

# Managing psyllids and other citrus pests

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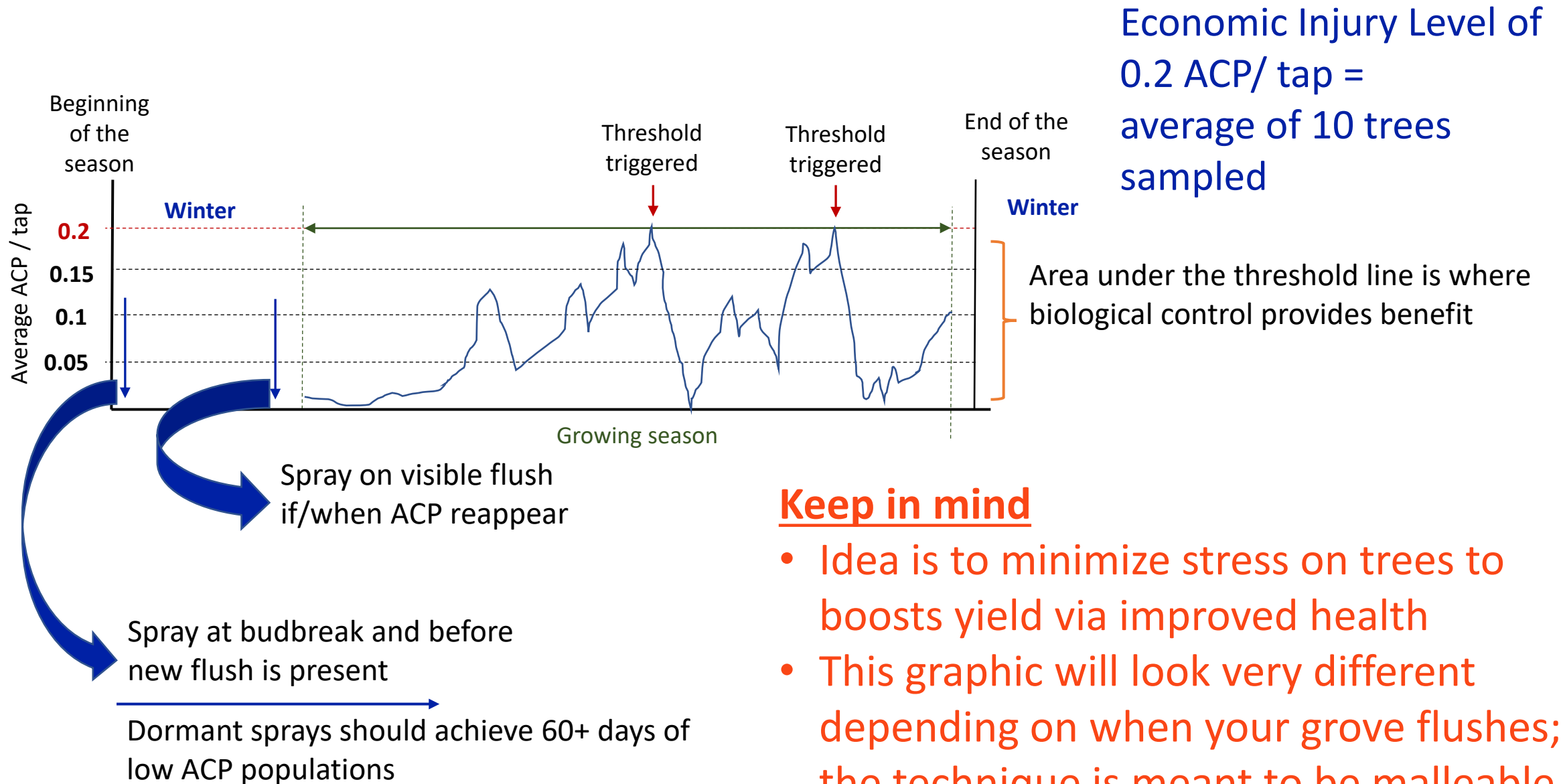
Citrus Expo – August 16, 2023



