agresearch

āta mātai, mātai whetū

STRATEGY 2025

agresearch
āta mātai, mātai whetū

CONTENTS

1

HOW WE WORK BEST

Co-designing programmes that deliver impact and value

Your strategic priorities

Our world-class science capabilities

2

WHO WE ARE

WHO
WE ARE

AgResearch is one of seven Crown Research Institutes in Aotearoa New Zealand

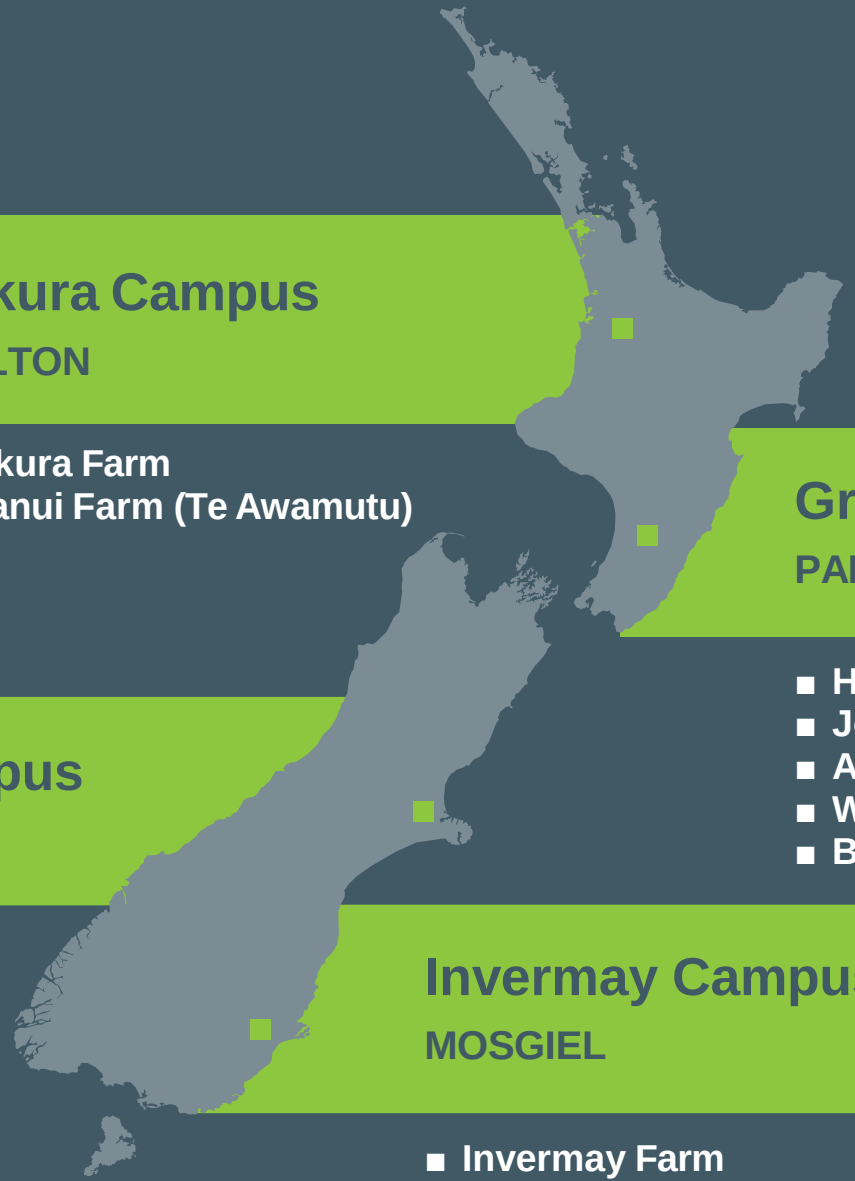
We are responsible for delivering innovative science and research outcomes specifically for the agricultural sector.

agresearch āta mātai, mātai whetū
E/S/R Science for Communities He Pūtaiao, He Tāngata
NIWA Taihoro Nukurangi
Manaaki Whenua Landcare Research
SCION FORESTS • PRODUCTS • INNOVATION
Plant & Food Research Rangahau Ahumāra Kai
GNS SCIENCE TE PŪ AO

agresearch
āta mātai, mātai whetū

WHO
WE ARE

OUR LOCATIONS



Ruakura Campus
HAMILTON

- Ruakura Farm
- Tokanui Farm (Te Awamutu)

