# Impact & Sustainability Report





Welcome to Craigmore
Sustainables' fourth Impact and
Sustainability Report. We are
excited to share the progress we
have made in the last 12 months
on our journey to deliver positive
environmental, social and
economic impact.

# Welcome



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### **About this report**

This Impact and Sustainability Report highlights the influence Craigmore Sustainables has on the environment, communities and stakeholders. In our fourth report, we sharpen our commitment to the conversation around sustainability.

### Craigmore's approach to sustainability

Craigmore approaches sustainability from the perspective that it our responsibility 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.<sup>1</sup>

We are proud of our achievements to date and are determined to maintain our commitment to the 'Sustainability Principles' on which Craigmore was founded more than a decade ago, and to build positive outcomes for our businesses, for our families and communities and for our supportive capital partners.

### This report focuses on the financial year ending June 2024

The purpose of this report is to assist stakeholders, investors and partners to understand our objectives and their impact, which we seek to have as a long-term manager of capital.

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

Report published November 2024.

Disclaimer: The views expressed herein are those of Craigmore Sustainables LLP as of July 2024 and subject to change at any time based on the market and other conditions. This is not an offer or solicitation for the purchase or sale of any security and should not be construed as such. Performance indicators are estimates only and actual results may differ materially from those described herein. Forecast and forward-looking statements are based on the reasonable beliefs of Craigmore Sustainables LLP and are not a guarantee of future performance.

## **CEO Statement**

# Welcome to our Impact & Sustainability Report 2024



<sup>\*</sup> At maturity, Craigmore's current portfolio will produce 200 million apples, 80 million kiwifruit and 100 million litres of milk.

### 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.

Fifteen years ago, Craigmore Sustainables started its mission to generate value for investors and communities by developing and managing natural capital businesses throughout Aotearoa New Zealand. We are in a unique position to be a global leader in profitably producing food and fibre in ways that have a material positive impact on climate, biodiversity, and social equity. We focus on the 'growing' of produce, integrating operational and investment management functions, and deeply understanding local context in which we operate – which happens to be the best country in the world for growing high quality food and fibre from the land.

Not all journeys are smooth, and 2023/24 started with recovery from Cyclone Gabrielle. Significant rehabilitation of our Glenpark orchard and vineyard was completed, including the removal of over 120,000 cubic metres of silt. Thanks to the commitment of the Glenpark team, and wider supporters, the properties were able to produce a crop for 2024 harvest. We also completed an additional 74 canopy hectares of apple orchard development despite heavy rain through most of 2023.

In our forestry business, we have added a further nine properties covering 8,185 hectares in the Northland, Eastern Bay of Plenty, East Coast and Wairarapa regions. In addition, we planted 2.41 million trees over a new planting area of 2,347 hectares, capable of removing an average of c. 1.3 million tonnes of  $CO_2$  from the atmosphere in perpetuity.

We made further significant sustainability improvements to our pastoral dairy farms. Nitrogen leaching is now 32% lower than in 2020. This has been achieved through more efficient use of nitrogen to grow more grass, resulting in increased milk production. Increased ecological efficiency also helped to reduce methane emissions from livestock by 12%.

Significant progress has also been made with technologies which will support Craigmore to have a net-zero dairy farm by 2035. Considerable improvements were made to EcoPond, a technology which very nearly eliminates methane emissions from farm effluent ponds. Ruminant Biotech, in which we are invested, completed trials of its livestock bolus, demonstrating a 70% reduction in livestock methane emissions for 100 days – from just one application.

Throughout the year several of our people were recognised externally, including Hannah Speakman from Pine Hill Dairy in Oamaru who was named as one of three finalists in the 2024 Ahuwhenua Young Māori Farmer Awards. Our Apples Business Manager, Ben James, was named the Horticentre Group Horticulturalist of the Year for his tireless pursuit of excellence in the apples business. Additionally, Nga Stanley, Assistant Manager at Springhill Orchard was named the Central Hawke's Bay Rotary Young Employee of the Year.

These achievements would not be possible without the commitment of our teams and the long-term support of our capital partners. The benefits of our investments will increase as properties and teams mature. A summary of what our future impact may look like, based on the current portfolio, is set out in the diagram to the left.



**Che Charteris**Chief Executive Officer

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## 2024 By the Numbers

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

Total hectares under direct management (including leases and forestry right areas)

# 1,076

Total assets (NZD)\*

\* Total assets include funds under management by Craigmore Sustainables Group and Craigmore Sustainables NZ

Craigmore

manages six investment vehicles

Number of direct employees

**Total sector assets:** 

Horticulture

**Farming** 

Forestry

Craigmore manages 68 properties across New Zealand (excluding minority interests)

## Growing the Best of Aotearoa New Zealand

Craigmore Sustainables works with global capital partners to build and manage farms, orchard and forestry businesses in New Zealand. We build these businesses to produce the food, fibre and environmental services sought around the globe, while leading the way in sustainable practices and benefitting our rural communities.

### **About Craigmore Sustainables**

Founded in 2009, we are specialists at investing in and managing rural 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 to build skilled teams to manage our investments successfully and sustainably for the long-term.

Craigmore intends to exceed the 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 we work every day.

We believe that well-managed capital, introduced by Craigmore and invested with a focus on sustainability, can be instrumental in the reinvigoration of many rural communities.

### **About our investment partnerships**

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

05

Craigmore manages a portfolio of high quality and productive land assets on behalf of our international capital partners. For these investors, long-term sustainable oversight of natural real assets is an important element of their investment criteria. Craigmore manages six New Zealand Investment Vehicles, which gives our partners from around the world access to the permanent crop horticulture, dairy and forestry sectors.

### **Craigmore Limited Partnerships**

- Craigmore Farming Partnership
- · Craigmore Dairy II Partnership
- Craigmore Permanent Crop Partnership
- Kauri Forestry Partnership (co-managed with GlenSilva GmbH)
- Tōtara Forestry Partnership
- · Beehive Demetra Limited.

## **Our Vision**

Our vision is to be *Kaitiaki* – Growing the best of Aotearoa New Zealand. *Kaitiaki* in te reo Māori (the indigenous language of Aotearoa New Zealand) means something akin to *guardian*.

This vision applies to everything we do through:

- Creating meaningful employment opportunities in under-invested communities
- Improving public access and connection to our environment
- · Developing and protecting our people
- Actively addressing significant environmental challenges in our rural sectors
- Being an active fiduciary for our capital partners.

Our commitment to being *Kaitiaki* is also a promise 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.



Impact & Sustainability Report 2024 07

## **Our Strategy**

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

These challenges include, among others:

- Creating pathways to netzero production of healthy sustainable food and fibre
- Reversing biodiversity loss
- Addressing social inequity through generating employment in rural communities.

To address these challenges, 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).

## Our Values



### 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 Koru (fern frond), which represents growth and regeneration.



### **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 Pikorua (double twist), which represents an enduring bond between people in spite of barriers of time and distance.



### **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.

## Milestones in Our Journey So Far

2009 Craigmore is founded by New Zealand family farmers, the Elworthy and Cox families.	2009	
the Liverthy and Gox lamines.	2010	<b>2010</b> Craigmore Forestry Limited – The Forestry Fund established with \$26.4m committed capital.
<b>2011</b> The Craigmore Farming Partnership established.	2011	φ20.4m committed capital.
	2012	<b>2012</b> Craigmore signs the UN Principles for Responsible Investment.
2013 Craigmore Sustainability Principles introduced in 2012 and	2013	
signed off in current form in 2013.	2014	<b>2014</b> Craigmore established farm data integration platform Map of Ag.
<b>2015</b> Craigmore Dairy II Partnership established.	2015	
	2016	2016 The first specialist horticulture business established with the launch of
	2017	Craigmore Permanent Crop Partnership.
2018 Forestry business expanded with launch of	2018	
Kauri Forestry Partnership.	2019	
	2020	<b>2020</b> The third Craigmore forestry business, the Tōtara Forestry Partnership established with
<b>2021</b> Permanent Crop Partnership re-opened to new capital. Craigmore's inaugural Impact and	2021	capital raising ongoing.
Sustainability Report published.	2022	2022 First sustainability linked loan with ASB and Rabobank agreed, focused
2023 Beehive Demetra Limited managed account established to invest	2023	on tangible environmental, social and animal welfare benefits, if targets met.
in New Zealand horticultural assets. Craigmore joined New Zealand Ethical Employers as a funding partner.	2024	<b>2024</b> Extension to Kauri Partnership to include investment in the Hawke's Bay apple sector.





## 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 the impact of that investment on the world.

Craigmore has relied on its foundational Sustainability Principles to guide our approach to responsible investment to date. We have now implemented a Responsible Investment Policy which sits alongside these principles. This can be found on our website.

### **UN PRI**

Craigmore has been a signatory to the United Nations Principles of Responsible Investment (UN PRI) since 2012. Craigmore was awarded four stars out of a possible five in the release of reporting results in September 2023. We are committed to improving our rating and are in the process of evaluating what is required to reach five stars under the new ranking system. Our 2023 UN PRI Transparency Report can be found on our website.

→ www.craigmore.com/sustainability/reports

## 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, with profitability in these sectors creating employment opportunities often in underinvested rural communities.

Craigmore brings capital to New Zealand to create economic growth, jobs and increased export earnings. We focus on building equity and safety in our workplaces while addressing barriers to employment through local training programmes and government partnerships.

## Responsible consumption and production

## Ensure sustainable consumption and production patterns.

Craigmore has a clear commitment to sustainability throughout our strategy, and aims to increase productivity while using natural resources efficiently and reducing negative impacts. We advocate for sustainable practices in our industries and plan to lead the market in establishing a proof-of-concept net-zero dairy farm.

