



Meteor[®]

Sept 2017

 *working with nature*



2017-2018 Season

Meteor - Year 3 commercially

Meteor development in NZ – Year 7

Continued development and extension

No matter how close to flowering you apply!

Fruit thinning isn't universal

Climate, varieties, canopy size and training systems are not universal.

Use pattern needs to adapt for conditions

No matter how close to flowering you apply!



Meteor

Is an aggressive thinning agent!

Given the right conditions it will over thin.

**Understanding the drivers to the product
is key to getting the result you are after.**

No matter how close to flowering you apply!

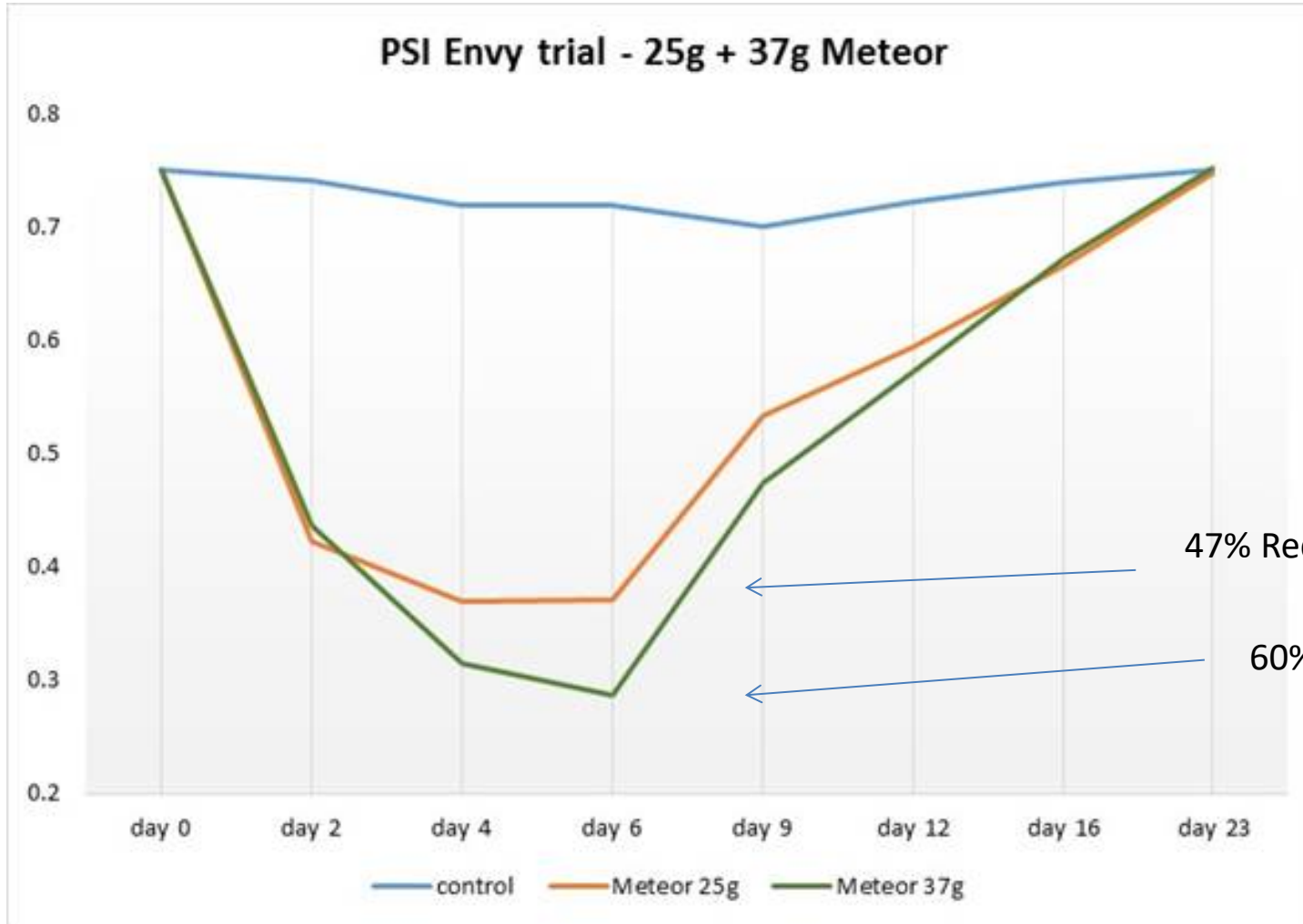
Photosynthesis Meter



- Meteor inhibits photosynthesis to cause thinning.
- Using a meter we can determine the level of reduction an application causes.
- Agfirst have been calibrating it NZ with Meteor.
- Great research tool.
- Maybe a future tool for growers.