Grasslands Campus
PALMERSTON NORTH

- Hopkirk Research Institute
- Joint Food Science Facility
- Aorangi Farm
- Woolfords Block (Bulls)
- Ballantrae (Manawatū Gorge)

Lincoln Campus
LINCOLN

- Lincoln Farm

Invermay Campus
MOSGIEL

- Invermay Farm
- Woodlands Farm (Invercargill)

agresearch
āta mātai, mātai whetū

OUR TEAM

WHO
WE ARE

As at 30 June 2024,
AgResearch has

790

permanent fixed term and casual employees, students and contractors (FTE).

FEMALE

54%

MALE

45%

SCIENCE

77%

SCIENCE SUPPORT

23%

agresearch
āta mātai, mātai whetū

WHO
WE ARE

OUR LEGACY

For over 100 years, our research has supported Aotearoa New Zealand's farming and pastoral industries.

agresearch
āta mātai, mātai whetū

WHO
WE ARE

OUR CORE PURPOSE

Our core purpose is to deliver research to enhance the value, productivity and profitability of New Zealand's pastoral, agri-food, and agri-technology sector value chains to contribute to economic growth and beneficial environmental and social outcomes for New Zealand.

OUR WHAKATAUKĪ

Āta mātai, mātai whetū

Being in pursuit of far horizons while firmly grounded

agresearch
āta mātai, mātai whetū

WHO
WE ARE

Our shared context

OUR CHALLENGES

Climate change	Water quality/ availability	Technology
Customer expectations	Labour market	Biosecurity
Biodiversity loss	Trade issues	Urbanisation

INCREASING

- Global economy growing slowly
- China's economic performance
- Strong US Dollar supports our exports
- Inflationary pressures

DECREASING

↓ 6%
to $11.4B

↓ 7%
to $24.2B

- 2024 dairy, sheep and beef prices were all down
- Energy and fertiliser prices fell faster than expected

Research, innovation and agritech will be critical enablers for future productivity growth and underpin sustainable production

Reference: MPI's Situation and Outlook for Primary Industries, 12 Dec 2024

agresearch
āta mātai, mātai whetū

WHO
WE ARE

Economic importance of Māori farms

Māori farms are geographical units belonging to Māori authorities or other Māori enterprises. Having an AgResearch strategy to ensure our relationships are fit-for-purpose is essential to helping grow the Aotearoa New Zealand economy.

PRIMARY INDUSTRY LAND USE

Māori freehold land available for primary industry use

1,515,071Ha

TOP FARMING ACTIVITIES

The top five farming activities for Māori farms

Number of farms

156 **Beef**

150 **Dairy**

120 **Sheep + Beef**

105 **Forestry**

69 **Kiwifruit**

EXPORTS

Māori authority exports

$760m of goods in 2022

23% exported to China

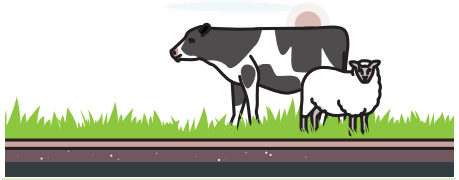
Milk powder, butter and cheese make up ¼ of all exports.

Consistently 21–27% between 2017–2022

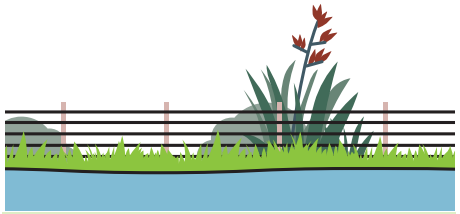
agresearch
āta mātai, mātai whetū

WHO
WE ARE

SECTOR PRIORITIES



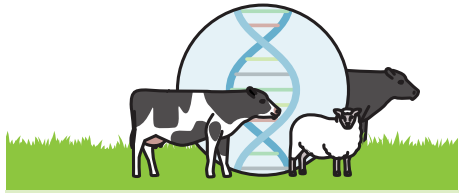
Climate change mitigation and adaptation



