

Observations from monitoring export fruit: sea and airfreight (Serviced Supply Chain)

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Stone-fruit research roadshow
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Introduction

- Types of loggers
- Summary - temperature monitoring
 - Air-freight
 - Sea-freight
- Results - temperature monitoring
 - Air-freight
 - Sea-freight (out-turn assessments and ripening trial)
- Conclusions
- Next season



Temperature loggers

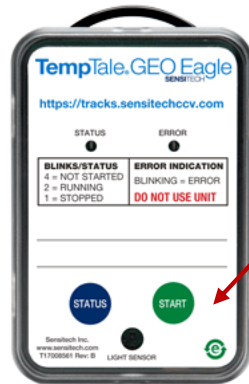
SIM card

Wireless RF + control unit

Bluetooth



Locus Traxx™
(Emerson)
- sea & air



GEO Eagle
(Sensitech)
- sea only
X4

Activation button



Xsense
(BT9 Ltd)
- sea and air
X12



Pod One-90
(Verigo)
- sea and air
X4

Summary - temperature monitoring

Crop	Air freight	Sea-freight	Sea-freight out-turn assessments
Stone-fruit	16*	4 [#]	2 [^]

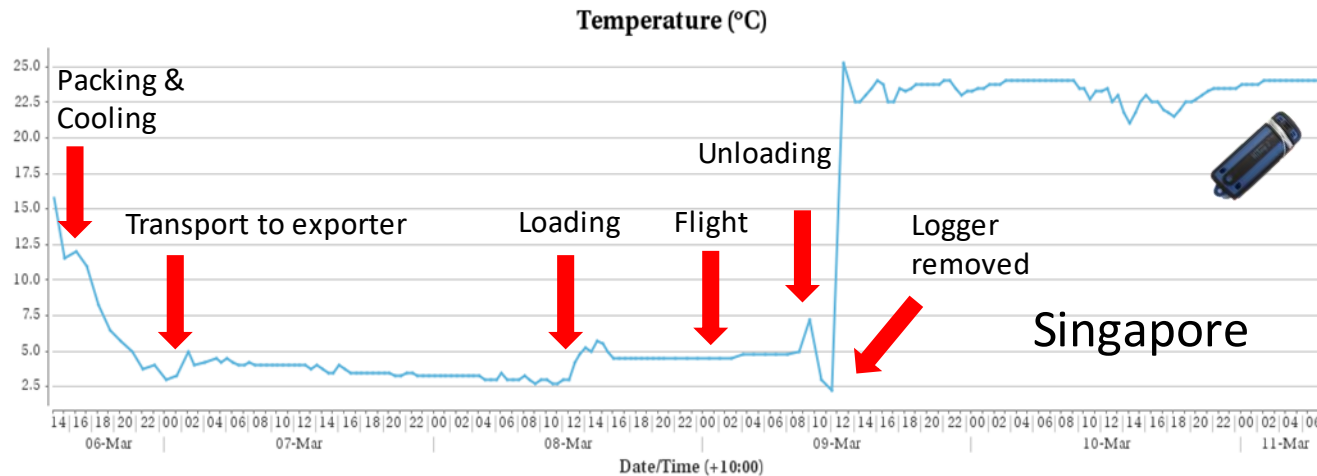
*China (4), Singapore (5), Malaysia (7)

China (2 x Guangzhou and 2 x Shanghai)

^ China (CAS: 1 x Guangzhou and AgVIC: 1 x Shanghai)

