achievement. These relationships are delivering material benefits through optimised transport routes and stable access to ocean freight.

We think that by being explicit about where our emissions sit, investing in innovation, and reporting openly on progress and limitations, we are laying the groundwork for a transition that is practical, evidence-based, and durable.

Our approach to emissions management sits within a broader responsibility to nourish people and places. The food we produce must deliver nutritional value while safeguarding the natural systems and farming communities that make that nourishment possible. By improving the integrity of our emissions data, investing in resilient production systems, building partnership-based commercial relationships, and supporting farmers through the transition ahead, we are focused on building enduring value for our suppliers, our customers, and the landscapes on which our business depends.

This connection between nourishment, stewardship, and long term value underpins our nature positive ambition and guides the decisions reflected in this inventory.

Ngā mihi,

Dan Boulton
Chief Executive Officer





Creating goodness from the farms the world needs

Our Purpose

Our purpose is creating goodness from the farms the world needs. This purpose is realised through the systems we build and the transparency we provide. As we sharpen our focus on becoming a nature-powered nourishment business, this requires us to better understand the performance of our farming systems, as they relate to our supply, in a way that is credible, connected, and grounded in evidence. It also requires us to be open about where we are making progress, and where challenges remain. Holding ourselves to account means ensuring the data we provide is relevant, accessible, and independently verified. It is with this in mind that we voluntarily publish our annual Greenhouse Gas Inventory.

At the heart of this purpose is a responsibility to care for the land, ecosystems and communities that sustain us.

Our ambition is clear: to lead in nature positive production in a way that is credible, practical, and grounded in action. We see this not as a separate sustainability objective, but as the foundation of how we create value for our business, for our farmers, and for the customers and communities who place their trust in us. It is how we move toward a higher-value future built on proof, stewardship, and resilience, rather than volume alone.

Since our 2024 Inventory, we have set SBTi-validated targets across our farm supply, our direct operations, and our non-farm indirect emissions. We recognise that delivering against these targets requires practical partnership with our farmer suppliers and value chain partners, alongside sustained investment in decarbonisation and emerging solutions. Climate innovation remains a core component of our Sustainability Action Plan. To maintain integrity in our greenhouse gas reporting, we have recalculated our 2021 base year to reflect updated emissions sources and methodologies.

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Our Climate Action and Targets



Our Climate Action and Targets

The following section sets out our emissions reduction targets in detail. We recognise our responsibility to reduce emissions in a way that is credible and transparent and meets the expectations of our customers and New Zealanders. We take an independently assured approach to measuring and reducing emissions, partnering with Toitū Envirocare to support accurate reporting and continuous improvement.

Our key emissions reduction targets are validated by the Science Based Targets initiative (SBTi) as consistent with a 1.5°C pathway. Our Scope 1 and 2 targets will be mainly achieved by decarbonisation of process heat. Our non-farm Scope 3 reductions focus on reducing waste and continuing to improve our supply chain transport, achieved through close collaboration with our transport logistics partners, building on trusted relationships to jointly advance lower emissions solutions.

Land use and agriculture are central to our business, and the SBTi Forestry, Land and Agriculture (FLAG) pathway applies to on-farm emissions. Reducing methane is essential to delivering meaningful on-farm emissions reductions, which is why we continue to invest in AgriZero NZ and recognise emissions reductions achieved by suppliers through production improvements. Silver Fern Farms Co-operative Ltd and our one-on-one relationships with shareholding suppliers are critical enablers of on-farm Scope 3 emissions reductions at any scale.

While the FLAG pathway allows removals to contribute to targets, we have not applied removals to our organisational inventory and will report if this changes.

Outside our direct influence and supply relationships, our commitments to zero deforestation linked to beef production, reducing food loss and waste through the Kai Commitment, and supporting farmers through the NZFAP Plus assurance programme support wider system changes and emissions management.



Current Performance Against Near Term Targets

Footnotes:

1. The target includes FLAG emissions and removals.

2. The target boundary includes land related emissions and removals from bioenergy feedstocks.

3. The figure above excludes emissions from business accommodation and consumer use of food products (aligned with the SBTi corporate Net-Zero standard).

4. Supported by the wider meat processing industry Prism Earth has mapped deforestation across our beef supply chain using EUDR criteria and found that less than 2% of total beef production in New Zealand is sourced from a farm where deforestation may have occurred. Silver Fern Farms actual source of beef from any farms where deforestation may have occurred is much less than 2%.



Emissions Type	Materiality (% of Emissions) in current year	Target Reduction	Target Wording	Target type	Base Year	Target Year	SBTi Validated	Current Year reduction on baseline (%)
Scope 1 FLAG Absolute emissions	0.04%	36.40%	Silver Fern Farms commits to reduce absolute Scope 1 FLAG GHG emissions by 36.4% by 2032 from a 2021 base year. ¹	Absolute	2021	2032		18.3%
Scope 1 and 2 Energy and Industrial (i.e. non-FLAG) Absolute emissions	1.27%	42.70%	Silver Fern Farms commits to reduce absolute Scope 1 and 2 GHG emissions 42.7% by 2030 from a 2021 base year. ²	Absolute	2021	2030		25.8%
Scope 3 Energy and Industrial (i.e. non-FLAG) Absolute emissions	6.89%	32.50%	Silver Fern Farms also commits to reduce absolute Scope 3 GHG emissions 32.5% by 2032 from a 2021 base year. ²	Absolute	2021	2032		21.4% ³
Scope 3 Beef Commodity FLAG Emissions Intensity	63.48%	16%	Silver Fern Farms commits to reduce Scope 3 FLAG GHG emissions Intensity from purchased beef by 16% per tonne of fresh weight by 2032 from a 2021 base year. ¹ Our SBTi target provides for the use of up to 5% removals, our primary aim is to meet this target through gross emissions reductions.	Intensity	2021	2032		0.3%
Beef No deforestation	-	100%	Silver Fern Farms also commits to no deforestation across its primary deforestation-linked commodities, with a target date of December 31, 2025.	Commitment	2020 Cut off date	2025		>98% ⁴
Scope 3 Sheep FLAG Absolute emissions	22.15%	10%	Absolute reduction in sheep emissions by 10% by 2032 from a 2021 base year.	Absolute	2021	2032	-	14.0%
Scope 3 Venison FLAG supplier engagement	3.04%	-	Supplier engagement target. There is no emissions reduction target in place for venison at this time, beyond engaging with Silver Fern Farms farmer suppliers. (See p.12 for more detail).	Supplier Engagement	-	-	-	-

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Emissions



Emissions

Silver Fern Farms’ total GHG emissions for the FY25 reporting period are 4,819,635 tCO₂e across all scopes. This is a 2% reduction on the previous year, and an 18% reduction on the base year.

