



Agriculture & Investment Services

Ministry for Primary Industries
Manatū Ahu Matua

Sustainable Food & Fibre Futures

SNAPSHOT

October 2018 to May 2020



SFF Futures

Make it happen

Contents

Foreword from Hon Damien O'Connor	1
Introduction from Ray Smith	2
Our priorities	3
By the numbers	4
A taste of some of our programmes and projects	6
Turning "gorse" into gourmet	6
Growing the goat milk infant formula industry	7
A future of enjoyment in the Pomahaka catchment	8
BioChar boost for the environment	9
Increasing high-value products in Taranaki region	10
Getting the most out of New Zealand olive groves	11
SFF Futures approved projects – in brief	12
Primary Growth Partnership Programmes	16

Publisher

Ministry for Primary Industries
PO Box 2526, Wellington, 6140
New Zealand
0800 00 83 33
www.mpi.govt.nz
ISBN: 978-1-99-002551-8 (online)
ISBN: 978-1-99-002552-5 (print)

Disclaimer

While every effort has been made to ensure the information is accurate, the Ministry for Primary Industries does not accept any responsibility or liability for any error of fact, omission, interpretation or opinion that may be present, nor for the consequences of any decisions based on this information. Any view or opinion expressed does not necessarily represent the view of the Ministry for Primary Industries.

Foreword from Hon Damien O'Connor

It's my great pleasure to introduce this Snapshot for Sustainable Food & Fibre Futures (SFF Futures), which looks back on the progress of the fund since launching in October 2018.

Every New Zealander has a role as kaitiaki (guardians) of our land and natural resources. SFF Futures ensures investments we make in the agriculture, food and fibre sector benefit New Zealand in the long-term, from the paddock, forest or ocean to consumers. Innovation and investment will play an important part in delivering the Government's Fit for a Better World – Accelerating our Economic Potential Roadmap, which will lead the charge in New Zealand's recovery from the effects of COVID-19. SFF Futures supports problem-solving and innovation in New Zealand's agriculture, food and fibre industries that will make a positive and lasting difference.

Sustainability is a key focus of the fund, which offers a single gateway, with grants of less than \$100,000, right up to multi-million dollar, multi-year partnerships. Projects can be national in scale or related to just one community. They could be as big as an idea for a brand new product or a smaller-scale solution such as a new way of tackling a pest, improving animal welfare, or cleaning up a local waterway.

One of the keys to the success of SFF Futures is co-investment. Multiple partners, including the Crown, have skin in the game by contributing funding, expertise and experience, and sharing risks to create an effective formula for success. SFF Futures turns ideas into reality – a reality that may not have otherwise happened without this important fund.

This snapshot provides an overview of the SFF Futures portfolio, including some examples of the many outstanding projects supported by this fund.

They exemplify exactly what SFF Futures set out to do – shifting from producing commodities to building

value, kickstarting innovation, delivering environmental outcomes, and helping to grow our communities and regions.

Highlights for me included announcing three innovative SFF Futures projects. One of them – Project Whakatiputipu – investigated the commercial viability of turning Undaria, a pest seaweed, into a new high-value food product. Another project, Branching Out, seeks to identify up to a dozen food and fibre ventures that have the potential to boost Taranaki's economy.

The Prime Minister and I also announced a project looking into using *Asparagopsis armata*, a native seaweed, as a cattle feed supplement to reduce methane emissions from cattle. This project is piloting production systems that might be suitable for large scale production. Previous trials indicate that using this seaweed as a feed supplement has the potential to help reduce greenhouse gas emissions in livestock by up to 80 percent.

As at the end of May 2020, we had approved 59 projects with a total value of over \$60 million. A further 46 applications were under assessment, with the value of applications in the pipeline totalling more than \$298 million. I'm pleased to see so many worthwhile SFF Futures projects launched or underway, which will deliver environmental, economic and social benefits for all New Zealanders.

Hon Damien O'Connor
Minister of Agriculture



Below: Prime Minister Rt Hon Jacinda Ardern (second from left) and Minister of Agriculture Hon Damien O'Connor (second from right) with staff at the Cawthron Aquaculture Park.



Introduction from Ray Smith

The Ministry for Primary Industries' (MPI's) vision is to support New Zealand to be the world's most sustainable provider of high-value food and primary products.

Sustainable Food & Fibre Futures (SFF Futures) is MPI's flagship fund for problem-solving and innovation in the agriculture, food and fibre sector. It enables us to back good, workable ideas to give them the best opportunity for success, and in doing so, deliver a range of important benefits for New Zealand well into the future.

New Zealand has some bold aspirations in areas such as increasing the value of our food and fibre products, supporting rural communities, protecting the environment and reducing the impacts of climate change.

The agriculture, food and fibre industries rely on long-term access to our natural resources, and these resources are under increasing pressure. Climate change is affecting our land, marine environment and people. Increased frequency of severe weather events has significant impacts for rural communities.

We must embrace innovation to ensure the long-term sustainability of our agriculture, food and fibre industries. This is particularly important as New Zealand recovers from COVID-19. SFF Futures will play a key role in delivering the Fit for a Better World – Accelerating our Economic Potential Roadmap, by helping to drive recovery of our food and fibre sector and New Zealand's economy.

SFF Futures builds on the previous work and benefits delivered by the Primary Growth Partnership and the Sustainable Farming Fund. MPI and industry have already committed more than \$800 million through 25 Primary Growth Partnership programmes, and MPI has invested more than \$150 million in well over 1000



Sustainable Farming Fund projects. In mid-2019, MPI held workshops across the country to introduce SFF Futures and talk to people about how this fund can help bring their ideas to life.

