

Impact & Sustainability Report

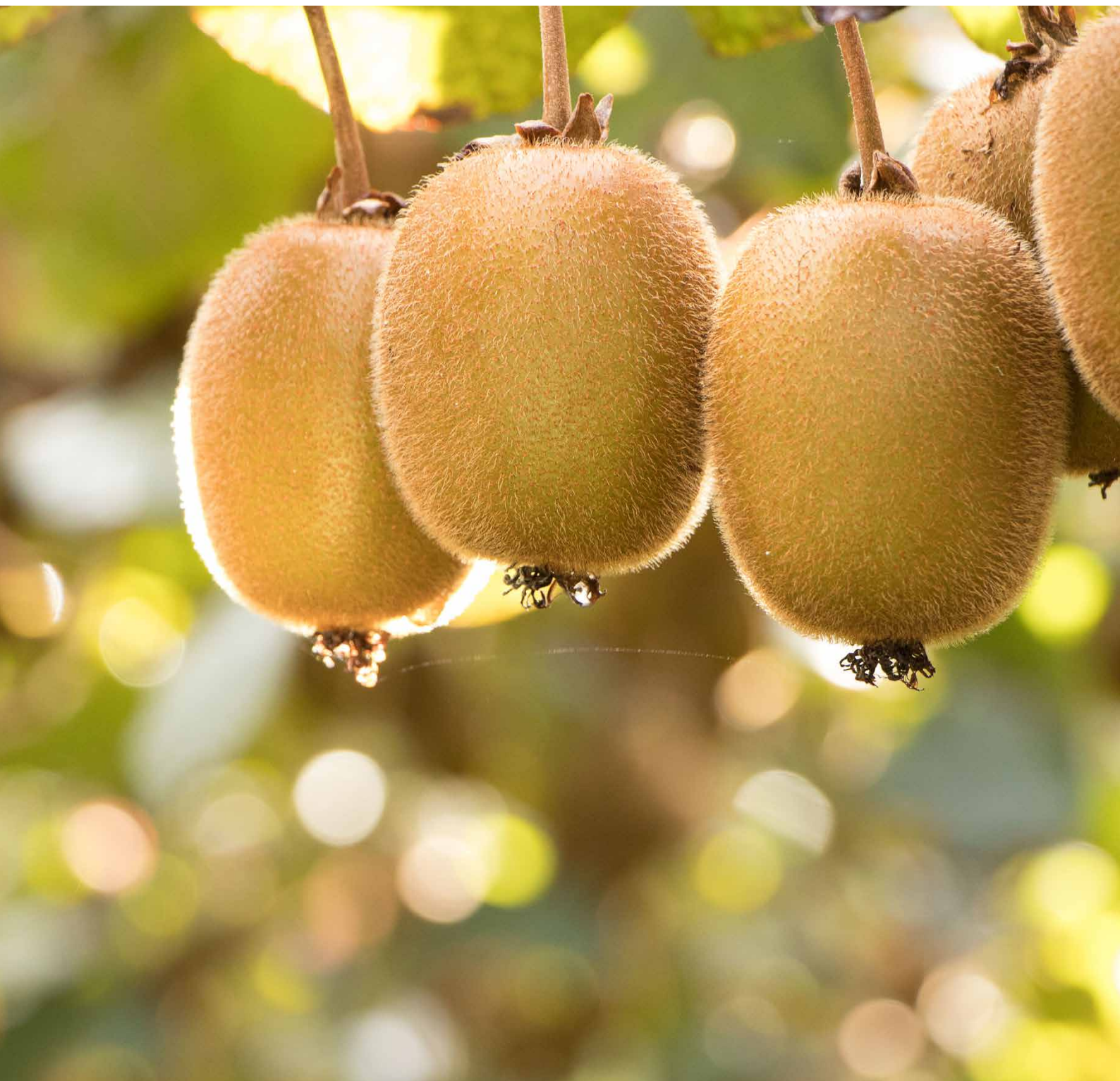




Report published October 2021

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Welcome to Craigmore
Impact and Sustainable
We are excited to share
environmental, social
gains we have made

more's first
Sustainability Report.
Share the positive
social and economic
impact to date.



Summary

About this report

This *Impact and Sustainability Report* highlights the impact Craigmore Sustainables has on the environment, communities, and stakeholders. The metrics included in this report will be repeated annually. As the first full report issued by Craigmore Sustainables, some metrics will be aspirational in the absence of data to report in the first year, and as means of measurement are developed and adapted.

This report will assist stakeholders, investors, and partners to understand our objectives and the impact we seek to have as a manager of capital.

Sustainability according to Craigmore

Craigmore defines sustainability as the ability to meet the needs of today, without compromising the ability of future generations to meet their needs or adapt to changing circumstances. Sustainability goes beyond environmental ambitions to include the development of resilient social systems and economic resources.¹

This report focuses on the financial year ending June 2021

As our first full report, it marks the beginning of a conversation but the continuation of a journey. We are proud of the “Sustainability Principles” on which Craigmore was founded more than a decade ago, and of the milestones we have achieved since creating positive outcomes for our businesses, for the families and communities we work with, and for our supportive Capital partners.

We are committed to being transparent and collaborative with our stakeholders. As such, we welcome any feedback you have on this report.

¹ With acknowledgment to the Bruntland Report "Our Common Future" published in 1987.



Welcome to our first Impact and Sustainability Report

Che Charteris
Chief Executive Officer

A handwritten signature in dark ink, appearing to read 'L C Charteris'.

Tēna koutou kātoa. Tuatahi, ngā mihi ki nga mātau kaitautoko. Tuarua, he mihi ki ngā kaimahi o Craigmore Sustainables mo ō rātou tautoko me pukengatanga o tēnei mahi whakahirahira.

Craigmore Sustainables was founded over a decade ago with a plan to introduce capital into the New Zealand food and fibre sectors (farming, horticulture and forestry) and implement sustainable solutions to the challenges facing those industries.

While much of the world's population lives in urban areas, the rural sector can make a disproportionately large contribution to addressing some of the more challenging expansive global issues. Investing in natural assets and revitalising rural communities is crucial to improving social equity, reversing biodiversity loss, and addressing climate change.

Many of these challenges are significant, when set against short-term timeframes, insufficient capital and the limits of existing technology.

Craigmore aims to demonstrate that, from our corner of the world, we can address these challenges and break down the barriers to delivering more sustainable futures. We realised early that we had to offer a systemic solution. Simply creating investment opportunities would not be sufficient – operational excellence is the key, both as an investment manager and as an operational manager of farms, orchards, and forests.

Our first aspiration is to address social equity by growing our people and our communities. We aim to revitalise rural communities through being a transformational employer and through responsible land-use change. Generating jobs through orchard and forest development in under-developed rural communities helps build local skills, and instilling confidence to do these jobs well tackles social equity head-on.

Our climate aspirations are bold. Our orchards aim to have a net-zero carbon footprint at maturity, and our forestry establishment programme is significantly carbon positive.

Milk and other dairy products are among the most nutritious foods we consume, yet very few dairy businesses are producing dairy products with a net-zero carbon footprint.

Craigmore has committed to developing a proof-of concept net-zero dairy farm by 2035 with minimal off-farm offsetting. New technology in methane reduction is coming, and old technology such as restoring soil carbon and on-farm afforestation can be re-purposed.

We are proud of our achievements to date but understand that this is a long-term journey during which we must constantly aspire to be better. This report, our first Impact and Sustainability Report, is an illustration of this pledge, and will record and report these improvements every year.

Thank you for joining us on our journey, we look forward to sharing our progress with you.



This is a transformational time for New Zealand rural sectors

Mark Edghill
Chief Operating Officer

A stylized, handwritten signature in blue ink, consisting of several loops and a long horizontal stroke.

Craigmore has proven to be agile and responsive to recent global disruption, protecting the assets under its care by actively managing strategic and operational risk and investing in opportunities that generate sustainable returns for our partners. The key drivers of sustainable returns for Craigmore are operational excellence and connected culture.

Operational excellence: Craigmore farmers are empowered to make decisions on the ground to keep people and animals safe, care for our land and improve productivity. Innovation is central to our success. We encourage our people to trial new sustainable practices on pilot sites where it is 'safe to fail' and deliver valuable learning for our wider portfolio. This way, we can scale up innovative New Zealand and global research to improve our operational practices and support New Zealand agriculture to adapt in this new world.

Connected culture: Over the past 24 months, I have supported our staff with pride as we deliver improved performance, enhance our environment and care for each other and our communities. It is our genuine desire to improve and make a difference that drives Craigmore's success. Since clarifying our company values in 2019, 'Understand tomorrow, act today', 'Connect and empower' and 'Deliver with integrity' have evolved and become part of everyday language on the farm, orchard, and office. These values enable us to build trusting relationships and challenge and support each other when faced with obstacles or difficult choices. The language we use may be different in a dairy shed or a board room, but the intent is the same – to be a Kaitiaki for our people and land.

In this report, we have selected the key metrics and personal stories that demonstrate our direction towards a sustainable future. Being a good Kaitiaki to the land and our people have been central to Craigmore's culture since day one and is a significant reason many choose to join the Craigmore team. We are proud to contribute to New Zealand's transition to a sustainable society.

Craigmore Sustainables works with global capital partners to build and manage farm, orchard and forest businesses in Aotearoa New Zealand. We do so with a purpose: to produce food and fibre that is sought after around the globe and which leads the way in sustainable practices, while also benefiting our rural communities.





Growing greater good

About Craigmore Sustainables

Founded in 2009, we are specialists at investing in and managing rural sector assets in which New Zealand enjoys a competitive advantage—permanent crop horticulture, dairy and forestry. Our role is to raise capital, invest in opportunities, and set up skilled teams to manage our investments successfully and sustainably for the long-term.

Craigmore intends to exceed social licence expectations of how land should be managed, to deliver operational excellence and profitability for our investors, to enhance environmental outcomes and to engage with and care for the communities in which and with whom we work every day. We believe that well managed capital, introduced by Craigmore and invested with a focus on sustainability, has potential to be instrumental in the reinvigoration of many rural communities.

About our investment partnerships

New Zealand is recognised as a high-quality investment destination, with excellent property rights, rule of law and straightforward business structures. For investors in forestry and farmland, New Zealand enjoys an excellent climate with plentiful rainfall, and global low cost of production in a number of sectors and an exceptional pool of management talent.

Craigmore manages a portfolio of high quality and productive assets on behalf of a number of international investors for whom long-term sustainable oversight of natural real assets is an important element of their investment criteria. Craigmore manages four (with a fifth now underway) New Zealand Limited Partnerships (pooled capital vehicles), which give investors (Limited Partners) from around the world access to the three principal sectors in which New Zealand enjoys competitive advantage in global markets—permanent crop horticulture, the dairy sector and forestry.

Craigmore Limited Partnerships

- Craigmore Farming Partnership (CFP)
- Craigmore Dairy II Partnership (CDPII)
- Craigmore Permanent Crop Partnership (CPCP)
- Kauri Forestry Partnership (KFP)
- Tōtara Forestry Partnership (newly launched)

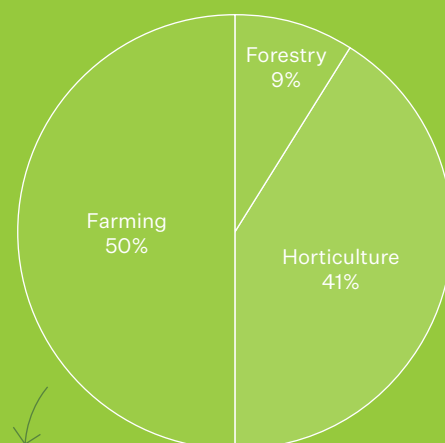
Right (By the numbers): Data includes assets under direct management. It does not include investments in businesses that Craigmore does not control.

