January to March 2015 Quarterly report

FarmIQ

Summary

- CashManagerRURAL link-up
- Genetics economic model
- Processing workstream wrapping up
- Farm management system release 7
- Google Glass trial completed

Key highlights and achievements

CashManager RURAL link-up

FarmIQ and CRS Software, who develop Cashmanager Rural, announced this quarter (February) they have signed an agreement and are working together to allow farmers to share livestock data between their two systems. Farmers who subscribe to both programmes will be able to opt in to this service, and the data sharing means they will no longer have to enter the same information twice. It will also ensure integrity of data and consistency of information. Because both the FarmIQ System and Cashmanager Rural are cloud-based, the data sharing can happen in real time.

Genetics economic model

An economic model has been developed to establish and rank animal phenotypes (expressed genetics) by a "pasture to plate" cost–benefit analysis. This enables more accurate assessment of animal breeding technologies, including the value to different groups: farmer and processor in NZ; retailer and consumer in the UK, and the development of indexes to optimise profit via genetic selection. The latest addition is the inclusion of maternal, dual-purpose stock components.

FarmIQ Processing workstream wrapping up

The aim of this workstream has been to develop electronic tracking and measurement in processing plants, to provide more data and to support process improvement. There have been plenty of challenges getting new technologies to work well, but some good progress has been made in developing systems that collect information for suppliers and help improve meat yield and quality.

The electronic ID (EID) scanning systems for cattle, deer and sheep are all working well. The team worked closely with the equipment manufacturers to develop improved panel readers and get high read rates by dealing with electrical noise and interference. There are now radio-frequency ID (RFID) tags in the carcass hooks to track carcasses through to boning rooms and collect data on each animal. FarmIQ is working with Oritain Ltd to develop a biochemical trace-back system to prove product authenticity.

The main effort on yield measurement has been installing X-ray grading systems in all sheep plants and getting them running reliably. As a result, it is now possible to make primal weight measurements available to suppliers. Work continues to move to the next generation of X-ray equipment (DEXA), that will give meat, fat and bone proportions for each carcass. Also, a primal yield measurement system is

in place for all the Silver Fern Farms venison plants that is based on the reduction of weight along the boning rail as each carcass is boned.

Once lamb yield measurement system is advanced to the level where it can predict retail cut yields, it will be uses to ensure best use is made of every carcass to meet market orders, creating real potential for increased market revenue.

Meat quality measurement has proved challenging, with none of the technologies tried proving suitable for high-speed on-line measurement. Work on this project ceased, and a watching brief will be kept on developments in other countries.

A lot has been learned about meat quality during the project and many of systems to optimise eating quality of beef, lamb and venison have been fine-tuned. The BeefEQ programme developed out of this work, with Reserve beef products launched in the markets. Good results were achieved from work on high-pressure processing of hot-boned beef to improve tenderness and rapid freezing technologies to capture the best quality attributes without the downside of normal, slow freezing.

Farm management system release 7

A significant upgrade in mid March added new and enhanced features to the FarmIQ System.

These include:

- Management dashboard − Set up a personalised dashboard of selected reporting, quick links and task management – to help users easily see key indicators
- Farm walk − Pre-set a farm walk and then easily record pasture covers using the mobile app
- Mobile app additions − On the mobile it is now possible to: easily record rainfall every time the rain gauge is emptied; switch between farms; and separately enter a date when recording a health treatment, and use it to record condition scores and scanning data
- Further connectivity − It is now possible to connect with several further data capture devices via the mobile app: Tru-Test XR5000, Gallagher W810, HR4 and HR5. Also, import of files can now occur from Te Pari and Iconix devices
- Multi-farm reporting − Consolidated reporting of multiple farms under single ownership.

Google Glass trial completed

FarmIQ completed a proof of concept (POC) project for the Google Glass technology, an optical head-mounted display. The huge benefit that FarmIQ saw with this technology is that it leaves your hands free. The Google Glass technology could help address farmers' challenge of capturing data out in the paddock, when their hands may be dirty and already doing something else. This could be a future advance on the phone app.

FarmIQ tested a Google Glass prototype with the FarmIQ System's Tasks functionality – creating, updating and completing Tasks. In addition the ability to capture a photo via the Google Glass was added, and the photo stored against the relevant Task. This proved to be straight forward: within a few

minutes a new user could easily use voice commands to create and manage Tasks. FarmIQ will continue to monitor the development of this technology.

Investment

Investment period	Industry contribution	MPI contribution	Total investment
During this Quarter	$2.5m	$1.8m	$4.4m
Programme To Date*	$45.5m	$45.4m	$90.9m

*Figures are from programme start to end of March 2015