MANAGING THRIPS ON VEGETABLE CROPS

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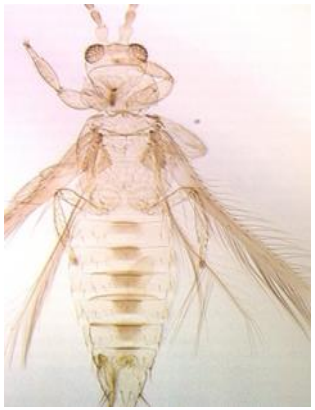


Melon thrips and its hosts

Solanaceae: Eggplants, pepper, potato, tobacco, ground cherry.

Cucurbitaceae: Cucumber, watermelon, muskmelon, cantaloupe, pumpkin, bitter melon, squash, hairy gourd.

Leguminoceae: Kidney bean, broad bean, cowpea, soybean, etc.

Melon thrips damage

Melon thrips adults

Melon thrips larvae

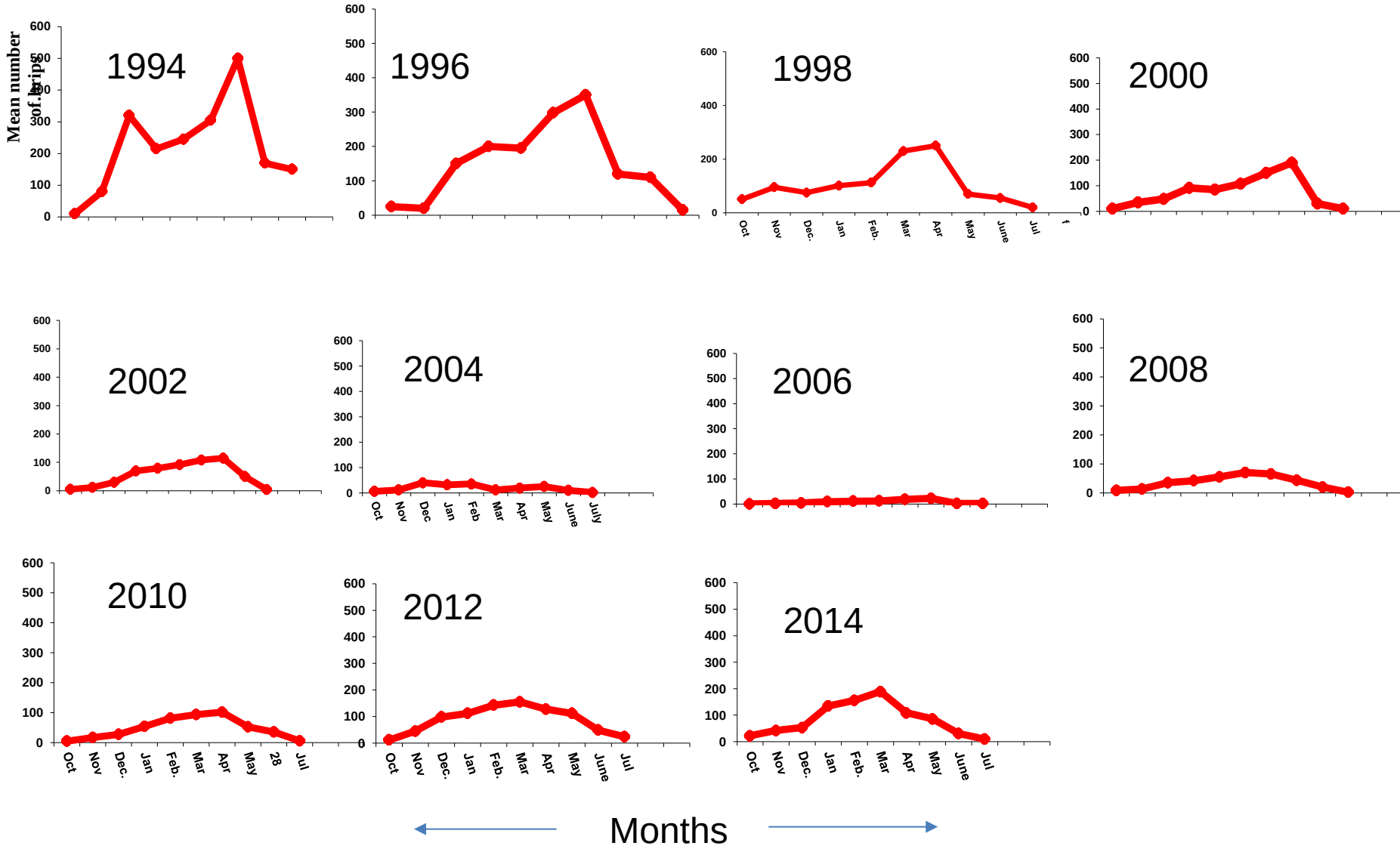
Eggplant

Bean

Cucumber

Squash

Seasonal abundance of *T. palmi* in 'Pod Squad' beans during 1994 – 2014

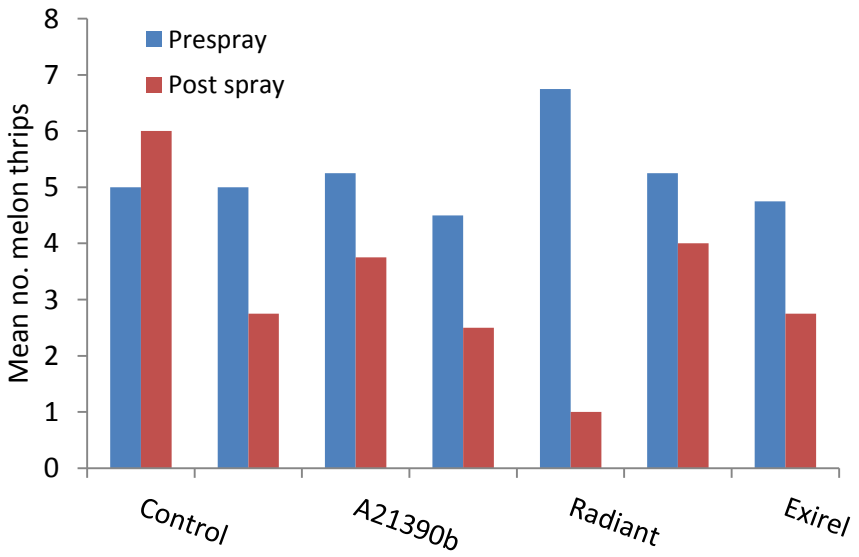


Melon thrips control

Various studies were conducted at TREC research plots using:

Bean
Squash
Cucumber
Tomato

Melon thrips control on tomato using various insecticide treatments at TREC, UF-IFAS, 2014

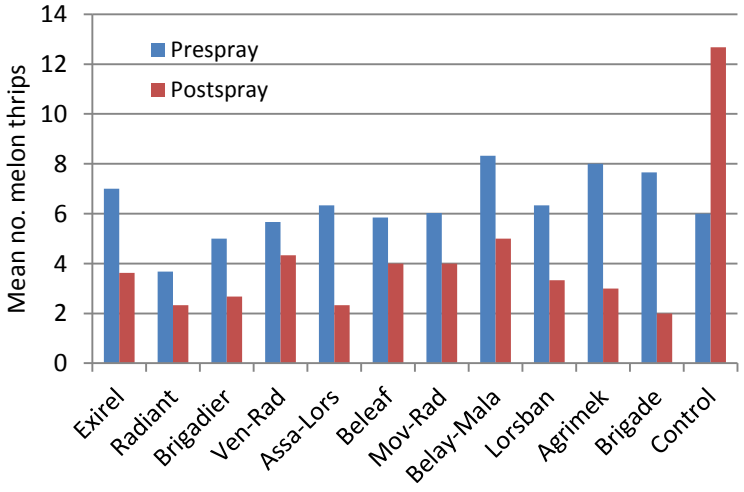


Treatments	Rate [oz.]/acre
Control	
A21390a	8
A21390b	8
A21390c	8
Radiant	8
Durivo	13
Exirel	13.5

Applied two times on the foliage at 7 d intervals. Samples were collected 48h after each application. Evaluation was made by counting larvae on randomly selected 10 flowers/plot.

Durivo: Thiamethoxam+Chlorantraniliprole; A21390: Abamectin+Cyantraniliprole

Melon thrips control using various insecticide treatments in a commercial tomato field, 2014



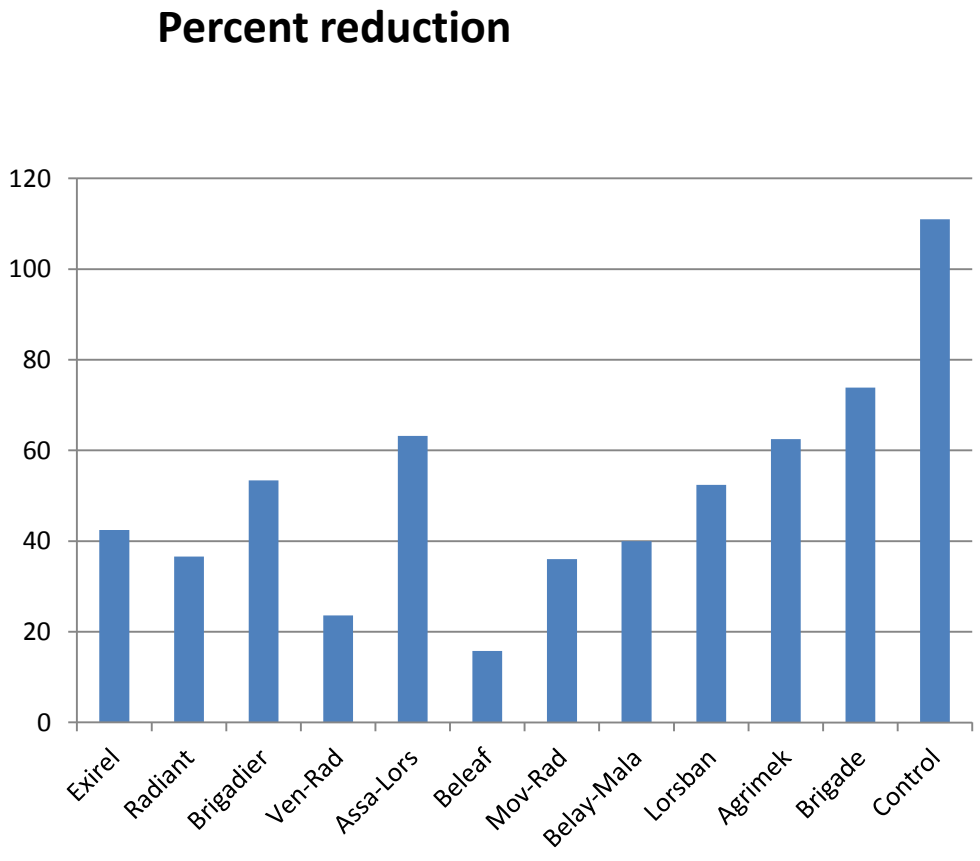
Treatments	Rate [oz]/acre
Exirel	21.4
Radiant	8
Brigadier	5
Venom + Radiant	5.0 + 8.0
Assail + Lorsban	6.0 + 16.0
Beleaf	4
Movento + Radiant	5.0 + 8.0
Belay + Malathion	6.0 + 32.0
Lorsban	16
Agrimek	16
Brigade	2.5
Control	

Applied four times on the foliage at 7 d intervals. Samples were collected 48h after each application.

Evaluation was made by counting larvae on randomly selected 10 flowers/plot

(Brigadier: Befenthrin + imidacloprid; Beleaf: Flonicamid; Belay: Clothianidin)

Melon thrips control using various insecticide treatments at a commercial tomato field, 2014



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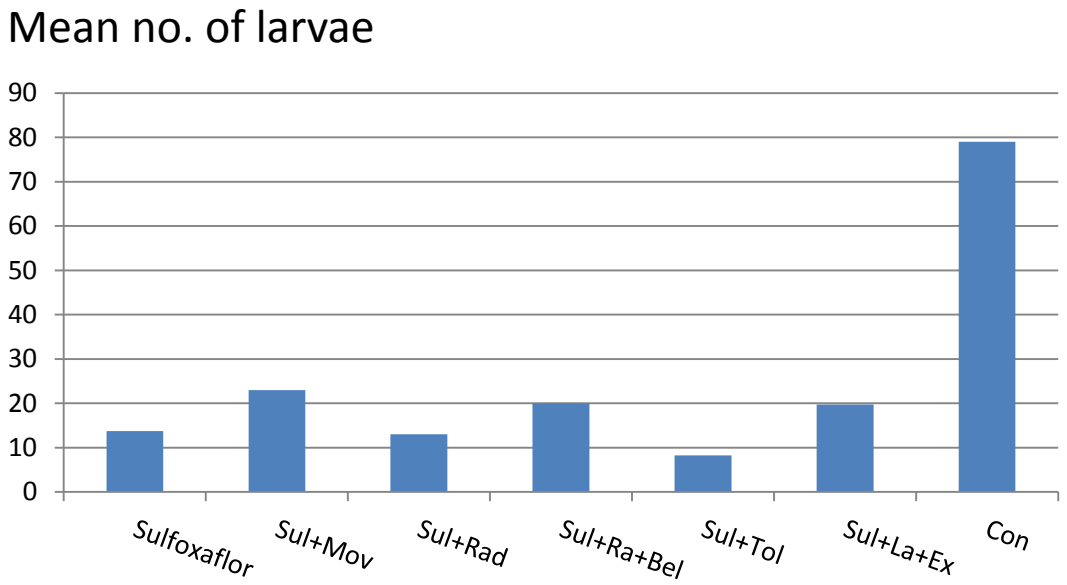
Belay + Malathion	6.0 + 32.0
Lorsban	16
Agrimek	16
Brigade	2.5
Control	

