

Management of Tarnished Plant Bug in the Mid-South



LACA Marksville, LA 2012

Insect Resistance in the Delta Regions

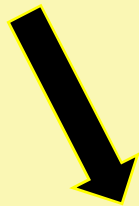
- Aphids: OP's, Neonics, Pyrethroids
- Tarnished Plant Bug: OP's, Carbamates, Pyrethroids
- Bollworms: Pyrethroids, OP's
- Tobacco Budworms: Pyrethroids, OP's
- Spider Mites: OP's, Carbamates, Pyrethroids

Tarnished Plant Bug



Recent Control Costs for TPB in the MS Delta

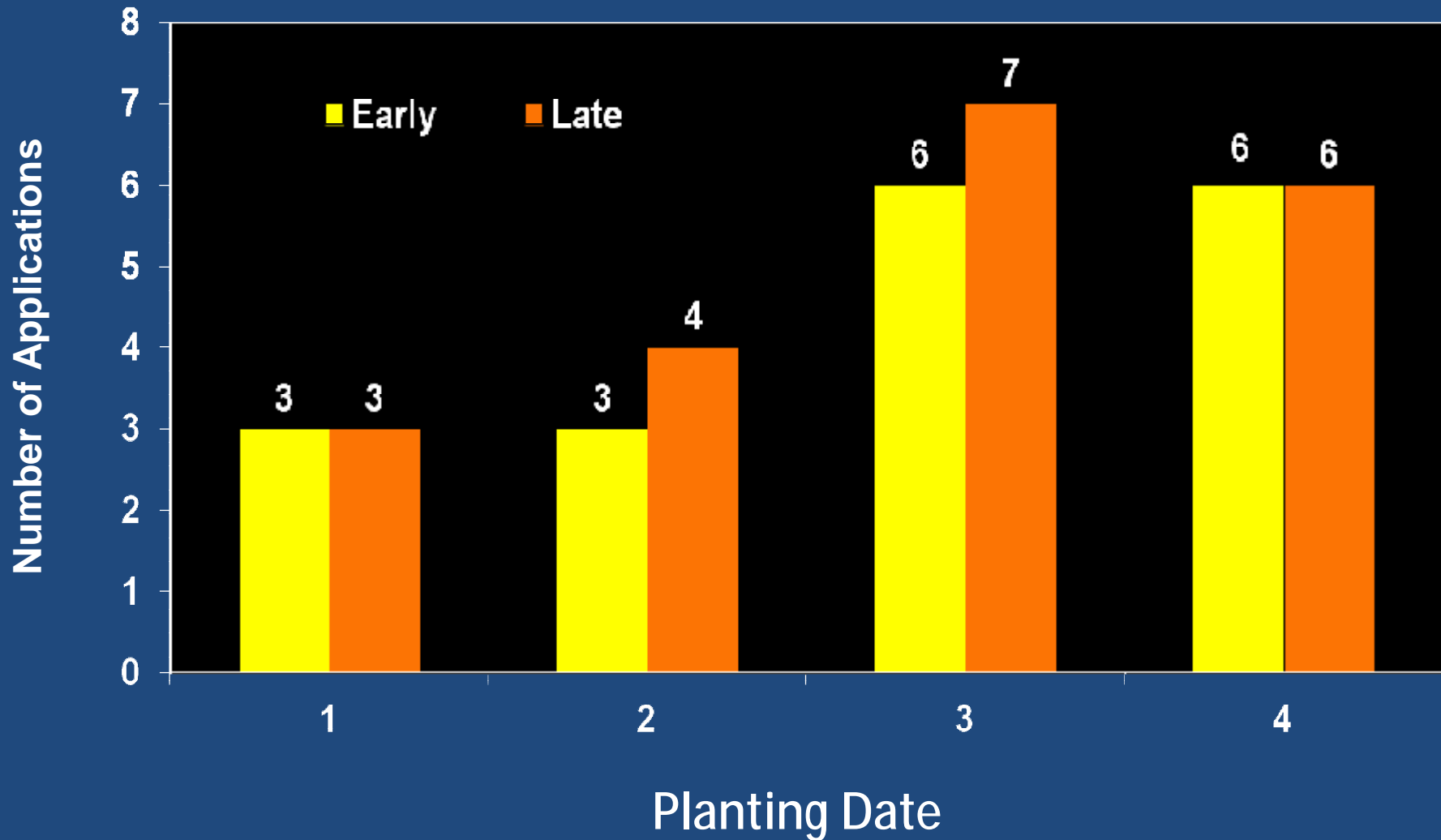
- 2002 - \$24.50/ac
- 2003 - \$25.67/ac
- 2004 - \$43.11/ac
- 2005 - \$41.67/ac
- 2006 - \$29.07/ac
- 2007 - \$67.50/ac
- 2008 - \$51.98/ac
- 2009 - \$71.01/ac
- 2010 - \$67.62/ac
- 2011 - \$97.02/ac