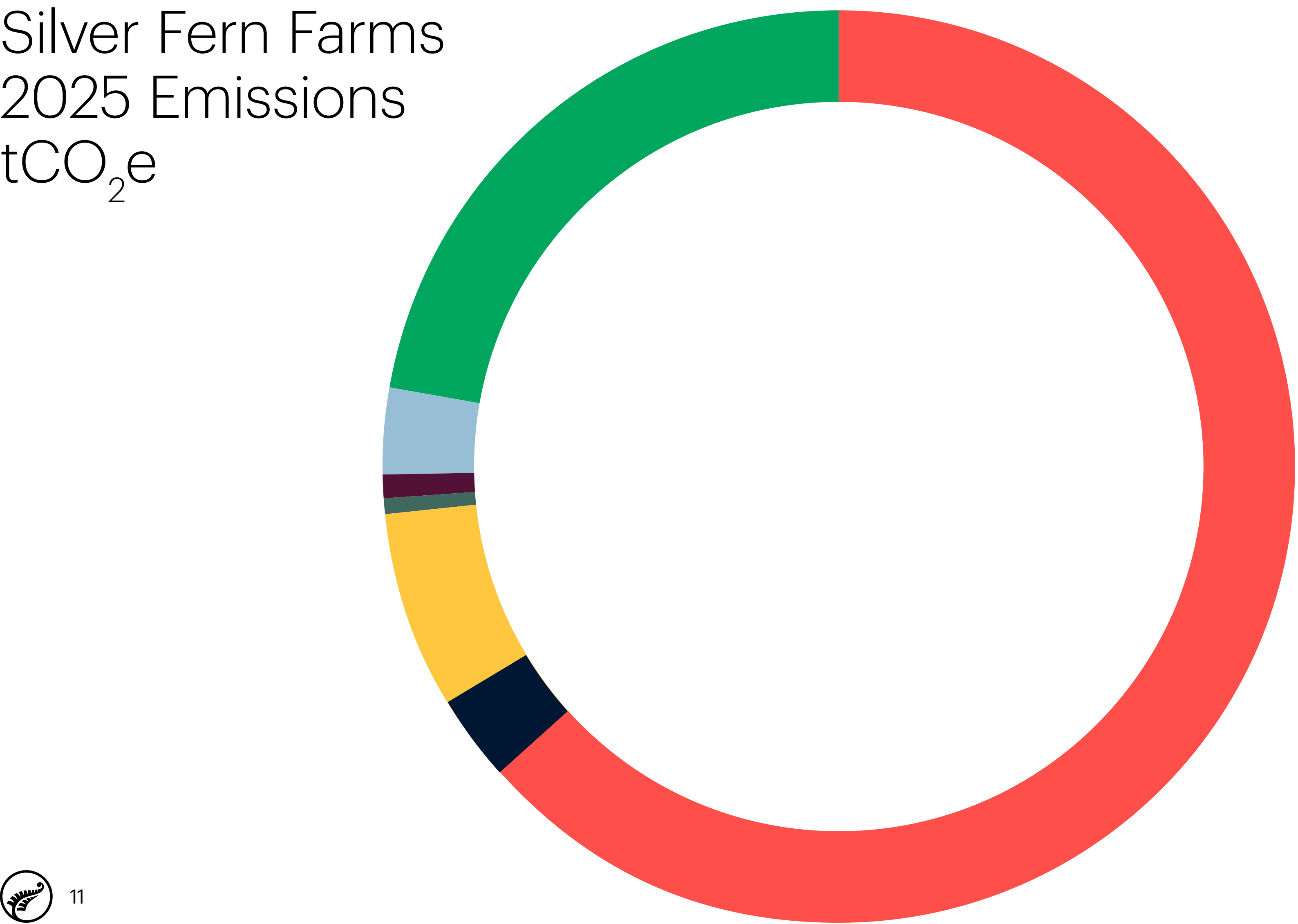
Our baseline inventory for 2021 has been recalculated to include all scopes and is 5,875,280 tCO₂e. Since 2022 we have reported on-farm emissions using Life Cycle Assessment (LCA) data generated in our Net Carbon Zero product certification, we believe this approach offers higher integrity, as it provides more specific and granular data than using a Ministry for the Environment emissions factor. Taking a data-led and transparent approach has increased our total inventory on paper but we believe this is more representative of the total emissions within our value chain. The LCA undertaken is much more capable of reflecting any changes that might occur within our operations and across our supply to reduce emissions. Our considerable investments in AgriZero NZ are key to unlocking Scope 3 emissions reductions over the medium term.

Since 2022, we have progressively expanded our Scope 3 inventory boundaries, and now include emissions from international ports through to the disposal of goods at end of life. This inventory reports for the first time, subsidiary and joint venture emissions. It also extends to reporting downstream distribution, retail use, consumer use and end of life for meat using LCA derived emissions factors. We are now reporting emissions from capital goods and have extended our reporting on purchased goods and services using spend based analysis. Importantly, we have recalculated and recertified our 2021 base year to include these additional emissions sources and can now directly compare our 2021, 2025, and future years emissions to a consistent boundary and methodology.

Silver Fern Farms continues to invest in process heat decarbonisation to meet our Scope 1 and 2 reduction targets. The installation and commissioning of an electric boiler at Belfast mid-way through 2025 completes coal out for that processing site and emissions from burning coal are now over halfway to the coal out commitment made in 2020. Absolute emissions in 2025 decreased relative to 2021, with reductions of 26% for Scope 1 and 2, and 18% for all Scope 3 emissions categories.



Silver Fern Farms 2025 Emissions tCO₂e



● 1.0%	Scope 1 An organisation's direct GHG emissions (45,608 tCO ₂ e)
● 0.4%	Scope 2 Emissions associated with the generation of purchased electricity (17,696 tCO ₂ e)
● 6.9%	Scope 3 Energy and Industry Emissions (332,193 tCO ₂ e)
● 3.1%	Scope 3 Business Accommodation and Consumer Use (150,968 tCO ₂ e)
● 63.5%	Scope 3 On-Farm Emissions Beef (3,059,343 tCO ₂ e)
● 22.1%	Scope 3 On-Farm Emissions Sheep (1,067,542 tCO ₂ e)
● 3.0%	Scope 3 On-Farm Emissions Venison (146,284 tCO ₂ e)



Scope 1 and 2 Emissions

Scope 1 emissions are an organisation’s direct emissions and Scope 2 are indirect emissions, and for Silver Fern Farms, this is from purchased electricity.

74.6% of our Scope 1 and 2 emissions in 2025 were generated from the stationary combustion of energy at our sites (coal, diesel, wood biomass, wastewater sludge) or imported into them (electricity). The remaining emissions in this category are from short-term holding of livestock on company-owned farms, industrial processes, vehicle fuel use, treatment of waste, and refrigerant leakage.

Scope 1
45,608 tCO₂e,
1.0% of total emissions

Scope 1 emissions arise directly from our operations and include coal and natural gas used for heating water at our processing sites. Coal is the major component of our controllable Scope 1 emissions and is a focus of Silver Fern Farms’ direct emissions reductions projects contained within our Sustainability Action Plan and Carbon Roadmap. We have achieved our target to halve coal emissions by 2026 (from a 2020 baseline) early and are well on track to achieve zero coal use by 2030 (if not before).

Scope 2
17,696 tCO₂e,
0.4% of total emissions

Our Scope 2 emissions are entirely made up of electricity used across our operations and corporate hubs. Our electricity consumption for the FY25 reporting period is 146,162,513 kWh. This is a 0.40% reduction on the previous year, and a 1.0% increase on the base year.

Emissions from energy are influenced by both how much energy we have used, and the climate impact of that energy use. Scope 2 emissions are driven by our electricity use and can fluctuate from year to year. The emissions factor applied to electricity consumption reflects the proportion of renewable energy supplied through the national grid each year. As the renewable share of the grid changes, so too does the climate impact associated with our electricity use.

The biggest draw on this energy use is in the generation of the hot water necessary for meat processing. As we decarbonise that processing heat, our electricity consumption in relation to other energy sources will continue to rise. At the same time, our operations team are doing a great job to continually improve our energy efficiency through replacement of aging machinery, heat recovery and water use reductions.

Energy use reduction improvement plans are in place for all Silver Fern Farms processing sites, and these prioritise the efficient use of electricity over non-renewable fuels.



Scope 3 Emissions

Scope 3 emissions are indirect emissions resulting from the activity of Silver Fern Farms.

Our Scope 3 emissions are categorised as Forestry, Land, and Agriculture (FLAG) (farm emissions) and non-FLAG (non-farm emissions).