2009

Date of Craigmore
founding

270

Number of employees
(direct)



Sector total
assets

\$744m

Total assets (NZD)

By the numbers

63%

Our client capital is 63%
institutional, 25% family offices,
with the remainder private high net
worth individuals/entities

42

Craigmore owns and operates
42 properties across
New Zealand (not including
minority interests)

18,753

Total hectares under
direct management

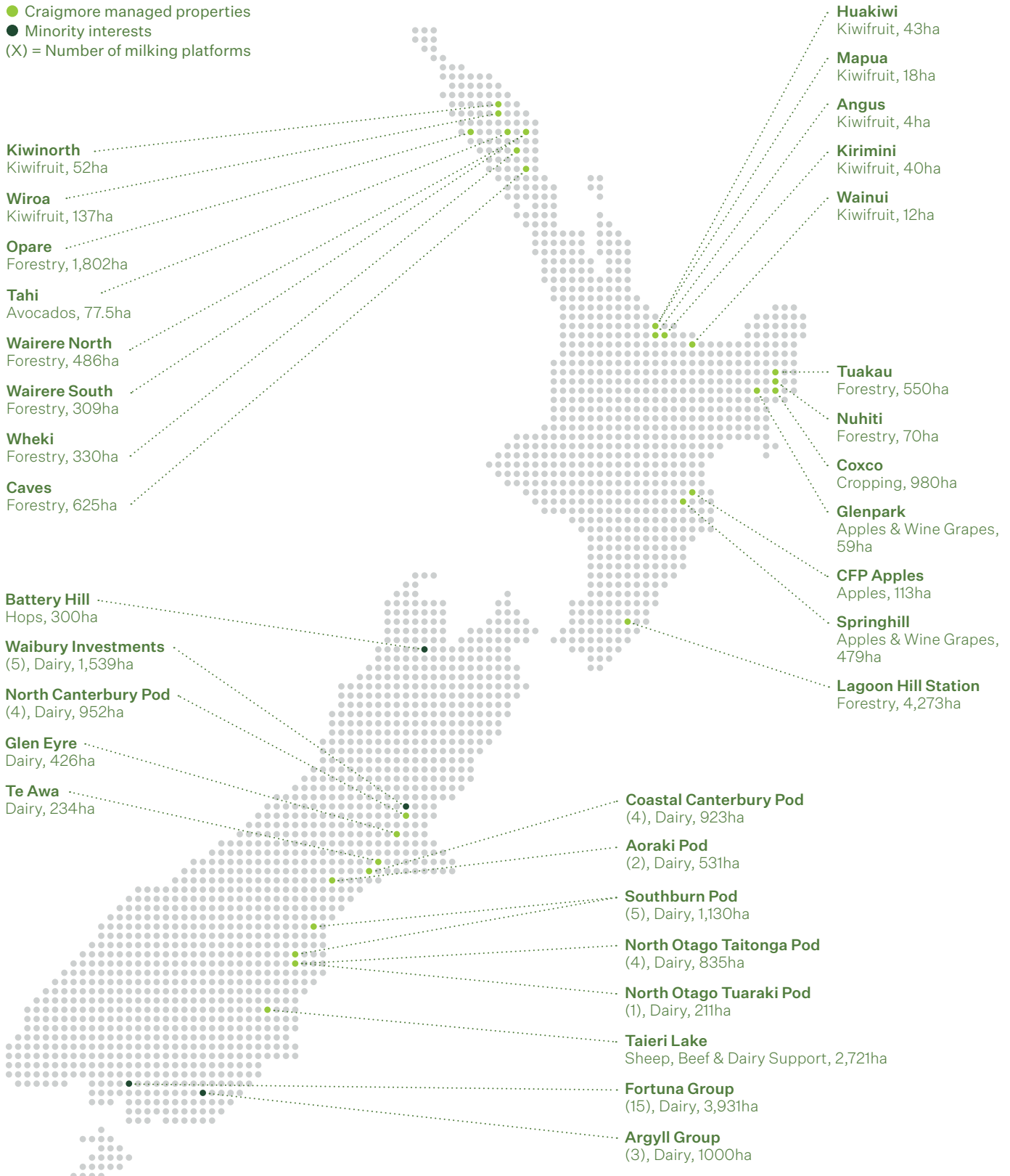
05

Craigmore manages
5 limited partnerships



Map of Craigmore Operations

- Craigmore managed properties
- Minority interests
- (X) = Number of milking platforms



Our Sectors

Farming

Farming is Craigmore's most mature business sector. Craigmore manages 22 milking platforms and one dairy support grazing farm in the South Island, producing 88 million litres of milk annually. Milk from the Craigmore farms is processed by New Zealand based dairy companies for export around the world.²

As well as majority-owned properties, Craigmore also has three minority interests investments in dairy farming businesses that compromise,

an additional 6,470ha producing 87 million litres of milk annually.

Our farming businesses are run by high-quality team members and equity partners who share our values and have proven their ability to deliver

² New Zealand exported dairy products worth NZ\$20,135m in the year to 30 June 2020. Source: MPI SOPI June 2021

Data includes assets under direct management. It does not include investments in businesses that Craigmore does not control.



17,540

Total number of cows

\$370m

Total assets (NZD)

8,368

Total hectares
including leased land

Annual milk production

7,962,142kg

milk solids
(Fat and Protein)

88million

litres of milk

The Craigmore horticulture portfolio is growing rapidly. Our strategy is to build a diversified portfolio of assets in those sectors for which New Zealand enjoys a competitive advantage, and which generate significant export earnings – such as kiwifruit, apples and grapes.³ The horticulture portfolio also includes Coxco – a business growing annual crops of squash and pumpkins for export and a specialist horticulture labour solutions provider.

Craigmore is creating benefits in under-developed rural communities through developing land previously used for pastoral farming and annual cropping into modern high-producing orchards and vineyards.

In 2022 we will complete development of one of New Zealand's biggest single-site orchard and vineyards, Springhill Horticulture. At maturity Springhill will produce 12,000 tonnes of apples and 2,100 tonnes of grapes every year. We are also on track to be the country's largest producer of organic gold kiwifruit.

³ New Zealand exported NZ\$2,534m of kiwifruit, NZ\$1,909m of wine and NZ\$885m of apples and pears in the year to 30 June 2020. Source: MPI SOPI June 2021

Data includes assets under direct management. It does not include investments in businesses that Craigmore does not control.

Horticult

Total assets

\$304 million

Total hectares including leased land

1,940ha

Annual apple production

71 tonnes

Annual grape production

216 tonnes

Annual squash processed

10,471 tonnes

Annual kiwifruit production

3,289 tonnes

ure

12%

12% of NZ's total
organic gold
kiwifruit is grown
by Craigmore

33%

33% of Craigmore's
kiwifruit production
is organic

Forestry

Craigmore Sustainables launched its first forestry business in 2010, focusing on afforestation of marginal farmland. Since then, forestry is becoming an increasingly significant part of the Craigmore portfolio. We have one dedicated forestry partnership, Kauri Forestry (which is managed in partnership with GlenSilva GmbH), and are currently raising capital for another, Tōtara Forestry Partnership. Our strategy is to purchase a mix of existing forest blocks and bare land that can be converted into forestry.

We seek to plant new forests on less productive grazing land, including steep, underinvested properties with poor soil fertility or erosion issues where forestry is the most appropriate use. This will provide a dual revenue stream: revenue from the sale of carbon credits through the early years of new forests; and from the sale of timber over sequential harvests.

Data includes assets under direct management. It does not include investments in businesses that Craigmore does not control.

1,130ha

New planting
in FY 20/21

21,042

tonnes CO₂e

Sequestration
in FY 20/21

8,445ha

Total hectares

\$70m

Total assets (NZD)

4,719ha

Total forested
area





Our Vision



Ardwell Dairy Farm
South Canterbury



Our vision is to be *Kaitiaki* – ‘growing the best of Aotearoa, New Zealand.’

Kaitiaki is a term, which in te reo māori (the indigenous language of Aotearoa New Zealand) means, keeper, preserver, conservator, protector. At Craigmore, we use *Kaitiaki* to include the stewardship and sustainable growth of our country’s social and economic wellbeing.

***Kaitiaki*, to Craigmore, means guardianship of our:**

- capital
- land, water and animals
- people
- communities in which we operate

Kaitiaki is our promise to the future of our people, operations, managed capital, land and environment. It is a commitment to care, nurture and above all, protect these for future generations.

We demonstrate our role as *Kaitiaki* by ‘growing the best of Aotearoa (New Zealand)’. This vision applies to everything we do:

- creating meaningful employment opportunities in under-invested communities
- improving public access and connection to our environment
- developing and protecting our people
- actively addressing any significant environmental challenges in our rural sectors
- being an active fiduciary for our capital partners.

Our commitment to being *Kaitiaki* is also a commitment to uphold the expectations set out in *Te Tiriti o Waitangi* (The Treaty of Waitangi), a historical agreement between Māori and the British crown that governs the relationship between Māori and non-Māori.

Our Values

01

Understand tomorrow, act today



We 'look beyond the fence' and challenge today's norms.

We believe in turning knowledge into action, sharing what we learn with others, and having the courage to act now for a better tomorrow.

The value is symbolised by the Kōru (fern frond), which represents growth and regeneration.

02

Connect and empower



Empowerment is at the heart of Craigmore.

We believe that our people are best positioned to make decisions about operations, so we give them the space and support to do just that.

The value is symbolised by the Pikoura (double twist), which represents an enduring bond between people in spite of barriers of time and distance.

03

Deliver with integrity



Get the job done, right.

We deliver on expectations and are honest and transparent when we fall short. We lead by example and celebrate our achievements.

The value is symbolised by the Waharoa (gateway), which demonstrates our commitment to 'go through the front gate' and be straight up with others.

Our Strategy

We strive to be locally, nationally and globally recognised as one of the best managers of natural assets. To achieve this, our businesses must deliver long-term financial returns and address the industry challenges which are barriers to more sustainable futures for our communities.

Our strategy is to attract long-term capital into the New Zealand rural economy by driving the sustainable performance of our natural assets (our farms, forests, and orchards).

To achieve this, we need access to capital (*Fund the Change*), to hold ourselves to the highest standard of operational excellence (*Be the Change*), and to use our success to influence others (*Enable others to be the Change*).

1 Fund the change

Deep relationships with long-term investors provide the capital necessary to transform rural properties into a diverse portfolio of resilient, sustainable and profitable New Zealand farms, orchards and forests.

2 Be the change

We look for ways to improve and deliver positive outcomes for the benefit of our capital partners, people and the wider community, executed through a focus on operational excellence.

3 Enable others to be the change

To be a positive influence on New Zealand rural sectors, we need to demonstrate commercially viable and environmentally sustainable business models. With our capital and scale, Craigmore is well positioned to pilot innovative solutions to assist the industry in caring for our land and people while growing sustainable businesses for future generations and for our investors.



Governance



ance

Governance Bodies

General Partnership (GP) Board members are appointed by Craigmore Sustainables (Investment Manager) to provide governance of the partnerships managed by Craigmore.

Board members support and challenge management decisions to ensure we are responsible in the management of our investors' capital. This includes reviewing and agreeing strategy, approving budgets, measuring performance and ensuring that we have the resources to deliver on our strategy and wider commitments to stakeholders.

Board members sit across each of our partnerships in farming, horticulture, and forestry. The partnership boards are supported by six sector and subject-specific expert committees (shown in the outer-ring of the *Governance Structure* diagram to the right).

Craigmore was built on a foundation of sustainable principles. Creating positive ESG-related outcomes is ingrained in the Craigmore culture and strategic goals. As such, the GP Boards are also responsible for overseeing the strategic execution of sustainability and ESG activities.

There are four Craigmore GP boards which meet with the senior leadership team at least six times per year. They also attend specialist committee meetings and have regular communication with operational management.

The General Partnership boards are supported by governance committees:

Investment Committee

A decision-making committee of the Investment Manager, Craigmore Sustainables LLP. The investment committee makes investment and

divestment decisions on behalf of each partnership, overseeing the allocation of capital. This includes the monitoring and management of key strategy and sector risks.

Assurance and Risk Committee

The Assurance and Risk Committee is charged with oversight of the Craigmore policies and processes. They provide the assurance required on accounting and audit matters, external reporting, compliance, governance and related party transactions.

This committee is chaired by an independent GP board member.

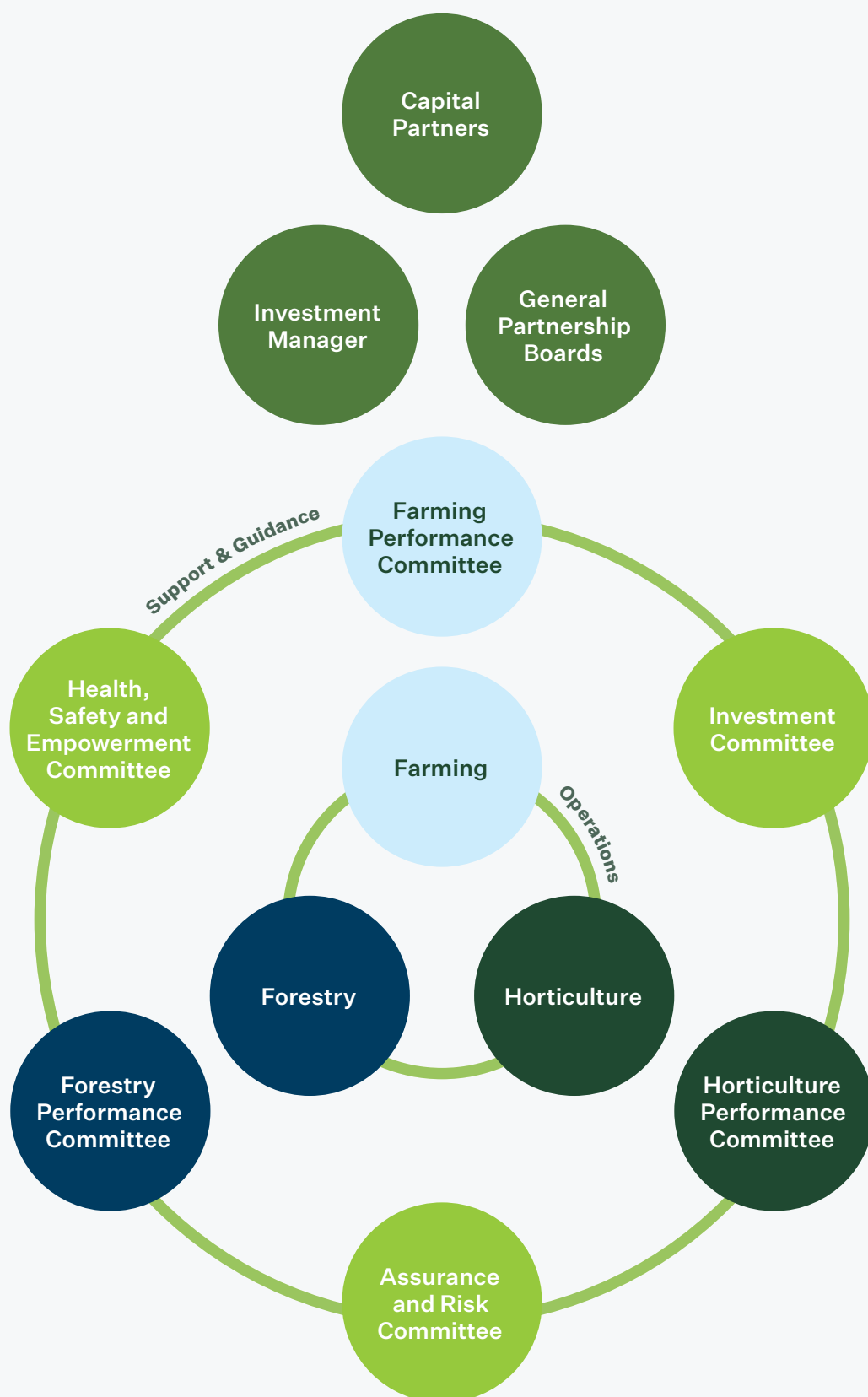
Health, Safety and Empowerment Committee

A combined committee of board members and senior managers to ensure that we have the systems and resources to look after our people. This committee is responsible for health and safety planning, delivery, monitoring and review, and ensuring that we have a strong culture that is aligned with our company values. This committee is chaired by our Chief Operating Officer.

