



focus on **WATER** research

Feb 2020

Benchmarking water productivity in the Australian cotton industry

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What are you researching?

The benchmarking team have been researching water productivity of irrigated cotton since the project began in 2006. Water productivity is a measure of the yield (bales) per mega litre of water used to grow the crop.

This water input includes metered water from river, creek or bore supply, in field rainfall, harvested rainfall and soil moisture. For the 2017-18 season, the team have analysed more than 200 fields which covers up to 13,000ha from 48 growers between southern NSW and central Queensland.

What have you found?

The original benchmarking team found a 40 per cent increase in water productivity over a 10 year period from 1996 to 2006. The current team have extended the analysis through use of industry data to fill in gaps during seasons cotton water productivity wasn't measured and to increase the time period to 30 years from 2017-18 to 1988.

The team has also benchmarked the 2017-18 season by surveying up to 48 growers from Emerald in Central Queensland to Coleambally in southern NSW. The final figures for water productivity for the 2017-18 season are currently under review but early analysis suggests productivity is around the 1.2 bales/ML mark. The extended analysis is also currently under review but early indications has shown that cotton growers have been increasing yields with less irrigation and rain since 1988 i.e. growers are producing more bales from less water.

Why is it important?

Water is a vital and scarce resource. It is therefore important to be continually tracking water productivity to ensure growers are using water in a sustainable manner and are maximising returns on the water that is available.

It is also important to identify the growers and areas that achieve higher productivity so their knowledge and techniques can be shared to growers/areas that aren't performing as well.

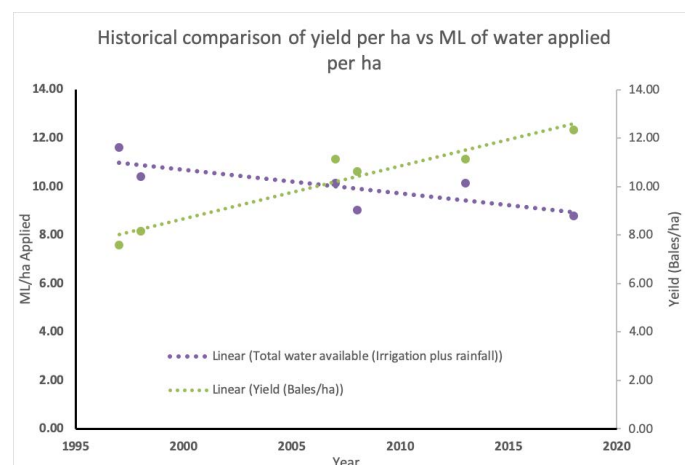
How can I apply the research/what should I do about it?

The benchmarking team are always eager for more participants to increase the size of the data sets. Participating in the project involves completing a four page survey which the team can help you through face to face or over the phone.

Where do I go for more information?

You can contact Ben Crawley or David Perovic via email at ben.crawley@dpi.nsw.gov.au and david.perovic@dpi.nsw.gov.au.

Figure 1: Historical comparison of yield per ha vs ML of water applied (irrigation and rainfall) per ha.



This project was funded by the Cotton Research and Development Corporation.