

Asian Bean Thrips in Florida



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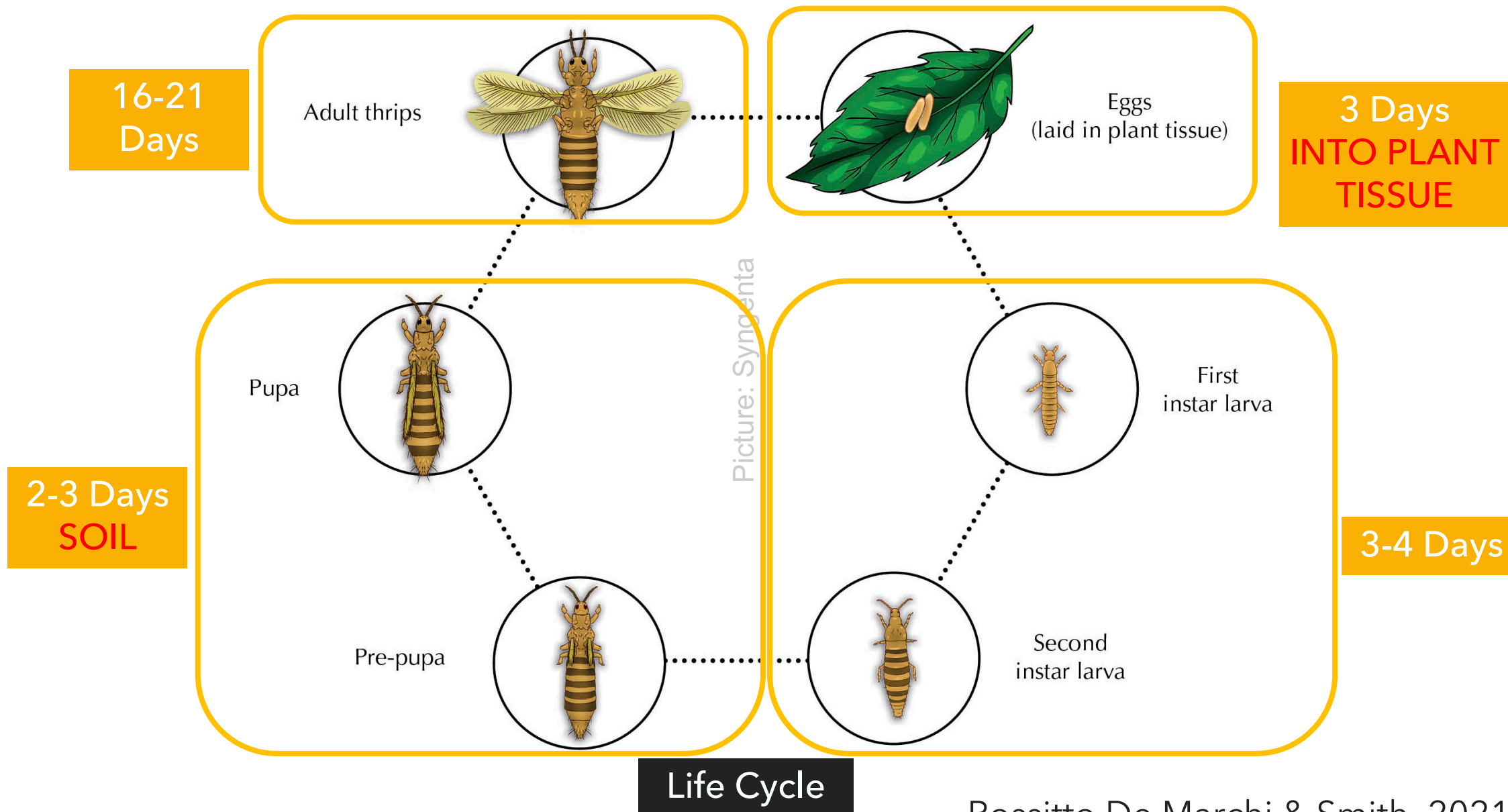
Gulf Coast Research and Education Center, University of Florida, Wimauma, FL 33598, USA

