

# Selecting Insecticidal Seed Treatments in Rice Production

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# Insecticidal seed treatments (ISTs)

Control multiple pests

Multiple products available

Minimal risk of non-target impacts

Cost effective (economically beneficial in 80% of fields)

Prevent millions in annual losses to insect pests!



# Insecticidal seed treatments (ISTs)

**Dermacor X-100 (chlorantraniliprole)**

Controls: RWW, armyworm, borers

**Cruiser Maxx (thiamethoxam)**

**NipsIt Inside (clothianidin)**

Control: RWW, colaspis, aphids,  
chinch bugs, thrips



# Insecticidal seed treatments (ISTs)

**Dermacor X-100 (chlorantraniliprole)**

Can be water-seeded

Rate per acre

**Cruiser Maxx (thiamethoxam)**

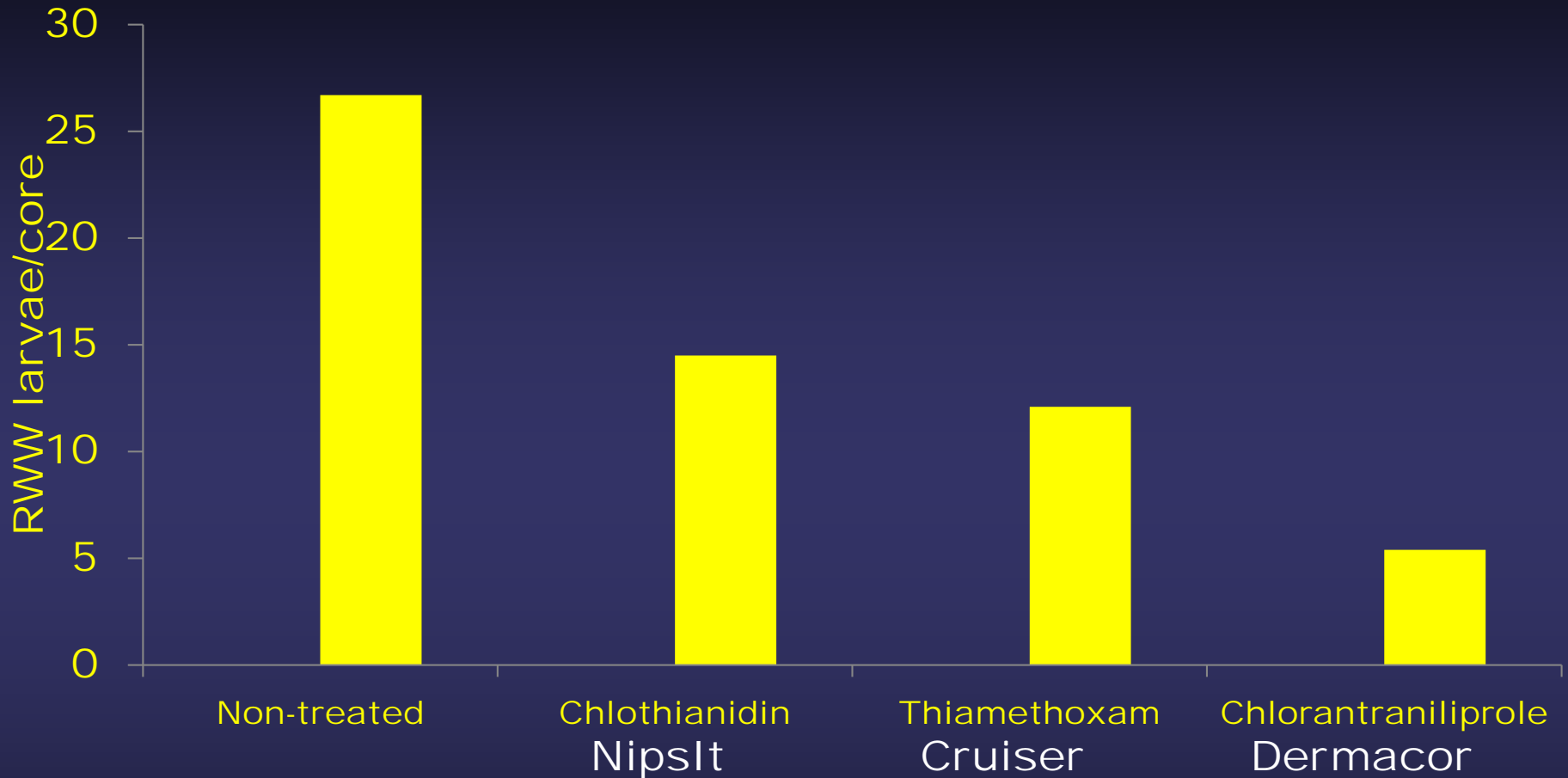
**NipsIt Inside (clothianidin)**

Cannot be water-seeded

Rate per 100 lbs seed

Available with fungicides

# Insecticidal seed treatment efficacy



Means from 11 independent field trials (LA, MS, AR, TX)

Data from Way et al. 2007, 2009; Berhardt 2008, Hummel et al. 2014, Adams et al. 2016, Kraus and Stout 2016

# Selecting Seed Treatments

- All are equally effective under low weevil pressure
  - Early planted rice
- Price?
  - NipsIt and Cruiser cheaper at low seeding rates
  - >\$10 cheaper at 30 lbs/acre
- Fungicides?
  - Most benefit is from insecticides