Healthy soil and waterways

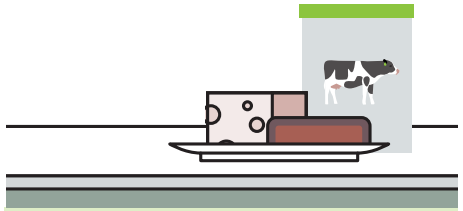
Fit-for-purpose biosecurity

Enhanced animal health, welfare and productivity



World leading animal genetic gains

Future resilient forages



Added value food and bioproducts

Underpinned by an integrated farm systems approach

agresearch
āta mātai, mātai whetū

OUR COMMERCIAL INTERESTS

WHO
WE ARE

AG:PAC

Ag:LCA
from AgResearch

genomNZ
from agresearch

grasslanz®
unique plant opportunities

Overseer

FARMAX

ZeaKal

ZealaFoam
SUSTAINABLE BIO-PERFORMANCE

LucidomeBio

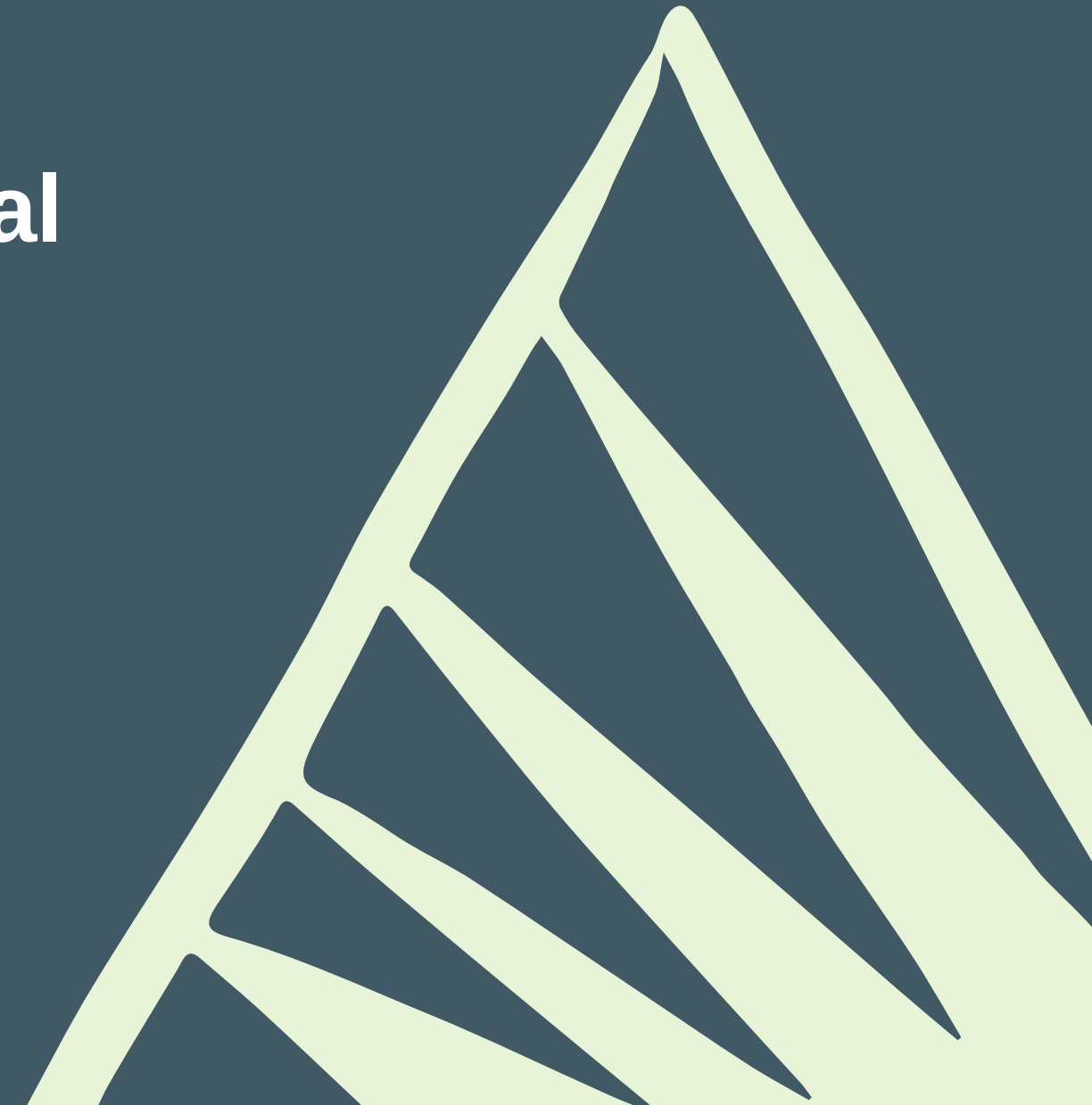
agresearch
āta mātai, mātai whetū

WHO
WE ARE

OUR MISSION

Enabling a strong, sustainable pastoral agricultural sector for the benefit of New Zealand.

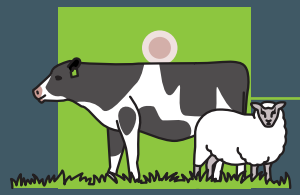
Our core purpose is to deliver research to enhance the value, productivity and profitability of New Zealand's pastoral, agri-food, and agri-technology sector value chains to contribute to economic growth and beneficial environmental and social outcomes for New Zealand.



agresearch
āta mātai, mātai whetū

WHO
WE ARE

We create impact for



Sustainable farming

Ensuring that pastoral agriculture has a confident place in our changing climate

Growing value

Enabling productivity and profitability, providing the evidence base to support value growth

Environment

Supporting land use decisions, improving farm resilience and protecting ecosystems

New products

Helping to extend value beyond what we know today – from emerging foods to early-stage product development

Māori enterprise

Enabling Māori agribusinesses and communities to thrive for the benefit of all New Zealand

