



NSW DEPARTMENT OF  
PRIMARY INDUSTRIES

Partners in the **profitable** and **sustainable development**  
of our State's **agriculture, fisheries, forests** and **minerals**



Dave Williams - 14<sup>th</sup> Australian Cotton Conference, 2008

**Bales per Megalitre - An Industry Wide  
Evaluation of the 2006/2007 season**

# Bales per megalitre – how much do we use ?

## ■ Background

- Importance of benchmarking
- Lack of comparable data
- Need to calculate bales per megalitre for meaningful comparison
- Who is getting it right and how are they doing it

## Bales per megalitre – how much do we use ?

- A survey of Cotton water use for the 2006/2007 season.
  - Industry wide sample in early 2008
  - Collected by one person ensure consistency of data interpretation and entry
  - Coordinated and undertaken with the assistance of the Cotton CRC Extension Team decided to collect data.
  - Utilised Aquatech's online calculator WATERTRACK RAPID™.

# Data collection

- This survey was for the 2006/2007 cotton season.
  - There were 42 farms visited from Hillston to Emerald, of which 37 had useable data.
  - These 37 farms grew 12,000 Ha of cotton. This was 9% of the 2006/2007 area
  - The 37 farms yielded 152,000 bales of cotton, which was 12% of the yield that season
  - There was an estimated 110,000 Megalitres of irrigation water used to grow this crop
  - A further farm was excluded due to a data entry mistake, leaving 36.

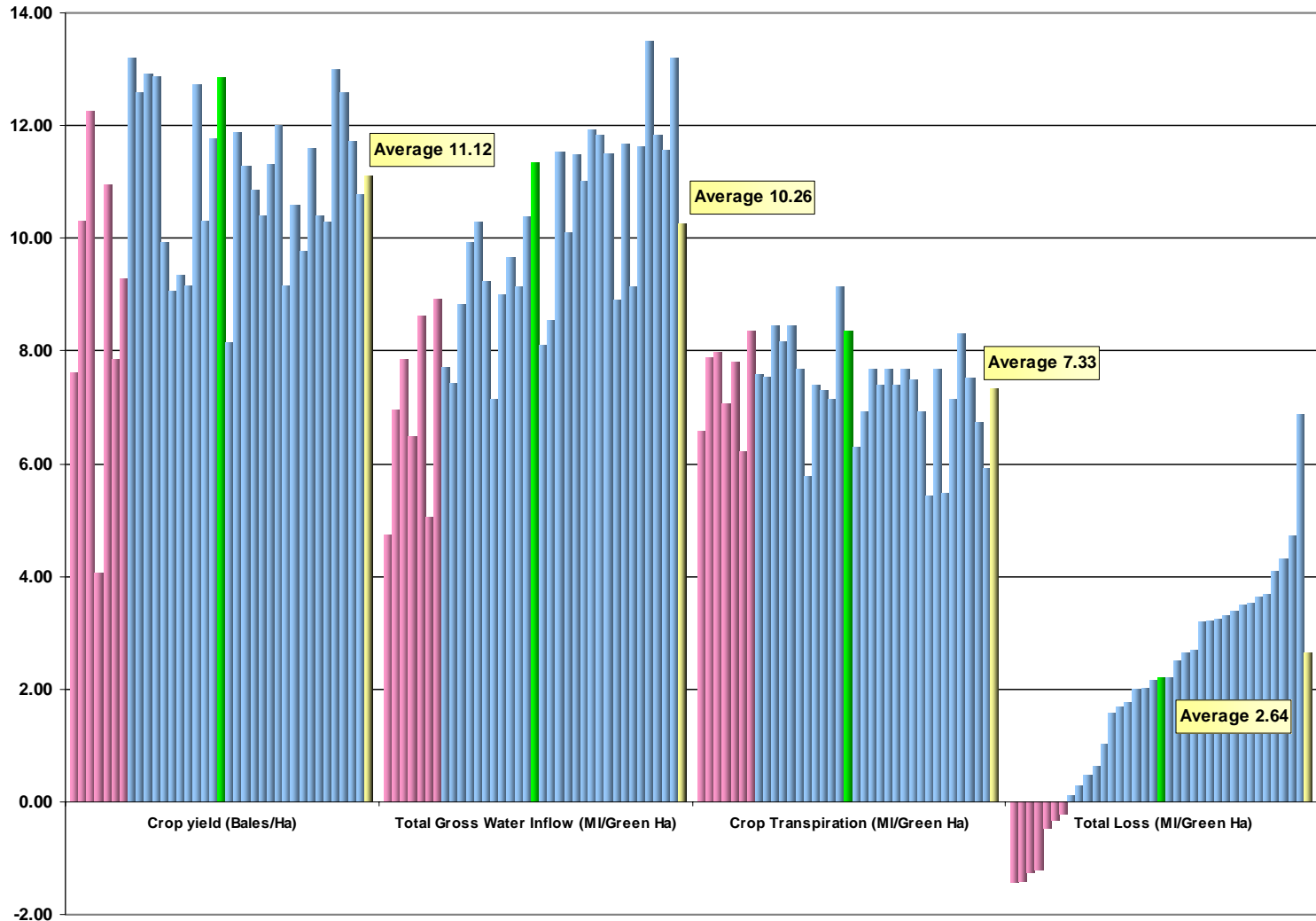
# 2006/2007 Seasonal factors

## ■ Seasonal factors for the 2006/2007 season

- Very dry is an understatement
- Initial irrigation events used a lot of water
- Little to nil in crop rainfall
- Surface allocations were low or non existent
- Cotton mono crop in most cases
  
- These factors contributed to a simplified situation on farm with water management as storages were not used and water was not diverted to other crops.
- A “normal” season would make the process some what harder due to increased complexity.

