

A close-up photograph of a kiwifruit vine. The image shows several green, heart-shaped leaves with prominent veins and some small brown spots. Interspersed among the leaves are several small, white, five-petaled flowers with yellow centers. Some of the flowers appear to be in various stages of development or are small, fuzzy fruits. The background is a soft-focus view of more foliage.

# Psa Efficacy Study, 2012

*R&D Update Meeting, Te Puke*

***Fruitfed Supplies***



# Fruitfed Supplies R&D Team

- Paul Hassan
- Tayah Johnston
- Shaun Gresham
- Hannah Goulter




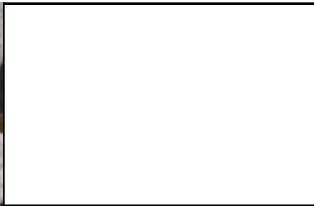










- 50 field trials between us last season in a wide variety of crops
  - Psa in kiwifruit a key focus

# Trial design

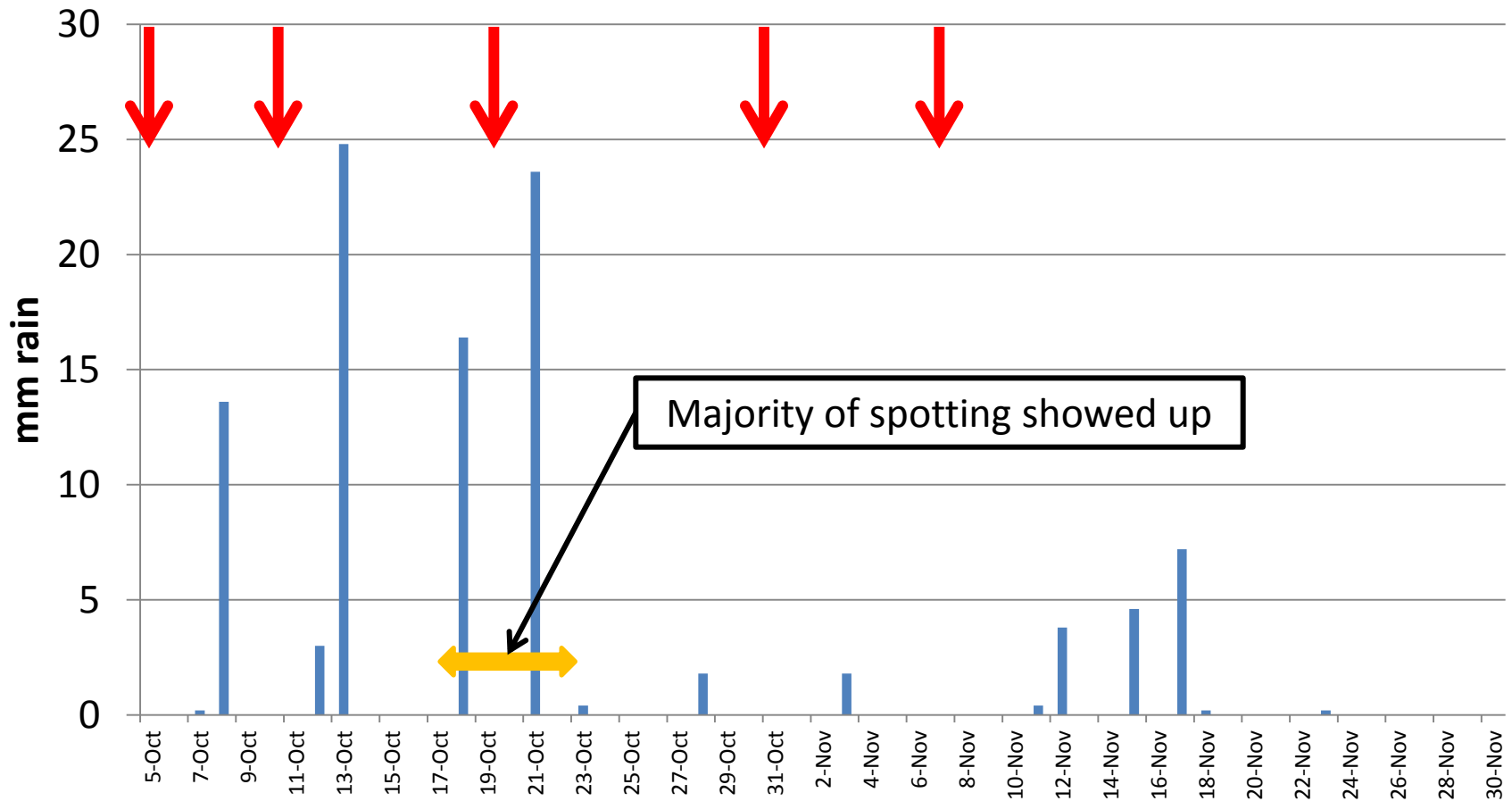
- Orchard in Maketu
- Hayward vines, strip male
  - 1 plot=1 mature female vine
- Relying on natural inoculum
- Protectant spray applications made from approx. 2 weeks post-budbreak through to pre-flower
- Leaf spot and fruitlet data