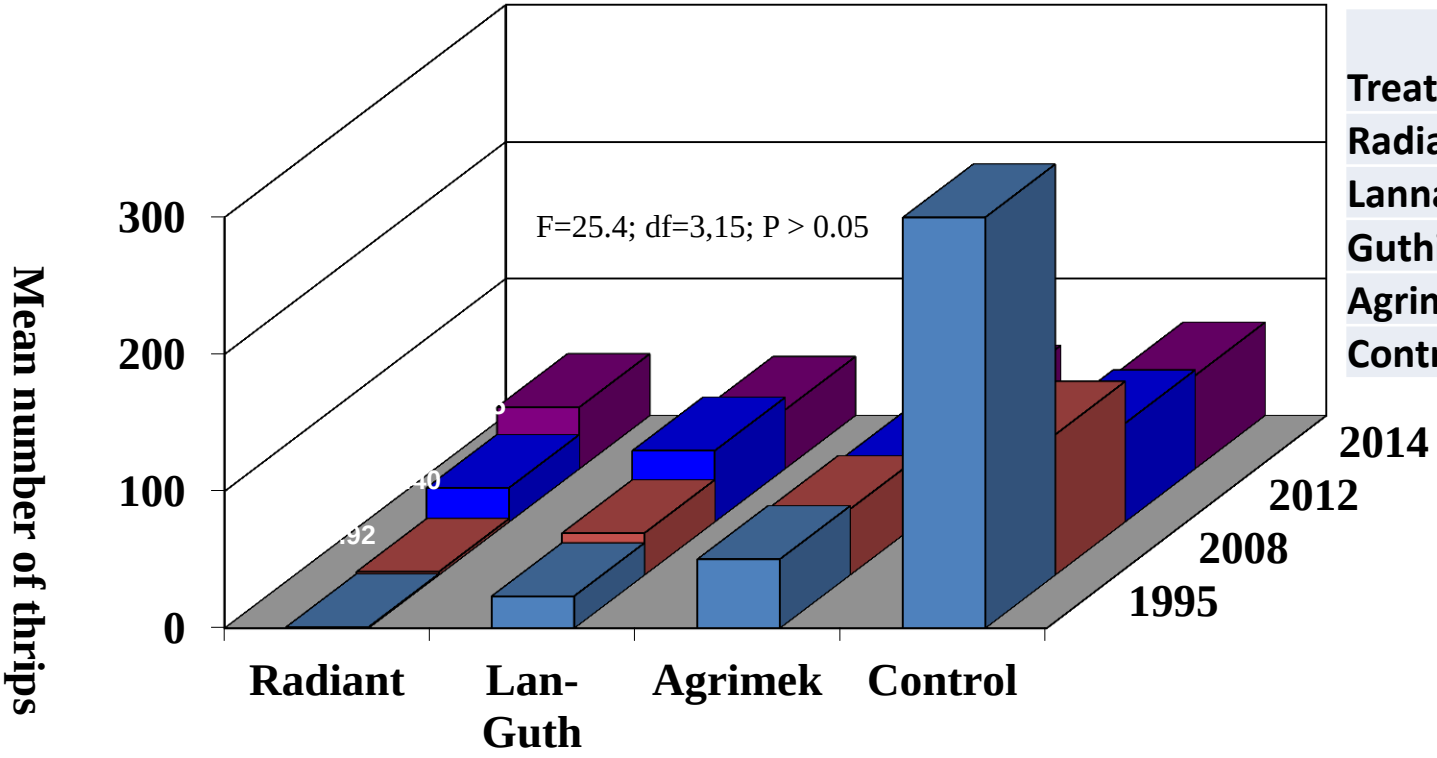
Melon thrips control on squash using various insecticide treatments at TREC field, 2014



Treatments	Rate[oz]/a
Sulfoxaflor	4.50
Sulfoxaflor	3.50
Movento	5.00
Sulfoxaflor	3.50
Radiant	8.00
Sulfoxaflor	3.50
Radiant	8.00
Belay	6.00
Sulfoxaflor	3.50
Tolfenpyrad	21.00
Sulfoxaflor	3.50
Lannate	24.00
Cyazypyr	20.50
Control	

Applied four times on the foliage at 7 d intervals. Samples were collected 48 h after each application.
Evaluation was made by counting larvae on randomly selected 10 leaves/plot.
(Sulfoxaflor: Trade name Closure; IRAC: 4C)