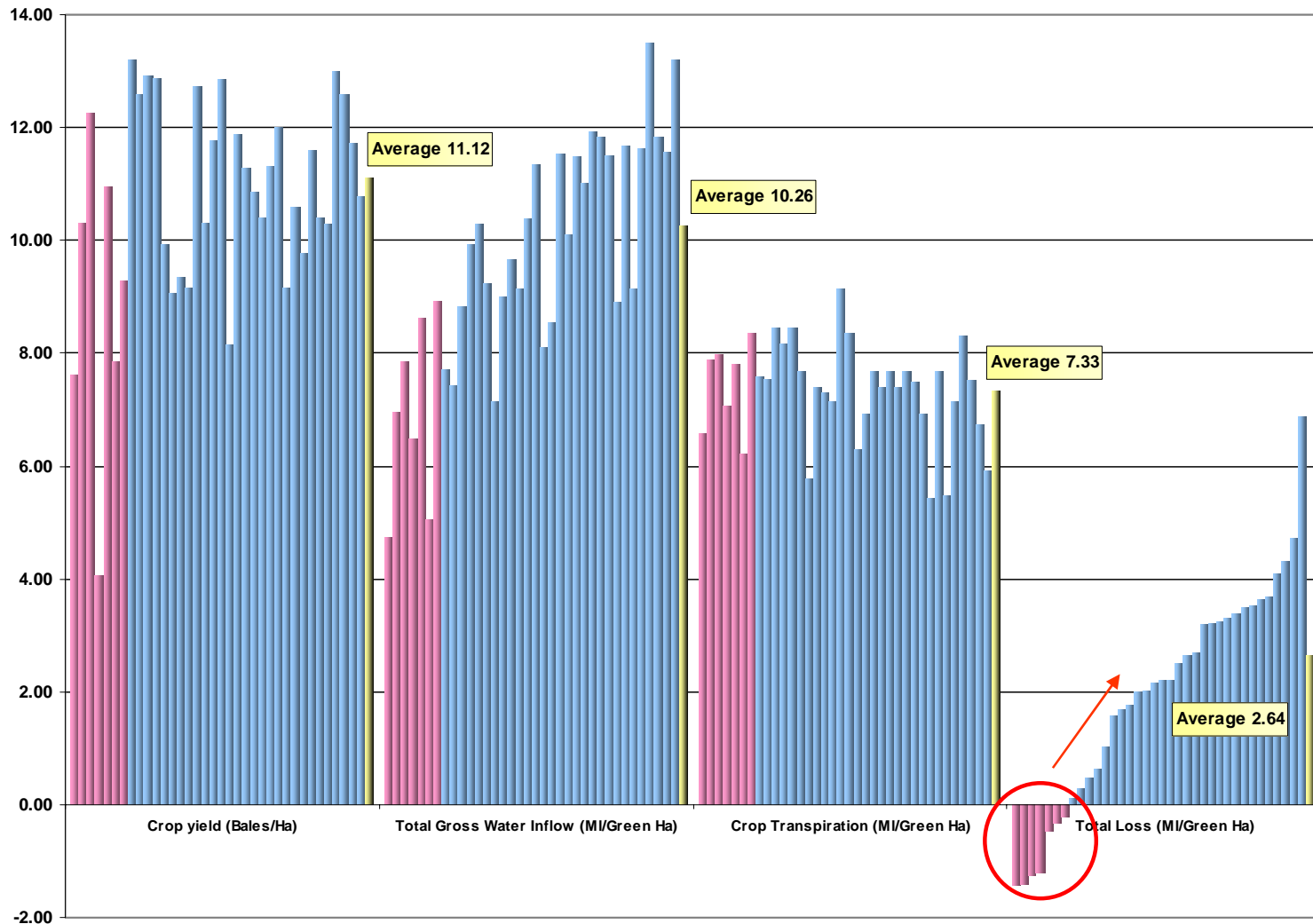


# RAPID™ water summary reports



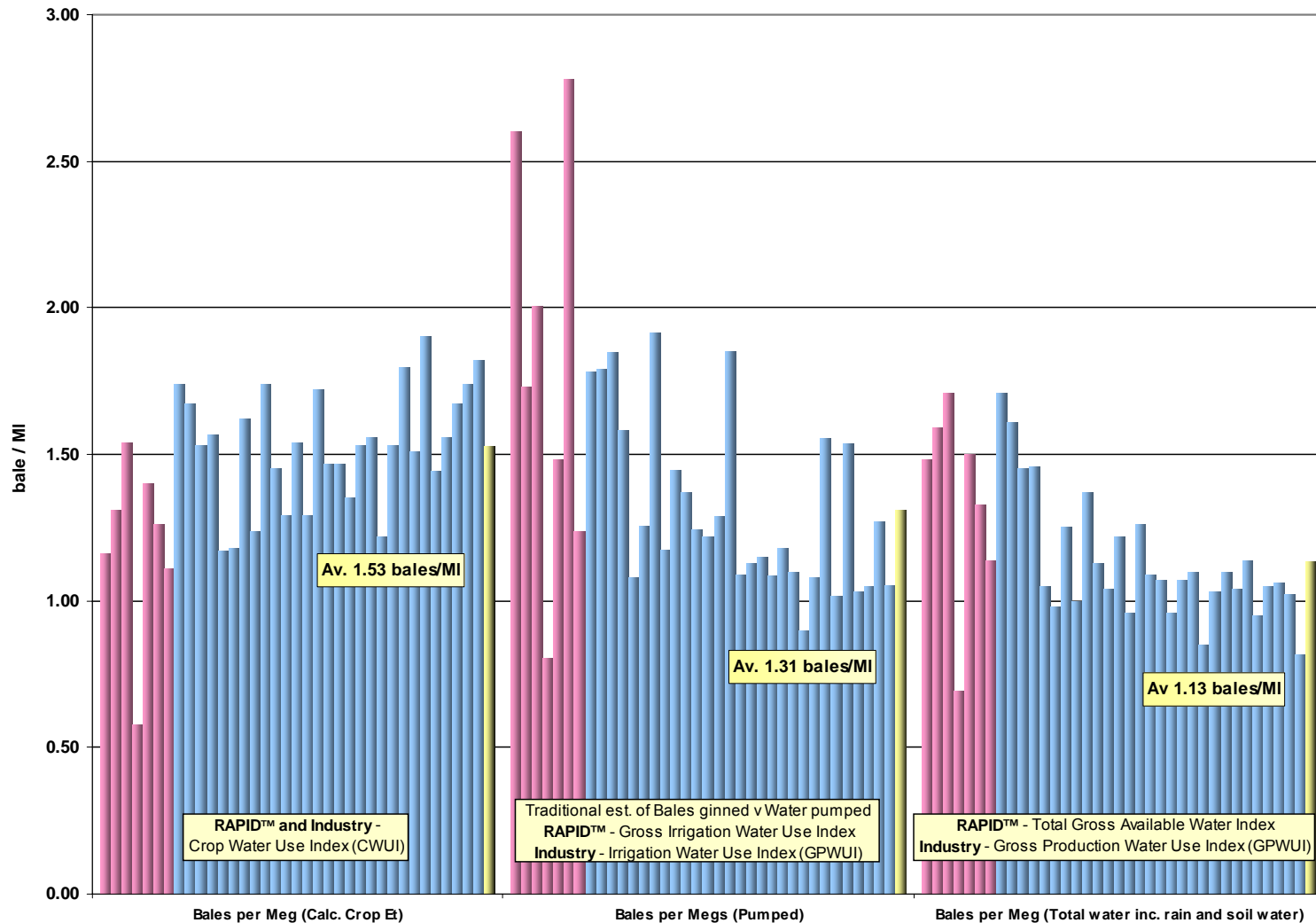