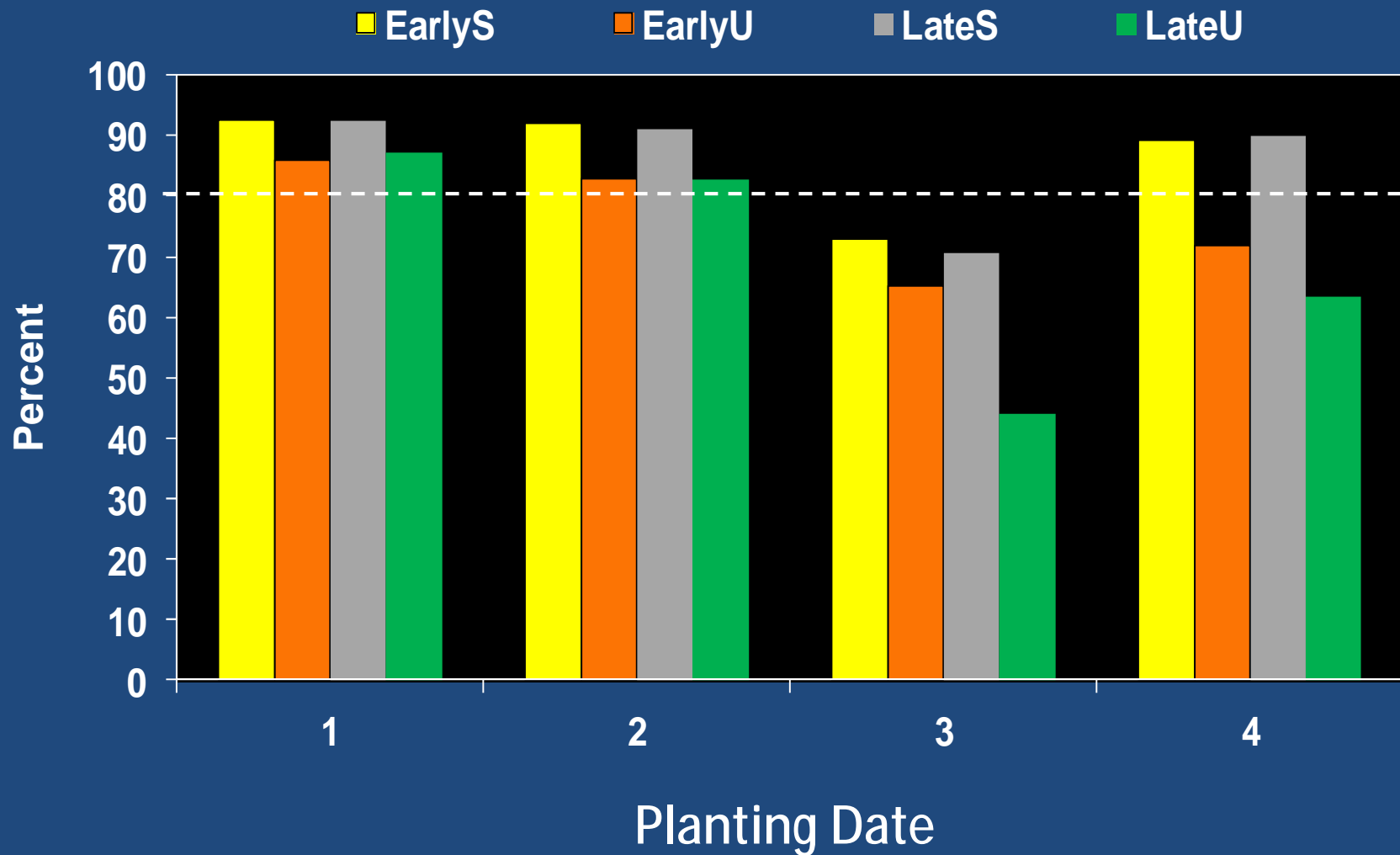
Tarnished Plant Bug Control

- Blocking Cotton Away from Corn
- Manage for Earliness
- Early Diamond Applications
- Mixtures, Mixtures, and Mixtures
- Shortened Intervals in Heavy Pressure Areas
- New Chemistry