3

OUR RESEARCH PRIORITIES

agresearch
āta mātai, mātai whetū

Our research priority aims

OUR RESEARCH PRIORITIES

AIM

Focus on areas of real impact to pastoral agriculture

AIM

Build depth in key areas and provide national and global leadership

AIM

Prepare and position our people and science for the future

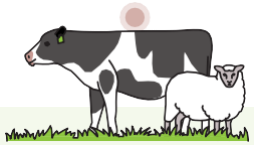
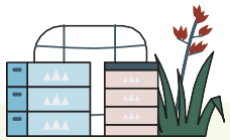
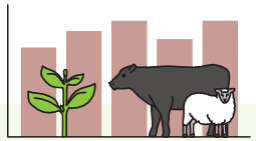
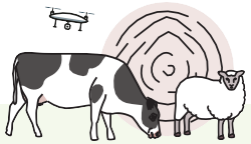
AIM

Ensure long-term financial sustainability for AgResearch

agresearch
āta mātai, mātai whetū

Our research priorities

OUR RESEARCH PRIORITIES

RESEARCH PRIORITY	Sustainable pastoral agriculture in a changing climate	Thriving Māori agribusiness and enterprise	Integrated biosecurity	Future farming systems	Emerging foods
					
FLAGSHIP SCIENCE PROGRAMME	Plants and microbiomes of the future Animals of the future Partnering for sustainable agricultural innovation	Supporting land use transitions to enhance Māori agribusiness, enterprise, and communities	Biosecurity for plants and animals	Transitioning agri-food systems	Enabling emerging foods

Early-stage product development – Identify and support opportunities for commercialisation

agresearch
āta mātai, mātai whetū

RESEARCH PRIORITY

Sustainable pastoral agriculture in a changing climate

OUR RESEARCH PRIORITIES

agresearch
āta mātai, mātai whetū

RESEARCH PRIORITY

Sustainable pastoral agriculture in a changing climate

PURPOSE

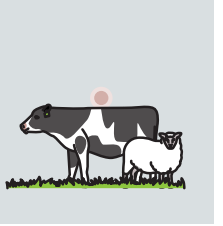
Research to ensure New Zealand's pastoral agriculture systems are resilient and economically viable in a changing climate.