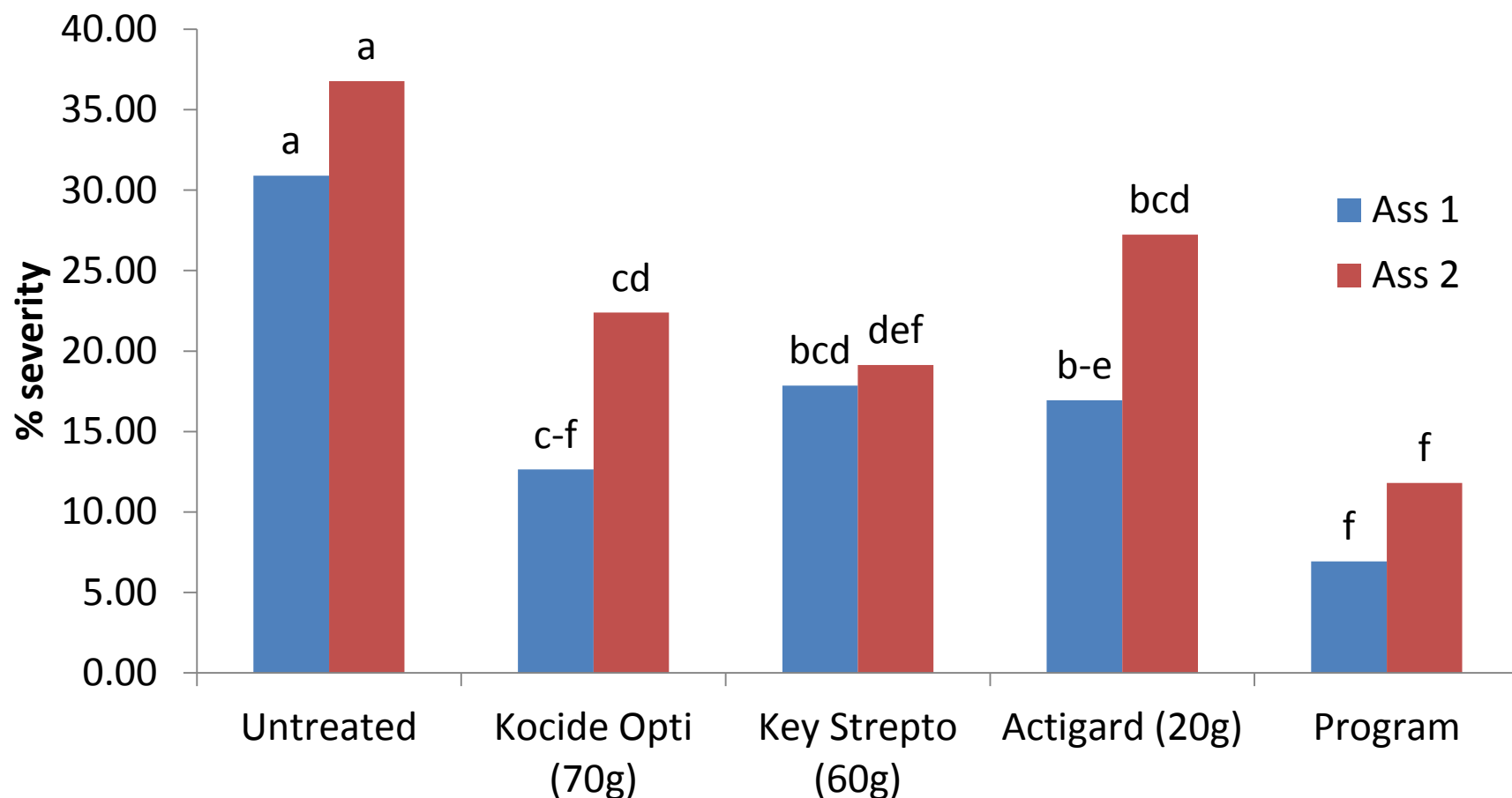
Product group	Product	Active ingredient	Applications
Protectants	Kocide Opti	Copper hydroxide	Prior to rain events or every 10-14 days (5 apps in total)
	Key Strepto	Streptomycin	
Elicitors	Actigard	Aciben-zolar-S-methyl	Every 21 days
Program	Actigard	Aciben-zolar-S-methyl	Every 21 days
	Kocide Opti	Copper hydroxide	Prior to rain events (3 apps in total)
	Key Strepto	Streptomycin	Prior to rain events (2 apps in total)

