

Mastering Vinegar Fly and Spotted Wing Drosophila Management in Strawberry

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Spotted wing drosophila *Drosophila suzukii*



Photo courtesy Martin Hauser CDFA

Spotted Wing Drosophila



Spotted Wing Drosophila Larva



Vinegar fly – *Drosophila simulans*



Photo courtesy Martin Hauser CDFA

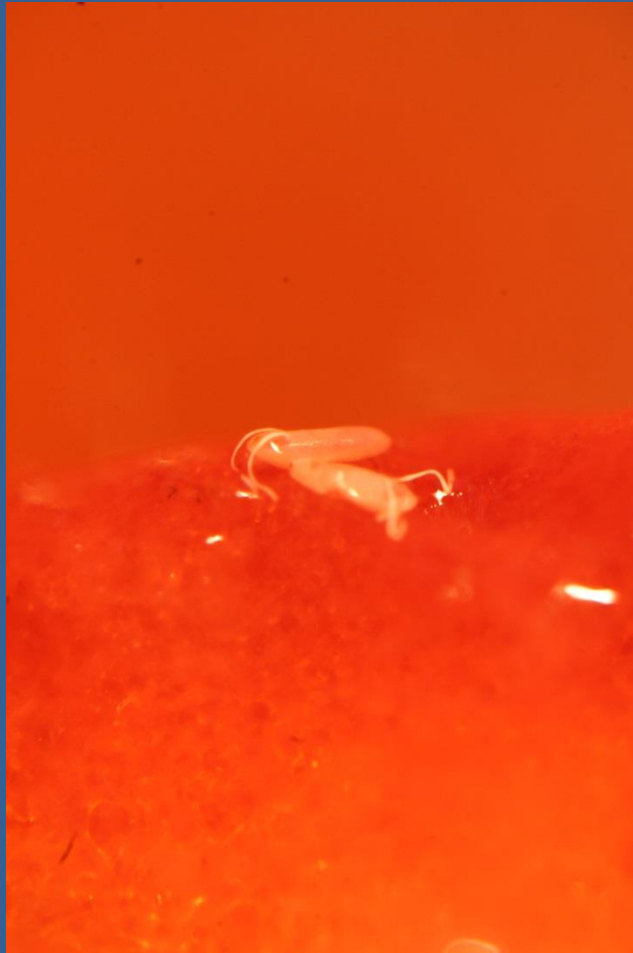
Vinegar flies



Vinegar Fly Egg Mass



Vinegar fly egg

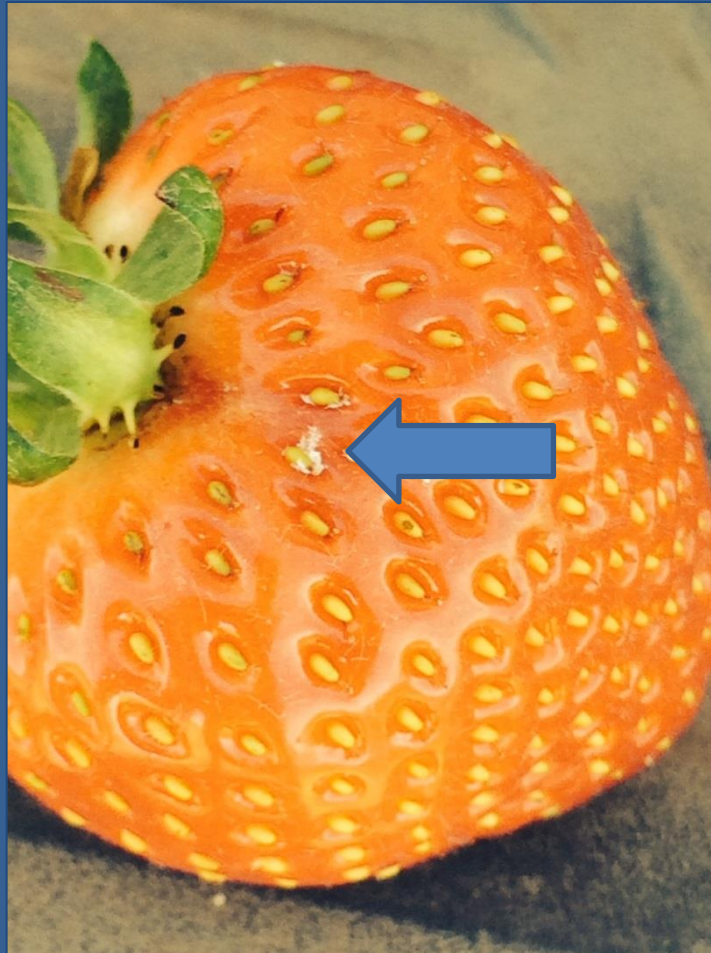




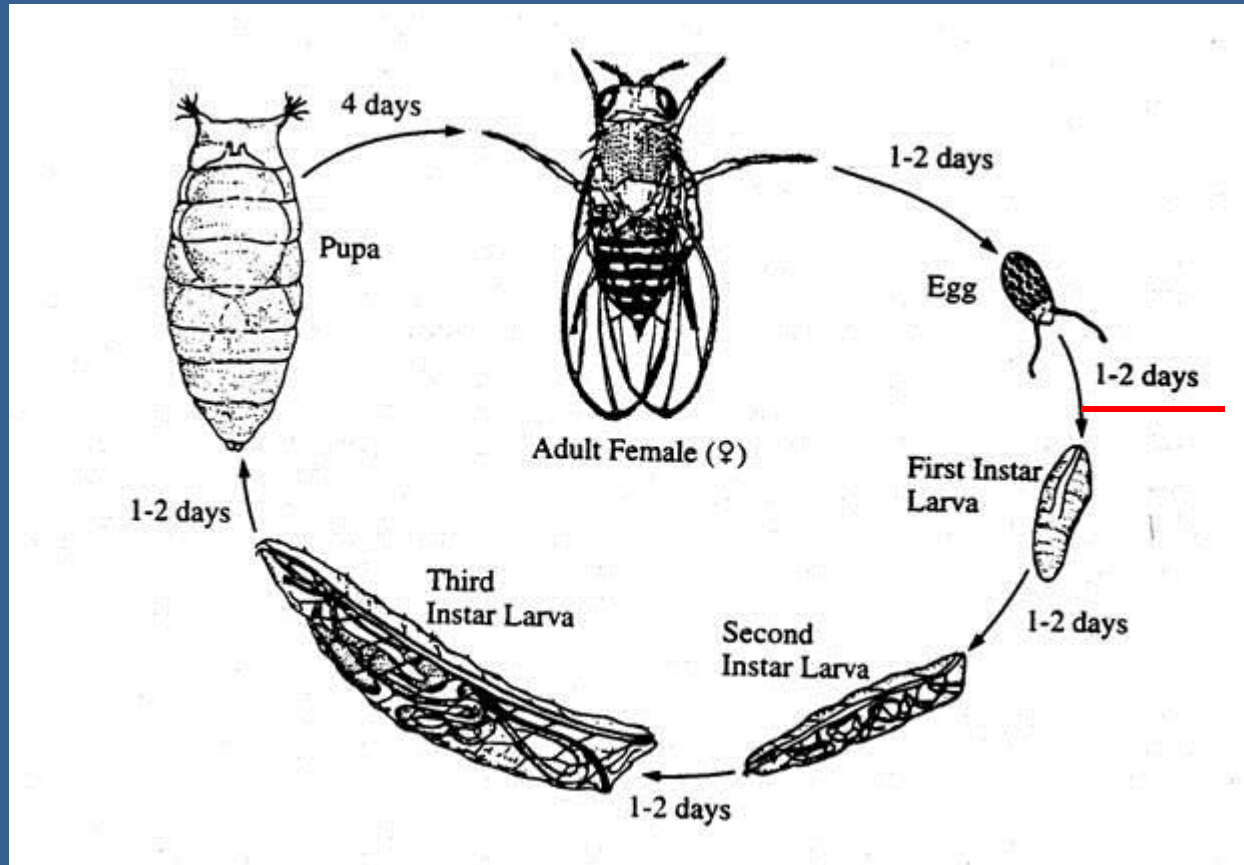
Vinegar fly eggs



Unripe fruit



The Problem of Vinegar Flies



Control measures

- Organophosphates
- Pyrethroids
- Spinosyns
- Pyganic?