OUR RESEARCH PRIORITIES

AIM

Evidence-based solutions, tools and knowledge to amplify productivity, market access and support pastoral agriculture's contribution to doubling the value of exports in 10 years.

agresearch
āta mātai, mātai whetū



FLAGSHIP SCIENCE PROGRAMME

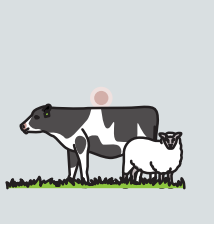
Plants and microbiomes of the future

OUR RESEARCH PRIORITIES

ACTIVITY

- Develop new climate-smart forages for long-term solutions while future-proofing perennial ryegrass and white clover in the short to mid-term
- Understand how plants recruit beneficial microbes within soils for enhanced performance
- Develop beneficial microbial communities for pasture crops to enhance traits under future climates

agresearch
āta mātai, mātai whetū



FLAGSHIP SCIENCE PROGRAMME

Animals of the future

OUR RESEARCH PRIORITIES

ACTIVITY

- Address animal wellbeing, high mortality and morbidity in ewes and lambs prior and following birth, widespread drench failure in sheep and cattle systems
- Address need for farm animals to adapt to future environments, and accelerate genetic gain
- Develop ability to measure feed intake in real time on pasture, address need for farm animals to adapt digestion system to future pasture conditions

agresearch
āta mātai, mātai whetū

FLAGSHIP SCIENCE PROGRAMME

Partnering for sustainable agricultural innovation

OUR RESEARCH PRIORITIES

ACTIVITY

- Develop longstanding and deep research partnerships with key players in science and extension to continue to provide trusted solutions for farmers.

- Integrate science for Life Cycle Assessment (LCA) to calculate environmental, social, and cultural footprints to support agricultural exports in international markets and deliver the outcomes for New Zealanders and our environment.

agresearch
āta mātai, mātai whetū

RESEARCH PRIORITY

Thriving Māori agribusiness and enterprise

OUR RESEARCH PRIORITIES

agresearch
āta mātai, mātai whetū

RESEARCH PRIORITY

Thriving Māori agribusiness and enterprise

OUR RESEARCH PRIORITIES

PURPOSE

Supporting land use system transitions and utilisation for Māori agribusiness, enterprises, and communities.

AIM

Research that fosters productivity and prosperity for future generations.

agresearch
āta mātai, mātai whetū

FLAGSHIP SCIENCE PROGRAMME

Supporting land use transitions to enhance Māori agribusiness, enterprise, and communities

OUR RESEARCH PRIORITIES

ACTIVITY

- Support land use decisions that align with Māori values and transition into diverse landscapes and economies
- De-risk land use transitions by creating a monitoring framework that includes shared knowledge to enhance Māori agribusinesses and their communities
- Develop innovations for whenua Māori farms
- Explore Māori data governance and IP management

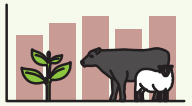
agresearch
āta mātai, mātai whetū

RESEARCH PRIORITY

Integrated biosecurity

OUR RESEARCH PRIORITIES

agresearch
āta mātai, mātai whetū



RESEARCH PRIORITY

Integrated biosecurity

OUR RESEARCH PRIORITIES

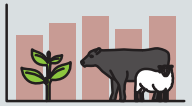
PURPOSE

Research to protect New Zealand's pastoral agriculture systems and economy from pests and disease by developing and leveraging new and existing knowledge, tools, and data.

AIM

A robust, integrated biosecurity framework that enhances early detection and response capabilities, improves co-ordination, and protects our environment and economy.

agresearch
āta mātai, mātai whetū



FLAGSHIP SCIENCE PROGRAMME

Biosecurity for plants and animals

OUR RESEARCH PRIORITIES

ACTIVITY

- Co-develop biosecurity strategies, fostering a unified approach to animal and plant biosecurity
- Enhance early detection and prevention by using AI-enabled rapid screening and algorithmic hazard ranking to identify biosecurity threats
- Develop advanced diagnostic tools and surveillance systems for prompt identification and response to invasive species
- Build an integrated plant and animal biosecurity system

agresearch
āta mātai, mātai whetū

RESEARCH PRIORITY

Future farming systems

OUR RESEARCH PRIORITIES

RESEARCH PRIORITY

Future farming systems

PURPOSE

Delivering fundamental change to the way New Zealand farms, supporting market access and providing greater economic performance for landowners and New Zealand.