Total Scope 3 Emissions
4,756,331 tCO₂e,
98.6% of total GHG Inventory

Scope 3 emissions are indirect emissions resulting from the activity of Silver Fern Farms. These are broken down into on-farm (Forest Land and Agriculture (FLAG)) and non-farm (Non FLAG).

Non-farm emissions are from transportation (freight, employee commuting, business travel), products used (capital goods, solid waste, purchased goods and services, upstream fuel and energy related activities and the transmission of energy) and products produced (investments, use of sold meat, end of life for sold meat). Our Scope 3 emissions profile is dominated by on-farm methane and nitrous oxide emissions; these are derived from enteric fermentation (methane that is produced when animals eat grass and turn it into digestible energy) occurring in ruminant livestock (sheep, cattle, and deer), and nitrous oxide, from soil microbes breaking down the nitrogen component of livestock urine patches.

Within this inventory, we have met SBTi requirements for full Scope 3 reporting aligned with the GHG Protocol. This required us to add reporting for indirect emissions from downstream processing and distribution, end of life, subsidiaries and capital goods. We used LCA-derived and spend-based estimates where required. At this stage, downstream retail and end-of-life emissions are reported for meat only, excluding co-products such as leather and compost.

FLAG Emissions
4,273,170 tCO₂e,
88.6% of total GHG Inventory

On-farm emissions have been calculated, as in the previous year, by applying a more specific methodology that draws on the LCA completed under the Toitū Net Carbon Zero product certification. Absolute on-farm Scope 3 emissions have reduced by 949,515 tCO₂e on the 2021 base year (from 5,222,685 tCO₂e) and are reduced by 491,133 tCO₂e on the previous year (from 4,764,303 tCO₂e). This change is largely driven by processing volumes and the mix of livestock we process. Different classes of livestock produce different emissions profiles, for example sheep emissions differ from deer and cattle, and within cattle, beef animals sourced from dairy farms have a different profile to those farmed exclusively for beef. Scope 3 beef emissions intensity under our SBTi FLAG target has decreased slightly, from 17.93 tCO₂e per tonne of fresh carcase weight in the base year to 17.88 tCO₂e. This modest change is expected, as any more significant reductions will depend on AgriZeroNZ investments being commercially available and being used by a large group of our suppliers. We also expect emissions reductions in future years to derive from dairy beef processing, genetic improvements and continued on farm production gains from farmers resulting in more emissions efficient animals, soils and pastures.

Non-FLAG emissions
483,161 tCO₂e,
10.0% of total GHG Inventory

The main sources of non-FLAG emissions are purchased goods and services (17%), distribution and retail activity downstream of international receiving ports (34%), freight to international ports (12%), and freight within Aotearoa New Zealand (6.6%). Other sources include energy-related activities across the value chain (5%), composting of operational waste (3%), end-of-life treatment of meat products (3%), capital goods (2%), employee commuting (2%), emissions resulting from our investments – the activities of our subsidiaries and joint ventures (1%), and landfilling of operational waste (0.2%).

We have reported a considerable reduction of 21.4% in our non-FLAG Scope 3 emissions. This has also been influenced by processing volumes in the 2025 year and we would expect this to fluctuate with processing volumes. This result is also reflective of our continued excellent commercial relationships with our transport logistics partners in improving efficiency of livestock transport and long term efficiency and fuel use of shipping. While waste to landfill from processing sites only makes up a small fraction of our emissions profile, we continue to make very good progress across our operational waste targets.



Our Impact Across Targets

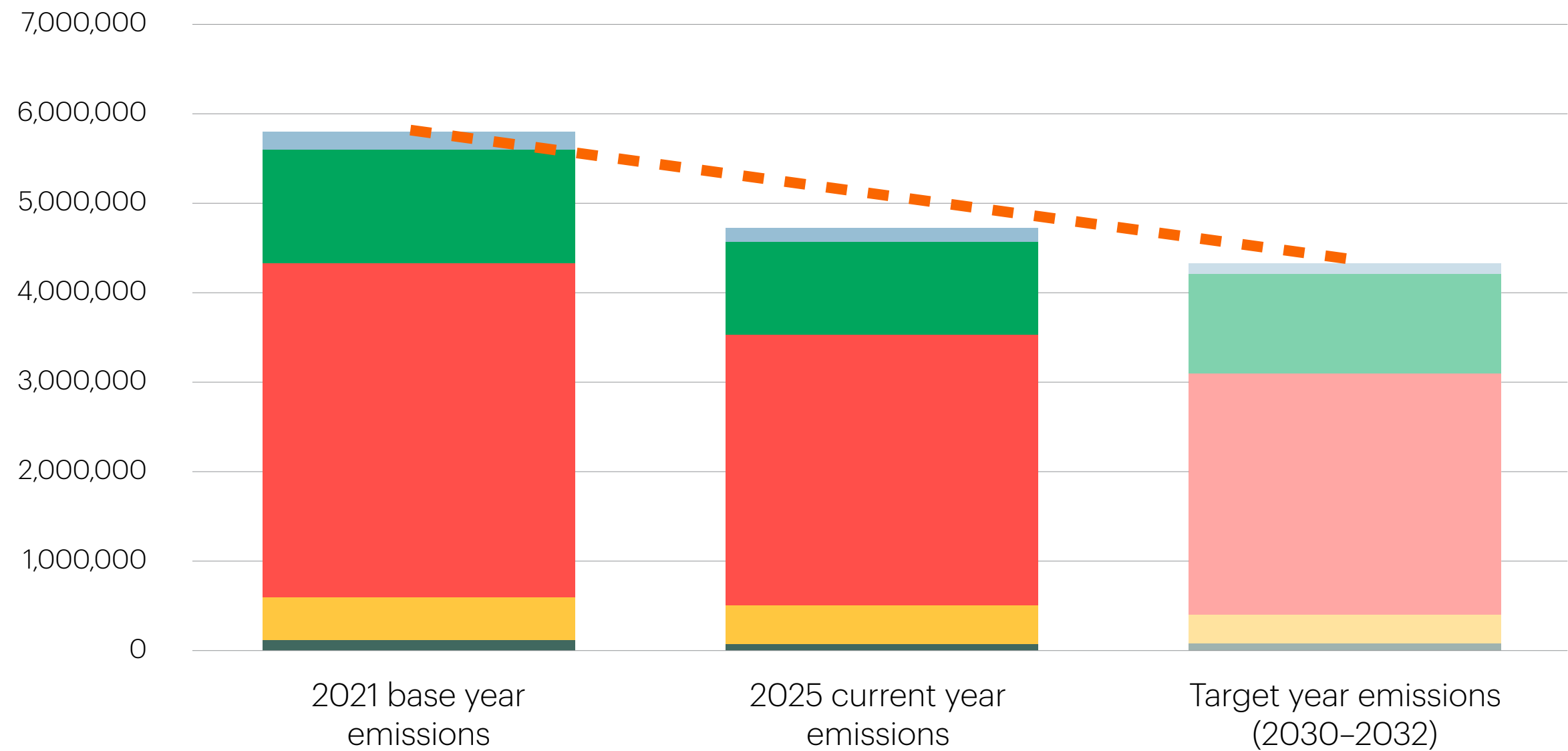
Silver Fern Farms’ emissions are most materially linked to on-farm activity, for this reporting period, 88.7% of total emissions. Of these, beef farming emissions dominate at 64%, primarily driven by enteric fermentation – the conversion of grass feed to methane by microorganisms in the cattle’s stomach (rumen).