2013 Predaceous Nematode, *Steinernema carpocapsae*, Trial – Raspberries

Application 9/30/2013 and 10/6/2013 @ 100 gal/A

- Exiral 5E – 20 fl oz
- Double Take 5.3 fl oz
- Mycotrol + Kinetic 3 qt
- Predaceous nematodes 25 million per acre

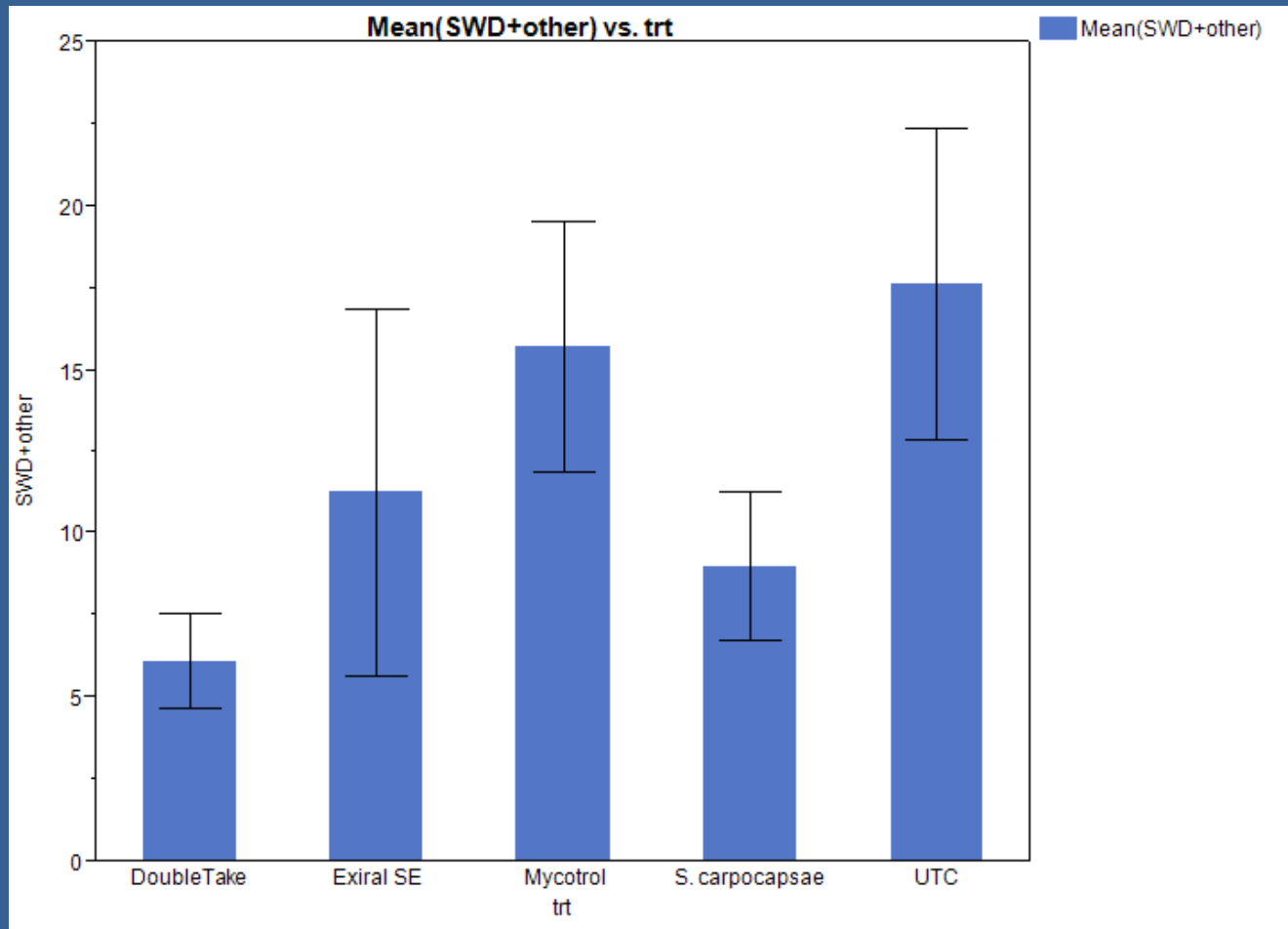
Evaluation



Sampling with Buc – vac over 18 foot long hedgerow 1x a week.