We are one of New Zealand's largest growers of organic gold kiwifruit. We encourage our people to innovate and align with third party certification of production systems including *Biogro* for organic certification, *Lead With Pride* for dairy supply to Synlait Milk and *Global GAP* for export of fruit.





### **UN 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). Craigmore is in a strong position to deliver significant progress on goals 8, 12, 13, and 15.

## **Climate** action

## Take urgent action to combat climate change and its impacts.

Farming, horticulture and forestry play an important role in contributing to and mitigating climate change. Craigmore is committed to measuring and reducing greenhouse gas emissions, planting new forests to sequester atmospheric CO<sub>2</sub>, planting native species on our properties, undertaking responsible land-use change and demonstrating a viable pathway to net-zero dairy farming.

## Life on the land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests and halt biodiversity loss.

Craigmore is establishing new, sustainably managed, Forest Stewardship Council® certified forests and planting erodible land. We currently have 9,156 hectares with FSC® certification.

Areas of less productive land in orchards and vineyards are planted with native species, enhancing biodiversity and creating habitat for wildlife.

We are following sustainable operating practices and partner with industry and community groups to improve biodiversity and promote healthy ecosystems. We also encourage innovation and practices that protect our waterways, with a commitment to upholding the principles of *Te Tiriti o Waitangi* (The Treaty of Waitangi).





## Map of Operations

### Horticulture

1	<b>Angus</b> Kiwifruit	4ha (3cha)
2	Battery Hill* Hops	300ha
3	Blue Rock* Hops	237ha
4	Cat Creek Wine Grapes	418ha (187cha)
5	CFP Apples Apples	112ha (78cha)
	Coxco Cropping Leases	63ha (63cha)
	Craigmore Accommodation	6ha
	Coxco Accommodation	0.1ha
7	Sunpark Apples	84ha (30cha)
8	<b>Huakiwi</b> Kiwifruit	43ha (20cha)
	<b>Mapua</b> Kiwifruit	18ha (11cha)
	<b>Kirimini</b> Kiwifruit	40ha (20cha)
10	<b>Kiwinorth</b> Kiwifruit	52ha (36cha)
11	Springhill Apples & Wine Grapes	479ha (336cha)
12	Glenpark Apples & Wine Grapes	59ha (41cha)
13	<b>Tahi</b> Avocados	77ha (10cha)
14	<b>Wainui</b> Kiwifruit	12ha (11cha)
15	Wiroa	 137ha

### **Forestry**

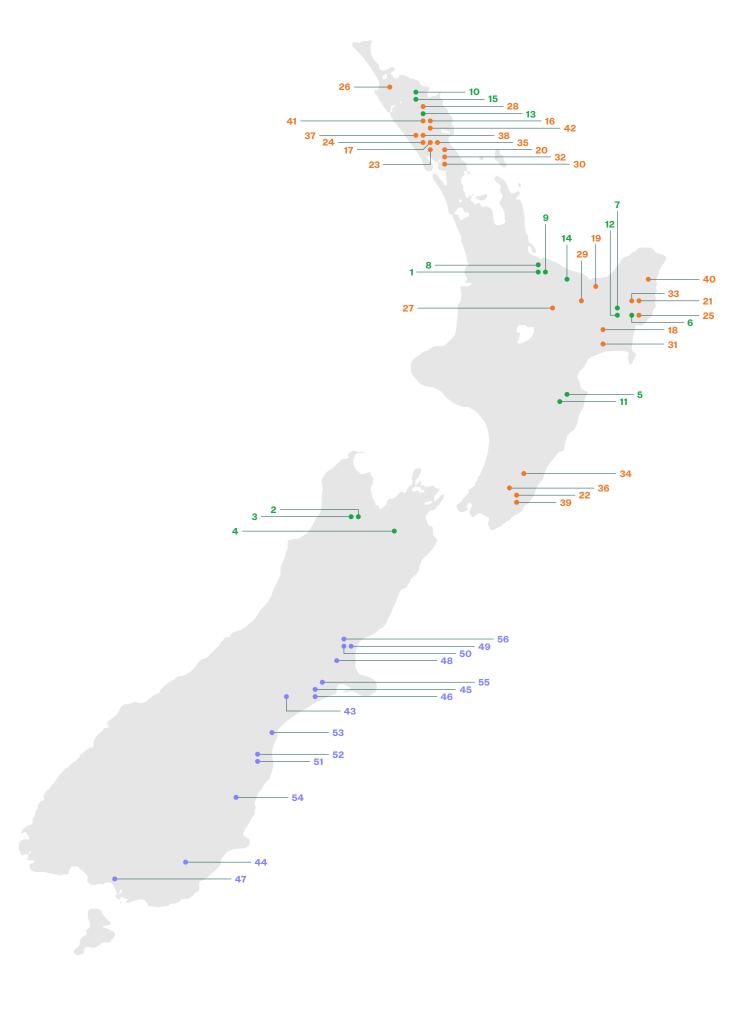
16	Aponga	241ha
17	Arapoka	156ha
18	Arawhata	472ha
19	Blue Mountains	2,696ha
	Meremere	948ha
20	Caves	626ha
21	Glen Tui	850ha
22	Lagoon Hill	3,609ha
23	Manganui	1,266ha
24	Mangarata	1,003ha
25	Maunga-O-Rangi	1,402ha
26	Ngatieke	708ha
27	Ngatimanawa	326ha
28	Opare	1,591ha
29	Oponae	1,359ha
30	Otioro	154ha
31	Pakowhai	376ha
32	Piroa	239ha
33	Punawai	389ha
34	Rata	374ha
35	Ruarangi	476ha
36	Springrock	208ha
37	Tangowahine	302ha
38	Titirangi	702ha
39	Tora	943ha
40	Tuakau	550ha
41	Wairere North	482ha
	Wairere South	309ha
42	Wheki	693ha

### Dairy

43	Ardwell	256ha
	Cairndale	275ha
44	Argyll Group*	1,039ha
45	Kirikiri 1	156ha
	Kirikiri 2	226ha
	Wairepo Green	286ha
	Wairepo Yellow	258ha
46	Classact Dairy*	218ha
47	Fortuna Group*	5,458ha
48	Glen Eyre	426ha
49	<b>Haddon Farm*</b> Dairy Support	93ha
50	Caithness	205ha
	Darnley	286ha
	Landsend	263ha
	Riverend	199ha
51	Claybrooke	166ha
	Clydesdale*	275ha
	Pine Hill	174ha
	Waiareka	233ha
	Windsor	263ha
52	<b>Abercairney</b> Sold June 2024	136ha
	Arnmore	347ha
	Glencairn	145ha
53	Pareora	301ha
	Somerset	200ha
54	<b>Taieri Lake</b> Dairy Support	2,723ha
55	Te Awa	531ha
		1.5001
56	Waibury Investments*	1,539ha

### \* Minority interests

Please note: Craigmore has a total of 68 properties under management covering 33,075 hectares with an additional eight minority interests. In some cases, multiple properties are listed in one location.



## **Farming**

Grass-based farming is Craigmore's most mature business. Craigmore now directly manages 21 milking platforms and one dairy support grazing farm in the South Island, producing 79 million litres of milk annually.

Properties are operated by teams and equity partners who share our values and have proven their ability to deliver, ensuring we can deliver high quality milk for processing by New Zealand based dairy companies for export around the world.<sup>2</sup>

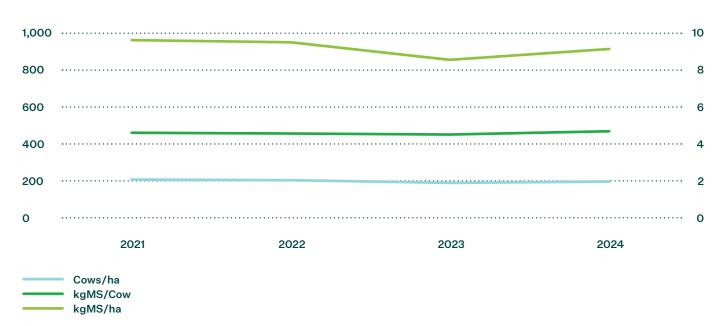
As well as majority-owned properties, Craigmore also has six minority interest investments in dairy farming businesses, which comprise an additional 8,622ha producing 112 million litres of milk annually.

### **Dairy transition**

Craigmore is working hard to reduce the environmental impact of our farming operations. Targets include:

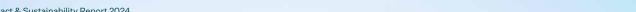
- Greenhouse gas emissions: absolute emissions (CO<sub>2</sub>e per hectare) are reduced, and emissions intensity (CO<sub>2</sub>e per kgms) are reduced.
- **Water quality:** nutrient leaching is minimised through externally audited farm Environment Plans.
- **Biodiversity:** plans are in place through a Sustainable Linked Loan (SLL) initiative to complete five different biodiversity projects across three years, with the plans and annual audits completed by an independent qualified ecologist.