Most workshops were oversubscribed, showing the importance people place on our agriculture, food and fibre industries, which is both exciting and encouraging.

We're seeing a steady flow of applications for new projects of different sizes from across New Zealand and, as you'll see from this report, a number of projects are underway.

I'd like to acknowledge the role of the independent Investment Advisory Panel (IAP) in SFF Futures. The IAP ably provides advice to MPI on both funding proposals and active programmes and projects.

As the name suggests, SFF Futures is about ensuring the wellbeing of New Zealand's future generations and natural resources, rather than just thinking about the here and now. In this report we're pleased to share examples of how SFF Futures is helping to deliver on this goal.

Ray Smith
Director-General
Ministry for Primary Industries



Our priorities

SFF Futures has four core objectives which encapsulate the Government's strategic priorities for the primary industries. These will be achieved by funding a diverse portfolio of projects and programmes which deliver a wide range of outcomes.

Outcomes

- Environmental degradation stopped or reversed
- Improved water quality
- Improved soil quality
- Reduced chemical usage
- Improved waste management
- Reduced greenhouse gases from agricultural production
- More efficient water usage
- Sustainable fish stocks

Improved environmental performance for the benefit of current and future generations

Outcomes

- Effective mitigation of pests and diseases
- Maintained/improved market access
- Revenue growth/price premiums
- Higher-value sector growth
- New high-value markets
- Higher productivity
- Reduced costs
- Right-sized labour supply
- Improved capability
- Optimised land use

Economically prosperous food and fibre industries

Thriving and sustainable rural communities and whānau/hapori

Outcomes

- Improved mental health
- Improved animal health
- Improved worker safety
- More resilient communities
- Managing and coping effectively with climate change
- Enhanced economic development
- Creation of regional employment opportunities

Outcomes

- Increased R&D investment and capability
- Improved market knowledge
- Agility to respond rapidly to changing preferences
- Commercialisation of new products, technology and IP

Innovative, world-leading and future-ready primary sector

By the numbers

Since the launch of Sustainable Food & Fibre Futures (SFF Futures) in October 2018, the fund has hit its stride with 59 approved projects and a further 46 under assessment, with the pipeline of new projects steadily building.

These infographics provide a snapshot of the SFF Futures portfolio. The programmes and projects funded under the previous Primary Growth Partnership (PGP) and Sustainable Farming Fund (SFF) are shown separately on page 16.

