

# How Frontier Farms will help Kiwi farmers stay world-leading

Approximately 95% of New Zealand's milk is exported, and consumer demands and international markets are changing rapidly. We need to ensure that our farmers stay ahead of global markets to remain internationally competitive.

DairyNZ's Frontier Farms project aims to forecast the key attributes New Zealand pasture-based dairy farms will need to stay competitive. Using this knowledge, we will co-design and test the performance of new farm systems, with farmers, to deliver these attributes.

## What we want to achieve

We want to demonstrate and refine a range of options that could help our future farm systems better compete in a changing global market.



# Keeping New Zealand dairying ahead of our global competitors

## Frontier Farm design and development process

- 1. Analysis** The project team analyse our competitiveness relative to a global exporter under a range of potential futures and predict what attributes and outcomes our future systems will need to deliver to maintain or improve our competitiveness.
- 2. Evaluation** Co-design a system to meet this brief.
- 3. On-farm testing** Establish a farm scale demonstration to test, refine and evolve systems.

### Working together with farmers

New Zealand dairy farmers and rural professionals are working alongside our science team to help develop new farming systems which respond to global challenges, and monitor how they perform.

## Where we're at

### UNDERWAY



#### United States (US) mega-dairy farms

US mega-dairy farms were chosen because they have demonstrated the ability to achieve a high operating profit margin, with an ability to scale up.

In the project's first year, an assessment of the relative competitiveness of US and New Zealand dairy sector was completed. This also identified the attributes New Zealand farms needed to make progress on to remain competitive.

#### What next?

The design of the first Frontier Farm is underway, with input from farmers, rural professionals and other stakeholders. The aim is to have the farm implement changes so farmers can better compete with US mega dairies and be operating by August 2023.

### COMING SOON



#### Milk Alternatives

Our second competitive analysis comparing the New Zealand dairy sector with milk alternatives will be completed mid-2023. Milk alternatives include plant-based milks or milks from precision fermentation.

If further funding is approved, a Frontier Farm system will then be designed to show options for maintaining competitiveness with milk alternatives and will be operating in mid-2024.



Read the United States mega-dairy farms assessment at [dairynz.co.nz/frontierfarms](https://dairynz.co.nz/frontierfarms)



*Competitive analysis and system design exercises have been done before. But this project goes a step further to develop working farm demonstrations to test new ways of farming in practice.*

*We can expect that as we design novel systems they won't always perform as we anticipate. A lot of our learnings will be in understanding why our system changes didn't work the first time, and then refining our ideas so they perform better. We know Kiwi farmers are real innovators so it's exciting to be working closely with farmers on designing systems and improvements.*



**Dr Paul Edwards**

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