

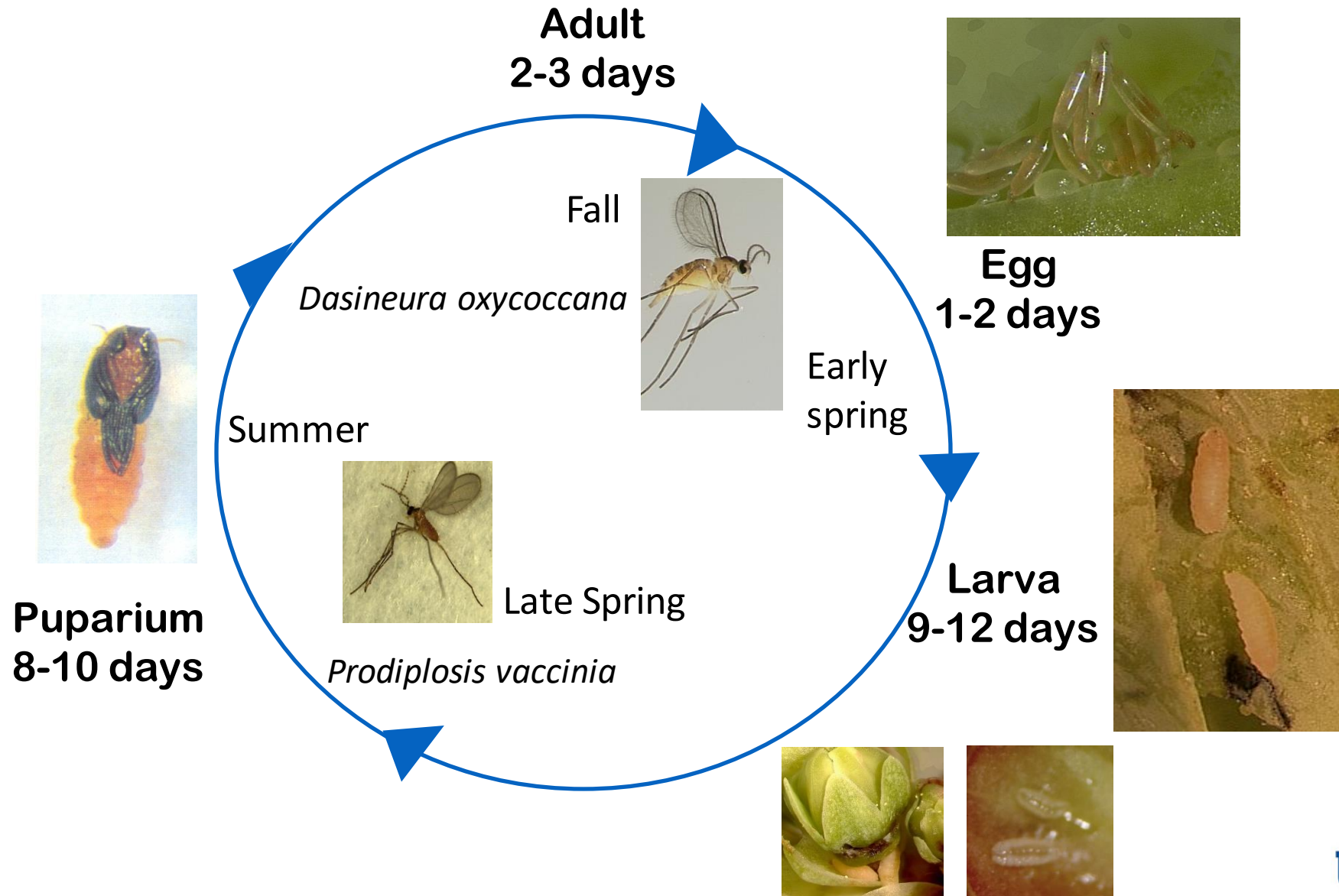


Management programs for the blueberry gall midge and southern red mite

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