

# Diamond Insecticide Cotton

by

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# Diamond Insecticide

- Diamond registered in cotton in 2004
- Chemtura marketed Diamond in Cotton from 2004 – 2007
- In 2007 Chemtura made strategic changes in their Business Model and decided to exit the Diamond cotton market
- In late 2007-2008 Chemtura granted distribution rights for Diamond™ to MANA



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# Diamond 0.83EC Use Pattern - Cotton

Target Pests	Fl Oz/Acre
Plant Bugs, Stink Bugs	9-12 6-9 with knockdown
Tobacco Budworm, Cotton Bollworm	12-14 6-9 with knockdown
Armyworms, Loopers, and Other Foliage Feeding Caterpillars	6-12
Cotton Fleahoppers	6-9
Whiteflies (suppression)	6-12
Thrips (suppression)	9-14



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# Diamond Insecticide

- Started a dialogue with University Research/Extension Entomologists in the Mid-South
  - Quickly realized that Diamond had not been fully developed
  - Unclear how to optimally position in a cotton insect control program
    - Use Rate
    - Tank-mix partner(s)
    - Timing
  - Initiated a research program – re-develop the product
- After 2 years of cooperative research with key entomologists in the mid-south we better understand how to position Diamond in cotton



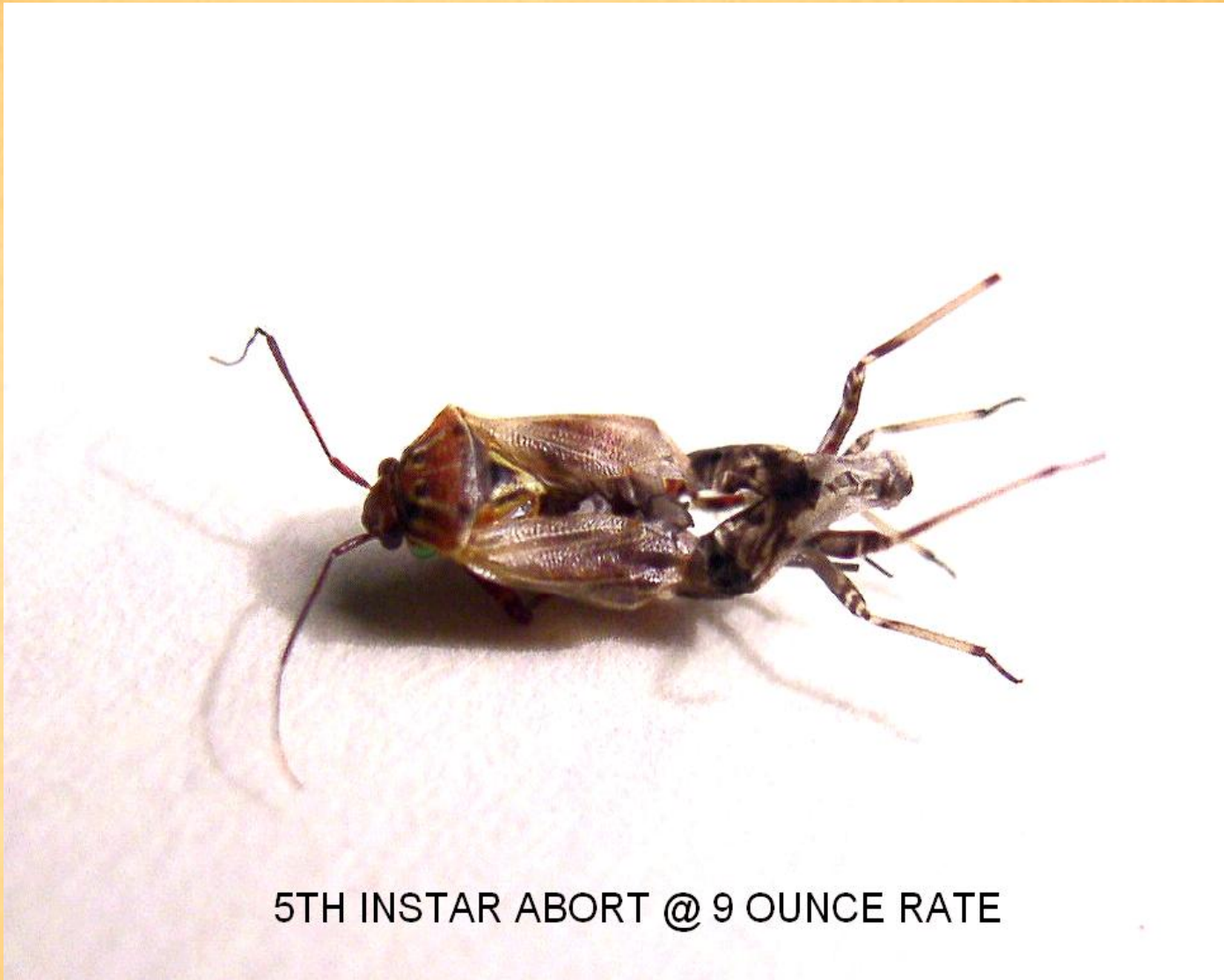
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# Diamond's Unique Mode of Action

