Managing Thrips

A Midsouthern Perspective

Scott Stewart, et al.

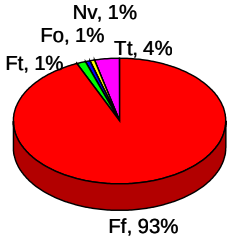
UT Extension

MSEWG
Mid-South Entomologist Working Group

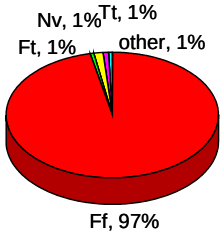
It's a Pest Complex … and It Matters

- Identification is not easy … and forget about immature stages
- Imidacloprid is worse than Cruiser on WFT
- WFT harder to control with some foliar insecticides

The good news …



Keiser, AR



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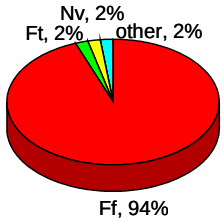
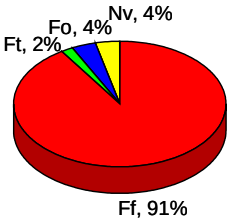
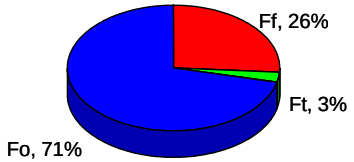


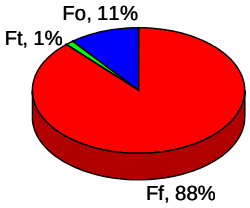
Rohwer, AR



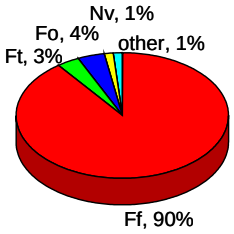
ABAC Farm, Tift Co., GA



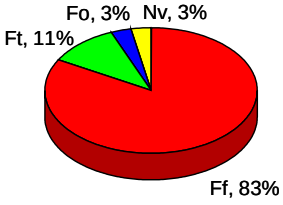
Lang Farm, Tift Co., GA



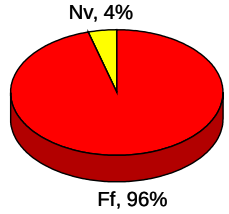
Macon Ridge, LA



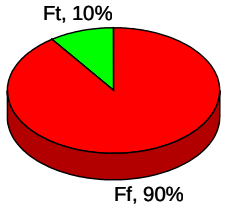
Red River Res. ST., LA



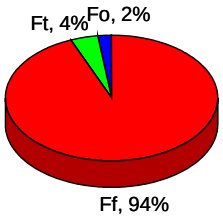
Portageville, MO



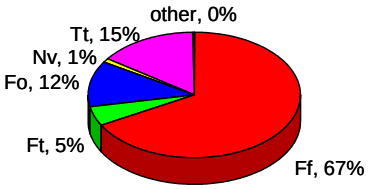
Raymond, MS



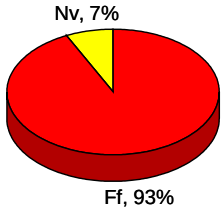
Starkville, MS



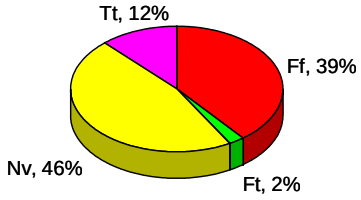
Stoneville, MS



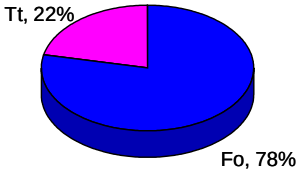
Raleigh, NC



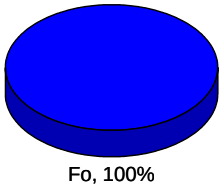
Blackville, SC



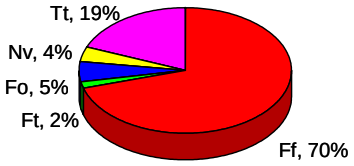
Jackson, TN



Dimmitt, TX



Sunray, TX



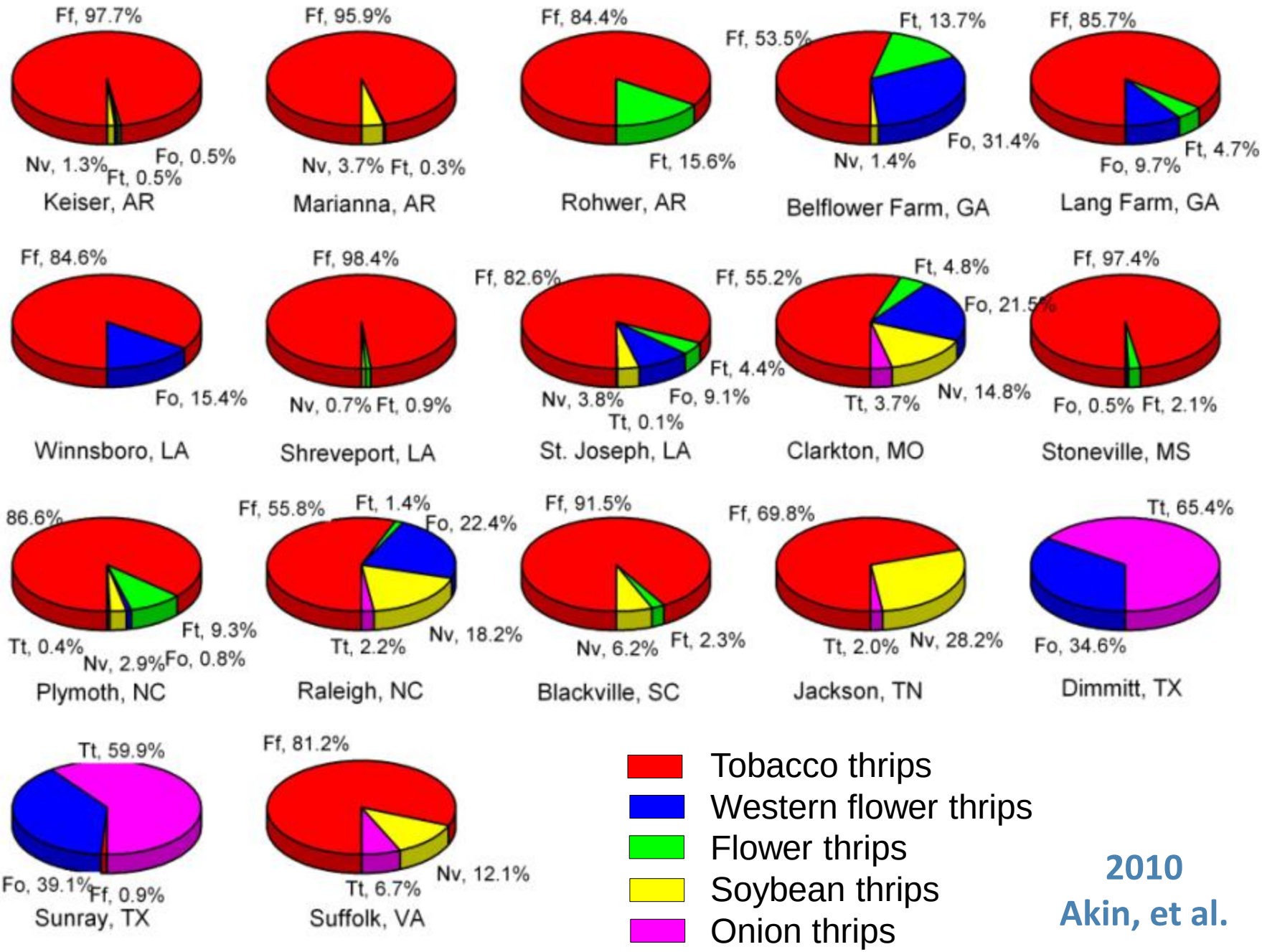
Suffolk, VA

- Tobacco thrips
- Western flower thrips
- Flower thrips
- Soybean thrips
- Onion thrips

2009

Akin, et al.