Our beef emissions reduction target is intensity based; this means that we are targeting a reduction in the emissions intensity of production. This could come from both increasing efficiency and reducing absolute emissions. For deer, we have a supplier engagement target in place, as opposed to a formal emissions reduction target.

Our remaining emissions targets are absolute. This includes sheep emissions, emissions from our company farms, E&I emissions from our value chain, and E&I emissions from our direct operations.

To show the total emissions reductions by 2030-2032 that would be achieved by meeting our targets, we have calculated these assuming current livestock volumes are maintained. To meet our targets, total emissions will need to reduce from 5.9 million tCO₂e in 2021 to 4.3 million tCO₂e by target year.

Emissions and Reduction Goals as Absolute Emissions tCO₂e



- Scope 3 Venison FLAG Absolute emissions
- Scope 3 Sheep FLAG Absolute emissions
- Scope 3 Beef Absolute emissions commodity FLAG emissions reductions
- Scope 3 Energy and Industry (E&I)
- Scope 1 & 2 Energy and Industry (E&I)
- Scope 1 FLAG Absolute emissions
- Near Term Target Emissions aligned to 1.5°C pathway

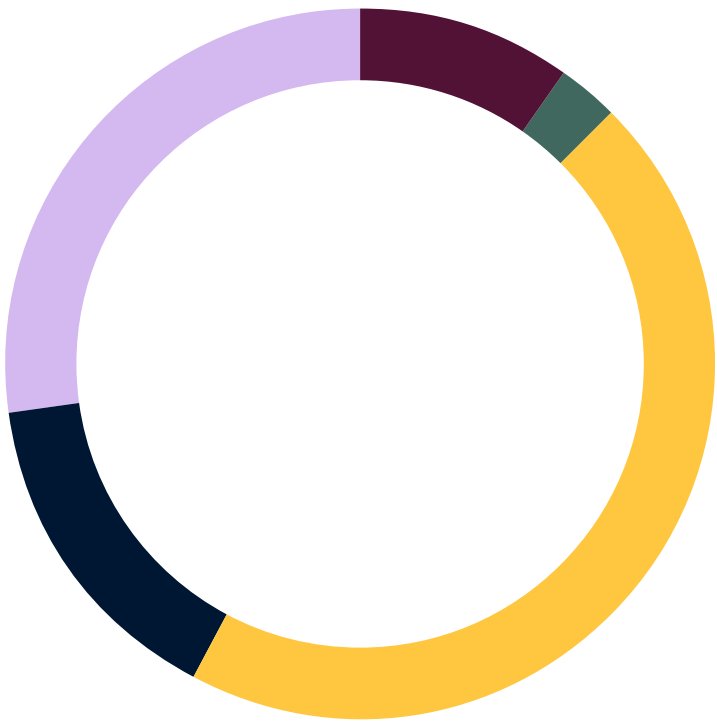


Changes in Our Emissions Profile

The graphs to the right outline the changes to our emissions profiles across all Scopes for non-farm and farm emissions. The four graphs show the change in overall contribution of emissions sources in our 2021 baseline, to 2025.

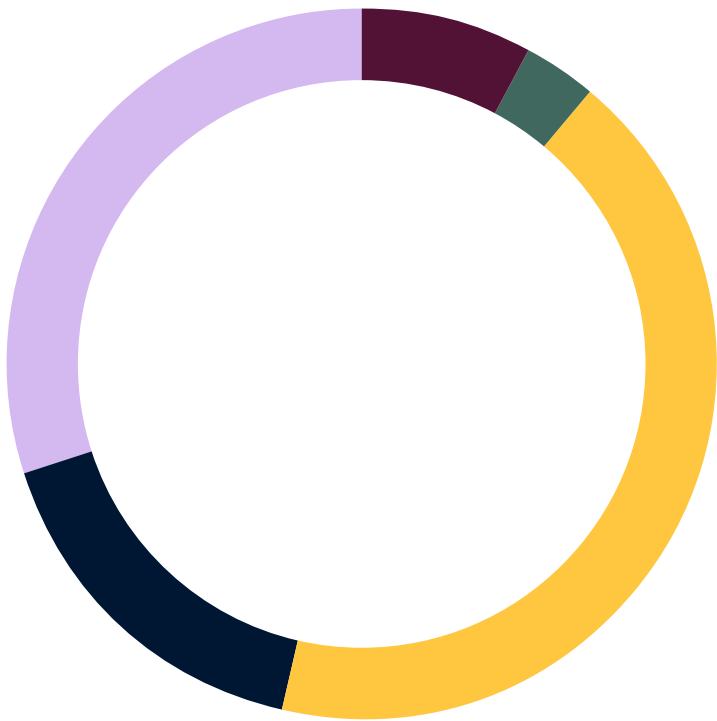
Emissions reductions will occur at different rates depending on the availability and uptake of reduction pathways. These varying rates can alter the relative contribution of different emissions sources within a category (e.g. farm and non-farm emissions). As a result, the percentages shown in the graphs reflect the proportion of emissions from each source, rather than the magnitude of emissions reductions.

We have had a change in the relative contributions of sheep and beef related to supply, which has impacted on their percentage share of the emissions.



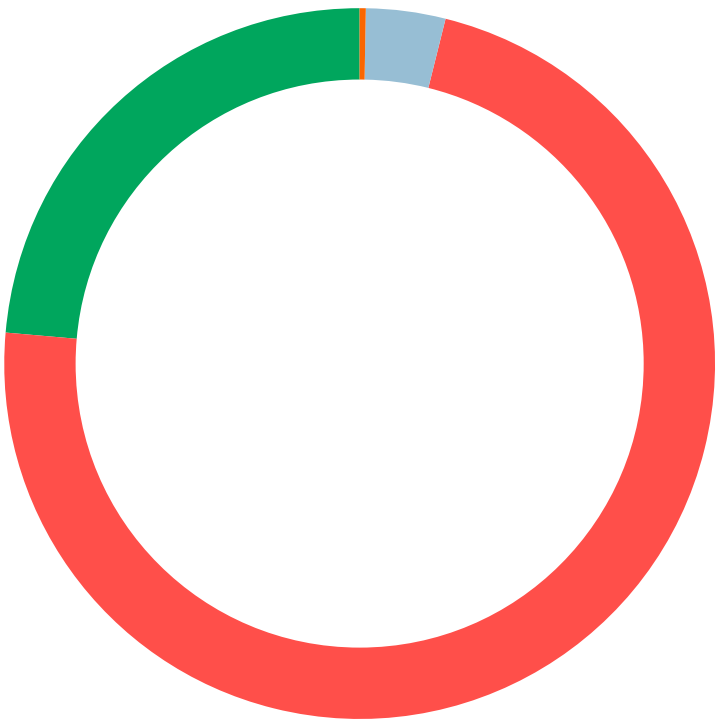
2021 Non-Farm Emissions tCO₂e

9.8%	Scope 1
2.9%	Scope 2
45.2%	Scope 3 Indirect emissions from transportation - freight, business travel and commuting
15.1%	Scope 3 Indirect emissions from products used - purchased goods and services, energy related activities, waste, and capital goods
27.0%	Scope 3 Indirect emissions associated with the use of products from the organisation- including investments



