

# Powering Agritech Innovation

**Innovative research and technology from the University of Auckland to advance the future of food and agriculture**

From smarter farm systems to next-generation nutrition, the University of Auckland brings together world-leading expertise across science, engineering, health, and technology to tackle New Zealand's most complex challenges in agritech and food innovation.

We work with partners across the agritech ecosystem to improve productivity, resilience, and sustainability, helping to turn breakthrough ideas into practical, commercial solutions for the primary sector.



University capability includes expertise from engineering, biological, environmental, and food sciences, including:

#### Engineering and Digital Agritech

- Robotics, automation, and sensing for on-farm operations
- AI, data analytics, and systems modelling for precision agriculture
- Smart materials and IoT for soil, water, and animal monitoring

#### Biological and Environmental Sciences

- Crop and soil microbiome research
- Biosecurity and environmental modelling for resilient production
- Biotechnology and microbial systems for animal and plant health

#### Nutrition and Food Science

- Food processing, safety, traceability, and quality assurance technologies
- Novel and future foods, functional foods and food innovation
- Nutraceuticals, human nutrition and sensory and consumer science research



## Centres & Research Facilities

### Ngapouri Research Farm:

Applied animal science and farm systems research site for field-based trials in methane mitigation, nutrition and productivity, breeding, and agri-technologies.

### Leigh Marine Lab

Located at Leigh Marine Reserve with wet, chemistry & microscopic laboratories, fleet of boats, and tank room with flow through & reticulated seawater capabilities.

### Goldie Estate Vineyard and Winery

Research vineyard and winery on Waiheke Island with full chemical and sensory analysis capabilities alongside the School of Chemical Sciences



### Future Food Research Centre

Applying disruptive technologies like AI, sensors, 3D food printing and bioprocessing, the Centre creates value-added and circular solutions that turn by-products into new ingredients, helping producers boost value, cut waste, and improve sustainability.

### Automation and Robotic Engineering

Robotics, AI and 3D mapping; autonomous systems for agriculture applications, including precision horticulture, pest detection and quality assurance of products.

### Auckland Bioengineering Institute (ABI)

Biophysical digital twin modelling and sensors technology for livestock and environmental applications.

### Institute for Innovation in Biotechnology (IIB)

Microbial and biotechnological innovation for primary industries. Combining commercial and academic expertise, infrastructure and graduate talent.

### Te Pūnaha Matatini

NZ Centre of Excellence focus on data science and complex systems modelling incorporating ecological, economic and social systems for sustainable food and agricultural systems.

### Human Nutrition Unit

Establishing links between diet, health and disease prevention. Long stay residential facility with dietary intervention capabilities, anthropometry, and biological sample collection and analysis.

### Nga Ara Whetu - Centre for Climate, Biodiversity and Society

Applying disruptive technologies like AI, sensors, 3D food printing and bioprocessing, the Centre creates value-added and circular solutions that turn by-products into new ingredients, helping producers boost value, cut waste, and improve sustainability.

### CIRCUIT – Circular Innovations Centre.

Accelerating sustainable agrifood systems through circular design, valorisation of agricultural by-products, and regenerative supply chain innovation.

## Partner with us

Partner with us to accelerate innovation in agritech. Through UniServices, you can access the University of Auckland's leading expertise, facilities, and research infrastructure to co-develop technologies and take them from lab to paddock to plate.

## Contact UniServices today



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