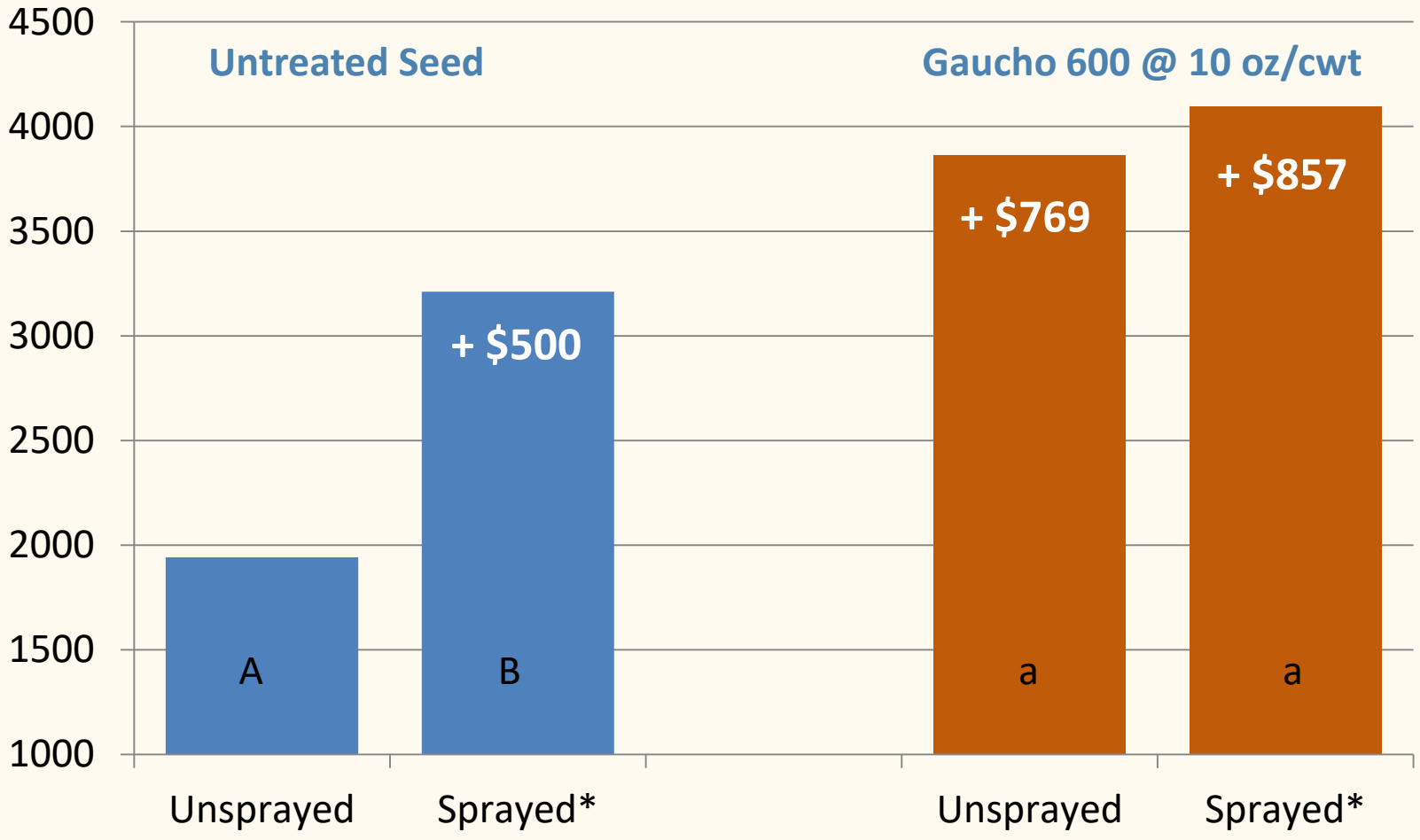
Species percentage composition of thrips by location computed across treatments and sample dates.



2010
Akin, et al.

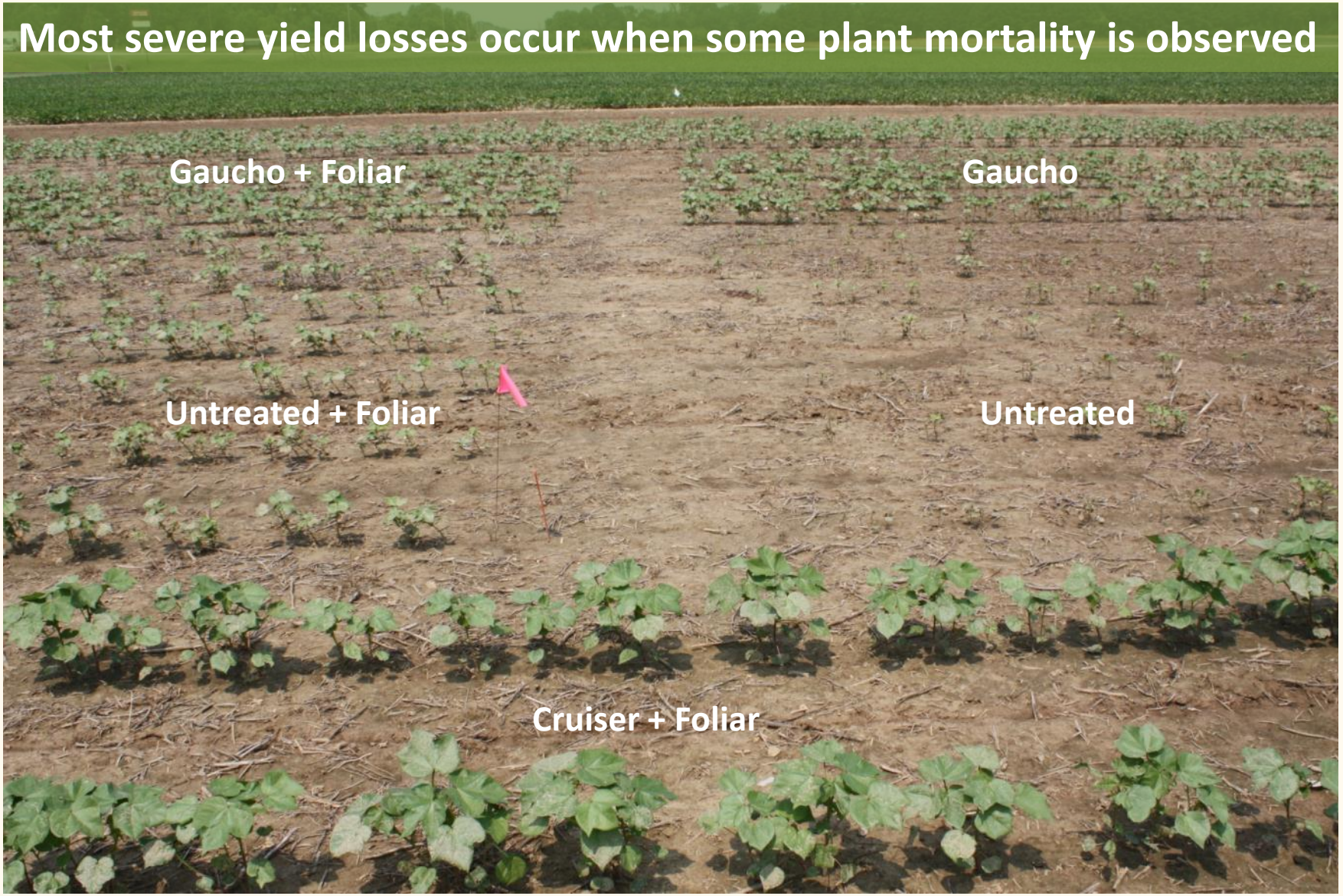
Thrips Control Demonstration (Tennessee)

Seedcotton Yield (PHY375 WRF, Planted May 9, 2011)



* Sprayed at 2nd leaf (3 WAP) with Acephate 90S … untreated sprayed second time at 4th leaf

Thrips Demo Plots - 33 DAP (Tennessee, 2011)



Cotton Seed Treatment Choices (2012)

Company Offerings (Active Ingredients)

Delta Pine (Monsanto)			Phytogen (Dow)			Stoneville, FiberMax (Bayer)		
Acceleron I	**Acceleron FI**	**Acceleron N**	**Cruiser**	**Cruiser Dynasty**	**Avicta Complete**	**Aeris**	**Aeris + Trilex Advanced**	**+ Poncho/ Votivo**
Imidacloprid	Imidacloprid	Thiamethoxam	Thiamethoxam	Thiamethoxam	Thiamethoxam	Imidacloprid	Imidacloprid	Clothianidin
Pyraclostrobin* 2X	Pyraclostrobin 2X	Pyraclostrobin 2X	Fludioxonil*	Azoxystrobin	Azoxystrobin	Triadimenol*	Trifloxystrobin	*Bacillus firmus*
Trifloxystrobin*	Ipconazole	Ipconazole	Mefenoxam*	Fludioxonil	Fludioxonil	Metalaxyl*	Triadimenol	
Metalaxyl*	Trifloxystrobin	Trifloxystrobin	Myclobutanil*	Mefenoxam	Mefenoxam	Ipconazole	Metalaxyl	
Myclobutanil*	Metalaxyl	Metalaxyl	TCMTB*	Myclobutanil	Myclobutanil	Thiodicarb	Ipconazole	
	Myclobutanil	Myclobutanil		TCMTB	TCMTB		Thiodicarb	
		Abamectin			Abamectin			

IMIDACLOPRID THIAMETHOXAM IMIDACLOPRID

INSECT	DISEASE	NEMATODE

* Asterisk = base fungicides if no insecticide or nematicide treatments are ordered (at 1X rates).