# Selecting Seed Treatments

- **Stem borers**
  - Increasing problem
  - High populations at rice research station in 2017
- **Armyworms**
  - Can be severe in some cases
  - Late planted rice most vulnerable
- **Colaspis**
  - Greatest threat in soybean rotation
  - Not a problem in crawfish rotation



# Treatment List

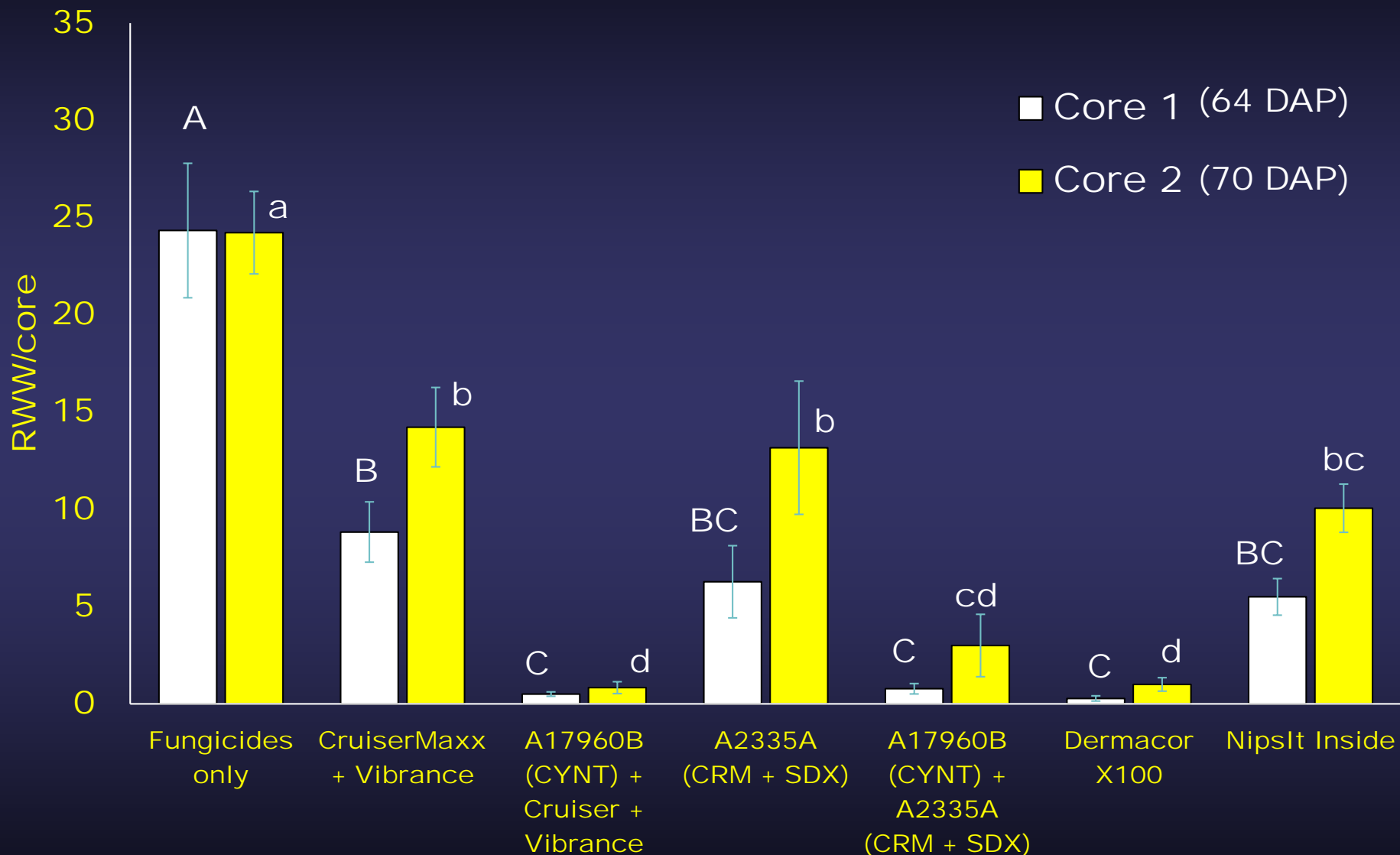
## Study 1 and 2

- NipsIt Inside
- Dermacor X100
- A2335A (CMR+SDX)
- CruiserMaxx
- CruiserMaxx + A17960B (CYNT)
- A17960B (CYNT) + A2335A (CMR+SDX)
- Untreated Check (Fungicide Only)