SFF Futures as at May 2020

375
application
forms
issued

157
completed
applications
received

46
applications
under
assessment

59
projects
approved

**Total dollar value of projects
in the pipeline**

\$298.9 million

**Total dollar value of projects
approved**

\$60.3 million

MPI: 25.2 million
Co-investor: \$35.1 million

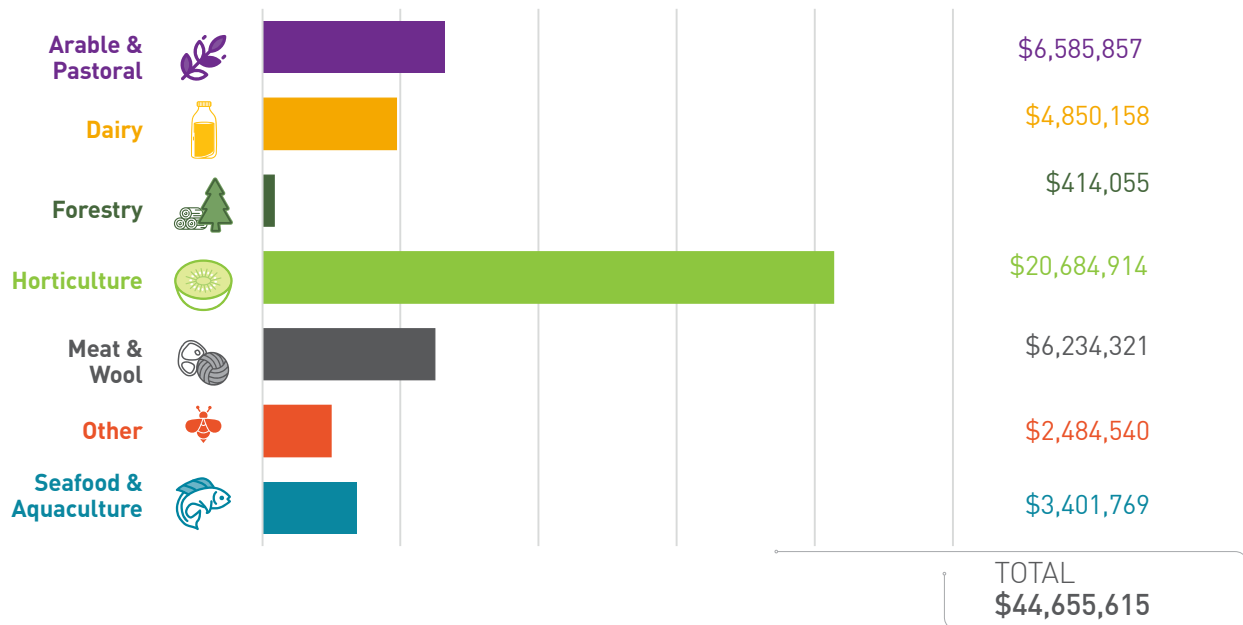
8
workshops
held

300+
workshop
attendees

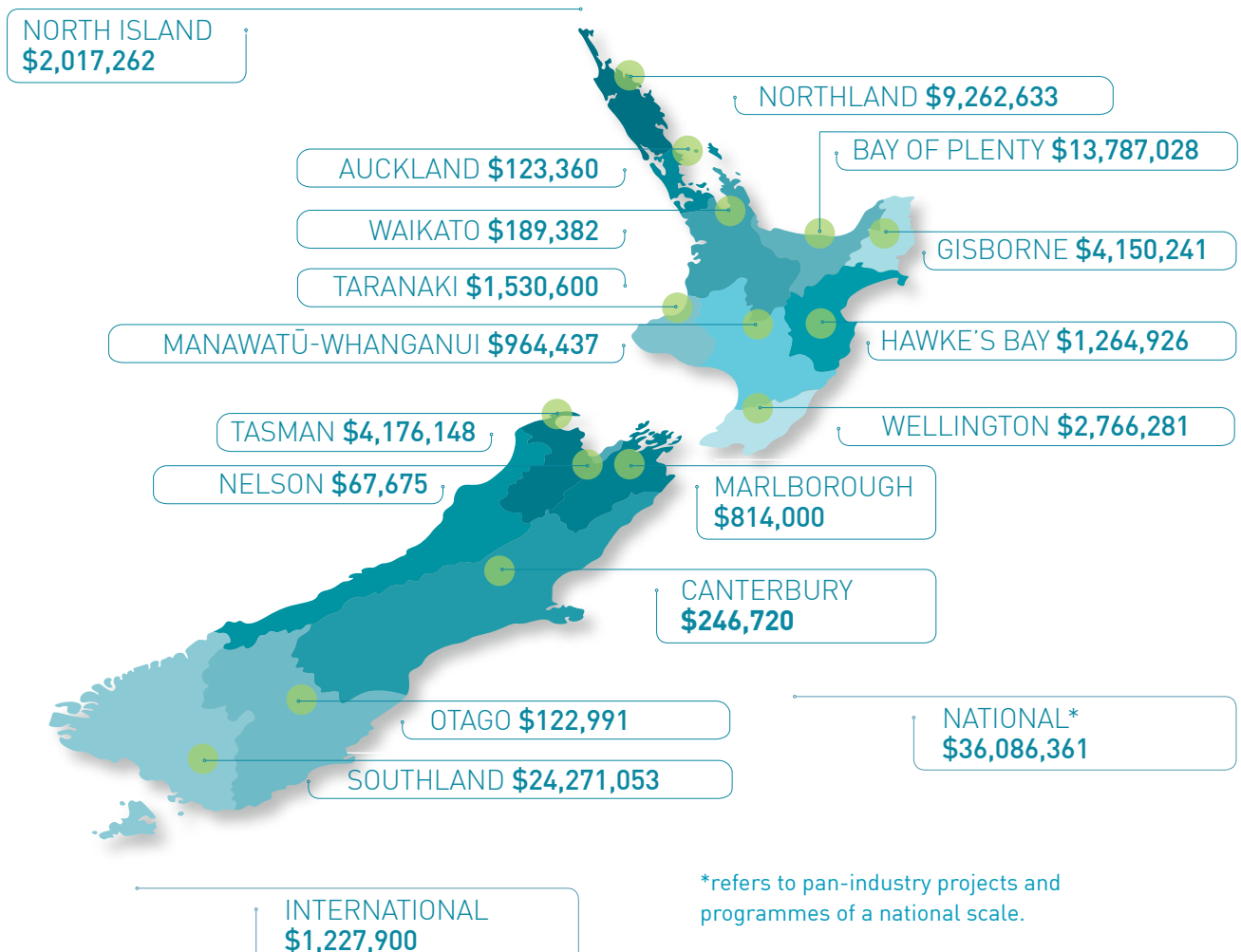
Workshop locations

Auckland (x2), Wellington,
Palmerston North, Dunedin,
Christchurch, Nelson, Napier

SFF FUTURES INVESTMENT BY SECTOR (MPI + INDUSTRY) – OCTOBER 2018 TO MAY 2020



SFF FUTURES INVESTMENT BY REGION (MPI + INDUSTRY) – OCTOBER 2018 TO MAY 2020



A taste of some of our programmes and projects

Turning “gorse” into gourmet

Coromandel company Wakame Fresh was the first project to be contracted under SFF Futures. It investigated the commercial viability of turning a pest seaweed into a high value export industry.

Undaria is often referred to as “the gorse of the sea”. It’s one of the world’s most invasive pests. It’s also a staple part of the diet in Japan, where quality wakame is in short supply.

Project Whakatiputipu, which wrapped up in December 2019, investigated the commercial viability of harvesting, processing and exporting edible seaweed products to Japan. SFF Futures funding was used to conduct a feasibility study, including planning and finalising an approach to trial the export of wakame samples for market research.

The research has provided an invaluable knowledge base, which Wakame Fresh has used to design a product development pilot. Both the study and the pilot have provided critical insights into the challenges to overcome to produce high quality food products from undaria.

Preliminary feedback from consumer testing in Japan of salted wakame samples produced by Wakame Fresh confirmed the samples were premium quality and suitable

for the Japanese market. Work on developing production capability continues, and the company plans to launch a commercial pilot in 2020.

Expected benefits for New Zealand

- Creating new market opportunities for New Zealand in Japan and other Asian markets.
- Establishing New Zealand as a credible source of high quality wakame for the Japanese market.
- Mobilising the aquaculture sector (and other investors) in New Zealand to collaborate and invest in the seaweed sector, including investment in research to identify the nutritional and medicinal benefits of New Zealand grown and processed seaweed.
- Creating new jobs in the aquaculture industry.

Project start: 20 May 2019

Project length: 6 months

MPI funding: \$75,200

Industry funding: \$114,182

Industry partner: Wakame Fresh

Below: Minister of Agriculture Hon Damien O’Connor (left) and Wakame Fresh’s Lucas Evans inspect Undaria seaweed.