# RAPID™ water summary reports



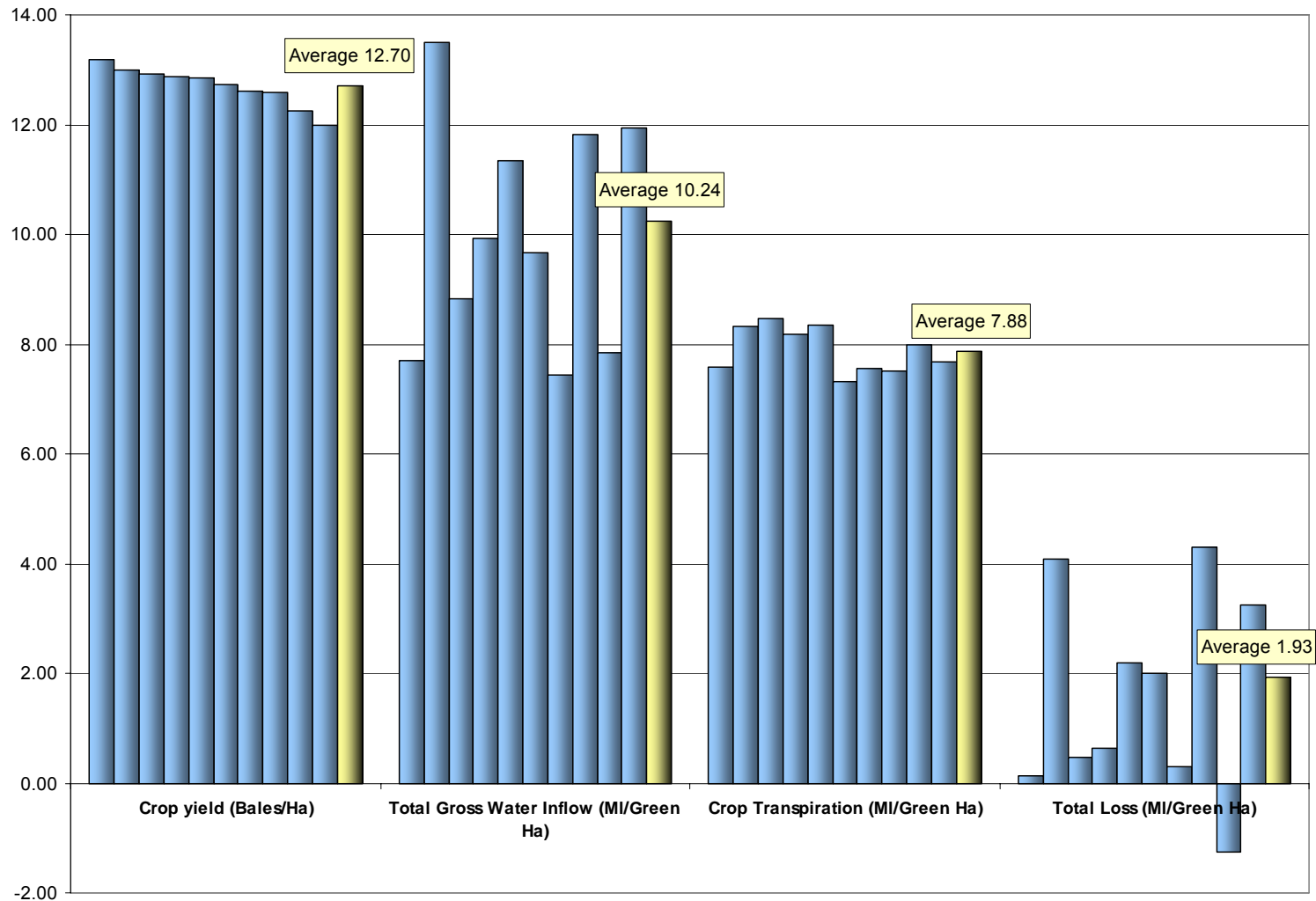


# RAPID™ performance indicators



