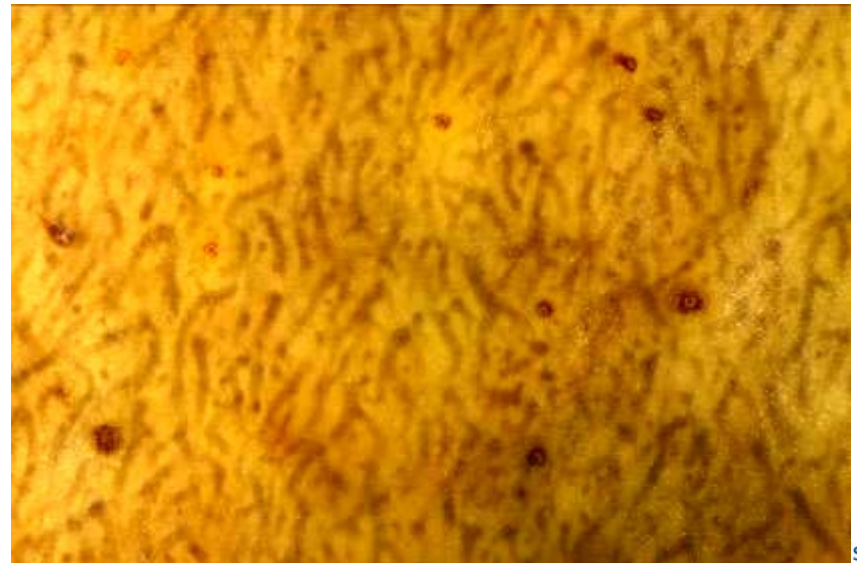
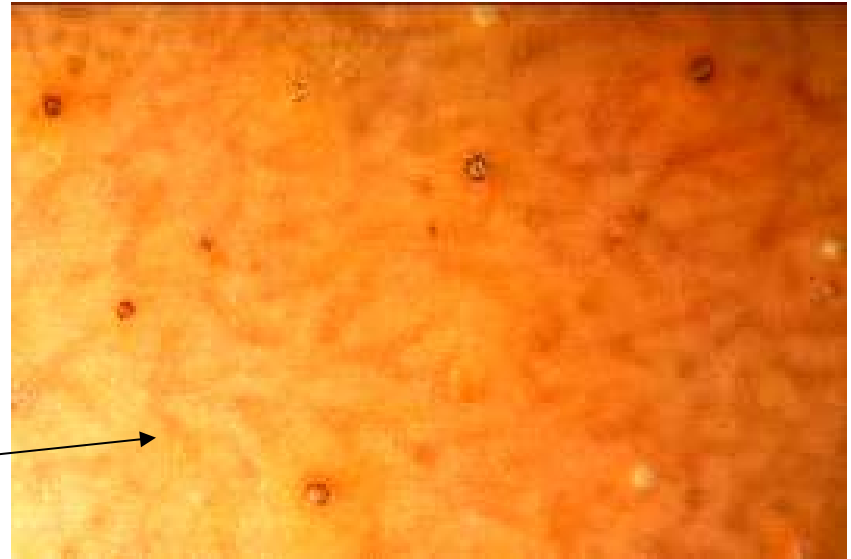