Sector Performance Committees

Sector Performance Committees provide advisory support for our General Managers and Business Managers to enable them to achieve operational excellence. These committees include two or three experts with relevant technical and operational experience, sector-specific decision making and budgeting. The current sector committees are farming, apples and forestry. Performance Committees are being established for kiwifruit and wine grapes. The relevant General Manager of each sector chairs these committees.

Governance Structure



Governance Members

John Holland

John joined the Craigmore GP Board in February 2021. He is also a director of Craigmore Sustainables Group. John currently chairs the board of a national commercial construction company, Southbase Construction. Previous governance roles include six years on the board of leading New Zealand law firm Chapman Tripp, four years on the board of the New Zealand Securities Commission, seven years on the board of retailer Kathmandu and three years as an independent member of the University of Canterbury audit and risk committee.



Andrew Gibbs

Andrew Gibbs has been a member of the Craigmore GP Board since 2014. He currently chairs the Craigmore Assurance and Risk Committee. Andrew is a recently retired Partner of Deloitte NZ, where he worked as Leader of Primary Industry for over ten years. Andrew has comprehensive experience in governance, project management and advisory work in connection with feasibility studies, business change and planning and performance management across public and private sectors.



Che Charteris

Che joined Craigmore Sustainables in 2010. Prior to Craigmore, he worked in a range of roles within New Zealand's central government including infrastructure funding, national park planning, telecommunication competition regulation and international agricultural trade co-operation. He currently also chairs the investment committee for a large *Ahu Whenua* trust which affiliates to his iwi (*Ngāti Tahu – Ngāti Whaoa*).



Forbes Elworthy

Raised on Craigmore Station in the foothills of the Southern Alps, Forbes began his career as a shepherd. He went on to train in Agricultural Economics at Lincoln University, attended the University of Oxford as a Rhodes Scholar and gained an MBA from Harvard Business School. After working in the financial industry, Forbes returned to farming in 2005 to manage Craigmore Station. Forbes currently splits his time between New Zealand and the United Kingdom.



John Donkers

John joined the Craigmore Sustainables board in 2017. He has spent most of his career in the dairy industry, starting as a sharemilker on the West Coast. In 1994, John helped establish Camden Dairy Farms which owns and operates six properties in Central Canterbury, and in 1996, he established an advising consultancy, Dairy Farm Management Services. John's governance roles include 15 years as a board member for Irrigation NZ Inc. and five years as a community representative for the Canterbury Water Management Strategy. He is also a director of Central Plains Water which he co-founded in 2003.



Mark Cox

Mark was raised on a sheep, beef and cropping farm before gaining a degree in dairy farm management at Massey University. After graduation, Mark worked at Fletcher Challenge and Wrightsons before joining agricultural food products company Cedenco Foods, where he spent six years as Fresh Crops Manager. When Cedenco was restructured in 1996 Mark purchased their fresh division assets and formed Coxco, currently owned and operated under Craigmore. Mark operates two dairy support farms in North Canterbury and holds various interests within the agriculture sector.



Nick Tapp

Nick joined Craigmore in 2013 to lead the London-based investor relations team. Nick brings farming expertise with a global perspective, having grown up in the remote West Highlands of Scotland. Nick spent 25 years managing a large cereal, vegetable and potato farming business, and was chair of a grain storage and marketing company, both in Kent.

Nick sits on the Board of Magyar Farming Company, operating a large-scale diversified farming business in Hungary. He served as a Director of the Oxford Farming Conference, and for six years sat on the Policy Committee of the Country Land and Business Association. He is a Nuffield Farming Scholar, and a Fellow of the Royal Agricultural Societies. Nick is a Trustee of The Royal Agricultural Society of England, and a Trustee of the Society Pension Fund.



Key boards and committees

	John Holland	Andrew Gibbs	Che Charteris	Forbes Elworthy	John Donkers	Mark Cox	Nick Tapp
GP Board	●	●	●	Observer	●	●	
Investment Committee			●	●		●	●
Assurance & Risk Committee	●	●	●				
Health, Safety & Empowerment Committee	●	●	●				
Gender	M	M	M	M	M	M	M
Ethnicity	NZ/ European	NZ/ European	Māori	NZ/ European	NZ/ European	NZ/ European	British/ European
Age	45–64	45–64	25–44	45–64	45–64	45–64	45–64

Governance committees also include Craigmore employees and specialist advisors.



Risk Management

‘Risk’ is the potential for harm or loss from vulnerabilities in our business being exploited by a threat. In addition to normal process and market threats which face any business, natural assets (such as farms, forests and orchards) face a range of particular ecological threats which create specific short- and long-term risks.

Key threats and risks addressed and managed:

- **Ecological**

There are many risks associated with the natural environment in which our businesses operate. These include short- and long-term variation in rainfall, temperature and wind, as well as pests and diseases that may impact crops, animals and properties. Craigmore addresses many of the weather-related threats in the acquisition process by avoiding high risk locations and through capital improvements (e.g. irrigation).

- **Operational**

Operational performance can be significantly affected by the quality of and support for on-site management. Failure of operational management can create harm in several ways, such as higher costs of production, reduced output, poor workplace safety and environmental harm. Strong operational teams can make poor assets perform well, and vice versa. Craigmore manages these threats through a high level of engagement with, development of and support for individuals and teams.

- **Regulatory**

While New Zealand has a low level of political risk for those investing in natural real assets compared to many countries around the world, nothing is entirely risk-free. For example, New Zealand manages the access of offshore investment capital to farmland through the Overseas Investment Office (OIO). Craigmore manages this risk by keeping fully abreast of the regulations, acting with confidence within the rules and building a relationship of trust with the OIO.

- **Transactional**

Weak transactional processes which cause harm, such as the loss of private information, incorrect financial payments, or non-compliance with contractual and constitutional commitments. Craigmore manages these threats in a similar manner to most businesses – through separation of duties and a focus on secure processes.

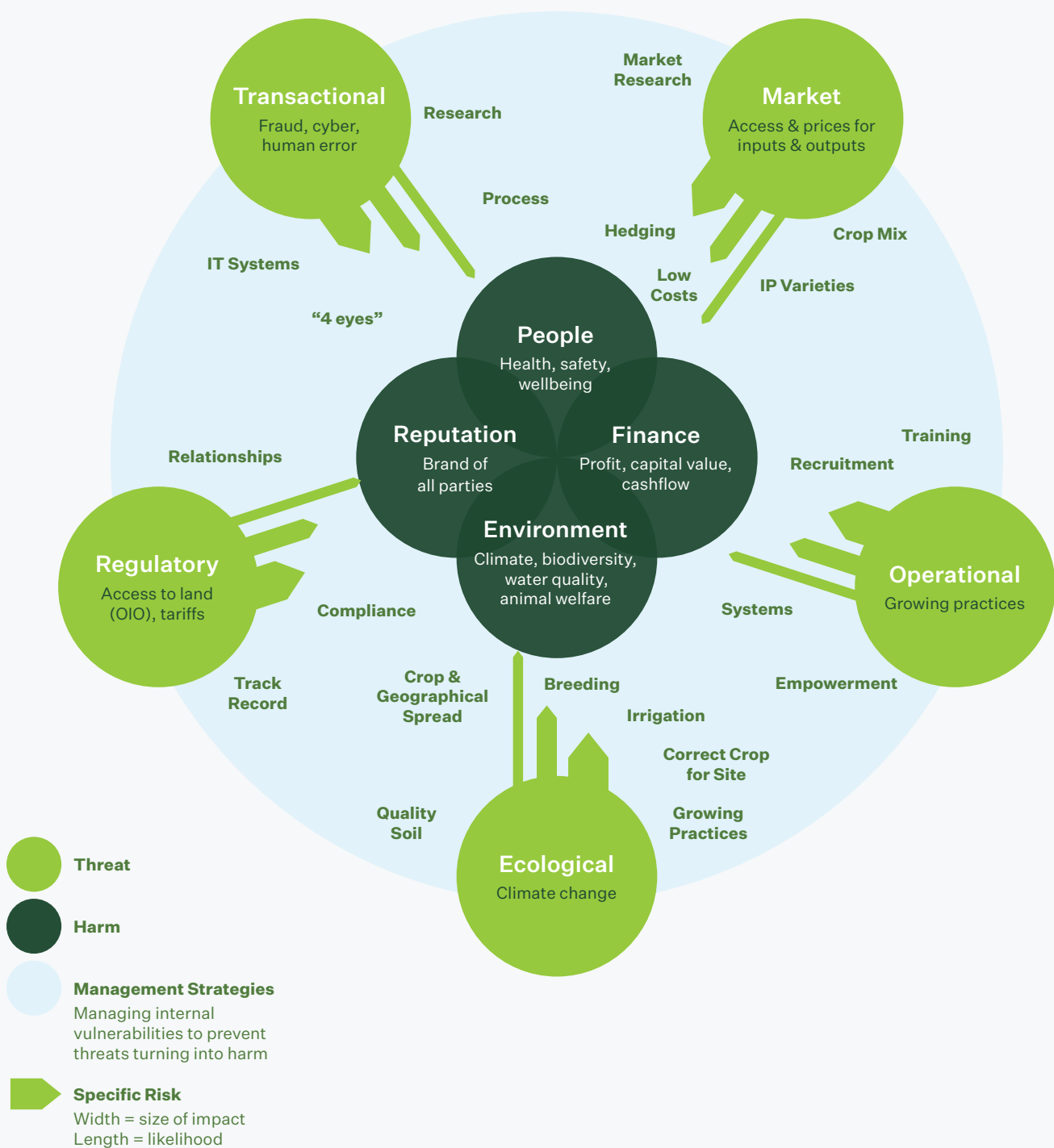
- **Market**

Changes in global and local markets can materially impact access to and prices for both inputs and the markets to which we sell our produce. Examples of such risks include disruptions to export logistics during the COVID-19 pandemic, volatility in commodity prices and availability of labour. Price-related risks for products grown on Craigmore farms are managed by a relentless focus on cost of production, so that the inevitable downturns in global commodity prices can be contained with minimal downside damage.

While grouping risks is helpful, it is important to note that risks do not exist in isolation and often affect each other. For example, climatic changes may increase the risk of specific diseases or pests, which could result in reduced market access into countries that wish to protect themselves from those risks.

The diagram to the right provides a representation of how we manage risk in Craigmore. It sets out some of the key threats and some of the risk management tools we use to manage the risk they pose to our reputation, financial position, people and environment.

Examples of Risk



Risk management allocation

Oversight and management of different risks is split between five separate internal entities – every risk must have a ‘home’. The table below shows which entity is responsible for each type of risk.

- *Investment Manager/GP board:*
Strategic, sustainability (including climate risk) and reputation management
- *Assurance and Risk Committee:*
Process, transactional and financial risks, cyber-crime, hedging, related party transactions, and regulatory compliance
- *Health, Safety and Empowerment Committee:*
Health and safety, people and culture
- *Investment Committee:*
Portfolio mix and acquisitions, which include considerations around climate (short-and long-term), soil quality, diversification, irrigation and other factors
- *Performance Committees:*
Operational, industry and market risks.

Risk response

Risk management begins with investment selection and portfolio composition.

Many operational and ecological threats are effectively mitigated through growing the right crop for the property. At a property level, we focus on selecting properties with good soils, reliable rainfall or irrigation, and climatic conditions that are suited to the preferred crop. We also manage and reduce risk using technology and property improvements, such as additional wind shelter, frost protection and irrigation.