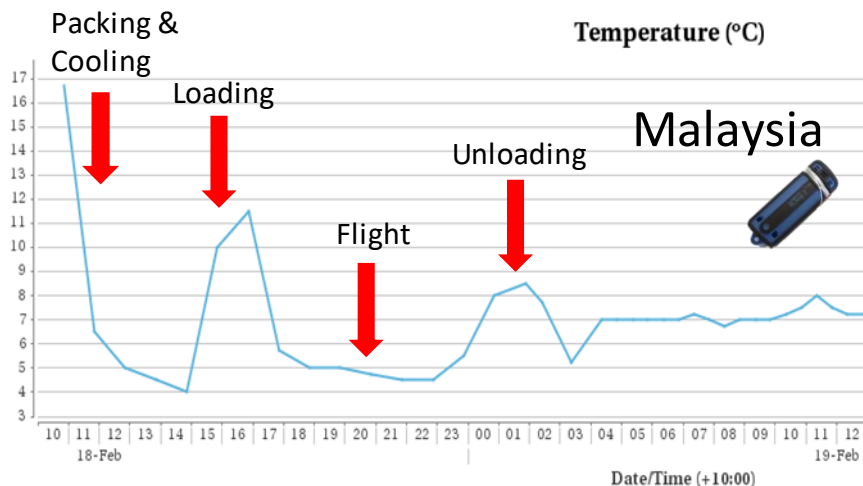


Results for air-freight to Singapore and Malaysia

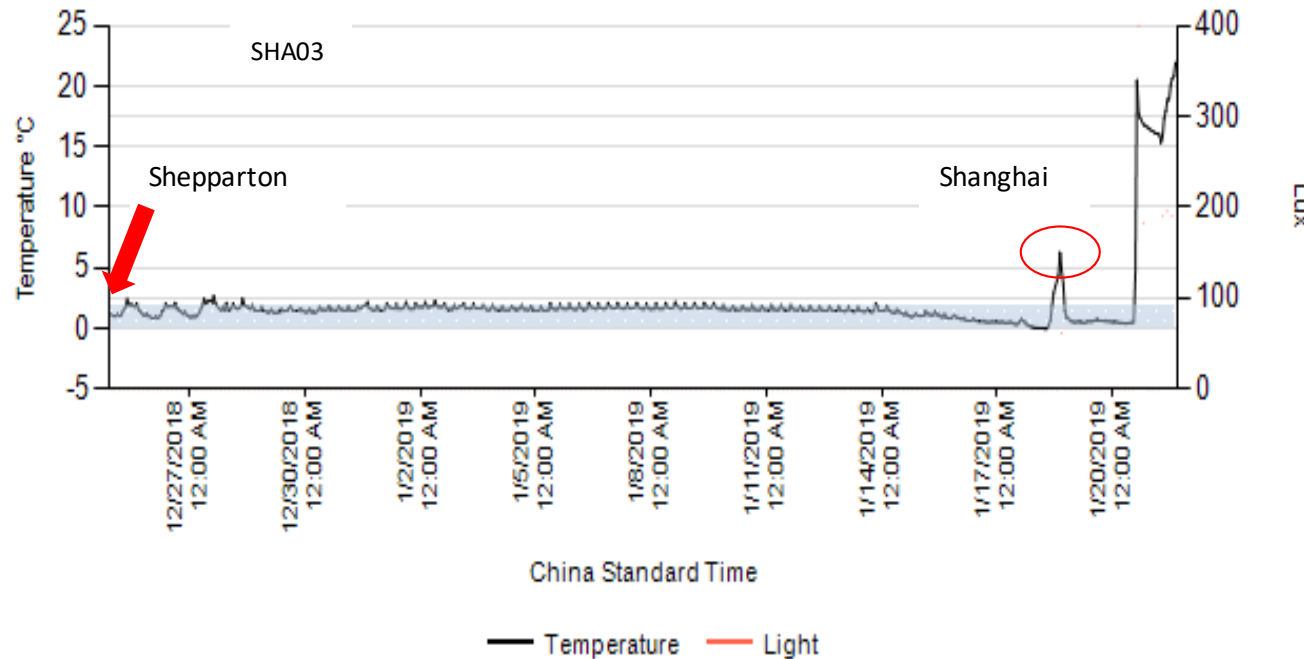
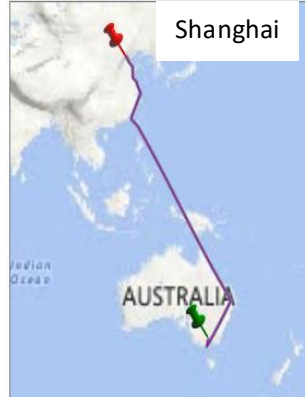


