

July to September 2015 Quarterly report

FarmIQ

Summary

- Farmers using new online planning
- Genotype by Sequencing developed

Key highlights and achievements

Farmers using new online planning

Farmers using the FarmIQ System are providing very positive feedback on the new planning functionality that was added to the online software in May 2015.

In particular farmers are reporting that these new features help them get the most out of the System by scheduling recording activities, are useful for seasonal planning and are taking staff management to a whole new level. (Feature availability depends on the Pack subscription.)

The features are:

Data capture plans – The user decides what reporting they want out of the System to assist decision making and this function will help design a plan to capture the right information at the right times. Templates are available for some reports. When a plan is completed, the System will then set up the required tasks in the calendar.

Stock rotation tool – A plan for stock movements around the farm can be set up for a given period of time, either using the tool or from the farm map. This could then be passed on to a staff member to implement.

Gross margin calculators – A tool for assessing the likely margin between costs and revenue for any finishing or store animal production scenario.

Product inventory – This is a tool for managing stored products including chemicals, feed, health treatments, seed and fertiliser. The inventory can hold the location of these products, batch numbers and expiry dates.

Harvest recording – This function enhances the crop management feature by enabling the harvested crop volume to be recorded and added to the paddock history, and also any sales or addition to inventory if desired.

Genotype by Sequencing developed

One promising spin-off from the FarmIQ Genetics project is an efficient method for Genotyping by Sequencing (GBS).

This is a good technology for smaller industries, such as deer or aquaculture, which won't have the volume of testing to justify the large upfront capital cost of a SNP chip.

FarmIQ contributed to an early exploration of this technology in sheep, cattle and deer in 2012, before favouring the SNP chip technology as being more ready to deliver. Some GBS technology had been developed overseas for cattle but not for sheep or deer.

The early work by FarmIQ created the basis for further, separate development of GBS, through a project funded by the Ministry for Innovation, Business and Employment.

AgResearch has produced a method that enables high throughput of test samples, which is therefore more cost-effective. This could mean that by spring 2017 it may be possible to combine genotyping for parentage and genomic selection for little more than the cost of existing parentage genotyping.

The data produced is not as gold-standard as the SNP chip method, but statistical analysis has been developed to deal with that.

The next step is to develop this technology for other species of economic importance to New Zealand, such as clover, ryegrass and salmon.

There is potential for combining the GBS and SNP chip technology, because the GBS technology involves going through parts of the genome each time so further relevant variants could be discovered and these could be loaded onto a chip.

Investment

Investment period	Industry contribution	MPI contribution	Total investment
During this Quarter	\$1,791,700	\$1,854,691.73	\$3,646,391
Programme To Date	\$49,564,207	\$49,136,725	\$98,700,932