Photosynthesis rates



47% Reduction

60% Reduction

Blue line no product, natural day by day variance. Depth of reduction at day 4-6 determines the thinning response.

AgFirst
Nelson
2015

Reduction in photosynthesis after application.
Increased reduction by rate, lower and longer, slower to recover

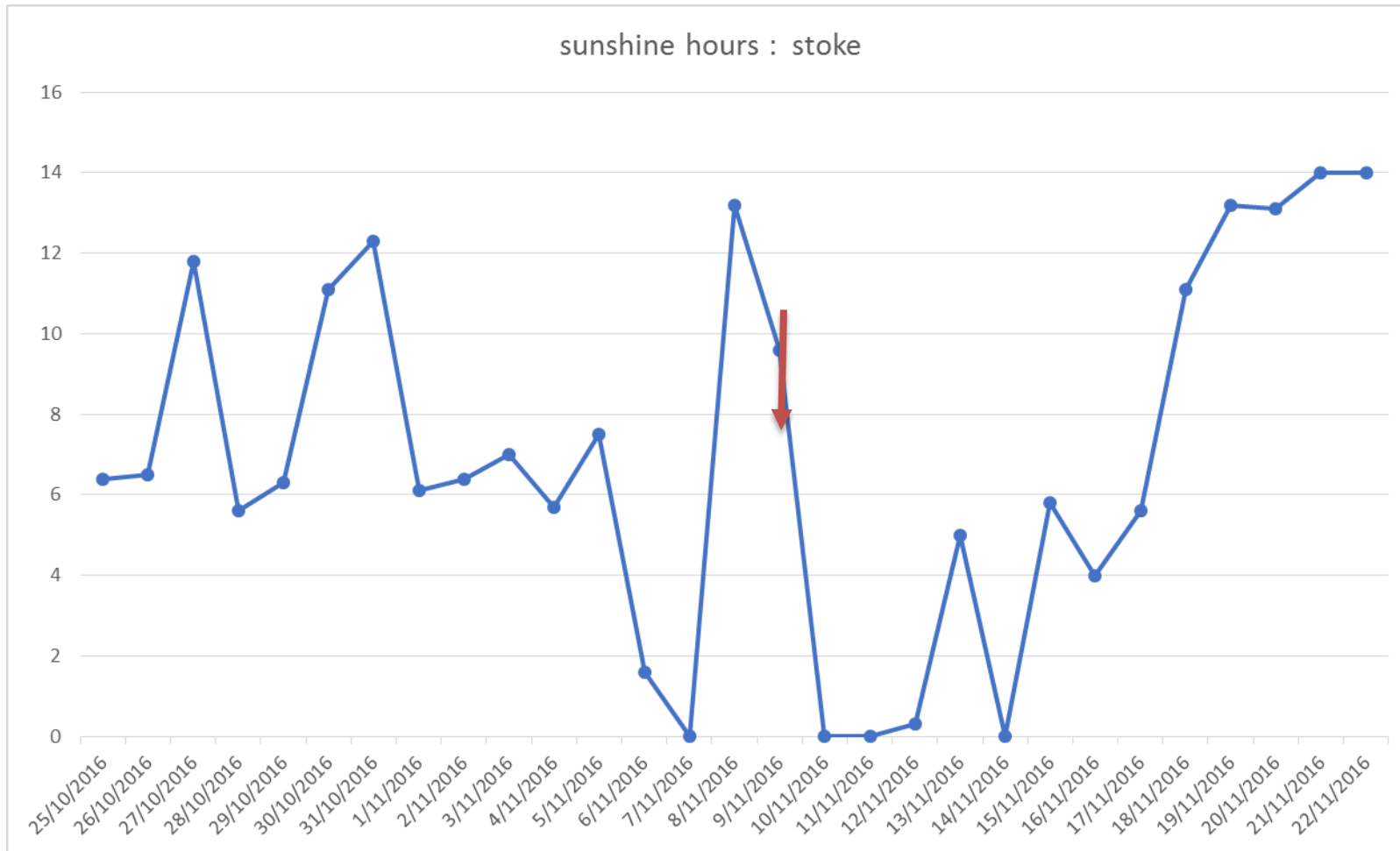
Heavy thinning

Heavily thinned Royal Gala variety

Nelson 2016



Nelson Sunshine hours 2016

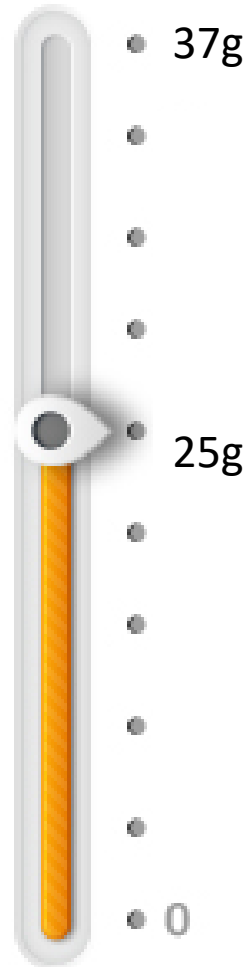


Application timing = red arrow, followed by an extend spell of unprecedented dark weather and rain. Result more thinning than expected = deeper trough.

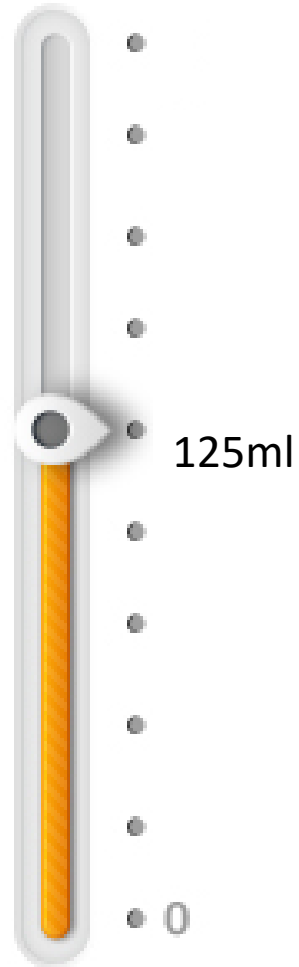


Control Options to Meteor

Product Rate



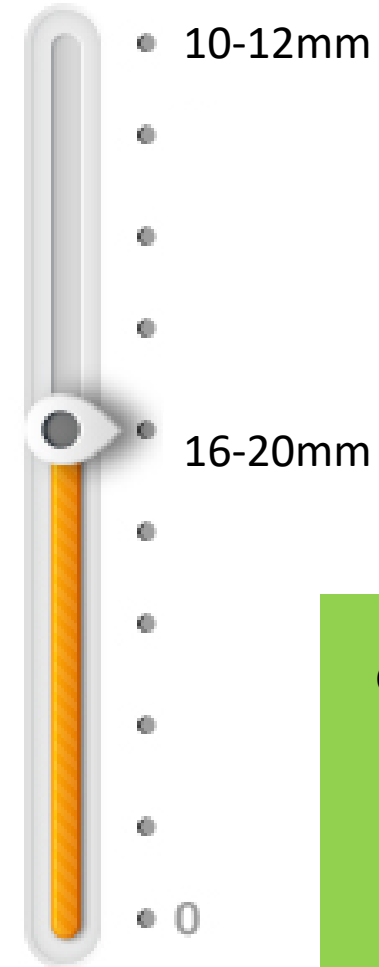
Surfactant Rate



Water Volume



Application timing



Aggressive



Mild

Controls = levers the grower can change to increase or decrease thinning effect.



Meteor – Drivers for results



Sunny, clear sky

Healthy trees

Open trees

Low fruit set

Good pollination

Overcast conditions

Wet feet, stressed trees

Large shady trees Net

Poor Pollination

Poor coverage

High initial fruit set



Mild

Drivers – factors relating to environment or site that have a significant impact on thinning (no including – variety)

Aggressive

EPA – Re-entry interval developments



Working with EPA to address re-entry

	2016-17	2017-18
No contact with trees - i.e. not thinning or pruning	28 days	21 days
Gloves worn	21 days	15 days

New statement 2017-18

Re-entry immediately after spray has dried if wearing personal protective clothing



EPA – Re-entry interval developments



Why does Meteor have a long re-entry interval?

Meteor re-entry interval is based on maximum of 2 applications of 1kg per ha each of Meteor!

Why – to give us options in future with NZ conditions and varieties.

Shorter re-entry intervals could be obtained by limiting use rates, but it may significantly effect the growers ability to thin some varieties or under some conditions.