<b>0:</b> 0 leaf spots		
<b>1:</b> <5 small spots		
<b>2:</b> <25% leaf area covered in spots		
<b>3:</b> >25% but <50% leaf area covered in spots		
<b>4:</b> >50% but <75% leaf area covered in spots		
<b>5:</b> >75% leaf area covered in spots, necrosis		

# Rainfall and application dates



# Combining different MOA's



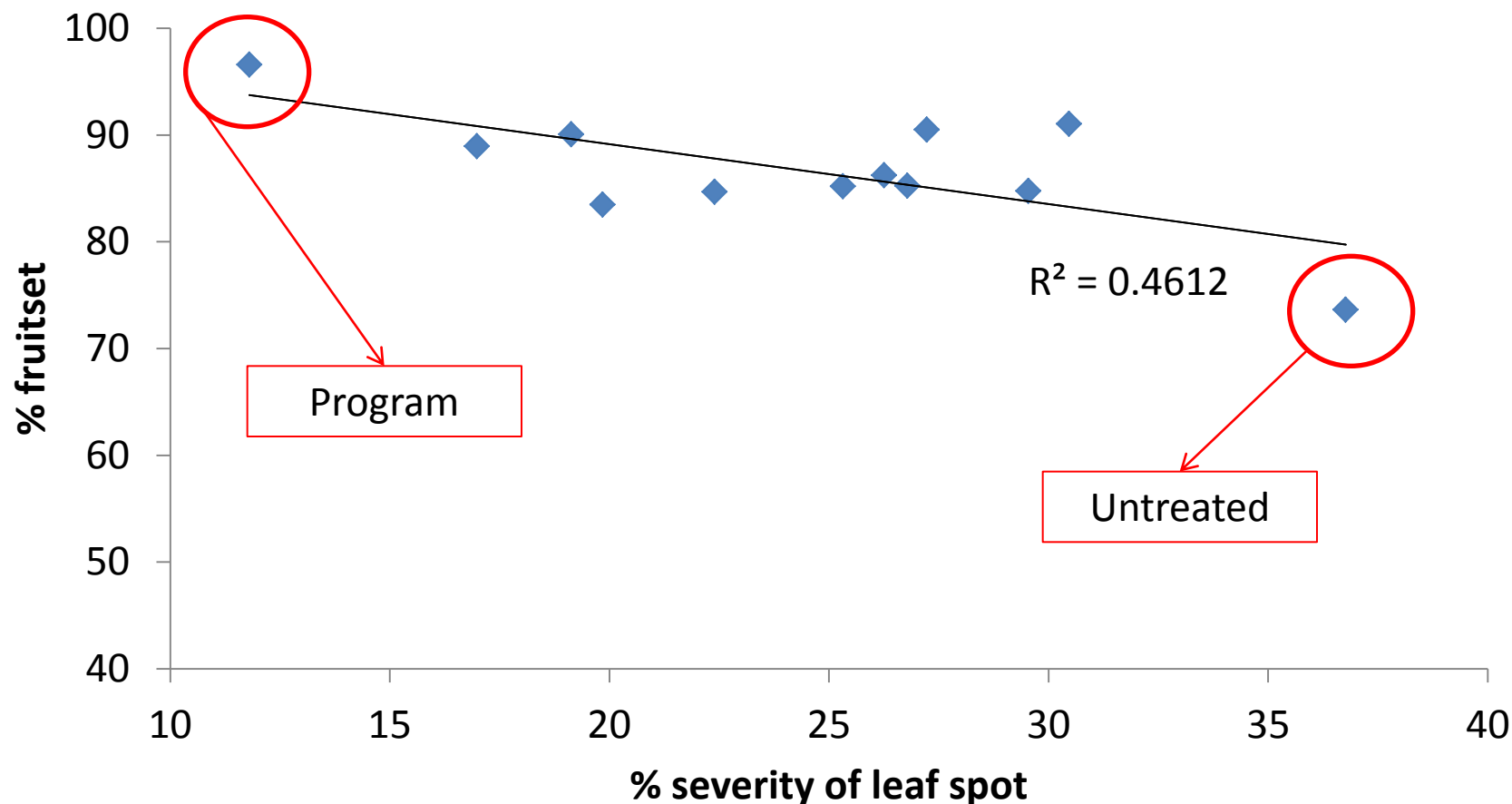


# But what does leaf spot mean?





# Does leaf spot affect fruitset?



# Further assessments

- Final fruit count and fruit size at harvest
- Secondary symptoms early Spring of next year

# Phytotoxicity observations

- After 5 applications pre-flower
  - Kocide Opti, no phyto
- Dilution effect due to leaf growth, low rates



# Other interesting observations

- Males looked bad to start with, but appeared to “grow through” the spotting
- Severe female spotting appeared to show up “overnight”
- Certain bays lots of spur shoots showed next to no spotting when other bays did, and are still very clean

Thank you to Seeka, particularly Murray and Gavin  
Also to Alastair, Jo, Rachael, and Matt