

# Bio-Control of 2-spotted mites in Strawberries

Dave Peck, Manzanita Berry Farms May 14, 2019

## N. fallacis v. P. persimilis on 2-Spot Mite

- Fallacis is more effective in wider range of temperatures and humidities
- Fallacis are more effective on Lewis mite
- Persimilis are easier to count and monitor
- Persimilis are much more selective and more effective on 2-spotted mites
- N. californicus is a viable alternative to fallacis, but feed slightly less selectively on 2-spot

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## P. persimilis in Strawberries

University of Florida, MREC web site



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## Factors in Persimilis Establishment

- 2-spot presence, density
- Favorable climate
- Sufficient plant canopy
- Plastic mulch color
- Pesticide use (Sulfur)
- Optimum release rate for 2-spot density
  - To many is too many

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### Neoseiulus ( Amblyseius) fallacis




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### N. Fallacis Generalities

- Fallacis are difficult to monitor because they don't stay on the underside of leaves like persimilis, they wander a lot.
- Counting 2-spot populations, adults and eggs, meticulously is key to field monitoring
- Stop putting out fallacis for 2-spot when climate turns favorable to persimilis, usually after 15-30,000 fallacis applied per acre.
- Lewis mite control dynamics - ?

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### Decision Data From Mite Survey

- Geographical distribution
  - Where to focus more attention, are hot spots developing
- Mites/leaf and % leaf infested
  - Total mite populations will tell you the value and urgency of adding more Pp or implementing additional management methods
- % Leaves with Persimilis
  - Are your Pp effectively finding targets, what is the trend since last sample?
- Ratio of 2-spot:Persimilis – Which direction is the ration trending?
  - How close are we to control:
 

Ratio of 100:1= good start  
20:1 expect control  
13:1 you did it
- Though possible, don't expect Fallacis to control 2-spot very often alone

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