

Thiamethoxam Resistance and Management of Thrips

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Winnsboro, LA





Mid-South Thrips Control Issues

- Species encountered
- Prophylactic treatment efficacy
 - Seed treatments
 - Pre-emergence herbicides
 - In-furrow treatments
 - Resistance
- Augmenting with foliar sprays
- Foliar treatment timing





Thrips Species Composition

Across 10 locations Mid-South

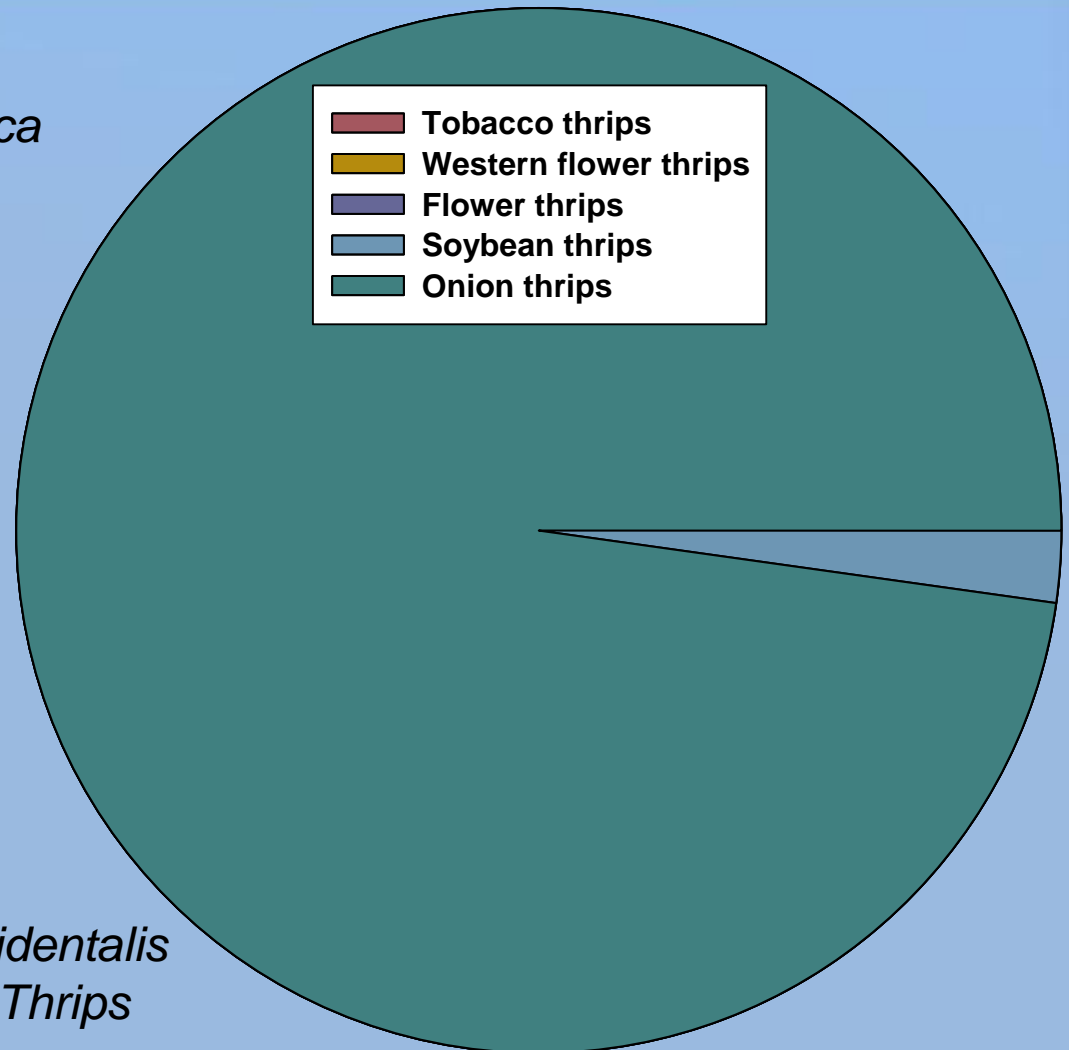


Frankliniella fusca
Tobacco Thrips

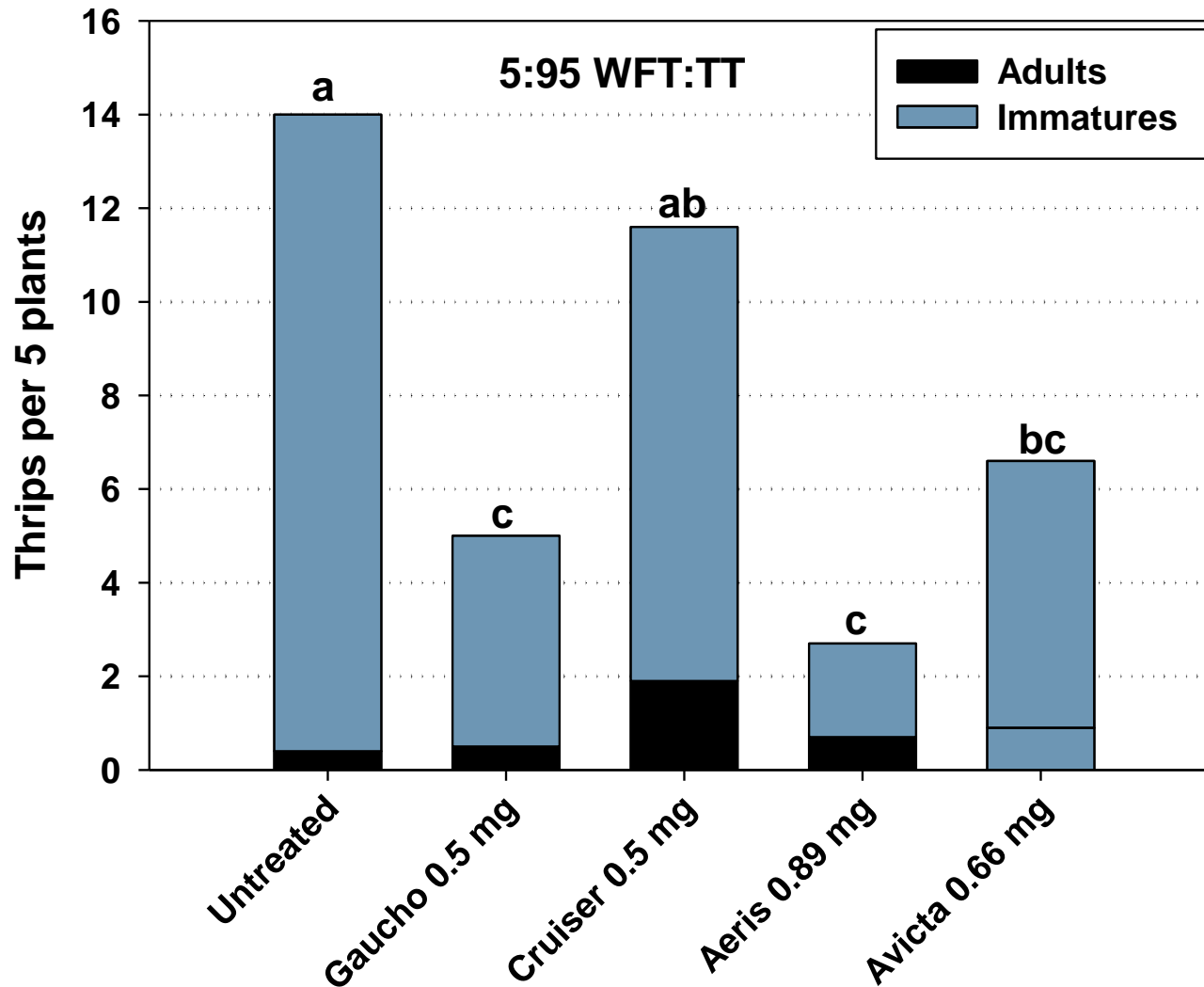
Adult Female



Frankliniella occidentalis
Western Flower Thrips



Winnsboro, LA – 2013 (21 DAP)



