



Primary Growth Partnership: Dairy Post - Farm Gate Programme Executive Summary (October to December 2013)

The second quarter of the year has largely completed the initiation of new projects identified in the 2014 business plan for the post farm gate sub-programme, and all three themes are delivering valuable science and technology outputs.

2013-14 Quarter 2 progress

The remaining large food structure design projects identified in the 2014 business plan have now been initiated. These will provide science and technology to enable extension of Fonterra's patented mozzarella technology to the manufacture of other cheese types directly into consumer friendly formats, and to develop an understanding of the physical structure and performance of creams as the basis for more advanced products.

Progress in the food structure projects includes the successful benchscale demonstration of technology to manage moisture in dairy systems that could potentially be applied to a range of semi-solid foods, and the creation of cheese slice prototypes using a variant on the Fonterra mozzarella process that show the structure and texture required in a natural cheese slice. Three of the PhD students working in this area have passed their PhD programme confirmation examinations following successful completion of their first year of work.

Active management is important in a programme of this size to ensure all of the individual projects contribute to the overall programme goals. This quarter one project has been stopped, which – although likely to successfully deliver its own outputs – was no longer necessary for achievement of the broader outcomes targeted by the programme.

Progress in the kiwifruit structure related activities continues with a recent trial confirming earlier insights linking fruit cooling and storage practises to final quality, and new work demonstrating links between pre-harvest conditions and post-harvest storage behaviour.

Many of the manufacturing and supply chain projects are about to begin the next stage of investment. As part of preparation for this a comprehensive review of potential technologies for detection of nitrogen-based contaminants and adulterants in milk has been completed, which has shaped future research priorities for supply chain quality assurance.

There have also been encouraging results in the nutrition area, including benefits not originally part of the research plan. Results from an animal feeding study targeting cognitive development benefits have suggested the components tested may also have benefits for muscle development. Based on the results obtained from this and other projects, a number of new projects have been submitted for approval by the programme steering group.

The programme intends to publish research findings, as appropriate, to facilitate international acceptance on new science and technologies. This quarter two papers have been submitted for publication and there have been four presentations at scientific conferences.

The robustness and effectiveness of Fonterra's financial management systems relating to PGP was endorsed in the findings of the MPI audit conducted in November. The final report identified minor improvement actions for Fonterra which have been accepted and are under action.

Total expenditure in the programme during the second quarter of F14 was \$2,121,416 of which industry contributed \$1,154,232 and MPI \$967,184.