Growing the goat milk infant formula industry

MPI has partnered with Dairy Goat Co-operative Limited to grow a sustainable, high-value goat milk infant formula industry in New Zealand.

The Caprine Innovations NZ (CAPRINZ) programme, set up through the Primary Growth Partnership programme and now managed through SFF Futures, is developing innovative tools to help the goat milk industry grow sustainably across the value chain and increase export revenue to \$400 million per annum by 2023.

CAPRINZ, through clinical trials and on-farm research, aims to build a portfolio of reliable science-based information about goat milk infant formula products. Health professionals can access this information when advising caregivers on feeding options if exclusive breast-feeding is not feasible.

Most recently, CAPRINZ has customised and rolled out two practical training courses across the Waikato, designed to upskill and ensure consistent standards across the dairy goat industry. They're the result of a collaboration with the Primary Industry Training Organisation. The first course focused on best practice for collecting, handling and storing milk, and the second was about the husbandry of goats, breeding and kidding, nutrition and animal health.

Expected benefits for New Zealand

- Providing information based on robust science on goat milk formula.
- Increasing export revenue across the New Zealand dairy goat milk industry to \$400 million per annum by 2023.
- Creating more than 400 new jobs on-farm.
- Improving dairy goat farming practice and sustainable production.

Programme start: 1 September 2018

Length: 5 years

MPI funding: \$11.86 million

Industry funding: \$17.70 million

Industry partner: Dairy Goat Co-operative (NZ) Ltd

Estimated potential economic benefit to

NZ: \$400 million per annum in export revenue by 2023.

A future of enjoyment in the Pomahaka catchment

Picnicking, swimming and fishing at the river. It's all part of the Kiwi dream. Until recently, however, enjoying these activities at Pomahaka River seemed unattainable.

For the past six years, a farmer-led group in south-west Otago has been working to turn the story around so that future generations can continue to enjoy the river and the various activities it supports.

In 2013, NZ Landcare Trust kicked off a project in the Pomahaka catchment in response to the high contaminant levels in the area, bringing farmers and other stakeholders together to form a plan to combat issues with sediment, phosphorous, nitrogen and *E-coli*. MPI provided additional assistance through the Sustainable Farming Fund (now SFF Futures).

The Pomahaka Water Care Group received its third round of funding in 2018 to continue its good work. This group of "citizen scientists" aim to have profitable, sustainable agriculture thriving alongside local business, recreation and tourism. Recent tests show that they are well on their way, with overall *E-coli* and nitrogen levels in the catchment's waterways falling significantly.

The group engages with other farmers and shares information about how to reduce nutrient loss and improve water quality. Areas of focus include managing critical source areas where runoff accumulates in high concentration to reduce sediment and nutrient loss; winter crop management; fertiliser application; buffer zones; and riparian planting and management.

Other co-funders include Beef + Lamb NZ, Catchment Farmers, Ernslaw One, Fish & Game Otago, Fonterra, NZ Landcare Trust, Otago Regional Council and Silver Fern Farms.

The Pomahaka Water Care Group has also been working with several of the schools in the catchment to teach students about stream health, and what can be done to improve it.

Expected benefits for the region

- Showcasing a farmer-led approach to address water quality and environmental concerns in the catchment.
- Promoting the adoption of good management practices and effective mitigation tools throughout the catchment.
- Increasing understanding of what is in the catchment's rivers and streams, including the localities and habitat requirements of the nationally endangered Pomahaka *galaxias*.
- Providing further information about iwi values, and what they are trying to protect in the catchment's rivers and streams.
- Connecting the community through tributary groups and the riparian planting initiative.

Project start: 1 July 2018

Project length: 3 years

MPI funding: \$355,610

Industry funding: \$658,000

Industry partner: Pomahaka Water Care Group





BioChar boost for the environment

BioChar is used overseas as an environmentally friendly soil conditioner. SFF Futures is co-investing with Parengarenga Incorporation to explore the use of BioChar in Northland soils.

BioChar is a form of organic matter charred under controlled high temperature conditions. The resulting product can be blended with natural organic matter and added to pasture.

Parengarenga Incorporation is investigating the use of a carboniser machine to turn local forestry waste wood into BioChar. Adding BioChar to soil is expected to increase pasture growth and enrich topsoil. Combined with a tailored drainage programme, this may reduce and filter sediment run-off into waterways.

The trial aims to identify a product best suited to Far North soil, and report back on its level of effectiveness.

Expected benefits for the region

- Mitigating climate change by storing carbon.
- Making under-utilised land productive.
- Enabling soil to retain important nutrients.
- Positive use of organic waste.
- Improving land quality and productivity in beef, lamb and horticulture.

Project start: September 2019

Project length: 11 months

MPI funding: \$100,000

Industry funding: \$163,228

Industry partner: Parengarenga Incorporation

Pictured above: Neil Butler (left) from Progressive Processors Ltd with workshop supervisor Murray Larsen, checking the quality of fresh BioChar.

Increasing high-value products in Taranaki region

Taranaki is a hub of innovative and creative businesses, packed with prime food producing areas. SFF Futures is collaborating with Venture Taranaki and local experts to help get promising new ventures off the ground.

'Branching Out' is aimed at diversifying the range of food and fibre enterprises and products in the Taranaki region. It will connect Taranaki landowners, farmers and aspirational and existing food manufacturers, marketers and investors with Crown research institutes and other expertise. The goal is to identify up to a dozen food and fibre ventures with the potential to boost Taranaki's local economy.

While Taranaki has a strong rural economy, it is facing challenges where consumer demand and climatic conditions are impacting the food and farming sectors. Branching Out provides the opportunity to help Taranaki grow new value-add industries, diversifying the local economy, and setting it up for the future.

