

# Water for Profit

## BENCHMARK – IRRIGATING CAPSICUMS



**Benchmarking can be an effective way to identify opportunities for improved irrigation management. While benchmarking can be conducted on any area of your operation, this sheet provides a basis for your irrigated crop performance.**

### Crop specifics

Capsicums are normally grown on plastic covered beds using drip irrigation. The volume of irrigation applied varies considerably due to seasonal conditions.

Over-watering in the cooler winter months can slow growth, leading to disease problems such as root rot. Capsicums are sensitive to water stress during flowering and fruit fill up to 12 mm. It is important to monitor water use closely at this time.

Capsicums have shallow root systems but will extract water to a depth of approximately 50 cm depending on irrigation system and management. Approximately 80 percent of water used by capsicums is extracted from the upper 30 cm of soil. Dry down of the 30 - 60 cm zone is an indicator of stress in capsicums and leads to small fruit, poor fruit set and blossom end rot.

### Crop benchmarks

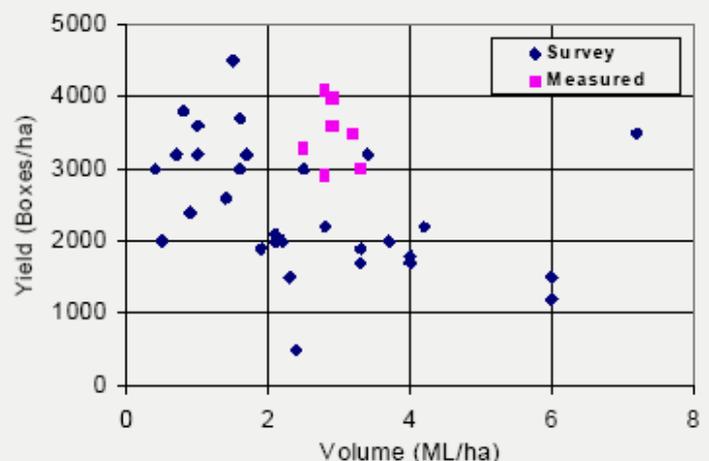
The total crop water requirement for capsicum is 2.5 - 3 ML/ha per season. The irrigation requirement is normally 2 - 3 ML/ha, allowing for inefficiencies and drainage losses. Best practice marketable yield is approximately 3000 -4500 boxes/ha (8 kg box) depending on plant spacings, variety, bed spacings and season (autumn or spring).

### Best practice guidelines

- A soil moisture monitoring program should be used to schedule both the timing of irrigations and the volume of water to be applied. Growers using tensiometers and capacitance probes have increased yields from implementing accurate irrigation scheduling.

- If used, tensiometers should be installed at a depth of 200 and 450 mm. Irrigations should be applied when the shallow tensiometer reads 30 - 40 kPa. During flowering and early fruit fill apply irrigation at 25 - 35 kPa.
- Keeping the soil moist throughout the season should increase the yield and or capsicum size consistency. However, this should be balanced against other considerations such as nutrient uptake, fruit quality and disease management.
- Ensure irrigation system has the capacity to meet seasonal and peak water requirements, regular maintenance and performance evaluations should be conducted.
- Efficient crop water use and high yield potentials can only be achieved if the agronomic factors such as nutrition, disease and pest management are also optimised.

### Yields of capsicum compared to total water applied (irrigation and effective rainfall)



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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