Trial work 2013

Total number of flies counted in study



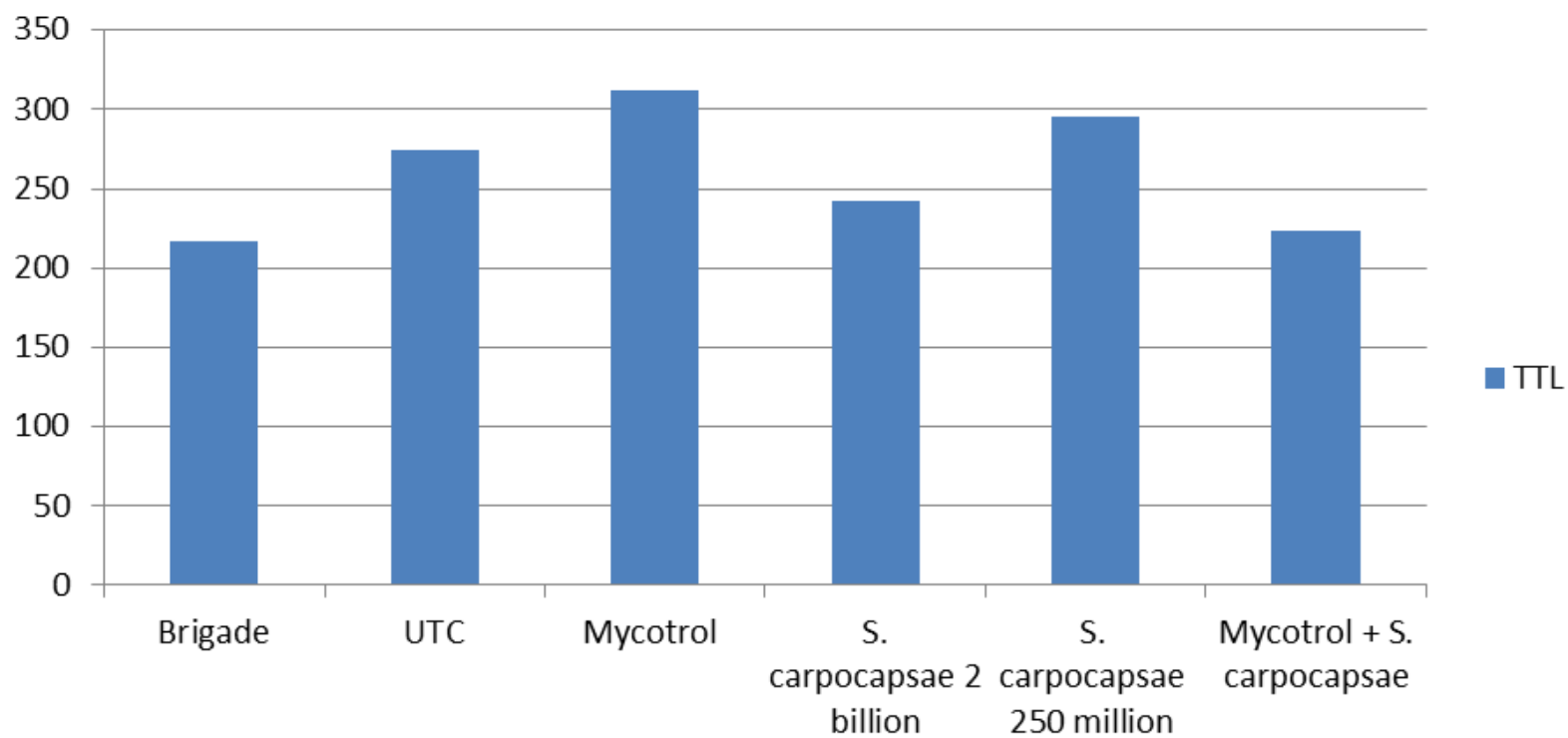
Predaceous nematode trial 2014

Funded by North American Strawberry Growers Association

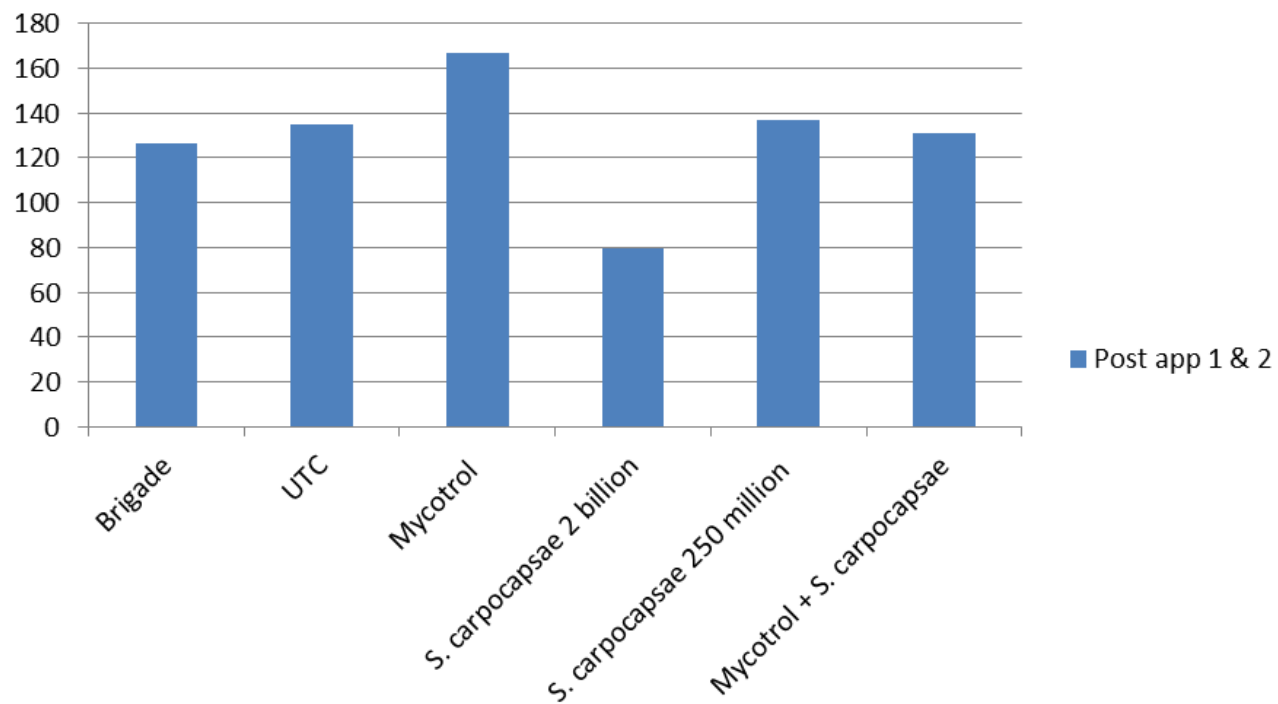
Application 9/11/2014 and 9/19/2014 at 100 gal/A

- Brigade 16 oz
- *Steinernema carpocapsae* 250 million
- *Steinernema carpocapsae* 2 billion
- Mycotrol 3 qt + Molex
- Mycotrol 3 qt + *S. carpocapsae* 250 million