A key part of this new project is also looking at ways to diversify and complement existing land-use and value chains, better supporting resilience, biodiversity and environmental outcomes.

Pictured below: Minister of Agriculture Hon Damien O'Connor (left) and Venture Taranaki Chief Executive Justine Gilliland (right) announce the Branching Out SFF Futures project.

The first step of the project will be to engage with the local community to identify opportunities. Short-listed ventures will undergo feasibility studies, which may lead to small-scale pilot projects in the first instance.

By working together, linking expertise and effort, Branching Out will enable sustainable growth in the vital Taranaki region.

Expected benefits for the region

- Helping to stimulate growth in Taranaki's food and fibre sector.
- Helping build resilience and diversity across the region.
- Inspiring other regions to do the same.

Project start: 25 February 2020

Project length: 2 years

MPI funding: \$594,800

Industry funding: \$319,000

Industry partner: Venture Taranaki





Getting the most out of New Zealand olive groves

Olives New Zealand is building on the success of a 3-year MPI-funded Sustainable Farming Fund project, which saw olive yields at least double by taking a fresh look at cultivation methods. A new SFF Futures project aims to increase production even more.

Olive trees grow more vigorously in New Zealand than in traditional olive growing regions, which often have more arid growing conditions. The researchers in the original project found that using New Zealand fruit tree management techniques instead of the olive grove management methods used in the Northern Hemisphere and Australia substantially increased the average yield.

Success to date has included increasing the average olive harvest tonnage of less than 10kg per tree to 20-35kg per tree. The new SFF Futures project aims to increase the production of established olive groves by an additional 5kg per tree by further refining growing and harvesting methods. It will also investigate the effectiveness of alternate and more organic approaches to olive grove management, which are also more affordable for smaller groves.

There is already an established market for olive oil in New Zealand of \$35m per annum, with the New Zealand industry accounting for less than 10 percent of this. The New Zealand olive oil industry has the potential to increase its market share to 20 percent, by applying the methods used in the research project to increase orchard productivity.

Expected benefits for the region

- Increasing market share for New Zealand's olive oil industry.
- Developing best practice methodologies, resulting in more efficient and environmentally-friendly use of the land.
- Increasing employment opportunities.

Project start: 1 October 2019

Project length: 3 years

MPI funding: \$43,520

Industry funding: \$65,280

Industry partner: Olives New Zealand



SFF Futures approved projects – in brief

Below is a snapshot of some of the other SFF Futures projects that were approved and underway as at April 2020.

New dairy genetics information system

Each year the physical and behavioural traits of around 50,000 dairy cows are assessed by breed societies to help evaluate the performance of New Zealand's top breeding bulls. The information is known as TOP (traits other than production) data. New Zealand dairy cattle breed societies are developing a new information system to collect this information so it can be used to help shape the genetics powering New Zealand's multi-billion-dollar dairy sector. The data collected by breed societies on behalf of their members and genetics companies is accessible to all dairy farmers. It's a vital industry-good service which is independent and impartial. The new system will provide the ability to capture a wider set of traits and will also integrate with the Dairy Industry Good Animal Database (DIGAD), managed by DairyNZ subsidiary New Zealand Animal Evaluation Limited.

Project length: 1 year

MPI funding: \$792,000

Industry funding: \$198,000

Industry partner: NZ Dairy Cattle Breed Societies

Seed certification information system

To export to international markets in future, 95 percent of all grass, legumes, vegetable and cereal seed production will need to be registered in a Seed Certification Information System database to meet international market traceability or isolation requirements. The Seed Quality Management Authority is developing an up-to-date, efficient, accurate and robust seed certification system to protect and grow New Zealand's \$400 million seed industry.

Project length: 2 years

MPI funding: \$753,160

Industry funding: \$1,232,340

Industry partner: Seed Quality Management Authority

Food safety to meet challenging markets

New Zealand Apples and Pears Inc is investigating new procedures and will develop best practice guidelines to manage the risk of food borne pathogens on apples and pears. This project aims to ensure New Zealand apple and pear production and fruit handling systems continue to meet the requirements of export markets.

Project length: 3 years

MPI funding: \$596,854

Industry funding: \$419,090

Industry partner: New Zealand Apples and Pears Inc

Taking stock: Resolving NZ's cultivated plants problem

This project is supporting the development of two plant databases that aim to improve approaches to plant importation and regulation; as well as plant breeding, production, biosecurity and plant pest management.

Project length: 3 years

MPI funding: \$420,000

Industry funding: \$471,500

Industry partner: Royal New Zealand Institute of Horticulture Inc, Manaaki Whenua – Landcare Research

Brown seaweed for a blue economy

Waikaitu Ltd, a Tasman district-based private New Zealand-owned crop protection company, has developed crop protection products based on the seaweed, *Undaria pinnatifida*. This project will undertake four closely-linked workstreams aimed at transforming New Zealand Undaria from a costly mussel-industry pest to a sustainable, high value global market resource.

Project length: 1.5 years

MPI funding: \$325,600

Industry funding: \$488,400

Industry partner: Waikaitu Ltd



Biological control of giant willow aphid

Apiculture New Zealand is trialling a sustainable method of controlling of giant willow aphid, an exotic pest with a particularly devastating impact on bee colonies. This will involve mass rearing and releasing *Pauesia nigrovaria*, a parasitoid from California, and monitoring its success. The parasitoid, which has been approved for release by the Environmental Protection Agency, will act as a biological control agent.