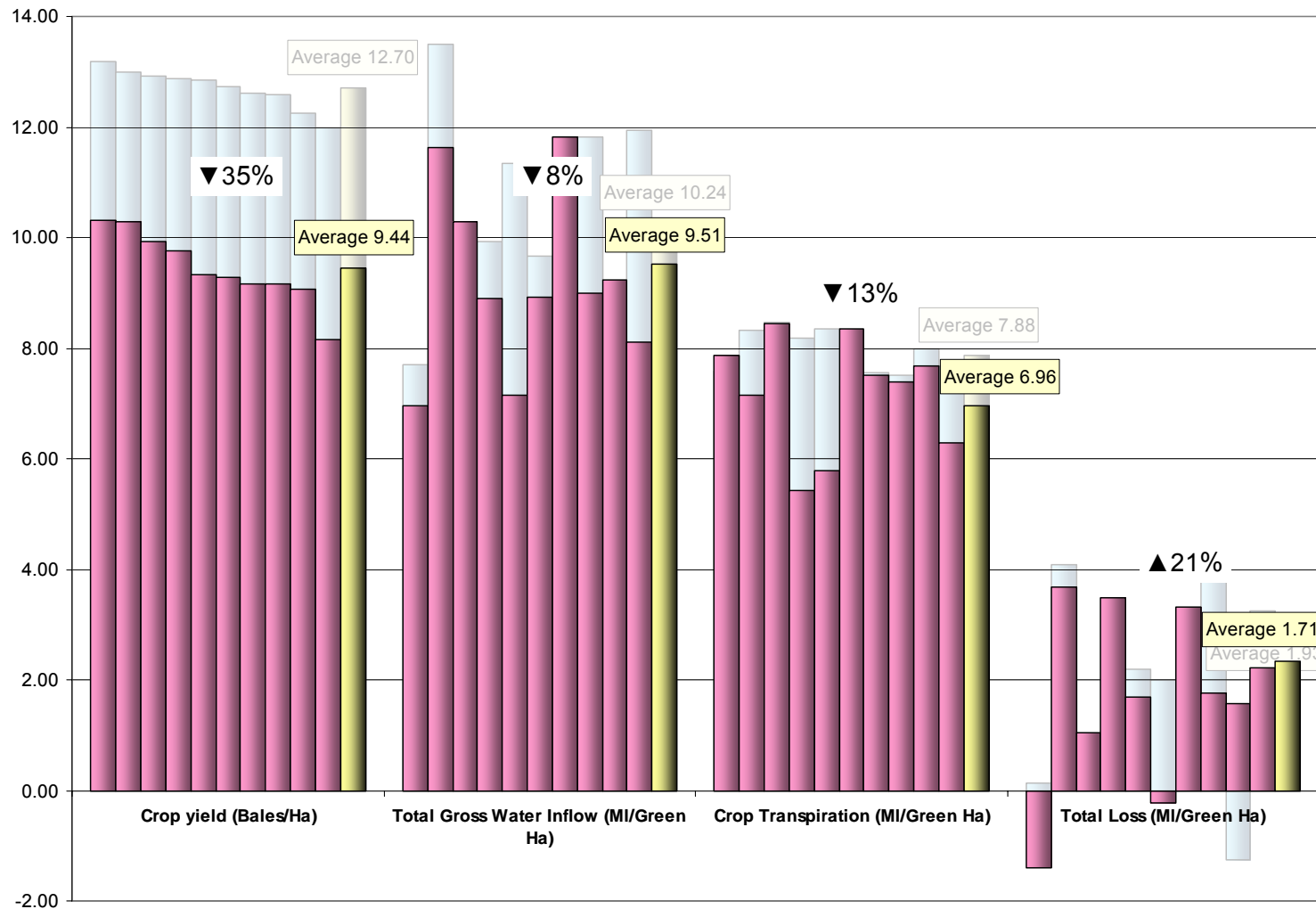


# Yield comparisons – Highest 10 whole farm yields



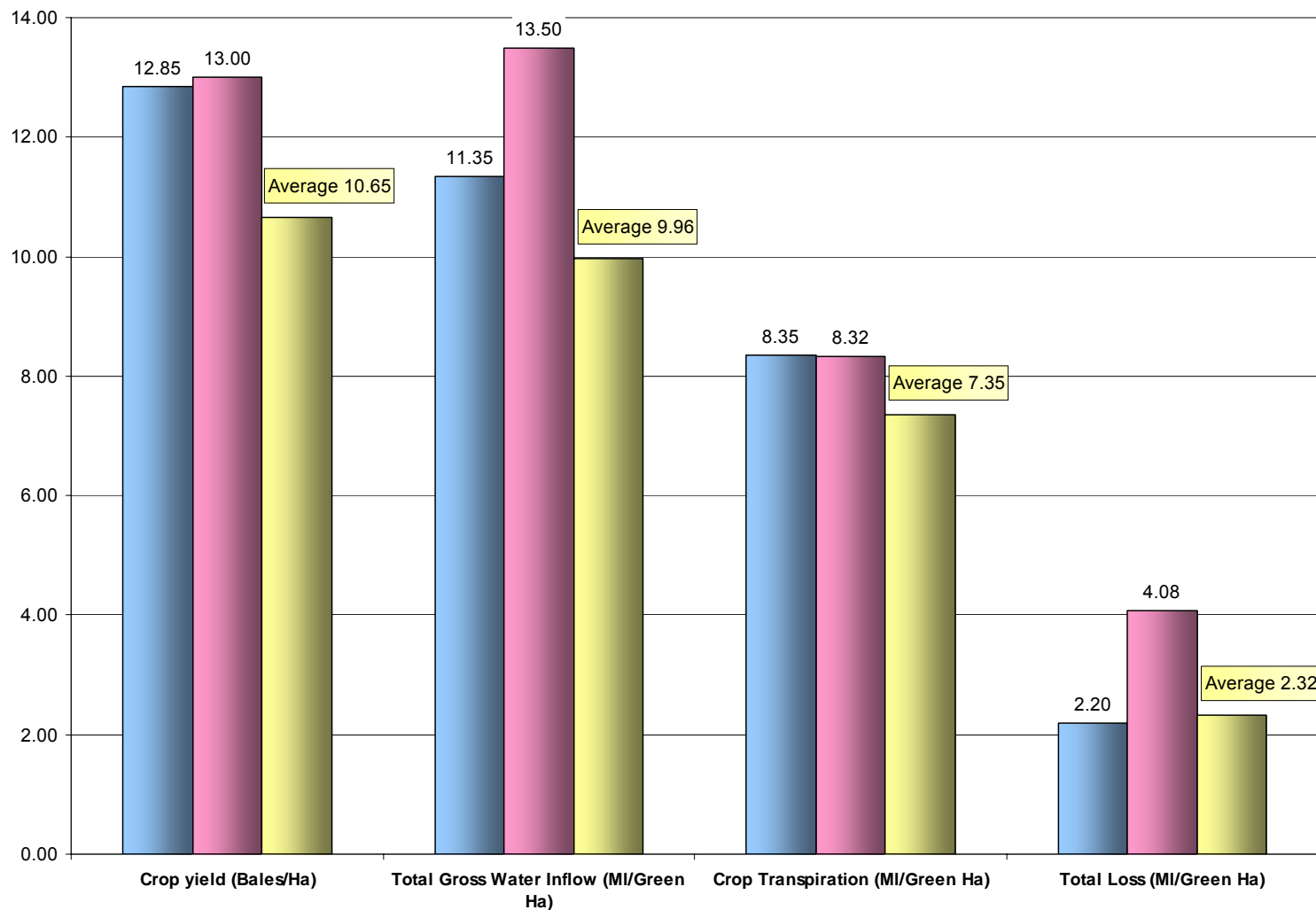