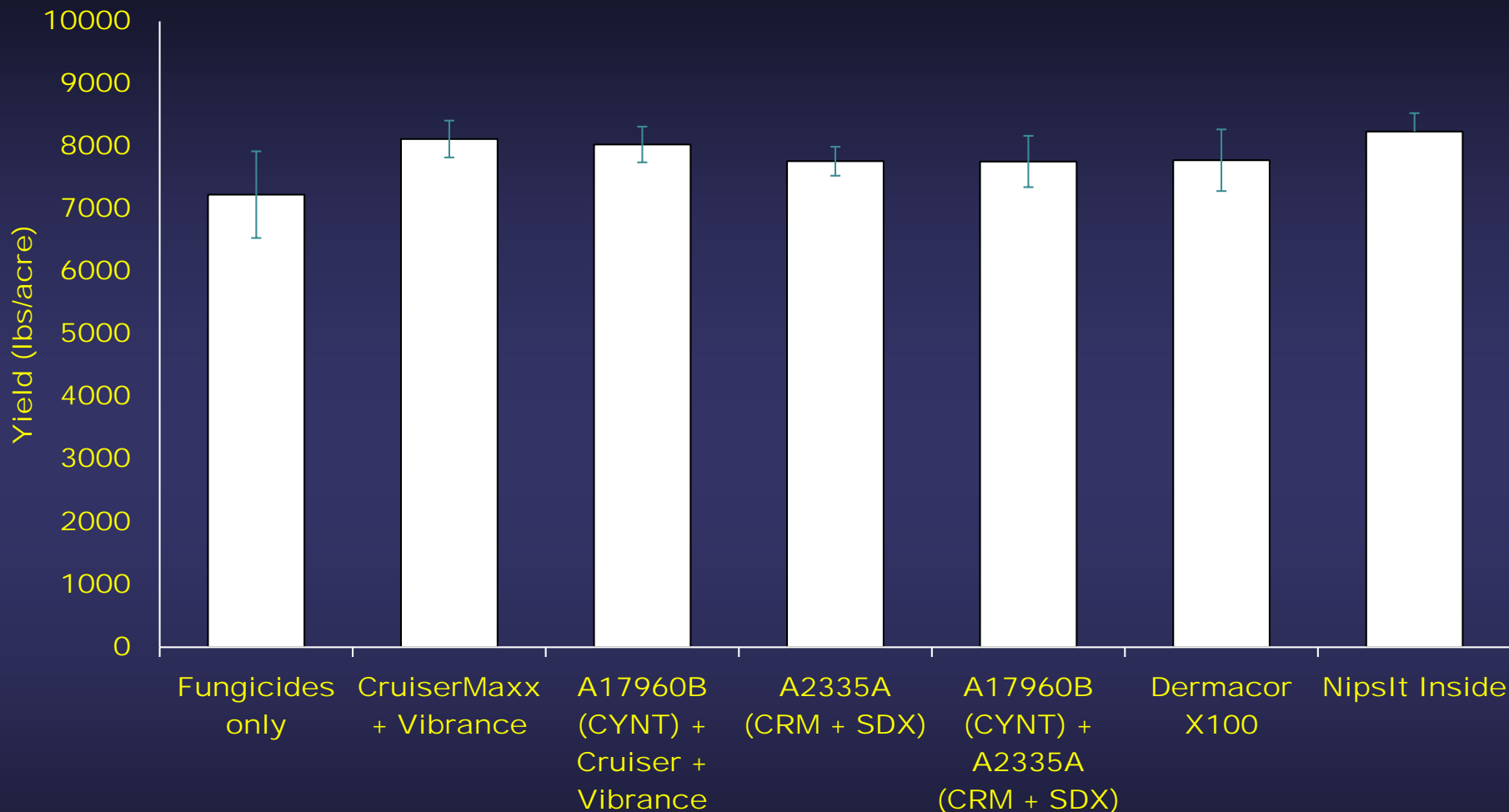
CL151 seeded at 60 lbs/acre



# Trial 1: Crowley, LA



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Harvested 22 August 2017