Diamond (novaluron) is a chitin synthesis inhibitor which effects the target insect in its ability to successfully molt to the next growth stage, thus causing death.



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5TH INSTAR ABORT @ 9 OUNCE RATE



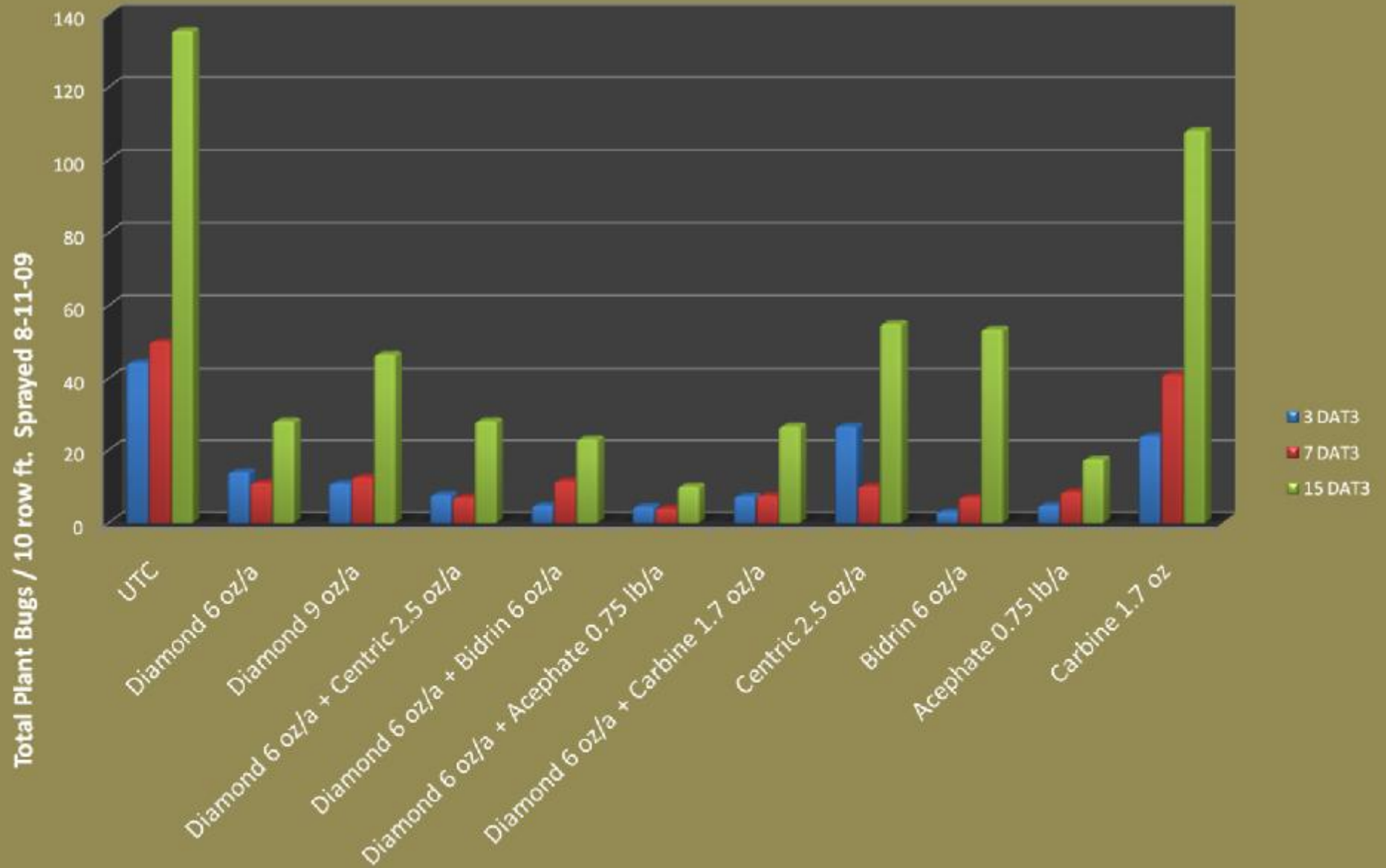
**MANA**  
Crop Protection

*Source: Neal Wright, Mississippi State Univ.*

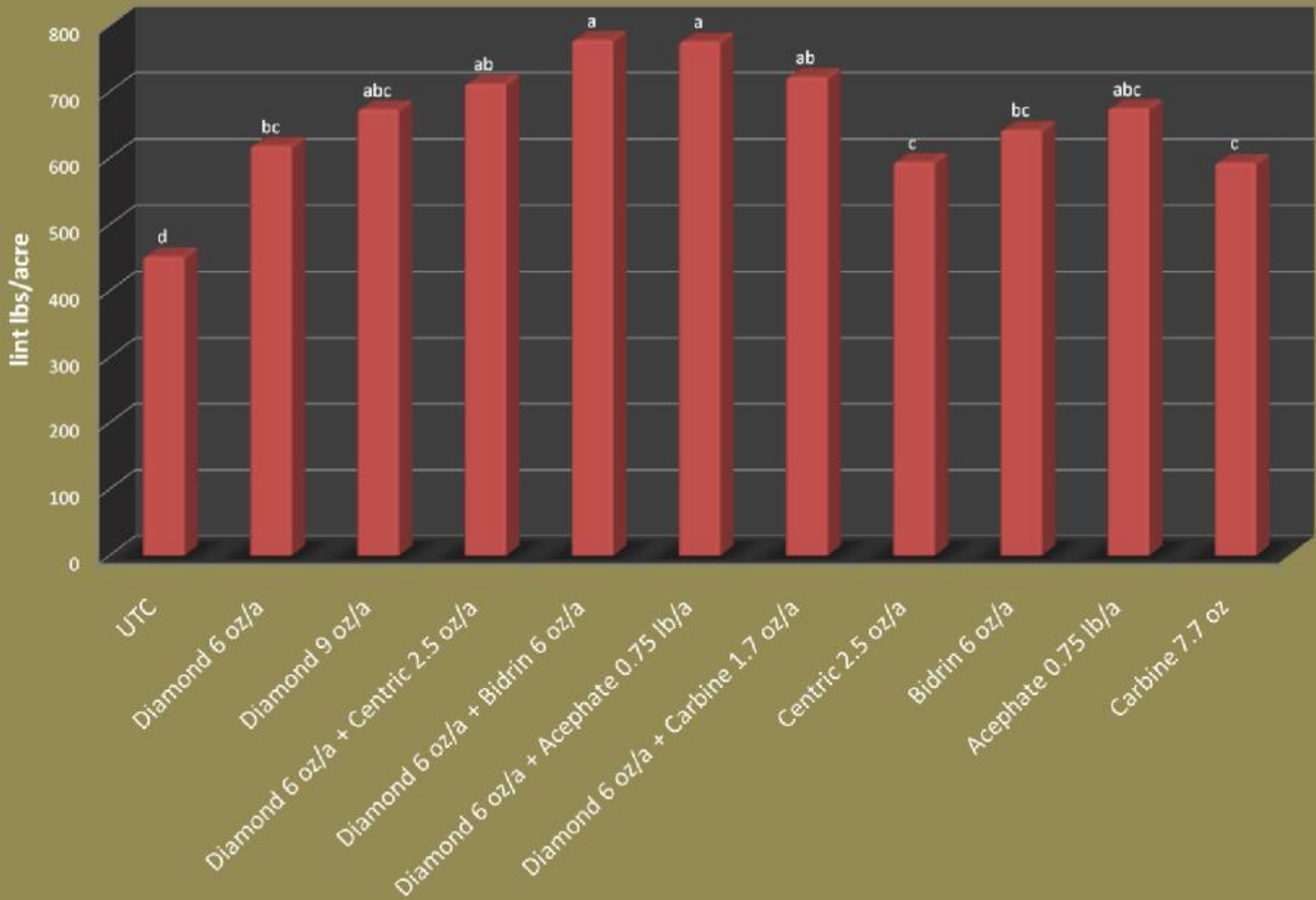
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# Diamond Plant Bug @ Marianna