> 95%
Tobacco thrips

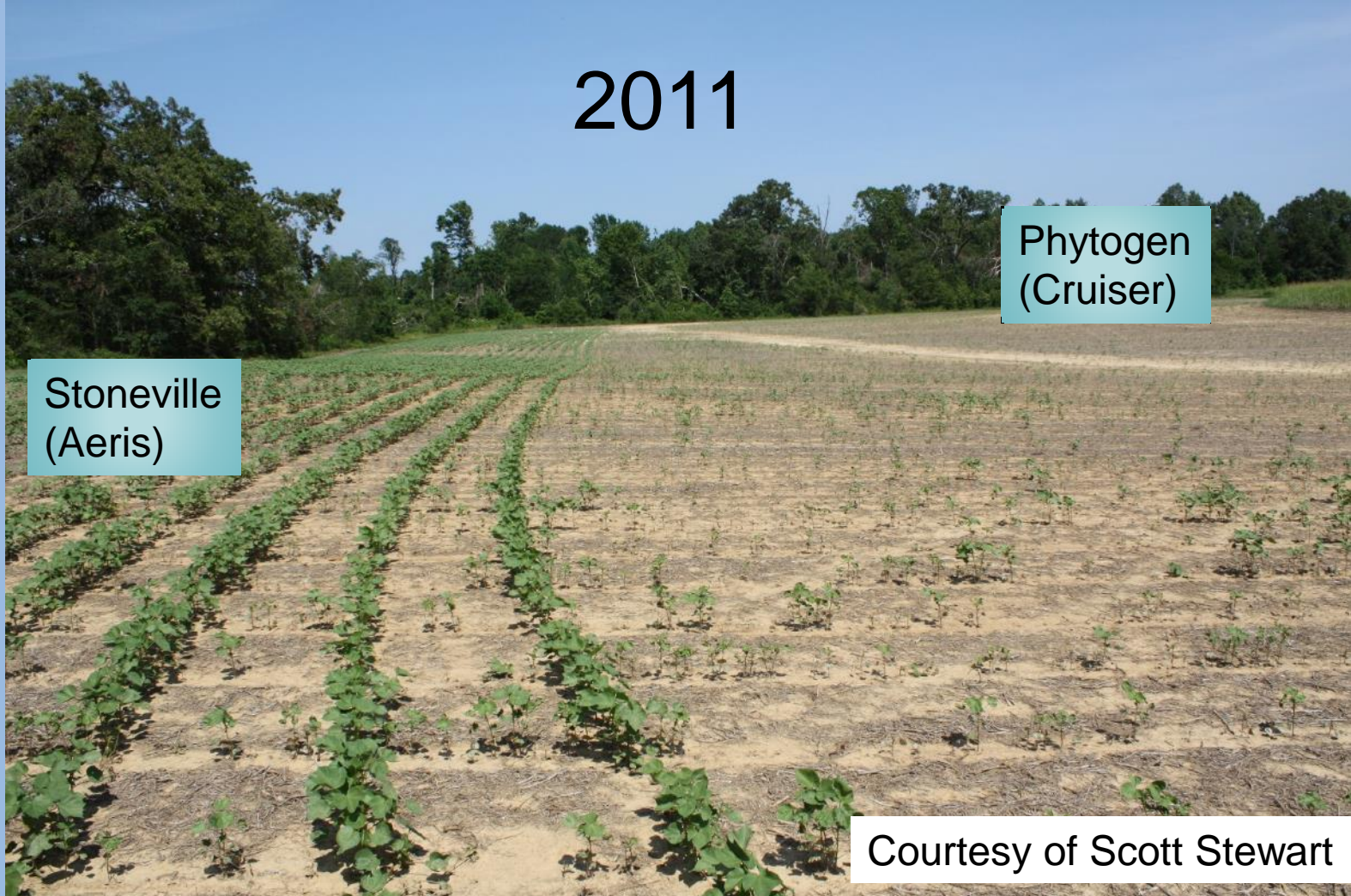


Cruiser - Improperly Treated or Poor Performance ?

2011

Stoneville
(Aeris)

Phytogen
(Cruiser)



Courtesy of Scott Stewart

Herbicide Injury Interaction

PHY375 WRF / Cruiser

Roundup WM (24 oz) +
Dual Magnum (16 oz)

PHY375 WRF / Cruiser

Roundup WM (24 oz) +
Dual Magnum (16 oz) +
Liberty (32 oz)

Courtesy of Scott Stewart



Status of cruiser as an effective seed treatment for thrips management in Louisiana