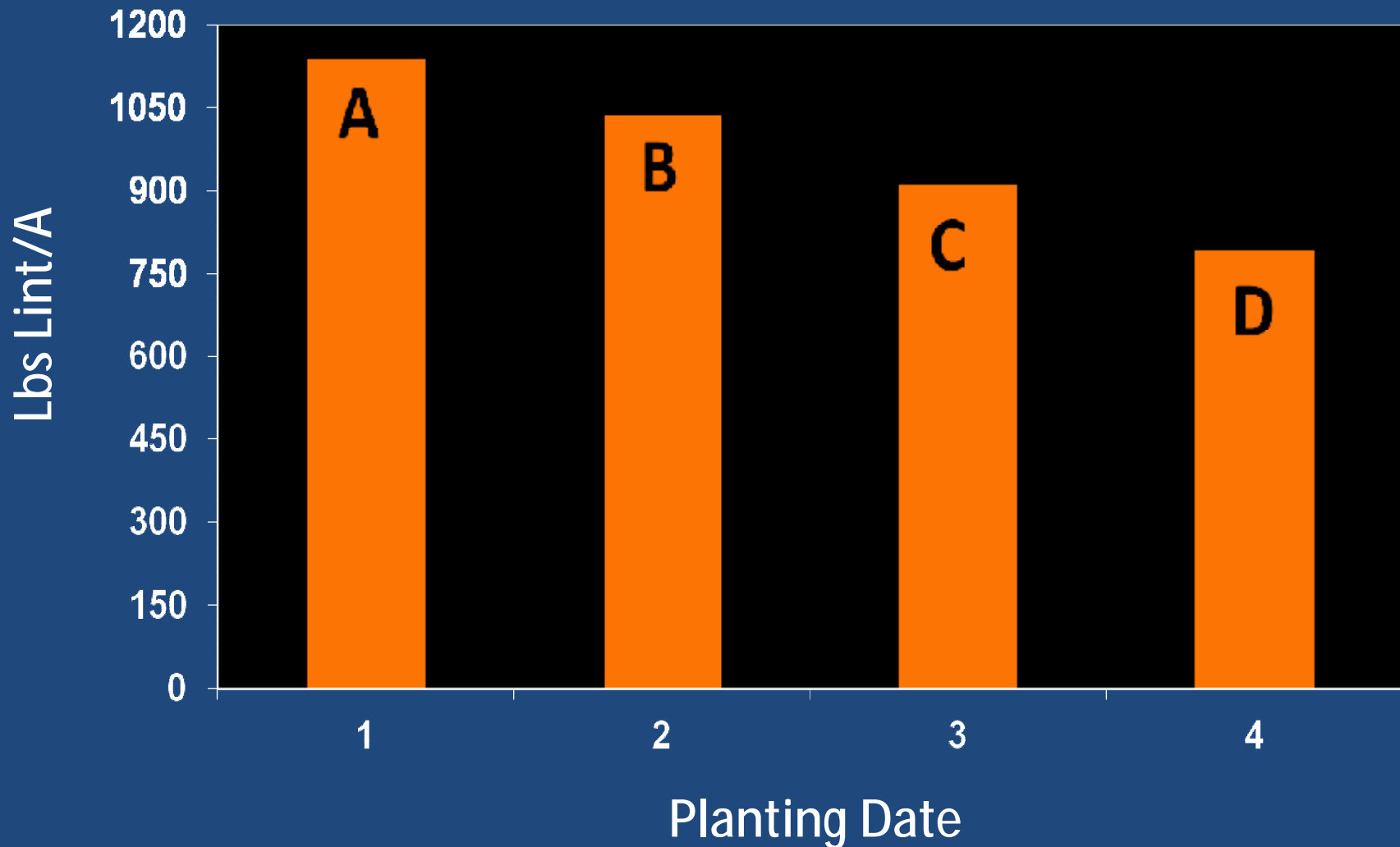
Mean Number of Applications 2010-2011