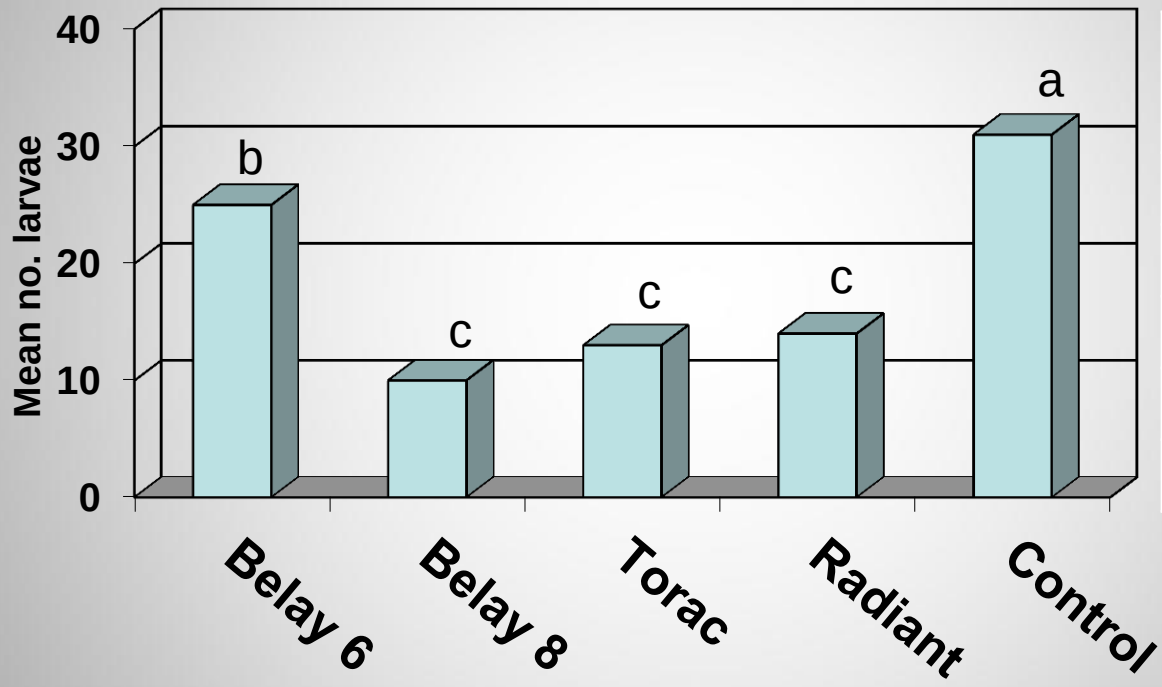
Effectiveness of various insecticides in controlling melon thrips on squash, 1995 to 2014.



Treatments	Rate [oz]/acre
Radiant	6.0 - 8.0
Lannate	16
Guthion	16
Agrimek	16
Control	

Applied four times on the foliage at 7 d intervals. Samples were collected 48h after each application. Evaluation was made by counting larvae on randomly selected 10 leaves/plot.

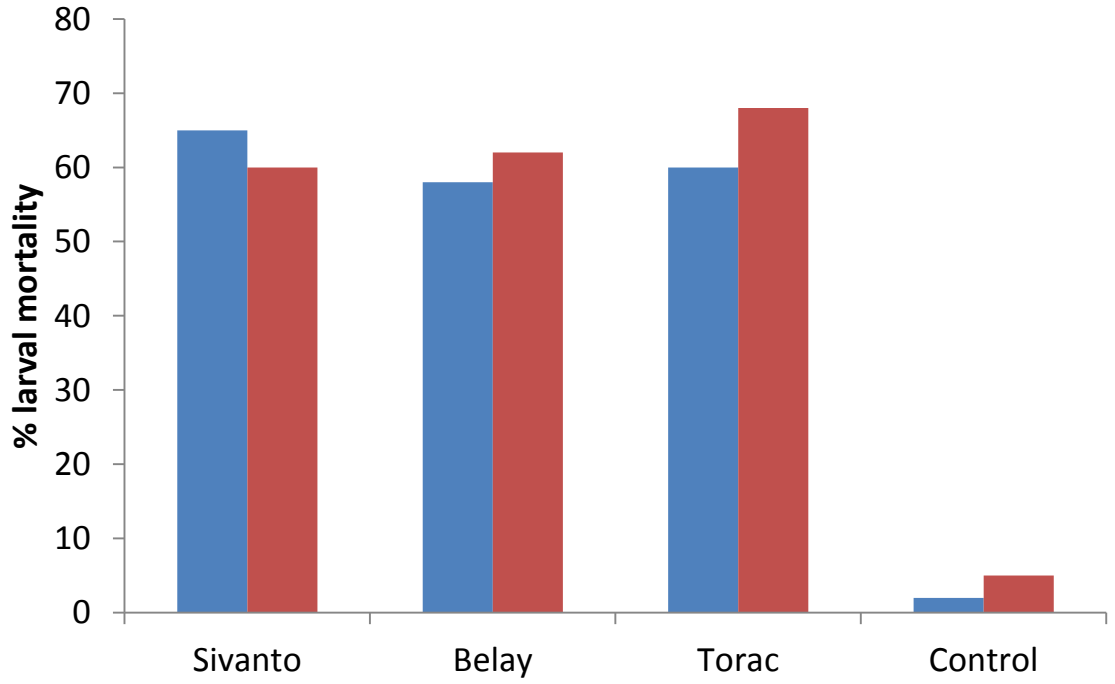
Effectiveness of Torac and Belay in controlling *T. palmi* in cucumber, 2013



Treatments	Rate [oz]/acre
Control	
Belay	6
Belay	8
Torac	21
Radiant	8

Applied four times on the foliage at 7 d intervals
Samples were collected 48h after each application
Evaluation was made by counting larvae on randomly selected 10 leaves/plot.
(Torac: Tolfenpyrad; IRAC: 21A)

Percent mortality of melon thrips in a leaf disc bioassay in a laboratory condition

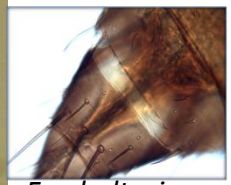


Treatments	Rate [oz]/acre
Sivanto	21
Belay	8
Torac	21
Control	

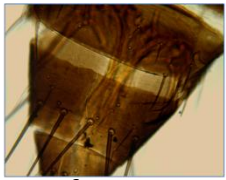
10 mature melon thrips larvae were used in each replication.
Each treatment was replicated four times.
(Sivanto: Flupyradifurone; Butenolide group; IRAC 4D)

Management of *Frankliniella* thrips, vectors of tospoviruses, GRSV and TCSV, in tomatoes using various insecticides