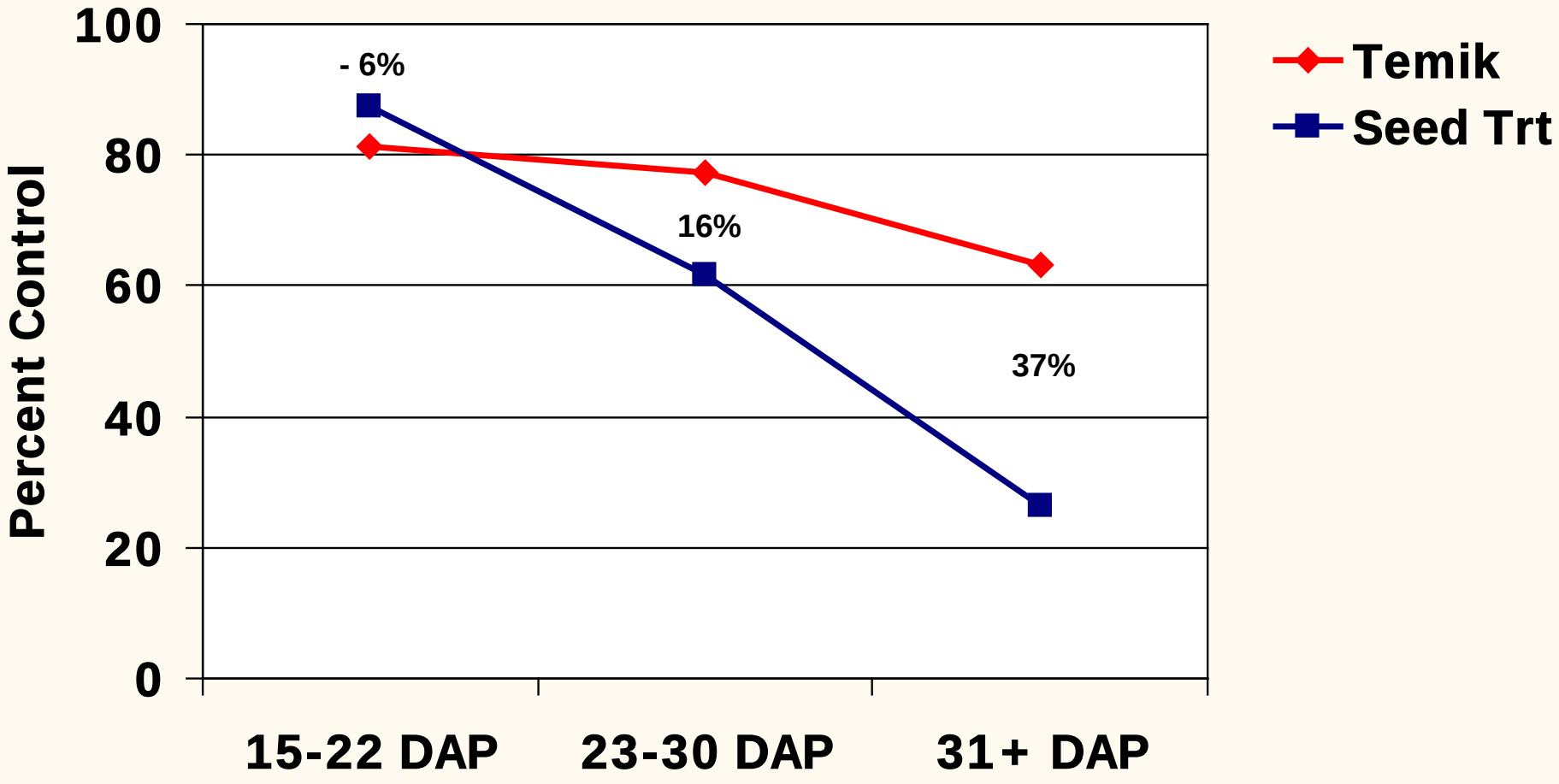
Clothianidin = Poncho, Thiamethoxam = Cruiser, Imidacloprid = Gaucho

Stewart (UT) & Lorenz (UA)

Percent Thrips Control

Temik and Seed Treatments, 14 Trials (2003-2007)

(3.5-5 lb) (Gaucho Grande/Aeris/Cruiser/Avicta CP)

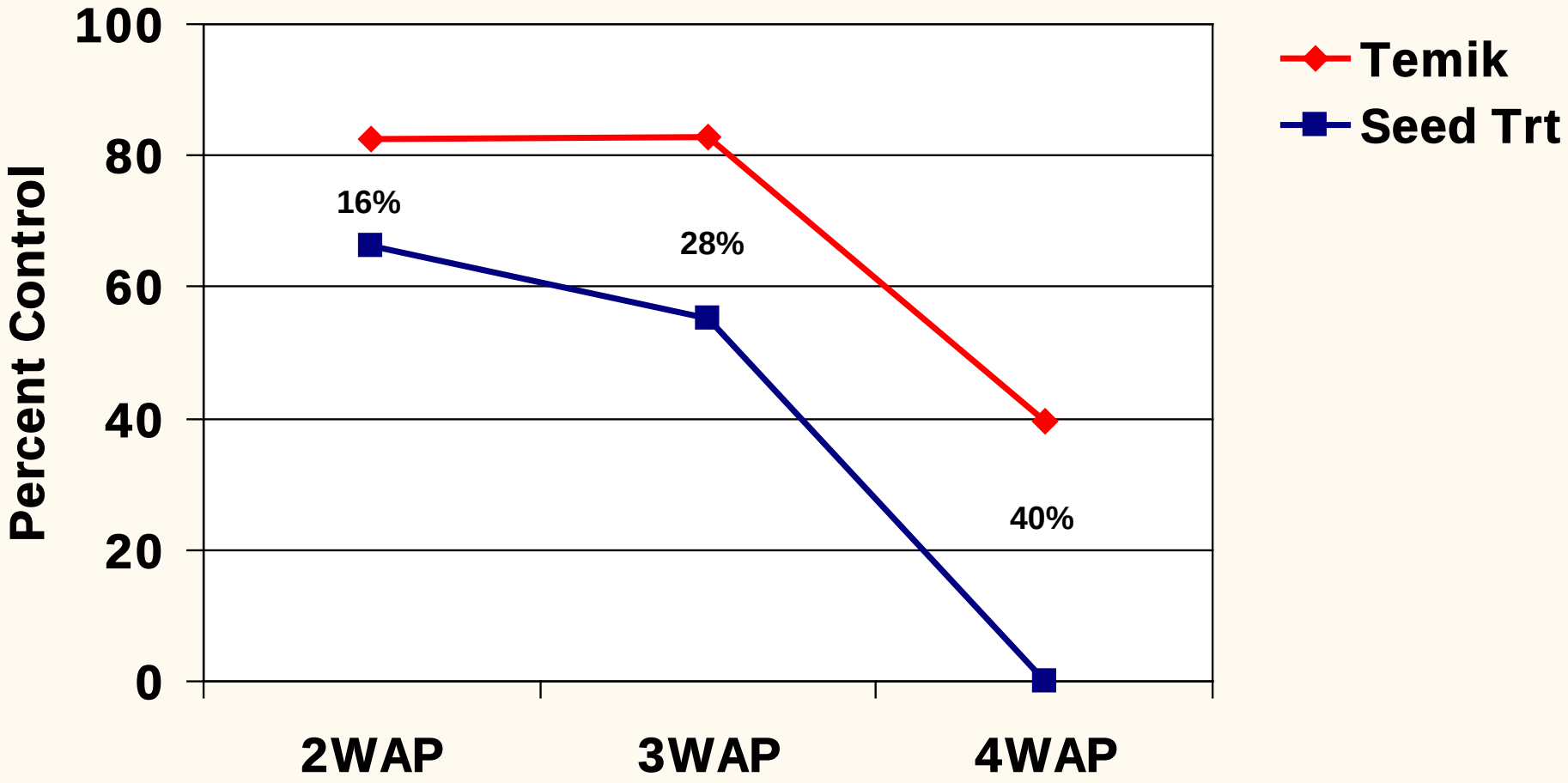


Roberts et al. (University of Georgia)