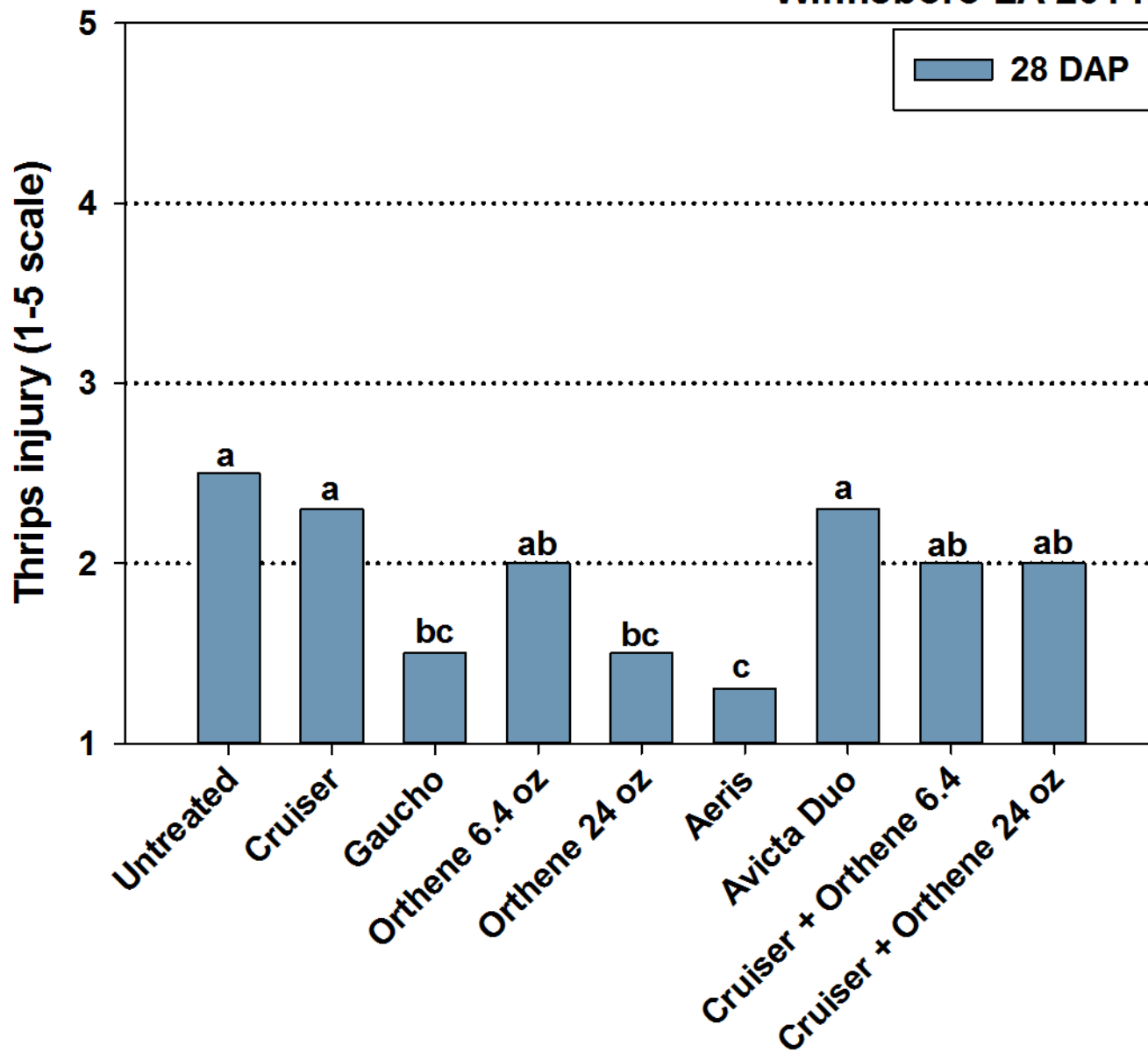
Frankliniella fusca
Tobacco Thrips

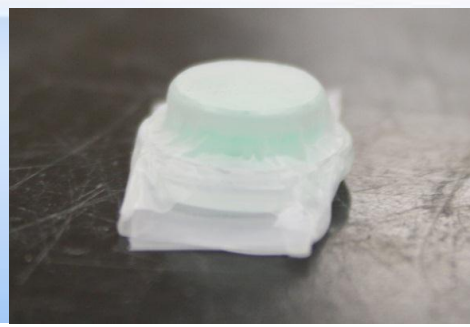


Frankliniella occidentalis
Western Flower Thrips

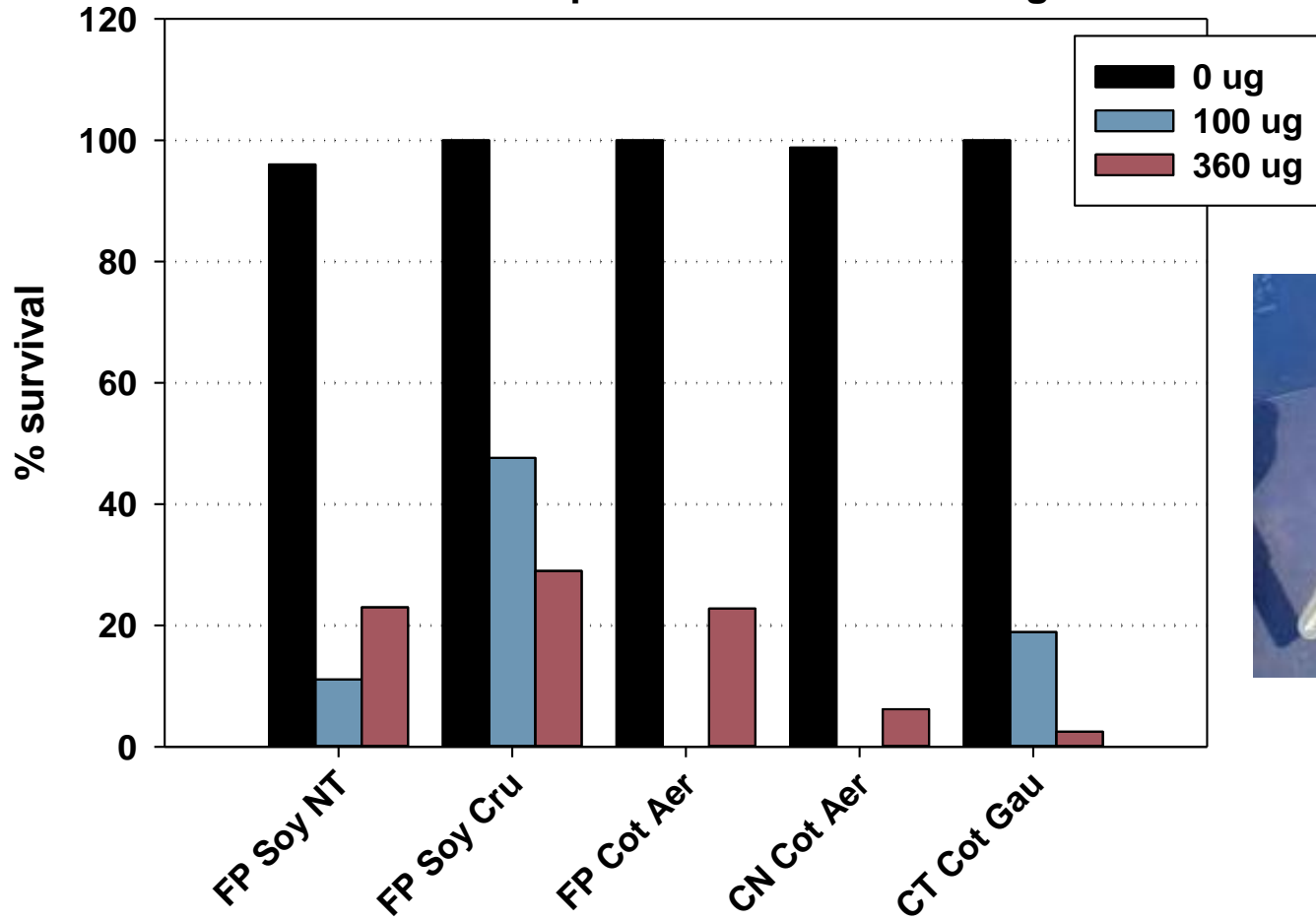


Winnsboro LA 2014





Tobacco thrips resistance monitoring 2014



Susceptibility of Tobacco Thrips, *Frankliniella fusca*, to the Neonicotinoid Class of Insecticides in Mid-South Region

Chelsie Darnell, Angus Catchot, and Fred Musser



MISSISSIPPI STATE
UNIVERSITY

Field vs Lab Colony

Colony	Cruiser		Gaucho		Poncho	
	LC ₅₀	RR	LC ₅₀	RR	LC ₅₀	RR
MS Delta	35.12	20.4	2.52	1.4	43.15	20.0
MS Hills	9.49	5.5	1.14	0.6	22.66	10.5
TN	13.91	8.1	4.26	2.3	-	-
SC	26.72	15.5	-	-	-	-
Lab	1.72	1	1.84*	1	2.16**	1

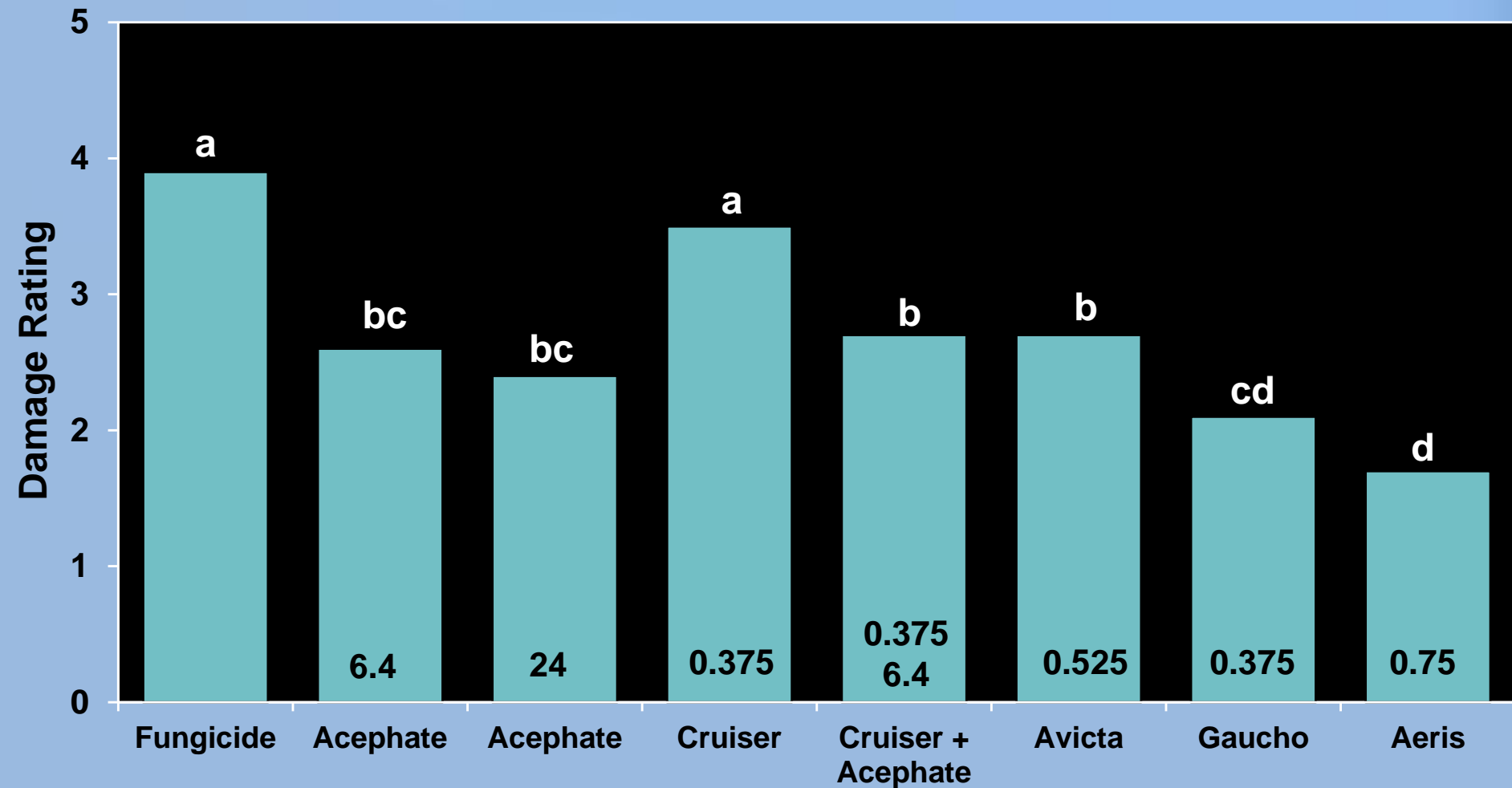
* 3 assays with LC₅₀ ranging from 0.1 to 4.5