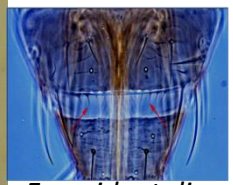
COMMON BLOSSOM THRIPS



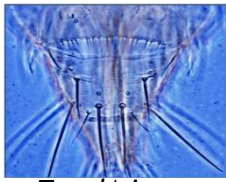
F. schultzei



F. fusca



F. occidentalis



T. palmi

WESTERN FLOWER THRIPS

http://www.sardi.sa.gov.au

TSWV

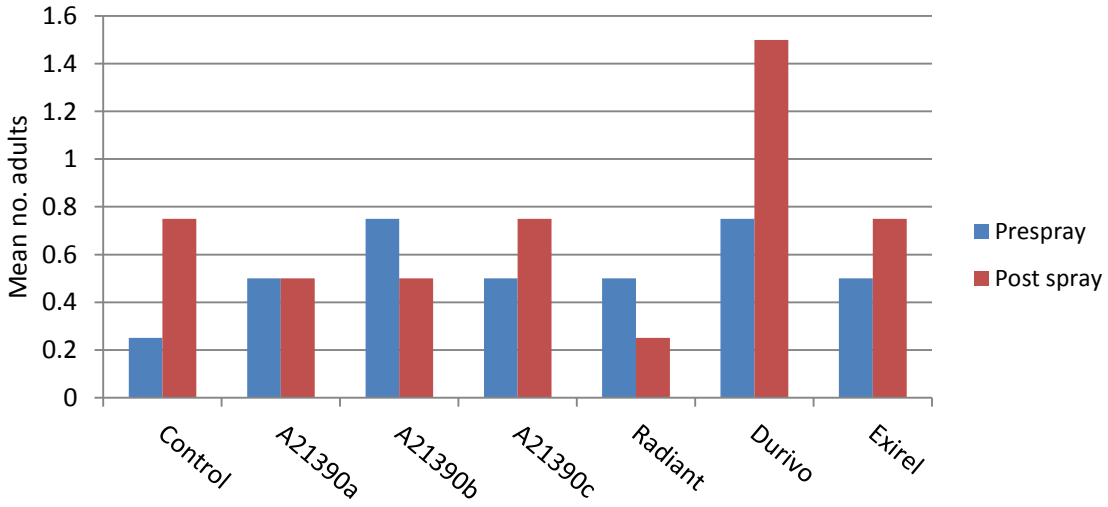
About 2.0 mm in length

150-300 eggs

Egg – adult: 13 days

Female longevity: 45 days

Common blossom thrips control using various insecticide treatments at TREC tomato field, 2014



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Control	
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A21390c	8
Radiant	8
Durivo	13
Exirel	13.5

Applied two times on the foliage at 7 d intervals
Samples were collected 48h after each application
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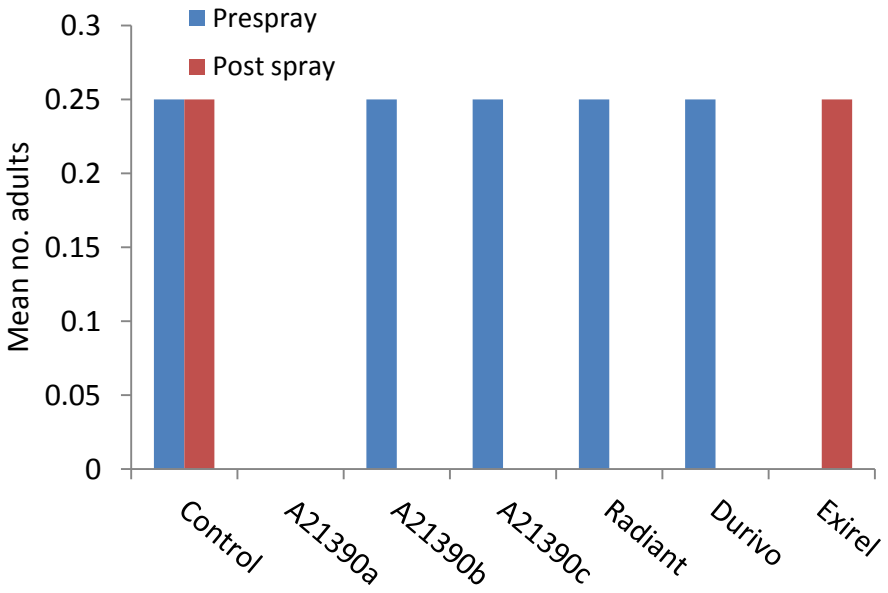
Western flower thrips control using various insecticide treatments at TREC tomato field, 2014

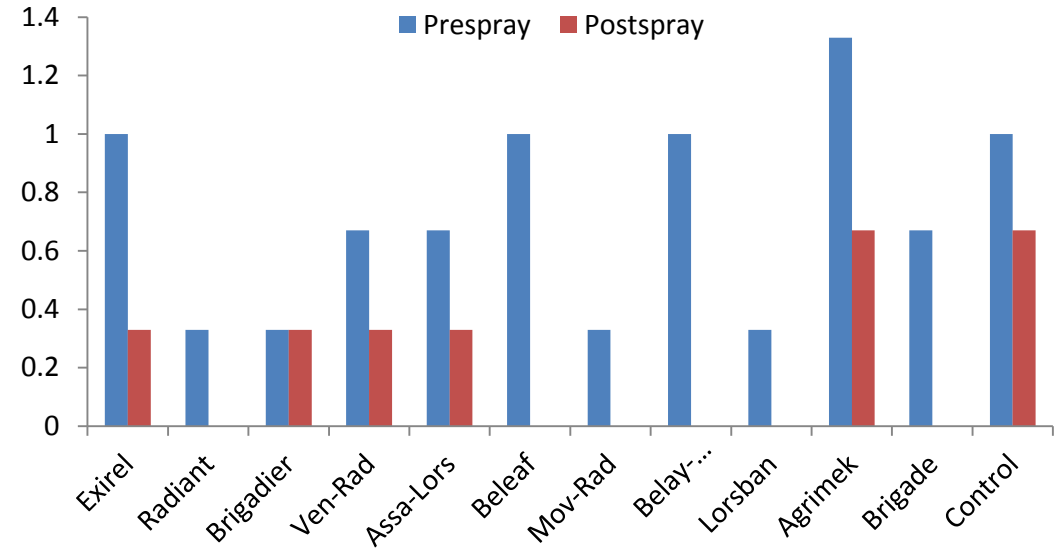


Treatments	Rate [oz.]/acre
Control	
A21390a	8
A21390b	8
A21390c	8
Radiant	8
Durivo	13
Exirel	13.5

Applied two times on the foliage at 7 d intervals
Samples were collected 48h after each application
Evaluation was made by counting larvae on randomly selected 10 flowers/plot.
(A21390: abamectin + cyantraniliprole)

Common blossom thrips control using various insecticide treatments at a commercial tomato field, 2014

Mean no. of CBT adults



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Belay + Malathion	6.0 + 32.0
Lorsban	16
Agrimek	16
Brigade	2.5
Control	