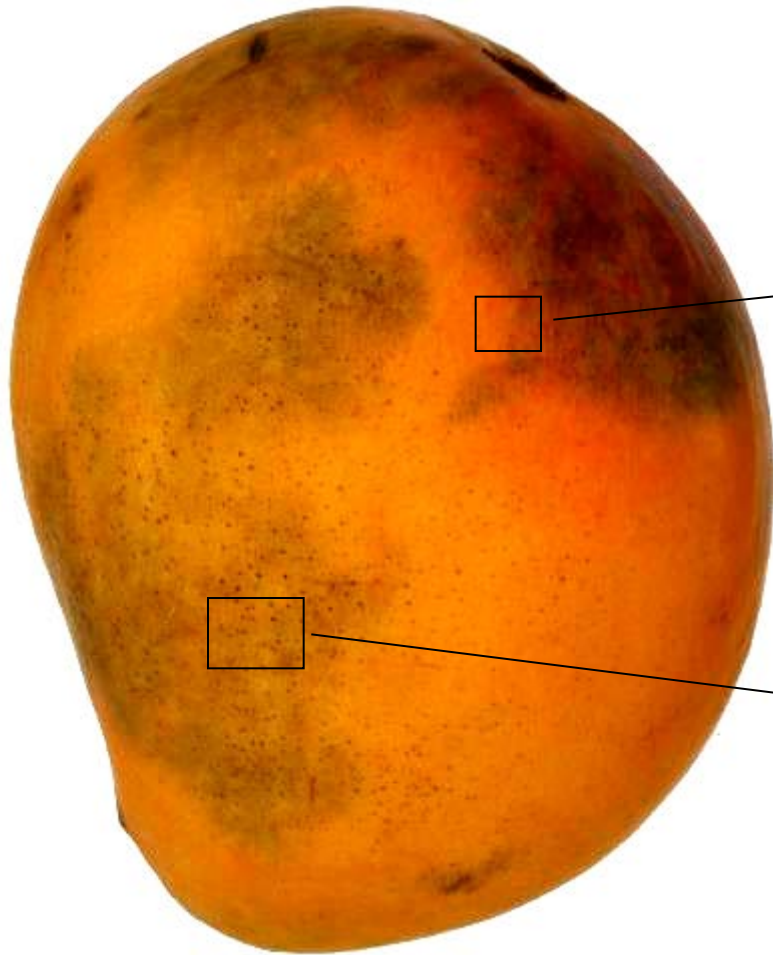