** 3 assays and concentration not significant for any but all had similar LC₅₀ estimate



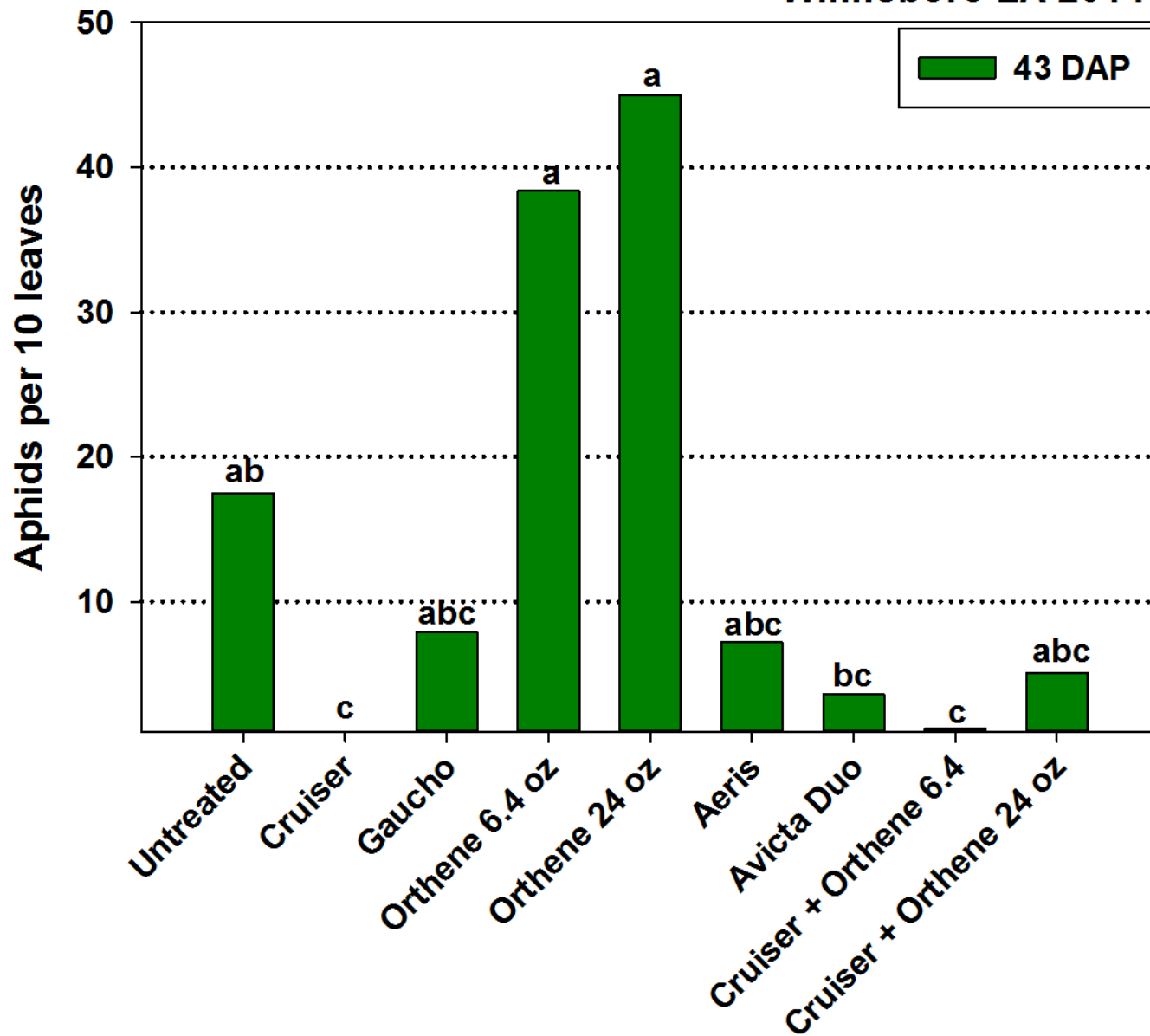
Seed treatment alternatives

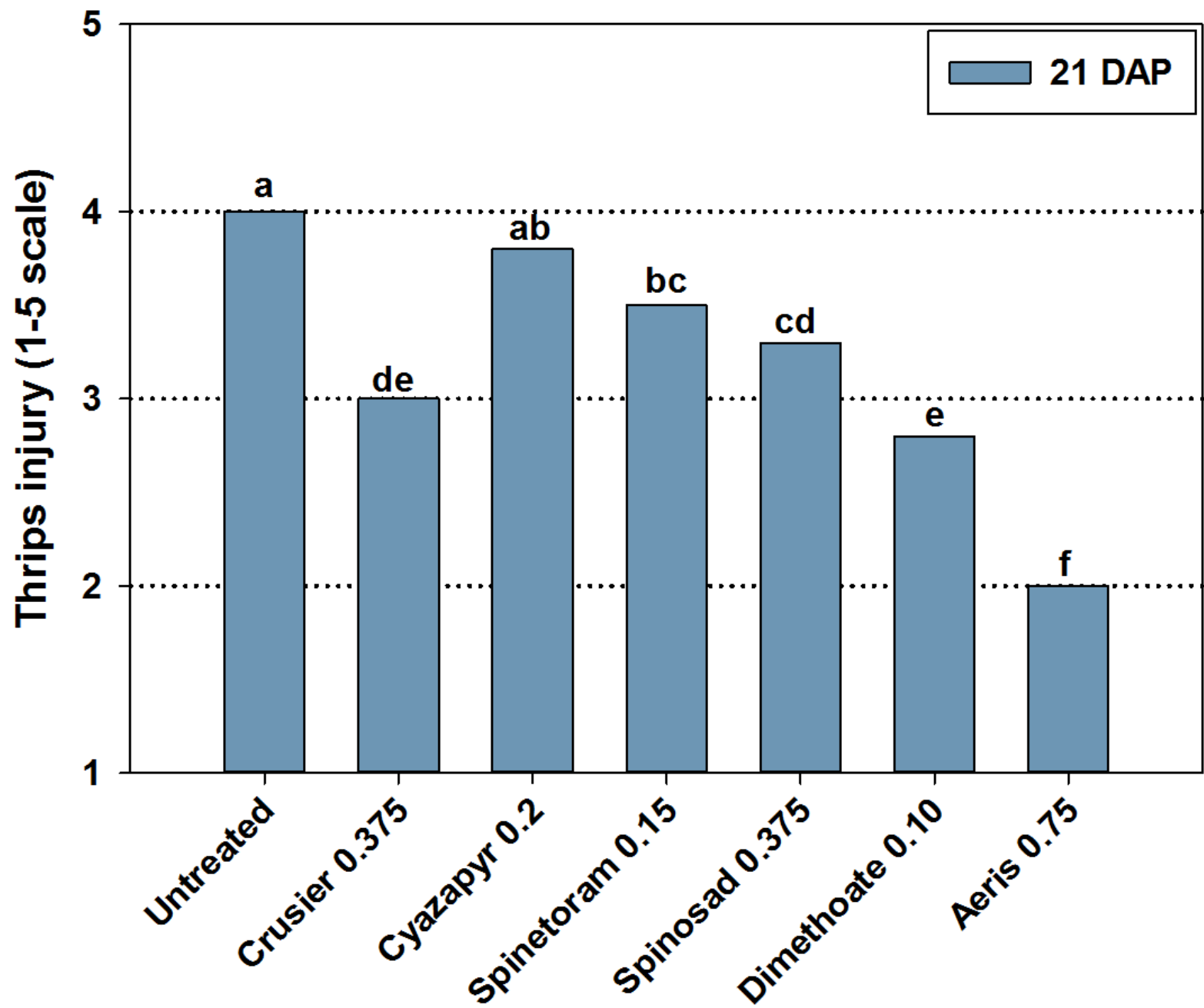
3 true leaf stage





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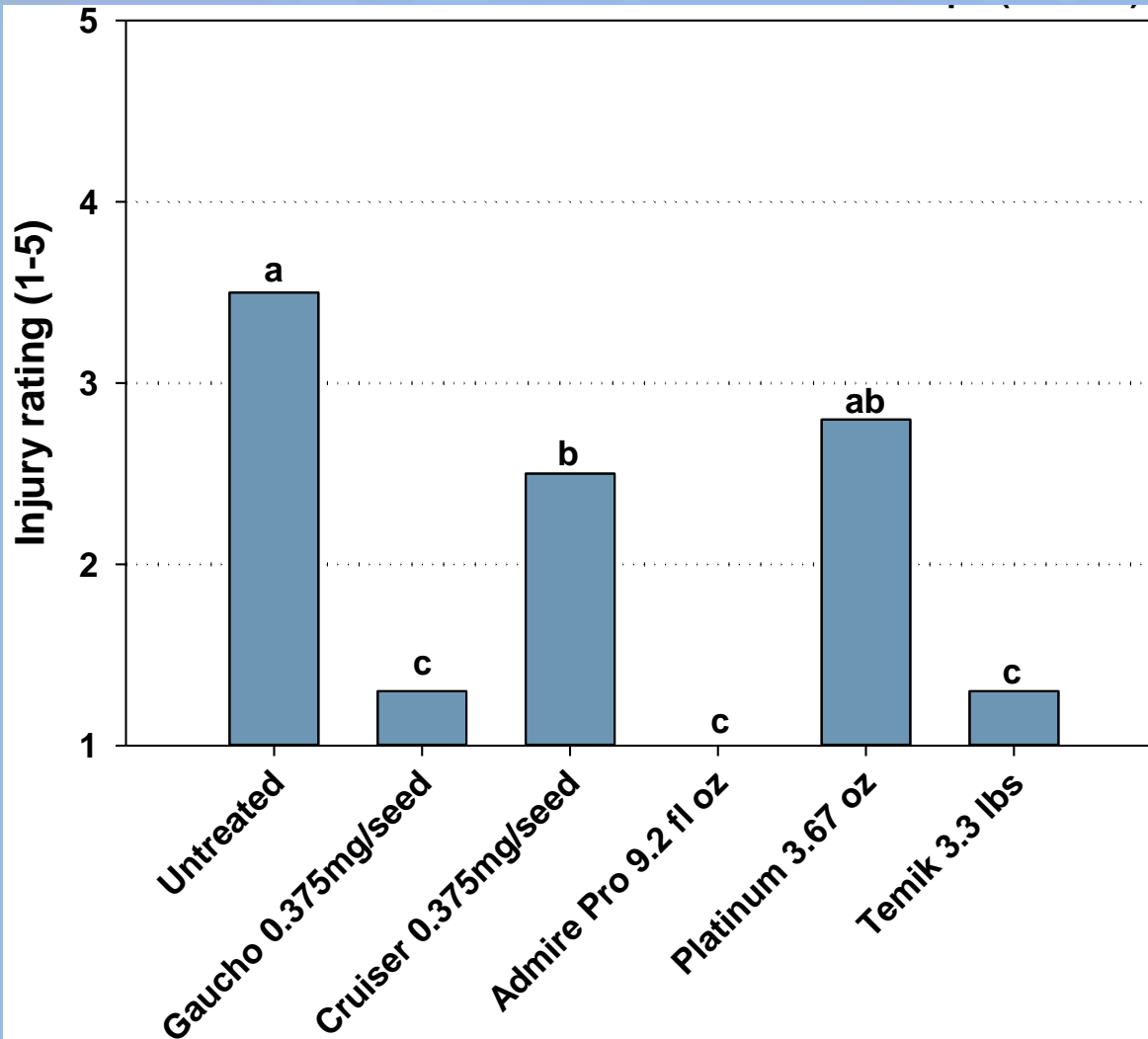