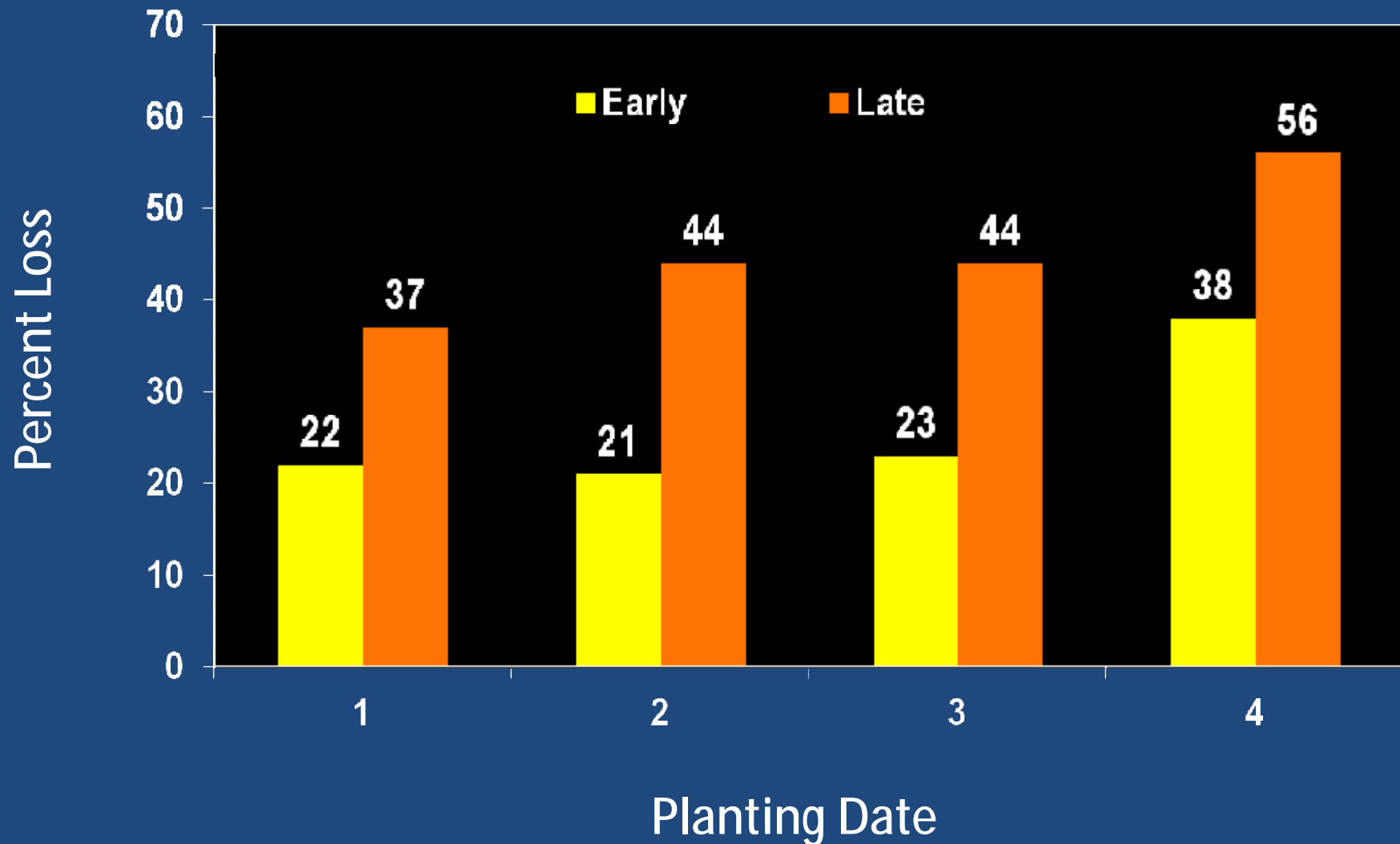
Square Retention



