

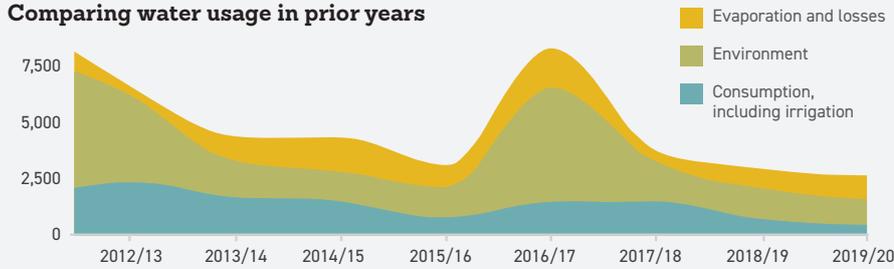


PLANET WATER

| less drops per crop



Comparing water usage in prior years

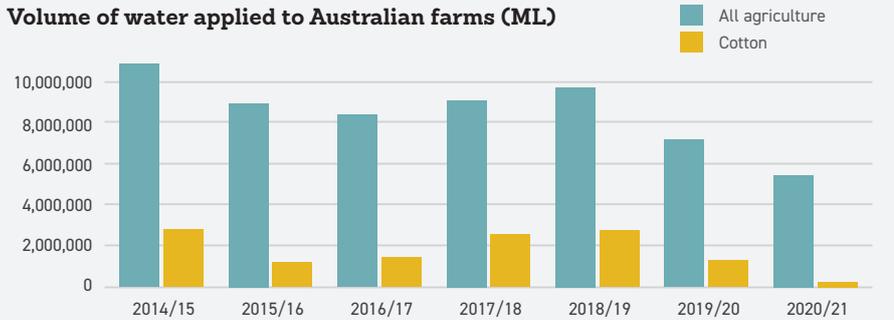


Source: Adapted from WaterNSW WaterInsights

Governments set sustainable water use limits

In Australia, water is highly regulated to ensure sustainable withdrawals of freshwater. Governments set sustainable water use limits, where 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.

Volume of water applied to Australian farms (ML)

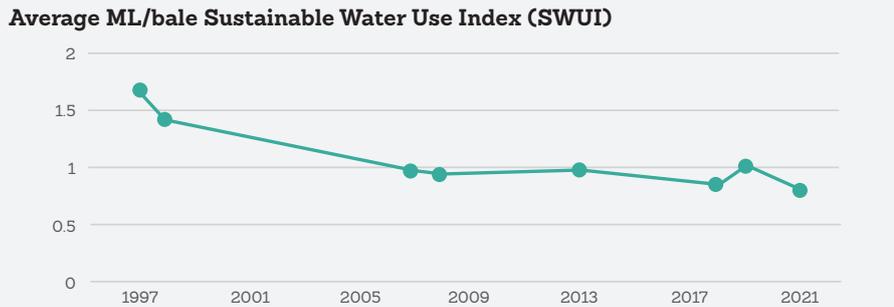


Source: ABS

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.

Average ML/bale Sustainable Water Use Index (SWUI)



Source: Adapted from NSW DPI Research. This index is determined using all available water to the crop except soil water. It is the inverse of what is known as the partial GPWUI (Gross Production Water Use Index).

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. The volume of water needed to grow a bale of cotton reduced by 52 per cent from 1997 (chosen by NSW DPI as the baseline because it is the first year of representative and consistent data) compared to 2021.

This substantial increase in water use efficiency is the result of:

- increased yields
- reduced rainfall and irrigation per hectare
- reduced losses from storage and channels, and improved irrigation management

OUR GOAL

To increase the efficiency of water used for cotton irrigation, within sustainable river and ground water system and plant physiology limits.

SDG ALIGNMENT



SDG 6.4: Substantially increase water use efficiency and ensure sustainable withdrawals of freshwater.

PATHWAY

Continued adoption of practices to:

1. reduce losses in storage and transmission
2. improve efficiency in application.

KEY FACTS

52%

less water needed to grow a bale of cotton from 1997 - 2021



The rate of water productivity gains is slowing as growers become more efficient:

the annual rate of change from 1997 - 2007 was

9.0%

but has slowed since 2007 to less than



0.3%