No statistical differences between treatments



# Trial 2: Stuttgart, AR

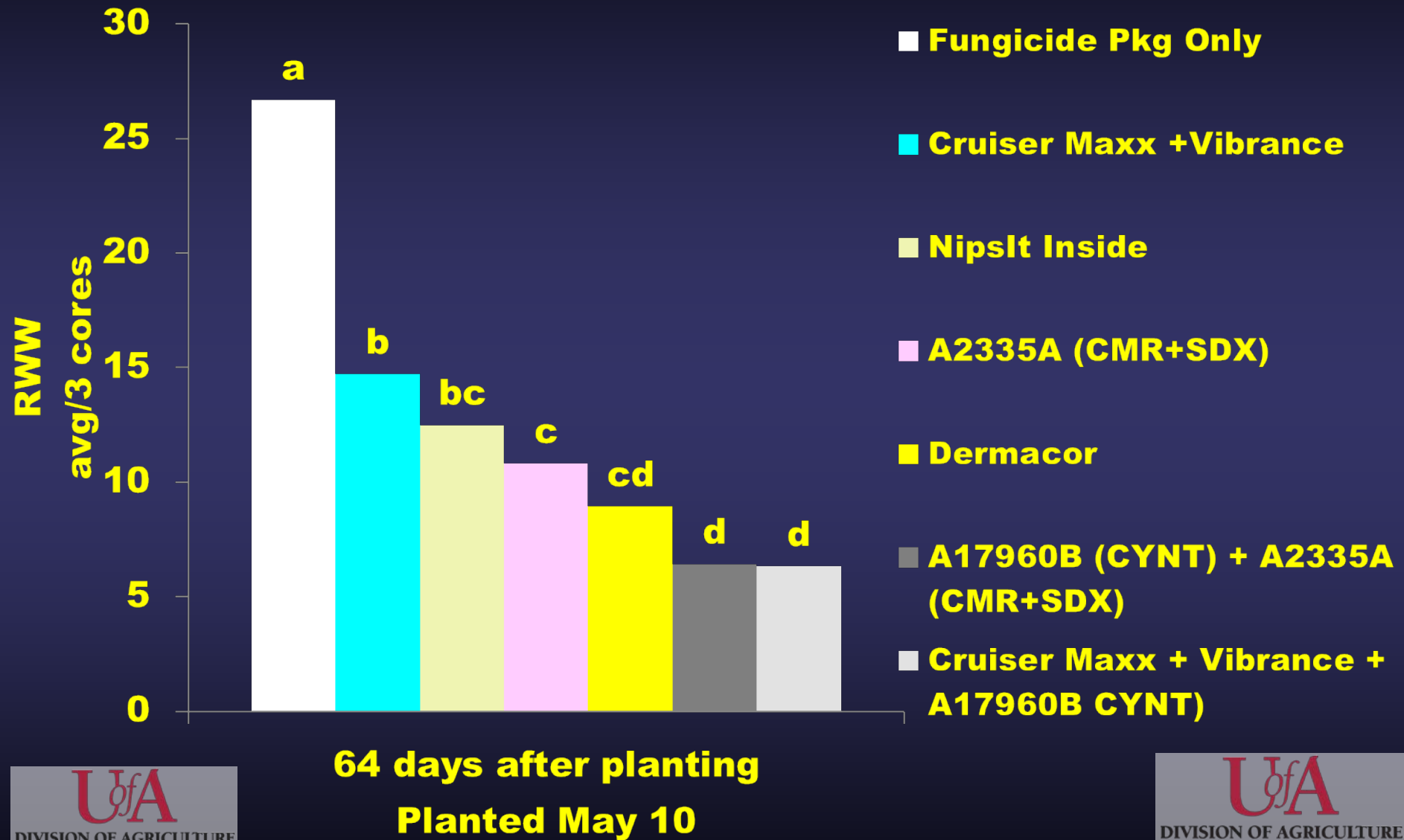
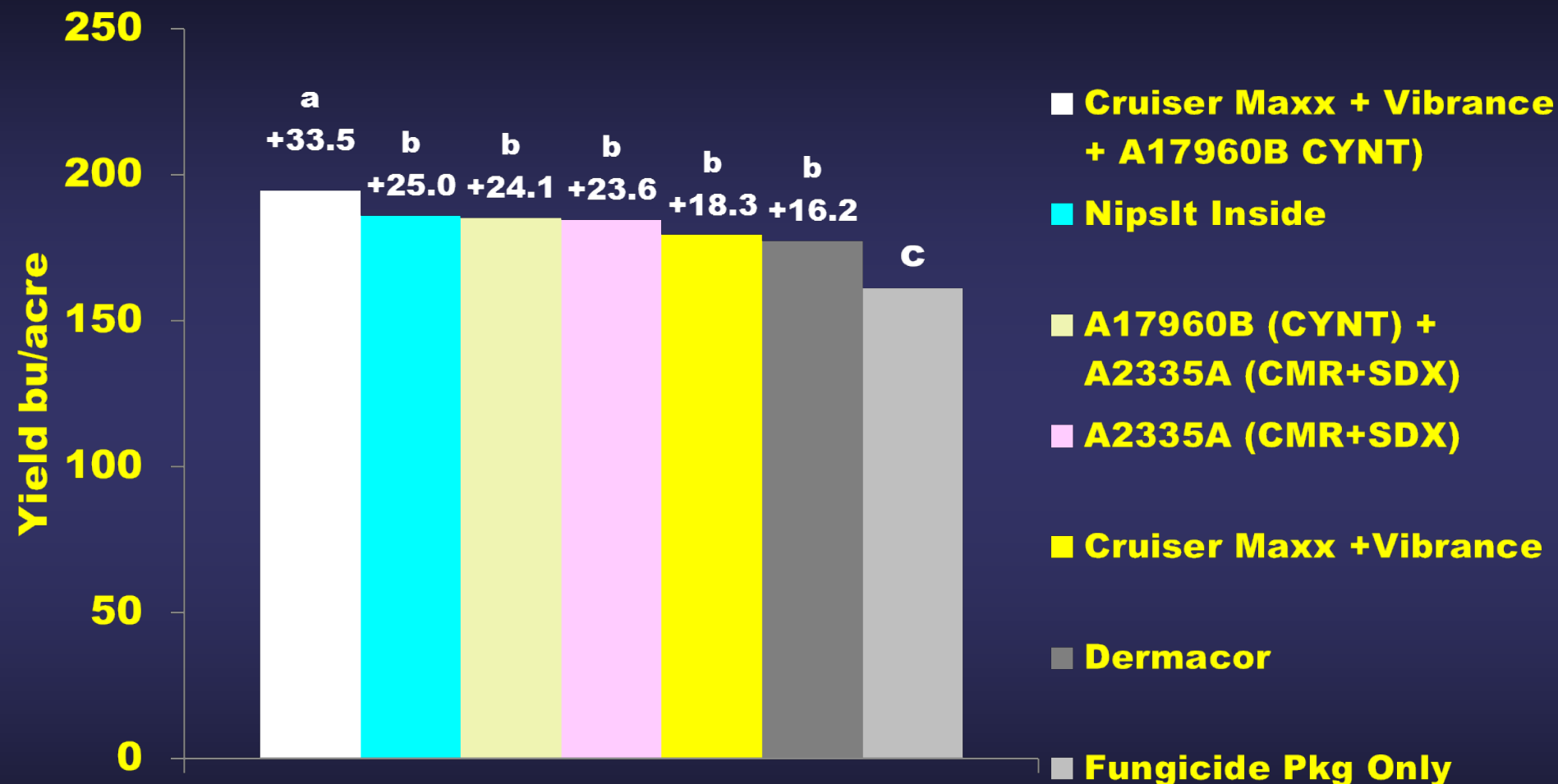


Figure provided by K. McPherson, G. Lorenz, et al.