In-furrow sprays tests for thrips control



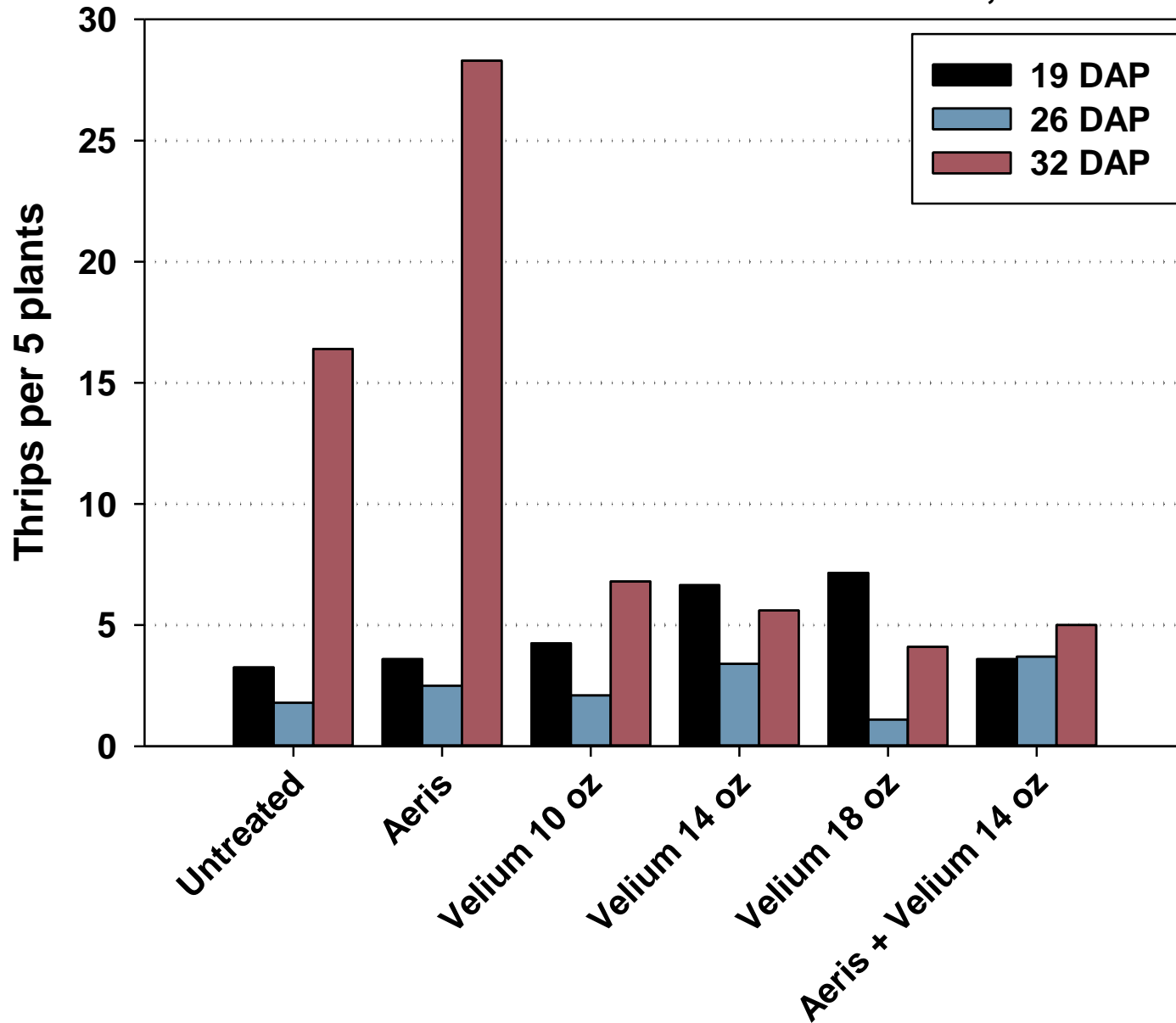


St. Joseph - 2013 (29 DAT) In-furrow spray test



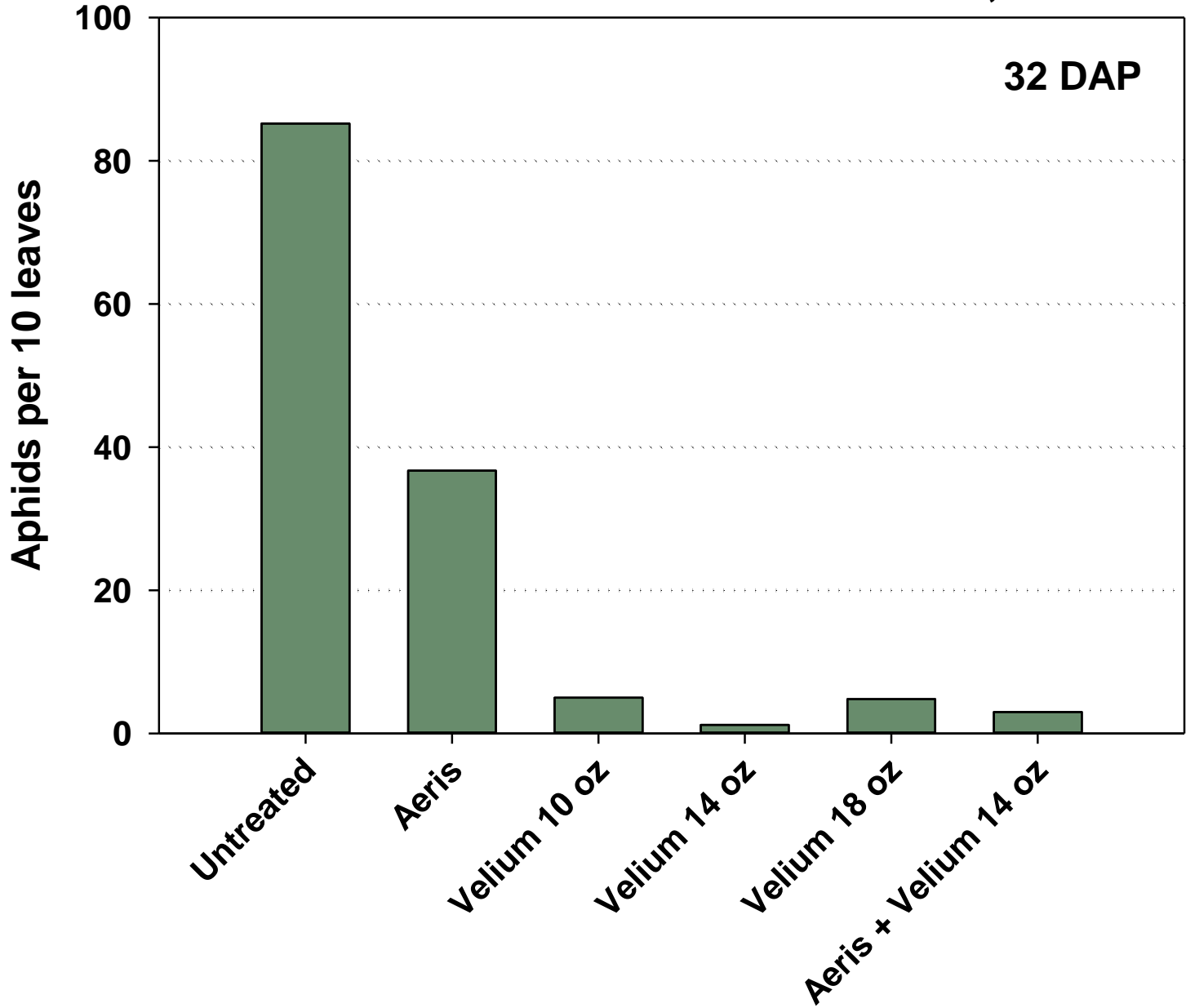
> 95%
Tobacco thrips