Blueberry Midges



Blueberry gall midge Injury



O.E. Liburd

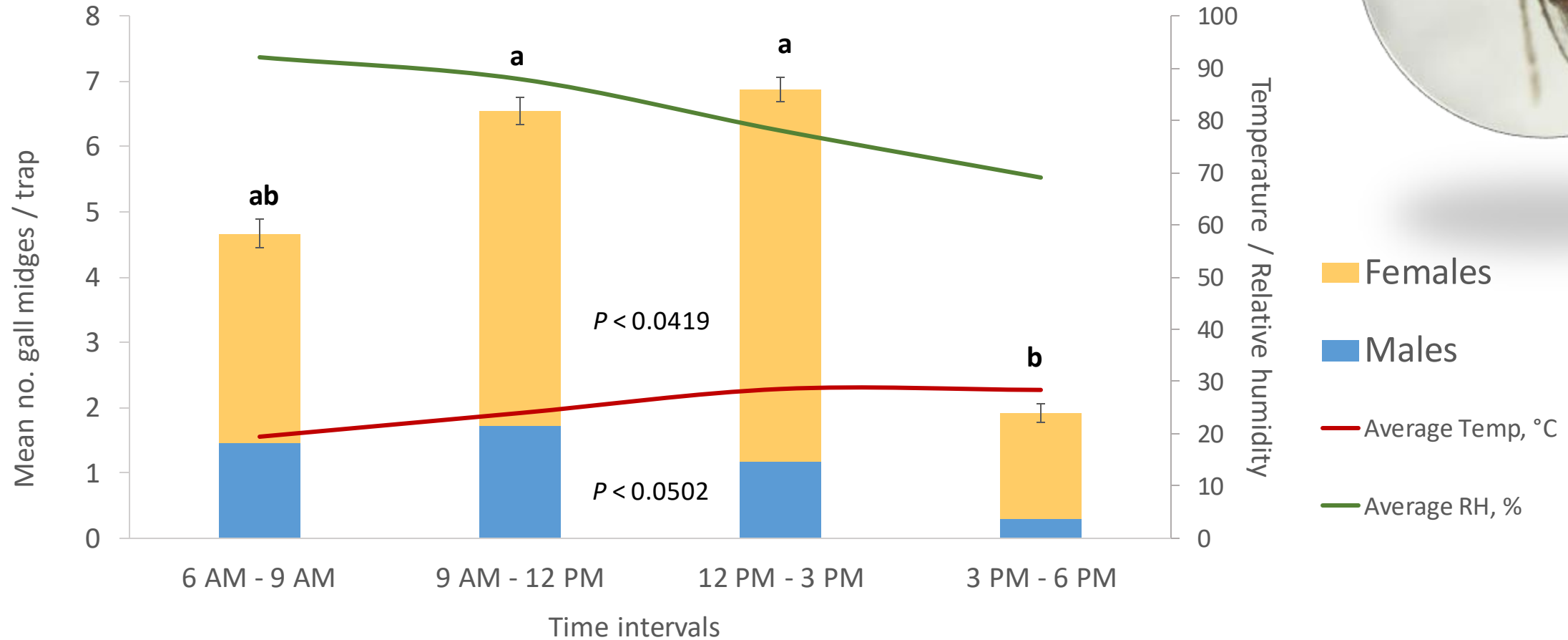
Deformed leaves, and tip-burn