Asian Bean Thrips

- *Megalurothrips usitatus*
- First reported in Florida on March 2020



Photo: Bruno De Marchi



Asian Bean Thrips

Adult Female

Adult Male

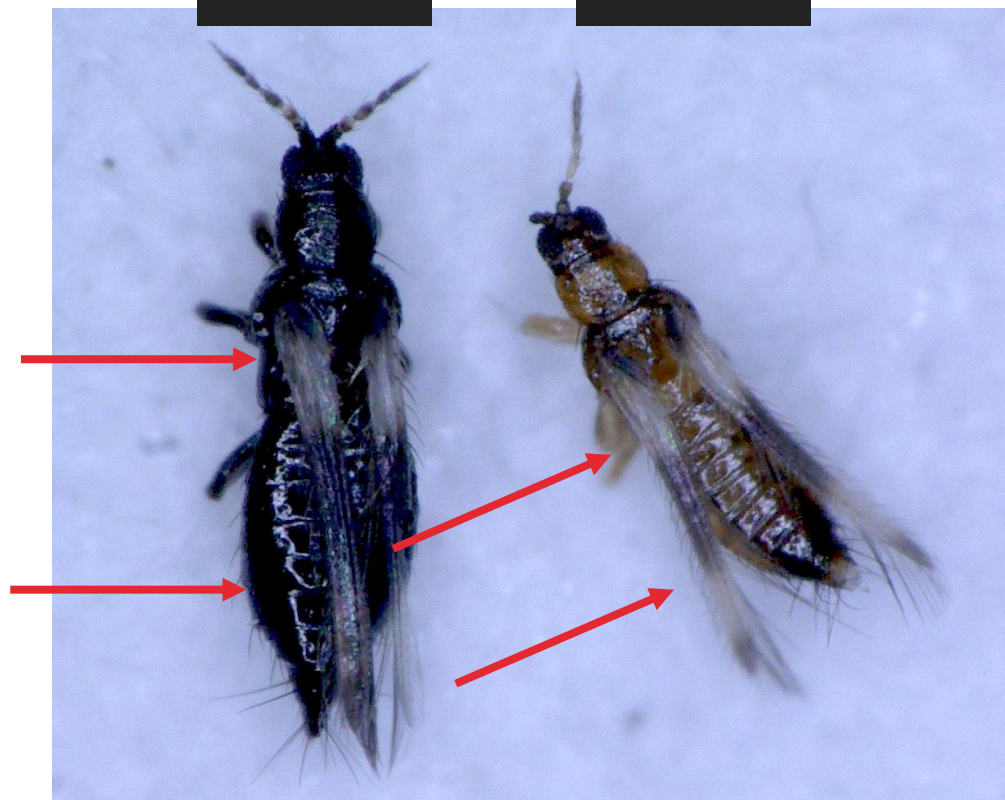


Photo: Cleveland Ivey

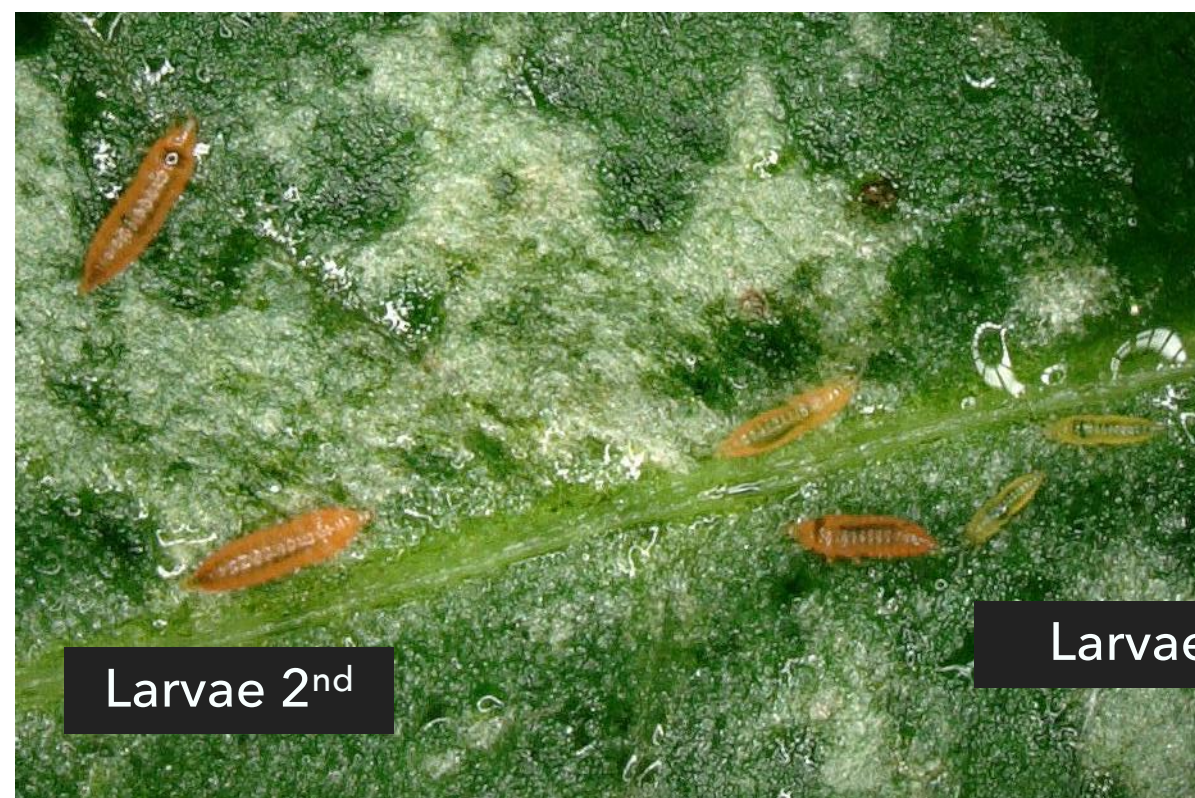
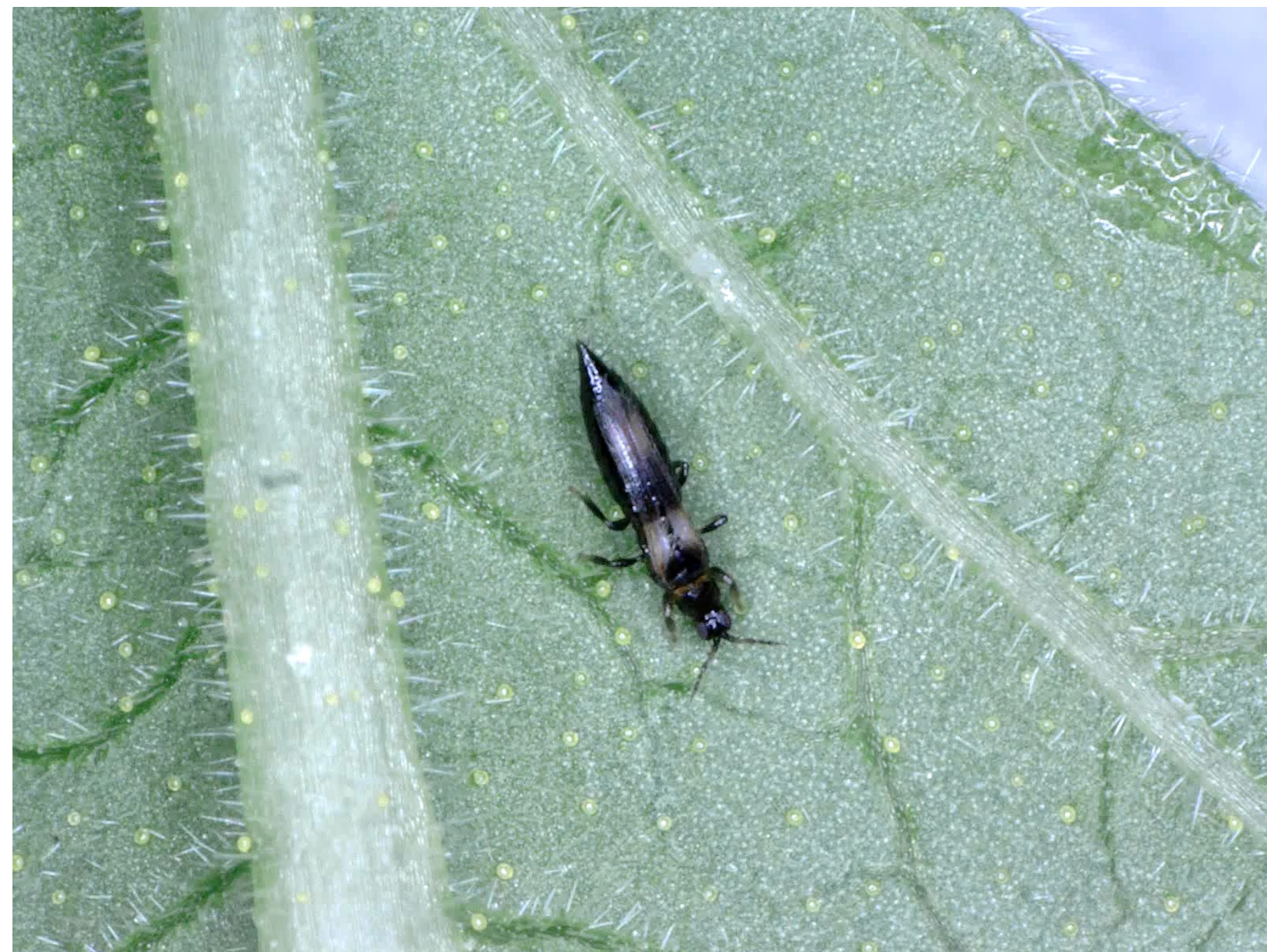