# Yield comparisons – Lowest 10 whole farm yields



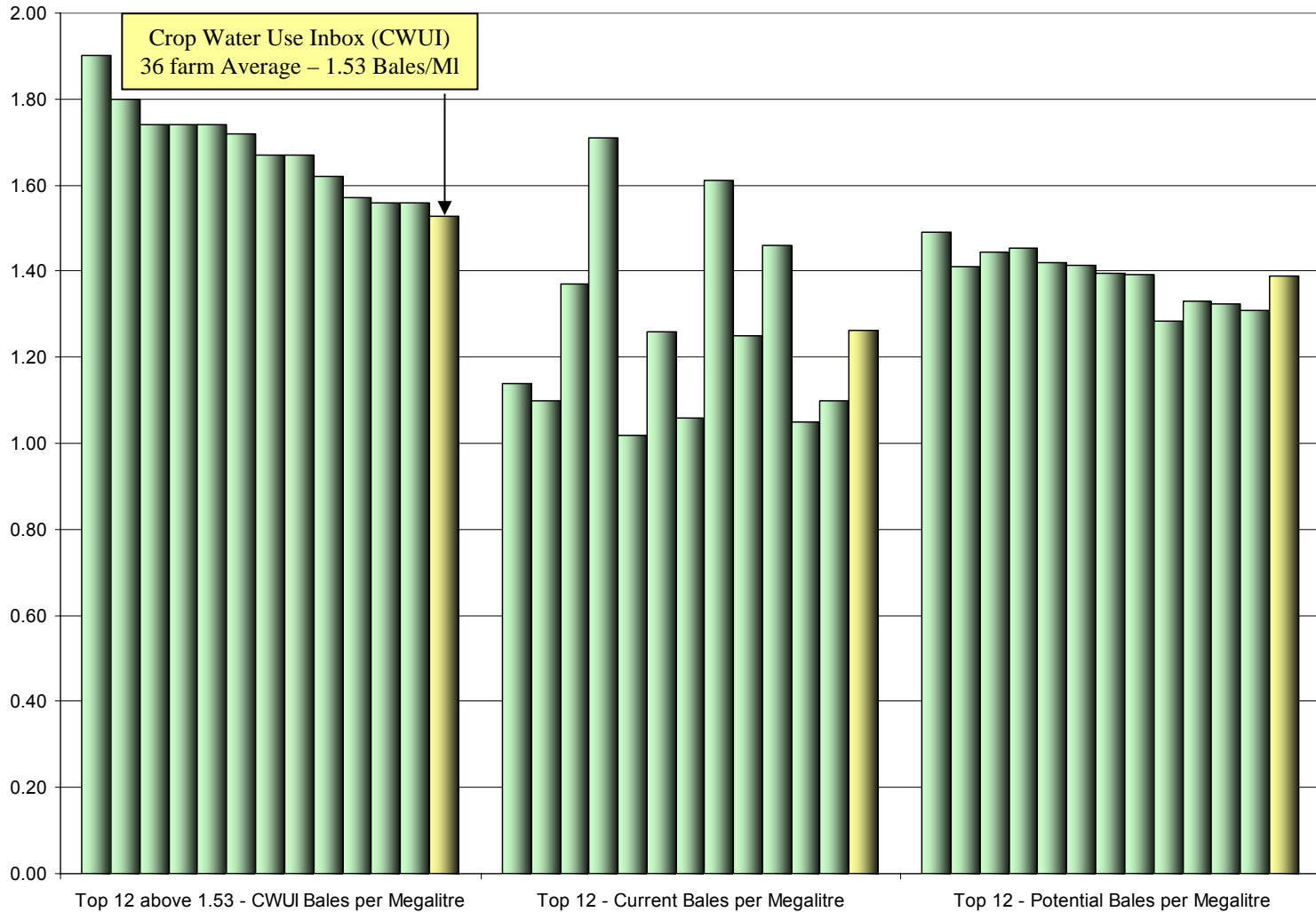


# Efficiency results are often site