

DORMANCY BREAKING SPRAY TRIAL

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Can we use dormancy breaking sprays as orchard management techniques to adapt to inadequate chill?

- Stimulate earlier and homogenous bud burst and flowering

Galaxy M.26 (WA, QLD, TAS)

+ **Waiken™ (5 trees)** Methyl Esters of Fatty Acids

+ **Dormex® (5 trees)** Cyanamide

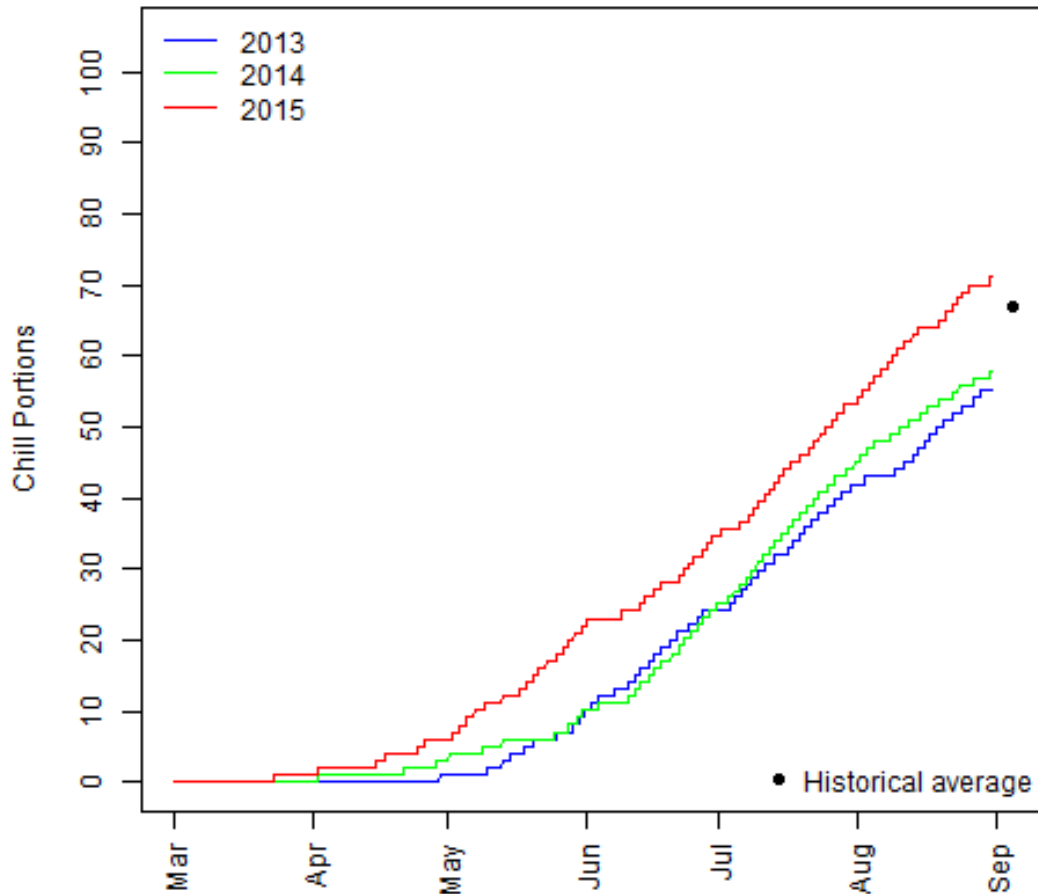
Control (5 trees)