# Insecticide Seed Treatment Combinations for Control of Rice Water Weevil -CL151



9/28/2017

Planted May 10



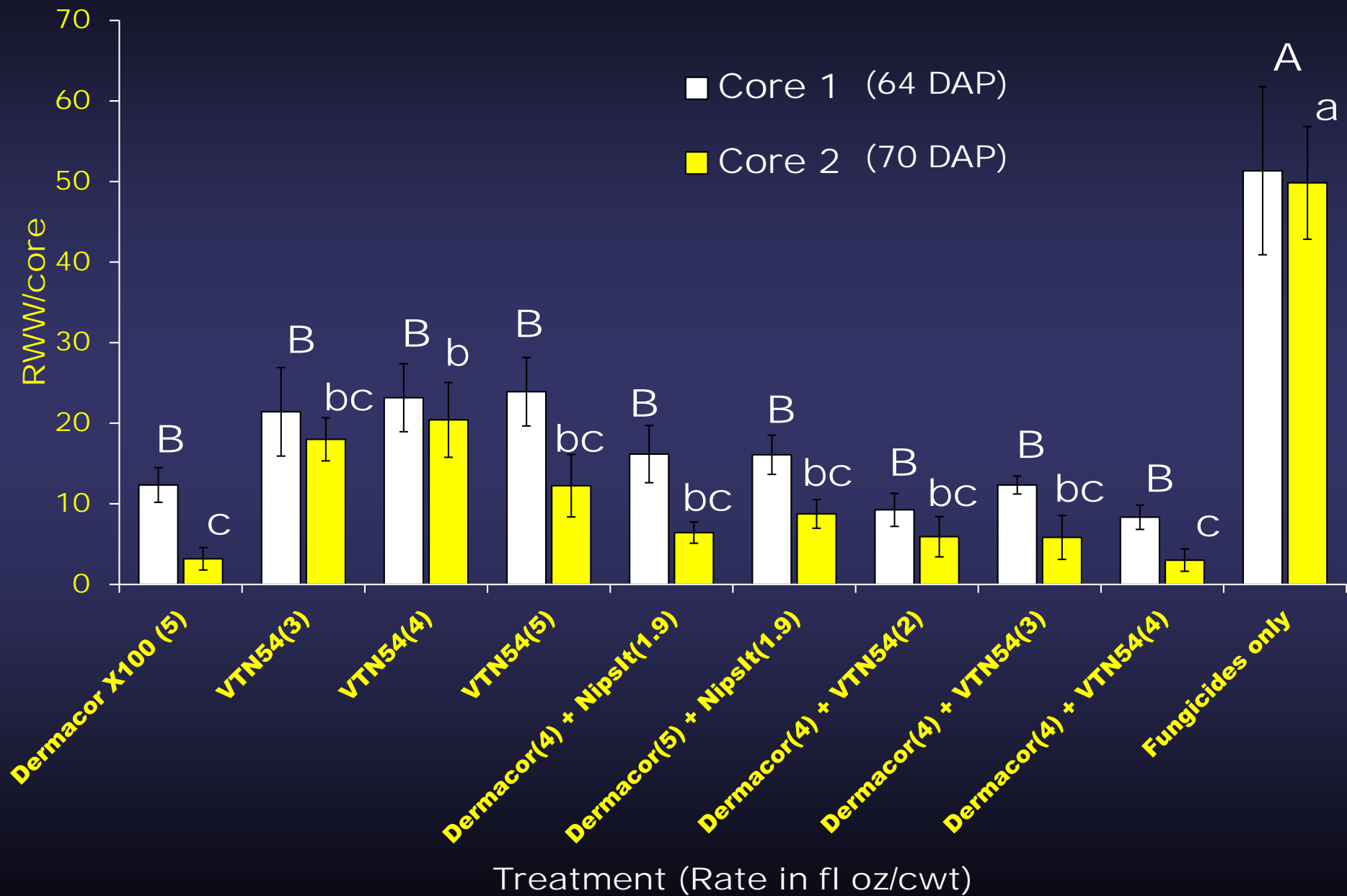
# Treatment List: Study 3

## Crowley, LA

- Dermacor X100
- VTN54 (CYNT), 3 rates
- Dermacor X100 + NipsIt, 2 rates
- VTN54 (CYNT) + Dermacor X100, 3 rates
- Untreated Check (Fungicide Only)