Percent Thrips Control

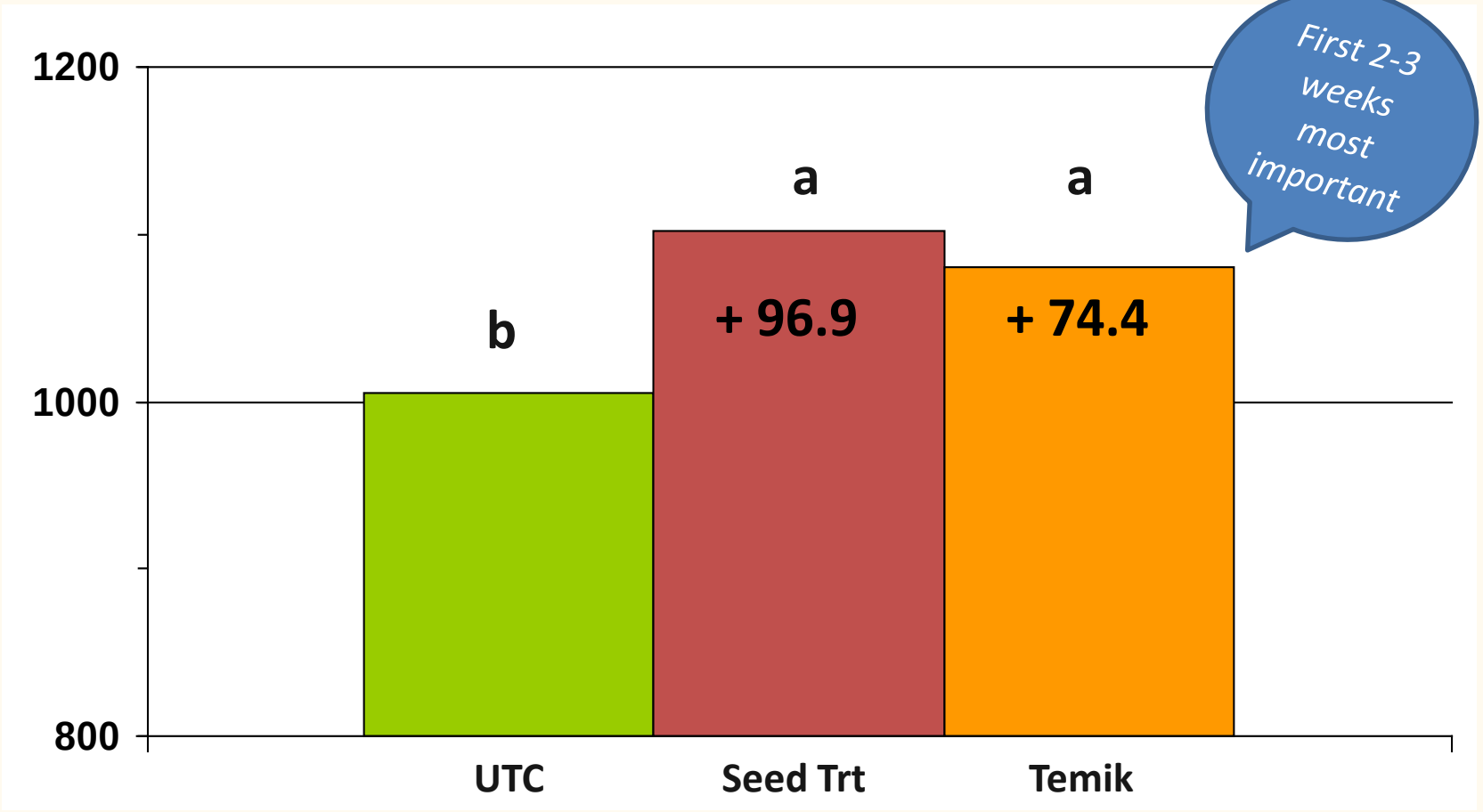
Temik and Seed Treatments, 28 Trials (2000-2006)

(3.5-5 lb) (Gaucho Grande/Cruiser/Avicta Complete Pak)



Yield (Lb Lint/Acre) of Thrips Trials

Stewart (UT) and Lorenz (UA)
14 Trials from 2003-2007, WTES and Arkansas



N = 8 in TN, 6 in AR

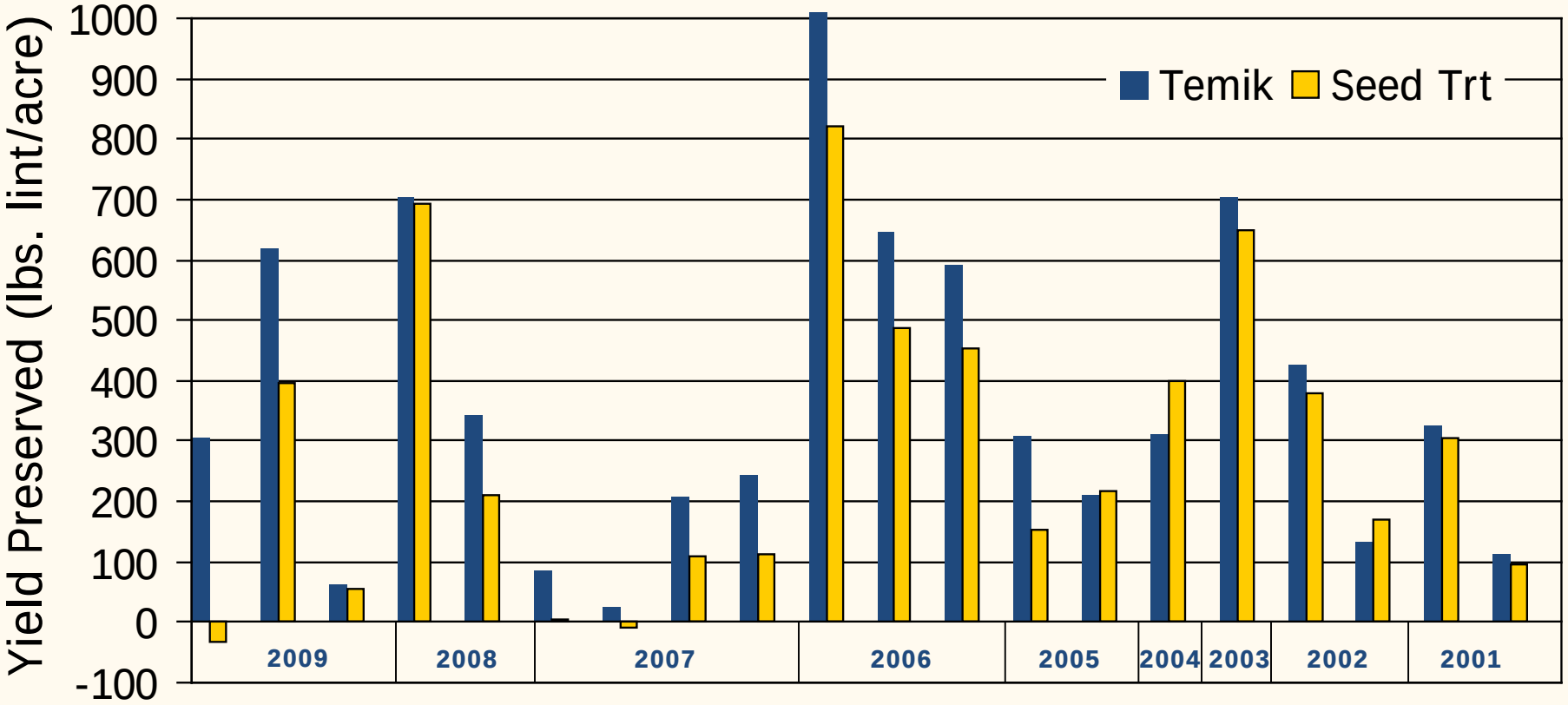
P < 0.05

Yield Response to Thrips Control

Temik and Seed Treatments, 20 Trials (Roberts, GA 2001-2009)