specific





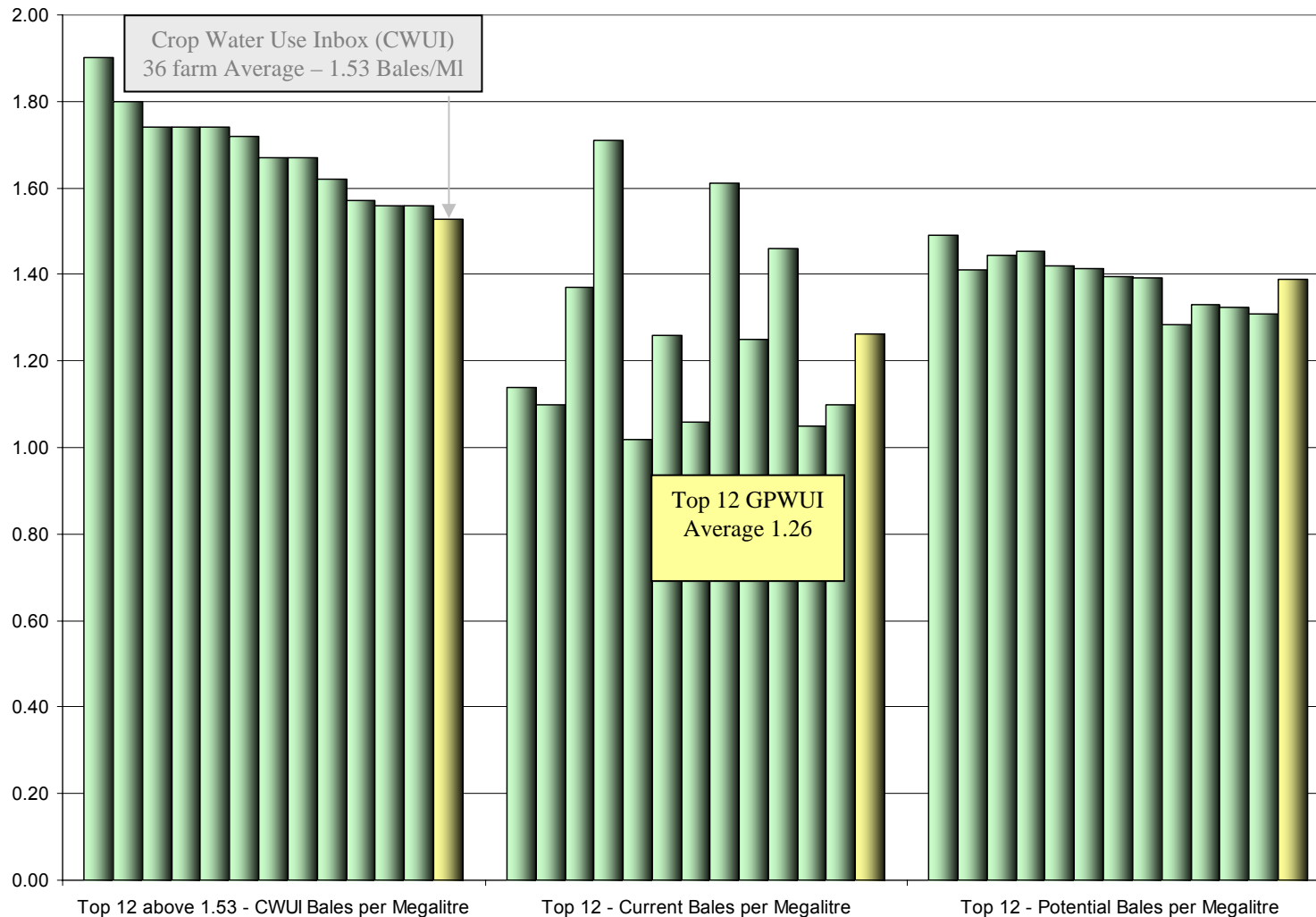
# Current and future industry potential for bales per megalitre