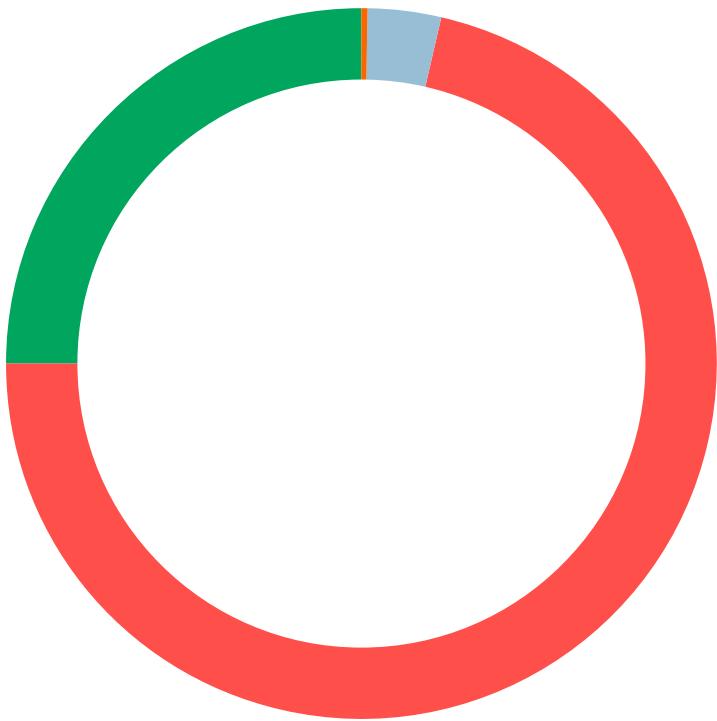
2025 Non-Farm Emissions tCO₂e

8.0%	Scope 1
3.3%	Scope 2
42.5%	Scope 3 Indirect emissions from transportation - freight, business travel and commuting
16.4%	Scope 3 Indirect emissions from products used - purchased goods and services, energy related activities, waste, and capital goods
29.8%	Scope 3 Indirect emissions associated with the use of products from the organisation- including investments



2021 Farm Emissions tCO₂e

0.1%	Scope 1 On-Farm Emissions
3.6%	Scope 3 On-Farm Emissions Venison
23.7%	Scope 3 On-Farm Emissions Sheep
72.6%	Scope 3 On-Farm Emissions Beef



2025 Farm Emissions tCO₂e

<0.1%	Scope 1 On-Farm Emissions
3.4%	Scope 3 On-Farm Emissions Venison
25.0%	Scope 3 On-Farm Emissions Sheep
71.6%	Scope 3 On-Farm Emissions Beef





EU Deforestation Regulations Case Study

As global markets tighten expectations on supply chains, proof-backed environmental data is becoming a ticket to trade. Compliance is no longer just a paperwork exercise. It is increasingly a requirement for market access.

From 30 December 2026, the European Union (EU) will introduce new import requirements to ensure products it buys from overseas, including New Zealand beef and beef co-products, are not linked to deforestation. Silver Fern Farms is well placed to meet these expectations with a practical approach that can provide the detailed, auditable evidence required under the European Union Deforestation Regulation (EUDR).

New Zealand is one of very few countries that can meet the EU’s deforestation requirements with confidence. Deforestation that meets the EU definition is rare here, and rarer still on land where cattle have been present. The task now is to demonstrate that clearly and consistently, at the standard of evidence the EU expects.

Some retailers and customers want to demonstrate deforestation-free supply chains ahead of the regulation’s start date. We intend to support that ambition, so customers can move early and with confidence.

We know our European customers will be looking closely at compliance risk for beef and beef co-products imports. Our two-phase response is designed to meet EUDR due diligence requirements efficiently, while maintaining the integrity of New Zealand’s supply chain and protecting access to key markets.

Phase 1 cross-checks EU deforestation maps against our own records of deforestation activity on land used for cattle. It combines satellite imagery with animal movements from NAIT tag data to confirm land-use status and strengthen due diligence.

Phase 2 is the fully developed system. It will allow us to identify and exclude any cattle that do not meet EUDR requirements from EU-eligible product. It will also generate due diligence statements for customers and provide regulators with clear evidence that imported beef meets EUDR requirements.

To move early, Silver Fern Farms worked in collaboration with the Meat Industry Association (MIA) and other processors to support Prism Earth in building an automated solution that combines remote sensing, geospatial analysis and NAIT traceability data. Together, these inputs map farm boundaries and vegetation across each animal’s lifetime. Through our Joint Venture with Lynker Analytics in technology provider Prism Earth, we can manage compliance on the processor side, as part of our business-to-business relationship with European customers, without shifting that burden onto farmers.

Our aim is to have this operating as business as usual ahead of the EUDR start date. That means we can manage EU eligibility at the animal level, including co-products such as hides and leather.

By working with MIA, we are helping ensure the industry is aligned and ready for what comes next, so every company, and every farmer supplying them, can succeed under the new requirements.

Case study originally published in the Silver Fern Farms Limited 2025 Review
[Click here to view the 2025 review](#)

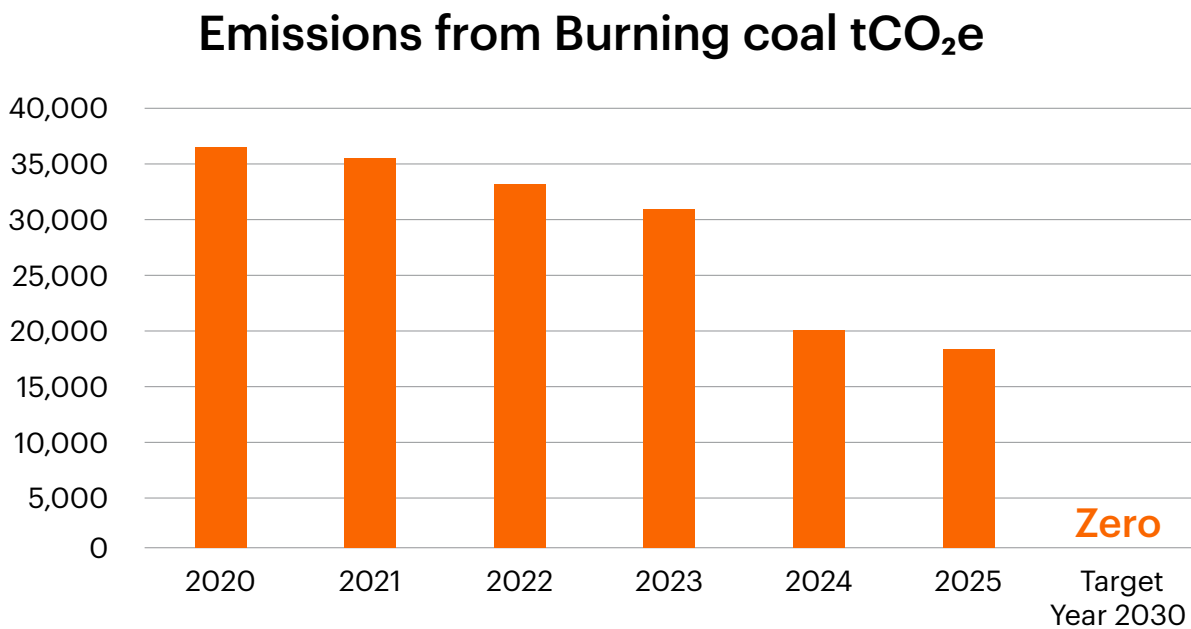
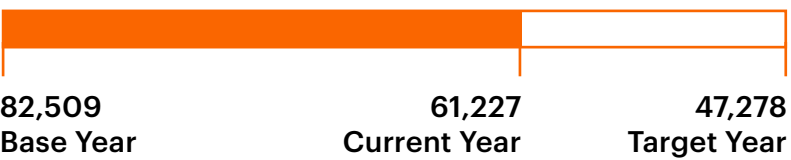
Scope 1 and 2 Energy & Industry Emissions Target

Our target is to reduce Scope 1 and 2
E&I emissions by 42.7% by 2030.
We are well on track to achieve this.