(3.5-5.0 lb/acre) (Cruiser/Avicta and Gaucho/Aeris)

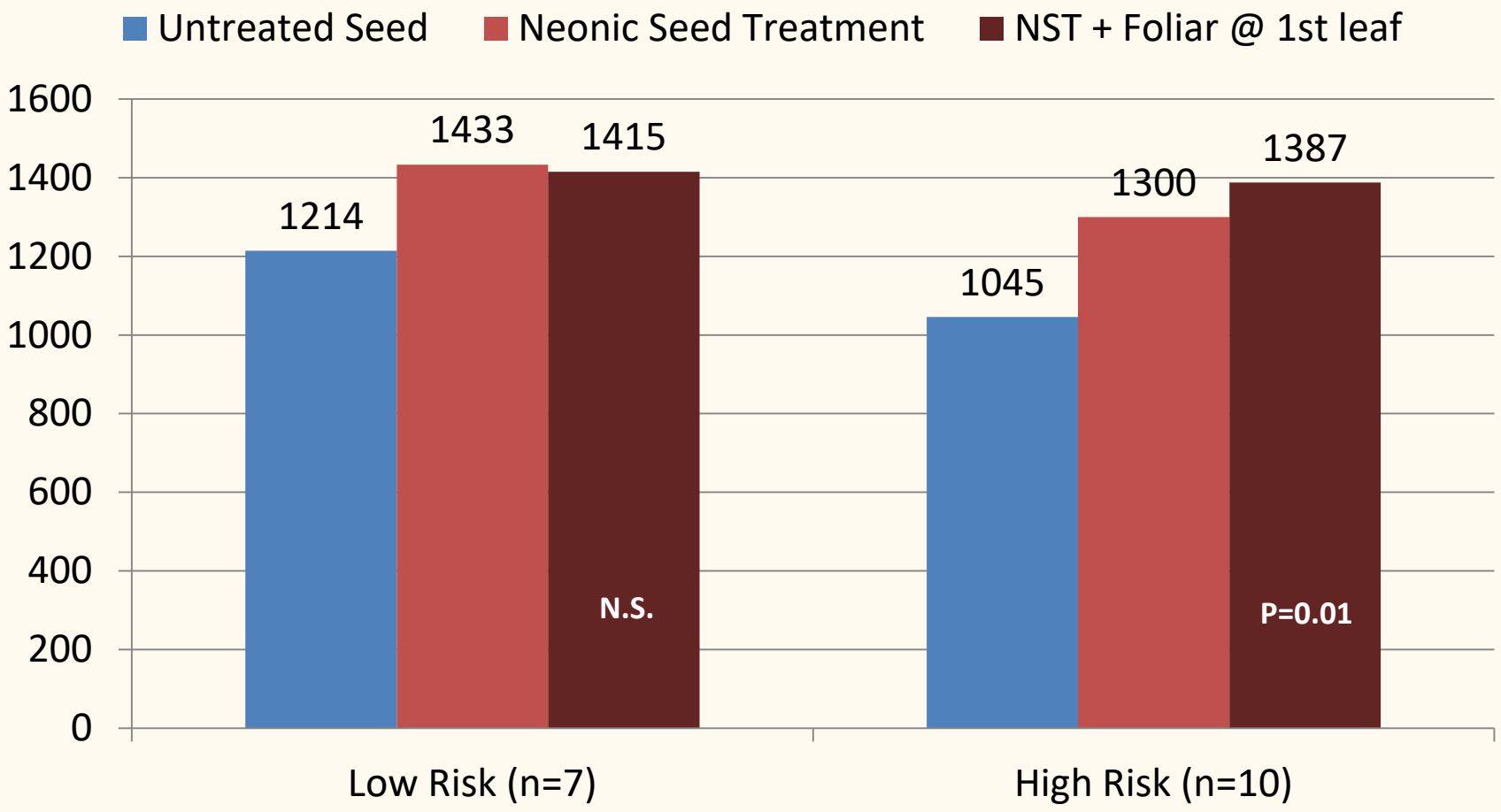
Average increase = 329 lb lint/acre in high-risk environments



At-planting treatments are not always necessary but are also not always enough (especially seed treatments)

