

QUARTERLY PROGRESS SUMMARY: October 2017 – January 2018

Transforming the Dairy Value Chain

Presentations, Publications & Training Courses

- 5 patent applications filed
- 4 scientific publications
- 2 presentations at scientific conferences
- 8 industry workshops, resources, events or training programmes delivered

Key highlights and achievements

The investment period for the programme has now concluded, although some projects are continuing with further costs borne by the industry investors. Highlights from the final four months of the programme include:

- The availability of quality advice is critical to effective farm environmental performance. Two milestones in the nutrient management area were the certification of the 200th Nutrient Management Advisor in November 2017 and the launch of an audit programme to ensure the quality and credibility of the work of certified advisors.
- Many new technologies fail to live up to their initial hype – this has been true in the precision farming area. Key findings from the precision dairy project relating to the adoption of precision agriculture technologies and imperatives for the future development of these technologies have been published.
- In the area of farmer health and wellness a new non-profit entity has been created to be the custodian of the award-winning GoodYarn mental wellness initiative and a successful pilot for delivery of health pit stops through a partnership between Nursing Institutes and Fonterra FarmSource stores led to a decision to scale this up and deploy nationwide.
- People are critical to the success of any enterprise. Studies in Southland and Waikato have demonstrated the benefits Certified People Management Consultants can bring to leadership and management of farm teams. NZ Young Farmers have reported transition of people from the TeenAg programme to full membership – 160 in 2017 and expecting 200+ in 2018 – indicating the talent pipeline is starting to flow.
- Data analytics built on the milk fingerprinting platform have been used to establish the fat evaluation index – a metric that is now provided to all Fonterra suppliers on a daily basis to provide feedback on the fat quality of their milk, enabling them to make better-informed decisions on the use of supplementary feeds.
- Development of four new product and process equipment prototypes that have the potential to make significant improvements for Fonterra. These will be tested and further developed as part of Fonterra's internal innovation processes.
- Software tools developed by the University of Auckland to extract and align process and quality data from multiple sources has been transferred to Fonterra. This automates hundreds of hours of work assembling a data set that is representative of a particular product batch and enables application of large scale data analytics to plant optimisation and problem diagnosis.

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- Predicting the stability of new product formulations typically requires long shelf-life studies leading to slow rates of new product development. To avoid this thousands of measurements of the stickiness of individual emulsion droplets (micro-meter scale) have been performed using novel apparatus developed at Massey University.
- Enduring collaborations have been established between organisations involved in the programme, ensuring the improved ways of working together established by the programme continue.
- Final external technical reviews of the scientific achievements of the programme are underway

Investment

| Investment period | Industry contribution | MPI contribution | Total Investment |
|--------------------------|------------------------------|-------------------------|-------------------------|
| During This Quarter | \$5.9 | \$4.7 | \$10.6 |
| Programme To Date | \$81.5 | \$81.2 | \$162.7 |