AIM

Gathering data, utilising indicators and providing information to assess farm performance and enhance land management.

agresearch
āta mātai, mātai whetū

FLAGSHIP SCIENCE PROGRAMME

Transitioning Agri-food Systems

OUR RESEARCH PRIORITIES

ACTIVITY

- Develop an integrated framework to assess farm performance and guide sustainable planning
- Track on-farm changes and impacts to inform management and policy
- Use farm-scale models to simulate future land use and support decision-making
- Accelerate change by identifying and addressing barriers to sustainable practices

RESEARCH PRIORITY

Emerging foods

agresearch
āta mātai, mātai whetū

RESEARCH PRIORITY

Emerging foods

PURPOSE

Investigating novel foods for the benefit of producers, consumers, the New Zealand economy and our environment.

OUR RESEARCH PRIORITIES

AIM

New opportunities for economic gain through diversification of protein sources in novel combinations.

agresearch
āta mātai, mātai whetū

FLAGSHIP SCIENCE PROGRAMME

Enabling emerging foods

OUR RESEARCH PRIORITIES

ACTIVITY

- Produce protein-enriched foods and dual protein systems to enhance New Zealand's agricultural value
- Develop precision fermentation for high-value proteins and lipids to position New Zealand at forefront of biotechnology-driven food innovation
- Establish safety standards for emerging foods in collaboration with regulatory authorities
- Evaluate the environmental impact of emerging food production through Nutritional Life Cycle Assessment (nLCA)

agresearch
āta mātai, mātai whetū

FLAGSHIP SCIENCE PROGRAMME – SUPPORTING ALL PROGRAMMES

Early-stage product development

OUR RESEARCH PRIORITIES

ACTIVITY

- Identify and advance opportunities across AgResearch to address agricultural challenges and sustainability practices
- Bridge the gap between research and commercial uptake by creating products that enhance New Zealand’s agricultural industry’s economic viability and environmental sustainability

4

OUR RESEARCH CAPABILITIES AND EXPERTISE

agresearch
āta mātai, mātai whetū

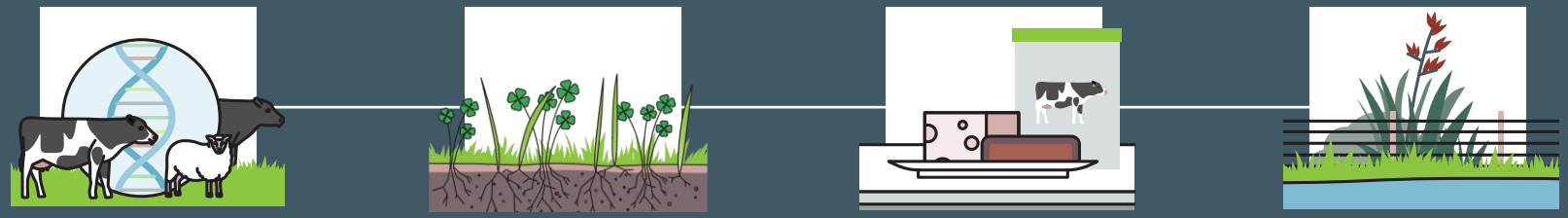
OUR RESEARCH CAPABILITIES AND EXPERTISE

AREAS OF CAPABILITY

New Zealand is a leader in the production of premium food and fibre, and design and development of novel agri-food innovations.

Our science capability spans the agricultural value chain with a focus on integrated systems. All aspects of our research can be linked.