Summary:

- Singapore (X5): 2.5 – 12.5 °C
- Malaysia (X7): 3.0 – 12.5 °C



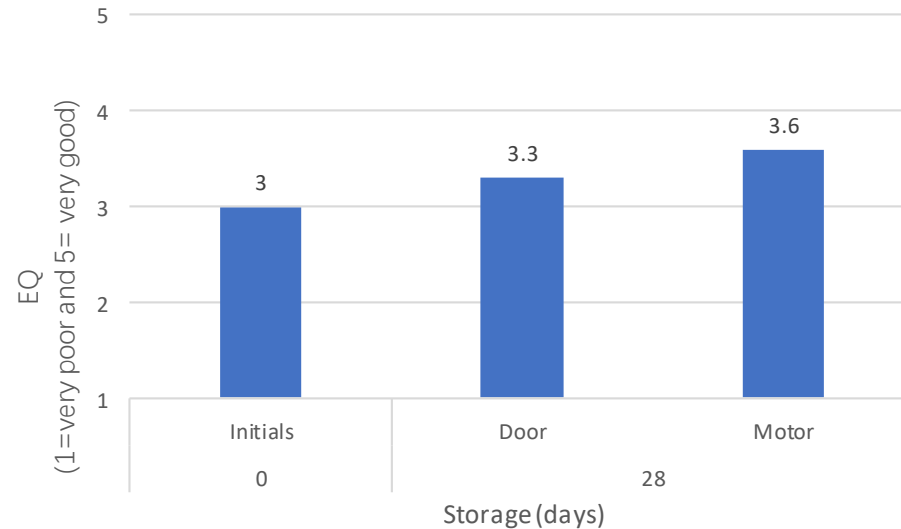
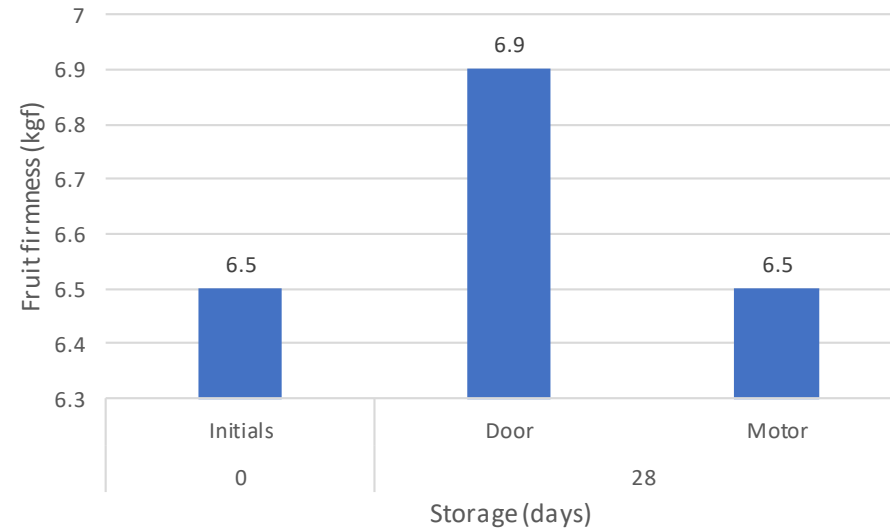