Thrips vs. Environment

Roberts, University of Georgia

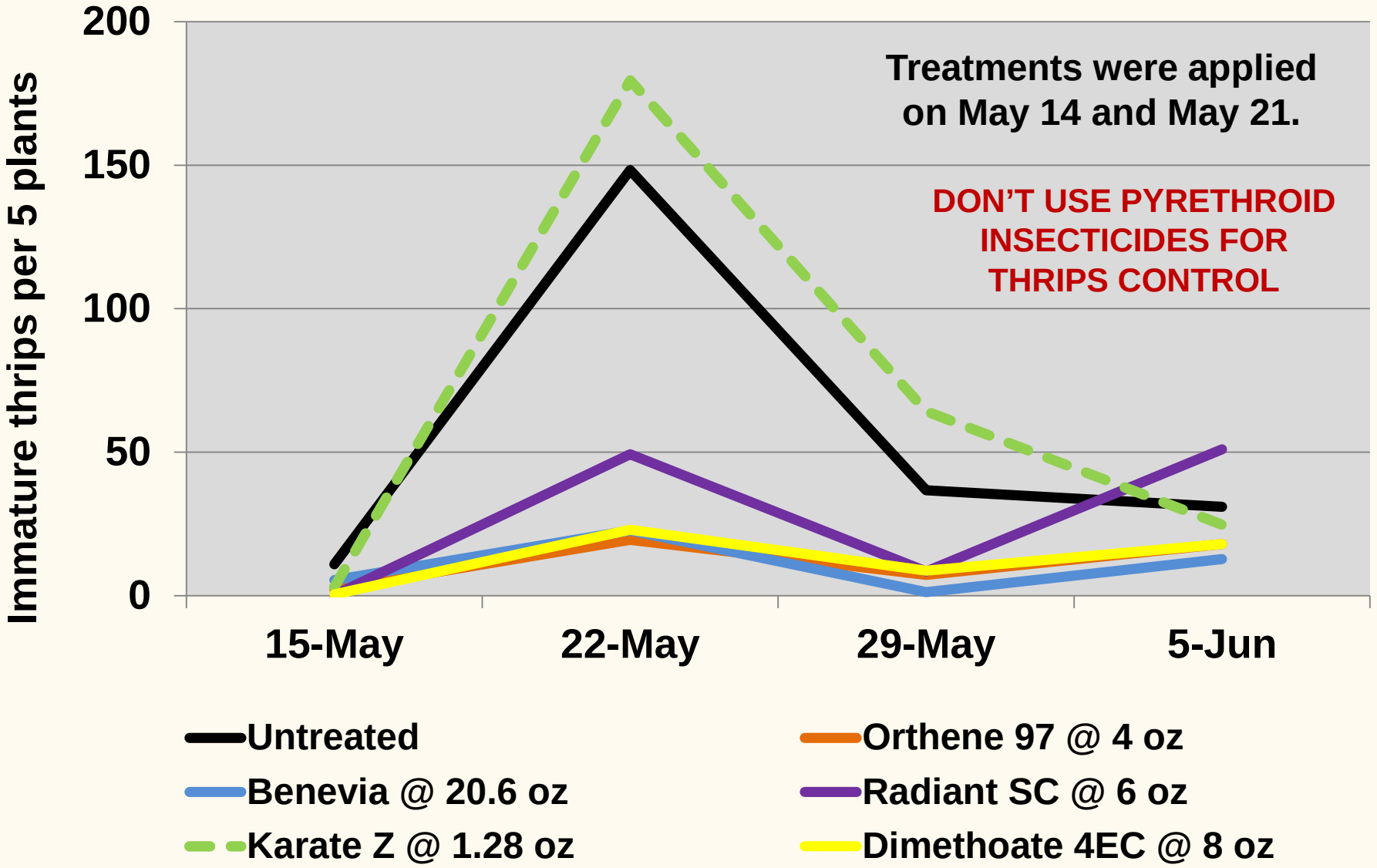


Late Planted and/or Reduced Tillage

Early Planted Conventional Tillage

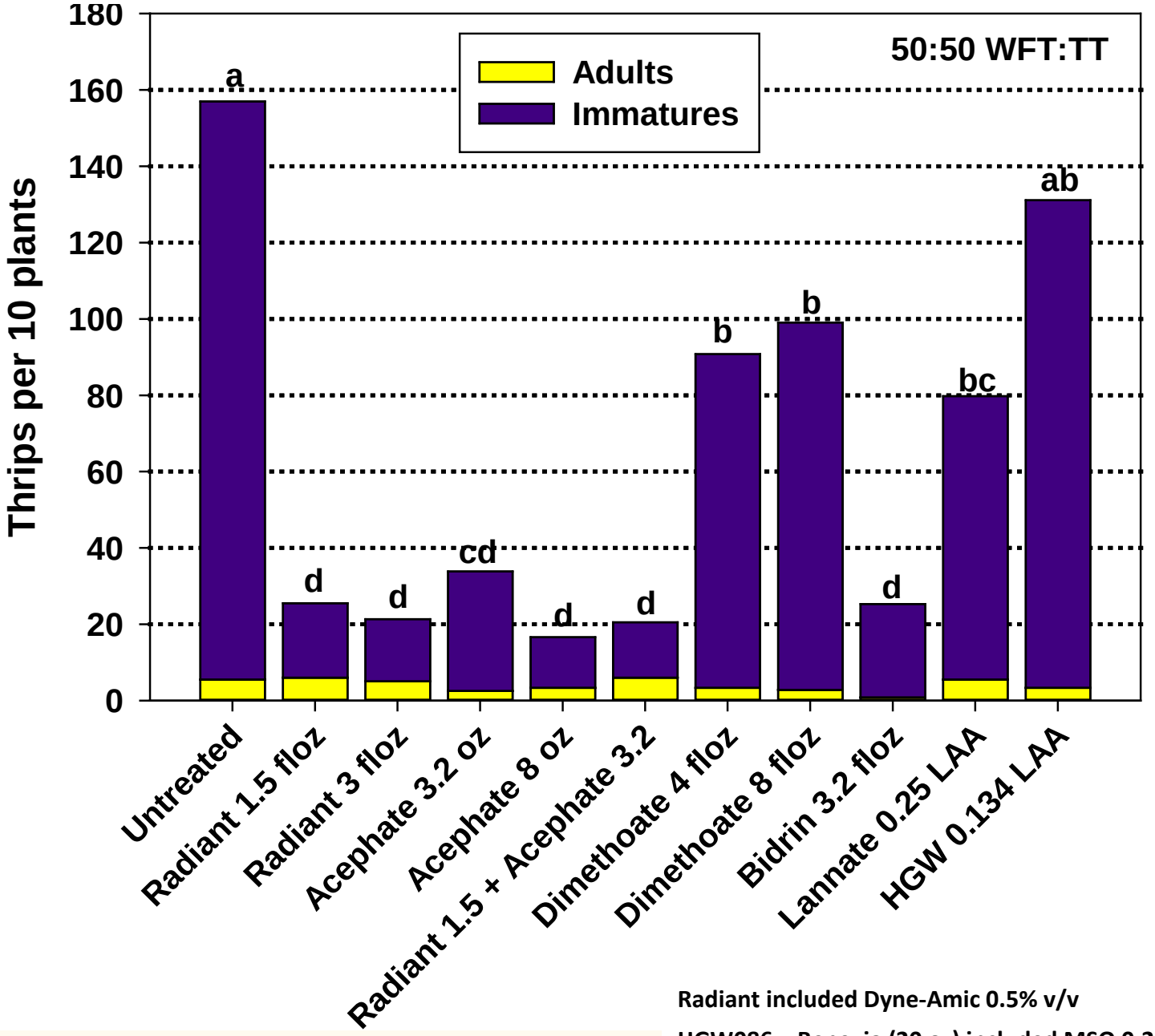
Foliar Options for Thrips Control

Immature Thrips – Selected Treatments (Herbert, 2012, VA)



Foliar Sprays for Thrips (4 DAT)

