

Water Productivity Benchmarking

What is Involved?

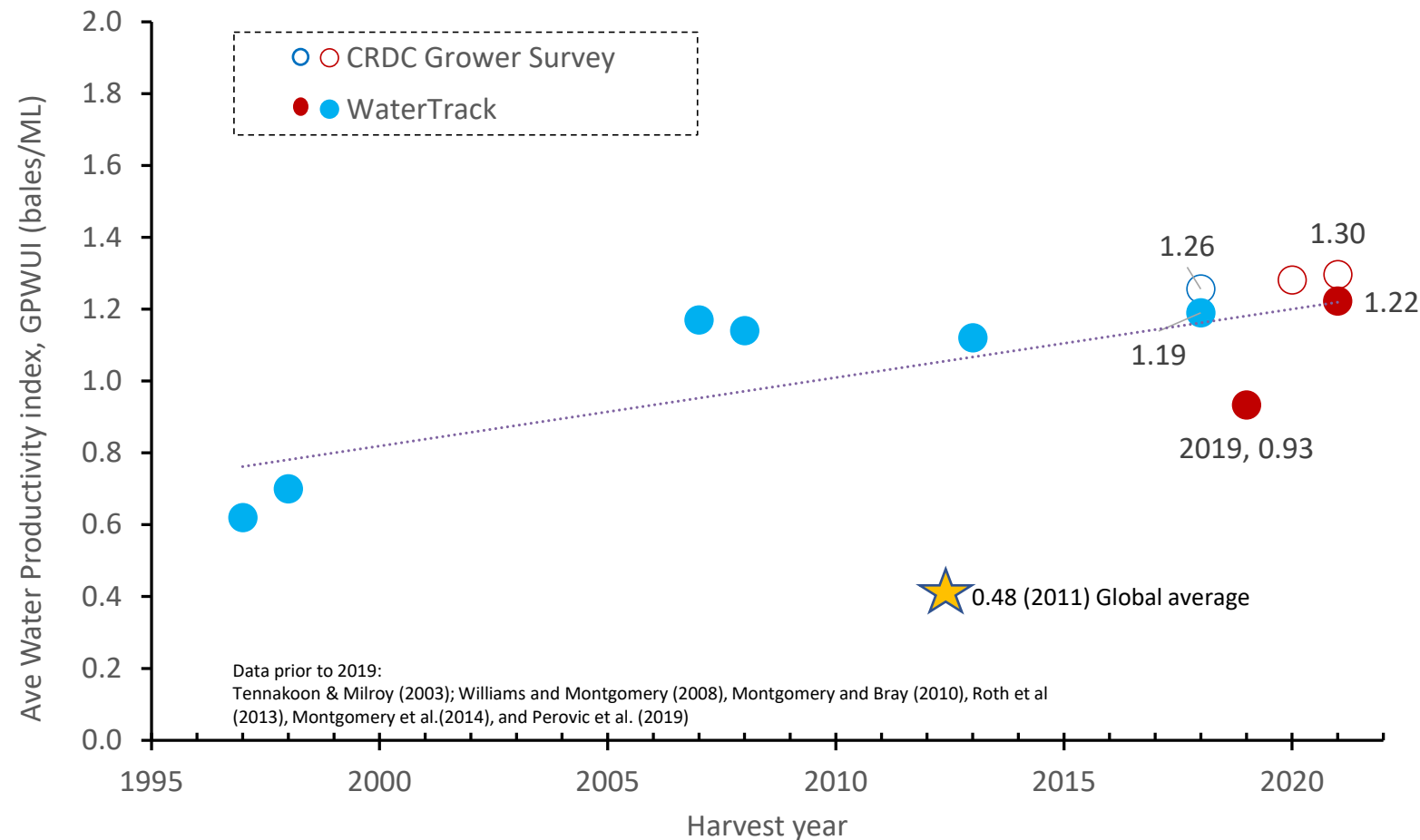
Dryland and Irrigated information is collected on a whole farm basis including;

- Yield
- Rainfall
- Water in storages
- Water sourced during the season
- Water used on crops cotton and other crops
- General farm information

Water Productivity Benchmarking

- What is done with this data?
 - Calculate Water Use Efficiency – i.e. Gross Production Water Use Index
 - Uses Irrigation water, rainfall, used soil water and yield
 - Enables comparisons between seasons and systems
 - Growers can use the information to compare their field performance if they get an understanding of what water they apply to each field.
 - Informs the Industry Sustainability targets
 - **Goal:** To deliver a continuous increase in the efficiency of water used for cotton irrigation, within sustainable river and ground water system and plant physiology limits
 - **Target:** Increase irrigated cotton water use efficiency by 12.5% (over 5 years)

Water Productivity Trend



The current industry target is to achieve the average GPWUI of **1.32 bales/ML** by 2023

What is in it for the Grower?



Better understanding of his/her own operation farm water productivity



Improved ability to evaluate water management on farm



Contribute to tracking of industry's water productivity target



Help secure Australia's market access and social license



My BMP: GPWUI currently level 3. Likely to become level 2.

| Farm Records | Value | Unit |
|---|-------|-------------|
| 1. What was your total irrigated cotton area for 2021-2022 | | ha |
| 2. What was your total cotton yield (total bales) produced from that irrigated area in Question 1? | | Total Bales |
| 3. What was your average irrigated cotton yield | | Bales/ha |
| 4. How much water was left in your storages at the end of the last cotton season (at picking)? | | ML |
| 5. How much water was in the storages at the start of this cotton season ? | | ML |
| 6. How much water (regulated and or unregulated) was taken from: | | |
| + <i>Water courses (rivers and creeks)</i> | | ML |
| + <i>Irrigation schemes</i> | | ML |
| + <i>Ground water bores</i> | | ML |
| + <i>Irrigation Rainfall runoff (from irrigated fields)</i> | | ML |
| + <i>Overland flow (Floodplain harvesting)</i> | | ML |
| Total Water | | ML |
| 7. How much water was in the storages at the end of the current season ? | | ML |
| 8. If you pre-irrigated or watered up, what was the approximate volume? | | ML |
| 9. How much of the water included from the above questions was used on other irrigated crops? | | ML |
| 10. Was any water lost due to channel blowouts or operational losses? | | ML |
| 11. What was the area planted for: Fully Irrigated, Partially Irrigated or Rainfed | | Ha |
| 12. What was the yields for: Fully Irrigated, Partially Irrigated or Rainfed | | Bales/ha |

| Field Name or Number | Area (ha) | Yield (bales/ha) | Key dates | | | Irrigation F – Full P - Partial | Irrigation system F —Furrow BF — Bank-less LM — Lateral M D —Drip OH —Pivot | Row Configuration S - Solid SR - Skip row DS - Double skip SS - Single skip Other (specify) | What Type of soil best describes the soil on your farm? | Starting Soil Available Water (prior to water up or pre-irrigation) (0-100% PAWC) and Attach probe data | End Soil Available Water (at picking) and attach probe data |
|----------------------|-----------|------------------|-----------|-------------------|---------|---|--|--|---|--|--|
| | | | Planting | Defoliation dates | Picking | | | | | | |
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