Hybrid rice seeded at 20 lbs/acre

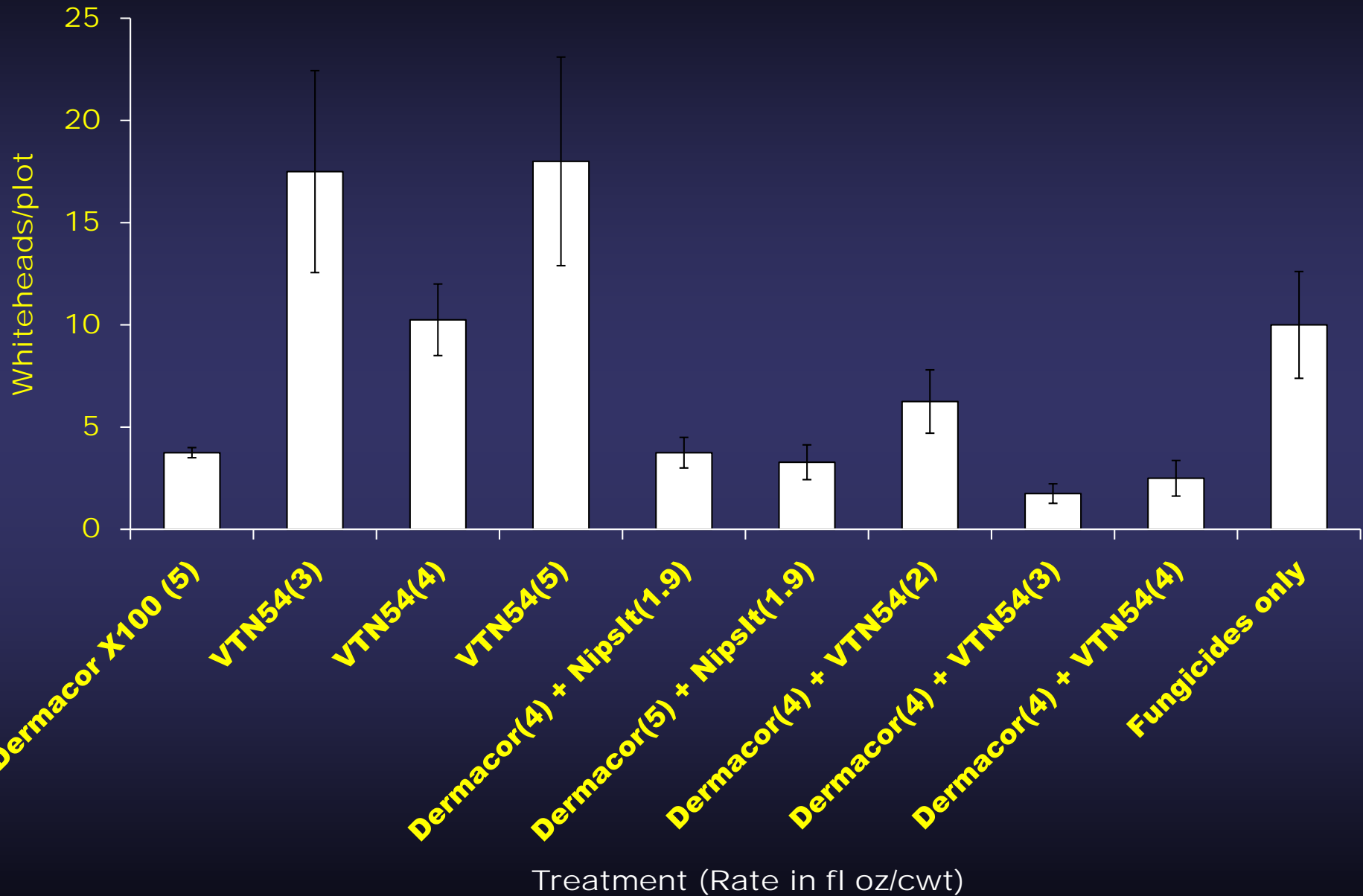
# Trial 1: Crowley, LA



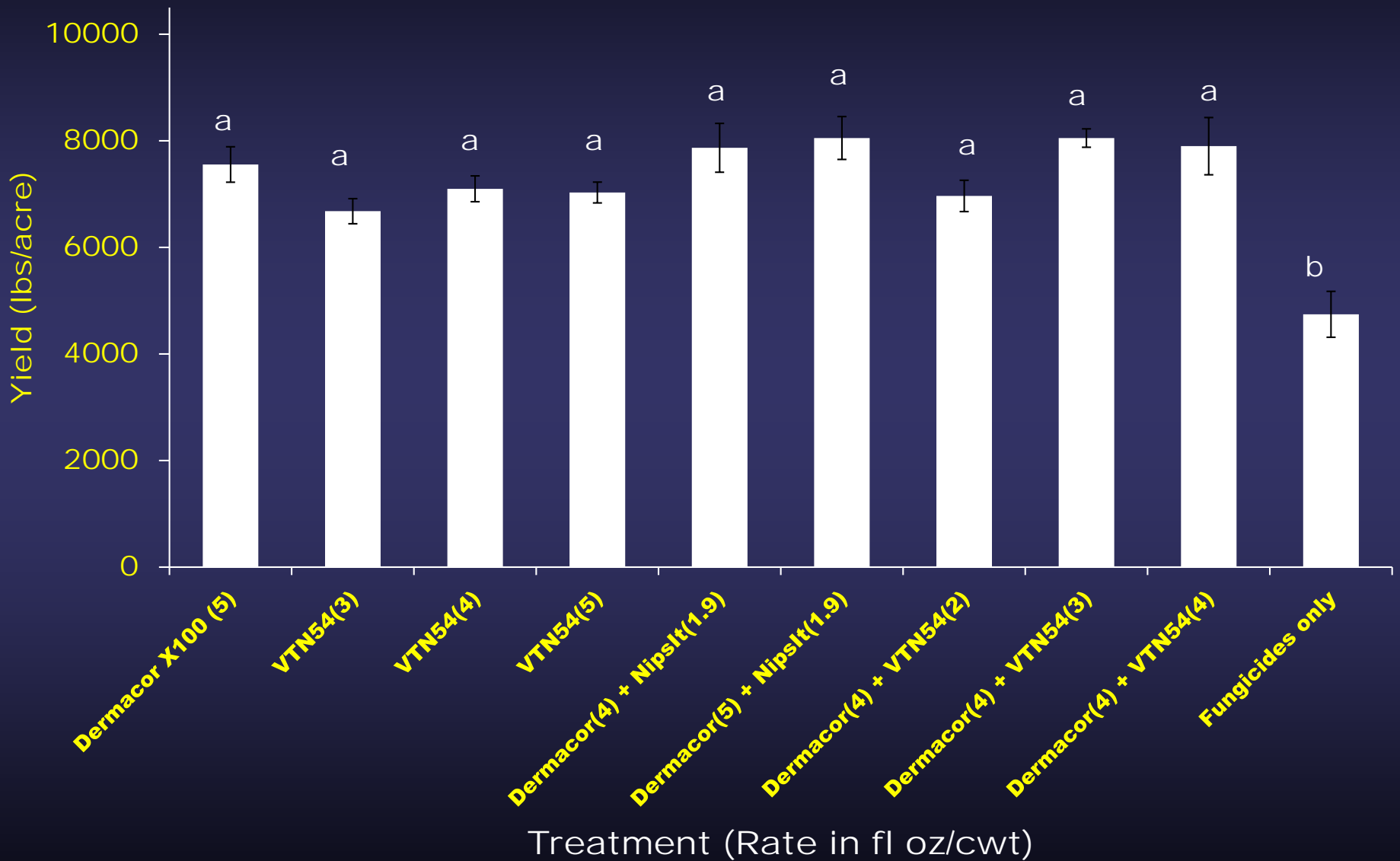


# Trial 1: Crowley, LA

## Stem borer control



# Trial 1: Crowley, LA Yields

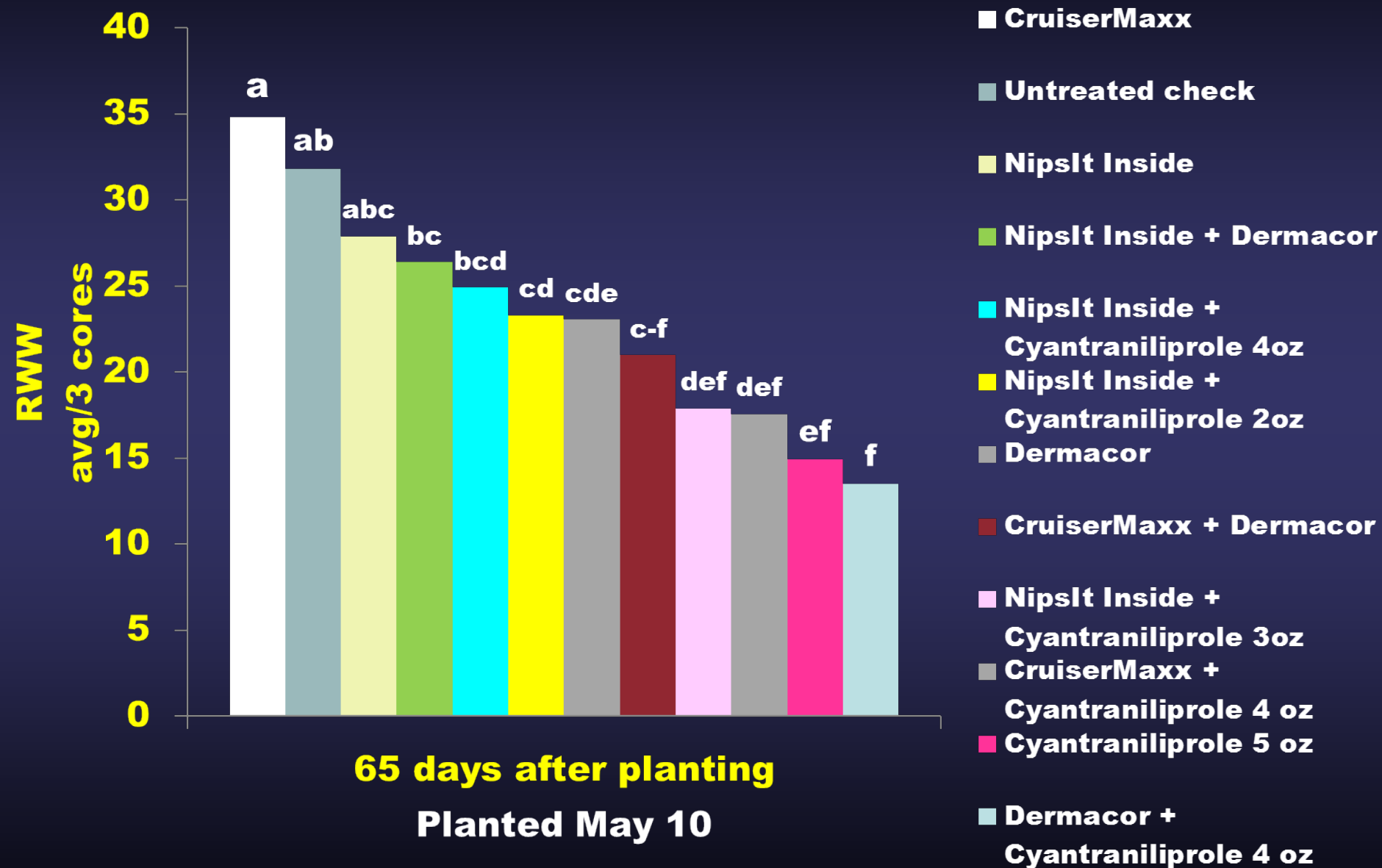


# Treatment List: Study 4 Stuttgart, AR

- Cruiser Maxx
- NipsIt Inside
- Dermacor X100
- Cyantraniliprole 5 oz
- Cruiser Maxx + Dermacor
- Cruiser Maxx + Cyantraniliprole 4 oz
- NipsIt Inside + Dermacor