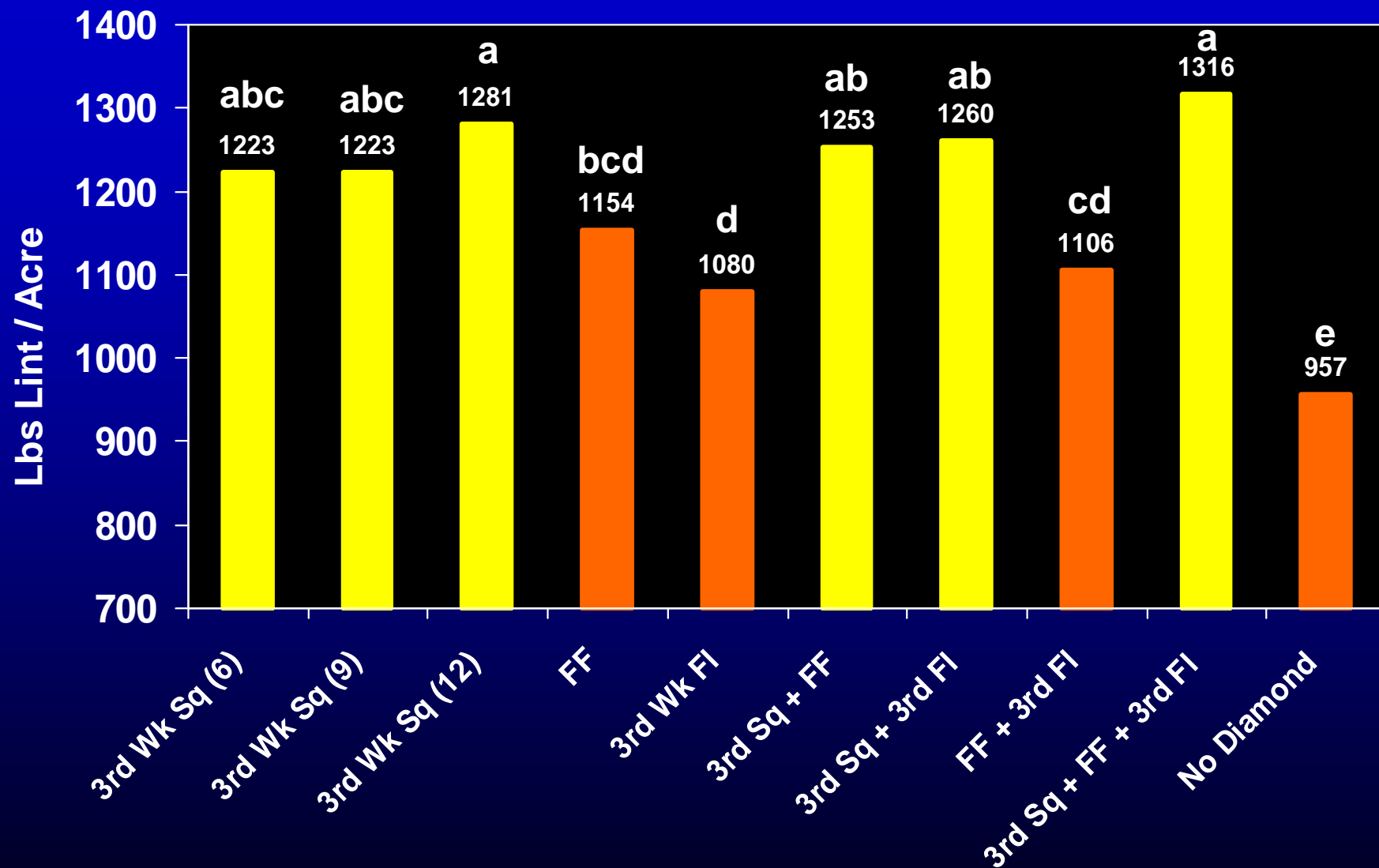
Effect of Planting Date on Yield