At a portfolio level, we focus on diversification by geography, crop (type and variety) and market destination.

Post-acquisition, our risk management responses focus on operational resourcing, policies, appropriate tools and systems, and monitoring. Attracting, incentivising and training high-quality managers and teams is crucial.

The aforementioned responses notwithstanding, our most important risk management response is embedding risk management into Craigmore’s culture through our values:

- *Understand tomorrow, act today* – focus on risks across different timeframes and respond through action
- *Connect and empower* – ensure constant communication and appropriate resourcing of teams to manage risk
- *Deliver with integrity* – set high standards and be transparent about the results.

An important part of Craigmore's risk management strategy has been investment in systems that enable tracking of production and financial KPIs, especially in the farming sector. We believe this is instrumental to being able to deliver less volatile returns across the scale and breadth of businesses that Craigmore manages.

An example of risk management in action: COVID-19

Set out in the following table is example of how Craigmores has so far managed one of the most significant global threats to business – COVID-19.

In addition to the tabled responses, we have taken the following actions going forward:

- Building stronger relationships with labour providers, especially regarding harvest activities, to the point of acquiring and/or internalising a labour business
- Continuing geographic and crop-based diversification
- Continuing to focus on investing in nutritionally superior foods, i.e. essential products
- Making long-term changes to enable more flexible working arrangements, where possible.

Potential harms from COVID-19	Risk management responses
Personal health and safety of our people	Rapidly rolled out workplace policies to reduce close physical contact Enabled more flexible work conditions (locations and times) Put a mental welfare plan in place to support people during lockdown/isolation
Labour shortages	Prioritised earlier harvesting of fruit, sacrificing additional volume for certainty
Logistics disruption, impacting import of construction material and export of produce	Essential inputs were pre-ordered with longer lead times Fruit was harvested earlier to increase the margin for error in export logistics
Macro-economic uncertainty impacting cashflow through counterparty risk, interest rate changes	Cash reserves were increased

Risk Spotlight: *Climate*

Climate-related risks are of growing concern globally, and the story in New Zealand is no different.

The Craigmore portfolio was built with an awareness of the threats posed by climate change. Even so, Craigmore is undertaking a review of the potential impact of climate change on our operations, over different timeframes and warming scenarios, in line with the recommendations by the *Task Force for Climate-Related Financial Disclosure (TCFD)*. This detailed report is expected to be released in 2022.

Climate-related risks – an overview

The impacts of climate change can be split into two groups: physical changes and transitional changes. Physical risks and opportunities relate to long-term climatic changes in temperature, precipitation and shifting seasons as well as the impact of increased frequency of extreme events such as hailstorms, droughts or floods. For example, changes in minimum temperature can impact the viability of fruit production as winter chill hours decrease, or extreme events such as fire can damage forestry portfolios.

Transitional risks relate to changes in the way societies respond to climate change such as environmental policy or regulations, advanced technologies or changing market preferences. A good example is the emission trading scheme which has been operating in NZ since 2008.

The 'Examples of sector-specific risks and mitigation measures influenced by climate change' table on the following page provides greater detail around physical risks for each sector, showing examples of potential impacts and mitigators, as well as a size-indicator of risk factor (large = high importance; small = lesser importance to that sector).

Climate-related opportunities

There is evidence that changes to New Zealand's climate may provide opportunities for Craigmore.

An example of this is earlier timing of phenological (biological lifecycle) events in the wine industry. Climate change is expected to bring forward the timing of flowering, grape ripening and sugar ripeness in the key growing regions of New Zealand, such as Central Hawke's Bay.

Craigmore continues to investigate potential positive effects from climate change, so that we can adapt our crop types and growing methods to take advantage of any opportunities that arise.

Examples of sector-specific risks and mitigation measures influenced by climate change

Climate Variable	Example climate associated risks	Relative Mitigated Risk Rating Per Sector			Craigmore Mitigations
		Farming	Forestry	Horticulture	
Average temperature	Rising temperatures cause increased prevalence of pests and diseases. Change in suitability of certain plant varieties.				Partnership with government and industry-led biosecurity programmes. Genetic diversity in plants. On-farm hygiene practices such as disinfecting pruning tool between trees.
Minimum temperature	Increase in minimum winter and spring temperatures cause inconsistent growing conditions and reduce winter chill hours resulting in disrupted bud and flower production.				Geographic diversification. Variety diversification. Research into biological and chemical enhancement of budbreak and flower production.
Maximum temperature	Phenological shifts and changes in growing conditions for plants and increase energy costs for cooling and product processing.				Variety diversification. Research into efficient energy sources. Southward extension of suitable climate for some crops.
Number of hot days (>25°C)	Increased heat stress amongst workers, animals and plants. Increased risk of fire.				Shade, insurance, geographic diversification.
Average rainfall	Change in average rainfall causes increased water stress for plants and feed availability for animals.				Efficient irrigation and reliable stock water reticulation systems.
Drought	Change in feed availability and fruit development. Increase plant deaths if un-mitigated. Decrease availability of water sources for irrigation.				Water source diversification and reliability of take. Variety and geographic diversification.
Extreme precipitation events	Change in extreme precipitation events (includes rainfall, hail, snow etc.) will impact soil erosion, flood damage, fruit quality/quantity and plant.				Plant erodible areas in permanent natives. Hail netting. Initial asset selection. Geographic spread of assets reducing impact on partnerships from localised extreme events.
Extreme wind speeds	Increased stress for animals and infrastructure damage. Increased damage to plants and decrease in quality of fruit.				Natural and artificial shelter. Geographic diversification.



Responsible Investment & UN Sustainable Development Goals

Responsible investment integrates environmental, social, and governance (ESG) factors into investment analysis and decision making. It recognises that these factors can have an impact on the financial value of an investment and that investments impact the world around us.

Craigmore has been a signatory to the United Nations Principles of Responsible Investment (UN PRI) since 2012. The six UN PRI are a voluntary and aspirational set of investment principles that offer a menu of possible actions for incorporating ESG factors into investment practice.

Our journey to an 'A' rating

After obtaining a 'B' rating in 2020, Craigmore committed to a three-year plan to reach an 'A' rating in the 2023 reporting year. The evaluation of our most recent UN PRI score has identified some concrete measures which we will implement in the next year. These include bolstering our responsible investment practices by working our founding sustainability principles into a more comprehensive responsible investment policy and committing to the *Task Force on Climate-Related Disclosures (TCFD)*.

United Nations Sustainable Development Goals

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. The blueprint includes 17 Sustainable Development Goals (SDGs). While all 17 goals are important, Craigmore is best positioned to deliver significant progress on four of these goals (numbers 8, 12, 13, and 15):



8. Decent Work and Economic Growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Farming, horticulture and forestry contribute significantly to the New Zealand economy. The profitability of these sectors creates significant employment opportunities, often in underinvested rural communities.

How we contribute:

- Building equity in our workplaces
- Creating jobs for local people
- Reducing/addressing barriers to employment in underfunded rural communities through local training programmes and government partnerships
- Employing overseas seasonal workers who share the benefits of their employment with families at home
- Upskilling our team and advocating best-practice methods to prepare them for their future, in or outside Craigmore
- Keeping our team safe through best-practice workplace processes and investment in infrastructure
- Bringing capital to New Zealand to create economic growth and increased export earnings.



12. Responsible Consumption and Production

Ensure sustainable consumption and production patterns.

Craigmore operations strive to increase productivity while using natural resource efficiently and reducing negative impacts from our farms, orchards, and forests. Some of our farms are the most efficient in New Zealand, and New Zealand dairy farmers are the most emissions-efficient producers of milk in the world. Additionally, Craigmore will soon be New Zealand's largest grower of organic gold kiwifruit.

How we contribute:

- Choosing our partners carefully
- Creating clear commitments to sustainability throughout our strategy
- Transitioning to organic orchard management systems
- Promoting sustainable consumption and production of food and fibre on farm
- Advocating for sustainable practices in our industries
- Encouraging our people to innovate and increase the sustainability of our operations
- Aligning with third party certification of production systems (e.g. Biogro, Synlait – Lead with Pride, Global GAP).



13. Climate Action

Take urgent action to combat climate change and its impacts.

Craigmore recognises that farming, horticulture and forestry play an important role in both contributing to and mitigating climate change. Our farming operations are always looking for innovative ways to reduce their emissions and minimise environmental impacts. Our permanent crop orchards and vineyards store more soil carbon than arable or livestock farms thanks to their deep rooting plants and elimination of soil cultivation. At maturity, our current forestry operations will sequester 150,266 tonnes of carbon every year.

How we contribute:

- Measuring and reducing greenhouse gas emissions
- Establishing native plantings within our properties
- Planting new forests
- Responsible land use change
- Partnering with industry groups, leaders and universities to demonstrate a viable pathway to net-zero dairy farming.



15. Life on Land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

New Zealand has a well-established commercial forestry sector. The planting of new forests is encouraged by the government, while native forests are protected. The greater productivity of permanent crops allows large areas of less productive land in orchards and vineyards to be planted with native forest species, often creating valuable habitat links for plants and wildlife.

How we contribute:

- Following sustainable operational practices
- Improving biodiversity throughout operations
- Encouraging innovations that improve our environment
- Protecting waterways
- Planting new native trees and plants
- Planting erodible land
- Partnering with industry and community groups to improve biodiversity and promote healthy ecosystems
- Uphold the principles of *Te Tiriti o Waitangi* (The Treaty of Waitangi).



Environ

A close-up photograph of a pine branch with vibrant green needles, filling the background of the page.

mmement

Greenhouse Gases

Craigmore Sustainables' ambition is to be a leader in land-based reduction of Greenhouse Gases (GHG) through:

- *Changing land use of farms to less GHG intensive activities*; for example, converting less productive hill country farms into forests, thereby reducing emissions by lowering livestock numbers and sequestering atmospheric carbon through tree growth; and
- *Changing operational practices on farms, orchards and forests to reduce GHG emission intensity*; for example, improving the conversion of feed to milk through better herd genetics and operational decisions to reduce GHG emissions per litre of milk produced.

The full potential impact of Craigmore's GHG strategy is not only in the direct changes we make on properties we manage, but in the indirect impact we have on other landowners and regulators in Aotearoa New Zealand and around the world. Craigmore's ambition is to demonstrate commercially viable pathways to significant reductions in GHG emissions in the production of natural food and fibre at scale.

Our specific climate goals are to achieve:

- 50% reduction in net GHG emissions by 2030 compared to emissions immediately prior to Craigmore management control
- An independently verified net-zero emissions dairy farm by 2035, with minimal offsetting, established in partnership or collaboration with other likeminded entities
- 35% reduction in GHG emission intensity for milk production across our farms by 2035
- Net-zero GHG emissions from the Craigmore-managed portfolio of assets by 2050⁴
- Net-zero GHG emissions from the Craigmore-managed portfolio of assets by 2030, including all sources and sinks of GHG⁵.

Comparison to NZ GHG targets

Under domestic legislation (Zero Carbon Amendment Act 2019), the government has set out a national commitment to the following GHG reduction targets:

- Net emissions of all GHG (excluding biogenic methane) reduced to zero by 2050
- Methane reduction of 10% by 2030, and a provisional target reduction of 24-47% by 2050

Craigmore commitments go well beyond these targets by committing to net zero by 2050 for **all** gases and excluding any external GHG offsets.