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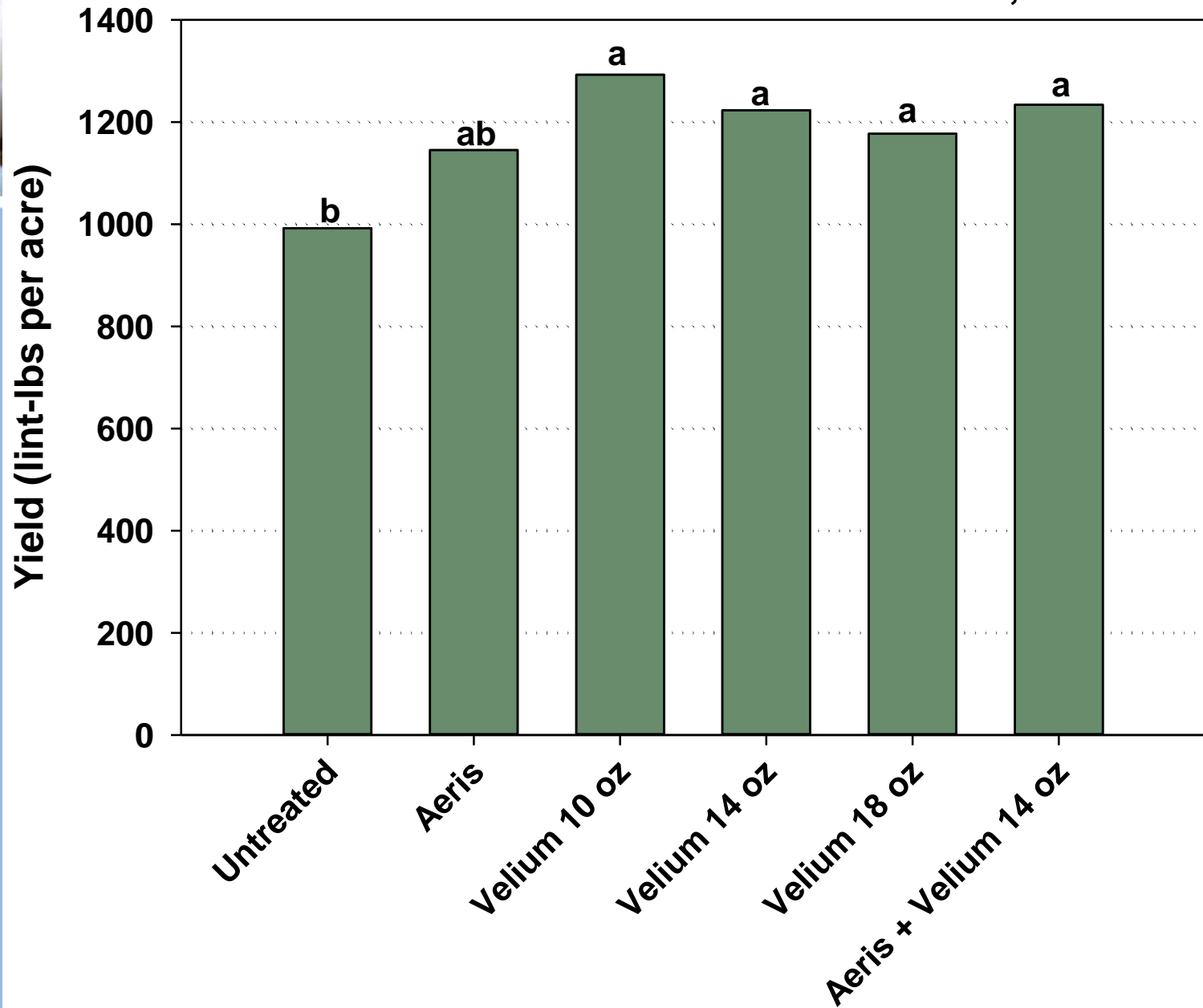


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32 DAP



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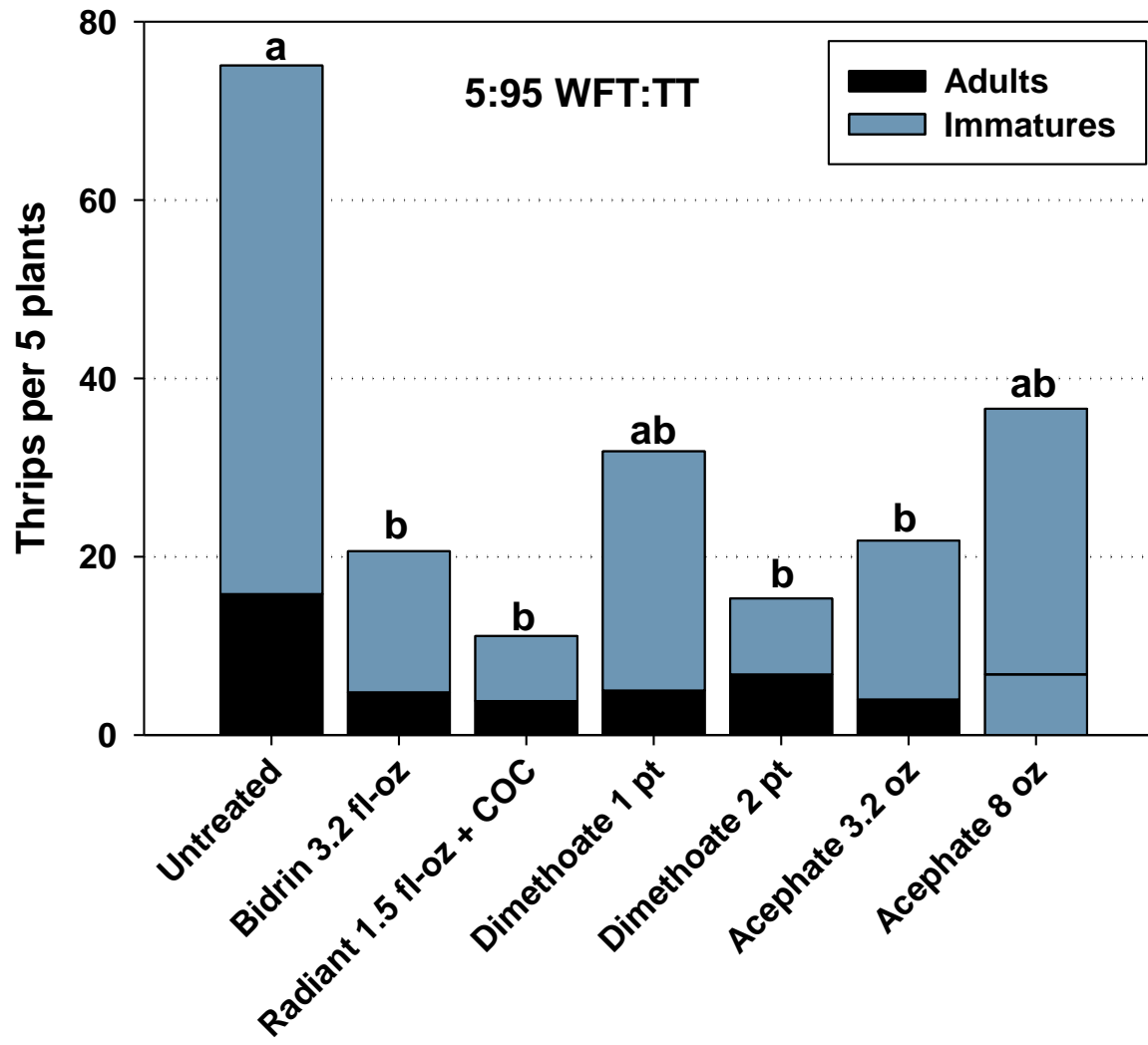
Sampling Thrips