# Take Home Messages

- As psyllid density increases, trees receive greater stress which compromises tree health (yield)
- Spray for adults at bud break at the beginning of spring before there is feather flush on which adults can lay eggs.
- 0.2 – 1.0 psyllids per tap work as effective nominal thresholds.
- Window for spraying against CLM is between 13-31 days after budbreak
- Several insecticides used against ACP are also effective against Diaprepes

# Timing using thresholds



## Keep in mind

- Idea is to minimize stress on trees to boosts yield via improved health
- This graphic will look very different depending on when your grove flushes; the technique is meant to be malleable to changing conditions

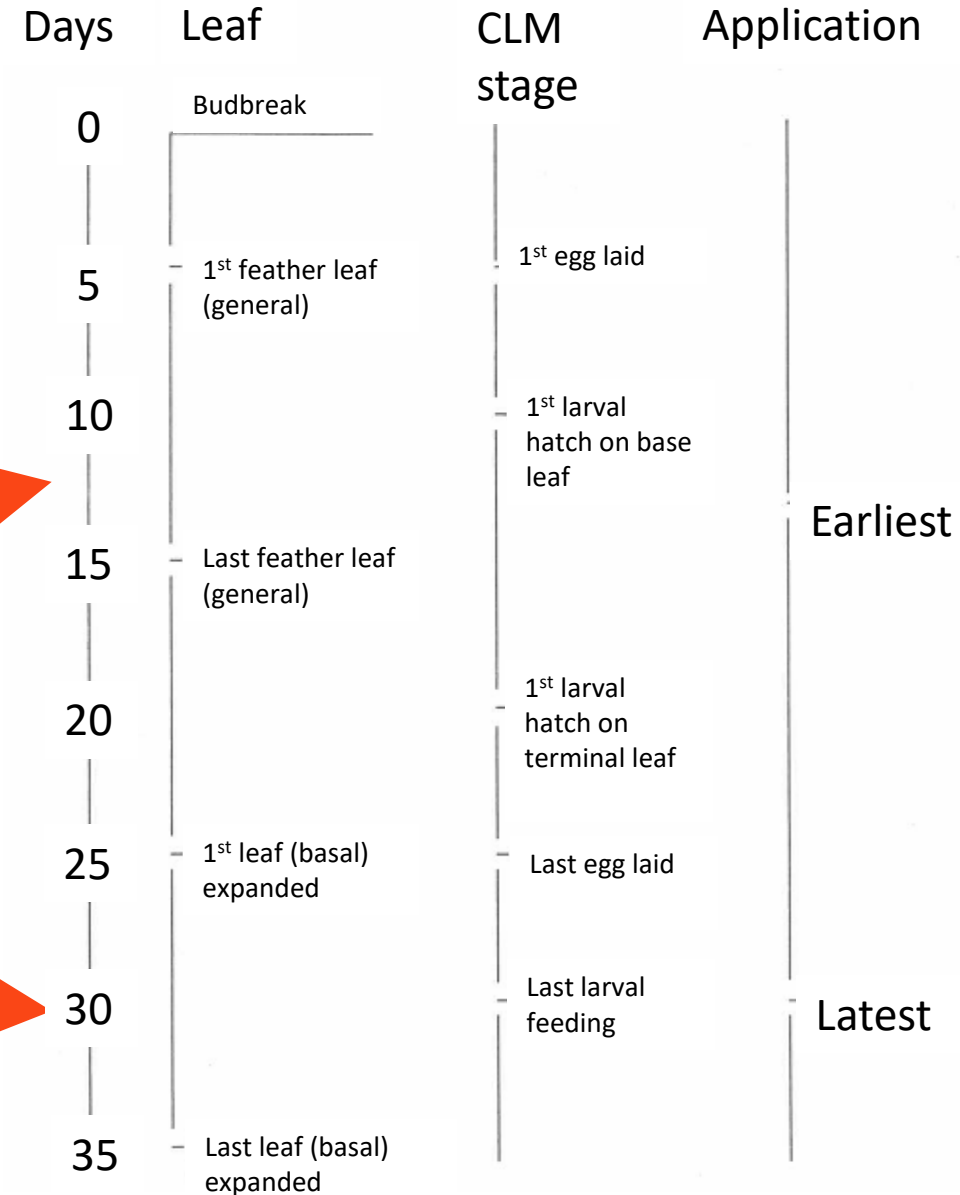
