



# Evaluating fertigation under Queensland conditions

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**The Dairying Better 'n Better program's on-farm demonstration to trial the use of a fertigation system under a low pressure irrigation system is progressing well. The demonstration is located at McInnes Brothers farm at Harrisville, in south east Queensland. The trial is utilising an annual ryegrass paddock under a centre pivot irrigator. A field day is being planned to showcase the outcomes from the trial and provide the wider dairy farming community with the facts and figures of installing and operating a fertigation system.**

Nitrogen is the only nutrient being applied through the fertigation system. It is being applied to one quarter of the pivot. In comparison, another quarter is being fertilised using a broadcast fertiliser. Soil samples (down to 60 cm) were taken from the trial area prior to winter planting to ensure no other nutrients were limiting.

An EcoDose™ Fertigation System injector pump is being used. Pat Daley, Irrigation Agronomist from Daley's Water Service Pty Ltd, is providing the advice and support for the purchase, installation and use of the fertigation system.

Soil moisture monitoring equipment (EnviroPro SDI 12 unit with a tipping

bucket) is measuring irrigation and rainfall. Pasture dry matter yield is being measured before and after grazing. Early results after three grazings indicate that the fertigation quarter is slightly ahead on pasture growth.

Benefits of the fertigation system so far have included labour and fuel savings, which then lead on to cost savings on repairs and maintenance of machinery. The liquid fertiliser is immediately available to the plants and can be distributed more evenly (provided the irrigation system has an even distribution uniformity) compared with granular fertilisers. Applying smaller amounts more often enables a more optimum

growth rate. In addition, liquid fertilisers aren't as volatile, reducing potential losses to the atmosphere.

A series of fact sheets are being developed to provide more information using fertigation with annual ryegrass pastures. This information will be available at the field day.

The project is funded through the Australian Government's National Landcare Programme, and is delivered by the Dairying Better 'n Better program, a joint initiative of Queensland Dairyfarmers' Organisation, Subtropical Dairy and the Dairy and Fodder Water for Profit program. ■■