Winning the battle against under-skin browning

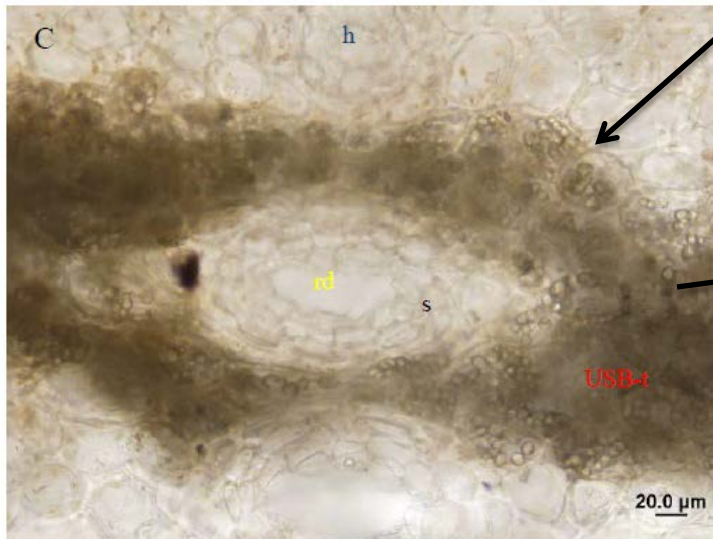
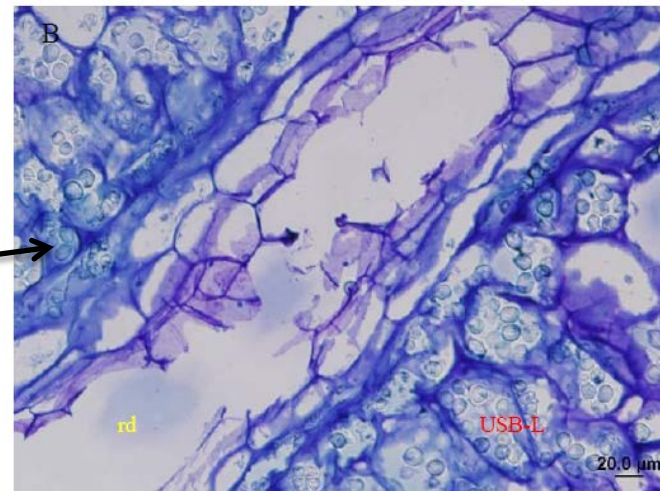
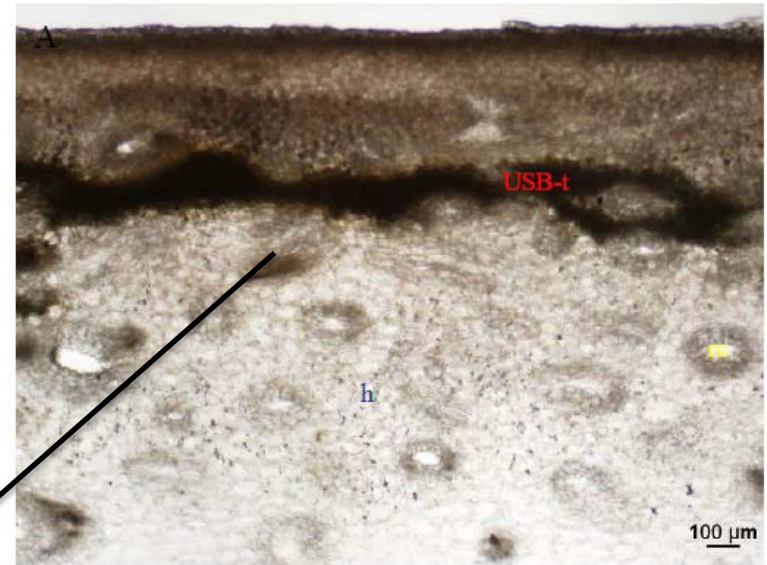
Peter Hofman, Gavin Scurr, Ted Winston, Daryl Joyce, Andrew Macnish,
PhD students