Since launching our continuous improvement programme focused on energy efficiency, waste reduction, and capital investment in decarbonising process heat, we have reduced our Scope 1 and 2 processing emissions by 25.8% from the 2021 base year. A key milestone during 2025 was the installation and commissioning of an electric boiler at the Belfast processing site meaning the site has now achieved coal out.

To date, 21,000 tCO₂e have been eliminated from our Scope 1 and 2 emissions across our processing sites. Our sites continue to focus on reducing excess hot water use, and process efficiency plans for energy & water are underway at all sites. We continue to invest in process heat decarbonisation through conversion of steam powered equipment, and switching to more renewable fuels (biomass, electricity, wastewater sludge).

Absolute emissions target (tCO₂e)

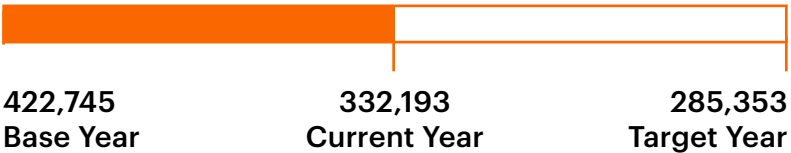


Scope 3 Energy & Industry Emissions Target

Our target is to reduce E&I emissions in our value chain by 32.5% by 2032.

The key emission generating activities are distribution and retail after sale, purchased goods and services, freight to international ports, and freight within Aotearoa New Zealand. To date we have achieved a reduction of 21.4% on our 2021 base year. This is an absolute target; performance has been influenced by both processing volumes and emissions reduction initiatives.

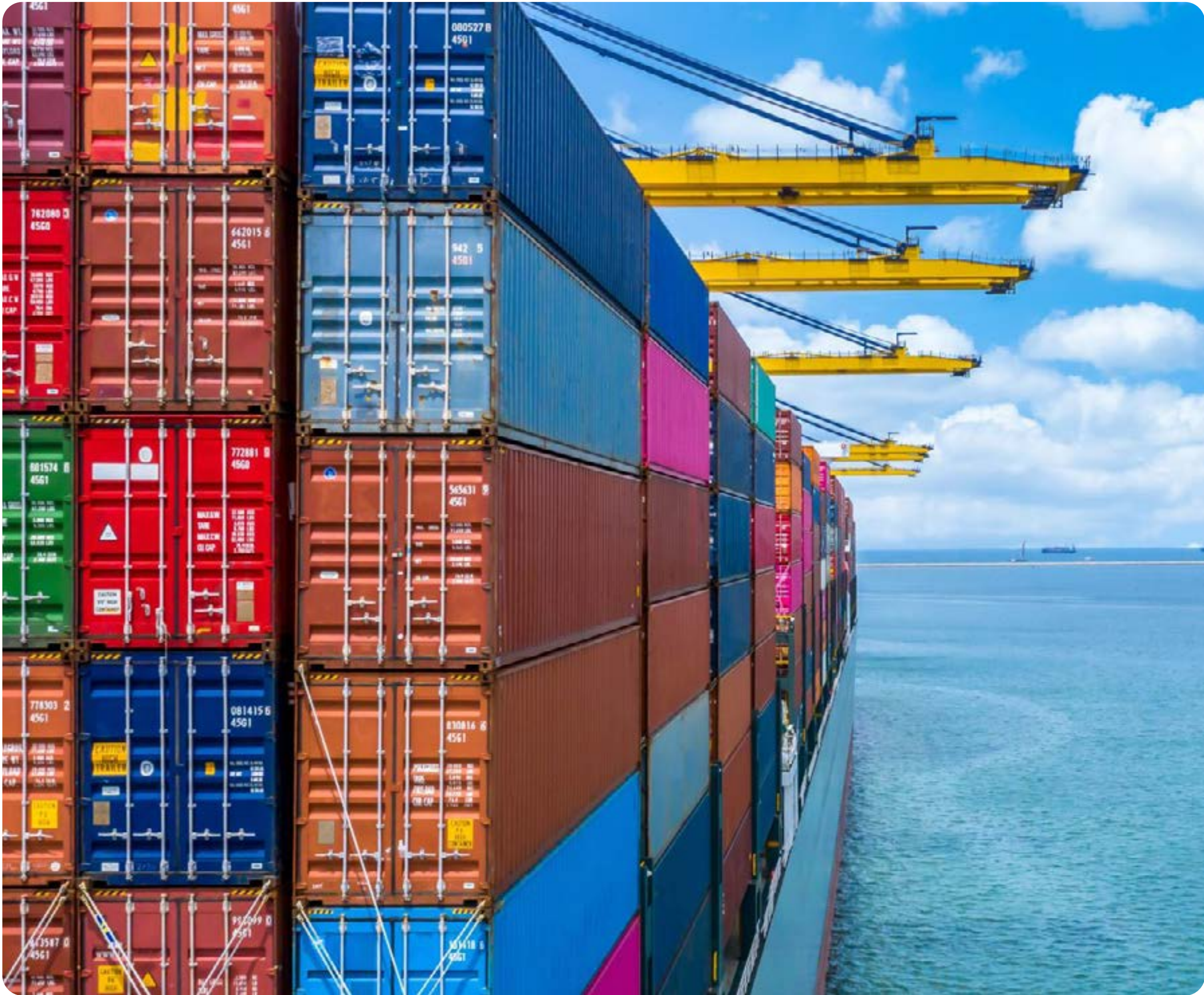
Absolute emissions target (tCO₂e)



The intensity of freight emissions has reduced from 0.9 tCO₂e/t fresh carcase weight to 0.85 tCO₂e/t. Our Kotahi GP Joint Venture has secured stable and reliable ocean freight capacity with SBTi member Maersk, prioritising and optimising sea freight.

Within Aotearoa New Zealand, livestock transport is optimised through M2X, reducing emissions from freight through efficiency gains and advanced route planning technology. We also apply a multi-modal freight strategy domestically, using road to feed rail and are exploring alternative fuels.

We strive to reduce waste in operations through both our sustainability-linked loan targets and our membership in the Kai Commitment, which targets a 50% reduction in operational food waste by 2030. Emissions from organic waste have been reduced by 97% since 2021, and since 2022, general waste has been reduced by 23% by weight.

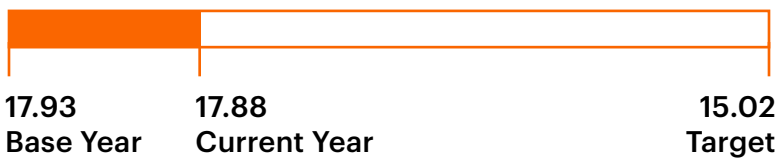


Scope 3 FLAG Emissions Targets

Our targets are to reduce Beef emissions intensity by 16%, Sheep absolute emissions by 10%, and engage with Deer suppliers to understand and reduce their on-farm emissions.

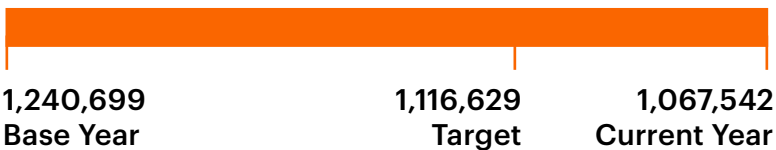
Beef: An Intensity reduction of 16% requires us to reduce our base year from 17.93 tCO₂e/t fresh carcase weight to 15.02 tCO₂e/t fresh carcase weight by 2032. This is equivalent to an emissions reduction of 0.6 million tCO₂e in absolute emissions at current processing volumes. For 2025, our beef intensity value is 17.88 tCO₂e/t fresh carcase weight.