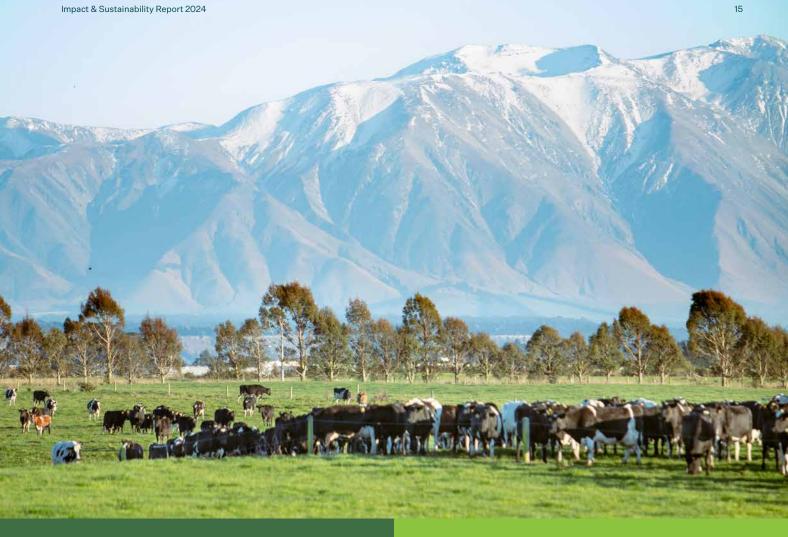
### Farming production 2021–2024

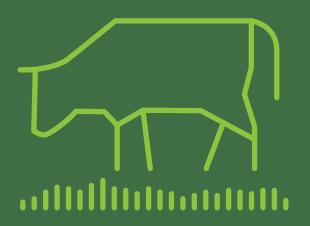


Data includes assets under direct management. It does not include investments in businesses that Craigmore does not control.

<sup>2</sup> New Zealand exported dairy products worth NZ\$26,008m in the year to 30 June 2023. Source: MPI SOPI June 2024.







\$332m

8,084ha
Total hectares including leased land\*

15,847

Total number of cows (dairy only)

Annual milk production:

**7,330,057 kgms**Milk solids (fat and protein)

Litres of milk

## Horticulture

Craigmore's horticulture business continues in a strong growth phase, with high demand for New Zealand grown produce.

We are building a diversified portfolio of assets in crops which New Zealand has a competitive advantage such as kiwifruit, apples and grapes.<sup>3</sup>

Our strategy is to invest in areas where we can generate new jobs and deliver economic growth in under-developed rural communities. Capital investment in orchard and vineyard infrastructure transforms land previously used for pastoral farming and annual cropping to create significant growth in export receipts for New Zealand.

In 2024, Craigmore acquired 33% of Fruitcraft, an IP company that provides access to new apple and pear varieties.

Since year end we have added to the apple portfolio with a further four orchards. We will expand our viticulture footprint in Marlborough, with the purchase of a further two properties and the planting of 90cha at Cat Creek. We remain on the search for more kiwifruit in the competitive heartland of the Bay of Plenty.

We are particularly passionate about the upskilling of youth for a career in horticulture. We do this with internal training and supporting local young grower competitions and the New Zealand Young Horticulturist of the Year competition.

\$406m
Total assets (NZD)

**1,541ha**Total hectares\*
321cha apples, 352cha grapes, 183cha kiwifruit

4,187t
Annual apple production

613t
Annual grape production

4,918t
Annual kiwifruit production

14% of New Zealand's organic gold kiwifruit is grown by Craigmore

**37**%

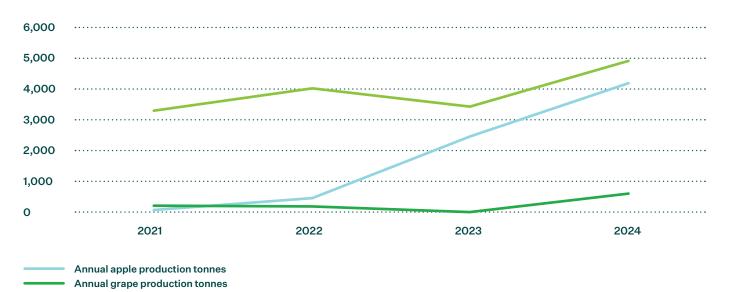
37% of Craigmore's kiwifruit production is under organic certification

<sup>3</sup> New Zealand exported NZ\$2,544m of kiwifruit, NZ\$2,392m of wine and NZ\$892m of apples and pears in the year to 30 June 2023. Source: MPI SOPI June 2024.



### Horticulture crop production 2021-2024

Kiwifruit and grape production in 2023 was impacted by Cyclone Gabrielle with a return to expected levels in 2024.



Annual kiwifruit production tonnes

## Forestry

Craigmore first invested in forestry more than a decade ago and it continues to be a significant and growing part of our business.

With a significant focus on the afforestation of marginal farmland, our strategy is to build a mixed portfolio of existing forests and land suitable for planting. We plant new forests where this is the most appropriate land use – usually less productive grazing land, including properties which are steep, have poor soil fertility or erosion issues. Newly planted forests provide a dual revenue stream – both from the sale of carbon credits and from the sale of timber at harvest.

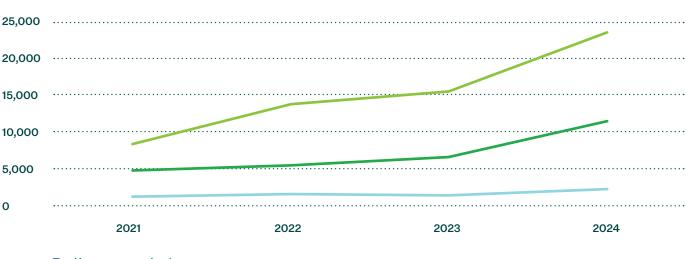
We have two dedicated forestry vehicles, the Kauri Forestry Partnership (which is managed in partnership with GlenSilva GmbH), and the Tōtara Forestry Partnership. Kauri Forestry Partnership has built a mixed portfolio of forestland since establishment in 2018. Tōtara Forestry Partnership was established in 2020, purchasing three farming properties on which new forests have been planted. Since year end, three further properties have gone under contract. Craigmore continues to raise capital for the Tōtara Forestry Partnership.

Over the last 12 months, the Forestry business has continued its strong growth, with the Kauri Forestry Partnership adding a further nine properties covering 8,185 hectares in the Northland, the Eastern Bay of Plenty, East Coast and Wairarapa regions of the North Island. We continue to subdivide and sell higher quality land, suitable for farming along with blocks for lifestyle and residential use. Harvest continues at Lagoon Hill and Opare. The clearing of remnant woodlots at Otioro and Tora was completed, and the harvest of further remnant woodlots awaits favourable market conditions.

This year PF Olsen Limited, managers of Craigmore's Northland estate, received Forest Stewardship Council® (FSC®) certification for ten of the Craigmore forests under its management. FSC® certification is a robust process, which sets the standard for forest managers on responsible forest management and reporting. It allows them to demonstrate that forests are being managed sustainability in line with environmental, social and economic standards.

→ www.craigmore.com/northland-forestssecure-sustainability-certification

### Size of Craigmore's Forestry business (hectares)



Total hectares new planting per year
Total area of commercial forestry
Total land area (including area in native forest)



\$338m

23,450ha

Total hectares

2,347ha

Total hectares new planting this year

2.41m

Total number of trees planted this year

**11,446**ha

Total area of commercial forestry

7,571ha

Total Emissions Trading Scheme (ETS) registered area

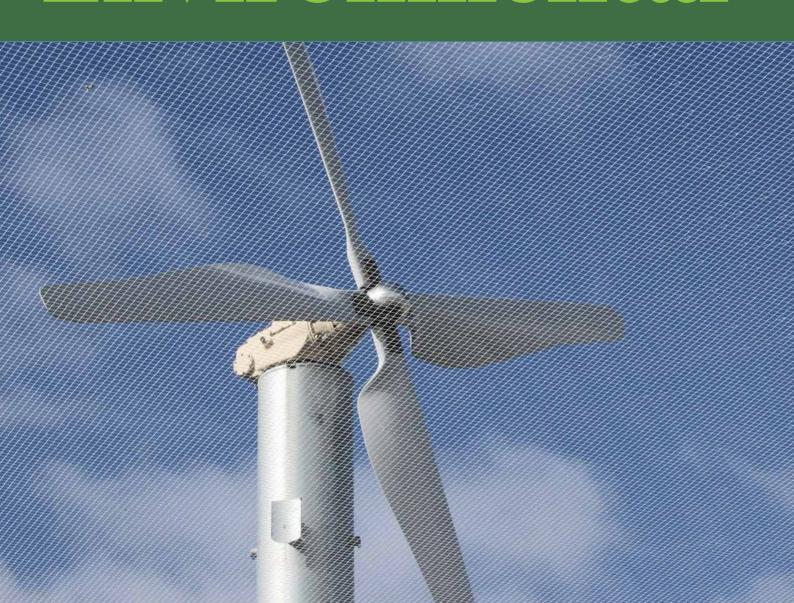
169,275t
Total tonnes harvested this year

83,601t

Tonnes CO<sub>2</sub>e sequestered this year\*

<sup>\*</sup> Data includes assets under direct management. It does not include investments in businesses that Craigmore does not control.

## Environmental



## Greenhouse Gases & Climate Change

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

- Changing land-use; for example, converting less productive hill country farms into forests, thereby reducing emissions by reducing 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.

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 like-minded entities
- 35% reduction in GHG emission intensity for milk production across our farms by 2035
- Net-zero GHG emissions from the Craigmoremanaged portfolio of assets by 2030, including all sources and sinks of GHG<sup>4</sup>
- Net-zero GHG emissions from the Craigmoremanaged portfolio of assets by 2050.<sup>5</sup>

### **Comparison to New Zealand GHG targets**

Under domestic legislation, the 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 national targets.