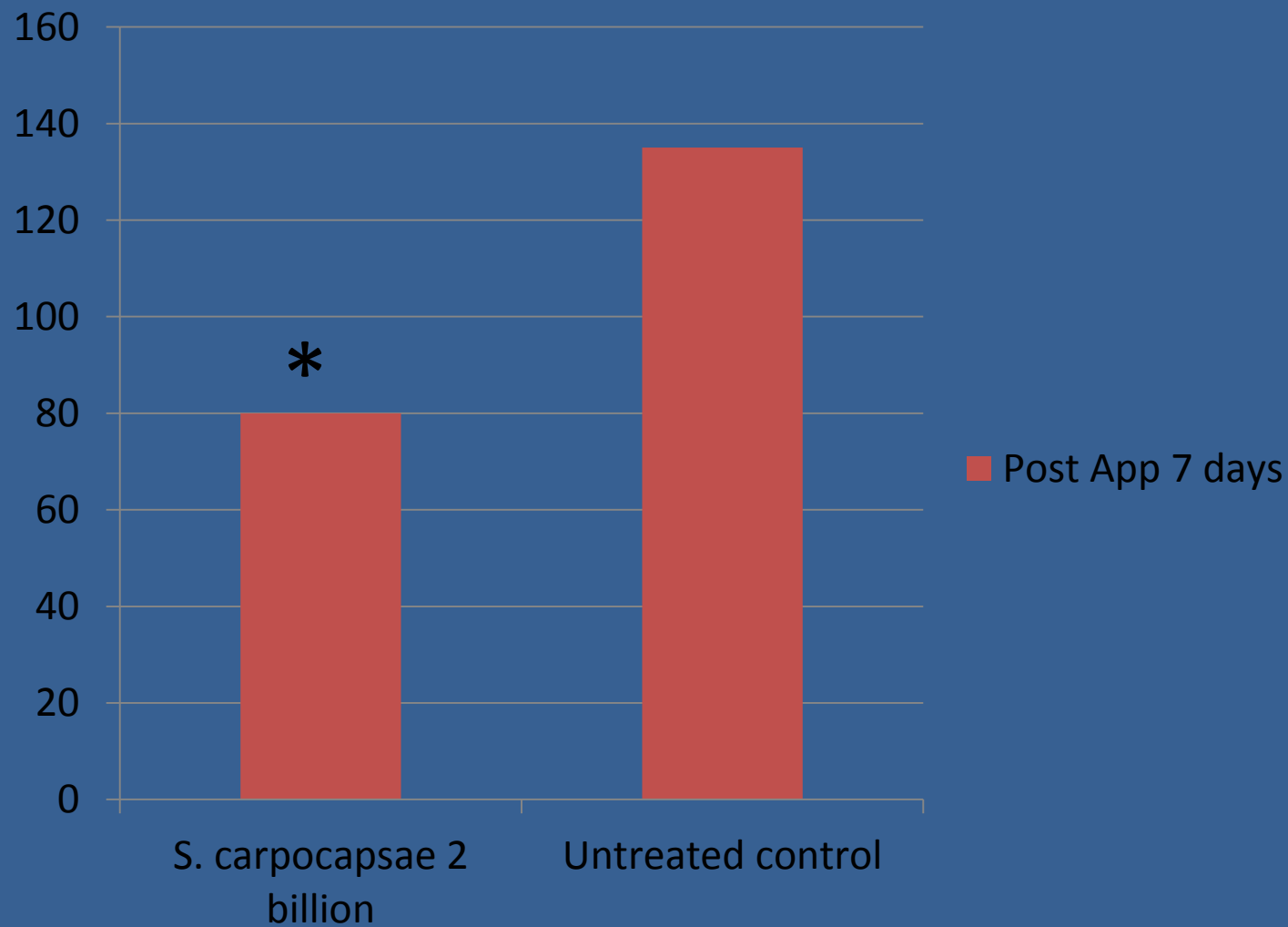
Total for Trial



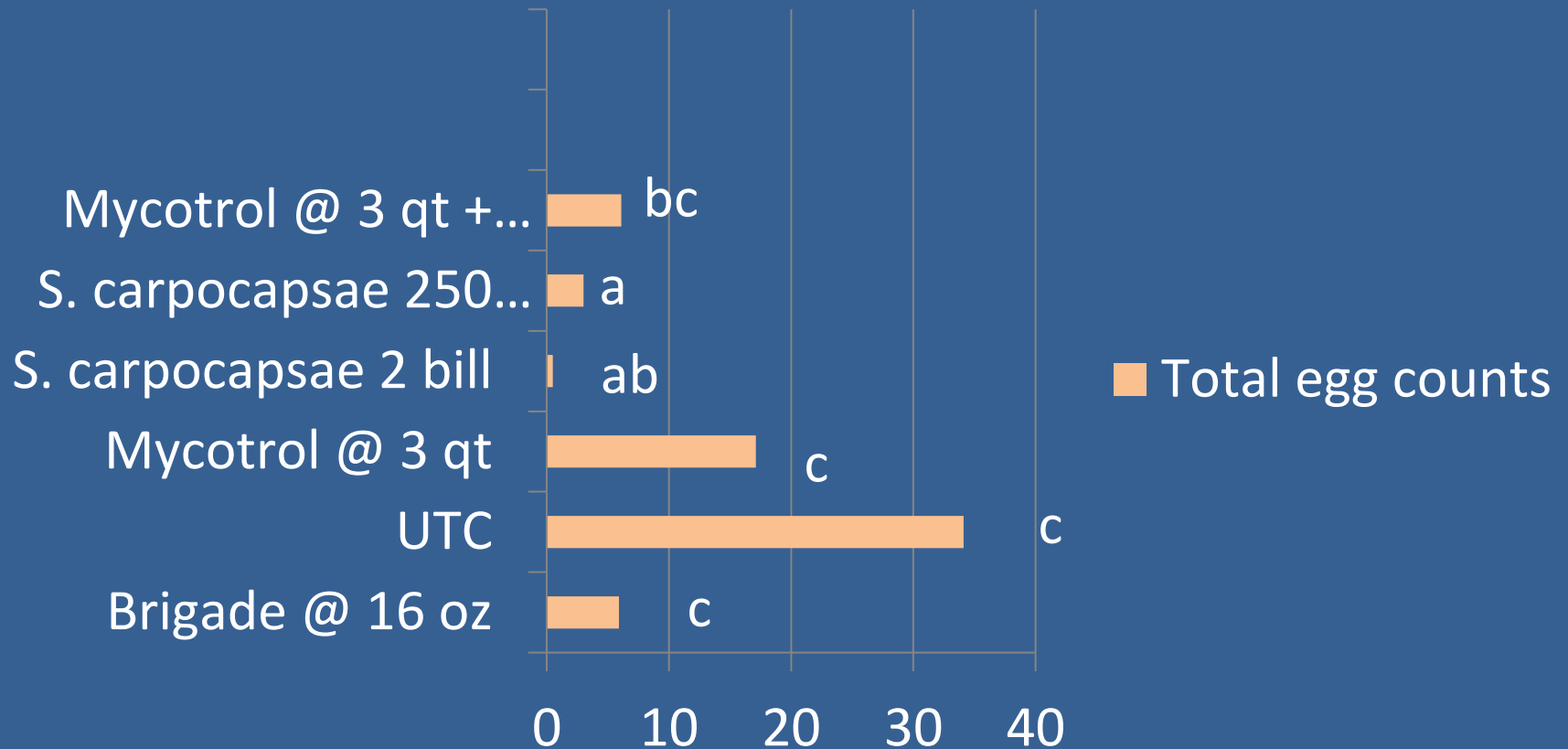
Post applications 1 & 2



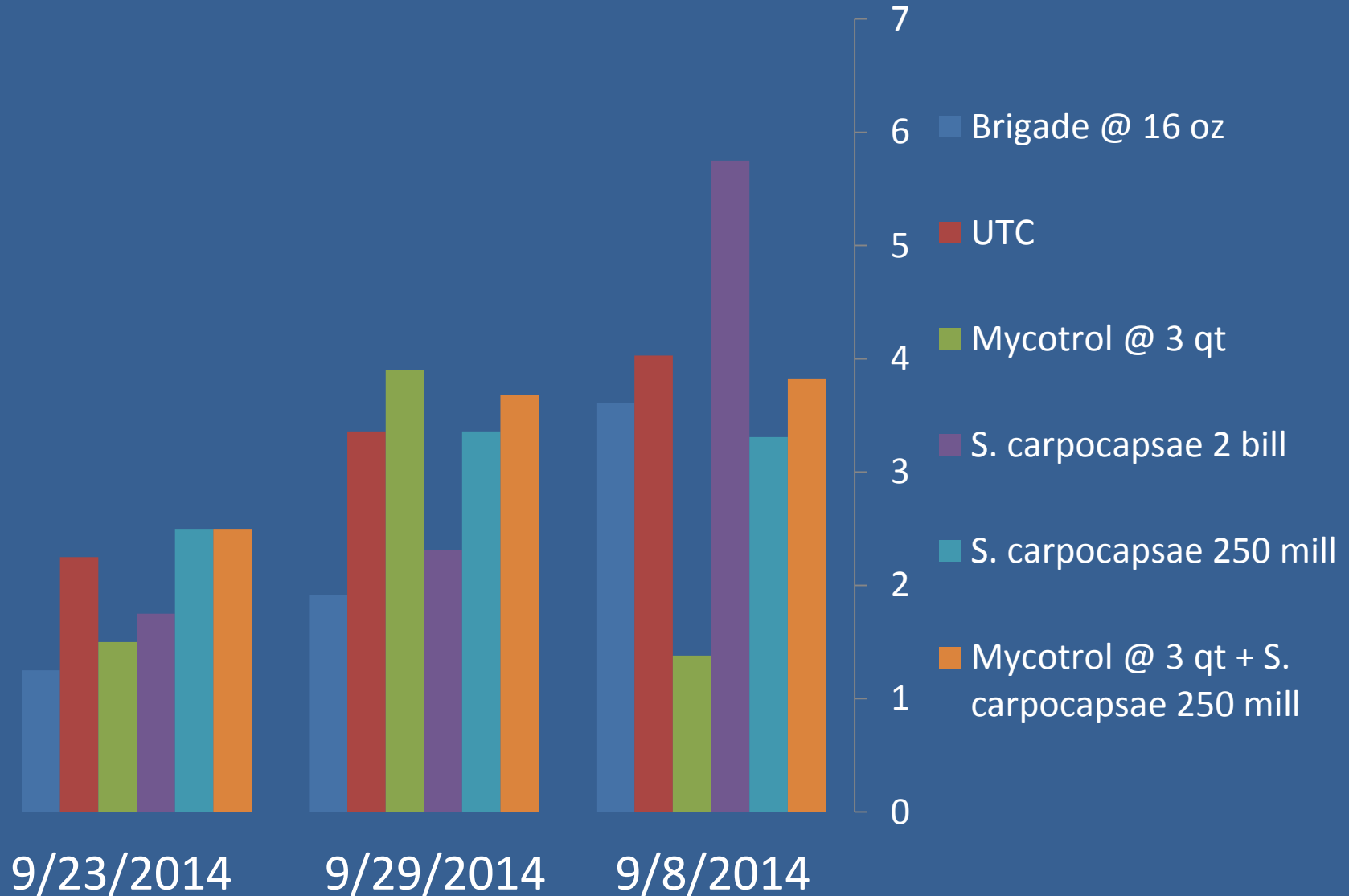
Compare two treatments in T-test



Total egg counts (5 sampling dates)



Brief Diversion into Lygus



Conclusion

- Use of *Steinernema carpocapsae* interesting and merits further investigation.
- Strawberry growers should strive to avoid any injury to fruit in the field.
- Most importantly, growers must realize the implications of even a delay of one day in harvesting strawberries.