Applied two times on the foliage at 7 d intervals
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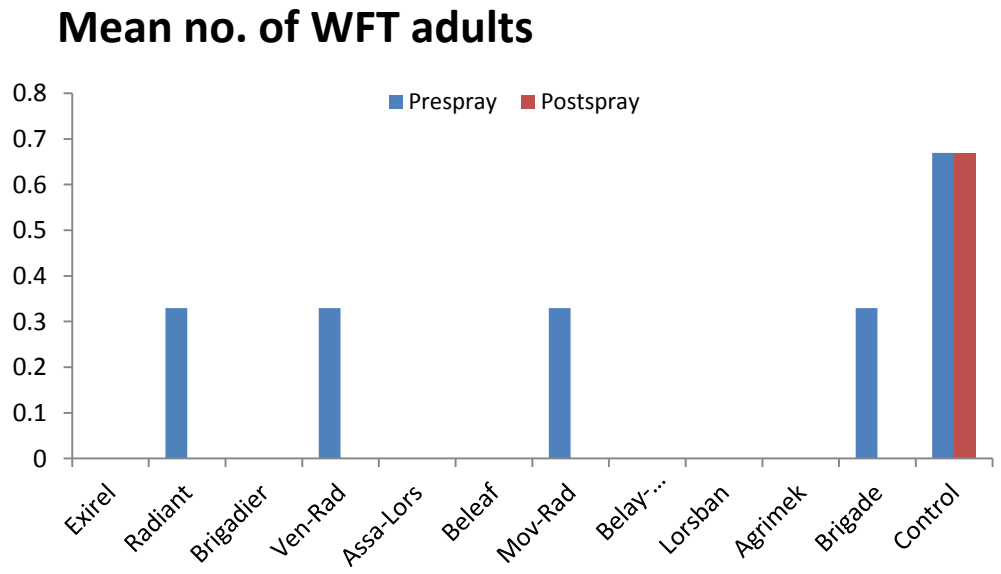
Western flower thrips control using various insecticide treatments in a commercial tomato field, 2014



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Agrimek	16
Brigade	2.5
Control	

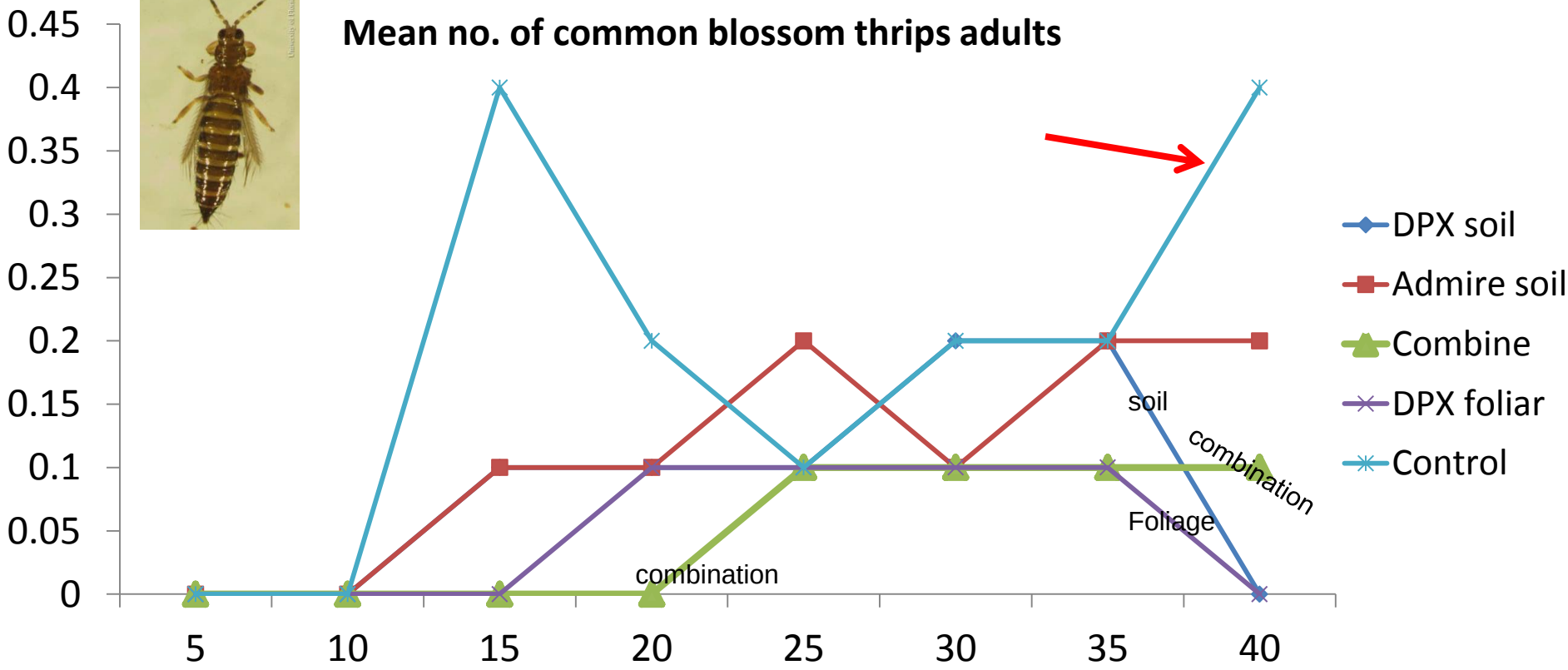
Applied two times on the foliage at 7 d intervals.
Samples were collected 48h after each application.
Evaluation was made by counting larvae on randomly selected 10 flowers/plot.

Control of Common blossom thrips (*Frankliniella shultzei*) and Flower thrips (*F. occidentalis*) in tomato by applying DPX-HGW86 20SC as a soil drench

Treatments	Rate [oz]/A	Method of application
1. DPX-HGW86 20SC	13.5	At plant
2. Admire Pro DPX-HGW86 20SC	10.5 10.3	At plant Drip at 14 & 28 DAP
3. Admire Pro	10.5	At plant
4. DPX-HGW86 20SC	10.3	On foliage
5. Untreated check		