Emissions intensity target (tCO₂e/t)



Sheep: An absolute reduction of 10% is equivalent to 0.1 million tCO₂e, in 2025, we achieved this target with a reduction in emissions of 0.17 million tCO₂e, due mostly to declining processing volumes.

Absolute emissions target (tCO₂e)



Deer: Our target is to engage with deer farmer suppliers to support them to “know your number” and create and action emissions reduction plans on farm.

Silver Fern Farms has already supported more than 2000 farmers, across a range of farm types to ‘know your number’ and develop emissions management plans.

Supporting emissions reductions

Silver Fern Farms is a founding partner in AgriZero NZ. AgriZero NZ is investing in research and innovation to accelerate the development of tools to help farmers reduce emissions without compromising profitability and productivity. This includes investing in and encouraging the uptake of both methane and nitrous oxide reducing technologies including animal based treatments and innovation in fertiliser and pasture species. We also support our suppliers to meet the requirements of the New Zealand Farm Assurance Programme (NZFAP) Plus standards, which includes understanding their emissions profile, and creating an emissions management plan.

Our Prism Earth joint venture with Lynker Analytics uses remote sensing and machine learning to provide trusted data at scale to support better decision making, climate insight, and practical support for suppliers to understand and value on farm vegetation and biodiversity. Prism Earth carbon sequestration mapping technology provides an opportunity for insetting emissions if needed to achieve our on-farm emissions targets in the future – we do this now for our Net Carbon Zero by Nature products supplied to our customers.

This work also supports our approach to beef commodity-linked deforestation. Using National Animal Identification and Tracing (NAIT) programme and Prism Earth geospatial mapping, we take a retain-and-engage approach to identify and address any links to deforested land across the life of the beef animal.



GHG
Inventory
on a Page
(tCO₂e)

* *recycling reported, does not include emissions from composting at external composters.*
** *recalculated under Toitū Facts found after verification process in 2025.*

- 1. LCA published by Toitū Silver Fern Farms | Certification Overview, On-farm Life Cycle data was used to derive an emissions factor; this factor includes enteric fermentation and emissions from the application of livestock waste to soil.
- 2. Ministry for the Environment per head emissions factor.
- 3. 38.53 tCO₂e rental car emissions reported in Scope 1 in 2020 under previous programme requirements, rental car emissions are included in Scope 3 from 2021 onwards.



	2020	2021**	2022	2023	2024	2025
Scope 1	64,530.88	66,007.51	62,190.93	64,002.28	48,036.82	45,607.90
Category 1: Direct emissions and removals	64,530.88	66,007.51	62,190.93	64,002.28	48,036.82	45,607.90
Emissions from Livestock held on company farms						
• Addition of livestock waste to soils ¹	Not reported	Methodology not used	Reported in Scope 3	340.73	Methodology not used	Methodology not used
• Enteric fermentation ²	2096.02	Methodology not used	Reported in Scope 3	3,533.73	Methodology not used	Methodology not used
• LCA Methodology ²	Methodology not used	2,543.20	Reported in Scope 3	Methodology not used	1,720.73	2,076.84
Emissions - Industrial processes	388.47	36.66	57.97	45.10	38.13	27.88
Leakage of refrigerants	1621.05	12,769.56	2,486.62	2,327.91	1,823.01	2,205.45
Mobile combustion (incl. company owned or leased vehicles)	1489.47	2,973.05	2,884.40	3,221.23	2,361.81	2,890.04
Stationary combustion of fuels	49326.86	47,018.11	47,021.86	44,040.36	32,292.57	29,164.88
Treatment of waste - internal composting	Not reported	536.30	Not reported	Not reported	Not reported	470.92
Treatment of wastewater	9570.49	130.63	9,740.09	10,493.21	9,800.57	8,771.89
Business travel - Transport (non-company owner vehicles) ³	38.53	Reported in Scope 3	Reported in Scope 3	Reported in Scope 3	Reported in Scope 3	Reported in Scope 3
Scope 2	16391.54	19,044.97	17,794.81	11,472.10	10,461.99	17,695.90
Category 2: Indirect emissions from imported energy	16391.54	19,044.97	17,794.81	11,472.10	10,461.99	17,695.90
Imported electricity	14561.12	17,358.68	17,794.81	11,472.10	10,461.99	17,695.90
Imported energy (hot water)	1830.42	1,686.29	-	-	-	-
Scope 3	18,412.00	5,790,227.62	2,859,209.04	3,344,513.72	4,874,167.61	4,756,330.67
Category 3: Indirect emissions from transportation	10955.17	294,081.07	87,217.92	85,105.55	96,202.55	231,569.06
Business travel - Accommodation	Not reported	69.77	104.38	152.25	133.70	118.83
Business travel - Transport (non-company owned vehicles)	798.67	814.75	2,960.41	4,723.47	2,119.04	1,654.39
Downstream Freight						
• Paid by the customer / others	Not reported	238,295.58	58,363.15	57,040.28	57,310.93	195,179.97
• Paid by the organisation	10,156.50	25,714.84	10,437.94	9,845.09	3,314.04	15,450.08
Employee commuting						
• Paid by the organisation	Not reported	Included in total commuting	522.95	61.46	Included in total commuting	Included in total commuting
• Total employee commuting emissions	Not reported	12,915.76	Not reported	Not reported	11,898.52	6,689.05
Upstream Freight						
• Paid by suppliers/others	Not reported	16,270.37	14,829.10	13,283.00	13,187.26	12,138.14
• Paid by the organisation	Not reported	Not reported	Not reported	Not reported	8,239.06	338.61
Category 4: Indirect emissions from products used by organisation	7,456.83	5,320,616.32	2,771,991.11	3,259,408.17	4,777,965.07	4,362,634.30
Capital goods	Not reported	8,152.43	Not reported	Not reported	Not reported	7,187.19
Disposal of solid waste						
• Landfilled	5,467.14	3,648.10	774.45	842.62	705.55	734.66
• Diverted from landfill (compost or recycling)	Not reported	11,127.01	Not reported	Not reported	5.61*	9,486.86
Emissions from the use of services not included elsewhere (water)	38.32	35.59	35.84	41.92	33.24	Included in Purchased Goods & Services (non-farm)
Purchased fuel and energy related activities	Not reported	17,822.69	Not reported	Not reported	10,613.16	14,606.61
Purchased goods and services (non-Farm emissions)	Not reported	55,001.37	18.77	12.78	1,074.04	55,992.33
Purchased goods and services (Farm emissions)						
• Addition of livestock waste to soils ¹	Not reported	Methodology not used	Not reported	339,112.71	Methodology not used	Methodology not used
• Enteric fermentation ²	Not reported	Methodology not used	2,768,720.23	2,917,637.84	Methodology not used	Methodology not used
• LCA Methodology ²	Not reported	5,222,685.35	Methodology not used	Methodology not used	4,764,302.72	4,273,169.50
Transmission of energy (Transmission & Distribution losses)	1951.37	2,143.77	2,441.82	1,760.30	1,230.74	1,457.16
Category 5: Indirect emissions associated with the use of products from the organisation	-	175,530.23	-	-	-	162,127.30
End of life stage of sold products	Not reported	29,124.81	Not reported	Not reported	Not reported	8,708.50
Investments	Not reported	1,678.02	Not reported	Not reported	Not reported	2,569.31
Use stage of sold products	Not reported	144,727.40	Not reported	Not reported	Not reported	150,849.50
Grand Total	99,334.42	5,875,280.10	2,939,194.78	3,419,988.10	4,932,666.42	4,819,634.47