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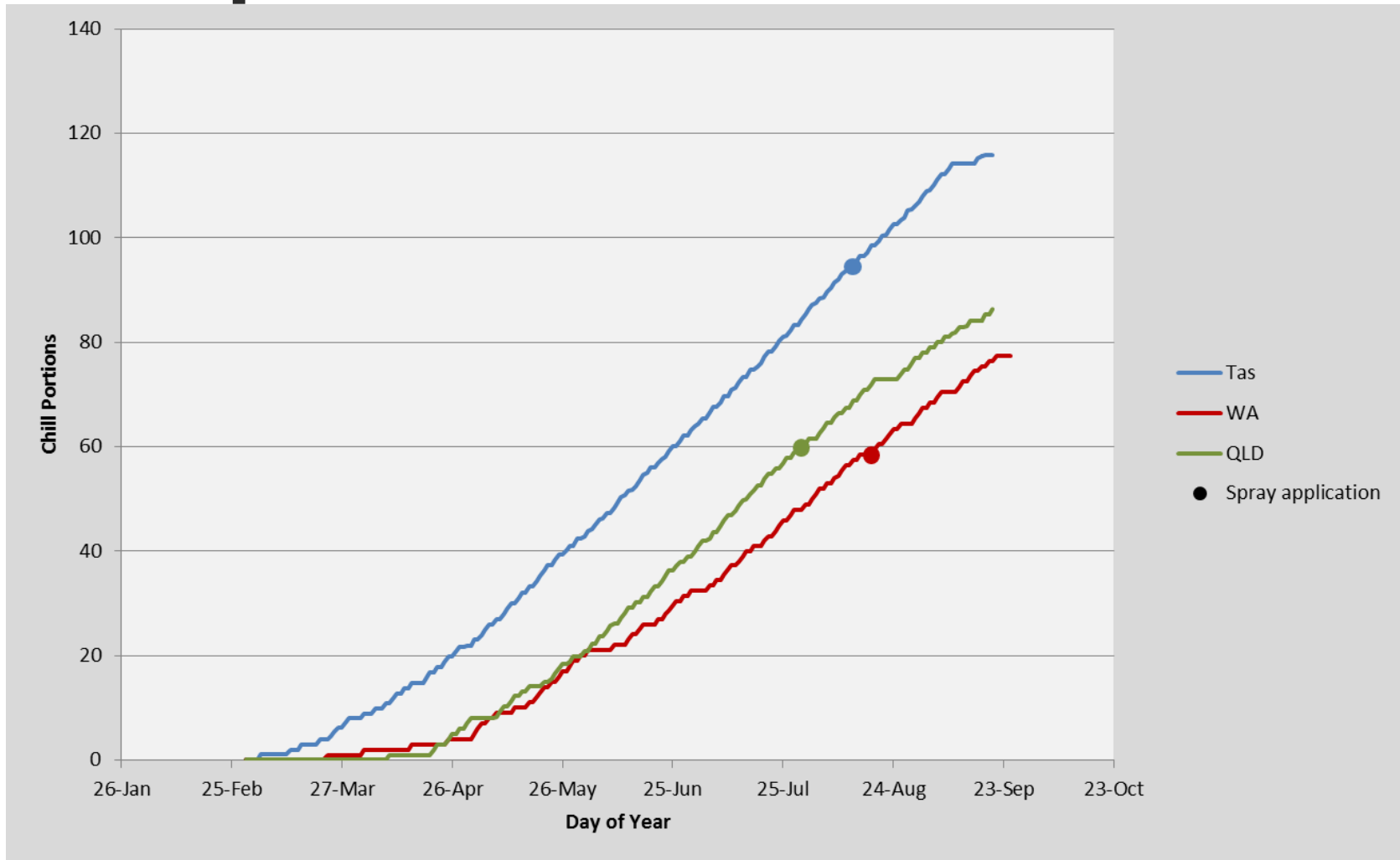
Predicting Chill for the coming season