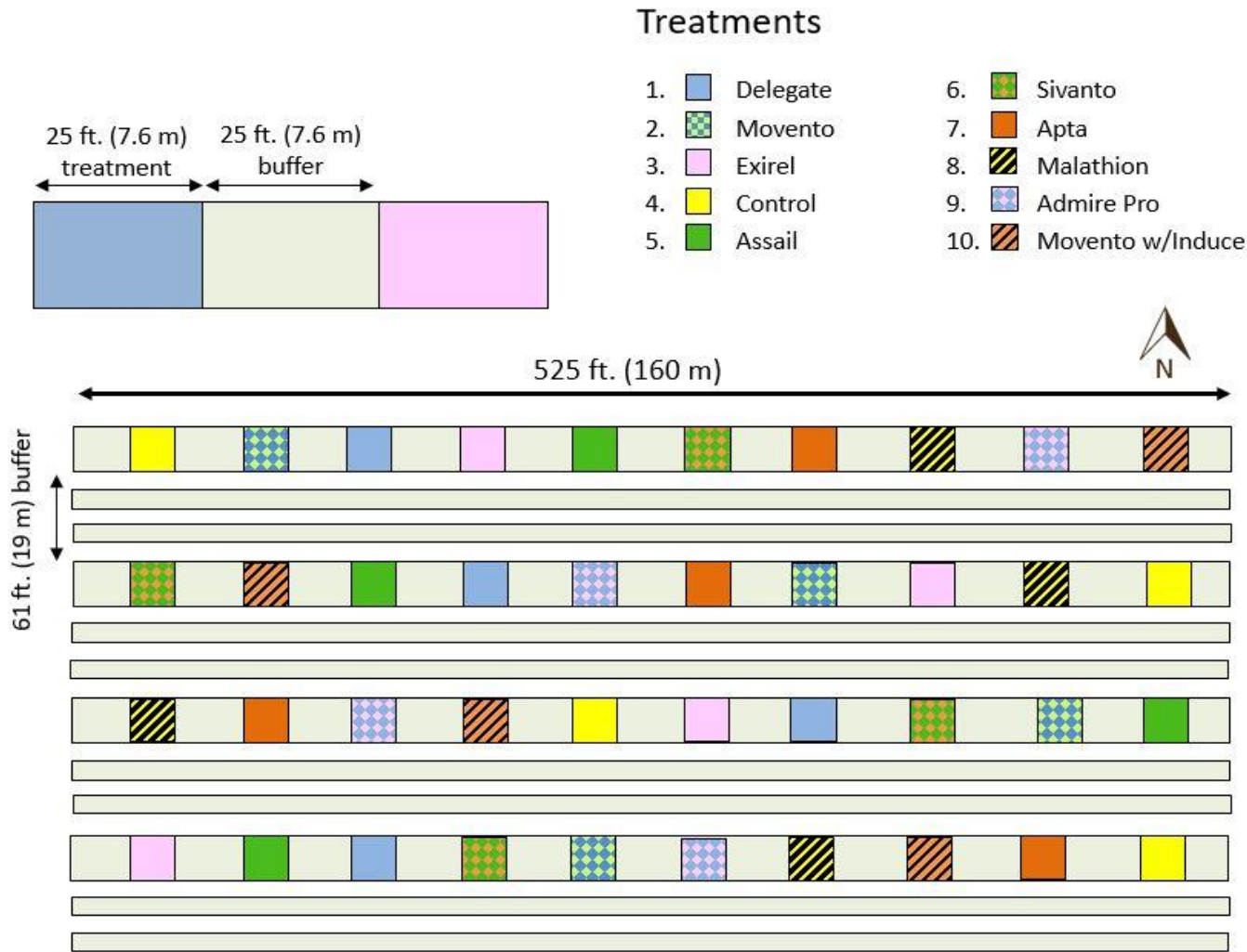
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Leaf discoloration, and stunted growth