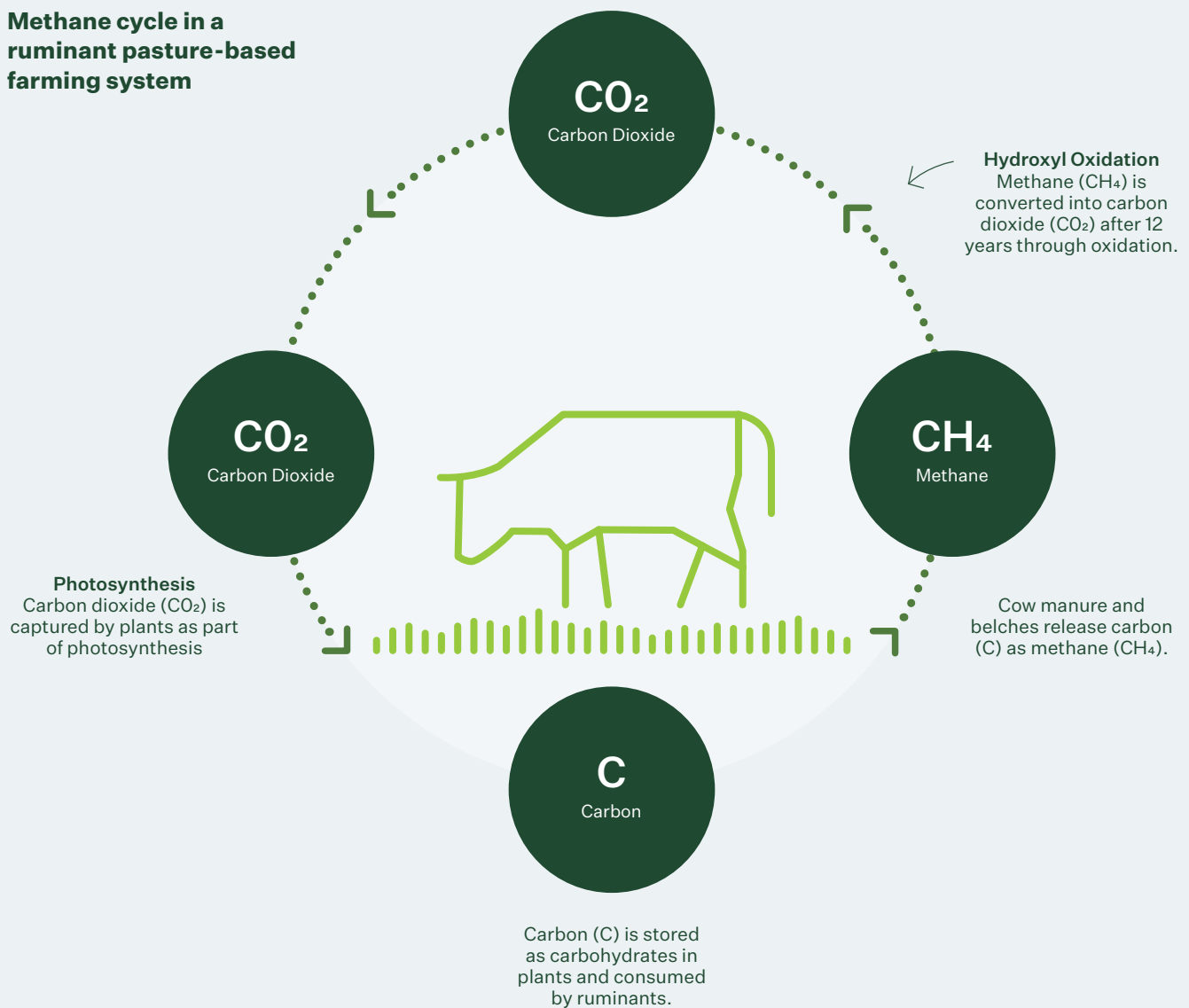
Methane: short-lived gases are different to long-lived gases

Globally, governments are increasingly differentiating between long-lived GHG such as carbon dioxide which can last hundreds of years in the atmosphere, and short-lived gases such as methane which has an average atmospheric lifetime of 12 years. While all gases contributing to climate change must be reduced, the impact of reductions is different. Reducing CO₂ emissions slows the increase in atmospheric CO₂ and the associated warming effect (but still increases warming), whereas reducing methane emissions reduces total atmospheric methane levels and has a cooling effect on climate. Theoretically, maintaining methane emissions at the same level each year does not increase atmospheric levels of GHG. This is relevant to New Zealand because methane is the primary GHG emission from dairy cows, and New Zealand biogenic methane emissions have only increased 8% since 1990 (compared to a 38% increase for CO₂). The comparatively small increase in biogenic methane is due to a fall in sheep numbers, down by 46% (31m) and a smaller increase in cattle numbers by 26% (2m, often replacing sheep).

4 This target excludes any carbon credits (New Zealand Units or NZUs) which have been received by the forestry sector and sold to third-party emitters. It also excludes any indirect NZUs that have been purchased by Craigmore properties through fuel and electricity. Suppliers of these products are required to purchase credits to offset their emissions. This cost then flows through to the consumer (i.e. Craigmore farms, orchards or forests).

5 This target includes all biological sources and sinks of GHG including those sold by the forestry sector and those indirectly offset by the supplier (e.g. fuel and electricity).

Methane cycle in a ruminant pasture-based farming system



With acknowledgment to the CLEAR Centre, UC Davis - Why methane from cattle warms the climate differently than CO_2 from fossil fuels, 2020.

Climate Change Commission GHG Emission Budgets

The Climate Change Commission is an independent Crown Entity established by the New Zealand government to assist in achieving NZ GHG emission reduction goals. One of the Commission's roles is to recommend 5-year GHG emission budgets. As set out in the tables, the Commission has followed the split-gas approach and set lower reduction targets for methane than long-lived gases. The first table also shows the important role that afforestation of less productive farmland will play, with increasing GHG removals from forestry responsible for a third of the reduction in net GHG emissions.

Craigmore Sustainables seeks to materially exceed the targets set by the Climate Change Commission through land use change and changes to existing operations.

Our pathway to achieving our climate goals

Measurement

The complexity of biological processes that drive GHG movements in our businesses and the absence of widely accepted tools and methodology make accurate measurement of our GHG emissions reductions more difficult. Accordingly, we will sometimes rely on averaging, generic estimates and some areas, such as soil carbon and embedded carbon in wooden products, important sources of and potential sinks for atmospheric CO₂, have been excluded to date. For now, our focus is on estimating cradle to property gate emissions on properties. Accuracy and scope of measurement will evolve over time.

Execution

The figures set out on page 47 capture the results of the Craigmore two-pronged strategy: land use change and operational change. In addition to converting farmland to forest and orchards, we actively identify opportunities for innovation and experimentation to reduce methane emissions through feed supplements, and for increasing carbon sequestration in soils and trees on farm. We also believe that we can make our horticulture operations carbon neutral through increased sequestration of carbon in soil.

Overall emissions

The tables on the right provide a summary of our best estimate of the net impact on GHG emissions for the 2020-21 year by sector. The emissions figures set out three views of Craigmore estimates of GHG emissions:

- Net GHG emissions across businesses for which Craigmore has management responsibility
- Adjustment for any emissions trading units bought and sold by Craigmore businesses, directly and indirectly
- Adjustment for the distinction between short-lived and long-lived gases.

Climate Change Commission approved GHG emission budgets for New Zealand

	Emissions Budget 1 (2022–2025)	Emissions Budget 2 (2026–2030)	Emissions Budget 2 (2031–2035)
Net Emissions Budget			
Annual Average	69.5 MtCO₂e/yr	59.7 MtCO₂e/yr	47.9 MtCO₂e/yr
Removals			
Forestry Annual Average	6.6 MtCO₂e/yr	10.0 MtCO₂e/yr	13.8 MtCO₂e/yr
Emissions – Long-Lived Gases			
Gross Long-Lived Gases Annual Average	44.5 MtCO₂e/yr	39.8 MtCO₂e/yr	33.2 MtCO₂e/yr
Carbon Dioxide Annual Average	34.0 MtCO ₂ e/yr	29.8 MtCO ₂ e/yr	24.2 MtCO ₂ e/yr
Nitrous Oxide Annual Average	8.0 MtCO ₂ e/yr	7.6 MtCO ₂ e/yr	7.2 MtCO ₂ e/yr
F-Gases Annual Average	1.8 MtCO ₂ e/yr	1.6 MtCO ₂ e/yr	1.2 MtCO ₂ e/yr
Non-Biogenic Methane Annual Average	0.8 MtCO ₂ e/yr	0.8 MtCO ₂ e/yr	0.6 MtCO ₂ e/yr
Emissions – Biogenic Methane			
Biogenic Methane Annual Average	31.5 MtCO₂e/yr	30.0 MtCO₂e/yr	28.5 MtCO₂e/yr

Change in emissions compared to 2019 from the Climate Change Commissions modelling (AR4)			
	2025	2030	2035
Long-lived gases (net)	-15%	-38%	-63%
Biogenic methane	-8%	-12%	-17%

Craigmore's overall GHG emissions and removals across the three sectors

	UoM	Craigmore Total	Breakdown by Sector		
			Farming	Horticulture	Forestry
Net GHG emissions across Craigmore managed businesses					
GHG Emissions	tCO ₂ e	99,863	92,962	6,520	381
GHG Removals	tCO ₂ e	-24,024	-553	-2,429	-21,042
Net GHG Emissions	tCO₂e	75,839	92,409	4,091	-20,661
Adjustment for any emissions trading units sold or purchased					
Units Sold	tCO ₂ e	0	0	0	0
Units Purchased Indirectly	tCO ₂ e	-2,712	-1,522	-1,152	-38
Adjusted Net GHG Emissions	tCO₂e	73,127	90,887	2,939	-20,699
Adjustment for separation of long-lived gases and biogenic methane					
Biogenic Methane	tCO ₂ e	-55,215	-55,215	0	0
Net GHG Emissions Excl. Methane	tCO₂e	20,623	37,193	4,091	-20,661

Land use change

The diagram sets out the impact that Craigmore has had on GHG emissions through facilitating land use change. Craigmore has converted the land use on a range of properties to either more GHG-efficient production systems (horticulture) or to net positive production systems (forestry). Based on net cradle to gate estimates, Craigmore investment can be estimated to reduce the annual emissions of the previous land use by 100,000 tonnes of CO₂e, as farms have been transformed into orchards and forests.

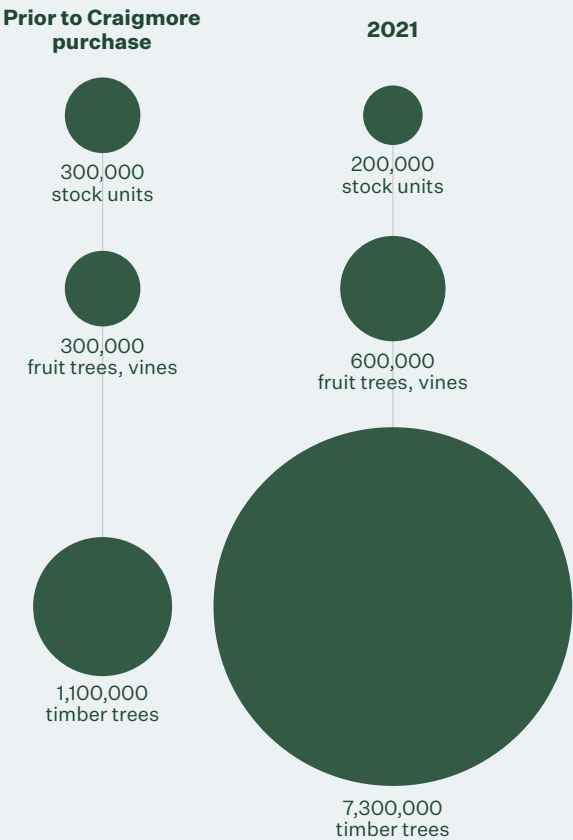
Reducing emissions intensity

Given the importance of animal protein as a source of human nutrition, a critical challenge in addressing climate change is to invest in production systems that have lower GHG emissions intensity. Milk is one of the most GHG-efficient forms of producing animal protein. Furthermore the New Zealand grass-based milk production system is one of the least emission intensive commercial dairy systems in the world. Craigmore net emission intensity measurement for 2020-21 is 0.69kgCO₂e per kg Fat and Protein Corrected Milk (FPCM), which is 10% below the NZ average and 44% below the US average (as estimated by Mazzetto, Falconer & Ledgard, 2021).

Net Intensity of Craigmore Managed Dairy Farms

UoM	kgCO ₂ e/kgFPCM	kgCO ₂ e/ha
2018-19	0.71	15,610
2019-20	0.71	16,013
2020-21	0.69	15,939

Impact of land use change decisions made by Craigmore



A photograph of a kiwifruit orchard. In the foreground, there is a lush green grassy area. Behind it, several rows of kiwifruit trees are visible, heavily laden with fruit. The fruit is in various stages of ripeness, with some being bright red and others yellowish-green. The trees are trained in a way that creates a canopy. The background shows a clear, bright sky.