USB on 'Honey Gold'



USB - under the microscope



USB on other cultivars



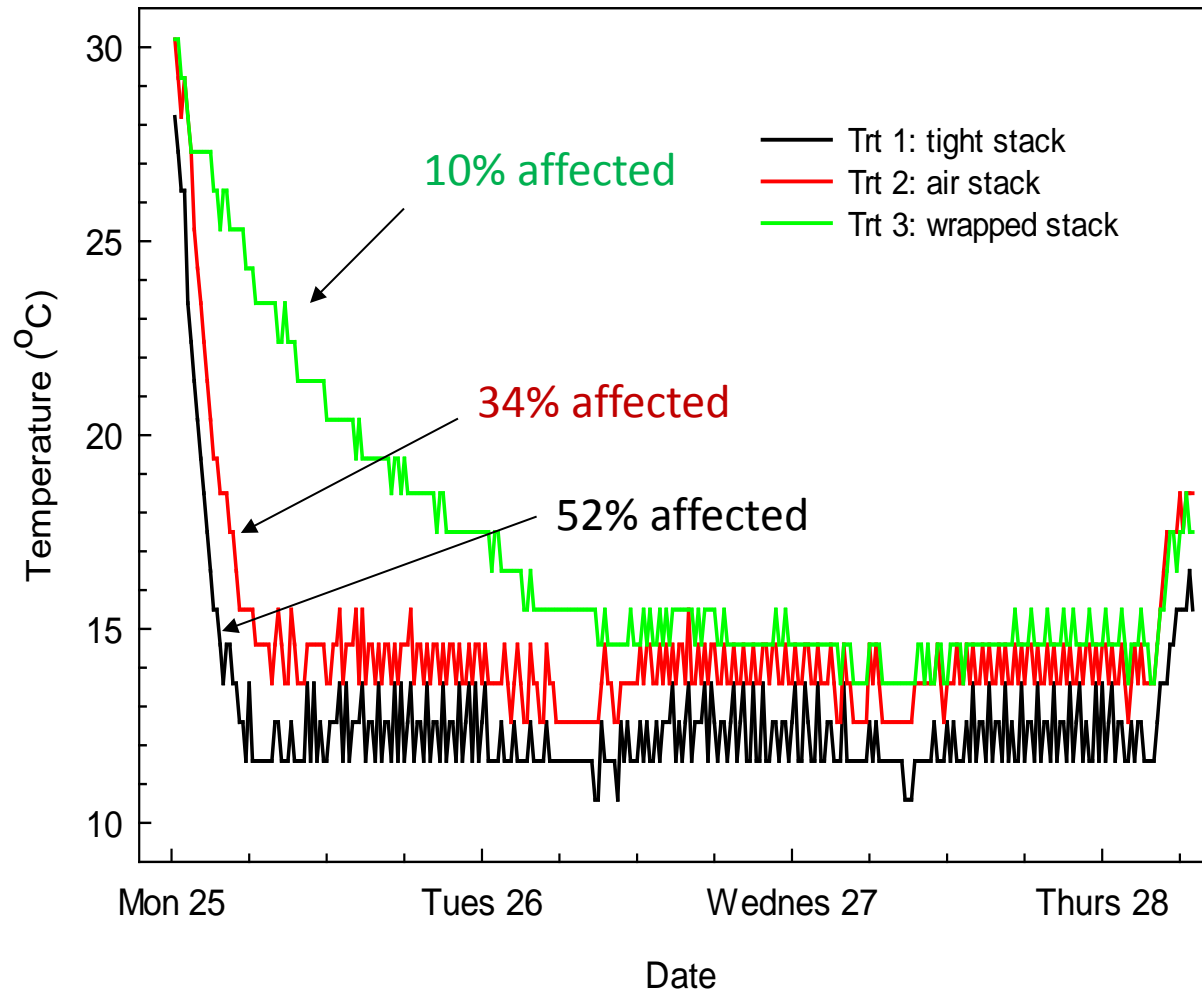
KP



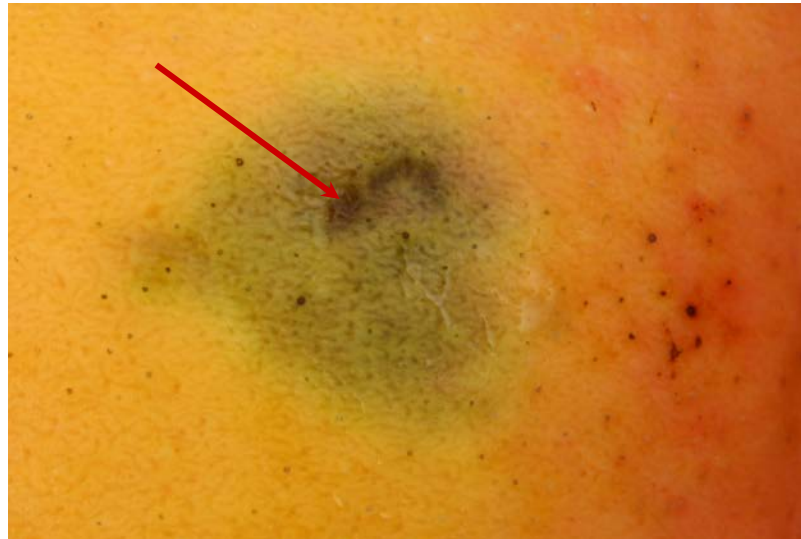
R2E2?