WA Seasonal Chill Accumulation

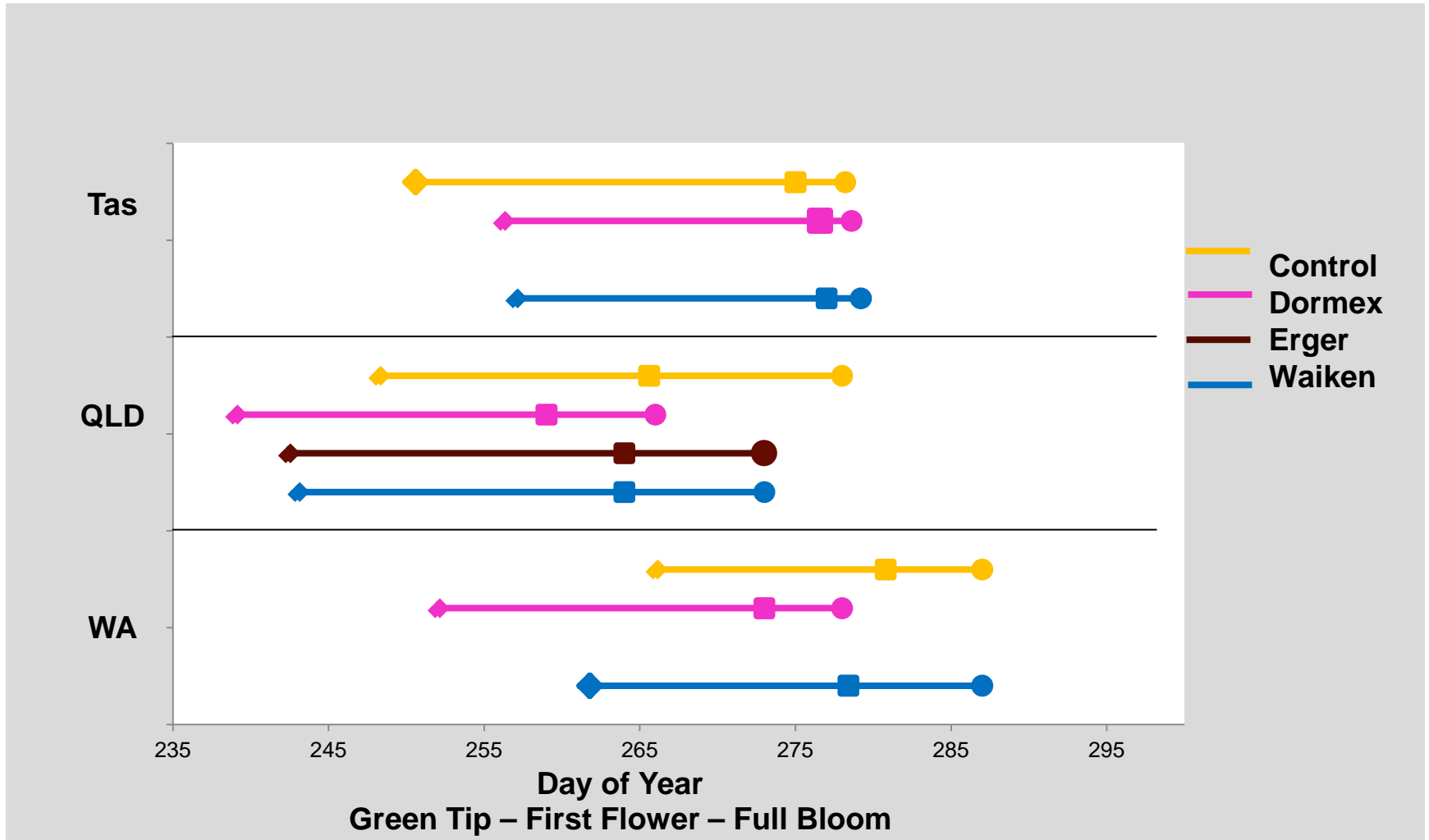


- Predicting 35 days before Green Tip
- Galaxy Full Bloom
 - 4th Nov 13
 - 20th Oct 14
 - 23rd Oct 15
- EBB 22nd Sept
- Actual BB 23rd Sept
- ANABP 01 Full Bloom
 - 10th Nov
- EBB 10th Sept
- Actual BB 25th Sept