Case Study

Net carbon sequestration in organic kiwifruit and apple orchards

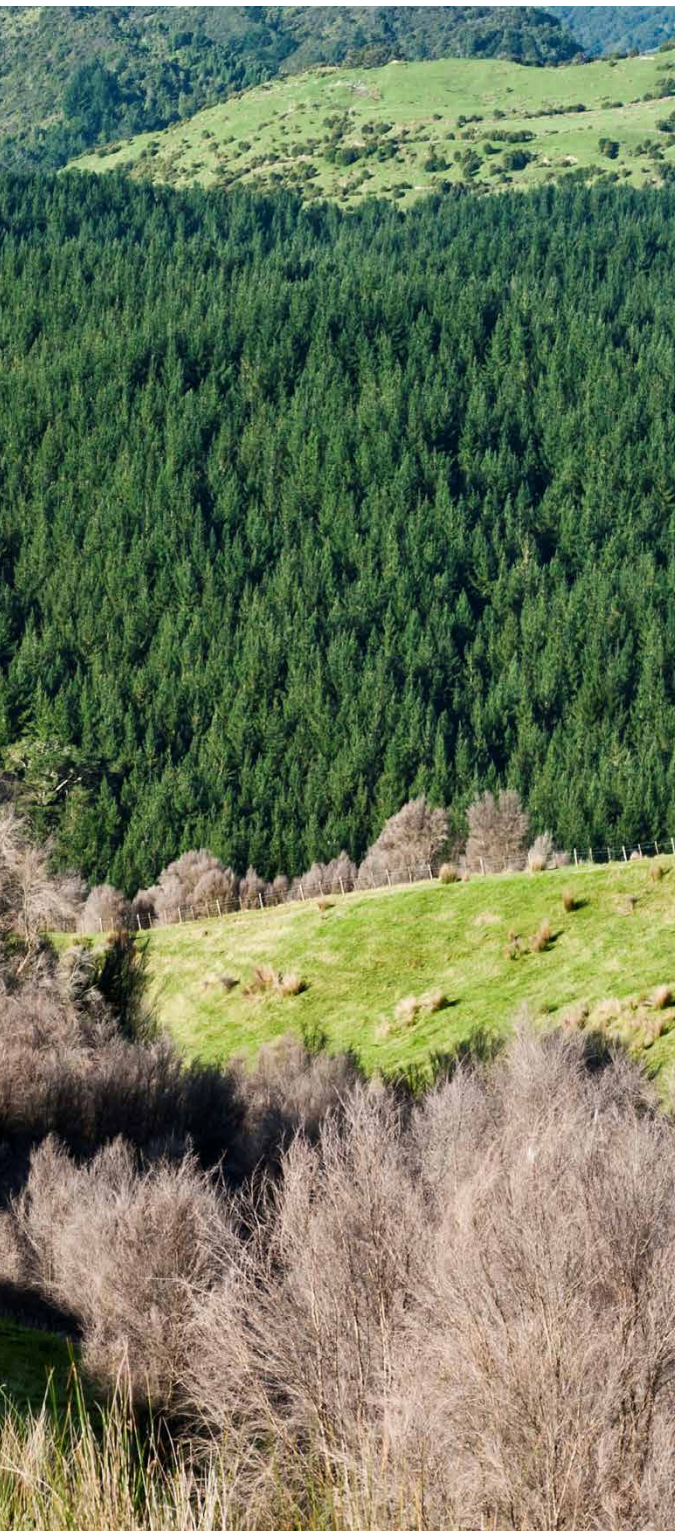
Orchards in New Zealand are both a source of and a sink for carbon dioxide equivalent emissions (CO₂e). Emissions result from direct inputs such as fossil fuel powered machinery, indirect inputs such as fertiliser, chemicals and infrastructure and released from the soil itself. Sequestration occurs through photosynthesis by plants, the development of root mass, the absorption of crop canopy residues and the application of compost.

A study by Page, Kelly, Minor & Cameron (2011) modelled the carbon footprint of apple orchards in Hawke's Bay and organic kiwifruit orchards in the Bay of Plenty. This study found that kiwifruit orchards had an annual net sequestration of 2.4t CO₂e per ha while apple orchards had an annual net sequestration of 5.0t CO₂e per ha.

To date Craigmore manages 250ha of orchards and vineyard and converted 133ha of these from pastoral and annual cropping uses.



Caves Forestry
Northland



Case Study

Growing for good: Sequestering carbon through afforestation

Craigmore's forest investment strategy is to manage and develop plantation forests to produce timber and contribute to sequestration of atmospheric CO₂. This includes the purchase of existing forests, and taking a leadership position in land afforestation which has seen us plant 8,500 hectares of new forests on marginal farm land.

Every hectare of forest can permanently sequester up to 35 tonnes of CO₂ per year for 16 years, meaning that the forests planted to date are sequestering or reducing the emission of over 250,000 tonnes/year of CO₂ by a combination of reduced livestock numbers and timber growth – almost enough to offset the annual emissions of a small New Zealand city.

This approach has greater benefits than traditional forestry. It promotes regional economic activity and creates jobs through the planting and managing new forests, enables the most erodible land to be retired from commercial use (planted in native timber species and native shrubs), supports greater biodiversity, and provides a dual revenue stream for investors (sale of timber and of carbon credits).

As managers of land use change, we are careful to take a responsible, long-term approach. We use rigorous processes to understand the geography and climate to determine the best land use. For example, the most erosion-prone steep hill country may be better planted in native trees; land that is less steep but difficult to farm is better suited to forestry; and productive, flatter land is often ideal for farming or horticulture. Several land uses may be appropriate for a single property. Mixed land use means we can derive greater social, environmental, and economic outcomes from our properties.

Soil

Soil provides sustenance for plants, human nutrition, water filtration and helps to regulate the Earth's climate. Erosion and reduced biological health reduce the soil's ability to sustainably generate productive crops and, in some instances, farmland has been abandoned due to erosion and a loss of fertility. Craigmore Sustainables already undertakes a range of careful soil protection measures, such as erosion protection plantings, no tillage re-grassing, and balanced fertiliser plans that include both synthetic and biological products. Our next focus is on deploying tools that can systematically measure soil health in a more holistic sense that captures both nutrient availability, soil carbon and biological health.

The most important action is to ensure land use is appropriate for the site, including mapping out areas with high erosion risk and planting them in erosion-reducing vegetation, such as trees.

Protected Erodible Land

	% of highly erodible land protected with plantings
Farming	100% (including land earmarked to be sold or planted)
Horticulture	100%
Forestry	100%

"Highly erodible land" is defined as land that is classified as having High or Very High risk of erosion under the Erosion Susceptibility Classification (ESC) mapping layer developed by the Ministry for Primary Industries. There are 4 classes of erosion risk under ESC: Low; Moderate; High; and, Very High.



Caithness Dairy Farm
North Canterbury

Case Study

In the Field: Visual Soil Assessments

Sustainable productivity depends on healthy soil. While nutrient testing is essential to understanding soil health, visual assessments are also required to reveal the full picture.

This year Craigmore is trialling a visual assessment methodology on a selection of our farms.

This assessment looks at specific attributes such as compaction, moisture retention and root penetration to give an overall score of soil health. The results will help us understand our soil and identify areas where we can make improvements.

Eventually, this visual assessment tool be rolled out across all Craigmore properties including farms, forestry and horticulture operations, where it will help us better understand the impact of different farming practices on soil health. We plan to report our results in our 2022 Impact and Sustainability Report.

Case Study

Harnessing the Power of Dung Beetles to Improve Soil Quality

In 2020 3,800 dung beetles from four different species were released at Caithness farm. Of more than 7,000 species of dung beetle around the world, 11 are approved for release in New Zealand. New Zealand has 15 native species of dung beetles. However, they are primarily forest dwellers and are unable to utilise dung in open pasture.

The humble dung beetle is a rural hero, providing a wide range of benefits for all types of livestock farms. Dung beetle activity improves soil quality, reduces the chance of waste entering waterways, reduces parasite infections in livestock and may even decrease greenhouse gas emissions.

The foremost benefit of the beetles will be an improvement to soil structure and quality. Working underneath dung/manure pads, dung beetles construct tunnels up to 1 metre below the soil surface. This reduces soil compaction and improves aeration and water penetration. The beetles carry dung deep into their tunnels which incorporates organic matter into the soil profile, in turn enhancing grass growth through nutrient recycling and ultimately improving the pasture's long-term productivity.

Further benefits from the dung beetle introduction at Caithness farm are expected to include reduced reinfection of livestock by parasitic worms. While further research is required, it is strongly believed that the burial of animal waste and improved infiltration of urine into upper soils will reduce the production of methane and nitrous oxide, therefore decreasing greenhouse gas emissions.

We expect to notice environmental and economic benefits in 4-6 years' time, with full carrying capacity reached in 9-10 years.

Water

The availability, quality and biological health of freshwater is a global issue changing climate and increasing demand for high-quality food and fibre. The focus in New Zealand, with high and consistent rainfall and relatively small landmass, is on local water quality for human use (consumption and recreation) and the biological health of waterways rather than absolute water availability. Improvements can often be made to reduce both the sedimentation of waterways caused by erosion and the nutrient loss to aquifers, streams and rivers. Craigmore Sustainables is committed to developing innovative ways to improve water use efficiency and manage local impacts on water quality. We use a number of metrics to analyse our performance with regards to water, the most quantitative of which is nitrogen losses to below the root zone.

Nitrogen Loss

The data below shows that nitrogen loss on Craigmore-managed dairy farms decreased by 9% in 2021 compared to the average nitrogen loss over 2019-2020.

We are currently developing a Visual Stream Assessment methodology that will measure the quality of streams on our properties. This methodology is being trialed on farms and we hope to share results in our 2022 Impact and Sustainability Report. This is due to strategic farm management practices and a reduction in cropping and nitrogen fertilisers.

	Nitrogen Loss kgN/ha 2021	Average for 2019-2020
Forestry	–	–
Farming (Dairy)	31.6	35.8
Farming (Sheep & Beef)	2	2
Horticulture (Permanent Crop)	7.3	7.3

About the data

Nitrogen loss on our forestry properties has not been reported due to the negligible nitrogen loss expected. Farming numbers are property specific and estimated using Overseer – a model used by regulators across New Zealand for estimating nitrogen loss. Horticulture numbers are average numbers based on an independent report – *AgFirst: The value of nitrogen fertiliser to the New Zealand Economy report, 2019*. Horticulture data excludes Coxco, which is a cropping business and very difficult to model at this stage.



Case Study

Efficient water use through dripline technology

Across most of New Zealand, rainfall varies throughout the year. Irrigation is critical for permanent crops, yet water must be used efficiently to maintain profitability and healthy water systems. Craigmore is improving water use across our orchards and vineyards with the use of dripline technology. Above ground driplines use 10-15% less water than sprinkler systems by delivering a precise application of water to the base of the plant. Sub-surface driplines are 10-20% more efficient again because they eliminate surface evaporation and apply water and nutrients directly to the rootzone. Our current managed orchards, when fully developed, will be irrigated with 55% above-ground dripline, 30% sub-surface dripline and 10% sprinkler systems while 5% of orchards are not expected to be irrigated.

Case Study

Win-win for wintering barn

The installation of a composting winter barn at Clydesdale dairy farm in North Otago will deliver environmental, operational and financial benefits. The barn substantially improves the team's ability to manage the herd in wet conditions. The barn reduces nitrogen leaching and sediment run-off, reduces pasture and soil damage, improves animal health and milk production, and provides safer working conditions for farm staff.

Completed in 2020, the 2,000m² barn can house 300 cows, allowing the farm to rotate 600 cows through the facility in wet weather. Cows spend half the day outside foraging and half the day in the composting barn.

A key driver for this project was to reduce nitrogen leaching from pasture in wet conditions. During heavy rainfall, water moves through the soil profile, carrying nitrogen from animal urine and faeces. The nitrogen moving through the soil profile can 'leach' into surrounding waterways and aquifers.

By taking the cows off pasture during wet conditions, animal waste is collected in the winter barn instead of remaining on the ground. To further reduce nitrogen leaching, the farm has also significantly reduced the amount of synthetic

nitrogen applied to pasture. In 2017 Clydesdale Overseer modelled a loss of 30kg nitrogen per hectare (kgN/ha). During the first part-season using the barn in 2020, these loss numbers reduced to 18kgN/ha and then only 8kgN/ha in the first full season – 2021. This is a reduction of almost 75%.

The barn also improves the welfare of our animals and the farm team. Having cows calve in the barn ensures that they get adequate mineral supplements and feed, and calve down in dry, warm conditions. This also significantly reduces the time the team spends driving through paddocks in dark, wet conditions to attend to animals.

The Clydesdale team have demonstrated that with the right infrastructure, cows will sustain a high level of production over a longer lactation. Clydesdale cows are producing 600–650kg milk solids/cow (MS/cow), compared to the New Zealand industry average of 381kg MS/cow.⁶

Prior to the construction of the composting barn, Clydesdale secured a winter milk contract and now milks around 400 cows through winter. The premium received from the winter milking contract helps offset the capital expense of the building.





Clydesdale Dairy Farm
North Otago

Biodiversity & Ecosystems

In addition to being of intrinsic value, native biodiversity contributes to ecosystem services for agriculture and horticulture, as well as the recreational and cultural wealth of Aotearoa New Zealand and *Te Ao Māori*.

Craigmore is committed to protecting and enhancing biodiversity through minimising practices which harm ecosystems; and enhancing and protecting native areas. Such policies include:

- Protecting existing native vegetation and waterways from livestock grazing
- Protecting native animals through control of mammalian pests⁷
- Avoiding native deforestation in our developments
- Native planting on sensitive land
- Implementing low-spray management systems on orchards such as integrated pest management and organics.

Enhancing biodiversity is also an important way that Craigmore can support long-term Māori customary use of the land. This could include supporting populations of *tuna* (eels) and *kōura* (freshwater crayfish) and other *taonga*.

Native forests under protection on Craigmore properties since inception

	Hectares
Forestry	912
Farming	39
Horticulture	61

Native deforestation by Craigmore

	Hectares
Forestry	0
Farming	0
Horticulture	0

Native plantings by Craigmore since inception

	Hectares
Forestry	18
Farming	89
Horticulture	21

About the data

‘Under protection’ refers to area of land managed for environmental protection and conservation. It includes land subject to either management or legal land use restrictions set for the purposes of maintaining biological diversity and natural resources.

Many of our farms have small areas of native plantings. We are currently developing a method to measure them and keep track of future planting for more accurate reporting.

⁷ Integrated pest management is an effective and environmentally sensitive approach to pest management using information on the life cycles of pests and their behaviour. This information, combined with pest control methods, manages pests while minimising negative impacts on the environment, other animals, crops property and people.