# Timing leafminer sprays

## Timing of application for leafminer control

### --FOLIAR APPLICATIONS--

13 days from general budbreak is earliest time for application

Last potential date for leafminer application is 31 days after budbreak





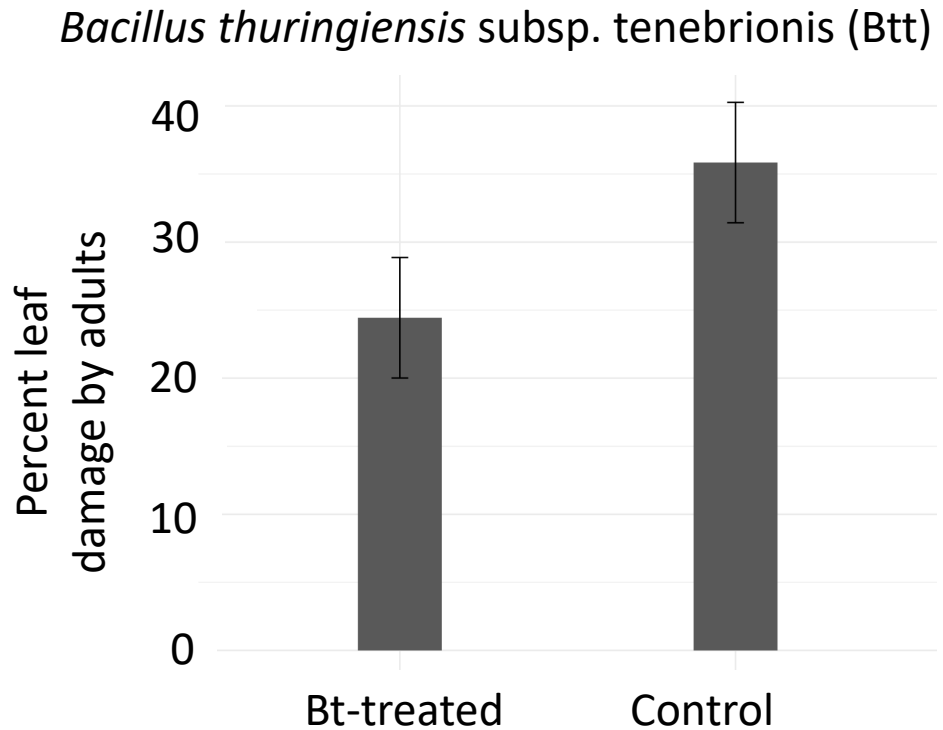
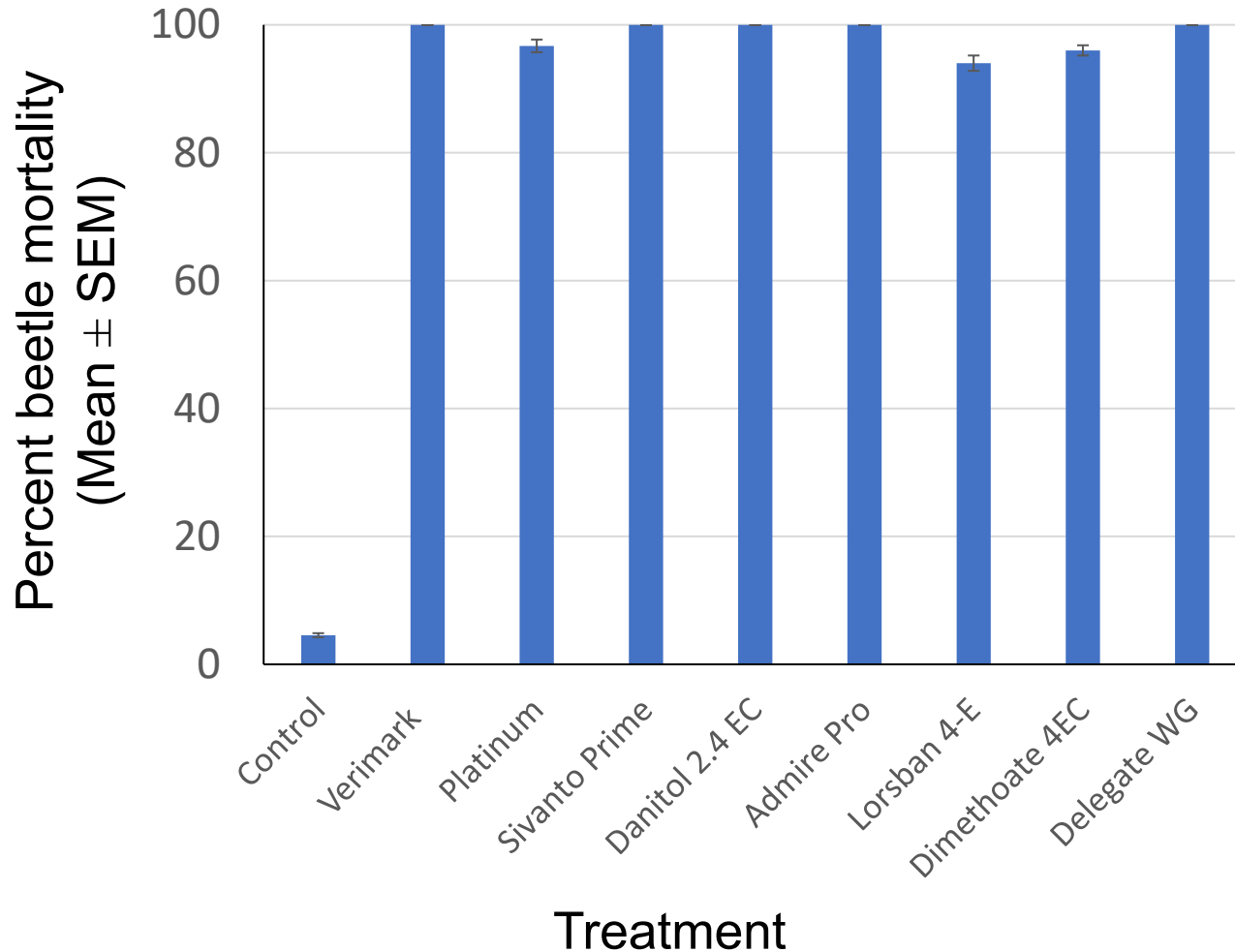
# Diaprepes management basics