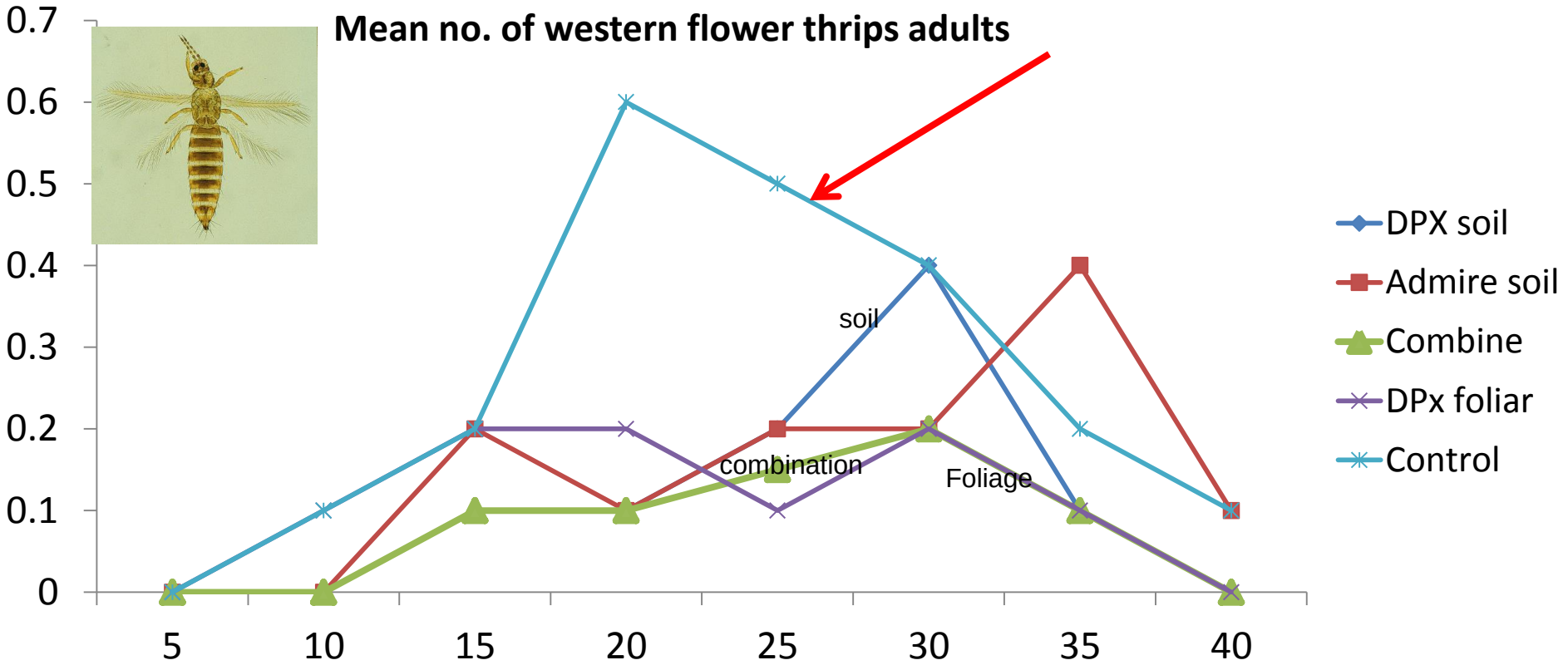
DPX-HGW86 20SC = Cyazypyr (Verimark and Exirel)

Control of *F. schultzei* in tomatoes using DPX and Admire Pro as a soil drench



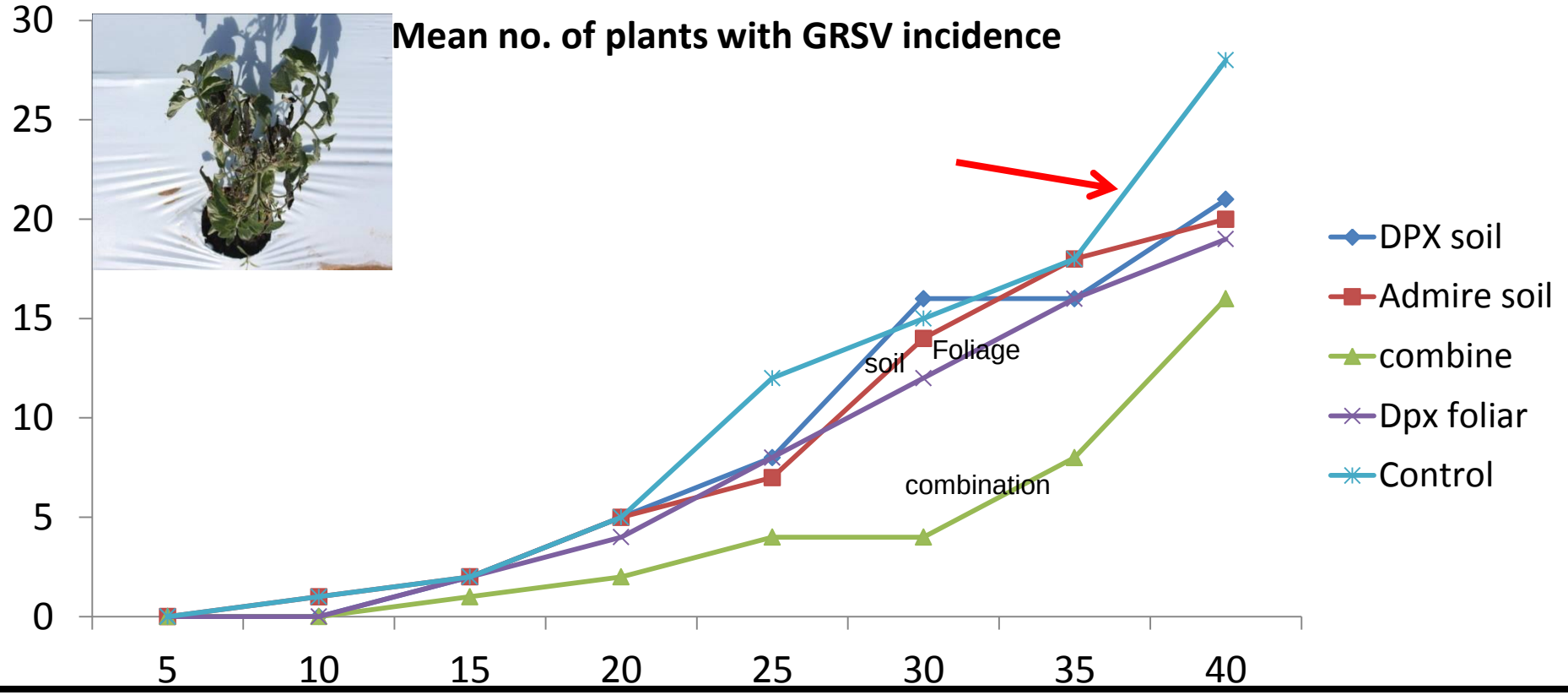
DPX applied on foliage provided better reduction of *F. schultzei* than other treatments
***F. Schultzei* was not recorded on the combination treatment for the first 20 d**

Control of *F. occidentalis* in tomatoes using DPX and Admire Pro as a soil drench