Slower fruit cooling rates



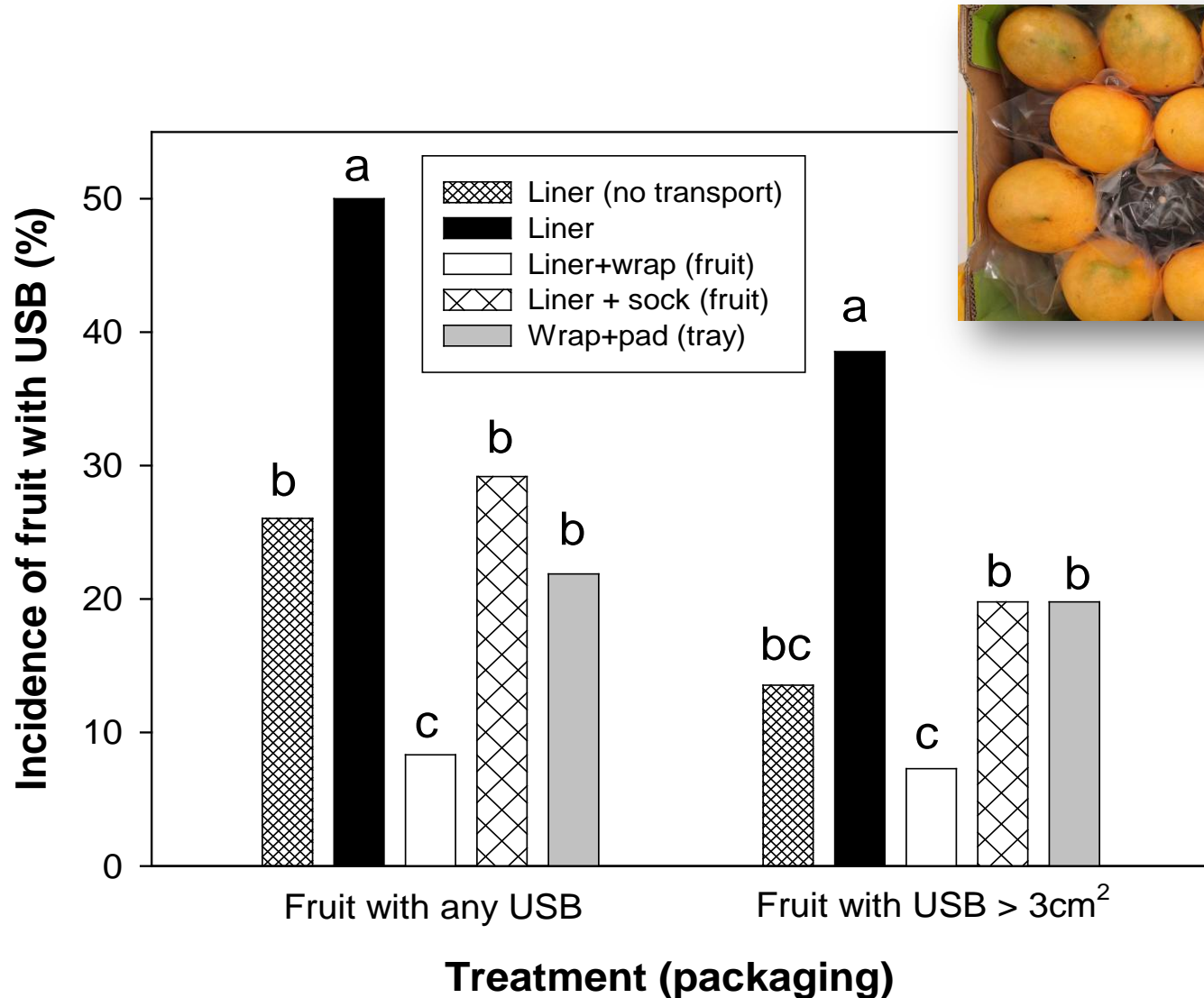
Physical injury during harvest and transport



Packaging/transport damage



Reducing transport damage - packaging



USB test

The breakthrough

- Lightly abrade fruit with sandpaper
- Hold at about 13°C for at least 6 days
- Ripen



