



Melon Quality Improvement Project Update

Grower Roadshow
29th April 2024

Melon Quality Improvement Project

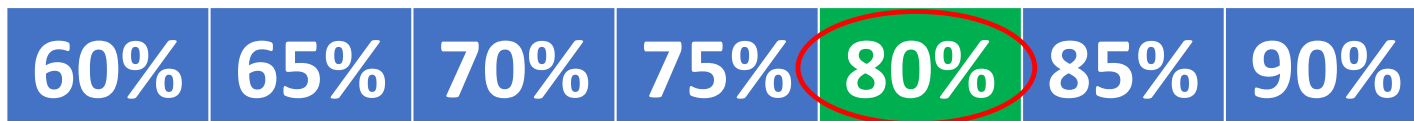
- Phase 1 Results
- New Maturity Standards
- Melon Quality Improvement - Phase 2



Melon Quality Project Objectives – Phase 1

1. To improve the consumer demand and value for Seedless Watermelon, Rock Melon and Honeydew by developing minimum quality standards.
2. Benchmark the quality of melons available to consumers by carrying out retail and wholesale quality monitoring.
3. Provide recommendations for industry to improve melon quality and enhance consumer experience

Minimum Consumer Acceptance



New Maturity Standards

- Seedless watermelon: $80\% \geq 10^\circ$
 - Rock Melon: $50\% \geq 11^\circ$
 - Honeydew: $70\% \geq 11^\circ$
- All the above standards, when met, would achieve greater than 80% consumer acceptability.

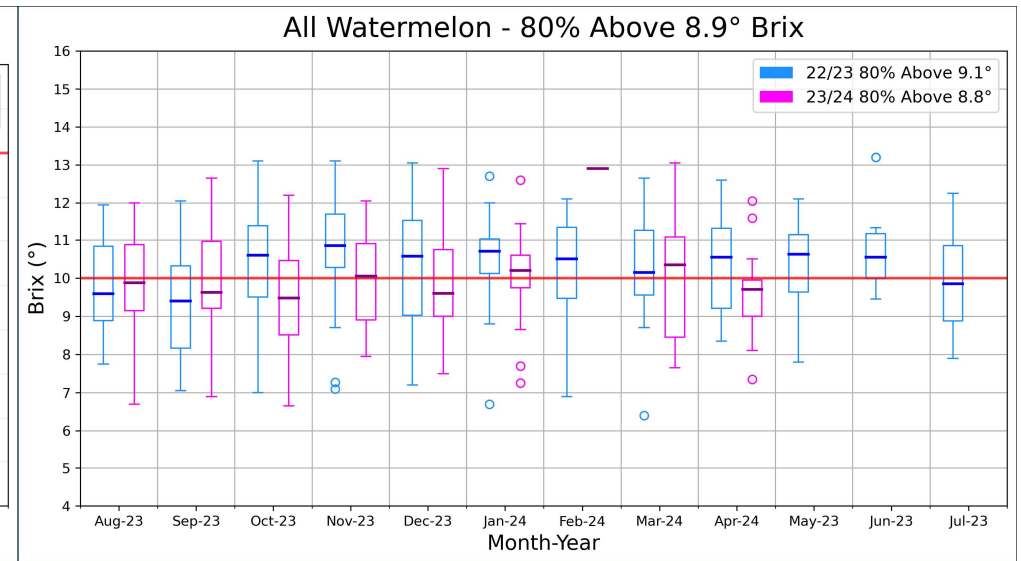
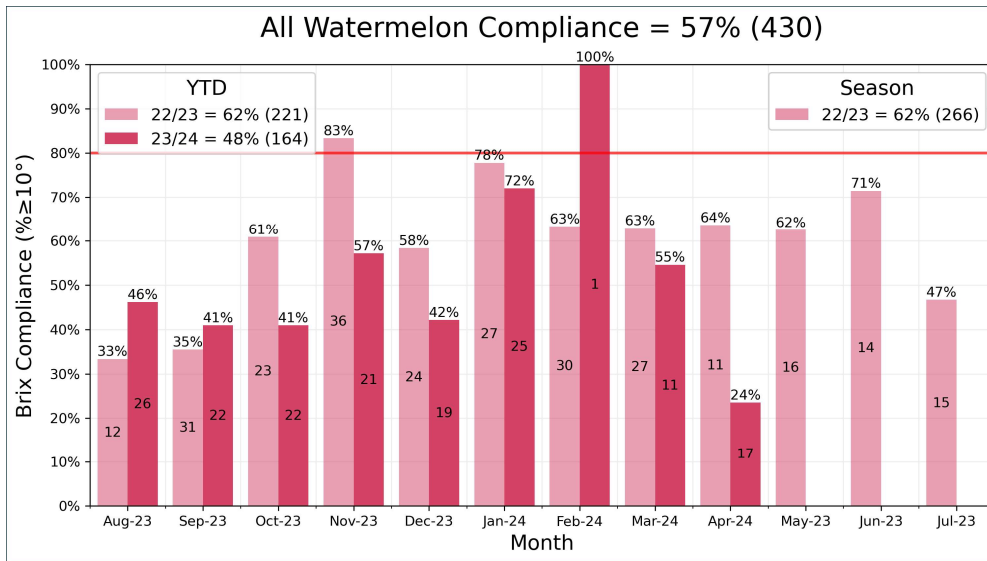