- Cultural: Good soil drainage and cover crops can improve fibrous root growth
- Several citrus-registered insecticide kill adults
- Soil applied insecticides will larvae in the soil
- Availability of EPN formulations (Nemesys-R) should again increase; these are very effective for periods of 4 wks after application
- Micromite will kill eggs and reduce female fertility



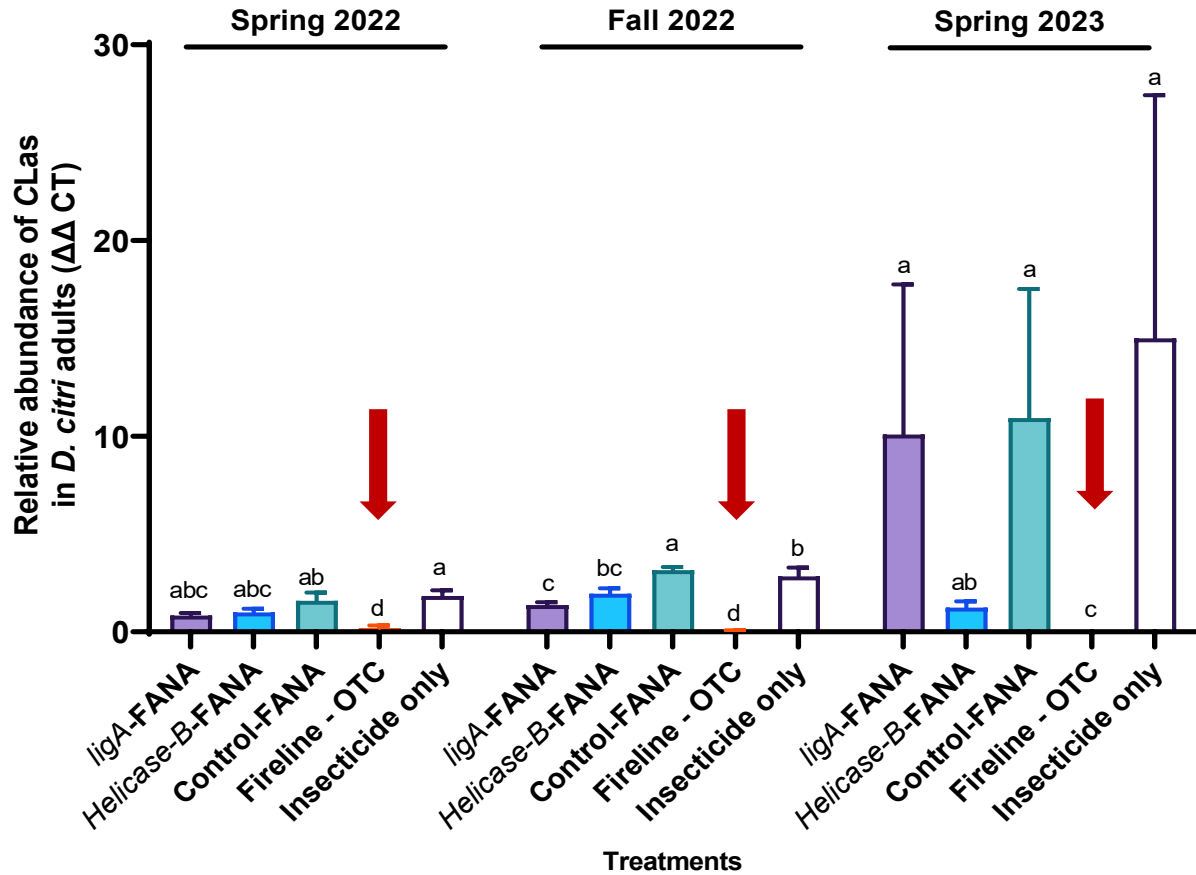
# Diaprepes and current insecticides

Many insecticides commonly applied for Asian citrus psyllid will kill *Diaprepes* larvae in the soil column if the insecticide treatment targets soil