Diurnal emergences – Adult catch

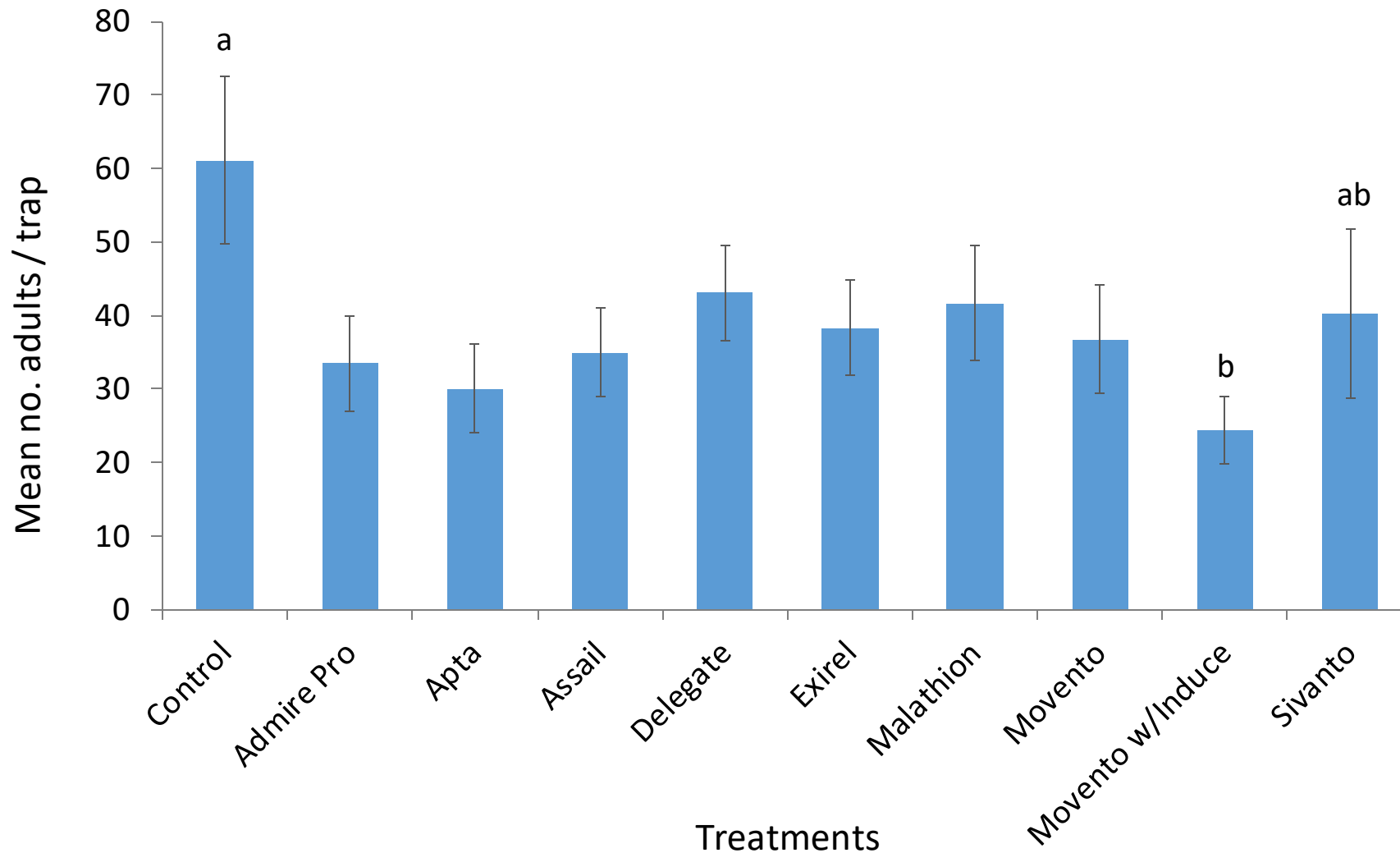


Efficacy study blueberry midges



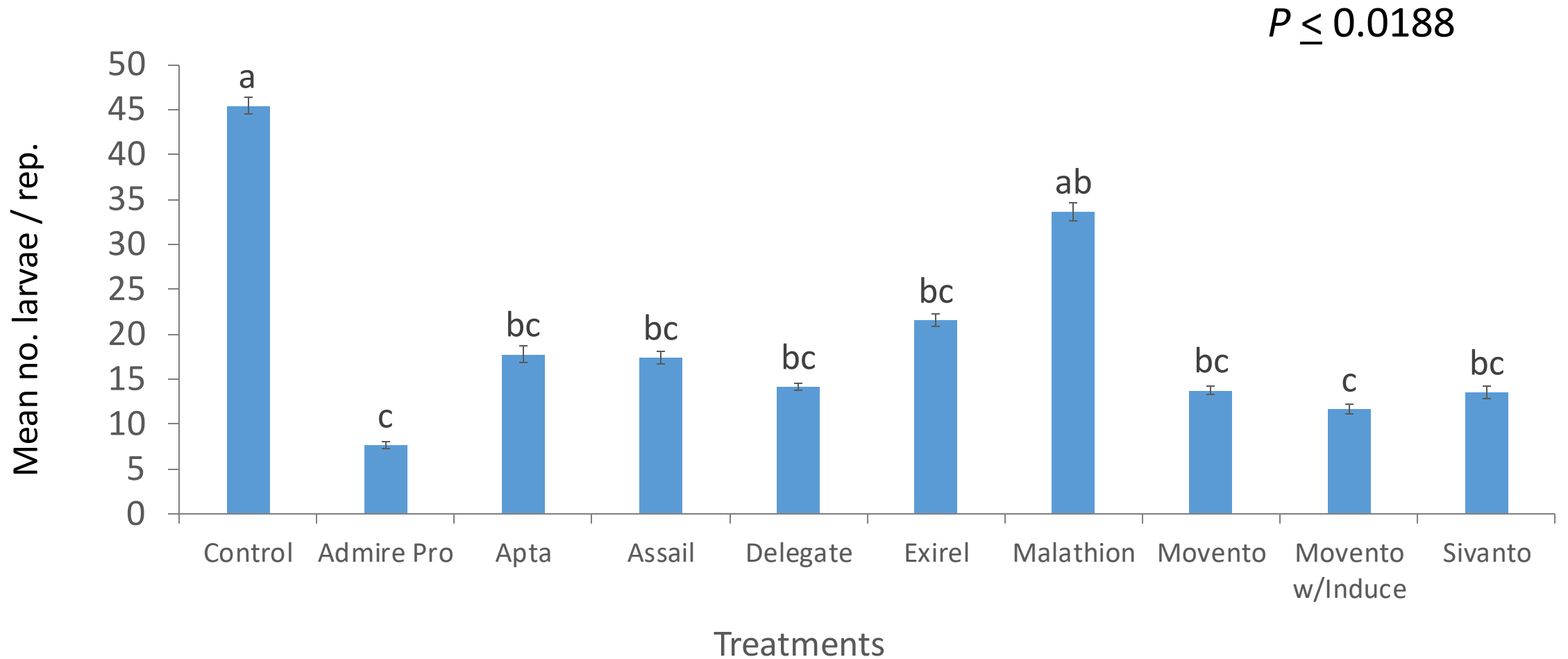
- 8 reduced-risk insecticides, one with adjuvant (Movento w/Induce)