Maturity Monitoring Results

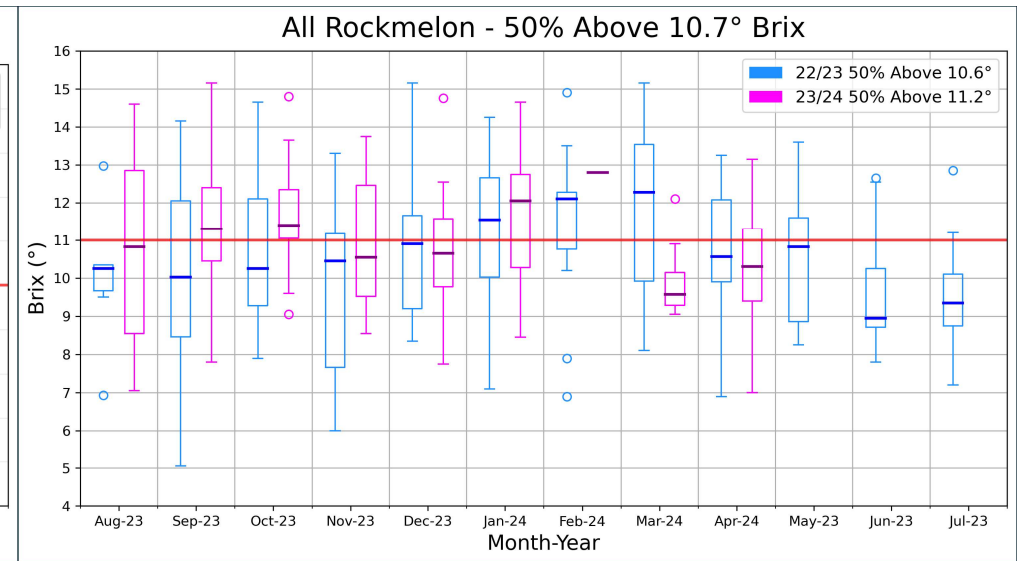
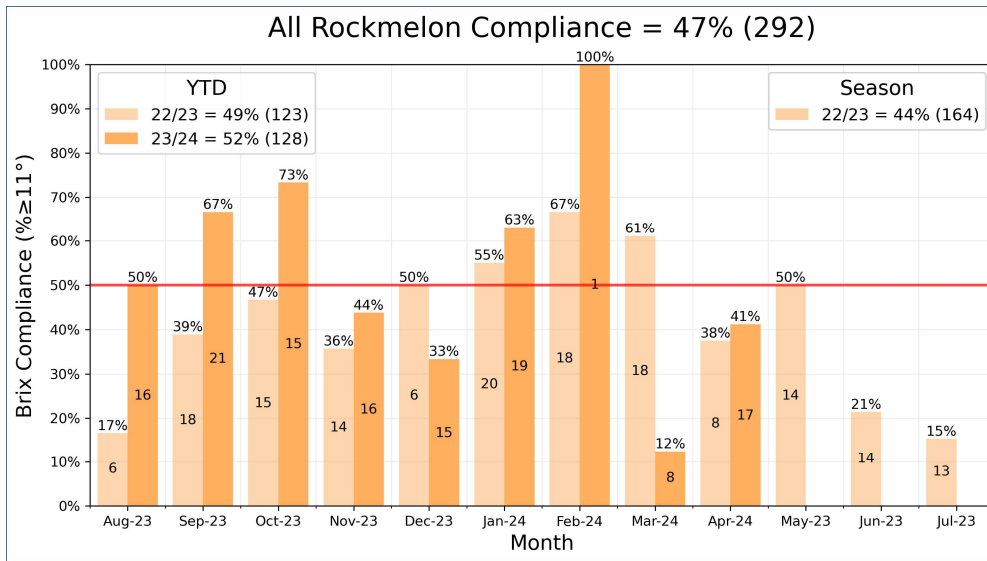
August 2022 to
2024