We have deep expertise in



Animal science

Forage and microbial science

Food and bioproducts

Sustainability and environment

Underpinned by an integrated farm systems approach

agresearch
āta mātai, mātai whetū

OUR EXPERTISE

Animal science

- Genetics and genomics
- Animal nutrition
- Animal health
- Animal welfare and behaviour
- Reproduction
- Methane mitigation and adaptation
- Rumen in vitro systems
- Parasitology
- Rongoā for animal health

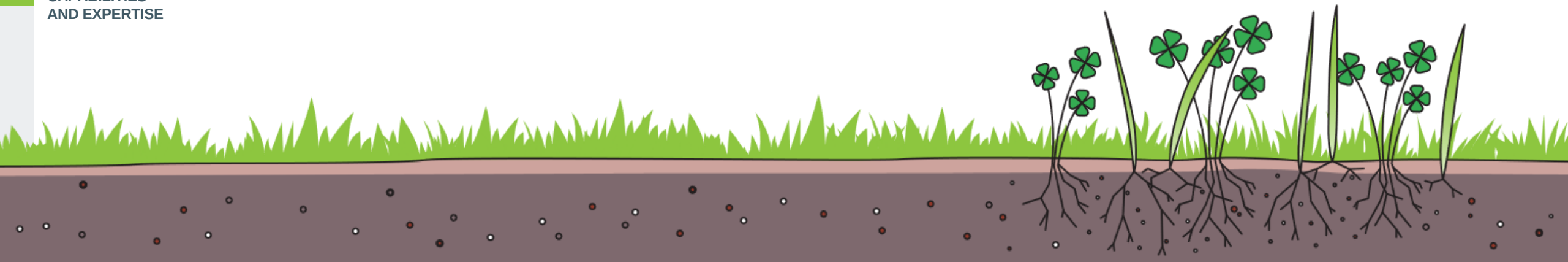
OUR RESEARCH CAPABILITIES AND EXPERTISE

agresearch
āta mātai, mātai whetū

OUR EXPERTISE

Forage and microbial science

- Forage genetics and genomics
- Climate change adaptation
- Climate change ecology
- Biocontrol and biosecurity
- Māori biosecurity – policy and taonga species preservation
- Rongōa cultivation
- Endophyte technologies
- Germplasm resources
- Microbiomes
- Microbial production and formulation
- Rumen microbiology
- Genetic technologies



agresearch
āta mātai, mātai whetū

OUR EXPERTISE

Food and bioproducts

- Protein foods science
- Protein bioproducts and fibre
- Keratin materials
- Meat and dairy
- Processing for non-bovine dairy
- Non-invasive food assessment
- Sensory and consumer science (meat)
- Food safety
- Gut health / microbiome
- Gut-brain in vitro models
- Proteomics / metabolomics / systems science
- Fermentation and microbial biotechnology
- Kai systems – community, distribution, value chains
- Rongoā

OUR RESEARCH CAPABILITIES AND EXPERTISE

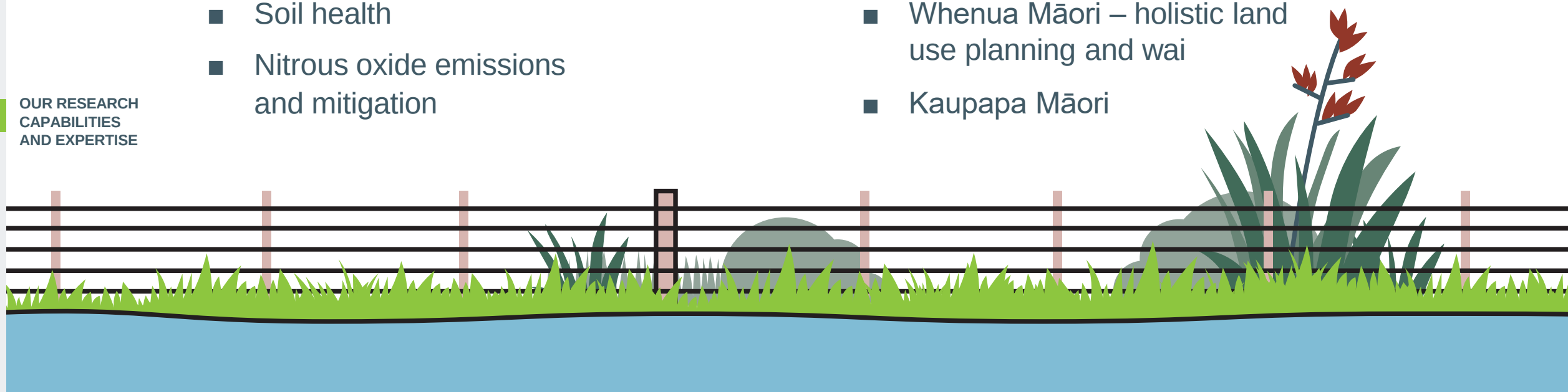
agresearch
āta mātai, mātai whetū

OUR EXPERTISE

Sustainability and environment

- Water quality
- Life Cycle Assessment
- Nitrate leaching
- Land-use change
- Soil health
- Nitrous oxide emissions and mitigation
- Digital agriculture
- Weed mitigation
- Farm systems and modelling
- Customary management – Te Tiriti
- Whenua Māori – holistic land use planning and wai
- Kaupapa Māori