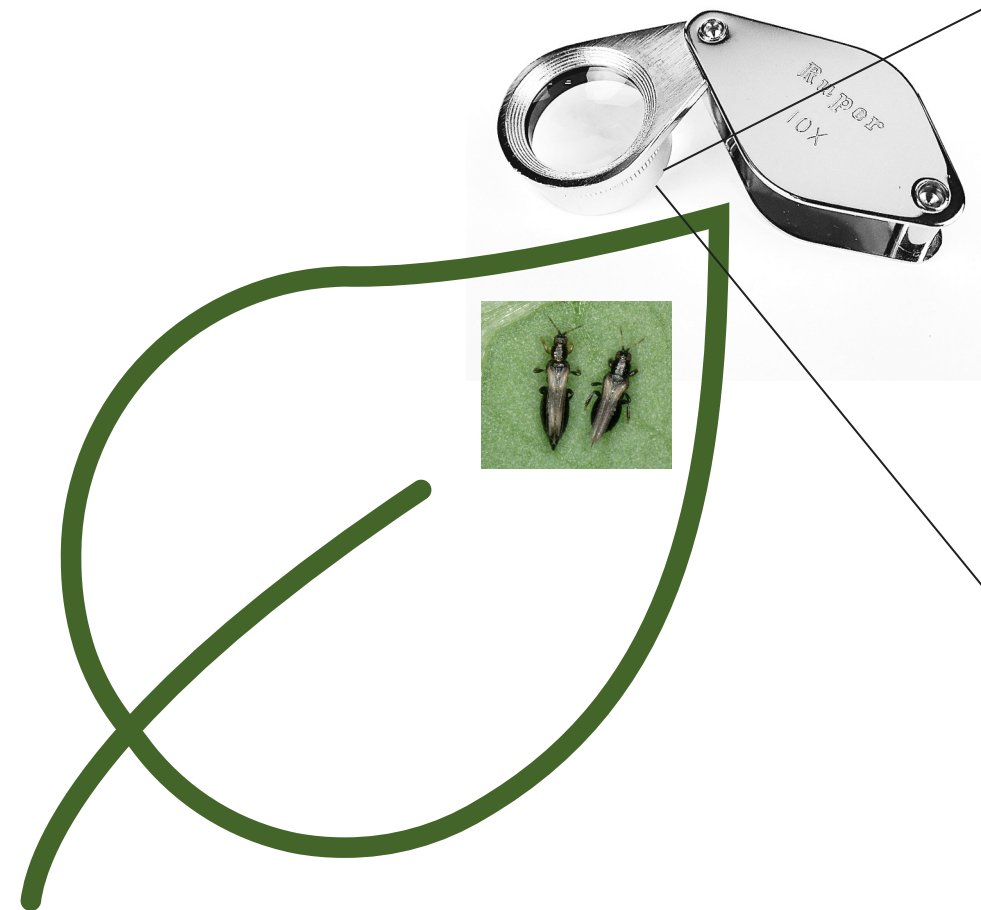
Photo: Cleveland Ivey



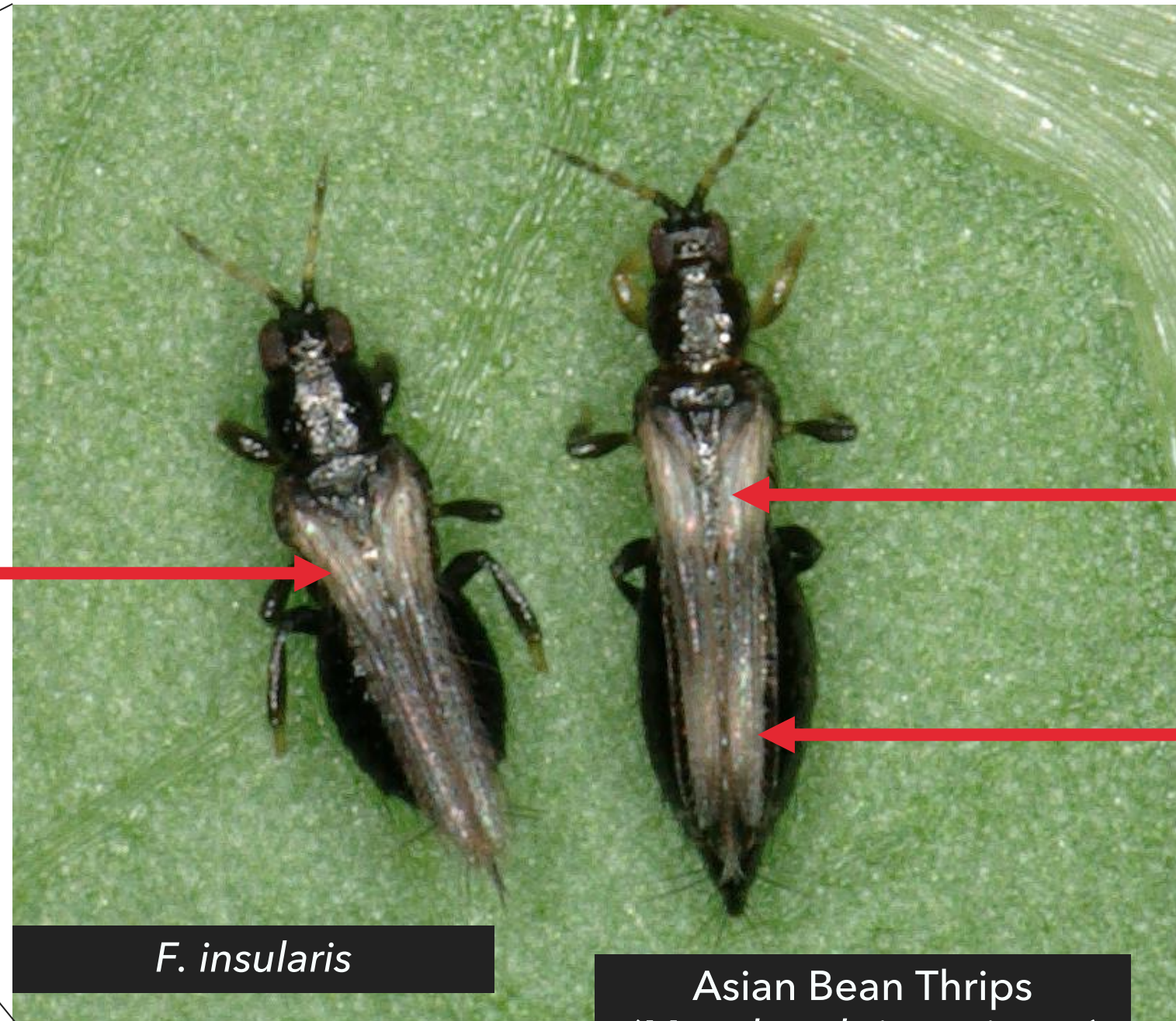
Video: Cleveland Ivey

How to differentiate ABT from *F. insularis*?

Mixed populations of Asian Bean Thrips and *Frankliniella insularis* were found on Lablab beans



One stripe



F. insularis

Asian Bean Thrips