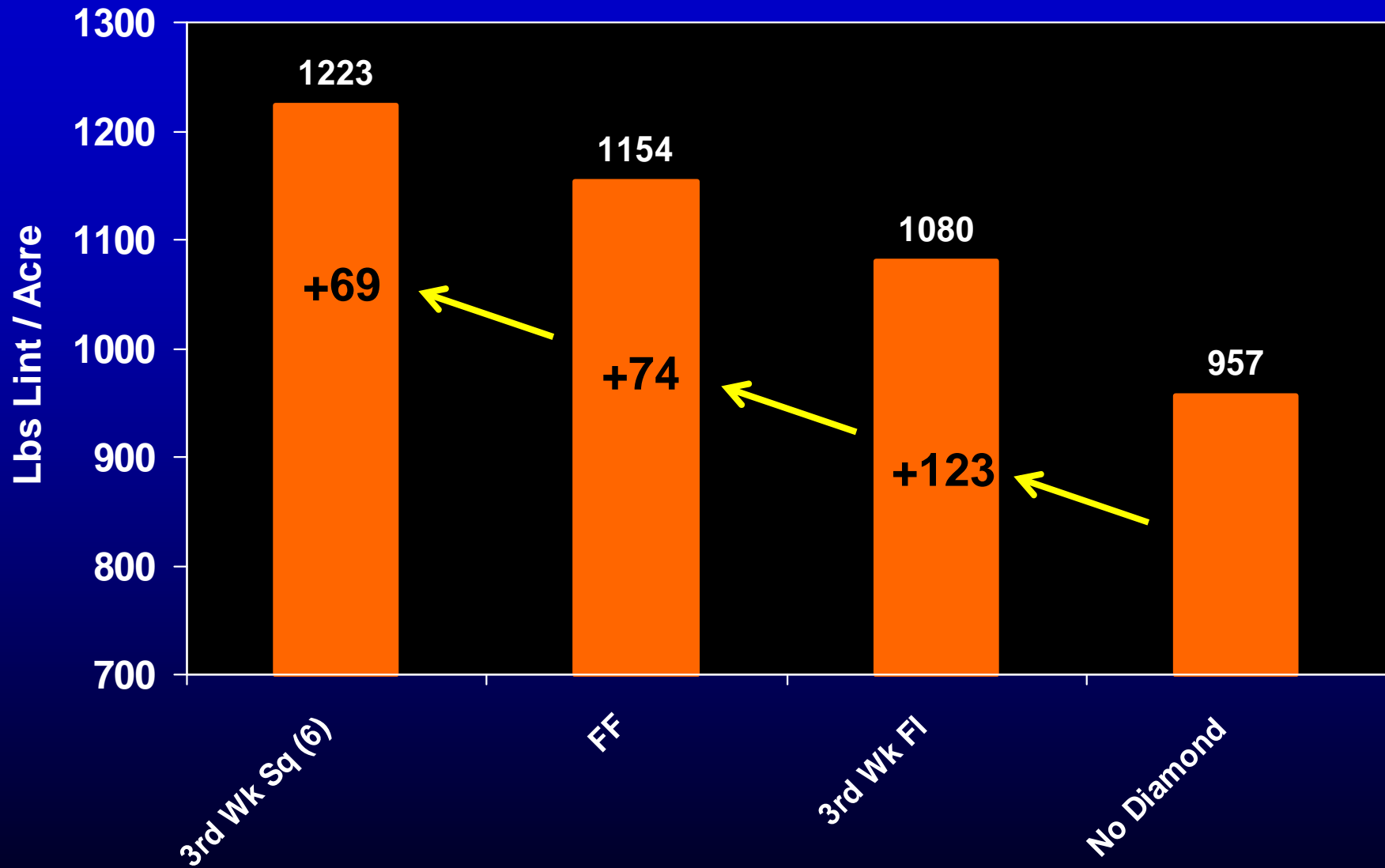
Impact of *L. lineolaris* on Yield