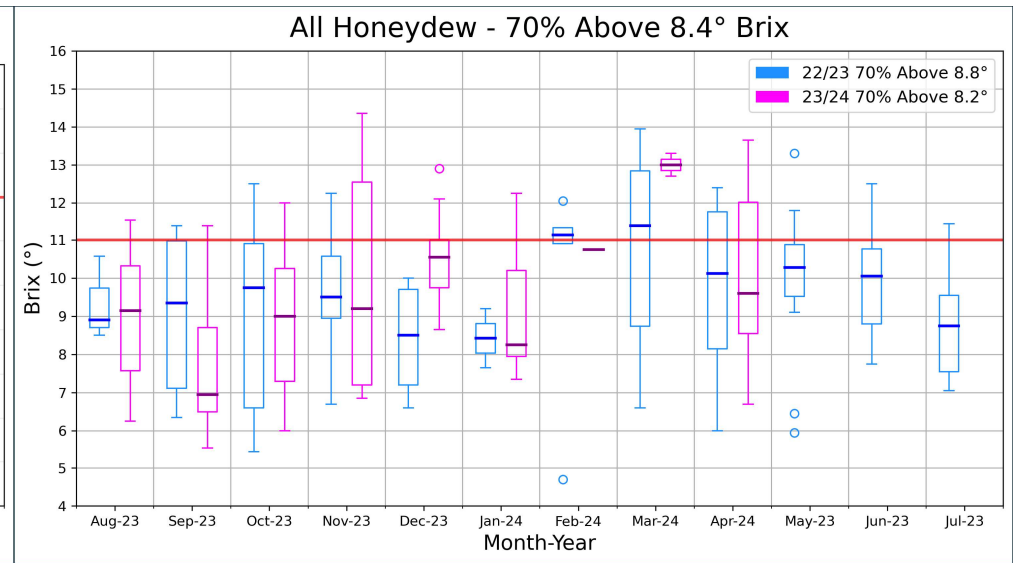
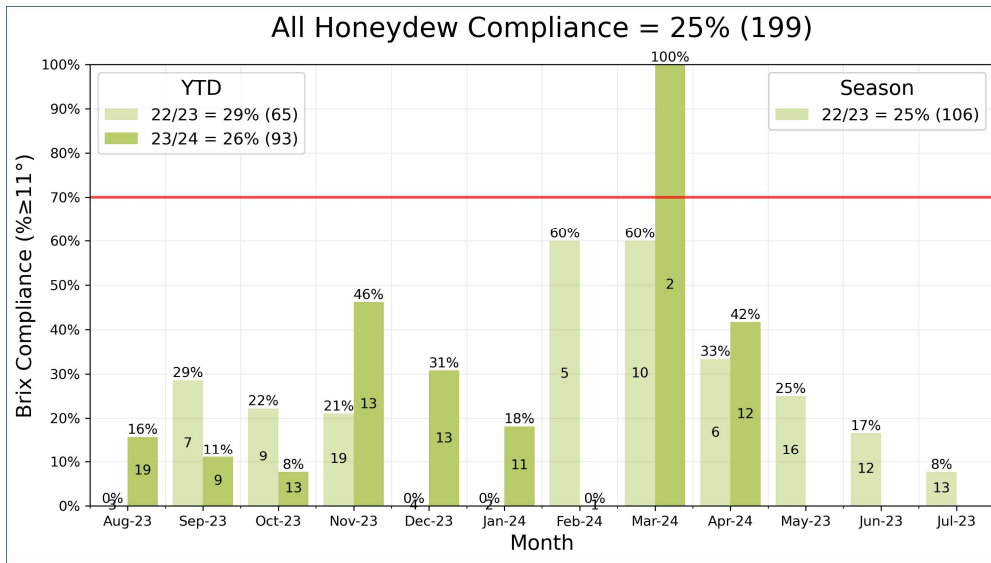
Watermelon



Rock Melon



Honeydew



Phase 1 Conclusions

- Too many melons are being harvested before they reach the minimum maturity standard.
- Rock melons mostly meet the standards, watermelons need more work, and honeydew need a lot of work.
- The phase 2 project is designed to develop workable solutions for growers that will provide them with the tools and processes they will need to help them harvest their fruit at the right maturity.