### The significance of methane

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 for long-lived gases (eg. CO<sub>2</sub>, at 100 to 1,000 years) compared to short-lived gases (eg. methane at c. 12 years). Reducing CO<sub>2</sub> emissions results in a slower, but continued, warming of our climate, whereas reducing methane emissions has a cooling effect on climate.<sup>6</sup>

This distinction is relevant to New Zealand because methane is the primary GHG emission from dairy cows, and New Zealand agricultural methane emissions have only increased by 8% since 1990 (compared to a 35% increase for  $CO_2$  emissions). The comparatively small increase in agricultural methane is due to a 56% decrease in sheep numbers since 1990, offset by a 26% increase in cattle numbers over the same period.<sup>7</sup>

- 4 This target includes all biological sources and sinks of GHG including those sold by the forestry sector and those indirectly offset by the supplier (eg fuel and electricity).
- 5 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, which 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 (ie Craigmore farms, orchards or forests).
- 6 Reference: www.stats.govt.nz/indicators/new-zealands-greenhouse-gas-emissions
- 7 Reference: www.stats.govt.nz/indicators/livestock-numbers



### The pathway to achieving our climate goals

### Measurement

The complex biological processes, which drive GHG changes in our businesses along with the absence of widely accepted tools and methodology, make accurate measurement of our GHG emissions and reductions more difficult. For this reason, we will sometimes rely on averaging and general estimates from published research. Some areas such as soil carbon, embedded carbon in wooden products, and important sources of, and potential sinks for atmospheric CO<sub>2</sub>, have been excluded to date. For now, our focus is on estimating scope 1 and scope 2 cradle to property gate emissions. Accuracy and scope of measurement will evolve over time.

### Execution

Craigmore has a two-pronged strategy: land-use change and operational change. In addition to converting farmland to forests 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 farms. Peer reviewed articles also suggest that we can make our horticulture operations carbon neutral through increased sequestration of carbon in soil.

### Land-use change

The diagram in *Figure 1* sets out the Craigmore impact on reducing GHG emissions through facilitating land-use change. Craigmore has converted 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's investment can be estimated to have reduced the annual emissions when compared to the previous land-use by 1.7m tonnes of CO₂e, as farms have been converted to orchards and forests.

### **Reducing emissions intensity**

Given the importance of animal protein, particularly dairy, as a source of human nutrition, a critical challenge in addressing climate change is to invest in production systems, which 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 lowest emission commercial dairy systems in the world.

Craigmore's net emission intensity measurement for 2023/24 is  $0.77 kgCO_2e$  per kg Fat and Protein Corrected Milk (FPCM). This is below the US average ( $0.96 kgCO_2e$ ) as estimated by Mazzetto, Falconer and Ledgard, 2022.

### **Net Intensity of Craigmore managed dairy farms**

	kgCO₂e/kgFPCM*	kgCO₂e/ha**
2019-2020	0.83	14,966
2020-2021	0.81	14,744
2021-2022	0.82	14,680
2022-2023	0.85	14,849
2023-2024	0.77	13,650

Data table updated to Overseer version 6.5.7

### **Overall emissions**

The table on the following page provides a summary of our estimate of the net impact on GHG emissions for the 2023/24 year by sector. The emissions figures set out Craigmore's estimates of GHG emissions:

- Net GHG emissions across businesses for which Craigmore has management responsibility
- Adjustment for the distinction between short-lived and long-lived gases.

<sup>\*</sup> Fat and protein corrected milk

<sup>\*\*</sup> per hectare

### Craigmore's overall GHG emissions and removals across the three sectors 2023-24

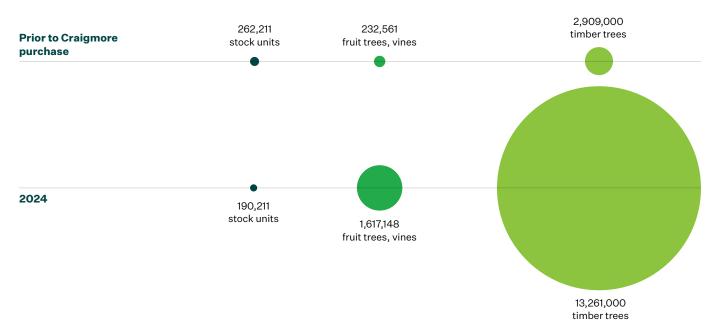
	UoM	Craigmore	Breakdown by Sector		
	OOM	Total <sup>†</sup>	Farming	Horticulture	Forestry <sup>‡</sup>
GHG Emissions	tCO2e	96,035	89,488	6,547	0
GHG Removals	tCO <sub>2</sub> e	-90,101	-681	-5,819	-83,601
Net GHG Emissions	tCO <sub>2</sub> e	5,934	88,807	728	-83,601
Biogenic Methane	tCO2e	45,485	45,485	0	0
Net GHG Emissions excl. Methane	tCO <sub>2</sub> e	-39,551	43,322	728	-83,601

<sup>&</sup>lt;sup>†</sup>The total GHG emissions include emissions from Taieri Lake, support blocks and stock grazing off farm (including replacements and wintered cows). \*Forestry averaging methodology.

No consideration given to the eligibility for, or registration in

the New Zealand Emissions Trading Scheme (ETS).

Figure 1 Impact of land-use change decisions made by Craigmore



### **Case Study**

## World-leading methane mitigation technology for pastoral farming

In addition to trialling technology on our farms, Craigmore supports new tools in development, such as our investment with *Ruminant BioTech*.

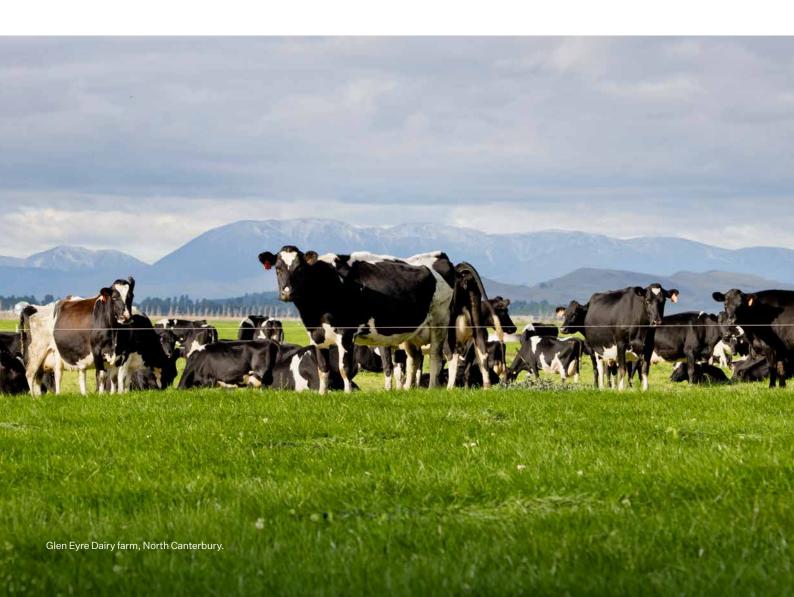
Ruminant BioTech is developing the world's leading technology for reducing methane emissions from livestock on pastoral farms.

The key patent-protected technology is a small capsule ('bolus'), which sits in a cow's stomach, releasing a controlled dose of a methane inhibiting substance for up to six months. The technology uses a highly pure form of synthetic tribromomethane, a compound found in red algae seaweed.

Field trials have shown the technology can reduce methane emissions by over 70% for up to 100 days with a single treatment. This makes *Ruminant BioTech's* solution one of the few viable options for pastoral farming systems, which are responsible for most of the world's enteric methane emissions.

With a pilot manufacturing facility under construction in New Zealand, *Ruminant BioTech* is on track to begin commercial sales in Australia by 2025. Pending product registration, New Zealand farmers are expected to have access by 2027.

Ruminant BioTech aims to treat 100 million cattle globally, reducing emissions equivalent to removing 50 million passenger vehicles from the road.



### **Case Study**

## Probiotic could be key to productivity gain and methane reduction

Scientists around the world have been looking at ways to reduce the biogenic methane emission from livestock to reduce farmers' carbon footprint.

Since 2022, the Craigmore farming team has been working with Fonterra trialling a probiotic solution called  $Kowbucha^{TM}$  on our dairy farms at Te Awa, Darnley and Glen Eyre.

Developed by Fonterra's probiotics discovery program and in collaboration with AgResearch, Massey University and DairyNZ, *Kowbucha<sup>TM</sup>* is added to colostrum, milk or calf milk replacer from birth until weaning to influence the gut and immune system of the cow from an early age.

Kowbucha<sup>™</sup> has been shown to reduce feed intake and methane emissions by up to 20% in dairy heifers up to one year of age, without reducing calf liveweight gain or health parameters. Importantly, the probiotic product is safe for animals, easy to implement, easily scalable with no impact on milk or meat quality.

Research is ongoing to understand the mode of action and how to extend the benefits of probiotics to lactating dairy cows.

→ See page 21 to learn more about the significance of methane.

Case Study

### Trial refines EcoPond technology

**EcoPond** is a newly developed system for reducing biogenic methane emissions from farm effluent storage ponds. The pilot of **EcoPond** at Glen Eyre dairy farm in North Canterbury has reinforced the viability of the project and led to some valuable lessons, which are shaping the future of the technology for widespread adoption by the dairy industry.

EcoPond works by creating an oxidative state in the pond, which deactivates methane-creating bacteria leading to GHG production. Glen Eyre has used EcoPond in 2023/24 season to reduce methane emissions from the effluent storage pond by over 90%. Other environmental benefits include reduced loss of phosphate from effluent applied to pasture, odour reduction and the disappearance of solid crust build up from the surface of the storage pond.

In addition, there has been minimal change to the daily farm routine and no impact on the wider farm management system, which can often be a hurdle when introducing new technology.

Over the year the unit has been modified to improve performance. Lessons learnt at Glen Eyre have contributed to evolution of *EcoPond's* pond treatment methodology, resulting in less on-farm infrastructure being required.