## Total Plant Bugs After 3rd Application - 8/11/09



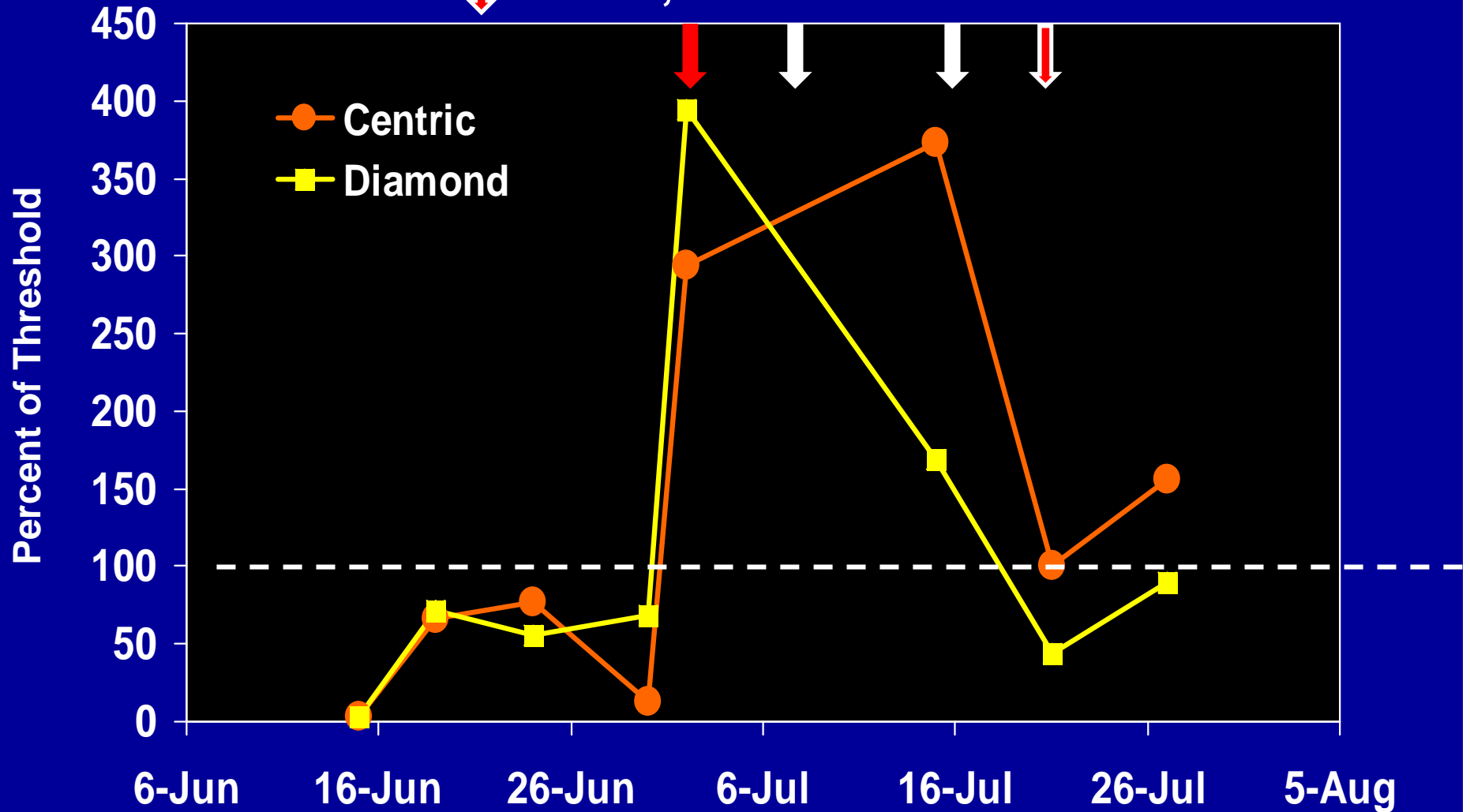
## Diamond Plant Bug at Marianna Harvest Data