Project length: 1 year

MPI funding: \$260,000

Industry funding: \$97,000

Industry partner: Apiculture New Zealand

Piloting scaled spirulina production

NZ Algae Innovations is piloting scaled spirulina production, which could lead to the establishment of an algal protein sector in New Zealand. The project will establish a new business model so modular production units can be replicated in potential growing regions across New Zealand.

Project length: 2 years

MPI funding: \$260,000

Industry funding: \$390,000

Industry partner: NZ Algae Innovations Ltd

Find-A-Pest

Scion is improving a prototype Find-A-Pest app that enables members of the community to participate in biosecurity surveillance. Developed through a National Science Challenge project, the app provides users with simple options to report potential pests and weeds. It also alerts users to the biosecurity threats in a particular region or industry.

Project length: 1 year

MPI funding: \$255,445

Industry funding: \$136,000

Industry partner: Scion

Redefining great food: more plants on more plates for more people (and a better planet)

Food Nation is working in partnership with New Zealand producers to develop a diverse range of plant-based food (including fungi and algae) options that are nutritious and sustainable.

Project length: 2 years

MPI funding: \$147,000

Industry funding: \$214,000

Industry partner: Food Nation

Commercial seaweed aquaculture to reduce agricultural methane emissions

This project aims to substantially reduce agricultural greenhouse gas emissions through a seaweed-based cattle feed supplement. The project also aims to develop an early proof of concept of the production systems needed to develop the feed supplement at pilot-scale.

Project length: 1 year

MPI funding: \$100,000

Industry funding: \$150,000

Industry partner: Cawthron Institute

Innovating for a sustainable future

BIOTechNZ is conducting a comprehensive study of the current state of biotechnology and future opportunities, with the aim of contributing to New Zealand's economic growth and diversification and helping to make New Zealand cleaner, healthier and more prosperous.

Project length: 1 year

MPI funding: \$104,000

Industry funding: \$26,500

Industry partner: BIOTechNZ



Puāwaitia te Takapau Horanui

Puāwaitia te Takapau Horanui will bring together a collective of Māori farms from across Te Whanganui-a-Ruawhoro (Hawke's Bay) to assess the use of long range, wide area network (LoRaWAN) infrastructure to support the deployment of sensor technology to rurally remote areas. This technology would be used as a farming tool, e.g. for monitoring waterways and helping understand the weather or soil moisture in a particular area.

Project length: 2 months

MPI funding: \$99,990

Industry funding: \$36,410

Industry partner: Ngāti Pāhauwera Development Trust

The biology and impact of poplar sawfly

An established population of poplar sawfly was detected in Dunedin in January 2019. It feeds on most poplars currently in slope stabilisation programmes. These species are expected to spread rapidly throughout New Zealand. This project involves researching the poplar sawfly's biology and impact on different poplar varieties to inform New Zealand's approach to long-term management of this pest.

Project length: 1 year

MPI funding: \$100,000

Industry funding: \$25,000

Industry partner: New Zealand Poplar and Willow Research Trust

Supporting NZ young farmers

The NZ Federation of Young Farmers Clubs Inc is designing a digital platform to support young people in the primary sector. This may include connecting them to a range of services and resources, such as career guidance, leadership opportunities, mental health and wellbeing support, employment and experience opportunities.

Project length: 1 year

MPI funding: \$72,000

Industry funding: \$54,350

Industry partner: The NZ Federation of Young Farmers Clubs Inc

Varroa Elimination Unit (VEU)

This project will trial 14 Varroa elimination units to help protect bee colonies from Varroa infestations. The units will use sensors to measure the amount of miticide (a fumigant used to kill Varroa mites) that circulates around the hive. The miticide will be released automatically, at a level that is non-toxic to bees.

Project length: 1 year

MPI funding: \$59,000

Industry funding: \$60,600

Industry partner: Cooling Solutions Ltd

Open Farms

SFF Futures is supporting a nationwide, cross-sector Open Farm Day experience on 1 March designed to reconnect urban Kiwis with the people and places that grow our food.

Project length: 1 day event to be held in 2020 and 2021

MPI funding: \$50,000

Industry funding: \$160,000

Industry partner: Open Farms Ltd

Building a resilient future for New Zealand oyster aquaculture

The resilience of the oyster industry is challenged by the seasonal supply of spat (juvenile oysters). This project will develop a business case to establish a commercial-scale oyster hatchery system that would provide a strong foundation for sustainable growth of the oyster industry in New Zealand.

Project length: 5 months

MPI funding: \$45,000

Industry funding: \$15,000

Industry partner: AquacultureNZ



Meeting the demand for NZ extra virgin olive oil

Building on the success of an earlier 3-year MPI-funded project, this project aims to further increase the production of established olive groves to meet the growing demand for New Zealand extra virgin olive oil. The target is an additional 5kg (20%) per tree. A second objective is to move growers to more organic sprays.

Project length: 3 years

MPI funding: \$43,520

Industry funding: \$65,280

Industry partner: Olives New Zealand

Phosphine treatment of avocados

New Zealand Avocado will test the ability of avocados to undergo phosphine treatment at rates, times and temperatures that maintain fruit quality while reducing the presence of common quarantine pests. This will help determine whether phosphine can be considered an acceptable treatment for export avocados.

Project length: 1 year

MPI funding: \$40,000

Industry funding: \$60,000

Industry partner: New Zealand Avocado

SmartEWE: Good mothers, greener pastures and better products

Four Good Foods will trial the use of smart-tag technology on maternal ewes to track their individual performance. This information will be used to increase lamb output, reduce greenhouse gas emissions, and improve animal welfare and product quality.

Project length: 1 year

MPI funding: \$39,875

Industry funding: \$59,875

Industry partner: Four Good Foods

A novel approach to probiotics for production animals

BioBrew aims to demonstrate the efficacy of probiotics for lambing to provide farmers with a means to reduce the use of anthelmintics (antiparasitic drugs), while maintaining production and profitability.