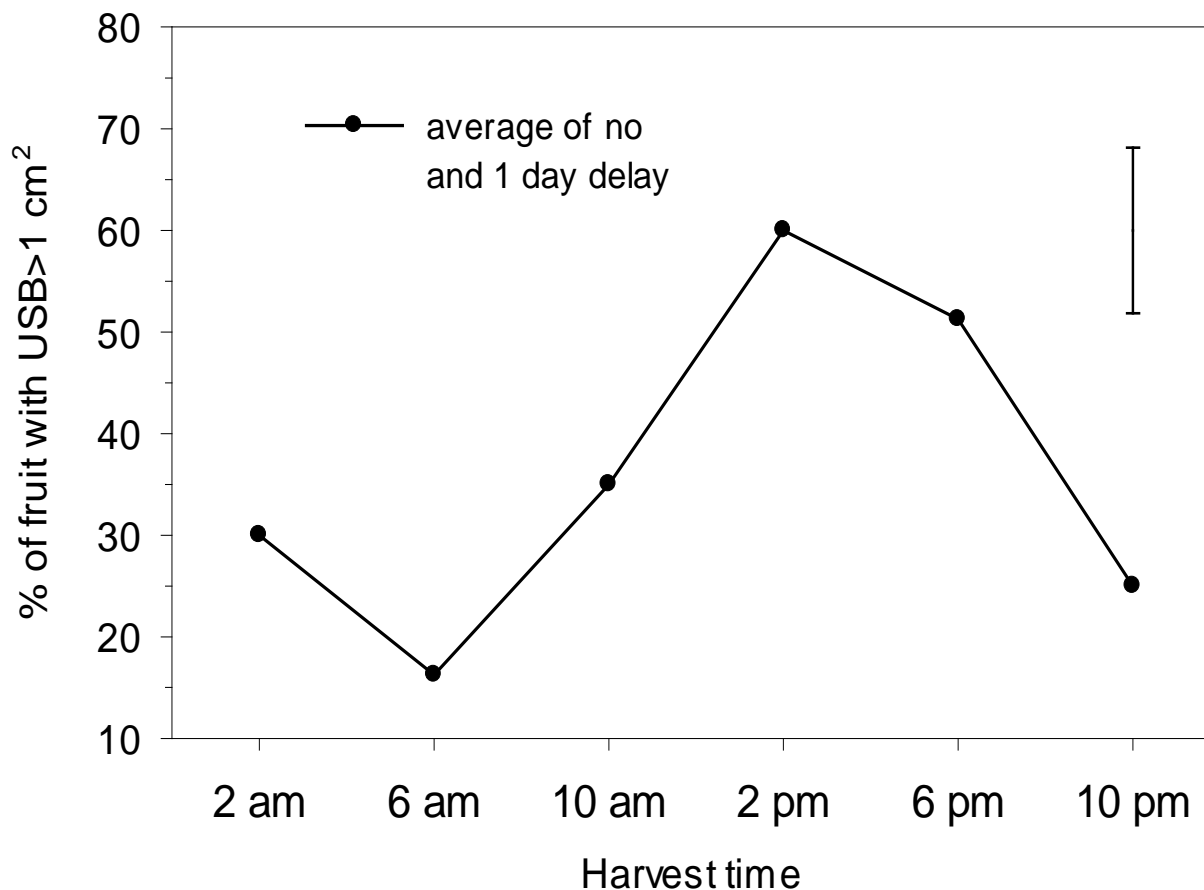
Under skin browning

Long term focus

- How to produce a more robust fruit
- Harvesting
- Nutrition
- Irrigation
- Rootstocks

