Resilient Dairy

Innovative breeding for a sustainable dairy future

LIC®

ResilientDairy

Resilient Dairy is a $25 million research programme driving improvements in the health and wellbeing of the national dairy herd and a step-change in sustainable milk production.

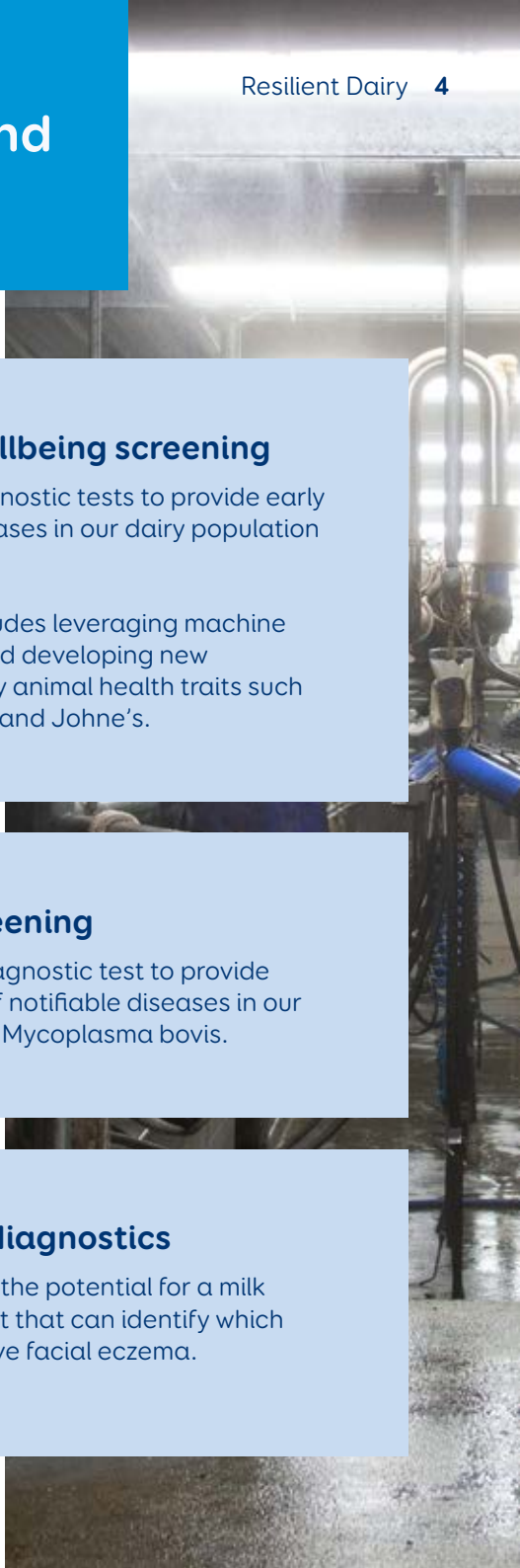
The seven-year Sustainable Food and Fibre Futures programme is led by farmer-owned herd improvement co-operative Livestock Improvement Corporation (LIC), with investment and support from the Ministry for Primary Industries (MPI) and DairyNZ.

Resilient Dairy will provide farmers with additional animal care information and breed animals better adapted to the external stressors impacting on the animals' wellbeing.

The research includes:

- developing new tests to detect micro-organisms that affect cow health.
- developing a range of new health and wellbeing related genomic breeding values.
- improving the genomic evaluation models for New Zealand's pastoral dairy herds.

Animal wellbeing and health diagnostics



Disease and wellbeing screening

Development of diagnostic tests to provide early identification of diseases in our dairy population e.g. mastitis.

Part of this work includes leveraging machine learning analytics and developing new techniques to identify animal health traits such as pregnancy status and Johne's.

Biosecurity screening

Development of a diagnostic test to provide early identification of notifiable diseases in our dairy population e.g. Mycoplasma bovis.

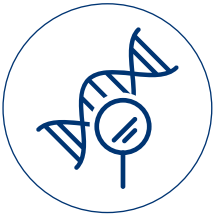
Facial eczema diagnostics

An investigation into the potential for a milk based diagnostic test that can identify which cows in your herd have facial eczema.

Genetic innovations and genomic advancements

Genomic inbreeding

Quantifying the impact of inbreeding at the genomic level to help reduce the rate of future inbreeding and improve the long-term health of our dairy population.



Sex chromosome investigation

Understand genetic variation of the X and Y chromosomes in the NZ dairy population and determine the influence of this on key breeding areas such as male fertility.

Facial eczema breeding value (BV)

Development of a facial eczema breeding value to breed facial eczema resistant animals.

Genomic modelling

Developing an enhanced animal evaluation model to increase the accuracy of predictions, increase rates of genetic gain and develop new health and wellbeing breeding values.

Genomic testing of calves will enable farmers to identify which calves have the best genetic merit, while genomic testing of dams will enable farmers to make better herd improvement decisions.

DairyNZ / Info-herds

Investment from DairyNZ will go into re-building the national evaluation system for dairy cattle to incorporate genomic information to facilitate faster rates of genetic gain.

For more information visit
lic.co.nz/resilient-dairy

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Ministry for Primary Industries
Manatū Ahu Matua

DairyNZ