

# MODELLING DAIRY FARMING SYSTEMS

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*Providing robust analysis of the impact of potential changes on the profitability of dairy farm systems*

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## IMPACT OF PROJECT

### PROJECT OBJECTIVES

- ◆ **Analyse** the impacts of climate and seasonal variability and labour saving technologies on the profitability of dairy farming systems in Victoria.
- ◆ **Create** strong extension and research links.
- ◆ **Develop** capability in systems analyses.
- ◆ **Examine** the needs of other dairy regions or industries.

### FURTHER INFORMATION:

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- ◆ In the first 6 months of 2008, the project has engaged over 560 dairy farmers, service providers and other industry stakeholders. This is twice the number achieved at the same time last year. Internal communication activities have also focused on engagement rather than simply exposing DPI staff to the project. For example: results from the drought analysis have been used at the 9 Irrigated Dairy Industry Seasonal Update sessions
- ◆ Gavan Dwyer, Director of DPI's Natural Resources Policy group provided an overview of possible water policy changes at the May Steering Committee meeting in Kyabram. He was very supportive of the approach used in the project and explored opportunities for collaboration with his group. Areas for possible collaboration are:
  - ➔ Analysing the impact of investing in on-farm infrastructure to improve irrigation efficiency.
  - ➔ Analysing the impact of increases in the capital value of irrigation water on the operating profit and return to capital for various dairy farm types..
- ◆ The project team was invited to present an update to the Murray Dairy Board in April. Highlights from the current phase of the project and where the project is heading were discussed. The Board were pleased with the projects progress, they appreciated the update and have asked the project team to present regular updates.
- ◆ The project team have enhanced their links with the DPI Economics, Natural Resources Policy and Climate Change in Agriculture Policy groups. At a recent meeting of the Regional Farm Management Economists and these policy groups, potential areas for future collaboration were discussed. These include projects on the Foodbowl Modernisation, and analysis of the impacts of climate change on different agricultural industries.

## IMPACT OF PROJECT (cont'd)

- ◆ The project team presented highlights from the current phase to the Statewide Dairy Extension Centre (DEC) team workshop in May. The audience included the DEC Team, Dairy Australia representatives and the Dairy Extension Centre Chairman. Suggestions for the project team from the audience included:
  - The project team continuing to provide timely updates both oral and written to extension staff.
  - Synergies with the 30:30 and Cow Time projects.


## KEY ACTIVITIES

- ◆ The 7<sup>th</sup> Northern Irrigation Region Stakeholder Steering Committee meeting was held at Kyabram on the 29<sup>th</sup> May. Three new farmers have joined the Committee; Daniel Kydd from Finley, Iwen Van Den Berg from Katamatite, and Don Stewart from Pyramid Hill. Gavan Dwyer, of DPI's Natural Resources Policy group, has also been invited to join the committee, will also attend meetings whenever possible.
- ◆ Some snapshots of progress are:
  - The project team and Lucy Finger (DPI Tatura) visited the case study farm being used to analyse the profitability of subsurface drip irrigation. A designer is developing and costing a system for the farm.
  - A partial budget spreadsheet has been developed to analyse the benefit/cost implications of options to reduce wastage when feeding out conserved fodder or partial mixed rations. If service providers see value in this decision support tool it will be refined and fully described.
  - A comparison between feeding grain in the dairy and providing some of the diet as a mixed ration of grain and fodder, under conditions of changing water availability is currently being undertaken.

- ◆ The Gippsland Steering Committee held their 2nd meeting on the 8<sup>th</sup> of May at the case study farm. Development options for the farm were agreed and analysis of these is progressing. The project team updated the committee on progress with the communication and evaluation plans for Gippsland.
- ◆ A draft report on the Gippsland case study farm has been developed with a description of the current farm system and basic sensitivity testing to key risks. An analysis of two development options (increasing cow numbers without buying more land & buying land that could be grazed by the milking herd), will be completed by the end of October 2008.
- ◆ A draft report on the analysis of automatic cup removers for various shed types and herd sizes has been completed.

## STAFF PROFILE

### Katherine Tarrant Farm Systems Analyst

- ◆ Katherine joined the project team at the end of February, and is based at DPI Ellinbank. She is working closely with Dan Armstrong in developing the Southern Victorian module. This is her first position with the department.
 
- ◆ While working with the project 3 days/week, Katherine is also completing her undergraduate studies in Agricultural Science and Commerce at the University of Melbourne.
- ◆ Prior to joining the DPI, Katherine spent time with the CFA's Community Education Team, presenting a range of community safety programs.
- ◆ Katherine's commitment to agriculture and research has been recognised recently, with an offer to present at the International Undergraduate Research Conference in Singapore July 2008.