- One conventional – Malathion
- RCBD in 'Farthing' plantings
- Insecticides were sprayed two times over a period of five weeks

Adult BGM: 1-week post application



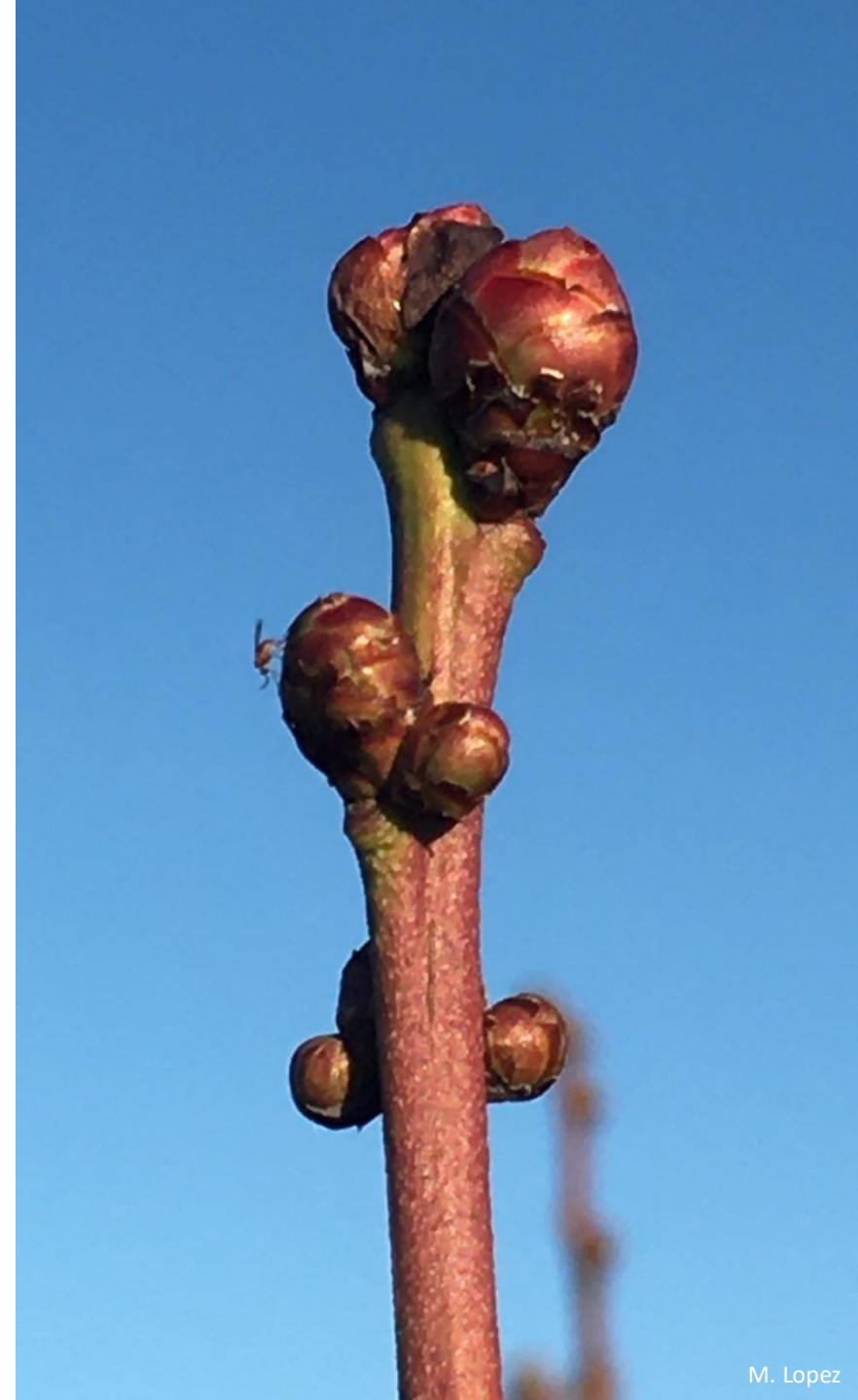
- Overall, there were 2.5x more midges found in control traps than in Movento with Induce traps ($P \leq 0.05$)
- 92% of midges captured on the traps were female