- NipsIt Inside + Cyantraniliprole 2 oz
- NipsIt Inside + Cyantraniliprole 3 oz
- NipsIt Inside + Cyantraniliprole 4 oz
- Dermacor + Cyantraniliprole 4 oz
- Untreated Check (Fungicide only)

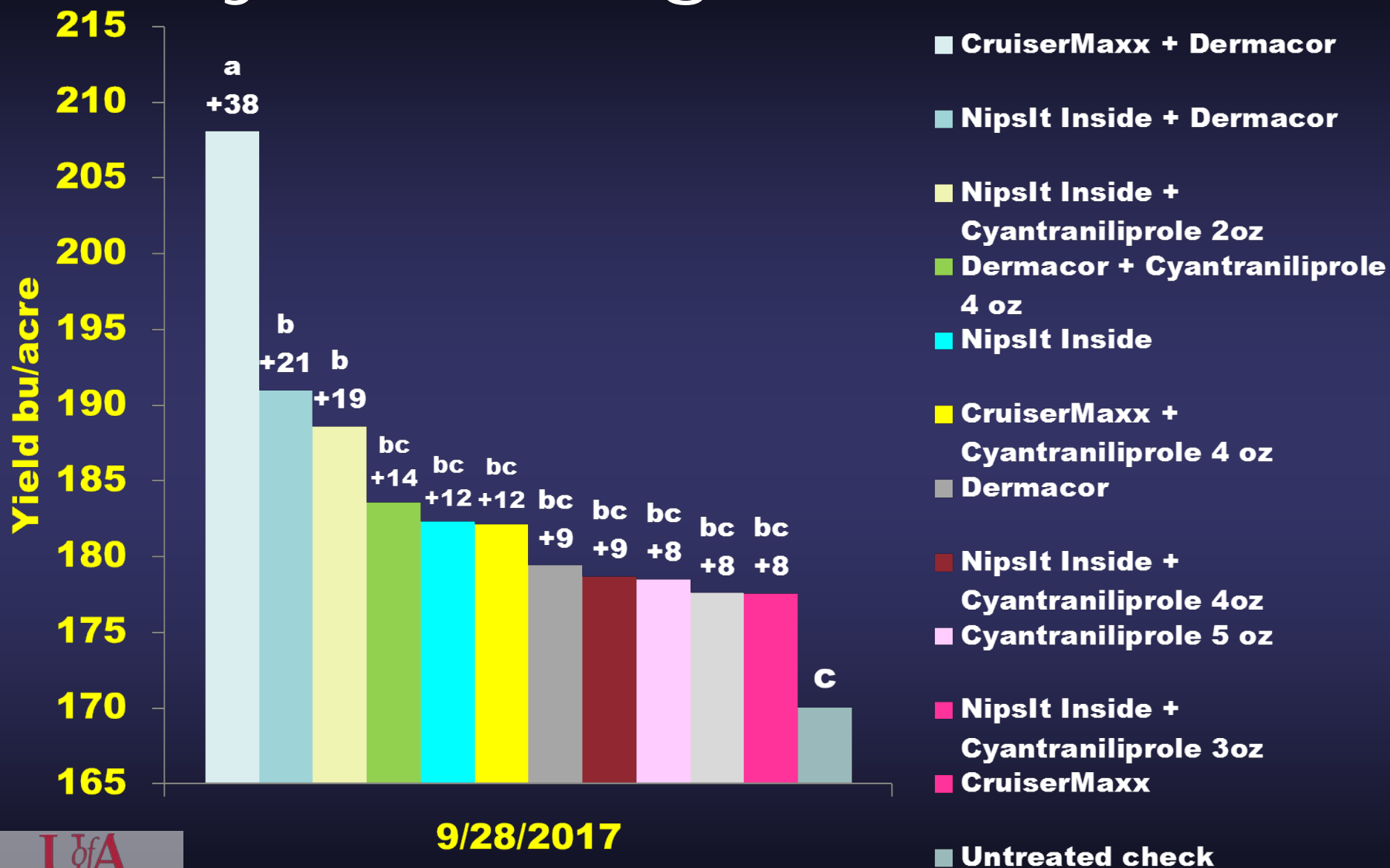
Hybrid rice seeded at 20 lbs/acre  
Trial conducted by McPherson,  
Lorenz, et al.

# Study 4: Stuttgart, AR, 2017





# Study 4: Stuttgart, AR, 2017



# Seed Treatment Combinations

- *Does not* increase weevil control
- *Does* increase spectrum of pests controlled
- Price?
  - Economic returns are minimal unless *Colaspis* and weevils are present
- Rates?
  - Dermacor is effective at 1 oz/acre
- Ongoing work and new products being evaluated

# Questions?

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Call me or your extension agent  
with any questions.



Appreciation is expressed  
to the rice research board  
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