In conjunction with Lincoln University, the team have commenced another initiative installing testing columns in the effluent pond to validate the efficacy of the treatment methodology. This approach may offer a more cost-effective, efficient, and scalable solution, which can benefit farmers, consumers, and the planet.

### Soil

Soil provides sustenance for plants, human nutrition, water filtration and helps to regulate the 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.

For Craigmore, soil health is critical to our business, so we have a range of careful soil protection measures in place such as erosion protection plantings, no tillage re-grassing and balanced fertiliser plans, which include both synthetic and biological products. The most important action is to ensure that land-use is appropriate which includes mapping out areas with high erosion risk and planting them in erosion-reducing vegetation, such as trees and native shrubs.

### **Protected erodible land**

All land identified as highly erodible on Craigmore properties is protected with planting. This includes farming and horticulture land, which is earmarked to be sold or planted with permanent crops.

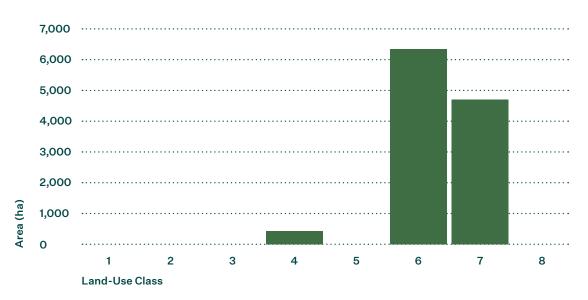
## National Environmental Standard for Plantation Forestry

The Land-Use Capability (LUC) classification shows land capability and versatility for various uses. All New Zealand's rural land is classified into eight classes, based on its physical attributes, such as climate, vegetation, soil, slope and erodibility.

- Classes 1-4 are generally suitable for a wide range of land-uses, such as arable or pastoral farming
- Classes 5-7 have serious limitations for arable production but can be suitable for pasture or forestry
- Class 8 is generally unsuitable for land-uses other than being left aside for conservation.

Figure 2 shows the forestry areas planted by Craigmore using LUC classification, showing forestry land use is appropriate for the site. Any LUC 4 land in Craigmore's portfolio is land which is either being prepared for sale or is mixed with a steeper class of land which cannot be subdivided and on-sold for a more productive use.

Figure 2
Forestry areas planted using LUC classification





### **Case Study**

## Refining irrigation and fertigation practices

Craigmore has two trials on kiwifruit properties in Northland to increase irrigation efficiency, optimise nutrient application, and reduce resource consumption.

The soil and moisture management project commenced with a thorough soil mapping initiative across Wiroa orchard. This comprehensive mapping provided crucial insights into the depth of topsoil and identified soil layers which could hinder root development. Using this data, the Wiroa team was able to install advanced soil moisture measurement devices at two key depths: 0-300mm and 300-800mm. These sensors deliver real-time moisture data, offering precise control over irrigation practices.

Prior to this project, Wiroa followed a conventional irrigation method, typically running for a duration of three hours. This approach often resulted in water bypassing the root zone and draining out of the bottom of the soil profile. By irrigating for just one hour, up to three times a day, they managed to apply water more effectively within the root zone. This adjustment not only prevented water wastage but also improved lateral water movement, fostering a larger and healthier rooting area.

With the improved irrigation system, Wiroa gained greater confidence in its fertigation practices.

The ability to apply water precisely where needed allowed for more effective delivery of nutrients. This resulted in better plant growth and health, as the plants received the full benefit of the applied fertilisers. Additionally, the installation of a permanent fertigation system at Wiroa ensured consistent and efficient nutrient application, further contributing to overall operational efficiency.

Overall, these changes have contributed to a more sustainable and cost-effective operation. Shorter irrigation duration led to a notable decrease in water usage, which in turn, lowered electricity consumption and water charges. In addition, less fertiliser has been required due to leaching of nutrients.

Since this trial, the number of moisture probes at Wiroa has been increased from five to 11 to further refine water management practices. The property is also investing in a permanent fertigation system to ensure ongoing effectiveness in nutrient delivery. Encouraged by the success of these improvements, these innovations are being implemented on Kiwinorth orchards for the coming year.

Beyond irrigation and fertigation, Wiroa is committed to broader sustainability initiatives. These include working towards carbon neutrality, exploring alternative products to *Hi-Cane*, and completing a biodiversity study.



**Case Study** 

### Right tree, right place

Glen Tui Forest on the East Coast of the North Island is a good example of Craigmore's forestry philosophy of 'the right tree in the right place'. Glen Tui is a property with steep terrain and areas of highly erodible soil, which requires thorough environmental planning to protect the land and ensure production species are planted only where it is suitable.

Cyclone Gabrielle hit the East Coast in February 2023 resulting in areas of severe erosion throughout the region. Learnings from other mature forests in the region provided valuable lessons for the planting plan for Glen Tui.

Craigmore commissioned forest managers, Logic Forest Services Limited, to complete a detailed afforestation plan in collaboration with the Gisborne District Council, working through the planting plan to ensure that the highly erodible areas were retired or planned for permanent native species such as mānuka.

In addition, riparian margins on waterways are planned for permanent native species plantings and areas identified as having a sufficient natural seed source will be left to regenerate naturally.

We have an excellent opportunity to learn from land use mistakes of the past and, by planting the right tree in the right place, we can establish forests which stabilise the land and minimise environmental risk to future generations.

### Water

The availability, quality and biological health of freshwater is a global issue growing in importance as the climate changes and as demand for high quality food and fibre increases.

The focus in New Zealand, with relatively high and consistent rainfall and a relatively small landmass, is on local water quality for human use (consumption and recreation) and the biological health of waterways, rather than on absolute water availability. Improvements can often be made to reduce both the sedimentation of waterways caused by erosion and nutrient loss to aquifers, streams and rivers.

### Managing nitrogen loss

Craigmore is committed to developing innovative ways to improve water use efficiency and managing local impacts on water quality. We use a variety of metrics to analyse our performance with regards to water, of which nitrogen loss to below the root zone is significant and quantifiable. The table in the Appendix shows the nitrogen loss on Craigmoremanaged properties from 2022-2024. Nitrogen loss from Craigmore's dairy farms has reduced by 32% over the past five years (from 29.0kgN/ha to 19.7kgN/ha), which is an incredible result.

### Nitrogen loss kgN/ha

	2020	2021	2022	2023	2024
Forestry	0	0	0	0	0
Farming (dairy)	29.0	26.1	23.8	22.3	19.7
Farming (sheep & beef)	1.4	1.6	1.3	1.4	1.4
Horticulture (permanent crop)	7	7	7	7	6

<sup>\*</sup> Total hectares exclude Coxco leases which can fluctuate.

### About the data

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 by 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. Nitrogen loss on our forestry properties has not been reported due to the negligible expected nitrogen loss.





### **Case Study**

## Working together for better water

The Pahau Drain Catchment Group is a group of farmers from across the Amuri Basin between the Waiau and Hurunui Rivers in North Canterbury, who are working together to improve irrigation efficiency, nutrient management and biodiversity through riparian planting.

Their objective is to provide information and data, which will empower farmers to make better decisions, and which will improve water quality.

Craigmore's business managers on Caithness, Darnley, Landsend and Riverend properties in Culverden are actively engaged in this project to learn and share with neighbouring farmers. Since the group first met in July 2023 it has held a series of workshops and forums on topics ranging from the use of moisture meters and water scheduling through to investigating the impact of reduced stocking rates on nutrient loss and establishing monitoring sites for future studies.

Further work will take place over the year to deepen understanding of the opportunities for biodiversity enhancement through riparian planting. Areas of focus will include establishing nutrient metrics from Fonterra's benchmarking project, understanding soil fertility and identifying sources of funding for plants.



#### **Case Study**

## Extensive native planting programme complete

Protecting and enhancing waterways through riparian planting is key to improving biodiversity on our farms. A key focus for the Craigmore farming team this season has been the completion of a native planting programme at Caithness farm in Culverden, North Canterbury.

This significant planting programme was initiated to enhance both aquatic ecology and to protect riparian margins. The plantings took place adjacent to Countess Stream, which runs from neighbouring properties through the farm and into the Waiau River. This is a significant waterway, as it is a vital fish spawning site that supports the mahinga kai ecosystems in the area.

Over the last two years, the team, together with Native Solutions Limited and Wai-ora Nursery, successfully planted 4,500 plants of 18 different indigenous species.

In addition to the extensive programme at Caithness, 1,000 kānuka seedlings were planted under the existing indigenous kānuka stand at Glen Eyre farm in Oxford, North Canterbury, to promote regeneration and provide crucial habitat for native geckos.

This work not only supports local ecosystems but also reinforces our commitment to sustainability and environmental stewardship.



### What is mahinga kai?8

Mahinga kai is about the value of natural resources that sustain life, including the life of people. It is important to manage and protect these resources, in the same way that our ancestors have done before us.

For Ngāi Tahu (Iwi or Tribe of the South Island), it is critical to manage these resources to allow people to continue gathering *kai* (food) in the way that the ancestors did, and about *mana* (pride) and *manaakitanga* – the ability to welcome and host visitors by providing bountiful produce, as a demonstration of hospitality and respect. These things are the essence of *kaitiakitanga*, or what many people today call guardianship.

This practice remains a foundation of Ngāi Tahu values today, although it has become increasingly difficult as sites, species and habitats are lost, degraded or compromised.

## Biodiversity & Ecosystems

In addition to being of intrinsic value, native biodiversity contributes to ecosystem services such an erosion control and GHG reduction, as well as the recreational and cultural wealth of New Zealand and te ao Māori (the Māori world view including language, culture and customs).