(*Megalurothrips usitatus*)

Two stripes

Melon thrips - *Thrips palmi*

- Polyphagous
- Body color: yellow



Photos: University of Florida

Common blossom thrips - *Frankliniella schultzei*

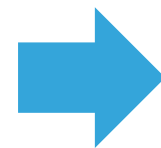
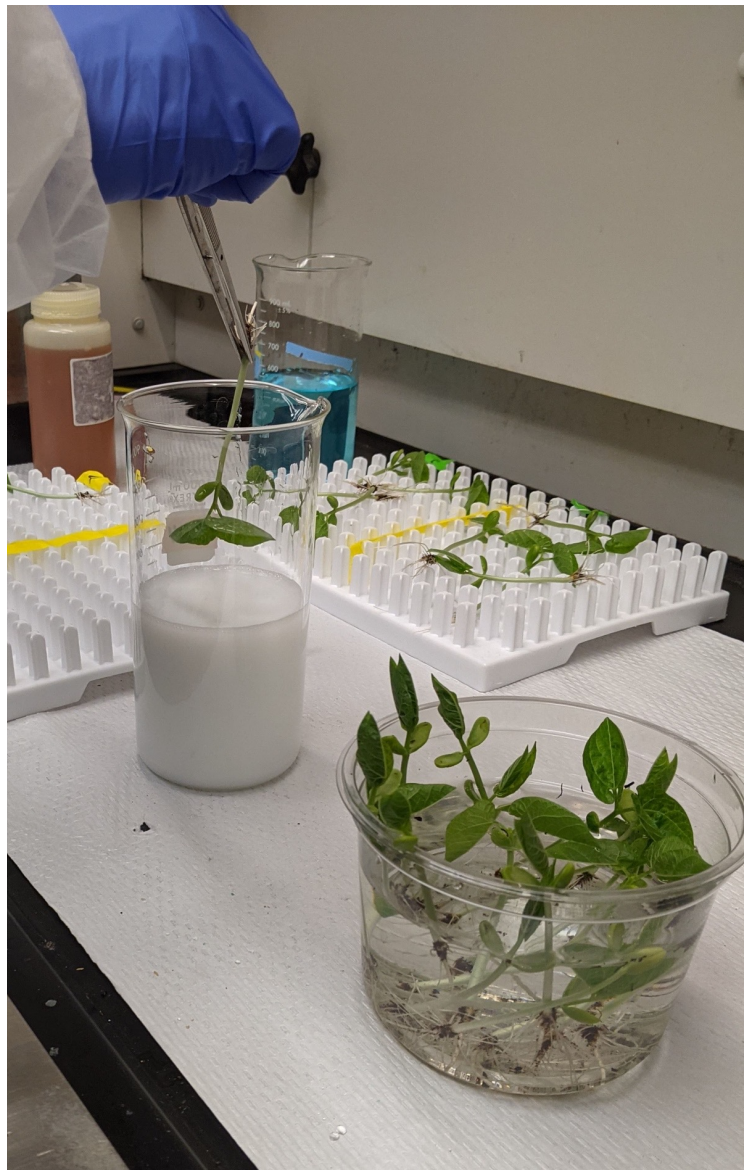
- Polyphagous
- Body color: dark or pale