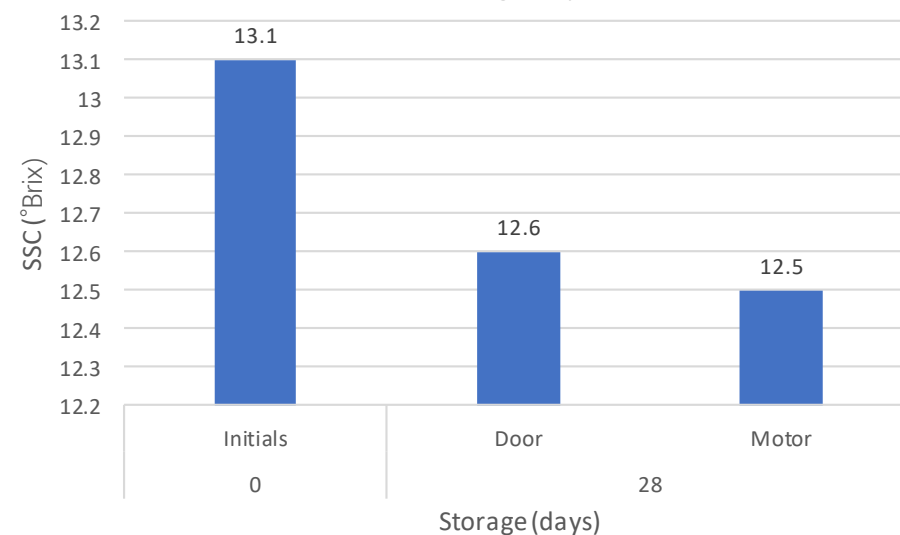
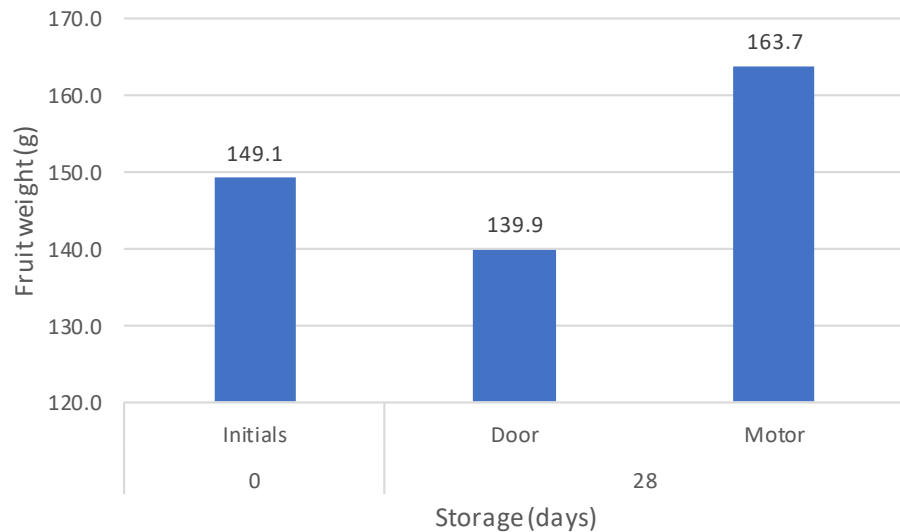
Results for sea-freight to China