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

- Protecting existing native vegetation and waterways from livestock grazing
- Protecting native plants and animals through control of introduced mammalian pests and predators<sup>9</sup>
- Avoiding deforestation of native species in our developments
- Planting native trees and shrubs on sensitive land
- Implementing low-spray management systems on orchards such as integrated pest and organics management.

Enhancing biodiversity is also an important way, by which 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* (treasured natural resources).

Over the past year Craigmore has planted an additional 106 hectares in native species (100 hectares in Forestry) and increased protection over 2,967ha of existing native forest (2,963 hectares in Forestry).

## Native vegetation under protection on Craigmore properties – hectares

	2021	2022	2023	2024
Forestry	912	1,109	2,645	5,608
Farming	36	100	101	107
Horticulture	61	62	71	69*

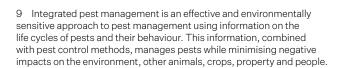
<sup>\* 2.6</sup> hectares of native plantings were lost at Springhill vineyard due to Cyclone Gabrielle.

## Native planting by Craigmore since inception – hectares

Detail	2021	2022	2023	2024
Forestry	18	64	67	167
Farming	89	103	104	110
Horticulture	21	25	31	31

### About the data

'Under protection' refers to an area of land managed for environmental protection and conservation. It includes land subject to either management or legal land-use restrictions for the purposes of maintaining biological diversity and natural resources. Many of our farms have small areas of native plantings. The numbers in native vegetation under protection and native planting since inception are cumulative.





# Distinct benefits from improved waterways

The Waiharakeke Stream, which borders the northern boundary of Opare Forest in Northland, has deep spiritual significance to local iwi, Ngāti Hine.

The stream provides a migration path for *tuna* (eels), a traditional food source for the local people, with the marae of Ngāti Hine having a reputation in the North for having the best, cleanest and the sweetest *tuna* on their tables.

As *kaitiaki* (or guardian) of the forest, we have a responsibility to ensure that the river is free from obstructions, so the tuna can move into the upper catchments of the stream.

This year, Opare Forest managers, PF Olsen, have undertaken an extensive project to clear the Waiharakeke Stream of crack willow, a pest weed species, which had invaded the stream. Crack willow has a re-sprouting and suckering habit, and with rapid growth, it creates dense thickets, replacing native riparian species. The quick growing weed created debris dams in the stream, causing obstructions which made the stream inaccessible for *tuna*, as well as creating swimming hazards and increased flood risk for the local township.

In addition, the native forest upstream performs an important riparian function by providing stream bank stabilisation, reducing water temperatures and creating a habitat for other riparian species.

Aerial surveys were used to identify high-risk debris dams and, with input from representatives from the environmental group Ngā Tirairaka o Ngāti Hine and the Northland Regional Council, which were then removed with minimal disturbance to the stream bed.

This ongoing work will increase water quality and improve stream habitat, as well as reducing the risks at downstream swimming areas and mitigate flood risk for the local community.





# Biodiversity study concludes at Wiroa

Plant and Food Research have concluded research at Craigmore's Wiroa kiwifruit orchard in Kerikeri as part of a four-year study to better understand the impact of land use change.

The study commenced in January 2021, shortly after development work began to convert the 137-hectare former dairy farm near Kerikeri to an orchard. The aim of the research was to better understand how the change from pasture to kiwifruit, along with the addition of indigenous plants close to the kiwifruit vines, would affect biodiversity and ecosystem services and functions.

This was a unique opportunity for Plant and Food Research to engage in a study of this kind at the start of a development project. It was also the chance for multi-disciplinary researchers to undertake coordinated projects on the same site.

The development plan for the site saw nearly 17 hectares including slopes, gullies and banks close to waterways, planted with 43,000 new native plants (27 species) and four forest types including a mix of native species such as kahikatea, kauri and tōtara.

At the outset of the research, 13 monitoring sites were set up across the orchard to enable assessment of physical soil health and water regulation; biological soil health; the contribution of invertebrates to decomposition; pollinators; plant and invertebrate diversity; vertebrate diversity and to confirm the presence of Kiwi.

The data collected is considered baseline data, because it may be several years before the impact of land-use change can be fully measured. It is pleasing however to see early trends, with the change from pasture to kiwifruit resulting in improvements in soil structure and increased diversity in the soil biome.

The study also detected increases in invertebrate and plant diversity in kiwifruit blocks next to areas of native plantings, and increases in diversity of pollinator species and visitors to kiwifruit flowers next to areas of indigenous plants. In addition, a unique indigenous, and currently unnamed, species of slater (also known as woodlice) was discovered, along with confirmation that native bats and Kiwi are moving into the orchard to forage for food. It is exciting to note that one of the Kiwi filmed was a juvenile, meaning we have a breeding population, which is testament to the predator trapping programme.

Findings from the research will now be compiled with the aim to have papers published in relevant journals over the coming 12 months. Once fully documented, it is hoped that the baseline data presented in these papers will be used as the basis for ongoing research.



# Return of endangered mudfish confirmed

A critically threatened endemic freshwater fish found only in Canterbury has been discovered at a Somerset dairy farm near Timaru. The *kōwaro* (Canterbury Mudfish) has been confirmed following visits by Department of Conservation (DOC) staff in April and May.

The population of *kōwaro* was found living in the farm's irrigation spring, an ideal habitat for mudfish because of the clean, clear water and the dense aquatic plant growth. The DOC team netted 72 fish ranging in size from 77mm to 149mm in length.

This discovery follows the completion of a comprehensive waterway restoration project over the last two years led by business manager Alex Pattullo.

The team has replaced the old diesel irrigation pump with a new electric pump to reduce the risk of chemical leaching or contamination, and fenced the site to make it stock-proof. In addition, more than 2,760 native plants, consisting of dry woodland shrubs and trees, as well as flax and reed plants, have been planted at the water's edge. This will ensure a regenerating native bush block around the site providing shade, shelter and food for many native and endangered species.

The DOC report concluded that the composition of macrophytes (aquatic plants) in the water was diverse and representative of good water quality and stable hydrology, both good indications of habitat quality. The water itself had excellent clarity, probably because it was spring-fed and largely free of stock.

## **Animal Welfare**

At the core of any good livestock farming is the welfare of animals from birth to beyond the farm gate. New Zealand was one of the first countries to enshrine animal sentience into law in 2015.

New Zealand enjoys a climate which allows livestock to graze outside for 12 months of the year. These effectively 'free-range', predominately grassfed, dairy farming systems are much less intensive than most northern hemisphere systems, which involve partial or permanent housing of livestock.

Animal welfare is measured by death rate percentage and fertility with a six-week 'in-calf rate' of the herd. The New Zealand average death rate is very low compared to global standards.

All Craigmore farms align animal welfare with the Five Freedoms, which measures and promotes wellbeing across five realms: freedom from hunger and thirst; freedom from discomfort; freedom from pain, injury or disease; freedom to express normal behaviour; and freedom from fear and distress. Each of these targets the overall condition and wellbeing of the herd.

The physical condition of our cows has improved during the year as illustrated by 89% of cows measuring within range for body condition scores.

### **Animal welfare metric**

Benchmark	Craigmore Farming (Dairy) Operations					
	2021	2022	2023	2024		
Body Condition DairyNZ target at pre-mating: R3*: 4.5 – 5.0 MA**: 4.0 – 4.5	_	66% within range	77% within range	89% within range		
Six-Week In-Calf Rate DairyNZ average: 67.8%	68%	71%	72%	72%		

<sup>\*</sup> R3 is a rising three-year old cow

### About the data

### **Body Condition Score**

Body Condition Score (BCS) is a metric which describes the visual condition of dairy cows. BCS is determined by an independent vet, who visits each farm and records the information based on a visual inspection of the animals. BCS is measured on a scale of 1 to 10 – if the score falls below 3 urgent action must be taken to improve cow condition and a cow with a BCS over 6.0 is considered obese. High and low BCS predispose cows to disease, metabolic disorders, low productivity and low reproductive function, all of which indicates compromised welfare.

### 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.



<sup>\*\*</sup> MA is a mix aged cow

# Trial of new backing gate technology

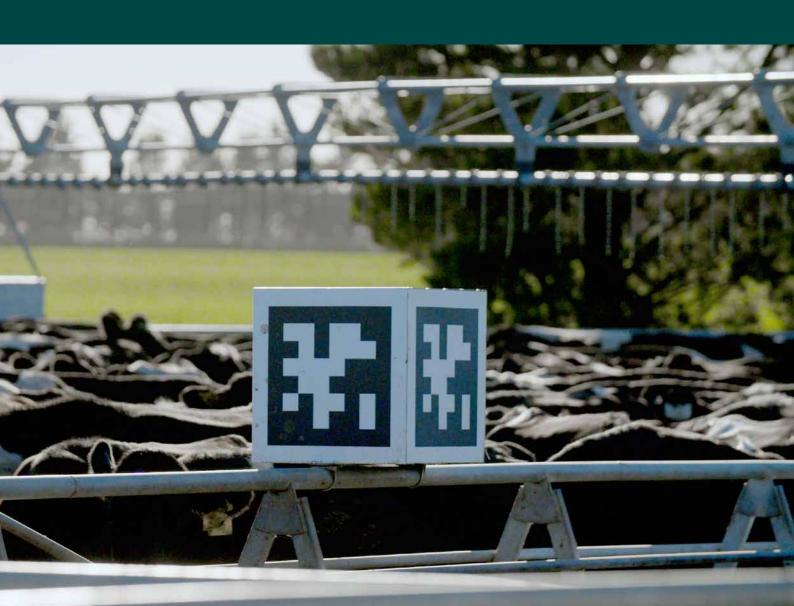
New backing gate technology is being trialled at Te Awa farm as part of Craigmore's commitment to improving animal welfare outcomes.