Project length: 8 months

MPI funding: \$24,000

Industry funding: \$41,900

Industry partner: BioBrew

Sustainable vineyard floor project

Villa Maria is investigating an unorthodox way to manage the area under vines. This breaks with the conventional practice of maintaining the area as bare dirt via chemical (herbicide) or mechanical (cultivation) methods. They will research the impact of planting native plants and cover crops under vines as an alternative to herbicides and cultivation. This has the potential to create a self-sustaining system on the vineyard floor that requires minimal intervention: reducing the use of tractors, reducing chemical application, improving soil health and physical properties, all while ideally maintaining or improving yield and wine quality.

Project length: 13 months

MPI funding: \$23,050

Industry funding: \$34,576

Industry partner: Villa Maria Estate

Unified approach to vegetable on-farm biosecurity

Onions New Zealand will develop two on-farm biosecurity manuals for covered crops and outdoor crops, in collaboration with a number of other product groups in the vegetable sector.

Project length: 6 months

MPI funding: \$14,700

Industry funding: \$24,900

Industry partners: Onions NZ (lead), Vegetables NZ Inc, Tomatoes NZ Inc, Processed Vegetables Inc, New Zealand Buttercup Squash Council, NZ Asparagus Council

Primary Growth Partnership Programmes

Between October 2018 and March 2020, we launched four new multi-million dollar, multi-year programmes. These were assessed under the Primary Growth Partnership (PGP) as their business cases were in the assessment pipeline prior to the launch of Sustainable Food & Fibre Futures (SFF Futures).

Te Mahi Ngahere i te Ao Hurihuri – Forestry work in the modern age

Boosting forest productivity, technology, safety and skills and reducing environmental impacts are at the heart of this programme.

The programme is a collaboration with Forest Growers Research Ltd, a consortium of forest owners and forestry machinery manufacturers. It aims to introduce new technology to the tasks after felling that have traditionally required repetitive intensive labour. These include stem extraction, log making, log sorting, branding and log measurement. This will boost the efficiency of forestry operations, take people away from hazardous harvesting roles and provide them with the skills and knowledge they need to operate the new machinery.

Project start: 1 January 2019

Project length: 7 years

MPI funding: \$11.74 million

Industry funding: \$17.62 million

Industry partner: Forest Growers Research Limited

Resilient Dairy: Innovative breeding for a sustainable future

This programme aims to drive improvements in the health and wellbeing of our national dairy herd. This will be achieved through new disease management technologies and advancements in genomic science. It'll also develop innovative breeding tools and tests that support more sustainable milk production.

Project start: June 2019

Project length: 7 years

MPI funding: \$11.74 million

Industry funding: \$17.62 million

Industry partners: Livestock Improvement Corporation, DairyNZ

Hāpi – Brewing Success

The Hāpi – Brewing Success programme's goal is to achieve world recognition and accelerated growth for New Zealand unique, premium hops and craft beer for top-tier markets. Significant economic and regional benefits are expected to be generated by the programme.

Project start: 1 October 2018

Project length: 7 years

MPI funding: \$5.3 million

Industry funding: \$7.95 million

Industry partners: Garage Project, Freestyle Farms

Mid-rise wood construction

This programme aims to boost the use of New Zealand engineered wood products in mid-rise building construction. Accelerating demand for engineered wood products will drive flow-on benefits across the entire supply chain. These benefits are expected to include new regional jobs and investment in wood processing, manufacturing and prefabrication.

Project start: 1 November 2018

Project length: 3 years

MPI funding: \$2 million

Industry funding: \$3 million

Industry partner: Red Stag Investments Ltd

Our previous funds – PGP and SFF

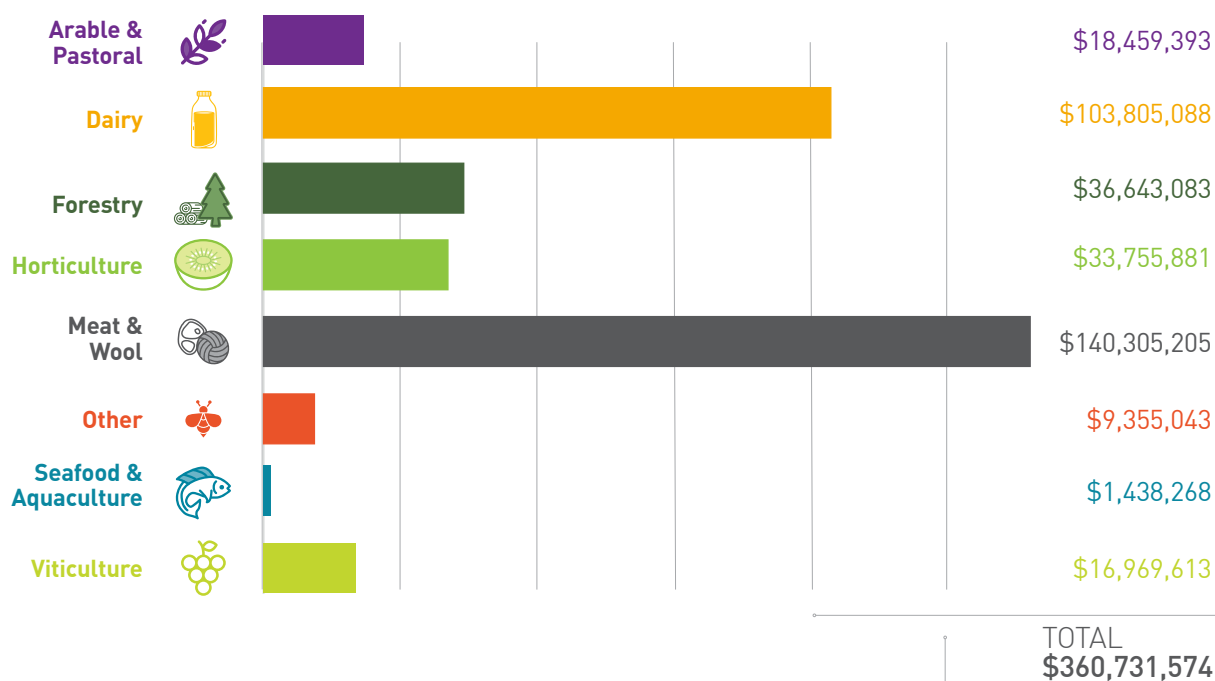
Projects and programmes approved under PGP and the Sustainable Farming Fund (SFF) are now managed through SFF Futures and continue to deliver strong benefits to New Zealand.