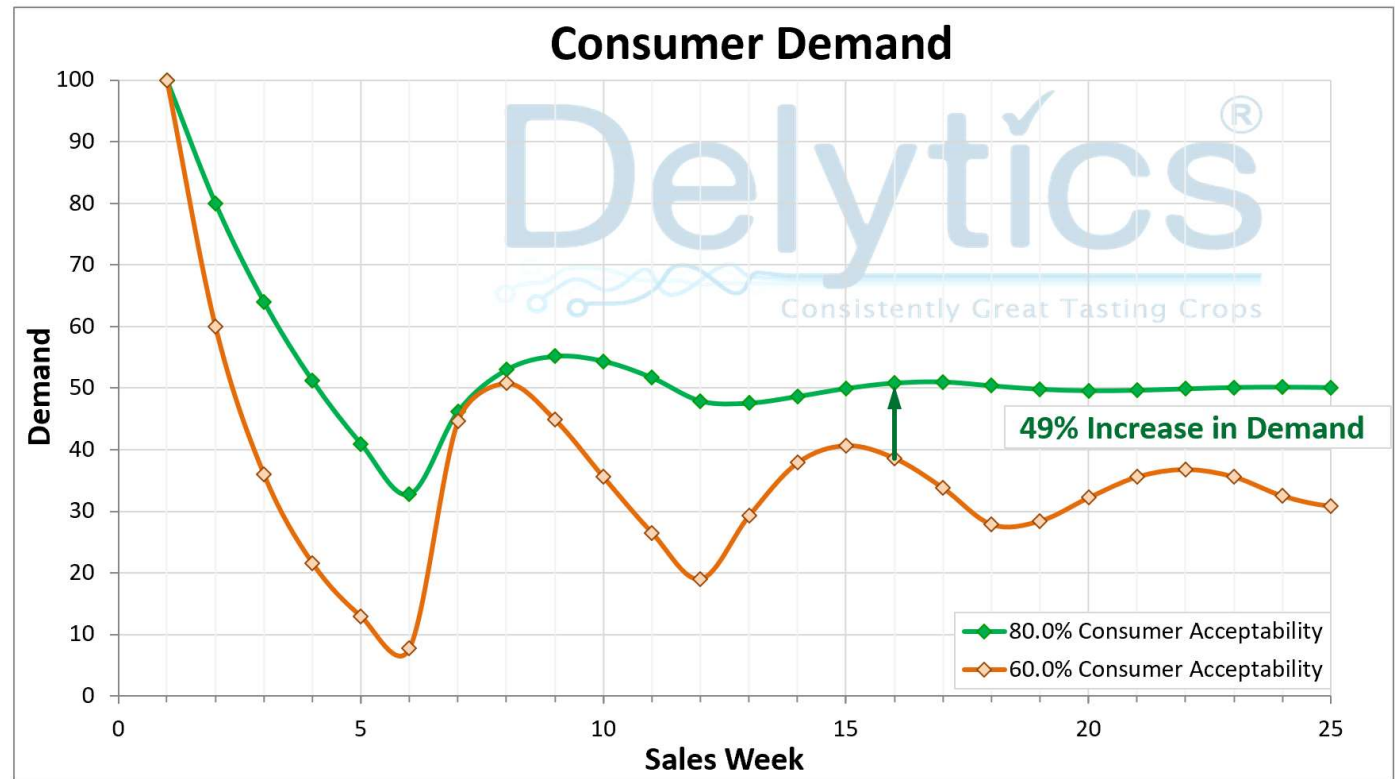
Why is this important?

- Compare 60% (current) with 80% (target) positive eating experiences
- Customers purchase once per week
- Previous week's eating experience influences next week's buying behaviour
 - Repurchase same amount next week after a positive eating experience
 - Delay 6 weeks before repurchase same amount after a negative eating experience



Demand increases by 50%

“One of the major supermarket chains is of the firm view that **strong sales, repeat purchases and category growth** are directly linked to the development and implementation of the Australian Citrus Quality Standards.”