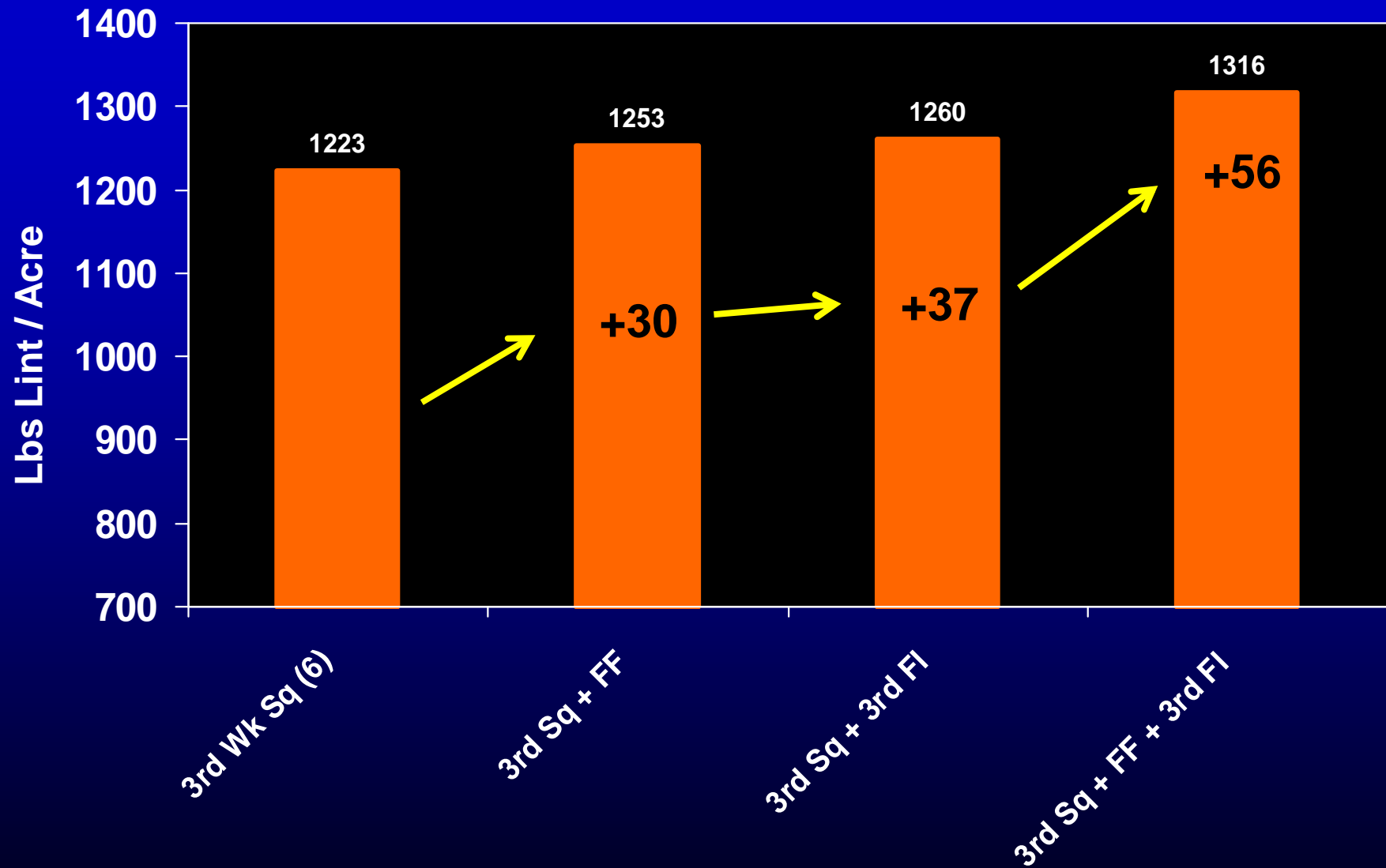
Diamond Timing and Number of Applications- 2010



