



# IRRIGATION BENCHMARKING IN THE SOUTH EAST



## What is Benchmarking?

Benchmarking is simply a way of measuring and comparing your performance, relative to others who are conducting the same activities. The comparison uses a standardised approach. The irrigators involved in the benchmarking process select the indicators, collect the information, calculate indicators of performance, and compare their performance. This comparison gives irrigators a measure of how well they are performing, and highlights any potential for improvement.

Through Irrigation Benchmarking, irrigators can directly influence the profitability of their irrigation enterprise, maximising returns for the water applied.

Benchmarking assesses the adequacy of water application, identifying potential water not being utilised by the plants and hence a cost to the enterprise (identifying potential cost savings via reduced energy expenditure and water savings). Benchmarking is also able to identify whether increased yields are possible (leading directly to higher returns), or whether irrigations simply need to be targeted more accurately.

## Irrigation Benchmarking in the South East of South Australia

Irrigation Benchmarking was initially developed in the Riverland, with funding by the Murray Darling Basin Commission (MDBC). The Benchmarking program, was then extended to the South East of South Australia by Rural Solutions SA via supporting funds provided by Department of Water Land and Biodiversity Conservation (DWLBC) and South East Catchment Water Management Board (SECWMB)



Figure 1: Centre pivot irrigating potatoes in the South East.

Pilot groups were conducted with citrus, winegrape, potato, dairy prime beef and prime lamb producers .

The indicators used for comparisons of irrigation performance broadly encompass water use efficiency indices such as: Return per Megalitre of water applied (\$/ML), Irrigation Water Use Index (Applied) the yield of product per Megalitre of water applied, Irrigation Field Application Efficiency (% of applied water used by the crop), and Yield per Megalitre of Drainage (kg/ML). The graphs demonstrate how the information is presented.

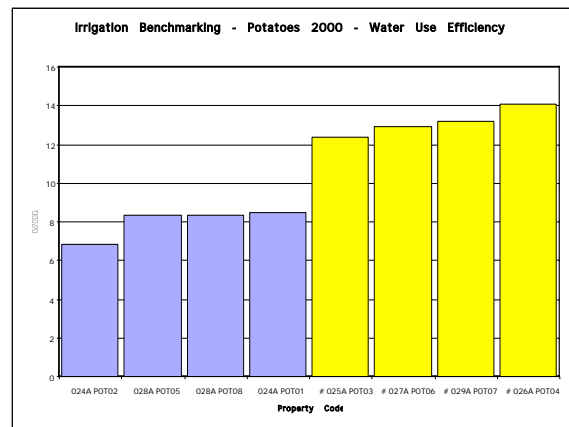


Figure 2: Irrigation Water Use Index (Applied)

The indicators selected for use in benchmarking are used to establish and highlight the



relationships between irrigation water applied, crop yield, product quality, and volumes of drainage produced.

The indicators focus on a range of measures, giving a broad base for comparisons between sites.

### How Irrigation Benchmarking Operates

Irrigation Benchmarking is designed to enable a group of like producers to compare performance between sites.

Each group member is asked to identify one or more sites on their property to be included in the benchmarking program. A site may be all or an easily defined area of irrigation.

For each site, a standard set of data is collected. This includes information about the plantings or stocking rates, and irrigation system at the site, the irrigation schedule for the season, and information about yield and return from the site.

This information is used to calculate the performance indicators, which are graphed as shown in the figures.

Sites are ranked according to their performance for each indicator, to assist participants to identify the performance of their own sites.

### Irrigation Benchmarking in the South East

Following the success of the Riverland Irrigation Benchmarking project, it was decided to conduct similar work in the South East region of South Australia.

Initial stages of the South East project, were supported by the Natural Heritage Trust (NHT). With the end of the original funded project, DWLBC and SECWMB funded the development of irrigation benchmarking modules for prime beef production and prime lamb production.

### Confidentiality of Information

Sites are not identified by location or owner, but by code number. Only the property owner is provided with the code number that identifies their sites.

The participating producers make any decisions about how and when the information gathered on

their property is used, ensuring confidentiality is maintained.

Within a benchmarking group, sites that perform well may be asked to identify themselves, in order to share information about management practices with the rest of the group. This is optional, and no individual is obliged to identify themselves.

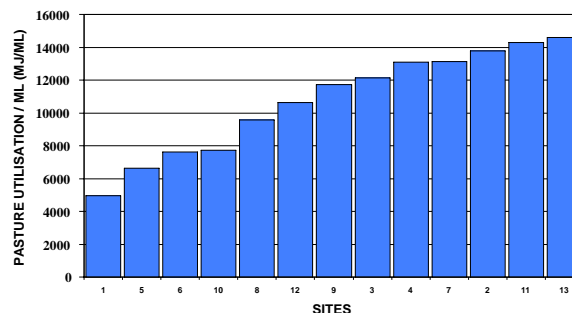


Figure 3: Pasture Utilisation per Megalitre (MJ/ML) graph for Dairy in the South East

The benchmarking process is designed to be very easy to manage, using the a range of specialised tools, developed and tested in the South East.

### Further Information

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