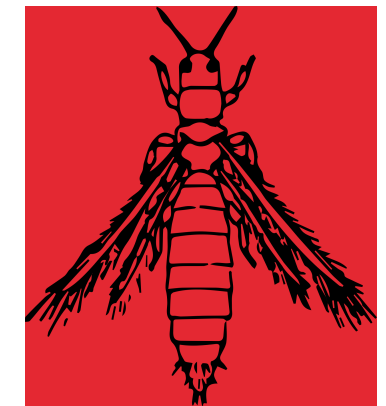
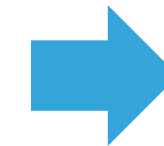
Photos: Vivek Kumar

Testing insecticide efficacy

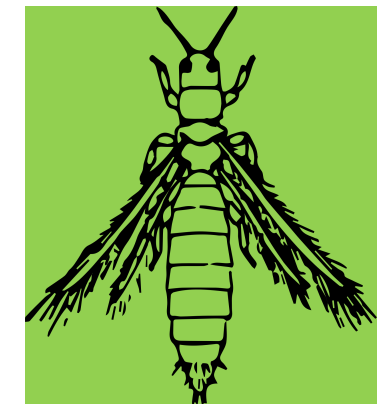
- Thrips populations collected in leguminous crops in South Florida



72 hours



Dead



Alive

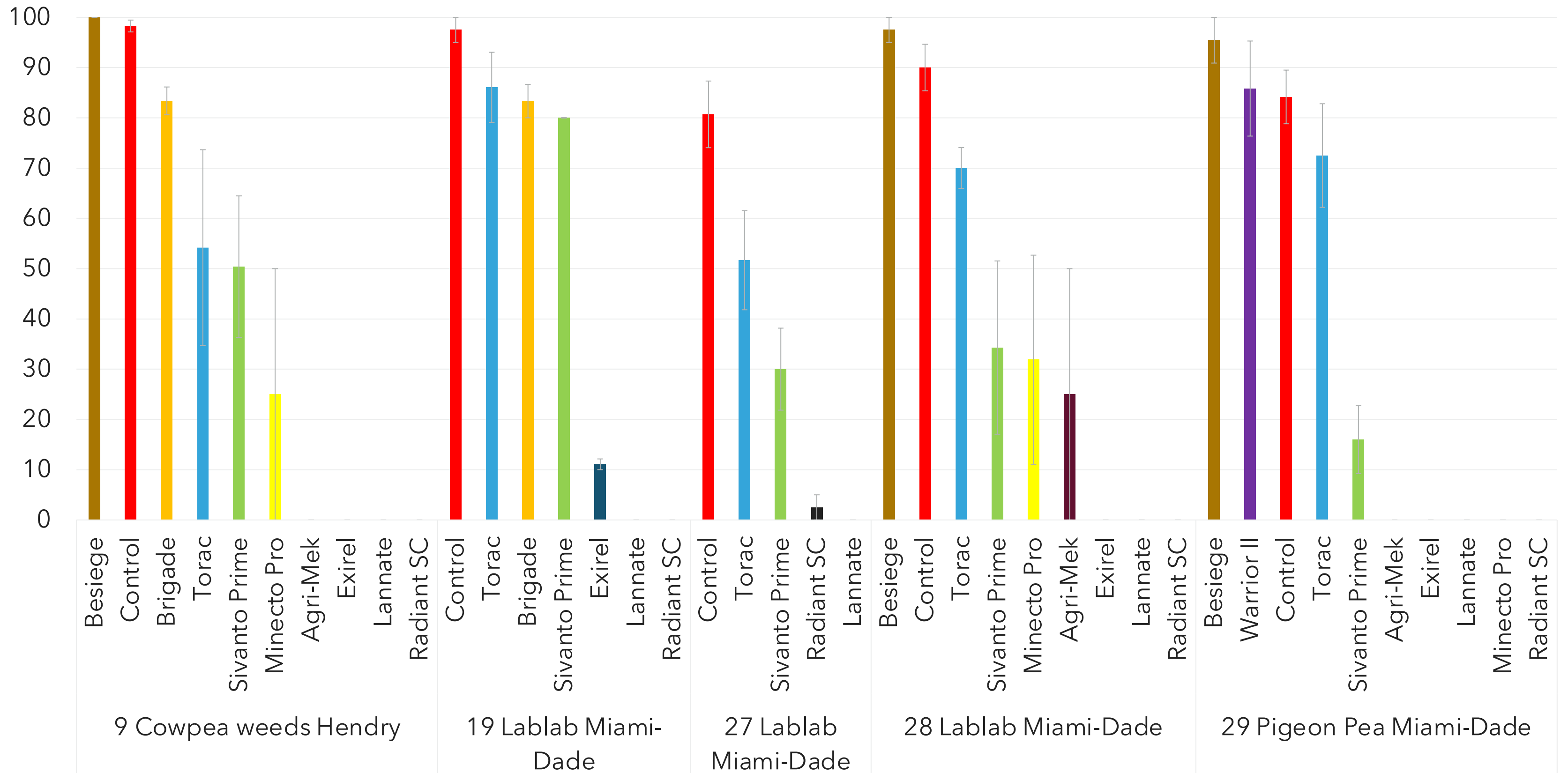
-Insecticide solution top-labeled rate
-Equivalent to a 35 gpa application