Case Study

Remnant forest protection and regeneration at Taieri Lake

Taieri Lake is Craigmore's grazing property for raising young dairy livestock. The 2,721ha property includes a range of indigenous habitats and is home to threatened plant and animal species including the New Zealand falcon. Of particular interest is the 38ha remnant broadleaf forest. As the last remnant forest of its type in Otago, it is a high priority for conservation.

We are working with the New Zealand Department of Conservation to protect and regenerate the area. Our combined efforts, including a pest control programme, have already resulted in improved plant growth. We look forward to continuing our efforts to preserve and enhance this special area for future generations.

Case Study

Organic conversions: growing profit and environmental outcomes together

Craigmore actively considers organic production when assessing new investments. We have trialled organic production in dairy and kiwifruit. While the absence of a reliable off-taker has been a barrier for organic dairy, we are quickly becoming the largest organic gold kiwifruit grower in New Zealand. When fully developed and certified, approximately 25% of Craigmore's kiwifruit portfolio by area will be organically managed.

The first blocks of the Huakiwi kiwifruit orchard achieved independent organic certification in 2020 following a three-year process. In 2021, these blocks produced exceptional yields of over 19,000 trays per ha (approximately 20% higher than average conventional yields) and commanded a premium of \$2.00 per tray. With organically grown fruit resulting in both profits and environmental benefits, we are pleased to support conversions to organic where climate allows.

Case Study

Improving biodiversity at Wiroa Orchard

Wiroa Orchard was a 137ha dairy farm purchased by Craigmore in 2019 for conversion to a kiwifruit orchard. When planting is complete, the orchard will include 12ha of red kiwifruit, 70ha of gold kiwifruit, 4.4ha of bush remnant where kiwi (an endemic bird and national icon) still live, and approximately 17ha of new native plantings on slopes and gullies unsuitable for orchard establishment.

As part of our commitment to biodiversity, Craigmore has planted the unproductive areas at Wiroa with native species. This helps with on-orchard challenges such as erosion of steep banks and pollination while improving biodiversity, waterway quality and wildlife.

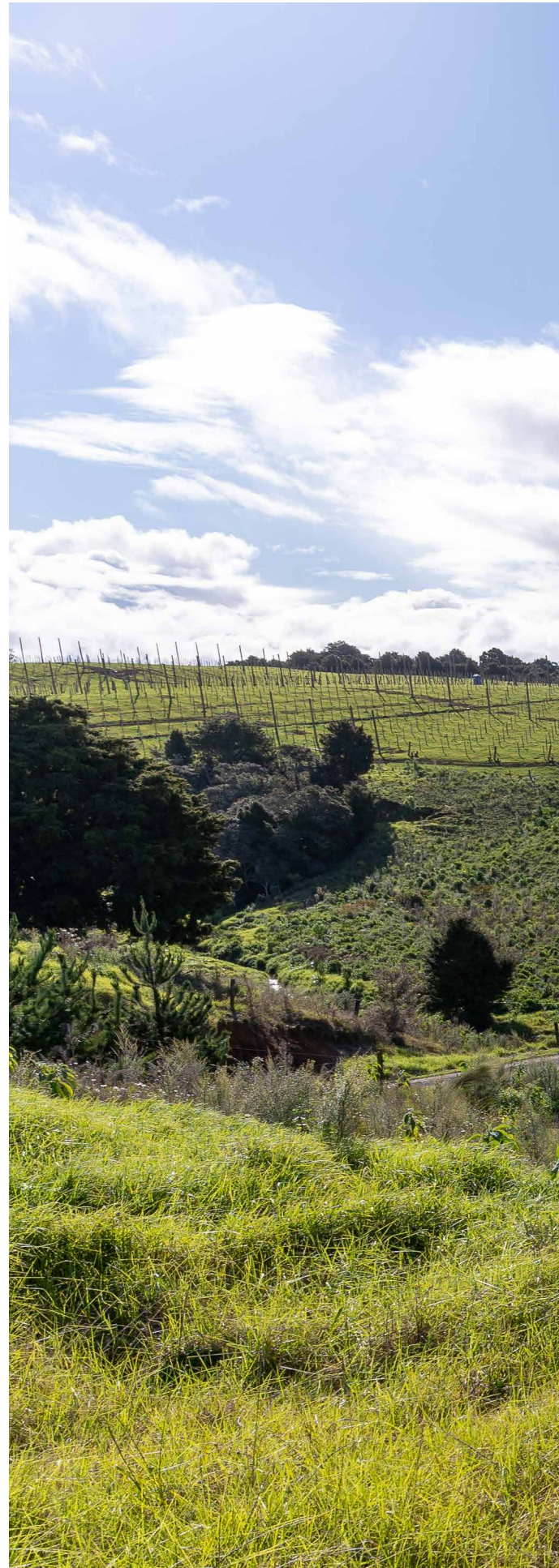
In October 2020 Craigmore completed 17ha of native planting including 27 different species, four forest types and 43,000 plants in total. This included planting gullies and pasture slopes with a mix of native species that will grow into kahikatea, kauri and tōtara forests for the resident kiwi to roam in.

Alan Dobbie, Craigmore's Kiwifruit and Avocado Business Manager explains "If the land doesn't have kiwifruit on it, you've either got to graze or plant it to keep out the weeds. We didn't want to manage stock, and believe that native plantings are the best option here. The native plants will help keep streams clean by filtering out any nutrient leaching or orchard run-off, and it makes for a really nice environment to work in."

After first connecting with local landcare groups, Alan contracted an ecologist to assess the area and prepare a planting plan. He partnered with Kauri Park nursery in Whangārei for plants and planting crew. In just four days, 43,000 native plants were planted. Contractors have done several follow up visits to hand-cut and spray out weeds since.

The second stage of planting is now being planned and will include a trial plant mix which includes species suited to the region and which support pollinating insects.

Wiroa Orchard is also participating in Plant and Food New Zealand's three-year study of insect populations across the block, as well as investing in pest control to improve biodiversity and help protect the precious kiwi habitat.





Wiroa Orchard
Northland

Animal Welfare

Animal welfare is at the core of any good livestock farming business. We are responsible for the well-being of our stock, from birth to beyond the farm gate. New Zealand is a leader in animal welfare globally, being one of the first countries to enshrine animal sentience into law in August 2015. New Zealand enjoys a climate that allows livestock to be outside for 12 months of the year. These effectively ‘free-range’, grass-fed dairy farming systems are much less intensive than most northern hemisphere systems, which involve partial or permanent housing of livestock. Accordingly, the average standard of animal welfare in New Zealand, measured in terms death rate and fertility rate of our herds is very high compared to global comparators.

All Craigmore farming operations align our standards of animal welfare with the *Five Domains* model of animal welfare that measures and promotes well-being across five realms: nutrition, environment, health, behaviour, and mental state.

Animal Welfare Metric

	Benchmark	Craigmore Farming (dairy) Operations
Body condition	DairyNZ target 4.5-5	4.5
Death rate	Livestock Improvement Corporation (LIC) 2.2%	3.5%
6-week in-calf rate	DairyNZ Avg 67.8%	68.1%

About the Data

Animal welfare metrics explained

1. Body Condition Score

Body Condition Score (BCS) is a metric that describes the visual condition of dairy cattle. BCS is determined by an independent vet who visits each farm and records the information based on visual inspections of the animals.

2. Death Rate Percentage (Death Rate %)

Death Rate % provides a clear indicator of herd health and is directly related to good farm management practices that minimise deaths from extreme weather events and less than ideal management practices. Death Rate % is calculated as the number of mixed age cows and mature replacements (“R2s”) deaths divided by the number of wintered cows. There are no industry death rate reporting requirements. As a result, LIC death rate is based on non-audited reporting and Craigmore’s definition of death is more conservative e.g. includes animals that cannot be sold. We are working to align these definitions in future reports.

3. Six-Week In-Calf Rates

The six-week in-calf rate is a measure of the percentage of in-calf cows, six weeks after the start of the mating season. A high six-week fertility rate is a reliable indicator of good on-farm management, body condition, quality of feed and general animal and herd health.

Case Study

Improving animal welfare from the inside out

In autumn 2021, we installed SmaXtec internal measuring devices to the entire herd of dairy cows at Darnley farm, North Canterbury. The SmaXtec device is designed to help farmers better understand their cows and improve animal health and welfare.

The 10cm sensor is administered orally, and transmits continuous measurements from inside the cow, which can be viewed on a computer or smartphone. Signs that an animal is unwell are apparent up to four days before physical symptoms emerge, which means farmers can treat illnesses and other conditions faster and more effectively, with less need for medical intervention.

The device creates efficiency as the team know which cows need attention, enabling them to react faster, track their recovery more accurately, determine the effectiveness of treatment options and improve animal health and well-being.

Another benefit of the device is more accurate identification of when a cow is ready for mating. It also makes calving safer as the sensors identify when a cow is about to calve, so team members know exactly where to focus their time and resources to ensure the cows give birth without problems.

Craigmore's trial of SmaXtec bolus devices at Danley farm comes out of our desire to enhance farm management as well as the lives of farmers and the animals under their care. If it proves successful for Hayden and his team at Darnley, we will roll out use of the devices across other Craigmore properties.



Social



Health, Safety & Wellbeing

Health, safety and the well-being of our teams is a core value of our business. We recognise that our people, both employees and contractors, face day-to-day, sector-specific risks when working in our business. Craigmore Sustainable promotes the use of best-practice health and safety protocols to protect the physical safety and mental well-being of our people and those who work with us. We are creating a culture of safety across our business, ensuring that every person receives the tools and training they need to understand the risks they face and the steps they need to take, to keep themselves and others safe.

Total Recordable Injury Frequency Rate (TRIFR)

TRIFR is a measure of the frequency of recordable work-related injuries or illness for every 200,000 hours worked.

It is calculated by combining recorded fatalities, lost-time injuries and other injuries requiring treatment by a medical professional, multiplying that number by 200,000 and then dividing by the total number of employee hours worked or 'exposure hours'. TRIFR is a rolling 12-month metric.

	TRIFR
Craigmore Sustainable	3.7
Business Leaders' Health & Safety Forum Benchmarking Report	4.66

About the data

1. Craigmore data does not include Coxco, contractor or contract manager performance.
2. Data is benchmarked against the New Zealand Business Leaders' Health and Safety Forum 2020 benchmarking report. This report uses data from 74 members and includes 163 million employee hours worked and 44 million contractor hours worked.

Looking ahead

During the current reporting year, we are focused on strengthening health and safety leadership on the ground supported by Craigmore wide risk management standards and policies. Using values-based leadership, governance and risk management as the cornerstones of our health and safety efforts, we are also working on improving our tracking and reacting to performance changes using a suite of lead and lag indicators.





Case Study

Managing Critical Risks in Farming Safely

Critical risks are things that can seriously harm people in the workplace. We continuously monitor risks across our properties, and in 2020 we began a new process to review critical risks in collaboration with property managers.

The process was led by independent health and safety contractor, Ant Sutherland. "Farming will always have critical risks," says Ant. "We need to make sure that people have the correct operational plans and systems in place to reduce the chances of harm occurring."

Not too long ago, it was standard practice for health and safety leaders to visit a site, talk through potential hazards, write them down and walk away. Now, Craigmore is working to create critical risk-management plans that farmers can practically use and see operational value in.

Ant and his team worked with farm managers to teach them how to identify and manage critical risks and create management plans. Working in groups, farm managers identified relevant risks from a master list, then created plans that align with the hierarchy of control, part of New Zealand's health and safety legislation. This collaborative, hands-on approach created positive buy-in from teams and generated practical plans specific to different farm environments, terrain, infrastructure, and people.

Now, every critical risk in our farming operations has a documented management plan specific to each farming property. Farm managers are now working with their teams to update the relevant operating procedures in order to align them with the new management plans.

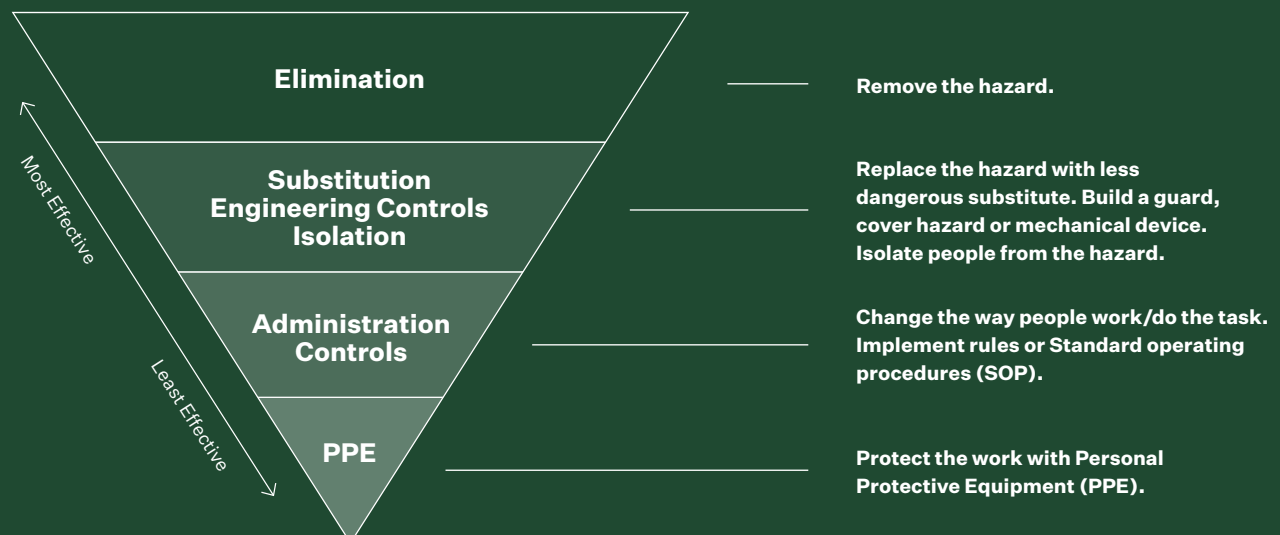
General Manager of Farming, Stuart Taylor says the process is working. "Identifying who is responsible for managing critical risks is empowering staff and team members to take ownership of the necessary safety controls. Not only have we upskilled our people, we've reinforced an on-farm culture that keeps health and safety front of mind."