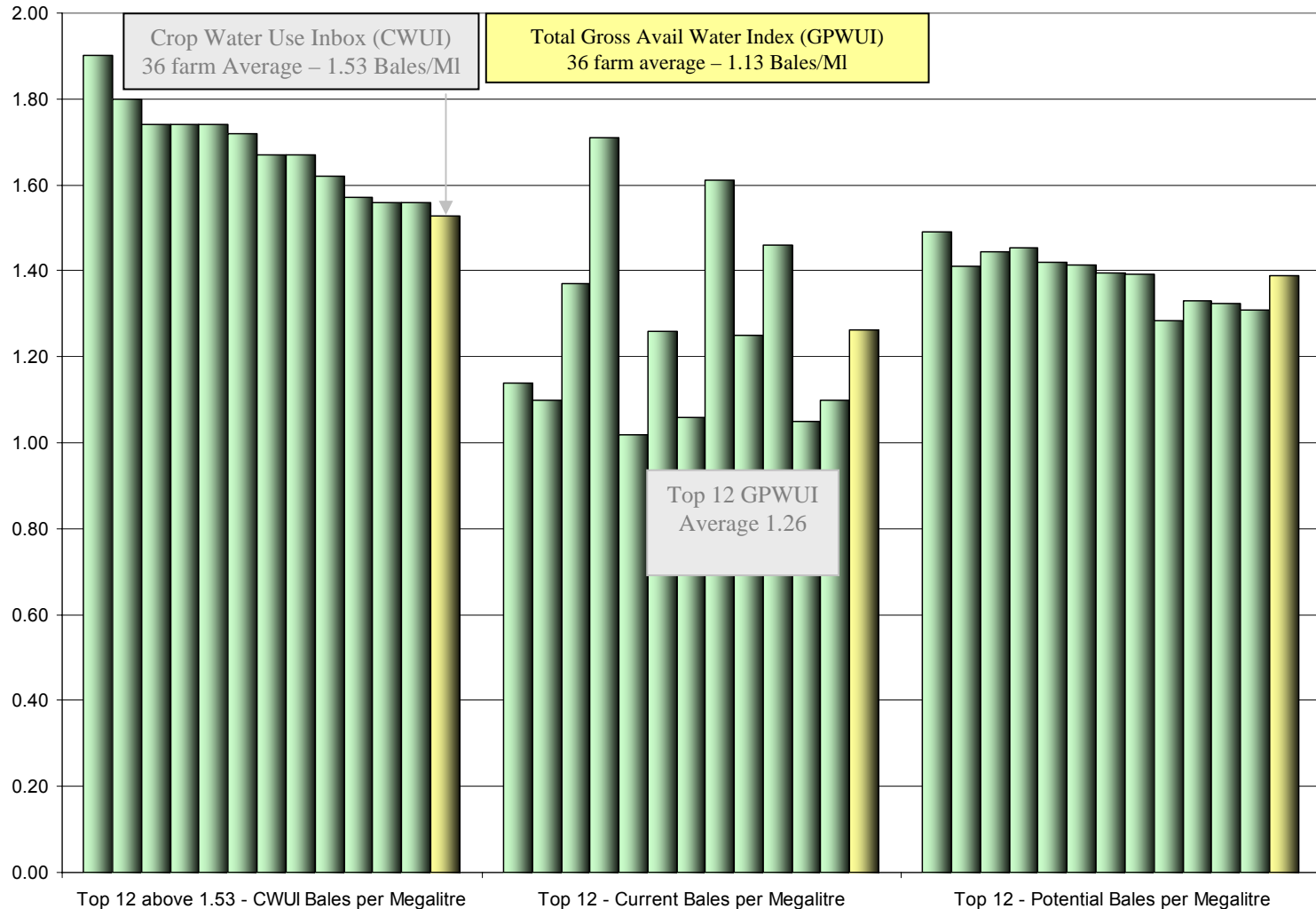


# Current and future industry potential for bales per megalitre



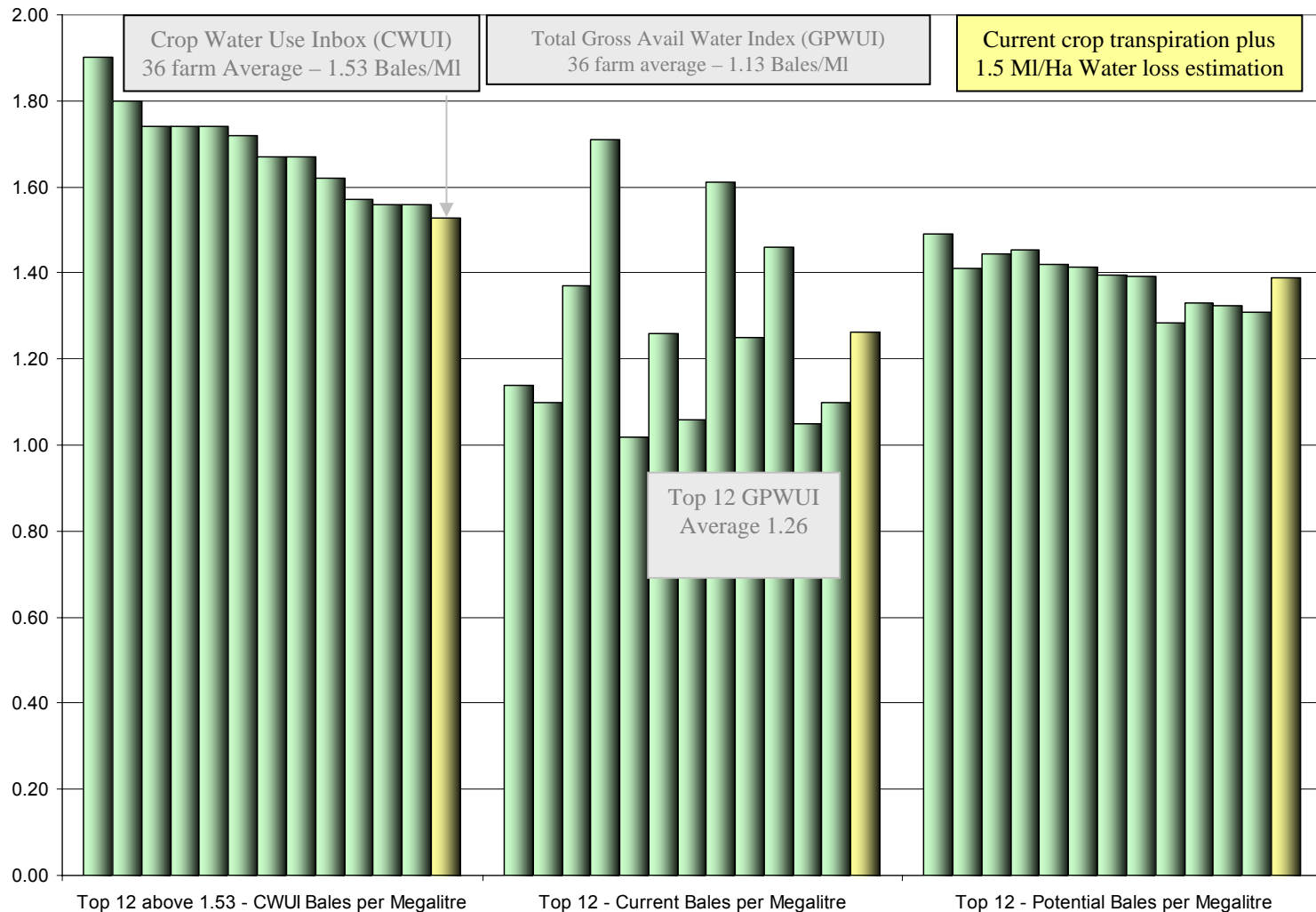


# Current and future industry potential for bales per megalitre



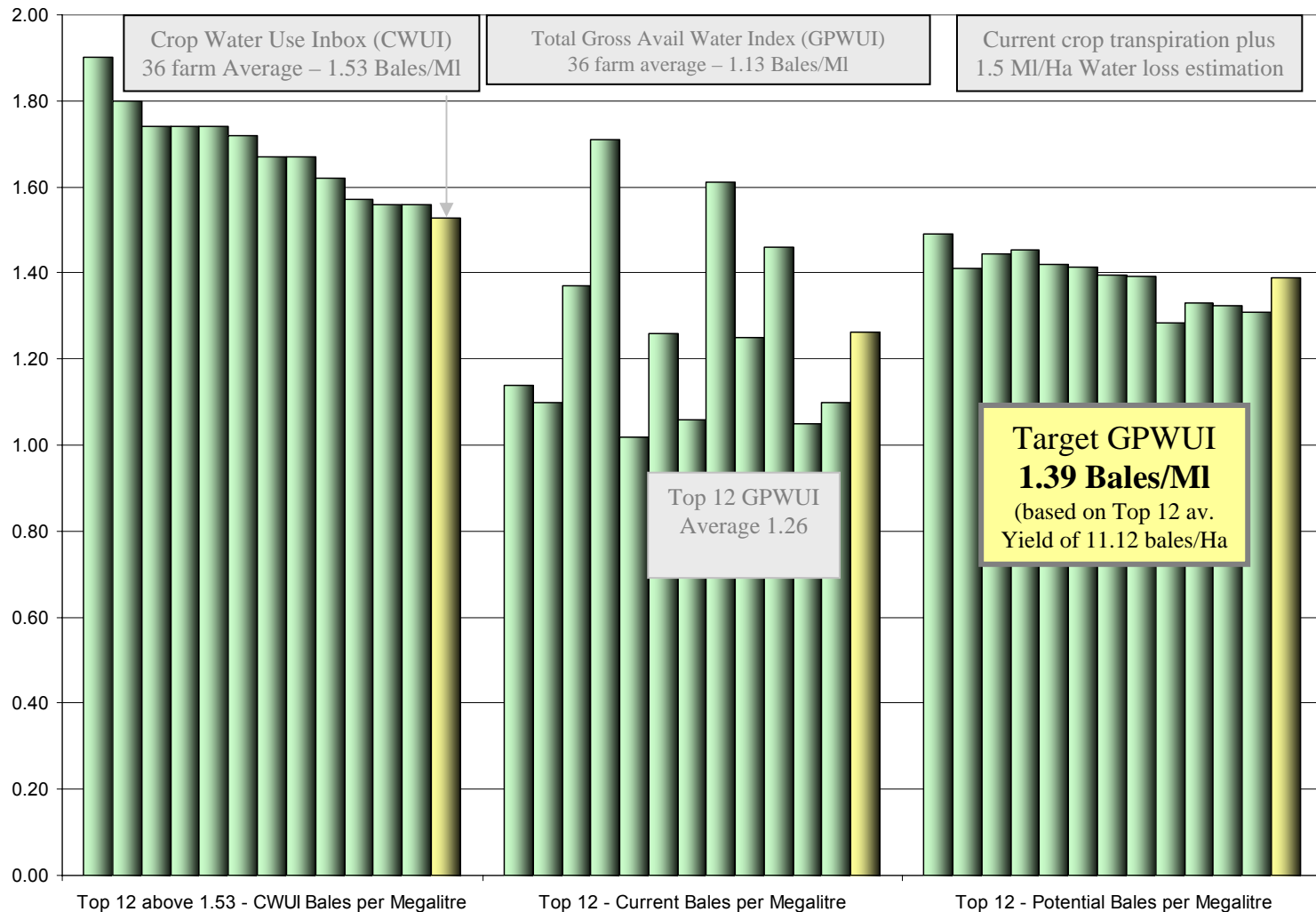


# Current and future industry potential for bales per megalitre





# Current and future industry potential for bales per megalitre



# Conclusion

- Valuable information
- Consistent
- Defined/standardised water use efficiency terms
- Benchmarking
  - This data not only provides a benchmark for the individual, but continued collection of this data over time enables the cotton industry to show how it is improving and the rate of improvement in water use efficiency.
- Need for continued collection
- Industry participation & support