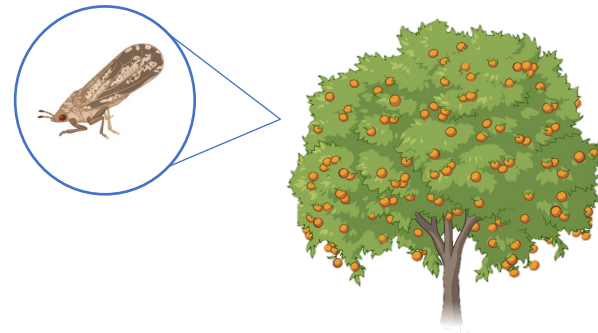


# Evaluations of trunk-injected antimicrobials



AOV: TRT; P < 0.01

F1



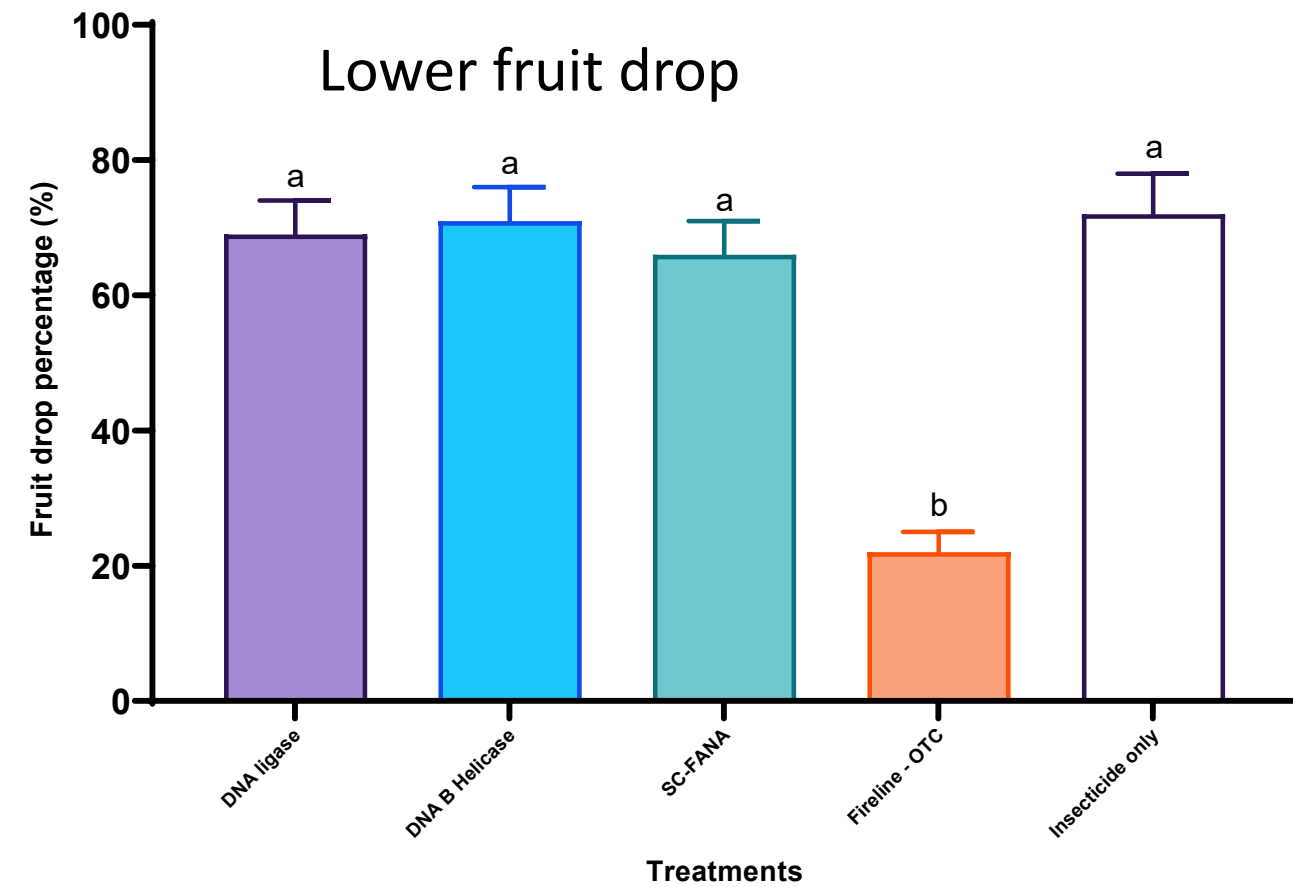
20 ml injections of **Fireline** at 78K ppm (1.56g/plant)

