

MEDIA RELEASE

9 September 2021

Cotton growers cut water use per bale by half

The latest research from government and non-government water use studies has confirmed that over 25 years cotton growers have almost halved the water needed to grow one bale of cotton.

Research from the NSW Department of Primary Industries (DPI), supported by the Cotton Research and Development Corporation (CRDC), revealed water usage had fallen from 1.43 megalitres per bale (ML/bale) in 1995 to 0.74 ML/bale in 2020, driven primarily through improvements in irrigation infrastructure and management efficiencies, underpinned by research and development.

The current benchmarking research project has been led by NSW DPI since 2006 with in-depth water productivity benchmarking occurring in 2007, 2009, 2013 and 2018. The research combined the in-depth benchmarking with all other available water use data going back to 1992, revealing the impressive findings.

Cotton growers now have even greater results in sight, looking to reach a benchmark target of 0.71 megalitres per bale by 2024.

Cotton Australia CEO Adam Kay said the goal is part of the cotton industry's current sustainability framework 'PLANET. PEOPLE. Paddock.'

"We recognise sustainability is integral to the industry's future and this framework identifies the key environmental, economic and social sustainability areas for further improvement, investment and commitment.

"Cotton is often misrepresented when it comes to water use. These findings, validated by an independent third-party research organisation, provide the most up-to-date assessment of the performance of cotton over the last 25 years."

CRDC, in partnership with the Commonwealth Government and cotton growers, has funded research and development to improve and monitor water use efficiency for decades. CRDC Executive Director Dr Ian Taylor says the latest findings are further evidence of the improvements the industry has made.

"CRDC's role is to invest in world-leading research and development, delivering tangible outcomes for cotton growers and the wider community. These latest findings demonstrate

Australian cotton growers are committed to being leaders in environmental sustainability, and continuously improving their water use efficiency.”

When calculating water use and improvements over time, researchers took into account all the water used on the farm to produce the crop. This included all water coming onto the farm from rivers and bores, all rain falling directly on the crop as well as harvested rainfall runoff, plus all soil moisture used by the crop. It also considered all water lost through evaporation and seepage during storage in dams and delivery to the field.

“Considering all the water used to grow a bale is the gold standard for determining water productivity in the cotton industry,” explained NSW DPI Agriculture Research Officer and project lead Dr David Perović.

“You can’t just look at the water applied to the field. You also need to include the rainfall to put in context, especially when looking at changes over time. Including evaporation is also important as it shows the real cost (in terms of water) to grow the crop.

“It has been very pleasing to see just how well the industry is performing. Even after the significant improvements in water use efficiency that were achieved between the mid-1990s and the mid-2000s, growers keep getting better and better production out of finite water resources,” Dr Perović said.

Levels of water withdrawals for irrigation in Australia are regulated by governments to deliver sustainable water use from healthy river systems. There are clear limits on the volume of water that can be used, and this changes each year based on seasonal conditions. Within this regulatory framework that limits water use, Australian farmers work to increase the efficiency of water allocated to them, and part of that is choosing which crop to grow each year with available water.

<< end >>

Cotton Australia is the peak body for Australia’s cotton growers.
www.cottonaustralia.com.au

Cotton Australia media contact:
Darrin Davies
0428 770 237
darrind@cotton.org.au

CRDC invests in research, development and extension on behalf of the Australian Government and cotton growers.
www.crdc.com.au

CRDC media contact:
Ruth Redfern
0408 476 341
ruth.redfern@crdc.com.au