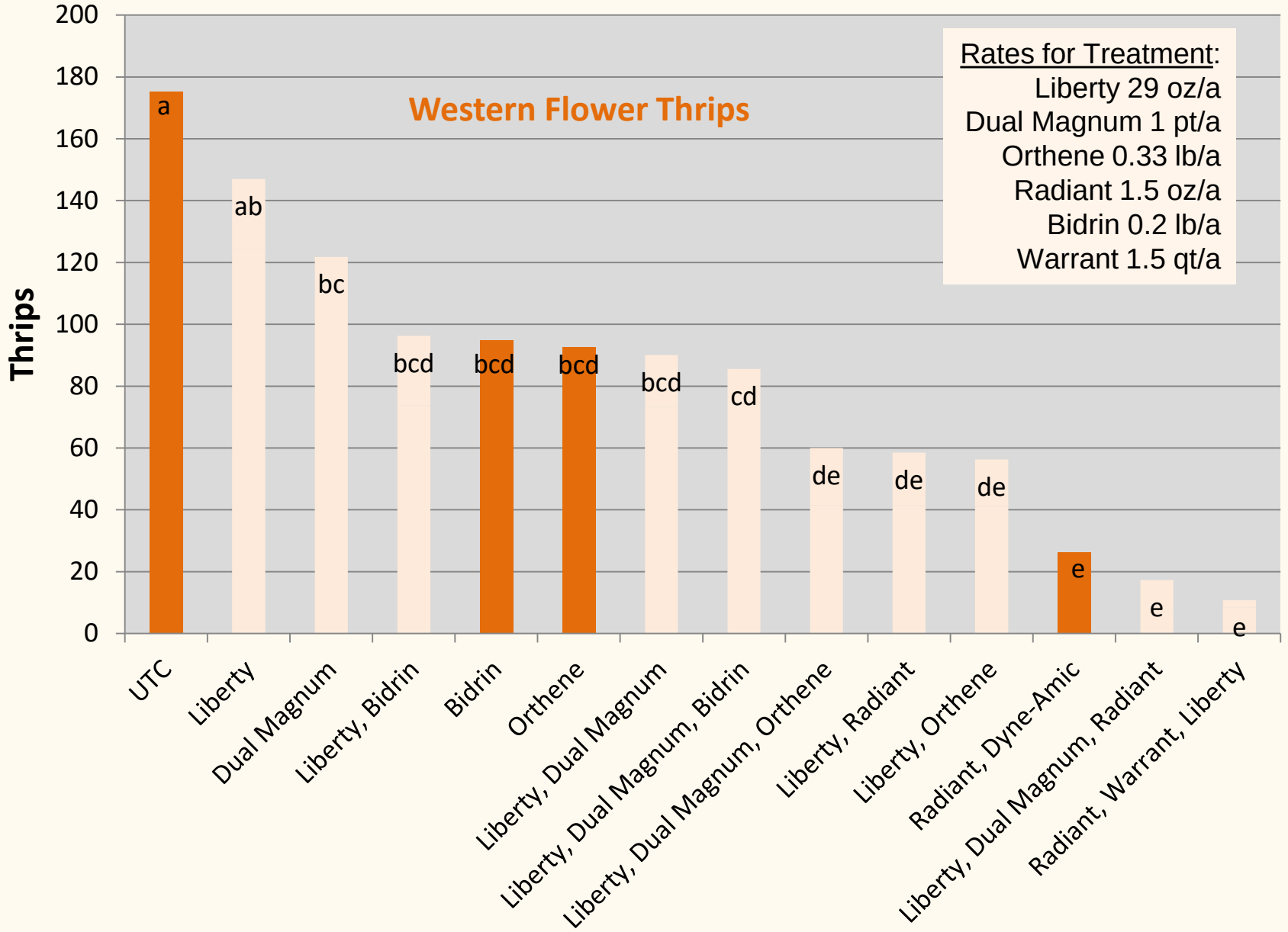
David Kerns
LSU AgCenter 2012



Radiant included Dyne-Amic 0.5% v/v

HGW086 = Benevia (20 oz) included MSO 0.25% and Buffer Xtra 0.125%

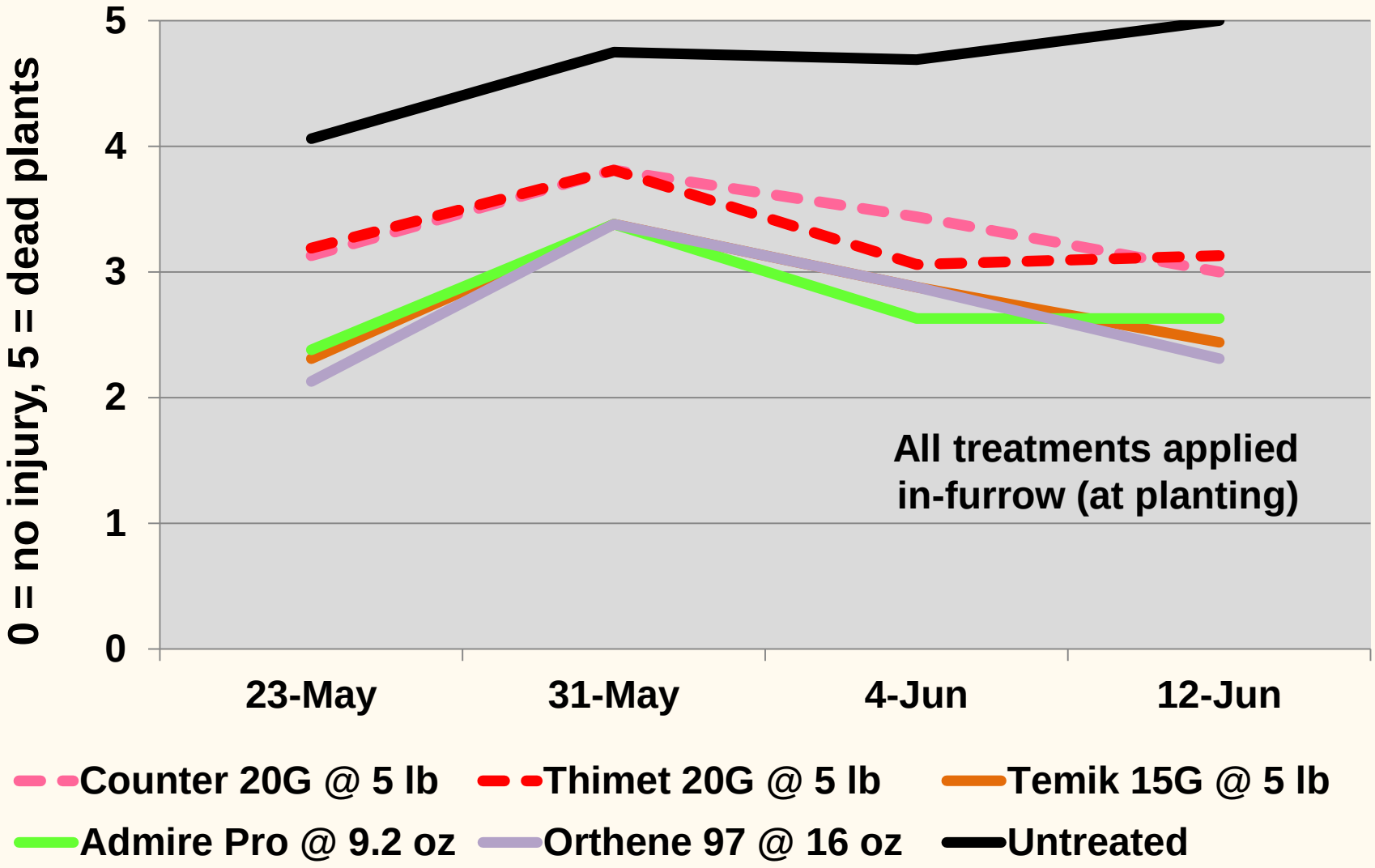
Foliar Options - Season Totals Thrips (Lorenz, AR, 2012)