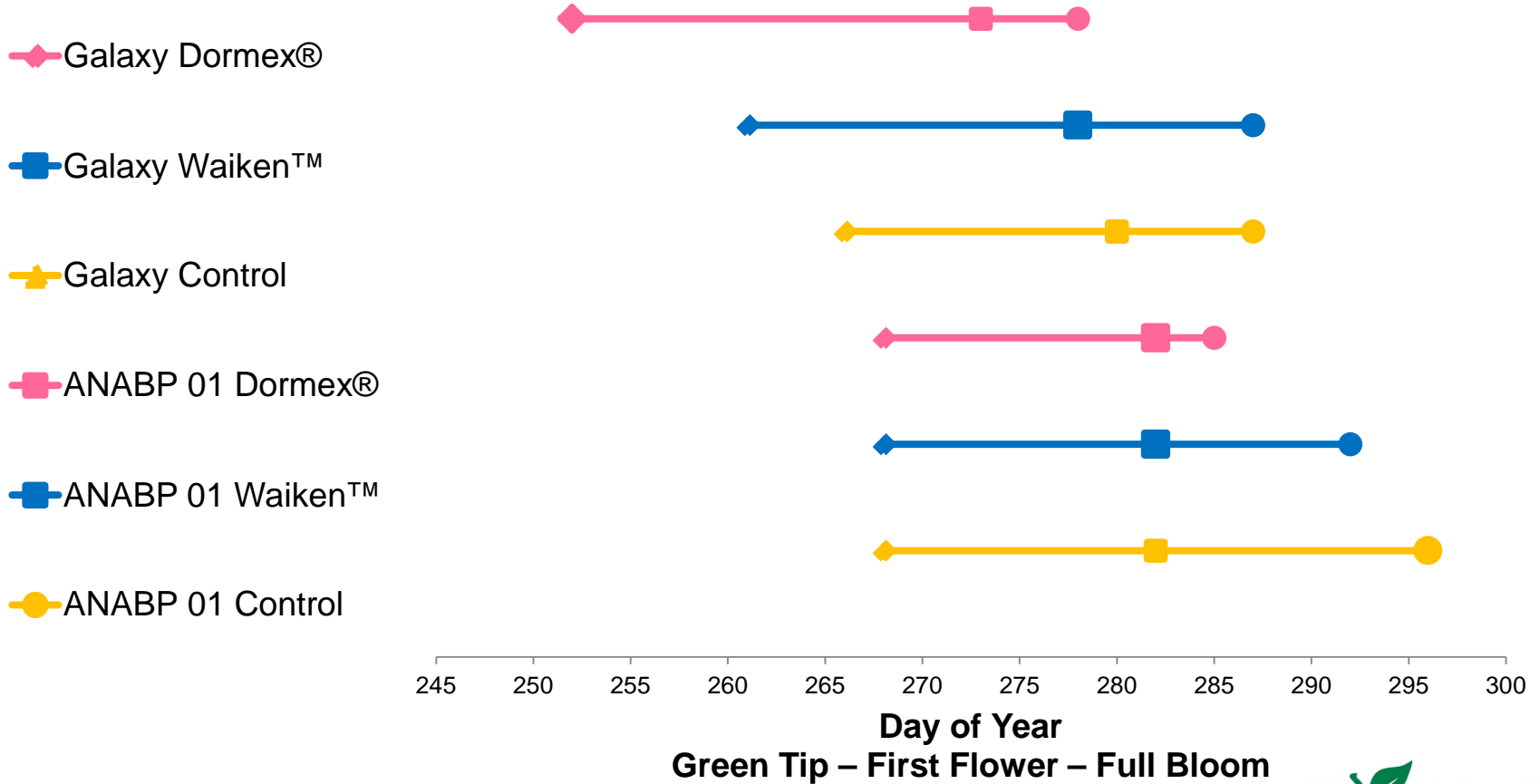
Chill portions 2015



Comparison between locations and treatments for Galaxy



Flowering progression WA



Green Tip – First Flower – Full Bloom

Galaxy

Dormex® advances GT & FB in QLD & WA

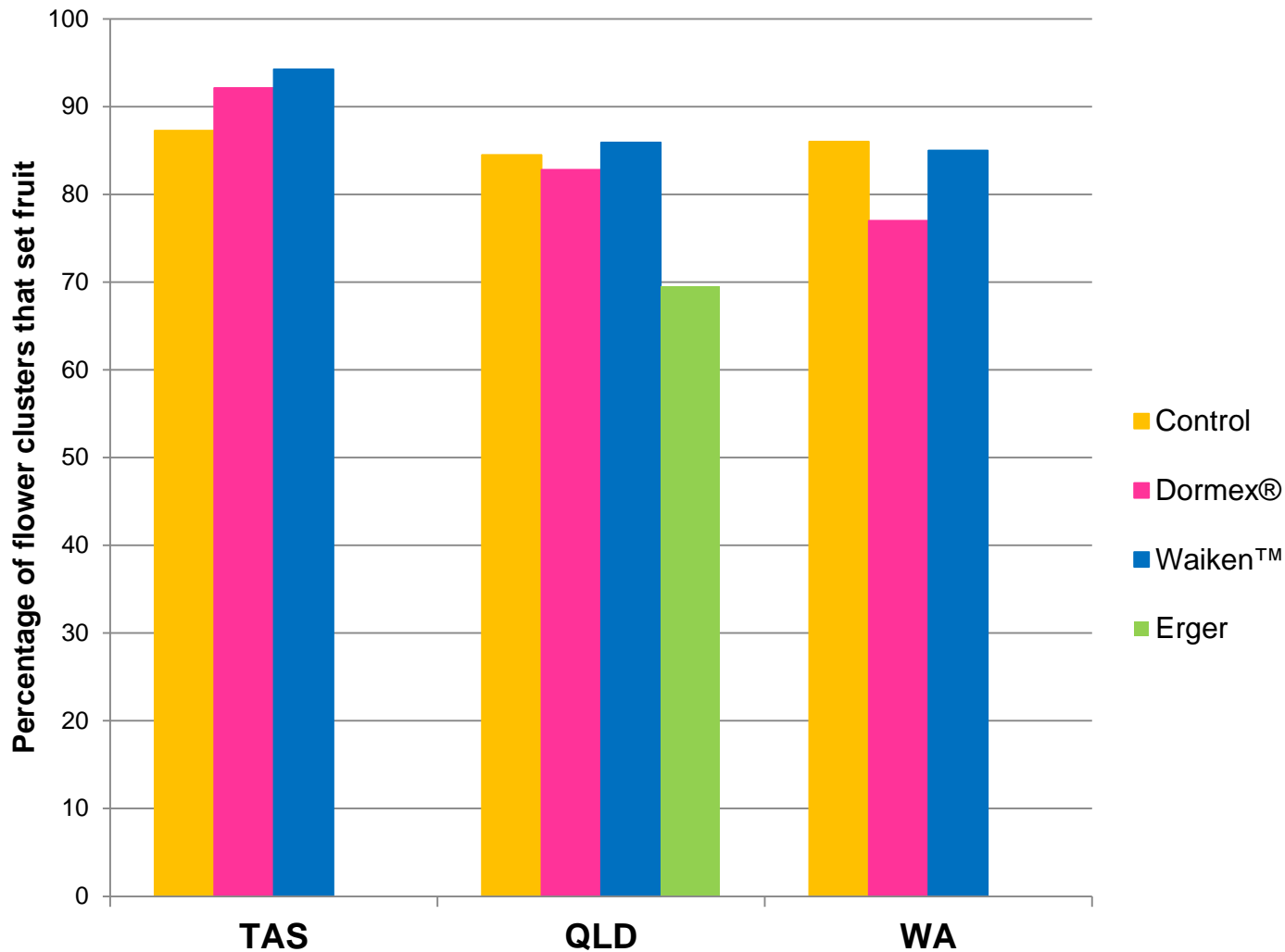
Waiken™ advances GT in QLD & WA but only impacts flowering date and duration in QLD



Galaxy



Fruit Set - Not significantly different between treatments in any location



Maturity SPI and yield

- QLD – Advanced by 9 days Dormex®, 5 days Erger & 5 days Waiken™
- WA – Slightly different but not significantly different
- Colour was more intense for Dormex® in WA



Dormex®



Waiken™



Control



Key Findings

- Impacts on bud burst and flowering are likely to vary between seasons.
- No phytotoxicity observed
- Need to consider flowering time of polliniser varieties if spraying blocks of trees.
- Importance of good records of GT& FB
- Treat individual varieties as individuals



Future Research Needed?

- More cultivars
 - Low Chill – Cripps Red
 - Mid Chill – Cripps Pink, Granny Smith
 - High Chill - Fuji
- Different timings
 - predicting 35 days before GT
 - Or can we predict 70% of chill threshold received
- Compare Erger by Valagro to Waiken™ and Dormex®