Larvae BGM: 10-day post application



Implications for management

- Early morning pesticide applications would target both adults and larvae
- Movento with and without induce is the best tool for managing blueberry midges
- AdmirePro is effective in reducing larval pressure
- Growers from North-central Florida can begin their pesticide applications starting in November if the field has a history of BGM





Southern red mite egg and female



Southern red mite adult female

Southern Red Mite (*Oligonychus ilicis*)

Major pest of:

- Ornamentals.
- Small fruits (coffee, strawberry, cranberry).

Leaf Injury and Plant Damage of SRM

Symptoms:

- Purple or bronzed leaf color, leaf dryness, and roughening
- Whitish spots on the lower side of the leaves (shed mite cuticles)
- Bronzing symptoms with confirmed presence of *O. ilicis* in a 100% of the examined leaves



Leaf injury caused by southern red mites

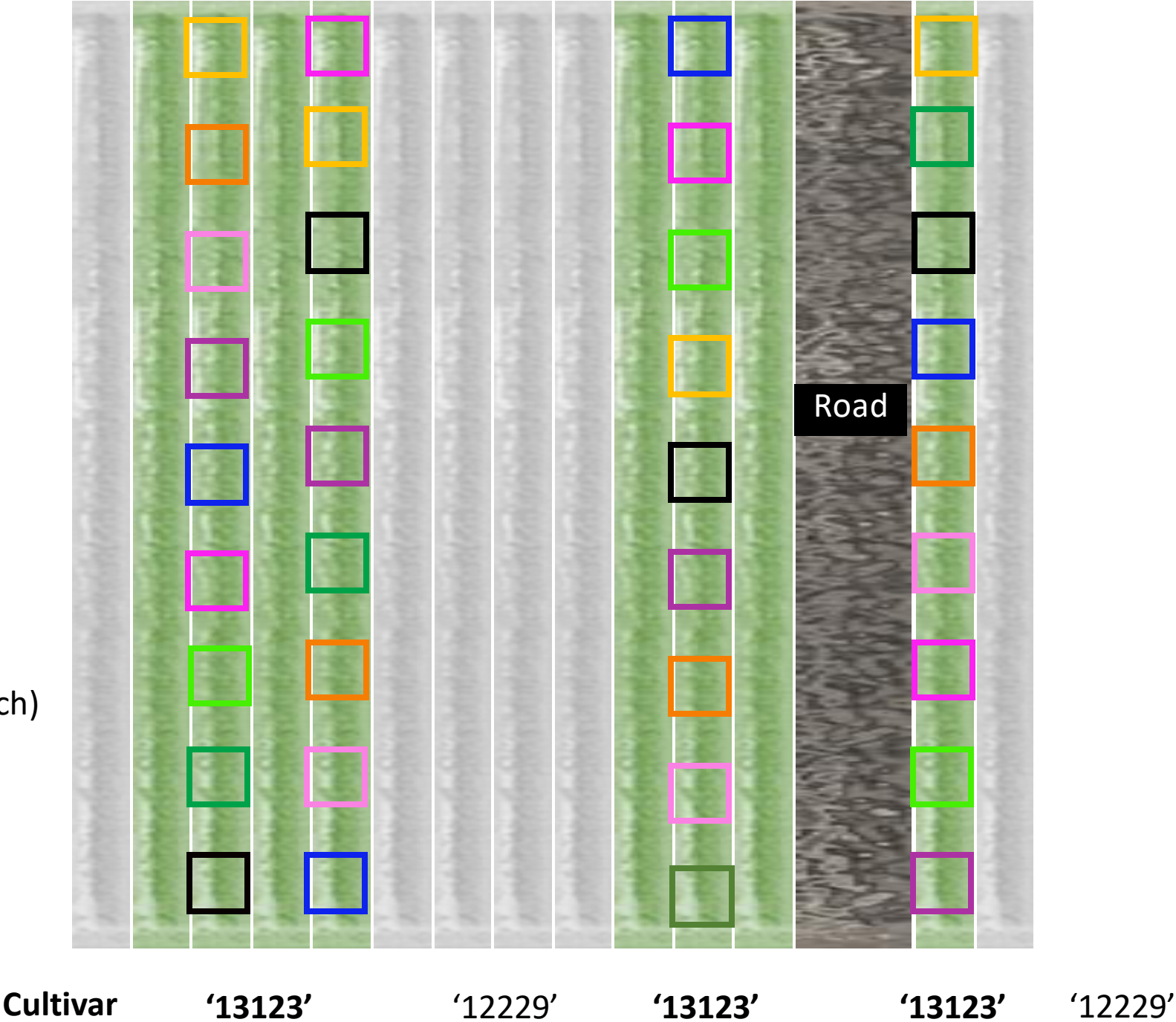


Blueberry plant damaged by southern red mites

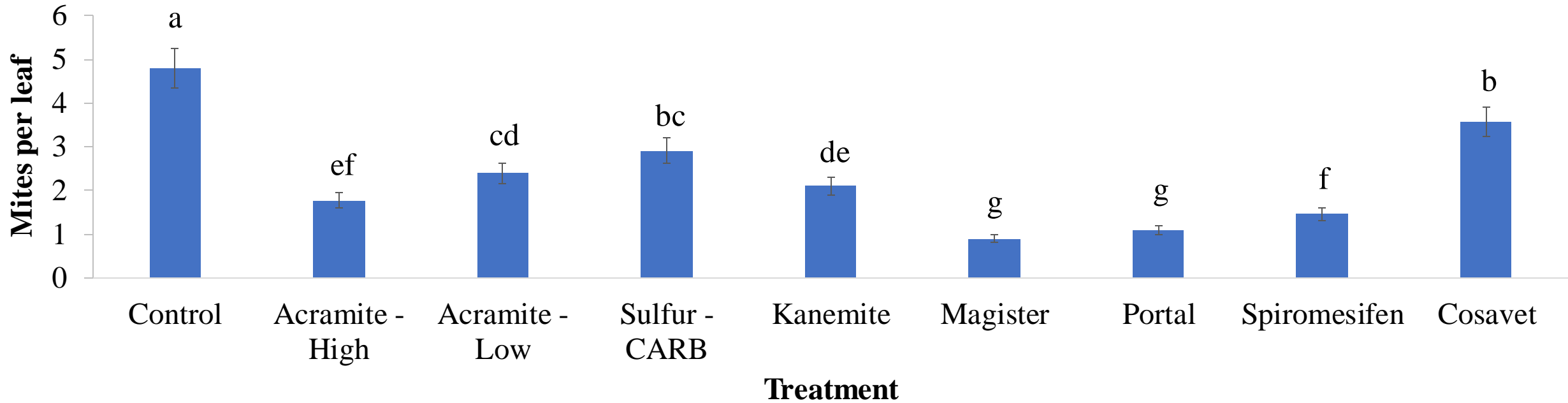
Miticide Trial