One year after initiation of experiment

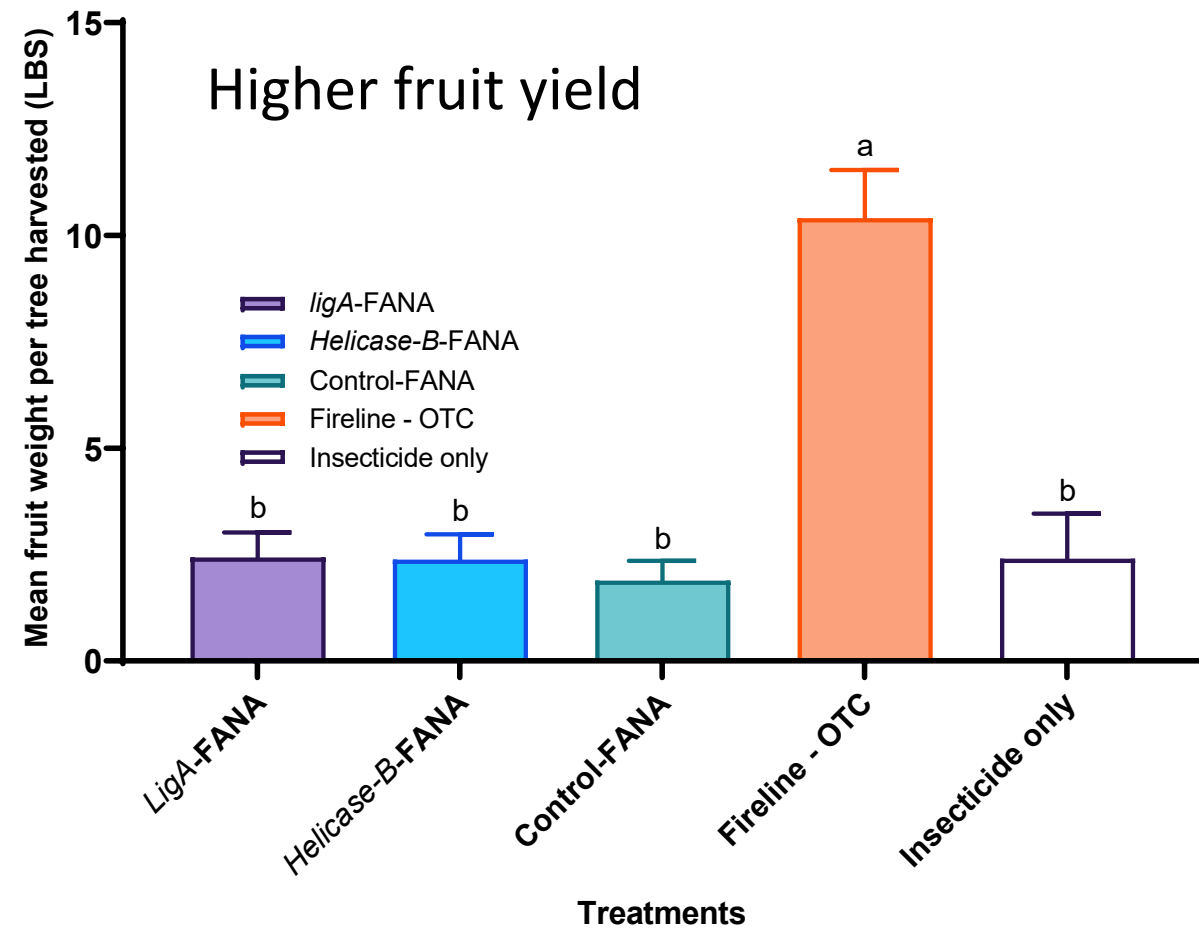




# Evaluations of trunk-injected antimicrobials



$\chi^2$ : TRT;  $P < 0.01$



# What can growers do?

- Apply broad spectrum insecticide at general budbreak
- Monitoring can inform spray decisions—when tap samples reach 1.0 psyllid/tap—it's time to spray
- Best not to apply leafminer products until you see mines. These products only work on living mines
- If Diaprepes are a problem in your grove, combining Mustang + Micromite rotation is a good start to reduce populations. Rotate in soil applications of a neonicotinoid with Verimark to kill larvae in soil at times when psyllid applications would be made for combined benefit of reducing psyllid populations.
- Initial data with Fireline suggest that trunk-injected OTC should provide much more benefit than earlier attempts with foliar sprays

# Making a profit is the goal



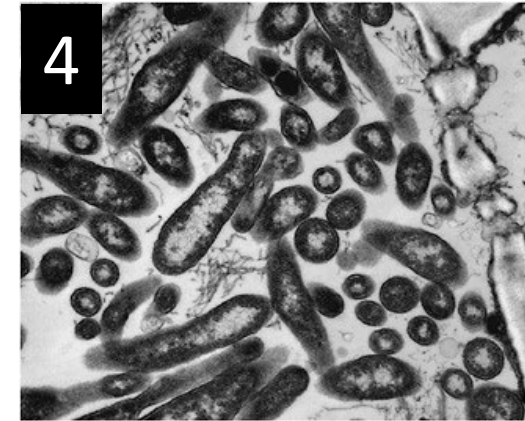
Keep below  
damaging levels with  
3-4 sprays max



Piggyback on  
psyllid sprays and  
make directed  
sprays count



Spray in canopy for  
adults and apply to soil  
for larvae to make  
headway



Cut back on insect  
sprays to allow  
investment in OTC to  
bring weak trees  
back into production  
by knocking back the  
pathogen



# Acknowledgements

Funding:



**Any questions?**

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**Thank you!**