OUR RESEARCH CAPABILITIES AND EXPERTISE

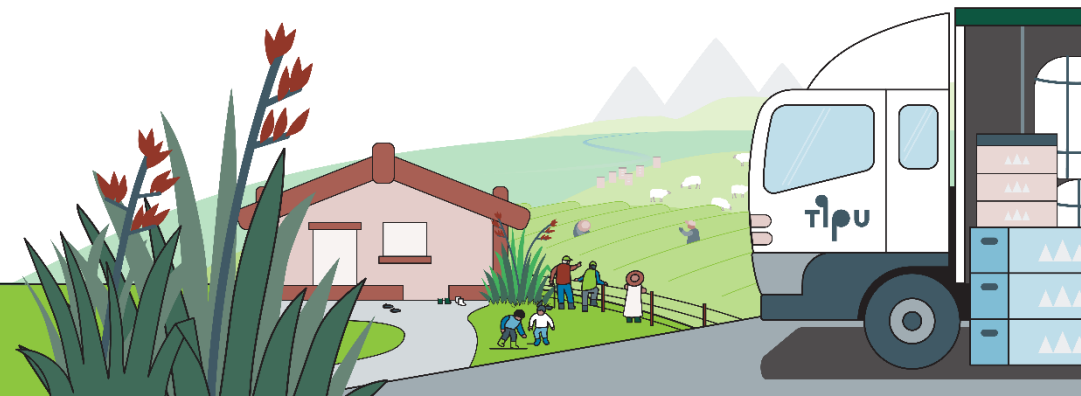


agresearch
āta mātai, mātai whetū

OUR EXPERTISE

Māori Research

- Maori Biosecurity
  - Policy and governance – Te Ao Maori
  - Taonga species preservation
- Kaupapa Māori
  - Māori resource management
  - Applied practice
  - Mana o te reo
  - Māori worldview
  - Social research
- Whenua Māori
  - Holistic land use planning
  - Kai systems
  - Rongoā
  - Wai
- Customary Management
  - Te Tiriti



agresearch
āta mātai, mātai whetū

STRATEGY ON A PAGE

OUR PURPOSE

We deliver research to enhance the value, productivity and profitability of New Zealand's pastoral, agri-food, and agri-technology sector value chains to contribute to economic growth and beneficial environmental and social outcomes for New Zealand

OUR MISSION

To create a strong, sustainable pastoral agricultural sector for the benefit of New Zealand

OUR WHAKATAUKĪ

Āta mātai, mātai whetū – Being in pursuit of far horizons while firmly grounded

OUR RESEARCH PRIORITIES

Sustainable pastoral agriculture in a changing climate

Thriving Māori agribusiness and enterprise

Integrated Biosecurity

Future farming systems

Emerging foods

FLAGSHIP PROGRAMMES

Plants and microbiomes of the future Animals of the future Partnering for sustainable agricultural innovation	Supporting land use transitions to enhance Māori agribusiness, enterprise, and communities	Biosecurity for plants and animals	Transitioning agri-food systems	Enabling emerging foods

Early-stage product development – Identify and support opportunities for commercialisation

OUR RESEARCH CAPABILITIES AND EXPERTISE

OUR VALUES

- **Whakarangatira** Professionalism
- **Āta mātai** Innovation
- **Mahitahi** Collaboration
- **Mātai** Customer focus
- **Mātai whetū** Quality
- **Āta** Thought leadership

agresearch
āta mātai, mātai whetū

UNDERPINNING OUR BUSINESS

Focus activities

Financial strength	Digital acceleration	Te Ara Tika
Sustainability	Growing science capabilities	Partnerships