- ALPB2017 SC (Spiromesifen)
- Kanemite® 15 SC (Acequinocyl)
- Sulfur-CARB™ (Sulfur + molasses)
- Cosavet® DF (Sulfur)
- Magister® SC (Fenazaquin)
- Portal® EC (Fenpyroximate)
- Acramite-Low® 4SC Bifenazate
- Acramite-High® 4SC (Bifenazate)
- Water (control)

- Four 152-m long rows (~170 plants each)
- 12 plants per plot
- 5 plants used as buffer
- 144 samples per sampling day (~15 leaves /plant)

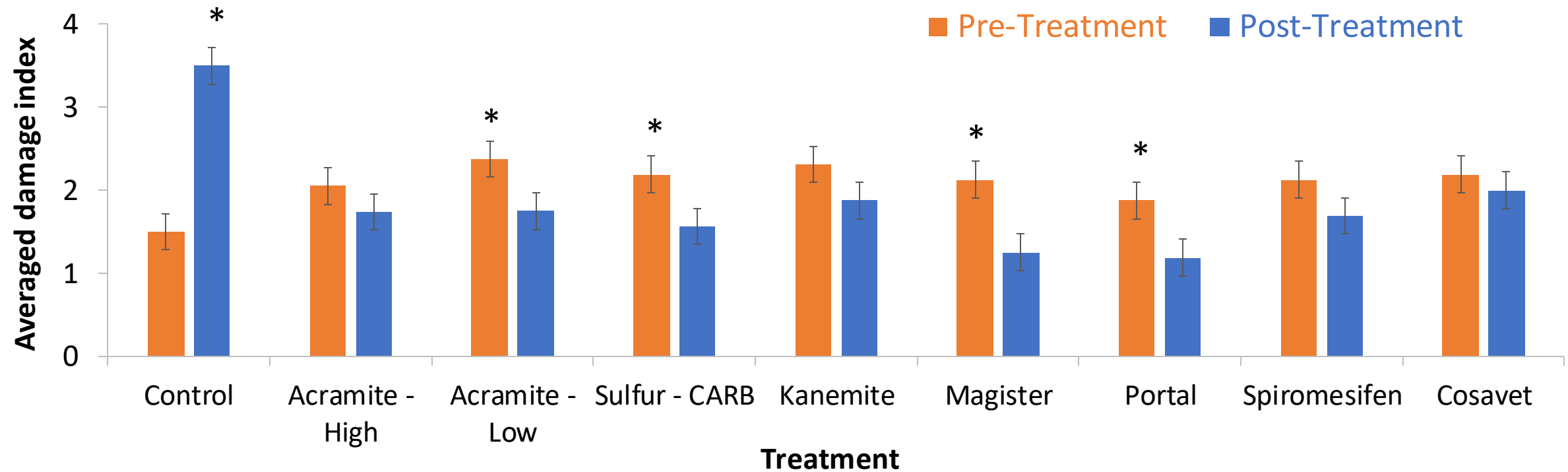


Southern Red Mite Suppression



- All miticide treatments were significantly lower than the control

Plant Damage



Arbitrary index

0 = no bronzing

1 = 1 ≥ 25% (low bronzing)

2 = 26 ≥ 50% (moderate bronzing)

3 = 51 ≥ 75% (high bronzing)

4 = 76 ≥ 100% (severe bronzing)

Conclusions

- Portal and Magister were the best performing miticides = plant recovery
- Acramite (high), Kanemite, Magister, and Spiromesifen were effective at reducing SRM
- Sulfur – CARB showed good performance after the 2nd application
- Cosavet was not effective at reducing SRM



Thank You

- UF Small Fruit & Vegetable IPM Lab Members
 - Farm crew