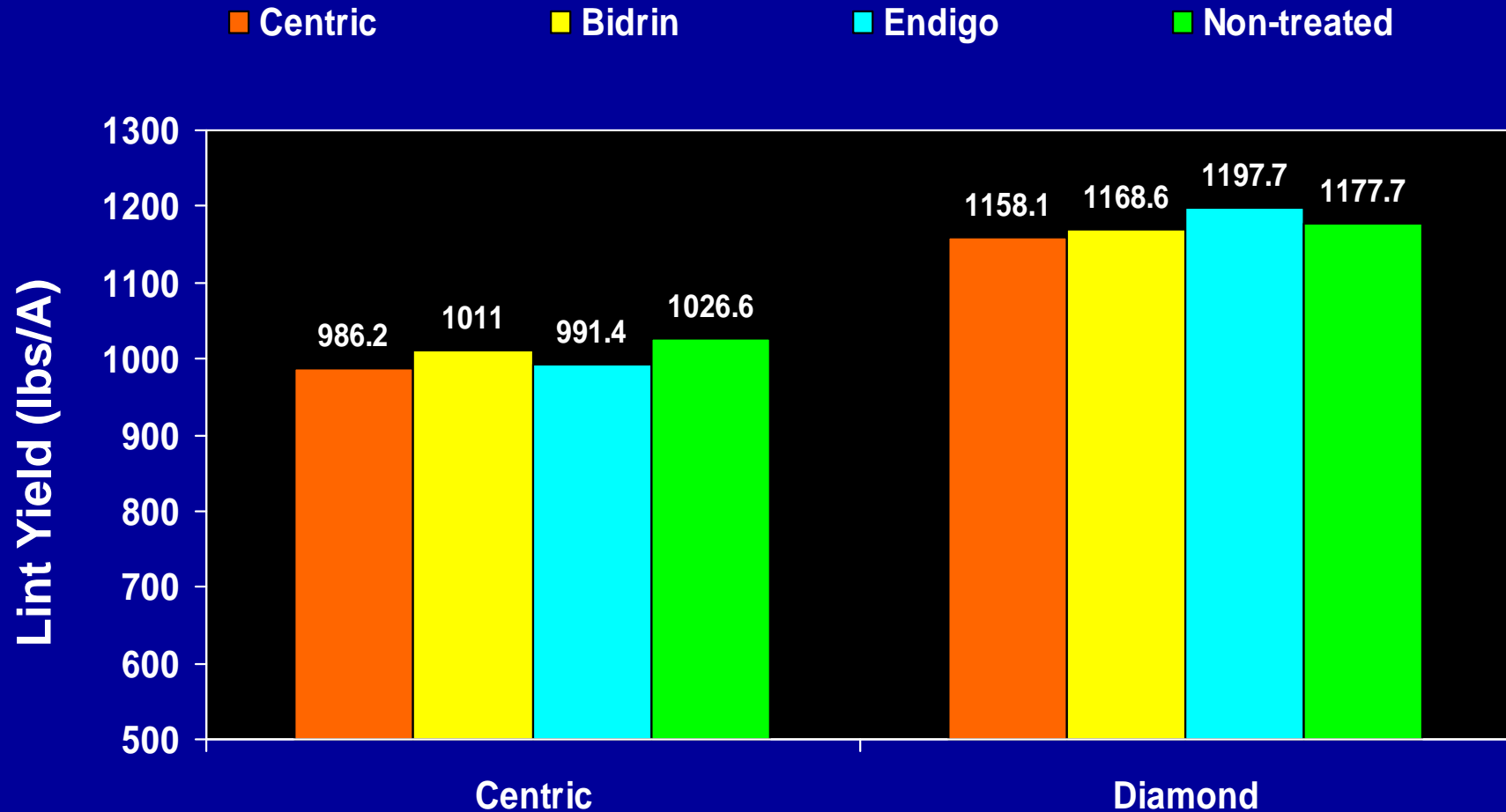


# Insecticide Rotations

- ↓ 2-Jul, Diamond/Centric (Split the Field)
- ↓ 8-Jul, Orthene (0.75); 16-Jul, Or. + Brigade
- ↓ 24-Jul, Treatments