Exclusions

Business Unit	GHG emissions source or sink	GHG emissions category	Reason for exclusion
Processing Sites	Enteric Fermentation from Bobby Calves	One	De minimis. No published emissions factors for bobby calves on a per head basis. However, bobby calves are processed prior to their metabolism maturing sufficiently for Enteric Fermentation to occur.
Silver Fern Farms Limited	Emissions arising from the transfer of livestock to grazing farms	One & Three	Transport of cattle between breeding farms and finishing farms (distances are unknown but will be short and therefore the contribution will be very minor).
Silver Fern Farms Limited	Farm emissions from the production and use of anthelmintics for internal parasite treatment of young stock	One & Three	Emissions from the production and use of anthelmintics for internal parasite treatment of young stock (lack of data on anthelmintic forms used and recognition that amounts used are small and contribution would be very minor).
Staff housing and some irrigation pivots	Imported Electricity and T&D emissions from Ecotricity supply	Two & Three	De minimis. Accounts for <1% of overall electricity consumption.
Silver Fern Farms Limited	Emissions from imported electricity to the Auckland and Christchurch office hubs	Two & Three	Accounts for <1% of the overall inventory. Rental offices without individual metered supply, de minimis.
Silver Fern Farms Limited	Well to tank upstream emissions from rental vehicles and employee paid commuting	Three	Due to a lack of methodology, estimated at <1% of emissions.
Silver Fern Farms Limited	Use and end of life stage for co-products (products other than meat)	Three	Due to a lack of methodology, estimated at 0.07–2% of emissions from meat life cycle assessment.
Silver Fern Farms Limited	Processing of stock on Silver Fern Farms behalf at contracted facilities	Three	Accounts for <1% of emissions, to avoid double counting.
Silver Fern Farms Limited	Freight emissions from international ports/airports to retail except US Beef	Three	Accounts for <1% of emissions, data not available.



04

Methodology





Methodology

Emissions reported in this inventory have been certified by Toitū Envirocare in accordance with ISO 14064 1:2018 and the Technical Requirements of the Toitū carbonreduce Programme.

The inventory includes emissions from biogenic sources (wood biomass fuel and emissions from the combustion of sludge), and no removals have been applied.

Scope 1 (Category 1) includes direct emissions from Silver Fern Farms Ltd. Scope 2 (Category 2) includes indirect emissions from imported energy, primarily electricity. Scope 3 reporting has been extended significantly in this inventory, reflecting the commitment we made in the 2024 published inventory to progress toward alignment with the Toitū Elevate Programme, the Science Based Targets initiative (SBTi) and the Greenhouse Gas Protocol.

Emissions are certified to reasonable assurance for all categories other than the Scope 3 emissions from Category 3 employee commuting, LCA model derived distribution and retail, Category 4 pre calculated on-farm emissions, spend based purchased goods and services and capital goods emissions, and Category 5 LCA model derived consumer use, end of life and investment emissions.

As in previous years, an operational control approach has been applied (the organisation or one of its subsidiaries holds full authority to introduce and implement operating policies at the operation). However, to meet the requirements of the SBTi, optional subsidiary and joint venture emissions have been included for the first time in this inventory. This process has required spend based assessments for several subsidiaries and for capital goods, and some purchased goods and services. Reporting boundaries have also been extended to include LCA derived emissions for downstream distribution and retail, consumer use and end of life where data is available, at this time limited to meat LCAs. Purchased goods and services reporting has been further expanded, which has required the use of spend based emissions factors in some cases. Capital goods emissions have been reported using spend based estimations. Work is underway to improve data quality and accuracy for all LCA derived and spend based emissions categories. Emissions

from subsidiaries and joint ventures have been added using activity data, where available, and spend based assessment. These are Silver Fern Farms (Shanghai) Ltd, Silver Fern Farms (UK) Ltd, Silver Fern Farms GmbH, Silver Fern Farms USA Direct LLC, Silver Fern Farms USA LLC, The New Zealand and Australian Lamb Company Ltd (Canada) & The Lamb Cooperative Inc (USA) (now Greenstone Meats), Richmond (New Zealand) Singapore PTE Ltd, GP Kotahi GP Ltd, Centre for Climate Action Joint Ventures Limited, Prism Earth Ltd, non-operational and non-trading entities have been excluded.

In all cases, the calculation methodology applied is based on activity data multiplied by an emissions factor. Emissions factors are provided by, or reviewed under, the Toitū carbonreduce Programme requirements (Carbon Management Toitū Envirocare, toitu.co.nz) and apply Global Warming Potentials from the IPCC, the Fifth Assessment Report (AR5) is the preferred GWP basis for conversion.

Base Year Recalculation

In our previous Inventory Report we noted that we would update our base year emissions to include emissions from farm gate through to end-of-life. We are pleased to confirm that this update has been completed and independently verified by Toitū Envirocare.

This recalculation to add additional emissions sources not originally reported for 2021 allows for a direct comparison of emissions reduction performance without having to adjust for changes in scope.

Deforestation

The SBTi identifies beef as a high-risk commodity for deforestation. Silver Fern Farms maintains a no deforestation commitment by tracing all cattle processed through our supply chain and engaging with any farmer suppliers linked to deforested areas.

The New Zealand EUDR Compliance System (see case study p. 17) analyses forest loss with evidence of agricultural conversion and loss of natural or planted indigenous forest using Prism’s AI land classification model applied to European Space Agency (ESA) Sentinel-2 imagery, combined with Global Forest Change data. All detected forest loss is reviewed annually by expert auditors using independent, recent high resolution satellite imagery from Maxar. Exemptions to deforestation include restoration activities, invasive species removal, infrastructure development, and plantation forestry managed under approved plans or the Emissions Trading Scheme.

Forest definitions follow Food and Agriculture Organisation of the United Nations (FAO) and EUDR criteria, which exclude land predominantly under agricultural use, including agroforestry and silvopastoral systems that are common in New Zealand.

Silver Fern Farms Life Cycle Assessment

Life Cycle Assessment derived emissions factors have been used once again for on-farm emissions calculations as in the previous inventory and are further applied for downstream emissions from the distribution between international ports and retail, further processing, the use of sold products, and emissions from end of life.

Our LCA is prepared annually by the Bioresources Science Institute (BSI) in accordance with the requirements of ISO 14067:2018 and Toitū’s Net Carbon Zero programme with limited assurance. Accurate quantification of the quantity of greenhouse gas (GHG) emissions requires the preparation of a product carbon footprint in accordance with international protocols and standards as well as meeting the programme certification requirements BSI calculate emissions for each Life Cycle stage (Farm, Production, Distribution, Retail, Use and End of Life) for beef, sheep and venison meat.

Farm emissions data is sourced from representative Silver Fern Farms suppliers operating in our Aotearoa New Zealand grass fed systems. BSI apply data modelling to extrapolate these emissions to all farmer suppliers. The emissions from this life cycle stage are used as an LCA derived emissions factor for our organisation carbon footprint reporting.

Downstream emissions for meat distribution to retail from overseas ports, further processing of sold product, retail, use of sold meat by the consumer (storage and cooking), and end of life are calculated using a mix of published data and company data. These calculations use representative ports in influential markets, China, New Zealand, United States, United Kingdom and Europe. Data has been extrapolated to other regions and is assured to limited assurance.

Our full Life Cycle Assessment Product Footprint Reports are published by Toitū here: <https://www.toitu.co.nz/members/silver-fern-farms-limited/>

In our Net Carbon Zero by Nature range of products; the emissions across the full life cycle for beef and lamb are inset by paying our farmers for carbon sequestered by woody vegetation on our suppliers’ farms. For more information on Net Carbon Zero by Nature see: <https://silverfernfarms.com/nz/en/what-were-made-of/net-carbon-zero-science>



Good by nature 