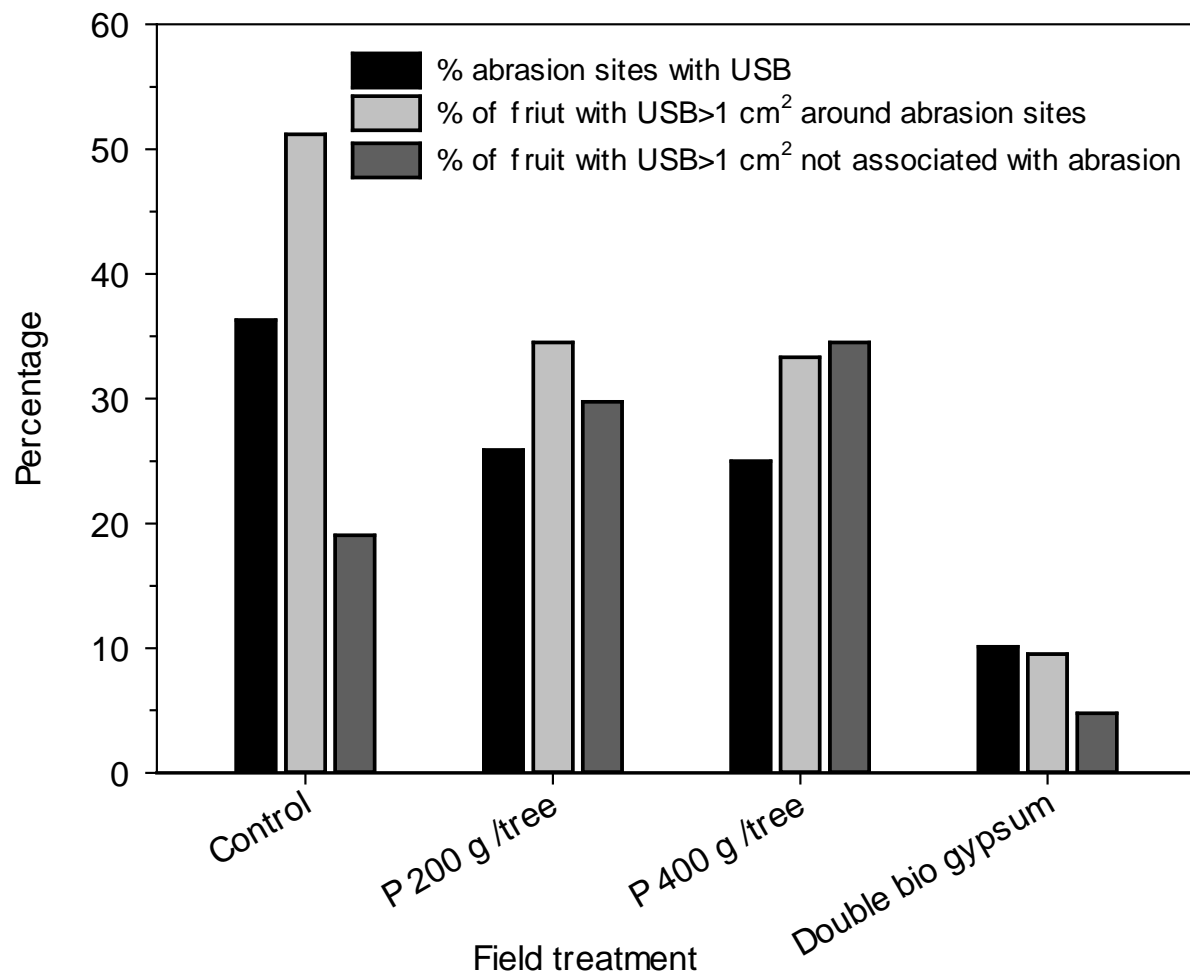
Under skin browning – diurnal effects

Harvested every 4 hrs, cooled immediately or after 1 d
USB associated with abraded sites



Similar diurnal effects on USB not associated with abrasion

Under skin browning – Ca/P



Ca reduced USB around abrasion sites and at other positions on the fruit

Under skin browning – so far

Recommendations

- Reduce physical damage
 - Harvest and pack carefully
 - Use soft liners
 - Reduce transport vibration/damage
- Delay cooling for at least one day
- Hold above 14-16°C

Producing more robust fruit

- Harvest fruit at night

“Watch this space”

- Nutrition – calcium
- Irrigation

Acknowledgements and thanks

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