DPX applied on foliage provided better reduction of *F. occidentalis* than other treatments, but did not differ from the combination treatment.
***F. occidentalis* was not recorded on the DPX treatments for the first 10 d**

Control of GSRV in tomatoes using DPX and Admire Pro as a soil drench

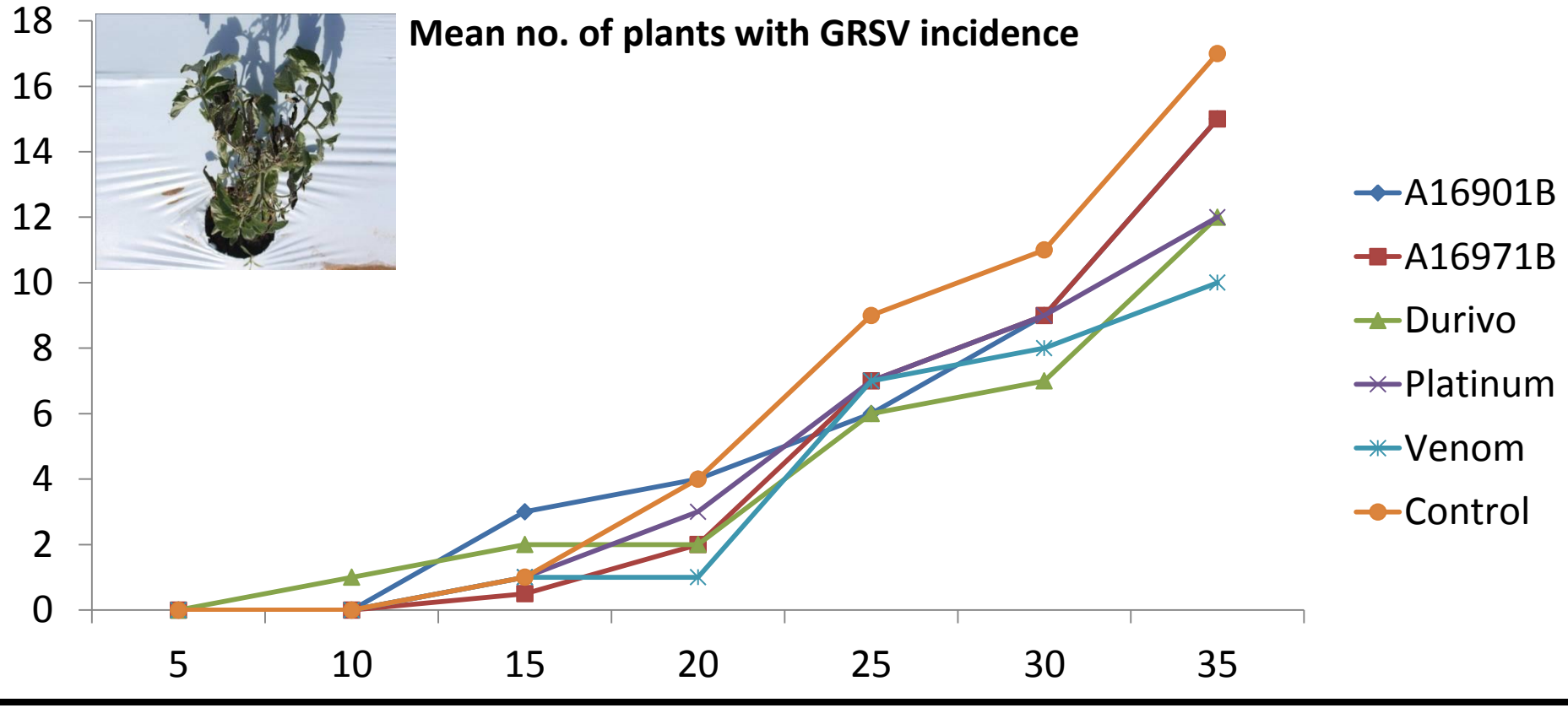


DPX applied on foliage did not differ from DPX applied in soil in reducing GRSV. Admire in soil followed by DPX on foliage was significantly better than all other treatments in reducing GRSV incidence.

Evaluation of premixed products in controlling pests of tomato: all treatments were applied once at plant as a soil drench

Treatments	Rate/acre	Active ingredients		
A16901 WG	131.0 oz wt	Thiamethoxam + an experimental product		
A16971 WG	65.4 oz wt	An experimenal product		
Durivo SC	123.0 fl oz	Thiamethoxam + chlorantraniliprole		
Platinum SG	34.2 oz wt	Thiamethoxam		
Venom SG	6.0 oz wt	Dinotefuran		
Check				

Management of GRSV applying premixed insecticides, TREC, 2012



Durivo, Venom, and Platinum did not significantly reduce GRSV affected plants when compared with the nontreated control

Disclaimer

- **The above information on the efficacy of insecticides in controlling thrips were generated based on our various research studies. This information should not be used as a recommendation by the University of Florida for controlling any specific pest. Use of an insecticide must be based on the label of that insecticide.**

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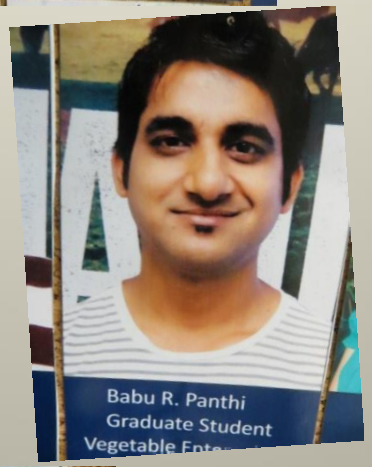
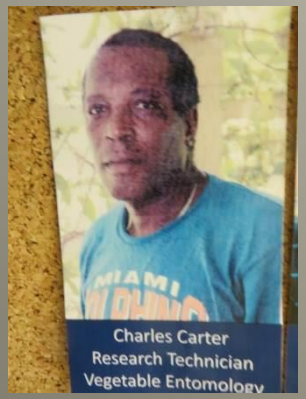
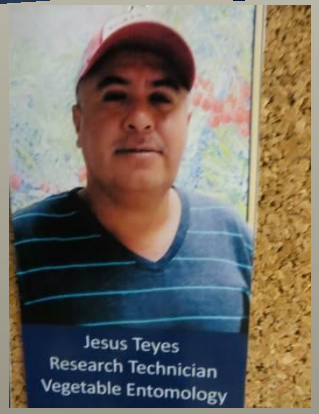
Acknowledgment



Mohammed Razzak
Ph. D. Student





Thanks!

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