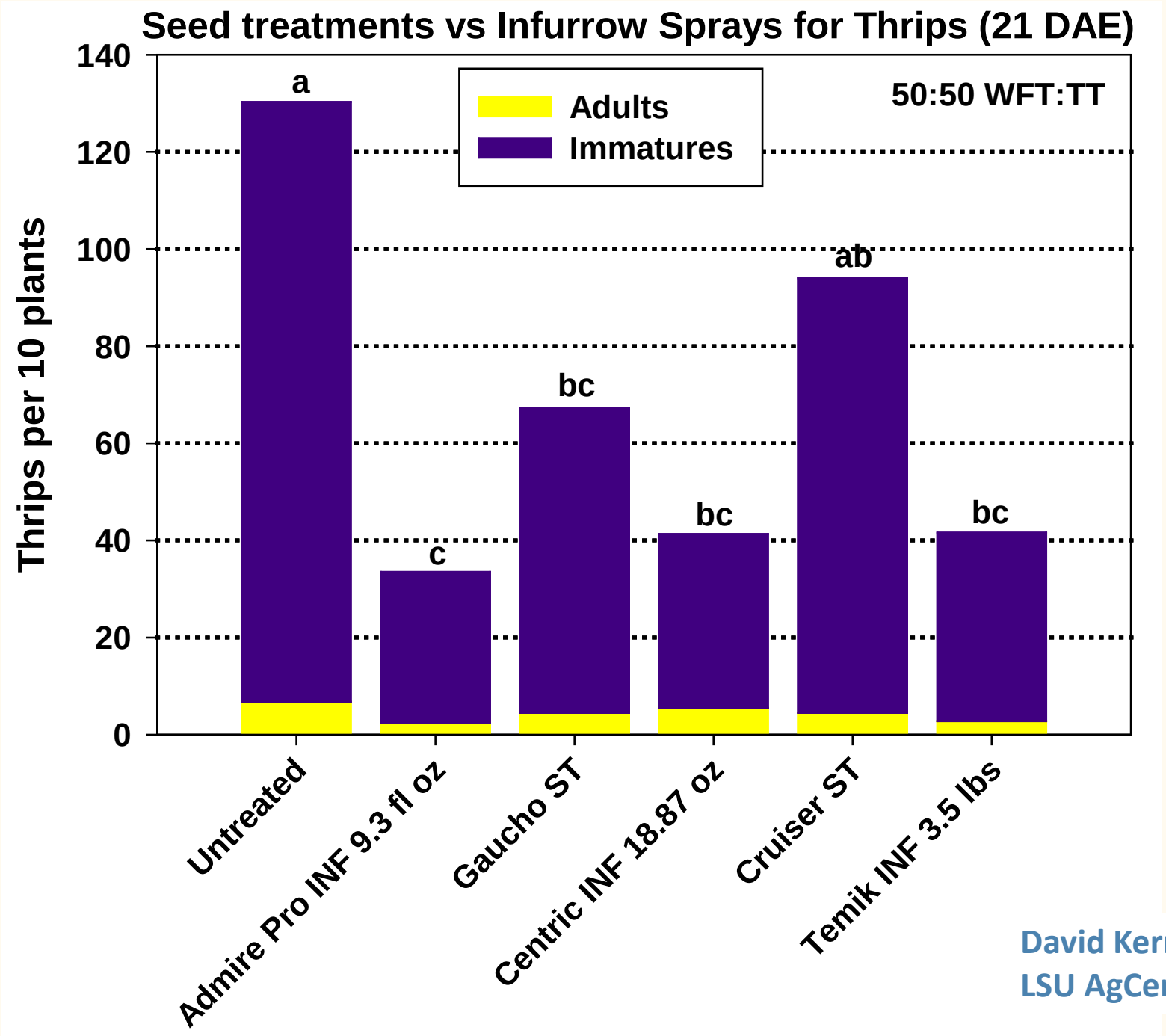


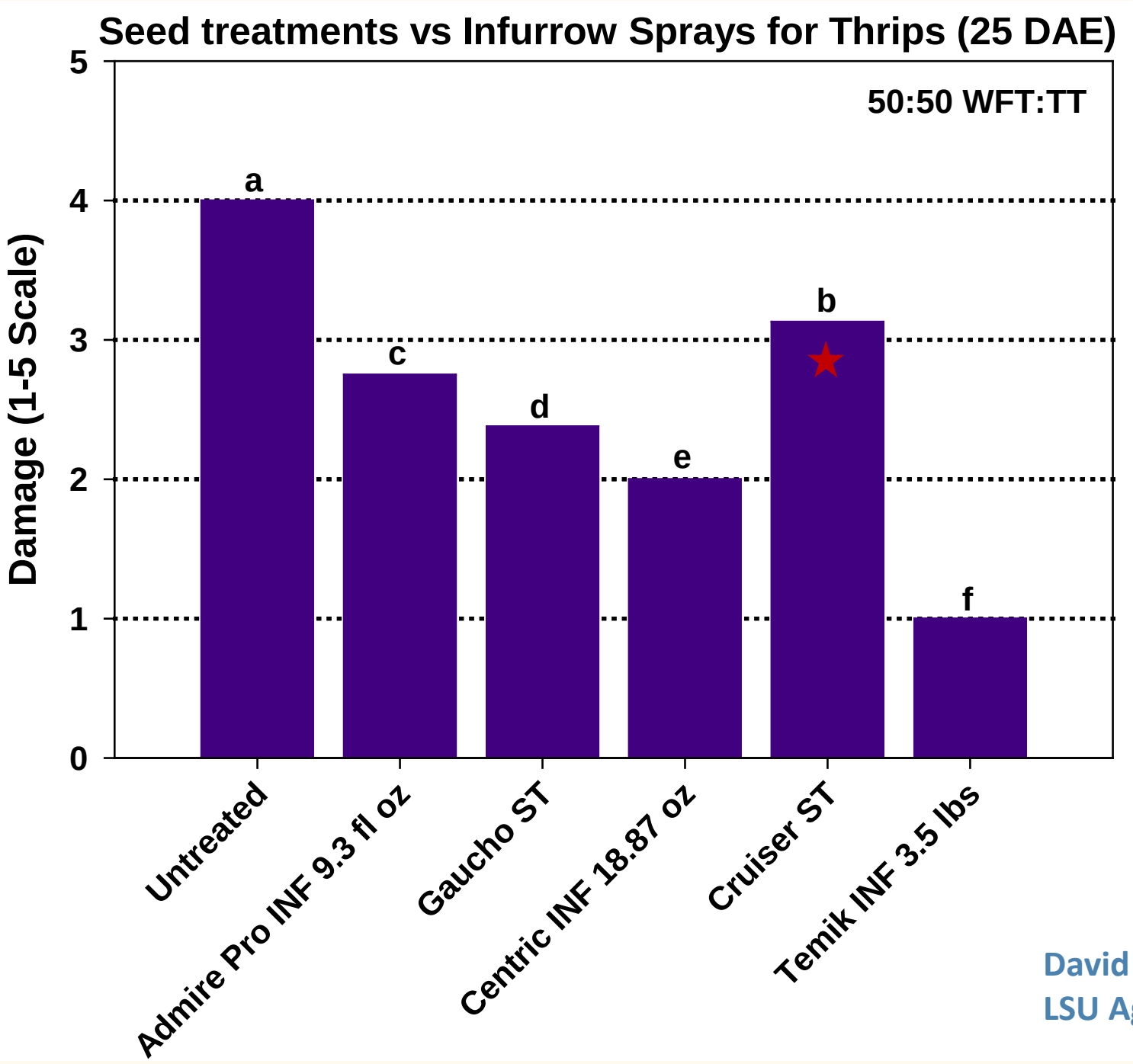
Sampled 5 Days After Application on June 1st

Alternatives to Seed Treatments

Plant Injury Ratings – High Rates (Herbert, 2012, VA)




Seed treatments vs Infurrow Sprays for Thrips (21 DAE)
Thrips per 10 plants
140
120
100
80
60
40
20
0
Adults
Immatures
50:50 WFT:TT
a
c
bc
bc
ab
bc
Untreated
Admire Pro INF 9.3 fl oz
Gaucho ST
Centric INF 18.87 oz
Cruiser ST
Temik INF 3.5 lbs
David Kerns
LSU AgCenter 2012



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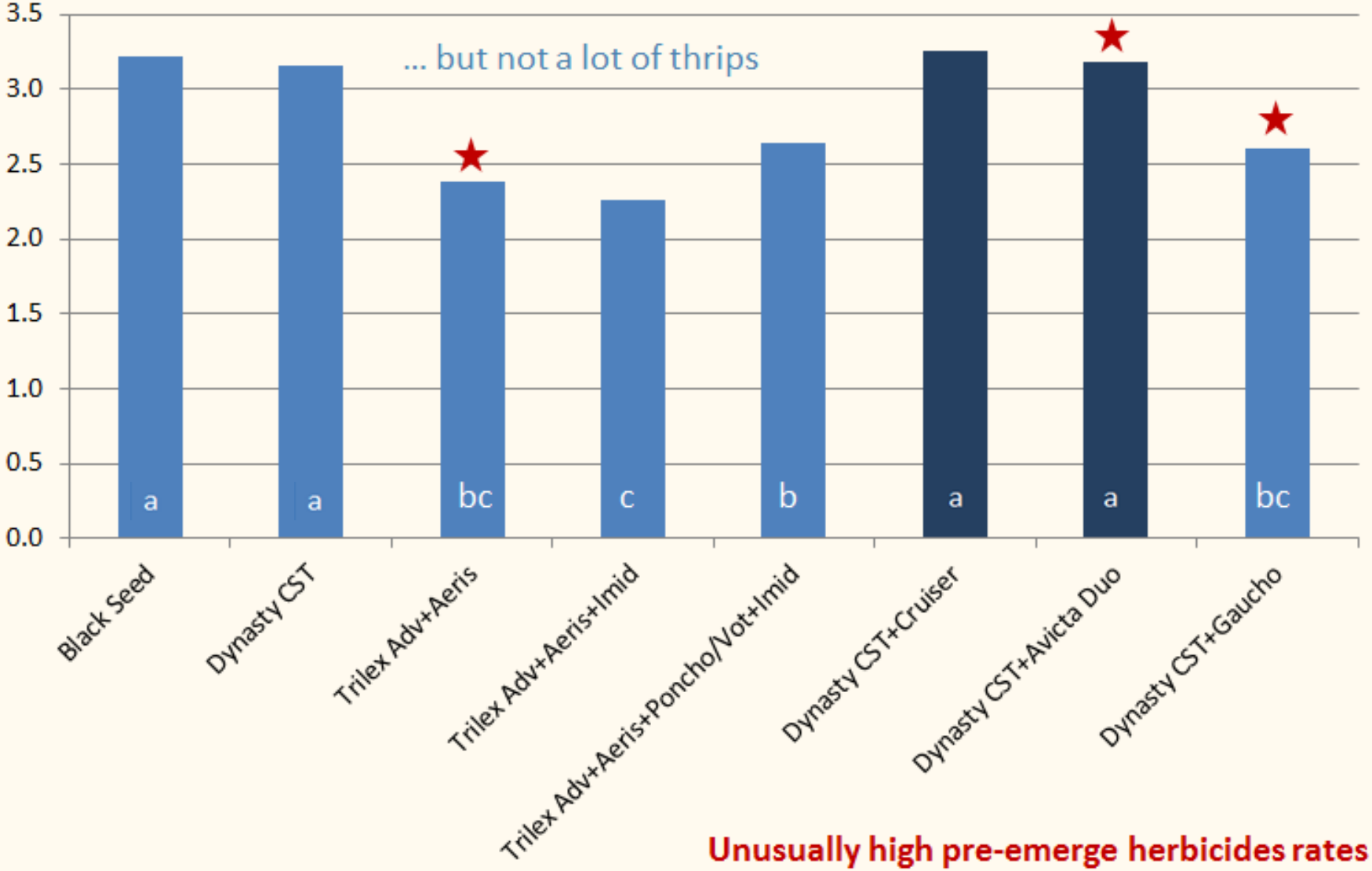
LSU AgCenter 2012

Thrips Injury

Thrips Injury (27 DAP)

Midsouth Regional Cotton IST (Tennessee, 2012)



Unusually high pre-emerge herbicides rates

Management Suggestions – Really Nothing New

- Use an at-planting systemic insecticide
- Consider aggravating factors
  - Planting date, tillage practices, thrips pressure and plant stress (weather, herbicide risks)
    - Early planting, conventional tillage, and cool and dry weather is a high risk scenario
- Scout and treat
  - Most data shows that the any maximum benefit of a foliar application occurs when it is made before the 2nd true leaf is fully emerged (< 21 days after planting)
    - Pay close attention to injury on the emerging 1st true leaf
    - Presence of immatures is a warning sign
      - Use Radiant if predominant species is western flower thrips
      - Otherwise, timing is more important than insecticide choice
    - Two foliar applications is RARELY justified unless ….


Thanks to
cotton
COTTON INCORPORATED