Summary:

- 4 consignments w 2 loggers in each (motor end and at door)
 - Shanghai x 2
 - GZ x 2
- Very good cool-chain
- Low transport temperature (1-2 °C)
- Odd spike to 6.5 °C
- 4 trips (27-29 days)

Results for sea-freight to China (Shanghai) – Ag VIC.

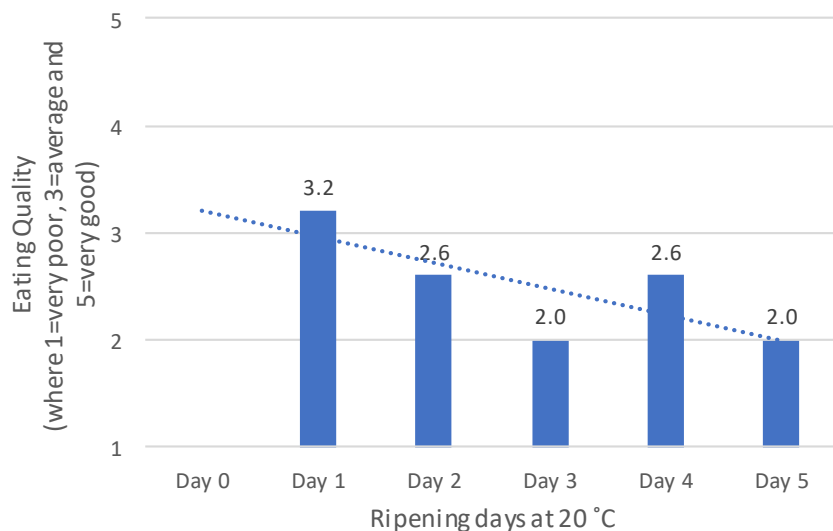
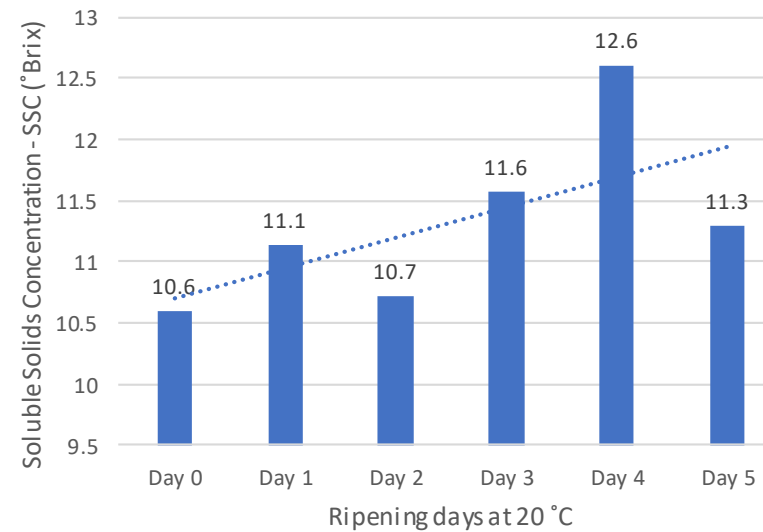
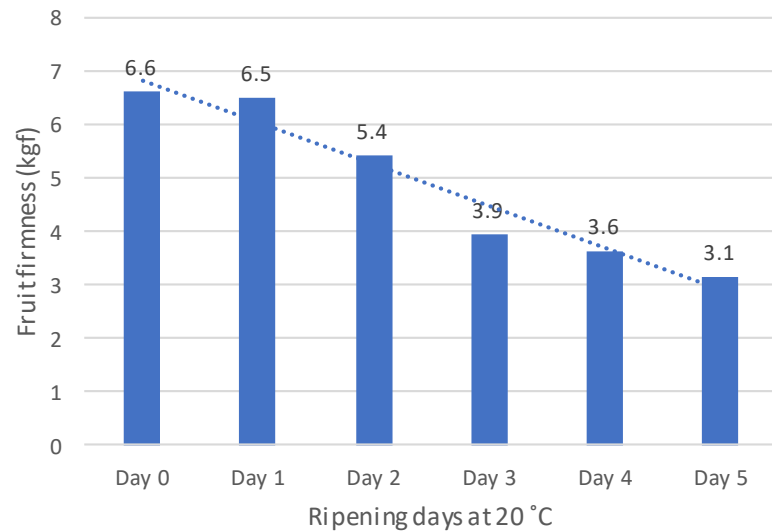


Summary: SHA03

- Variable fruit weight (N=18-20)
- Fruit firmness maintained (cold)
- Reasonably crunchy, sweet and juicy



Results for sea-freight to China (GZ) - CAS



Summary: SHA02

- SHA02 ~ SHA03

Ripening trial:

- Steady decrease in fruit firmness
- Variable SSC
- EQ decreased with ripening (34+ days)

Conclusions:

1. Key findings

- Sea-freight – longer trip, lower and more constant temperatures.
 - Limited varieties that can last 5+ weeks
 - Fruit quality does not ripen – “average” EQ
 - Harvest slightly more mature?
 - Need to shorten trip!
- Air-freight – shorter trip but higher and more variable temperatures.
 - Greater choice of varieties that can last 1+ week

Looking forward...

- Decide on most appropriate logger(s) to use
- Monitor temperatures from field (harvest) and after importer (retail)
- Need daily/weekly contact and feedback
- Focus on the route (not temperature) for sea-freight
- Conduct more fruit quality out-turns (air)
 - Ag VIC.
 - Train importers, consultants, CAS and/or Trade Vic.

Questions/comments

