

# Water for Profit

## BENCHMARKING WATER USE



**Benchmarking is an effective way to identify practices and opportunities to improve irrigation management. To benchmark irrigation practices, growers simply need to measure how much irrigation has gone on to the crop and know the total or marketable crop yield.**

### Introduction

Comparisons between water use and yields can be made either between fields on the same farm or between farms at a regional scale. You can't manage it, if you aren't measuring it. There are several things that need to be recorded to benchmark water use:

- cropped areas
- yields
- dollar returns
- water usage (which is often not recorded).

With increasing pressure on our water resources, knowing your water use is becoming more and more critical. The values that you should be able to calculate include mega litres used per hectare (ML/ha), tonnes (or boxes) of crop achieved per hectare (t/ha) and dollar return per hectare (\$/ha).

### Measuring water use

Some simple ways to measure water use include:

- **Regulated flow meter:** growers that are pumping from rivers and creeks often have Sunwater water meters. Regular readings from this meter can be used to calculate water usage across the entire farm.
- **Mainline flow meter:** growers without a Sunwater water meter can install a mainline flow meter downstream from the pump to provide information on total water usage.
- **Single line flow meters:** for a fraction of the cost of mainline flow meters, a single line flow meter will provide the water usage for a single section.
- **Sprinkler/drip discharge and pumping hours:** water usage can be calculated by multiplying out the number of sprinklers in a section by their hourly discharge by pumping hours for the season. Accurate pumping hours can be maintained on a calendar or note pad in the pump shed.

Using more than one of these methods of measurement makes a comparison between values possible. Differences in results between the methods of benchmarking can indicate areas of concern. The more techniques implemented, the greater the confidence can be had in the information found.

### Effect of rainfall

Rainfall is important as seasonal variations will affect irrigation requirements. However, not all rainfall is effective as some will run-off and a proportion may contribute to drainage below the crop root zone. The effectiveness of rainfall can vary from 20-95 per cent depending on irrigation management, crop management and the rainfall characteristics (i.e. intensity, duration and frequency). So while irrigation requirements will vary with seasonal rainfall, an extra 100 mm of rain does not necessarily result in 1 ML/ha less of irrigation. In water budgeting, it is often assumed that the effective contribution from rainfall is approximately 70-80 per cent of the rainfall during the season.



For more details contact Growcom on 07 3620 3844.

*Disclaimer: This information is provided as a reference tool only. Seek professional advice for irrigation specifics.*

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