10 individuals into Petri dish

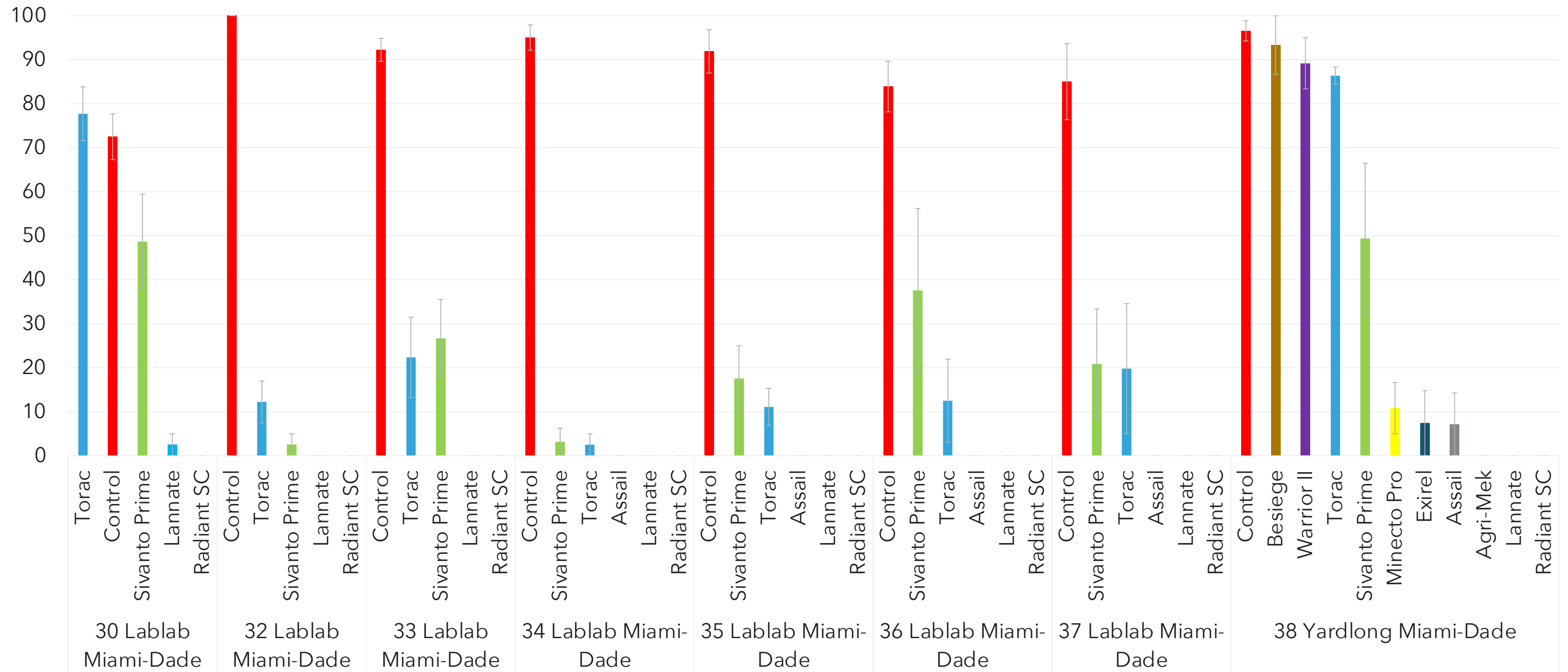
Treatments

Product	IRAC MoA	Active Ingredient	Target
Lannate	1A	Methomyl	Adults
Besiege	3A, 28	Lambda-cyhalothrin, Chlorantraniliprole	Adults
Brigade	3A	Bifenthrin	Adults
Warrior	3A	Lambda-cyhalothrin	Adults
Assail	4A	Acetamiprid	Adults
Sivanto Prime	4D	Flupyradifurone	Adults
Radiant	5	Spinetoram	Adults
Agri-Mek	6	Abamectin	Adults
Torac	21A	Tolfenpyrad	Adults
Exirel	28	Cyantraniliprole	Adults
Minecto Pro	28, 6	Cyantraniliprole, Abamectin	Adults
Rimon	15	Novaluron	Larvae
Cormoran	15,4A	Novaluron, Acetamiprid	Larvae
Movento	23	Spirotetramat	Larvae
Knack	7C	Pyriproxyfen	Larvae