From Hort Innovation Project CT15013, Australian Citrus Quality Standards –

Stage 3.

Melon Quality Improvement (Phase 2)

March 2024
to
March 2027



Activities

- Wholesale and Retail Quality Assessment, including transport monitoring and Distribution Centre's (DC's).
- Development of tools and sampling strategies to help growers assess maturity, so they can consistently meet the new minimum maturity standards.
- On-farm quality assessment, including understanding the reasons for non-compliance and developing solutions to mitigate that.



On-Farm Activities

Measuring Brix Variability within a plant



Results so far

- Watermelon
 - Low Brix variability, no correlation between Brix and distance from crown.
- Rock Melon
 - High Brix variability, no correlation between Brix and distance from crown, two Brix populations.
- Honeydew
 - High Brix variability, no correlation between Brix and distance from crown.

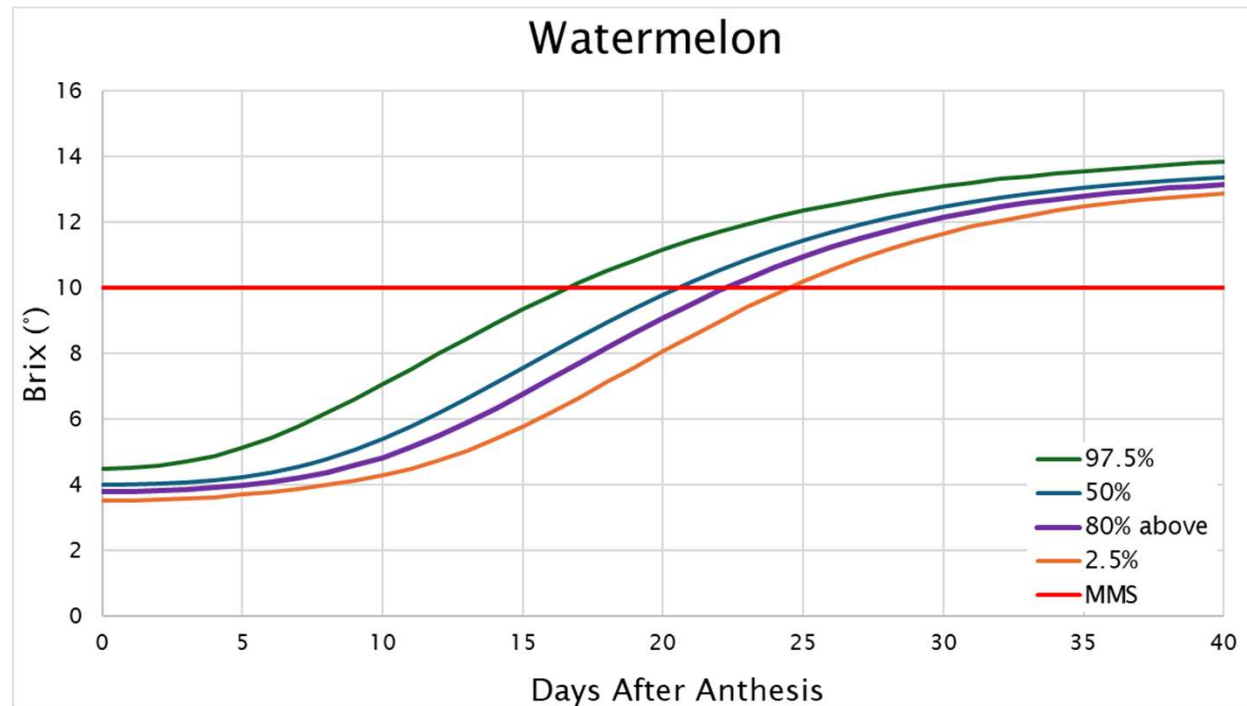


Next Steps

- Develop a sampling and measurement protocol
- Growers can opt in to monitor their crops during growth
- We can fit models that will show maturity development, and potentially predict harvest



On-Farm Brix Development



Your involvement is critical

- We would like all growers involved in this project.
- There is an opportunity for you to **opt in** to the on-farm monitoring program right now.



Like to be involved?
Contact ...

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The results are long-term