From October 2018 to May 2020:

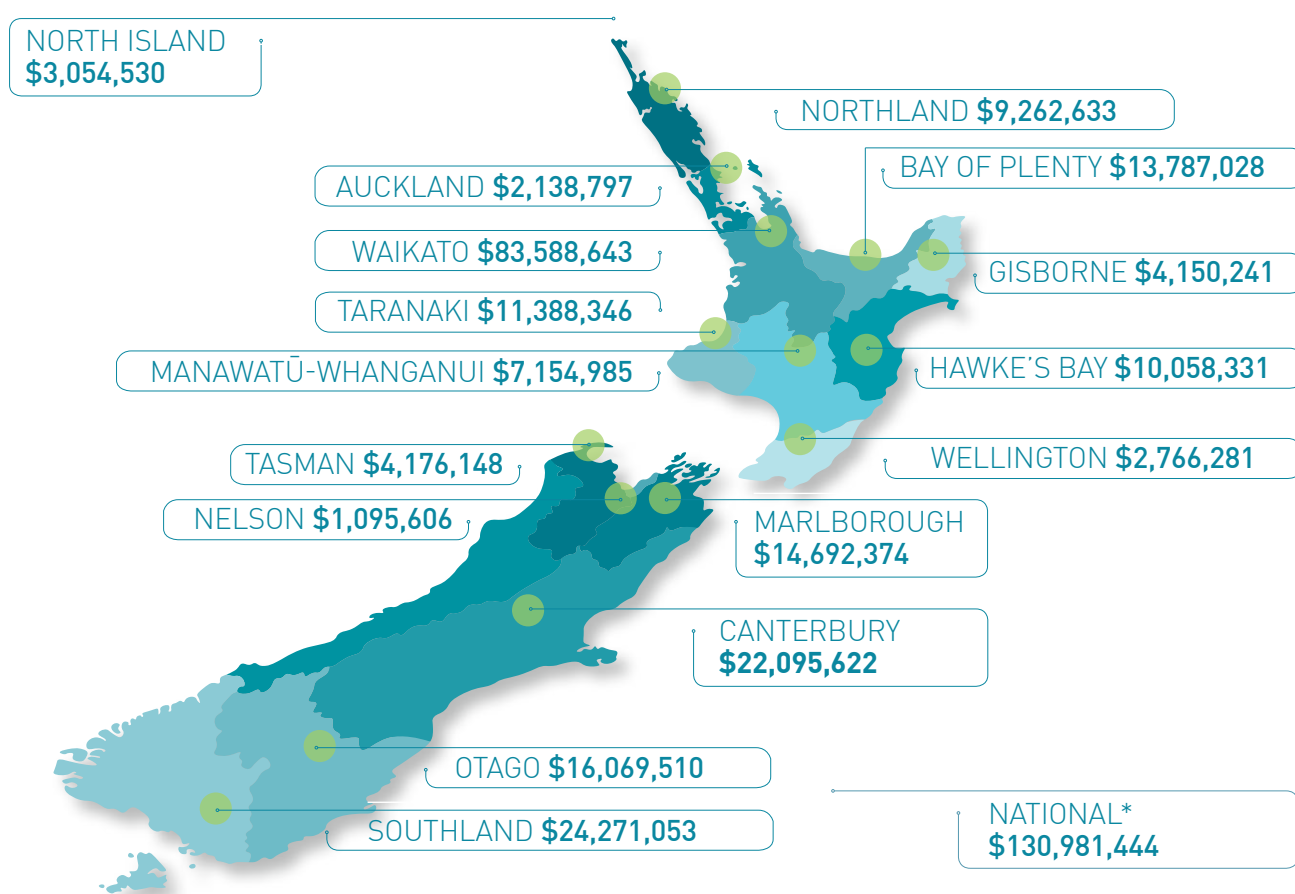
- Programmes and projects in progress: **109**
- Programmes completed in past year: **48**
- Total dollar investment in past year*: **\$360,731,574**
 - MPI: \$167,394,424
 - Co-investor: \$193,337,150

*refers to the total investment committed by MPI and industry over the full life of the projects, not project expenditure of the projects over the time period covered by this report.

PGP AND SFF INVESTMENT **BY SECTOR** (MPI + INDUSTRY) OCTOBER 2018 TO MAY 2020



PGP AND SFF INVESTMENT **BY REGION** (MPI + INDUSTRY) OCTOBER 2018 TO MAY 2020



*refers to pan-industry projects and programmes of a national scale.



Agriculture & Investment Services
Ministry for Primary Industries
Manatū Ahu Matua

SFF Futures

Make it happen

0800 00 83 33 | sff.futures@mpi.govt.nz | sff-futures.mpi.govt.nz