Flow is a camera-based artificial intelligence system for a backing gate which responds to herd movement in real time. It automatically manages backing gate movements, using live imaging to optimise cow flow into the dairy shed for more efficient milking.

Developed in Christchurch by Livestock Visibility Solutions, *Flow* promises a number of benefits to milking efficiency in addition to animal welfare.

Cost savings, which come with the implementation of *Flow* are relevant to the business, but the animal welfare benefits are the driver behind the adoption of this new technology. Removing stress and pressure on the animal will result in higher yields, which is our primary focus. We are also looking at shorter milking times as a result of the more reliable movement of cows through the milking shed. The efficiencies have a knock-on effect of reduced energy usage, making an impact on our overall footprint and less time in the milking shed.

*Flow* will also reduce the need for farmers to manually move cows into the dairy, so that staff are able to focus on more important farm jobs.



# Social



# Health, Safety & Wellbeing

Our people are at the core of our business, as is their health, safety, and wellbeing. We recognise that employees and contractors face day-to-day, sector-specific risks, when working in our business. Craigmore promotes the use of best-practice health and safety protocols to protect the physical safety and mental wellbeing of our people and those who work with us.

We have a culture of safety across our business, ensuring every person receives the tools to work safely; the training they need to understand the risks they could face; and instruction on the steps they need to take to keep themselves and others safe.

Our core focus continues to be the management of critical health and safety risks, building company-wide capability and confidence, partnering with contractors, and focused reporting. Farming and Horticulture are combining internal critical risk audits with external audits and assurance reviews to ensure the effectiveness of critical risk reduction plans and controls. These provide an independent assessment of our risks. As an additional measure, a health and safety activity planner has been developed in our Horticulture business, which maps critical risks along with the ongoing review and management of risk.

### **Critical risks focus**

Farming	Horticulture
Use of vehicles	Use of vehicles
Working at heights	Working at heights
Working in confined spaces	UV/heat exposure
Hazardous substances	
Working safely around effluent ponds	

### Injury recording and reporting

During 2023/24 there was one reported employee notifiable incident, injury, or illness\*. The notifiable incident was a non-fatal injury in our Forestry business. Our tool for measuring incidents is TRIFR\*\* (Total Recordable Injury Frequency Rate), which is a rolling 12-month metric charting the frequency of recordable work-related injuries or illness for every 200,000 hours worked. In 2024 our TRIFR score was 14.

### About the data

Under the Health and Safety at Work Act 2015 a PCBU (Person Conducting a Business or Undertaking) must notify the regulator when certain work-related events occur. This data includes all Craigmore entities but does not include contractor or contract manager performance.

### Safer Farms partnership

When it comes to accidents on farms in New Zealand the numbers make for uncomfortable reading. This year Craigmore joined Safer Farms, launching the 'Farm Without Harm' initiative. This programme speaks to one of Craigmore's core values to "understand tomorrow, act today", enabling farming leaders in supporting farmers to protect each other from preventable harm. For Craigmore, this philosophy extends beyond farming to the operations on our horticulture and forestry properties.

### Looking ahead

Both our Farming and Horticulture businesses have a focus on partnering with contractors to ensure a collective approach to the management of shared risks. This includes a new contractor management and development standard across Horticulture. The business is also developing and embedding individual farm and orchard health and safety plans and looking at activities to accelerate our risk reduction programmes.

- \* A notifiable incident is defined by WorkSafe New Zealand as an incident where someone's health or safety is seriously endangered or threatened.
- \*\* TRIFR 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'.



# Managing safe use of vehicles for forestry workers

In a proactive move towards enhancing safety, Craigmore's forest manager, PF Olsen Ltd, ran a Professional Operators Day at Tangowahine Forest in Northland prior to the winter planting season.

During planting, operators access areas of the forest on tracks with challenging surfaces, which present critical risks demanding meticulous attention.

The purpose of the day was to provide specialist training sessions aimed at refining the skills of operators of ATV (all-terrain vehicle) and LUV (light utility vehicle). The day focused on risk prevention, situation recovery, operator maturity and vehicle fitness. The goal was to ensure that ATV/LUV operators are as professional and as safe as possible. The content is based on six key values to empower operators: expertise, insight, adaptability, own it, support and professionalism.

The day was also an opportunity to increase proficiency in the ATV Track Assessment App, developed by PF Olsen as a mobile risk assessment tool for track assessment to produce an ATV route plan, mark up hazards and risks and to communicate changes and updates. Contractors can access the maps through the Field Maps App on any phone or tablet. The app allows operators the ability to take areas offline, when working in areas of poor coverage.

Hoani Poinga, known as Tetaaki (pictured), crew foreman for a silviculture contractor, who has worked on Craigmore forests for many years, received a prize for correctly answering a quiz on the day.

By addressing critical risks head-on our forest managers are fostering a culture of safety and professionalism in the industry.





# People & Communities

### **Growing the field**

Craigmore aims to be a transformational employer in rural New Zealand. We believe that there is a better way to employ people in our rural communities. Employment can be inaccessible to some people due to seasonality, split shifts, long hours and physical requirements. Through the adoption of new technology and new ways of thinking, we believe that we can develop careers in the sectors in which we operate – farming, horticulture and forestry – which are more accessible, flexible and appealing.

Our aspiration for future employment includes job sharing, flexible working hours, in-house and specialist training programmes, living wages, permanent contracts and values-based employment with all our people. But we are not limited to just these ways of work – our conversations will evolve as innovations are implemented and industry cultures change.

### Our workforce 2024

	Farming	Horticulture	Forestry	Other	Total	Total %
Number of people	112	204	3	39	358	
Full-time	94	197	3	37	331	92%
Part-time	18	7	0	2	27	8%
Female staff members	32	42	1	19	94	26%
Male staff members	80	162	2	20	264	74%

 $Data\ includes\ people\ employed\ directly\ by\ a\ Craigmore-managed\ business\ in\ full-time\ or\ part-time\ roles,\ casual\ and\ seasonal\ work.$ 

Data excludes contractors and other service providers.

Horticulture includes Coxco, a Craigmore Sustainables owned company.

 $Other \ includes \ New \ Zealand \ office-based \ staff \ and \ the \ London-based \ investor \ relations \ and \ compliance \ team.$ 





# Schools 12 Volunteering Sport Clubs Community Support

### **Growing our rural communities**

The majority of Craigmore operations are in rural areas, where primary industries are major contributors to local economies. By creating and extending employment opportunities, we are helping to bring new families into underinvested rural communities, as well as bringing new people into primary industries.

Craigmore creates employment opportunities both with people directly employed by us and by partnering with other service providers. Throughout the year we partner with third party contractors and their teams to support a range of activities from harvest to pruning in horticulture, and forestry and calving in farming.

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 Craigmore and in subsequent careers. We also ensure that each person is remunerated fairly for their work.

This commitment extends beyond our people and into the communities in which they live. We contribute to schools, sports clubs and community activities, both through our time and sponsorships, so that we play a part in contributing to the regions. *Figure 3* details the number of activities the Craigmore staff have contributed to this year.

### Celebrating young Māori farmers

Hannah Speakman (pictured below), secondin-charge at Pine Hill Dairy in Oamaru, has been celebrated as one of three finalists in the 2024 Ahuwhenua Young Māori Farmer Awards.

The Ahuwhenua Young Māori Farmer Awards recognise the achievement of young Māori in the farming and horticulture sectors. Competitors are judged on a range of criteria, including industry knowledge, future training and development plans and management practices.

Hannah joined Scott Rowland at Pine Hill at the age of 18, with no prior farming experience. She has spent the past few years refining her skills in various aspects of dairy farming and is currently studying Livestock

Feed Supply and Demand, building upon her Milk Smart Principles and Livestock Husbandry Certificate at Level 3.

Her immediate goal is to deepen her understanding of the business aspects of dairy farming and move into the role of Farm Manager. Looking ahead, Hannah sees herself as a self-employed professional specialising in animal health, with aspirations to undertake roles such as TB testing, debudding, pregnancy testing and artificial breeding. Actively engaged in her community through the Five Forks Young Farmers Club, she is deeply committed to fostering inclusivity and showcasing farming as a viable career option for young people from diverse backgrounds.



# Farmer-led charity tackling food insecurity

Craigmore is playing its part to fill food banks for community organisations across New Zealand, joining farmer-led charity *Meat the Need*.

Meat the Need facilitate donations of meat and milk from farmers to be turned into meals, which are supplied to more than 110 food banks and community organisations around the country. Over the last three years, Craigmore has donated more than 45,000 mince and milk meals.

Craigmore is passionate about giving back to its communities and working with support agencies to provide help where it is needed most. Engaging with rural communities is a key pillar of Craigmore's strategy, with the business investing in local initiatives and encouraging their farmers to develop programmes for their teams to get more deeply involved with their communities.

One of the advantages of farming is the availability of, and access to, high quality meat and milk products. Contributing to *Meat the Need* is an effective and transparent way for farmers to connect with the rest of the country and to make a difference.

Pictured below: Zellara Holden, Meat the Need (on left) and Sally Telfer (right), Craigmore Sustainables



# Service to forestry industry celebrated

The Southern North Island Wood Council hosted the 2024 Forestry Awards, attended by more than 300 people from the forestry community in the lower North Island. Gathered in Palmerston North in May, 55 nominees across 12 categories were recognised for their contribution to the forestry sector.

Craigmore is thrilled to join in celebrating the winners, in particular, Jaden Clifford-Marsh, Clinton Buller and the team at Keenan Forestry, who work with us at Lagoon Hill in the Wairarapa.