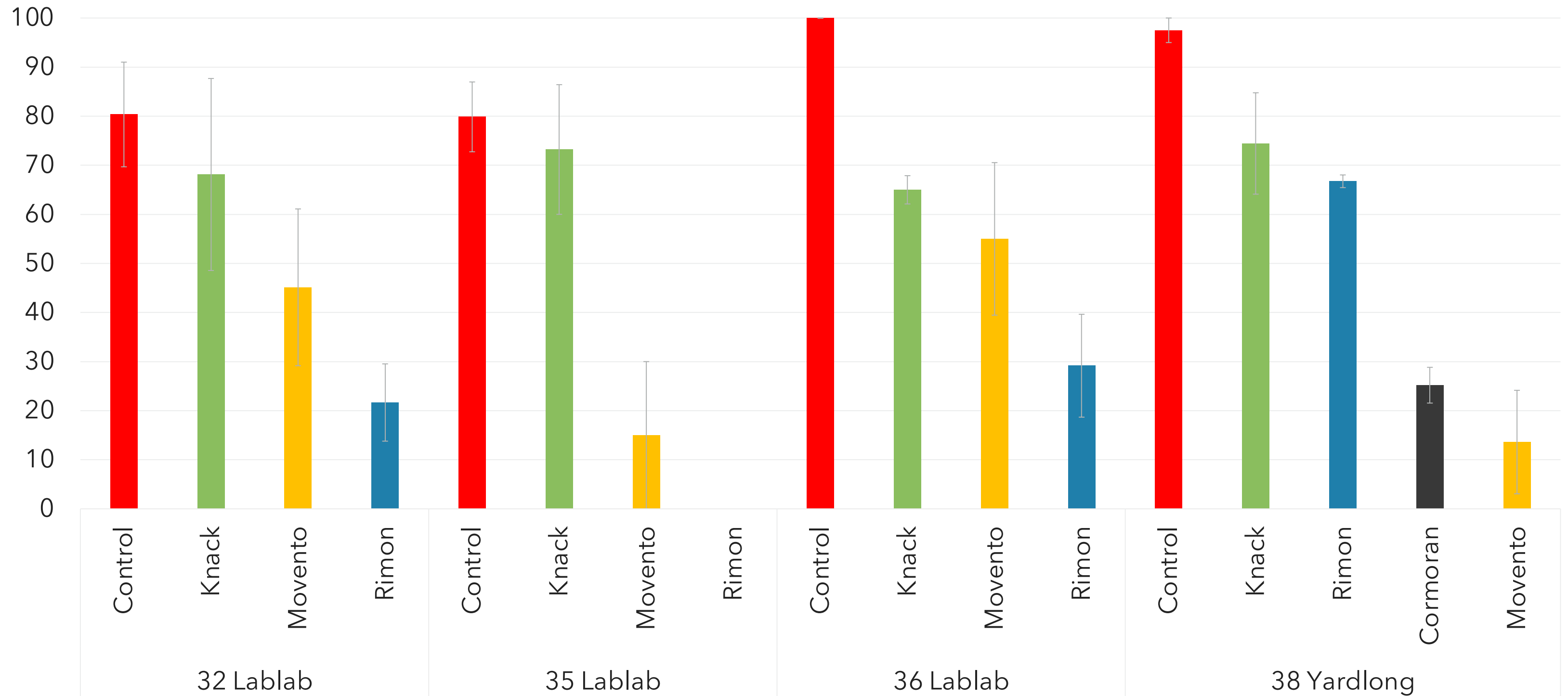
Mean Percentage of Live Adults (72 hours)



Mean Percentage of Live Adults (72 hours)



Mean Percentage of Live Larvae (72 hours)



Take Home Messages

- Preliminary data indicates Radiant, Assail, Lannate, Exirel and Agri-Mek as the most effective against ABT adults among the products tested
- Rimon and Movento were more effective than Knack against nymphs

Future Research

- Continue assessing efficacy of insecticides against field populations (larvae and adults)
- Test seed treatments residual effects
- Better understand biology and hosts associated with each thrips species
- Is *Frankliniella insularis* a pest of snap bean in Homestead?

We need your help testing thrips from snap beans

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