

AN EYE FOR THE FUTURE

Most of us plan with a five to 10-year outlook and then get on with our daily business. Dairy farmers will be pleased to hear there's a group of researchers, advisers and farmers with an eye on the longer term future. As part of the FutureDairy team, their mission is to find ways to address the challenges dairy farmers are likely to face in the coming 20 years.

Led by Professor Bill Fulkerson, at the University of Sydney's Camden campus, the project has the backing of the industry with sponsorship from Dairy Australia, NSW DPI and the University of Sydney. It also has support from Vic DPI, Melbourne University, DIDCO and the Dairy Research Foundation.

Professor Fulkerson said FutureDairy takes an exciting new approach to research by looking at new technologies from a scientific, systems and people (social) perspective at the same time.

"We are interested in more than just whether a new technology or practice improves productivity. We also want to know what modifications we need to make for it to be feasible in a dairy farming system, and whether there are social considerations such as labour and lifestyle that will affect its adoption on commercial farms," said Prof Fulkerson.

The FutureDairy team believes that this approach will deliver more robust and relevant management guidelines.

Professor Fulkerson said that the main challenges facing dairy farmers over the next decades are expected to be related to the availability and cost of land, water and labour resources.

FutureDairy's research priorities are structured around

Forages, Feeding and Innovations – the main areas where there are opportunities to address these challenges. Research trials are conducted at NSW DPI's Elizabeth Macarthur Agricultural Institute, Camden.



Forages

"Our Forages work is all about producing more home grown feed from the same area of land," said Professor Fulkerson.

FutureDairy's target is to produce more than 40t DM/ha/year by using a 'complementary forage rotation' based on growing three crops a year:

a bulk crop (eg maize);

a legume for nitrogen fixation (eg clover); and

a forage to provide a pest/disease break and to improve soil aeration (eg a brassica).

"This is quite a challenging target, but we've already achieved it in one season. Now we need to determine if it is environmentally sustainable and economically viable," he said.

Feeding

FutureDairy's Feeding work is investigating if it is more profitable to use extra bought-in feed to feed more cows (ie increase stock numbers) or to increase production per cow, or a combination of both.

"This year we are establishing 'high' and 'average' production herds at EMAI which we'll use in our farmlet studies next year," he said.

Innovations

FutureDairy is investigating a number of Innovations that could improve farm efficiency, labour management and lifestyle.

A major study is planned on automated milking systems (AMS), the obvious labour saving innovation.

“We want to adapt automatic systems to suit Australia’s pasture-based, large herd situation,” said Professor Fulkerson.

FutureDairy is also investigating innovations that allow precision farming without increasing labour needs. Some examples include remote sensing of animal function and pasture status, and the use of video cameras to monitor paddock activities (eg calving) remotely via a computer.

Partner Farms

FutureDairy’s approach of ‘science, systems and people’ hinges on working closely with a group of dairy farmers who test research findings under commercial conditions.

“Partner Farmers allow us to explore the practical implications of our research and to better understand the complex issues that determine if new practices are adopted or not,” he said.

FutureDairy has five Partner Farms in NSW and Victoria:

Robert and Graham Cochrane, Kangaroo Valley NSW (Forages);

The Gee Partnership (Colin and Rita, Paul and Di, and Shane), Hunter Valley NSW (Feeding);

Bill and Alison Jessep, Maffra VIC (Forages);

Bernie and Mary Macgill, Cobram VIC (Feeding); and

Max & Evelyn Warren, Maffra VIC (Automatic Milking).

Professor Fulkerson said he was delighted to have the Partner Farms on board. “We are asking these farmers to work with us to jointly develop systems and innovations that will be relevant for the future,” he said.