Jaden received the Emerging Talent of the Year Award. In only a short time on the job with Keenan Forestry, Jaden has earned the respect of his crew for his effort, commitment and initiative. He is pursuing his forestry apprenticeship with a view to a long-term career in the industry.

Clinton, from Dalefield Transport, has been recognised with the 'Distribution Excellence Award'. Representing the best in log cartage standards, Clinton is also acknowledged for his consistent safe driving, emphasis on health and safety, and his wealth of knowledge, which he shares with the sector.

Keenan Forestry received the award for Training Excellence. Gavin and Janice Keenan have over 44 years of experience with the business split between harvesting operations and truck driving for cartage. What sets Keenan Forestry apart is their proactive and comprehensive approach to training, along with their eagerness to take on young people with little to no experience, ensuring they receive training and mentorship to develop a passion for forestry.







**Spotlight** 

# Vision for apples recognised with horticulture awards

Apples Business Manager, Ben James was named the Horticentre Group Horticulturalist of the Year 2024 at the Napier Ports Hawke's Bay Primary Sector Awards. The awards were presented at a sell-out event in April, with judges commenting on the strong contingent of high-calibre entrants across all categories.

This award is testament to Ben's tireless pursuit of growing the best apples and people in New Zealand. Ben epitomises the Craigmore values – he delivers the goods, owns it every day, turns knowledge into action and engages our community. These actions were echoed in the judges' comments and observations.

Ben joined Craigmore in 2021 as the business was expanding its horticulture sector portfolio in Central Hawke's Bay and Gisborne. During this time, Ben has led the business through significant growth,

with the establishment of new orchards in the regions and increased production on existing sites to around 17,000 bins this season, as trees start to mature in existing operations.

The accolades continue for the Springhill apples team, with Assistant Manager Nga Stanley, named the Central Hawke's Bay Rotary Young Employee of the Year. Selected from 18 finalists, the award is in recognition of Nga's outstanding efforts to make a difference in his workplace. The awards, held in conjunction with the Mayor's Taskforce for Jobs MTFJ graduation, celebrate Central Hawke's Bay young employees and the businesses which support them.

Pictured: Ben James (top right) receives his award from Chris Herries, Horticentre.

# Governance



# Governance Bodies

### **General Partner Boards**

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

GP Board members support and challenge management decisions to ensure that 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. These Boards are also responsible for overseeing the strategic execution of sustainability and ESG activities.

Board members sit across each of our partnerships in farming, horticulture, and forestry. Among other roles, GP Boards also meet with senior management at least six times per year and attend specialist committees, as set out below.

### **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. The Head of Acquisitions and Corporate Finance reports to the Investment Committee.

### **Assurance and Risk Committee**

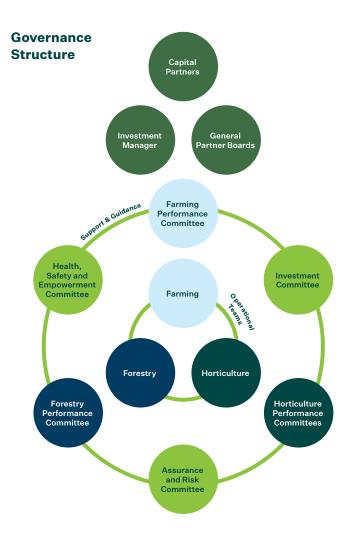
The Assurance and Risk Committee is charged with oversight of Craigmore policies and processes. Members provide the assurance required on accounting and audit matters, external reporting, compliance, governance and related party transactions. This committee is chaired by an independent GP board member.

### **Health, Safety and Empowerment Committee**

A combined committee of board members and senior managers (COO, CEO, General 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 for ensuring that we have a strong culture, which is aligned with our company values. This committee is chaired by the Chief Operating Officer.

### **Sector Performance Committees**

Specialist sector Performance Committees provide advice and support for our General Managers and Business Managers. They facilitate and support operational excellence. These committees include two or three external experts with relevant, sector specific, technical, operational and financial experience. The sector performance committees are farming, forestry, apples, kiwifruit and wine grapes. The relevant General Manager for each sector chairs these committees.



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# Governance Members

### **Key Boards and Committees**

	John Holland	Andrew Gibbs	Che Charteris	Forbes Elworthy	John Donkers	Annika Streefland	Nick Tapp	Reuben Casey	Josef Nägel
GP Board	•	•	•	Observer	•	•			
Investment Committee			•	•			•	•	•
Assurance & Risk Committee	•	•	•			•			
Health, Safety & Empowerment Committee	•	•	•			•		•	
Gender	М	М	М	М	М	F	М	М	М
Ethnicity	NZ/ European	NZ/ European	Māori	NZ/ European	NZ/ European	NZ/ European	British/ European	NZ/ European	German/ European
Age	45-64	45–64	25-44	45-64	65+	45-64	65+	45-64	45–64

Governance committees also include Craigmore employees and specialist advisors.

### **Senior Leadership Team**

Che Charteris	Chief Executive Officer (joined 2010)
Reuben Casey	Chief Operating Officer (joined 2023)
Craig Palmer	Chief Financial Officer (joined 2022)
Paul Burns	Head of Acquisitions and Corporate Finance (joined 2016)
Jane O'Connor	General Manager, People & Culture (joined 2024)
Stuart Taylor	General Manager, Farming (joined 2019)
John Barker	General Manager, Forestry (joined 2021)
Con Williams	General Manager, Horticulture (joined 2023)
Andrea Innes	Communications Manager (joined 2022)

# Governance Members



### John Holland

John joined the Craigmore GP Board in February 2021 and is also a director of Craigmore Sustainables Group. John has over 15 years governance experience, including six years on the board of leading New Zealand law firm Chapman Tripp, seven years as director of ASX/NZX listed Kathmandu and nine years as chair of the board of Southbase Construction, where he remains a shareholder and director. He also spent four years on the board of the New Zealand Securities Commission, the regulator of the securities market at the time.



### **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.



### **Che Charteris**

Che joined Craigmore Sustainables in 2010. Prior to Craigmore, he worked in a range of roles within New Zealand's central government. 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 trained 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 and went on to establish Craigmore Sustainables with Mark Cox.

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### **John Donkers**

John joined the Craigmore GP 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. In 1996, he established a consultancy, Dairy Farm Management Services.



### **Annika Streefland**

Annika joined the Craigmore GP board in June 2023, bringing extensive experience in human capital and business development, having spent much of her career building leadership talent at CEO, C-suite and board level. She is also Chief People & Culture Officer at Todd Corporation and the founder/owner of Kopuwai Delta Vineyard in Central Otago.



### **Nick Tapp**

Nick joined Craigmore in 2013 to lead the London-based investor relations team. 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. He sits on the Board of Magyar Loan Instrument Trustee Ltd, owner of a largescale diversified farming business in Hungary. Nick is a Trustee of The Royal Agricultural Society of England and a Trustee of the Society Pension Fund.



### **Reuben Casey**

Reuben, an experienced senior executive, joined Craigmore in 2023 having previously been chief executive of a leading Australasian retailer. He has held senior positions in the sports equipment and energy sectors. A Chartered Member of the Institute of Directors, he is also a Director of a large state-owned enterprise.



### Josef Nägel

Josef is a founding partner of GlenSilva GmbH, which is part of the Westphalen Estate, Germany. The Estate has owned and managed forest and farmland in Central Europe for many centuries and, during the last decade, it has expanded into New Zealand and the US. Previously, he spent many years in the financial services industry, principally at Deutsche Bank AG in Germany, South America, India and Eastern Europe.

# Risk Management

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

### Key threats and risks, addressed and managed

### **Ecological**

Ecological risks include climatic variation, such as rainfall, temperature and wind, along with pest and disease risk to plants, crops and animals. Craigmore addresses many of these ecological threats through careful site selection, geographical diversification of the portfolio of assets, insurance, effective daily operations and capital improvements for land and crop protection (such as hail nets, or irrigation).

### **Operational**

Poor operational management can increase costs of production, lower output, reduce workplace safety and cause environmental harm. Strong operational teams make assets perform to their potential. Craigmore's operational strategy focuses on the quality of and support for local management teams, both as individuals and teams.

### Regulatory

While New Zealand has a lower level of political risk for those investing in land, when compared to many countries, nothing is entirely risk-free. As an example, New Zealand manages the access of offshore investment capital to farmland through the Overseas Investment Office (OIO). Craigmore manages this situation by staying fully abreast of the regulations, acting with confidence within the rules and building a relationship of trust with the OIO.

### **Transactional**

Weak transactional processes may cause harm, such as the loss of private information, incorrect financial or other transactions or non-compliance with contractual and constitutional commitments. Craigmore manages these threats through separation of duties and a focus on secure processes.

### **Market**

Global and local markets materially affect the availability of and prices for inputs and of the farm gate price received for the products we grow. Price-related risks for products grown on Craigmore farms are managed by a relentless focus on cost of production, so that the periodic downturns in global commodity prices can be contained with minimal downside damage.

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

### **Allocation of risk management**

Oversight and management of different risks is split between five separate internal entities – every risk must have a 'home'. Outlined below are the entities 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.

### **Assessing Craigmore's climate-related risks**

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

The Craigmore portfolios were built with an awareness of the potential threats posed by climate change. Craigmore is undertaking a review of the potential impact of climate change on our operations, over different timeframes and for a range of warming scenarios, in line with the recommendations by the Task Force for Climate-Related Financial Disclosure (TCFD) and now the International Financial Reporting Standards for Sustainability.

Compulsory reporting standards were introduced for the largest New Zealand companies during 2023 with considerable variation in how the reporting was approached. We will take some time to assess what is most appropriate for Craigmore as the reporting framework matures.



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

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