Summer 2011 - Issue 5

# IrriGate

Sustainable Irrigation Services - North East, Mid and Upper Goulburn Broken Dryland

Welcome to IrriGate Issue 5.

This is an interesting irrigation season we are having. Sometimes I wonder if it's easier to manage irrigation in a dry season, when we know it is going to stay dry.

Editor - Wendy Paglia

North East Dryland Catchment

Goulburn Broken Dryland Catchment (excluding the Shepparton Irrigation Region).

## Inside this issue



## Rainfall keeps lucerne happy till Christmas

Some irrigators across the region are monitoring and comparing water applied via irrigation and rainfall to theoretical crop water use. Rainfall on a Rutherglen lucerne crop has been enough to supply sufficient water to meet its needs up till Christmas. There were a few times where irrigation was required but opportune rainfall fell soon after.

The graph in Figure 1 shows the profile drying out from mid September and going past the refill point (red line) just before an 18 mm rainfall event. Up until Christmas, apart from a few dry periods the rainfall did pretty well to keep up with plant demands, obviously providing a little too much water at times. Irrigation between Christmas and the new year should have been applied.

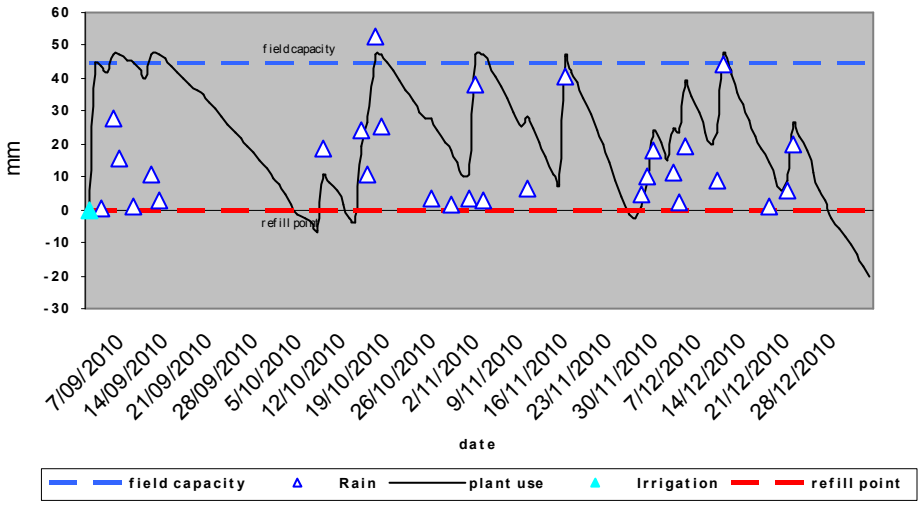


**Figure 1: Soil water budget of a lucerne crop in Rutherglen**

## GPS tool to help correct sprinkler placement

Correct paddock placement of bike-shift and K-line sprinklers (Figure 2) is crucial for efficient irrigation. Incorrect placement can lead to low distribution uniformities (a measure of how even water is applied) which means either pasture production is not maximised or more water has to be applied and pumping energy used to ensure dry spots are not occurring.

The distribution uniformity can vary from 70 to 85 per cent depending on sprinkler placement. A monitor mounted on an ATV is now available using GPS to show correct placement.

**Figure 2: K-line sprinkler**

## GPS tool to help correct sprinkler placement - continued

The device has been developed by a New Zealand company called Tracmap (www.tracmap.co.nz).

A common issue among bike shift and K-line irrigators is a reluctance to let anyone else do the shifting to avoid pasture production losses as in Figure 3.

This system should increase confidence to allow other people to move the sprinklers. Normally costing around $6,000 a grant is available to reduce this cost to $3,000.

If anyone is interested in more information please contact Dennis Watson. If there is enough interest, some demonstration days will be organised.

**Figure 3: Aerial photograph showing dry patches due to incorrect sprinkler placement.**

## Funding for irrigation upgrades

The Australian Government On-Farm Irrigation Efficiency Program Round 2 is likely to be launched in March 2011 with an open call for Expressions of Intent to improve farm irrigation system performance and efficiency. The Goulburn Broken Catchment Management Authority and consortium members will be making a submission to the Australian Government On-Farm Irrigation Efficiency Program and hopefully we will see conversion to spray and drip irrigation funded as part of a suite of eligible water saving technologies. Conditions will apply and are likely to be:

- Of the estimated water savings, at least 50 per cent (and a minimum of 10ML) has to be sold to the Australian Government
- Farmers must have completed an approved farm plan that reflects their proposed works
- No retrospective submission will be considered

Once the program is announced there will be a short time period to get a submission together. It is advised to do most of the planning and thinking prior to the announcement to ensure there is enough time to get the submission completed. Please contact Dennis Watson if interested.

**Figure 4: It is hopeful the Farm water round two will include conversion to spray and drip irrigation.**


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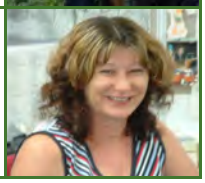


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Published by the Department of Primary Industries, Sustainable Irrigated Landscapes, January 2011,




Authorised by the Victorian Government, 1 Spring Street, Melbourne 3000

ISSN :1837-4077