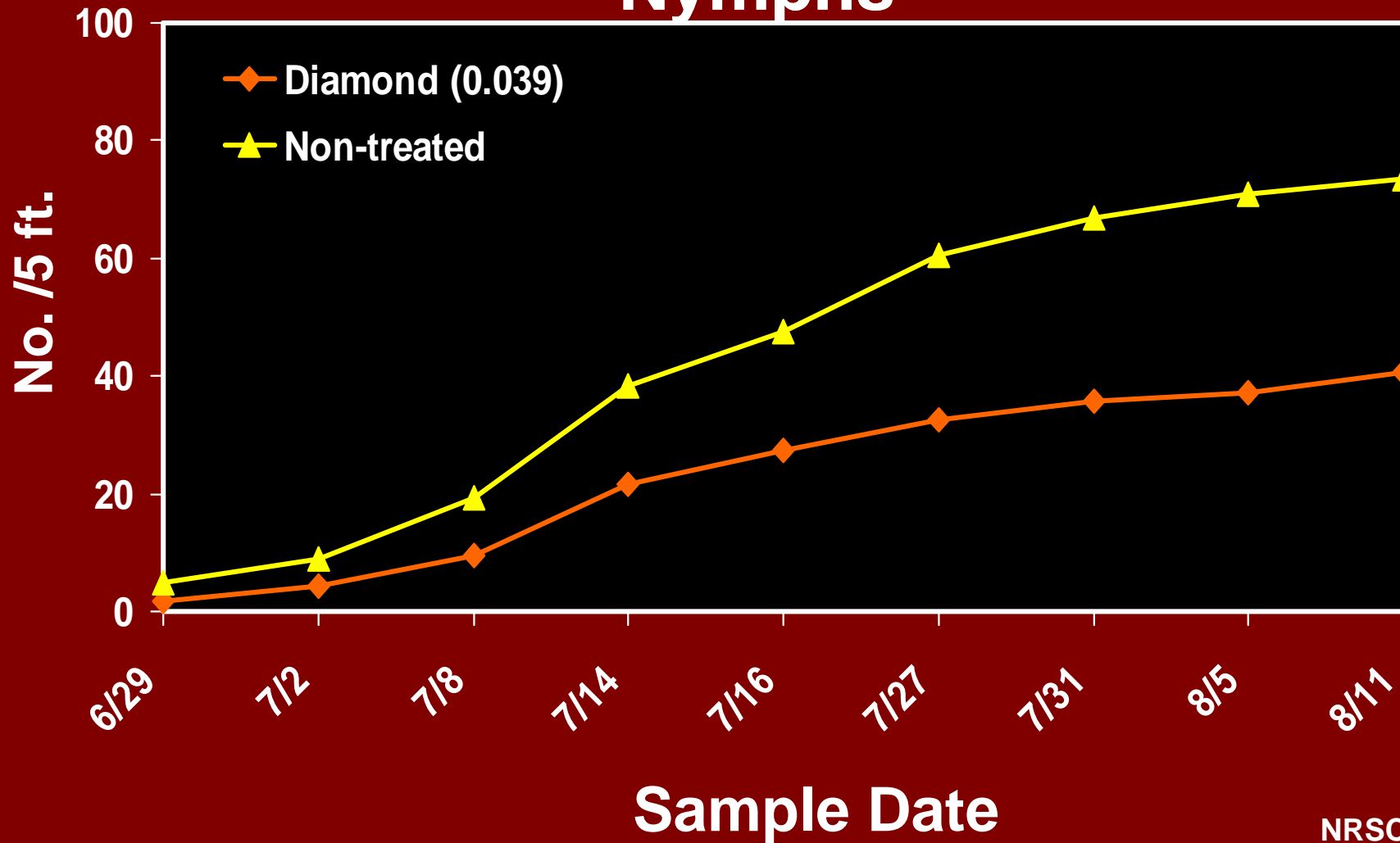


# Early Diamond Applications

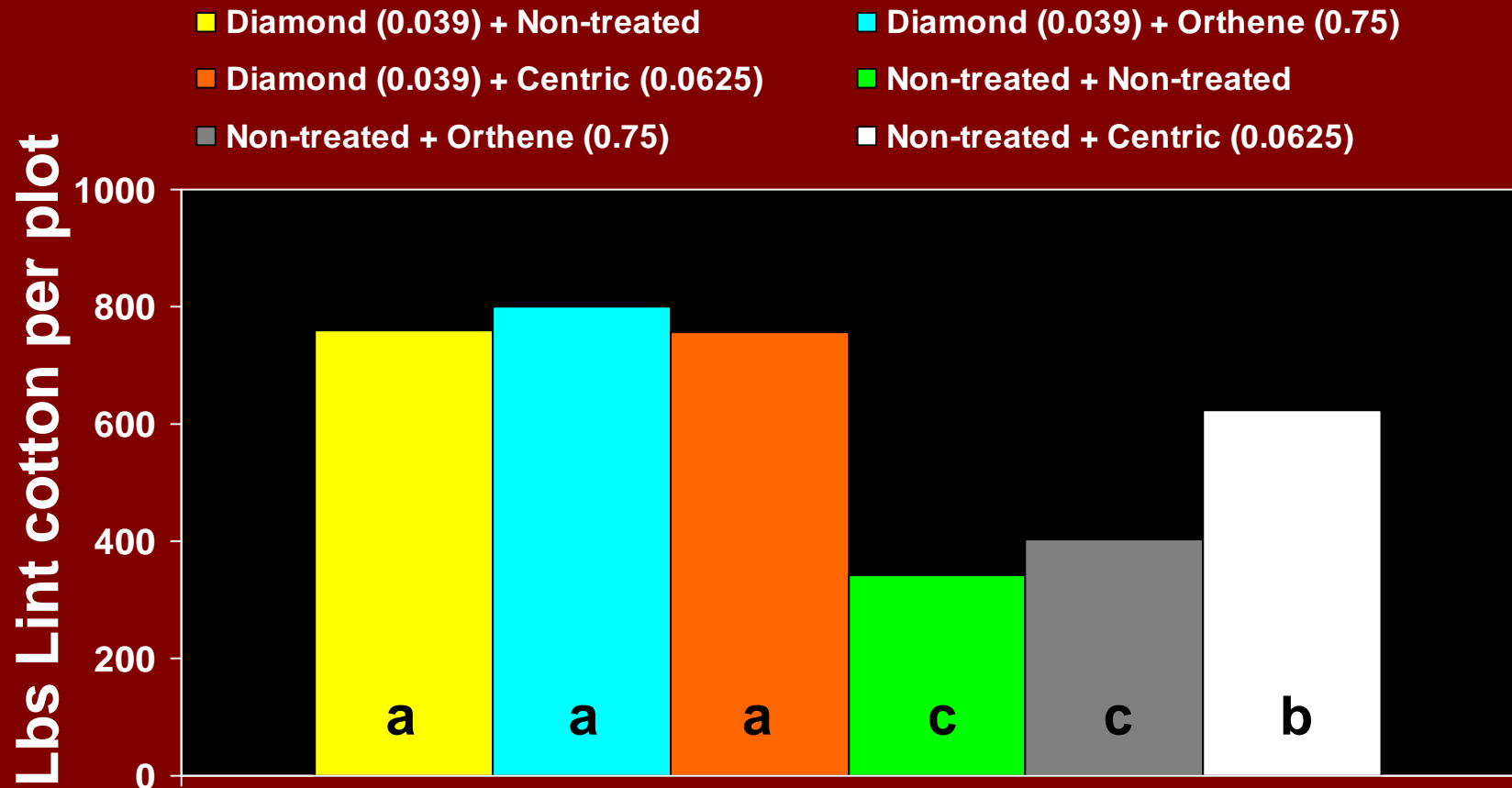


Diamond was applied alone at 9 oz./A during the third week of squaring to half of the field and Centric was applied to the other half of the field on the same date

# Cumulative No. Tarnished Plant Bugs Nymphs



# Plant Bug Control with Diamond Yield



# Diamond Use on Cotton

- Best use rate is 6 to 9 oz/A
- If adults are present then a tankmix with an adulticide is needed
- Best tankmix partners are Bidrin and Acephate
- The incorporation of Diamond into a Lygus management program – starting with an early season application (~3<sup>rd</sup> week of squaring) with follow-up applications when immatures are present helps manage building Lygus populations
- The incorporation of Diamond into a Lygus management program as described above results in significant yield increases



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Thank You for Your Interest  
and  
Thanks for Supporting MANA  
Products



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