AUSTRALIAN COTTON SUSTAINABILITY FRAMEWORK





OUR GOAL is to deliver a continuous increase in the efficiency of water used for cotton irrigation, within sustainable river system and plant physiology limits. This aligns to UN Sustainable Development Goal 6.4: substantially increase water use efficiency and ensure sustainable withdrawals of freshwater.



Governments set sustainable water use limits

Water used for irrigation is regulated by governments, with clear limits on the volume of water that can be used. Basic needs of the environment and humans must be met before any water is allocated for irrigation. Because the volume of water in rivers varies each year, the amount of water available for irrigation also varies each year.



Cotton is grown when water is available to farmers

Each year, farmers choose what crop is the best to grow with the water available to them; water is allocated to farmers, not to crops. If water in a river system is scarce, water available for irrigation is also scarce, and farmers factor that into their yearly decisions about which crop to plant and how much to grow. As cotton is a crop that is planted each year, it is suited to a variable climate: when there's limited water, growers can adjust the area of cotton they plant. About 70 per cent of Australian cotton by area is irrigated'.





Cotton is using less water per bale

Within the regulatory framework that aims to deliver sustainable water use from healthy river systems, the cotton industry's goal is to increase the productivity of available water. From 1993 to 2021, the volume of water needed to grow a bale of cotton reduced by 48 per cent, or 2.5 per cent each year.

The volume of water applied per hectare has been largely constant for 30 years; improvements in plant breeding, water storage and application mean water that is available is growing cotton more efficiently.

OUR TARGET is to increase irrigated cotton water use efficiency by 12.5 per cent every five years. With the gains in water use efficiency already made, this target will be difficult to meet: it is getting very close to the theoretical maximum performance for megalitres per bale according to industry research.

Averaging this best case scenario across the industry will be a major task. Setting an ambitious target is important for the industry to manage the future impacts of climate change but we want customers and other stakeholders to understand the challenges of reaching this target.

OUR PATHWAY TO ACHIEVE THE TARGET IS:

- 1. Continued adoption of practices to reduce losses in storage and transmission
- 2. Continued adoption of practices to improve efficiency in application.

⁽¹⁾ CA Yield forecasts. 5-yr average of irrigated cotton by hectares to 2021 is 64%, 10-yr average to 2020 is 72%.