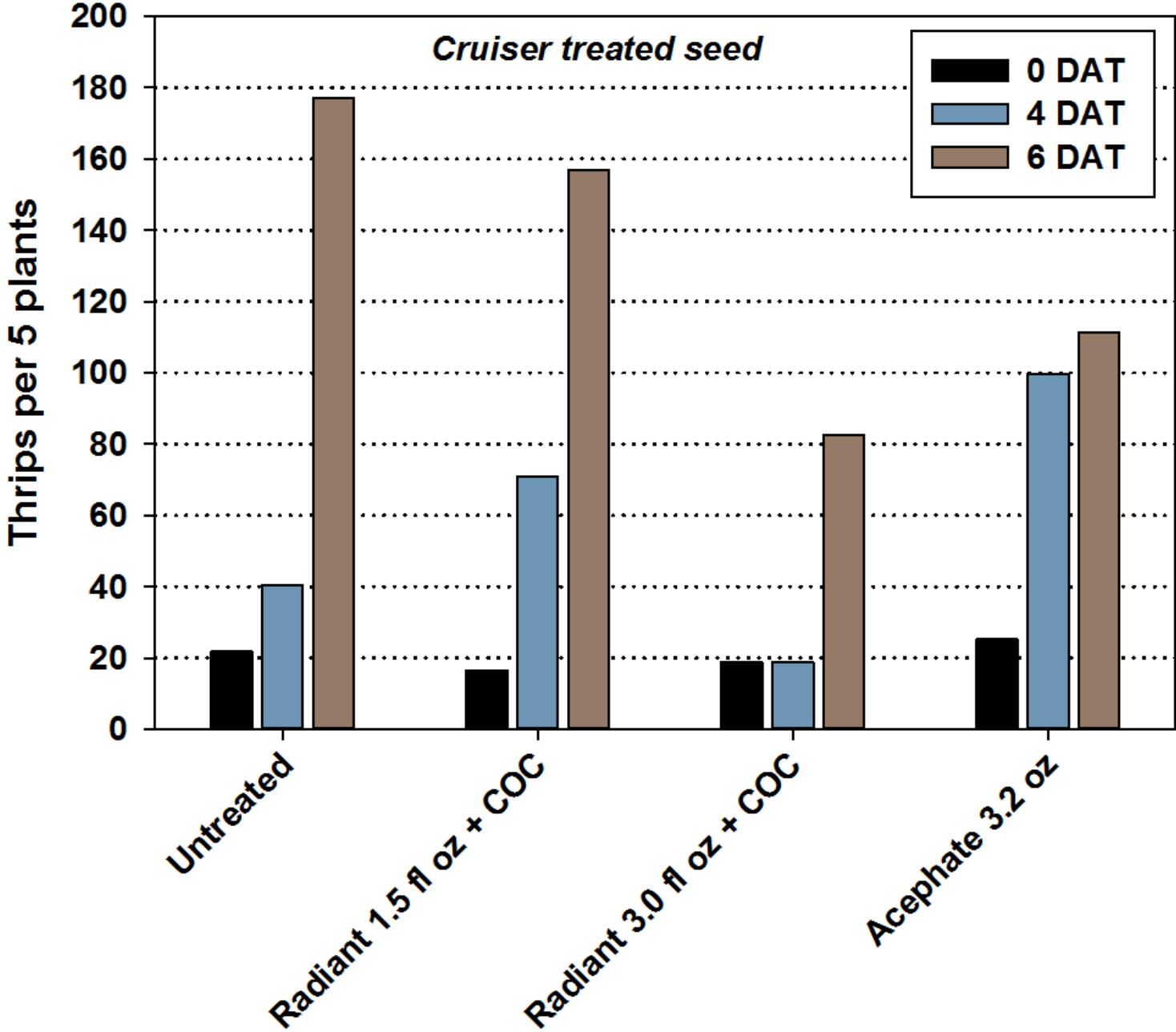


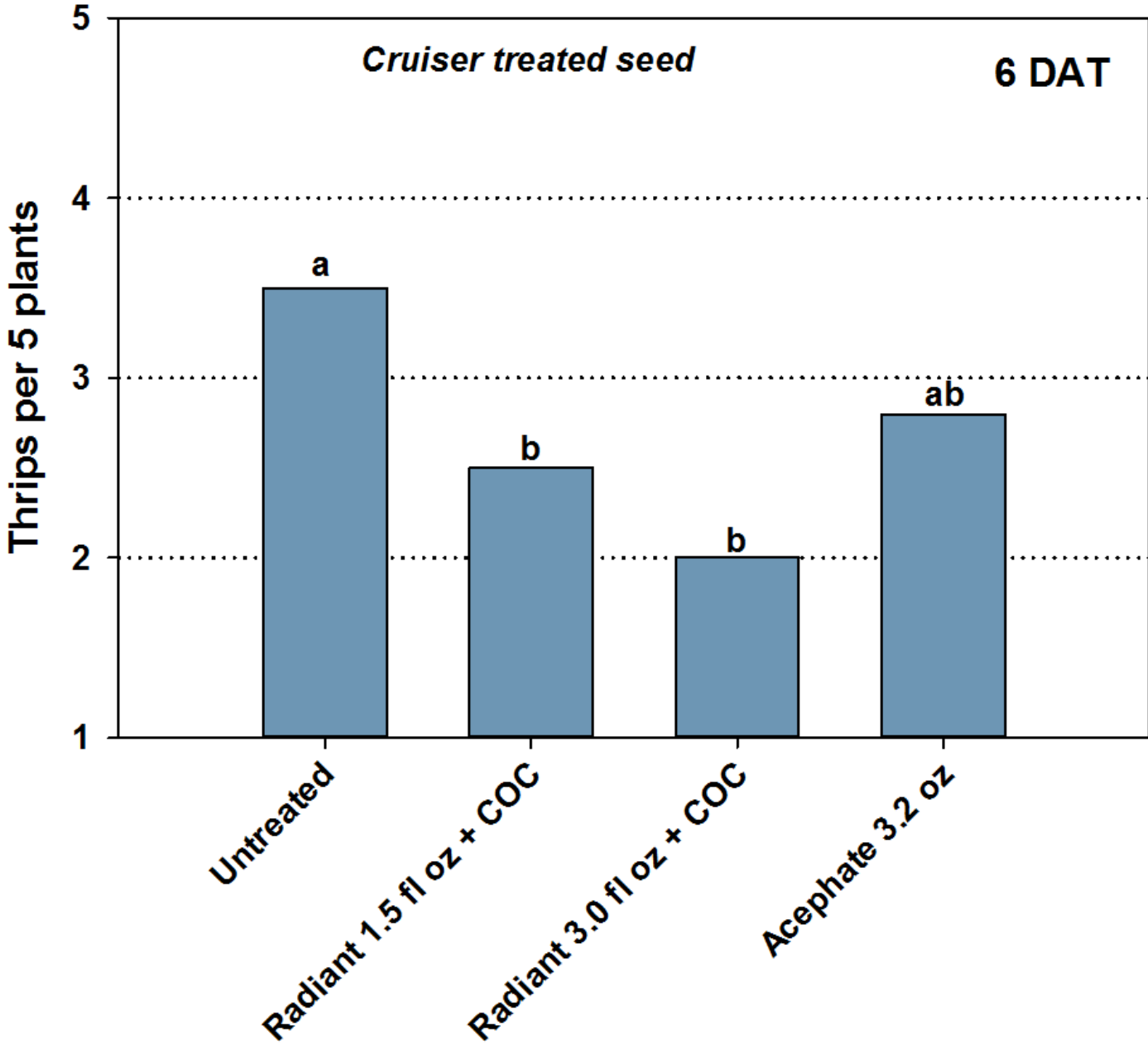
Foliar Thrips Trial in Cotton

St. Joseph, LA - 2013 (5 DAT)