Farms will review their critical risks annually. Knowledge acquired from these reviews will be shared with the wider Craigmore network to continually improve our health and safety culture and accommodate new protocols, technology and people.

Hierarchy of Hazard: How Risks are Managed

The hierarchy of controls is a framework prescribed in the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. It is applied to all critical risks to establish a management plan that controls the critical risk as far as is reasonably practicable. There are four controls in total, listed in priority order.

Hierarchy of Hazard: How Risks are Managed



People & Communities

The majority of Craigmore operations are in rural areas where primary industries are major components of local economies. By creating employment opportunities, we are helping to bring new families into underinvested rural communities, as well as bringing new people into primary industries. We strive to ensure that people have the opportunity to grow and feel valued when they work with us. We are advocates for upskilling and training people for their futures – with or outside of Craigmore – and ensuring that each person is remunerated fairly for their work.

Our Workforce

	Total	Total %	Farming	Horticulture (including Coxco)	Forestry	Other
Number of people	270	–	101	140	2	27
Full-time	261	97%	98	139	2	22
Part-time	9	3%	3	1	0	5
Female staff members	71	26%	28	31	0	12
Male staff members	199	74%	73	109	2	15

Data includes people employed directly by a Craigmore-managed business in full-time or part-time roles.
Data excludes contractors, casual workers and seasonal workers.
Other includes New Zealand office-based staff, and London-based investor relations team.

Future Aspiration

Grow the field.

Craigmore has an objective to be a transformational employer in New Zealand.

We believe that there is a better way to employ people in our rural communities. Seasonality, split shifts, long hours and physical requirements make employment inaccessible to some people. Armed with new technology and ways of thinking, we believe that we can redefine an approach to

employment that makes careers in the sector more accessible, flexible and appealing.

Job sharing, flexible hours, training programmes for all ages, living wages, permanent contracts and values-based employment may all play a role. This is an aspiration rather than a finite goal and will continue to evolve as new innovations are implemented and industry cultures change.



Case Study

Building a positive team culture through *People 360*

People 360 is a holistic review process that helps to identify both strengths and opportunities for improvement and growth. We began trialling *People 360* reviews in 2019 and have now rolled them out across all Craigmores farms. In a *People 360* review, a range of people are interviewed (staff, colleagues, etc) to identify areas where an individual might need some additional training and development. General Manager of Farming, Stuart Taylor, says that after some initial apprehension the process was well received and is now fully embedded. "As part of the program, managers can work towards gaining certifications. In year one of the programme many managers were left with areas for development before they could achieve certification. However, in year two we were delighted to see how many managers had taken the learning on board and received certification. *People 360* is helping us build capability and create strong, positive cultures within our operations."



Case Study

Partnership with Māori

Te Tiriti o Waitangi (the Treaty of Waitangi) is the founding document of Aotearoa New Zealand. It is an agreement between the Māori tribes that signed the record and the British Crown, that sets the terms of their relationship for the future, intending to ensure protection and rights for all. For Māori, the treaty promised *rangatiratanga* - the retention of authority that tribes had always had over their lands and *taonga* (treasures).

Breaches of *Te Tiriti*, including historic illegal confiscation of land, have meant that today Māori has much poorer social, health and economic outcomes than non-Māori. However, there is a significant resurgence in modern times as Māori entities seek to express *rangatiratanga* and their rights as *mana whenua*. The term *mana whenua* refers to the *iwi* (tribes) or *hapū* (sub-tribes) with territorial authority and customary responsibility for a particular area due to historic occupation.

Craigmore Sustainables seeks to support Māori aspirations through mutually beneficial partnerships. These partnerships are, for example, through the creation of jobs in under-invested regions, partnering with Māori entities in investments, and supporting personal career development within Craigmore of Māori employees.

In 2011 Craigmore started a joint venture with Nuhiti (The Proprietors of Nuhiti Q) to develop a permanent forest on Nuhiti land and install significant fencing to enable the regeneration of native forest through the exclusion of livestock. This investment receives compensation from the government in the form of certified carbon credits for carbon sequestered as the permanent forest grows. Craigmore Sustainables has also built a relationship with Tuakau (Tuakau Pirauau A Trust) over the past decade. Under this partnership, Craigmore has established 350ha of plantation forestry on low value, erodible land overseen by Tuakau. Craigmore is also undergoing a new process to set water consent limits with the *mana whenua* of a Northland district.

Our approach is setting a new standard for private sector engagement with *mana whenua* and helping to build intergenerational knowledge of the underground aquifer in the area so that *mana whenua* have more information when influencing future water use decisions by government bodies.

Case Study

Seasonal workers find home away from home at Coxco

In October 2019, 34 seasonal workers from the Republic of Kiribati, an independent island nation in the central Pacific Ocean, arrived at Craigmores's Gisborne-based labour solutions provider, Coxco.

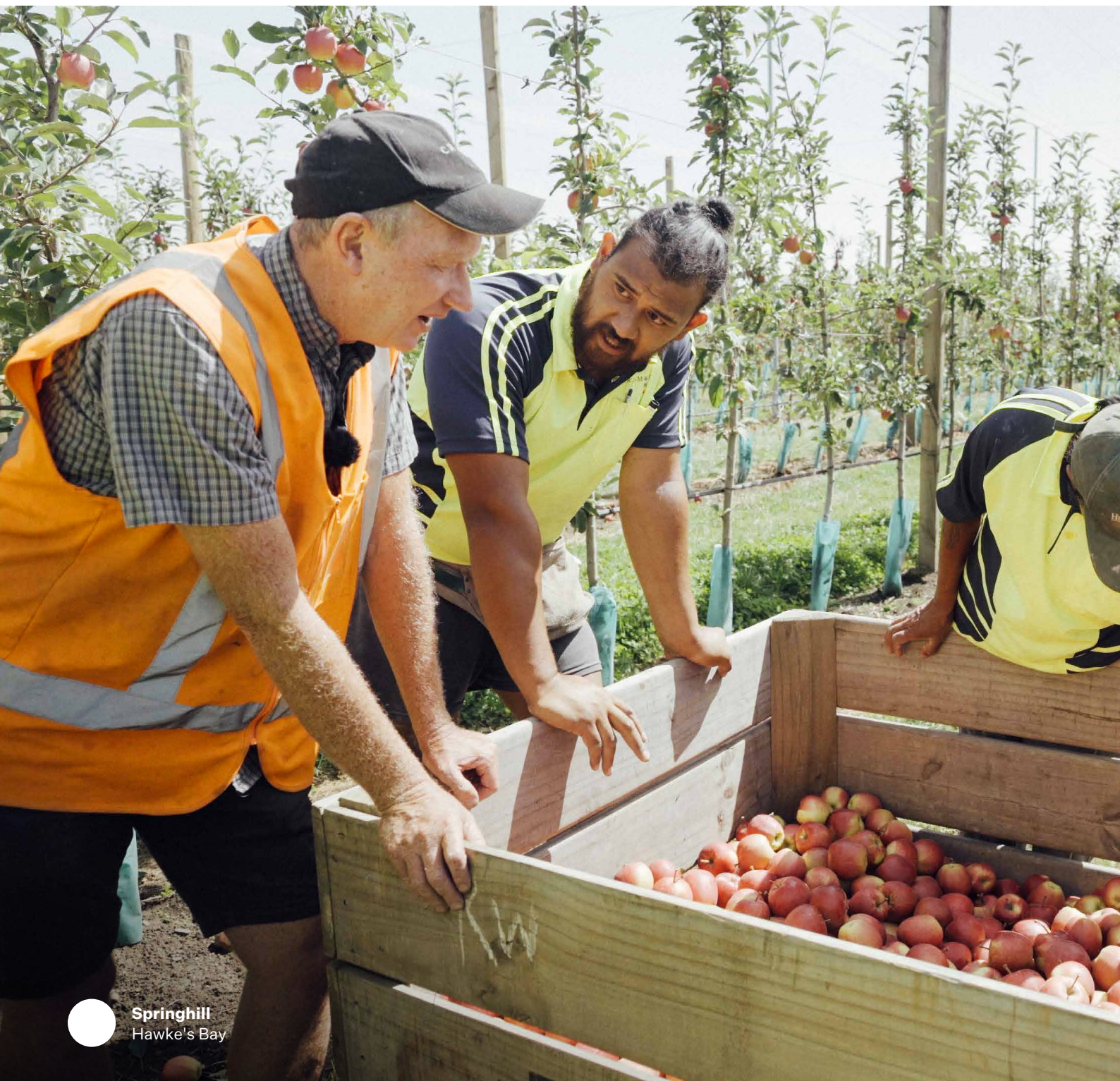
The Republic of Kiribati is 4,500km from New Zealand. It includes 33 islands scattered over a wide area of the Pacific Ocean and has a total population of just 117,000. The group of workers had initially planned to spend nine months harvesting seasonal fruit and vegetables in Gisborne with Coxco. However, when Kiribati closed its borders to protect its people from COVID-19, they were unable to return home.

The Coxco team have been working hard to make Gisborne feel like a second home for the past two years by providing quality work and accommodation, as well as Wi-Fi facilities to keep them connected with their families. Coxco is also offering pastoral care and in-house counselling services. Every second Friday, Coxco staff host dinners for the group and local excursions have been planned as well. While the group's return date to Kiribati remains unknown, Coxco is committed to making them feel welcome, providing employment, accommodation and support until the time comes for them to return home.

Case Study

Making history: Caroline Aymes

Craigmores Farming's agri-relationship partner, Caroline Aymes was elected the North Canterbury Provincial President for Federated Farmers in May 2021. Caroline and her Vice President, Rebecca Green, are the first female President/Vice President team in the history of the organisation. Caroline also serves as the sponsorship manager for the New Zealand Dairy Industry Awards for North Otago and Canterbury. Caroline has been in the agriculture for 12 years working her way up through the agricultural industry starting as a dairy assistant and into farm-support roles. Since changing careers Caroline has also completed a post-graduate diploma in agricultural science at Lincoln University and the Kellogg Rural Leadership Programme. As Provincial President Caroline hopes to connect those that are writing the regulations with those on the ground to ensure workable policy that helps to create stable, prosperous rural communities for generations to come.



Springhill
Hawke's Bay



Case Study

Employing locals at Springhill

Springhill is a 478ha property located in Central Hawke's Bay. Craigmore is currently converting the property into an orchard and vineyard which will include 156ha grapes and 136ha apples upon completion in 2022. With the challenges of labour availability for horticultural operations, a key focus at Springhill has been the development of a sustainable local workforce.

Many New Zealand orchards rely on overseas workers, known as Recognised Seasonal Employees (RSEs). However, while RSEs are essential to our operations, Craigmore recognises the need to develop a local workforce, to provide a secure source of labour when international travel restrictions occur, as well as assisting social and economic growth of our underinvested rural communities.

Springhill Orchard Manager, Myles Hemara, is focused on offering employment and career opportunities to people in the region. Myles worked closely with the community and the Ministry of Social Development to attract candidates and began building a team.

Filling jobs, however, is not the sole focus for Myles – or for Craigmore. Myles says, “We’re not just offering another job in

horticulture; it’s much more than that. We’re offering education, training, a whole career. When our new employees walk through the gate into the orchard, most of them have zero understanding of our operations. We train them and offer career development pathways, which adds to their lives and helps us ensure a sustainable workforce.”

Myles’ efforts have made a significant difference at Springhill. When he began, he had as few as six people sporadically turn up to work; he now has 25 permanent and casual employees turning up every single day from nearby rural communities.

“The great thing is many of them really wanted to be here, they just needed the right opportunity. We invest a lot in them – we’re currently putting five people through nationally recognised qualifications and empowering them to take on new roles with us. We still need contractors and RSEs to fill seasonal labour gaps, but our aim is to have our current workforce upskilled to the point where they can take supervisory roles.”

“Supporting local employment has put us in a really good position going forward and is helping to strengthen the communities around us as well.”

Thank you to our Limited Partners, stakeholders, and the people of Craigmore for their ongoing commitment and support on our sustainability journey.

Feedback

We welcome any feedback you have on this report – please email: investorrelations@craigmore.com

To find out more, visit

www.craigmore.com

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