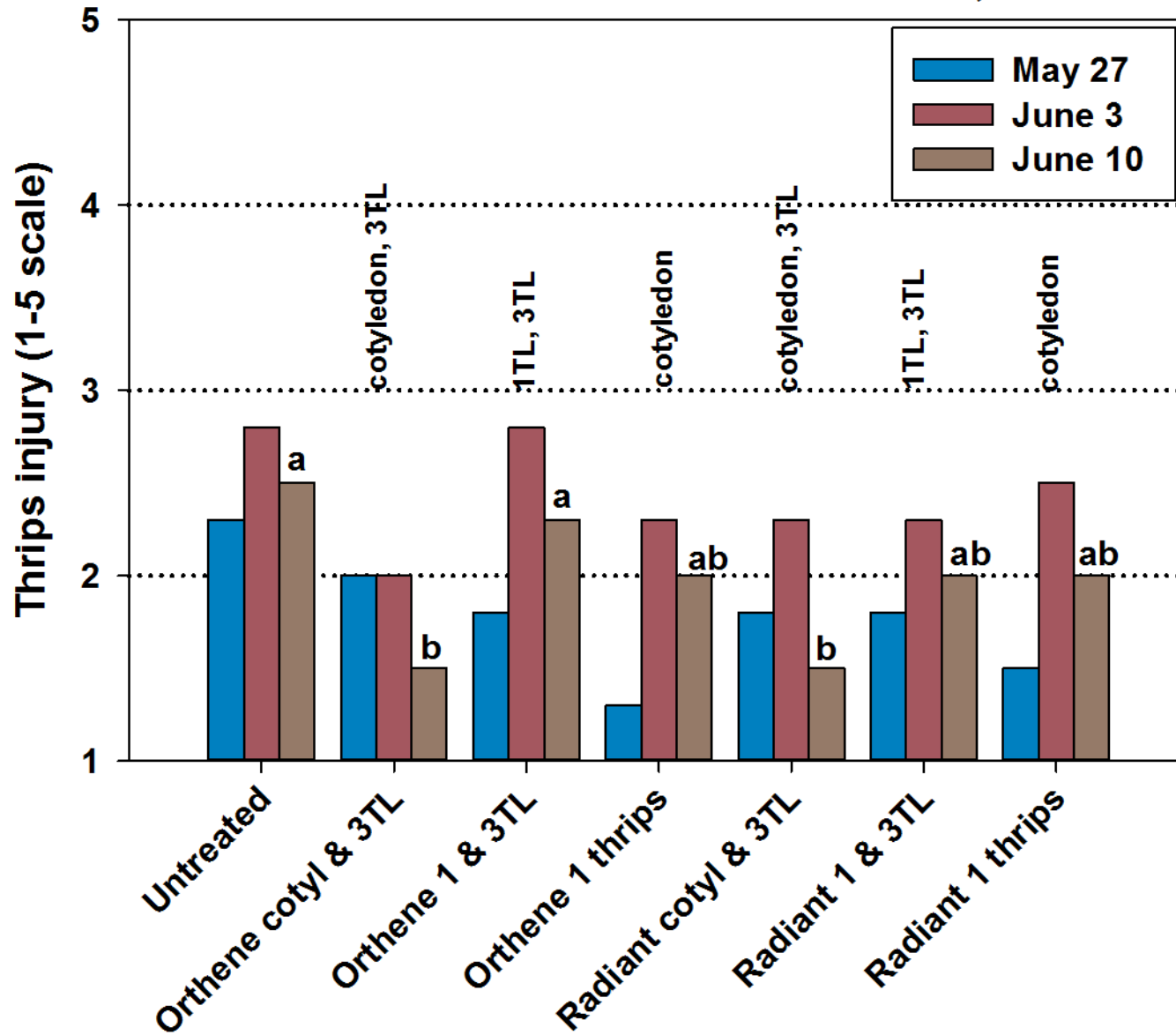
St Joseph LA 2014





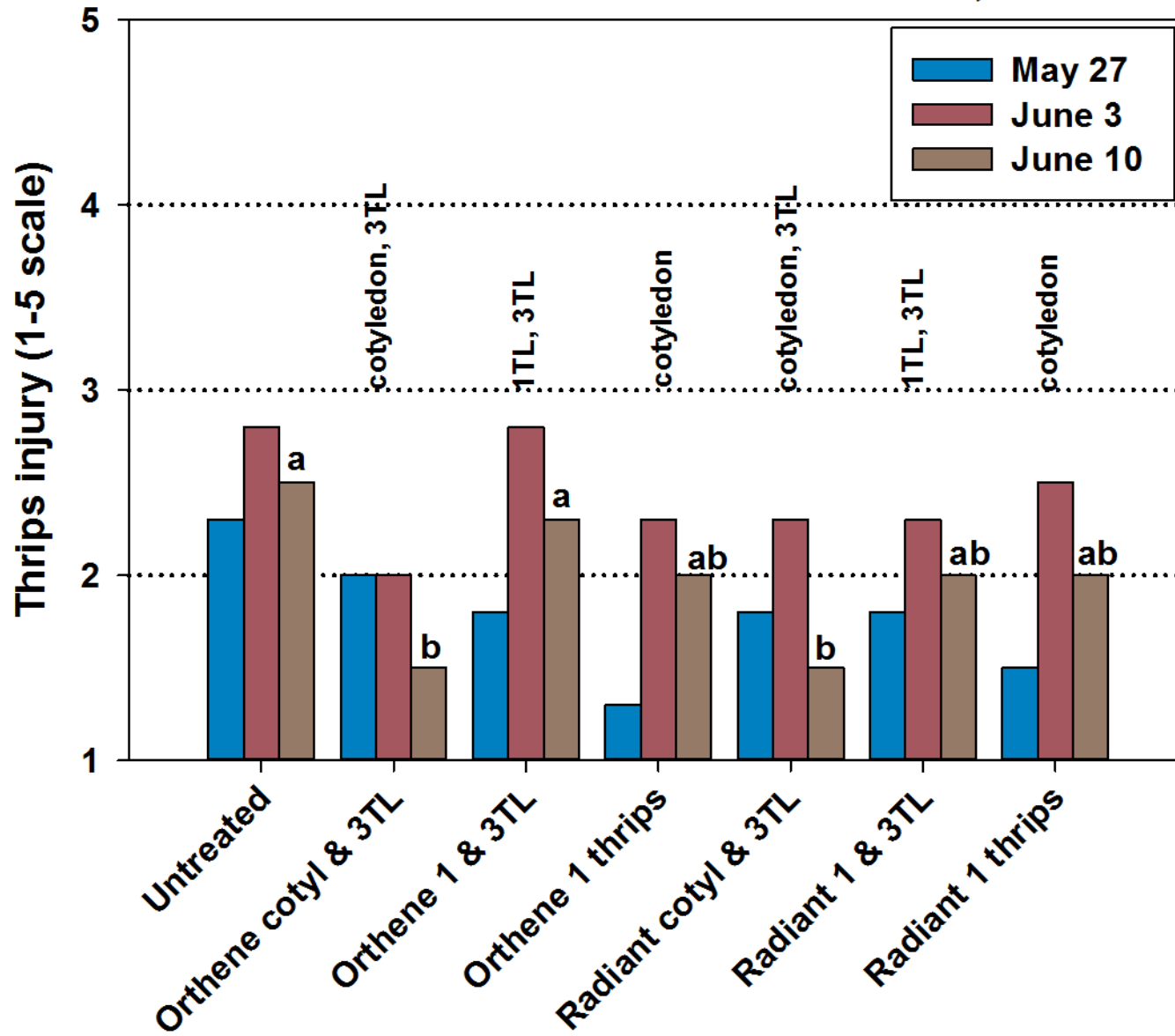


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THANK YOU – QUESTIONS?