Diamond Application Timing - 2010



Number of Diamond Applications- 2010



Impact of Diamond on TPB

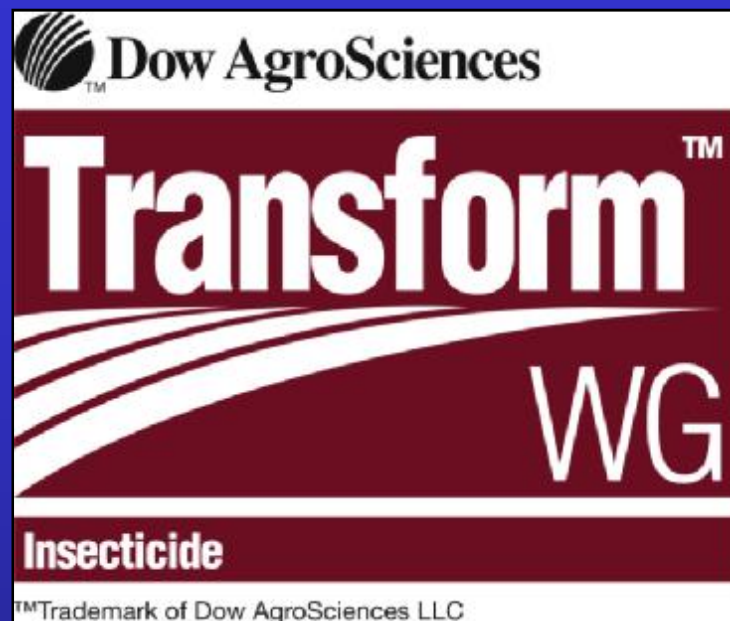
Fred Musser, MSU

| Treatment | Eggs laid/F | % Eggs hatched |
|-----------|-------------|----------------|
| Constant | 19.9b | 1b |
| Weekly | 25.0b | 3b |
| Once | 40.3b | 12b |
| Control | 91.3a | 48a |

Gordon Snodgrass, USDA-ARS

| Instar | LC50 | 95% CI |
|-----------------|--------------|-----------|
| 1 st | 2.8 ug/vial | 0.69-4.40 |
| 2 nd | 28.8 ug/vial | 21.4-49.5 |
| 5 th | 32.4 ug/vial | 17.1-44.1 |

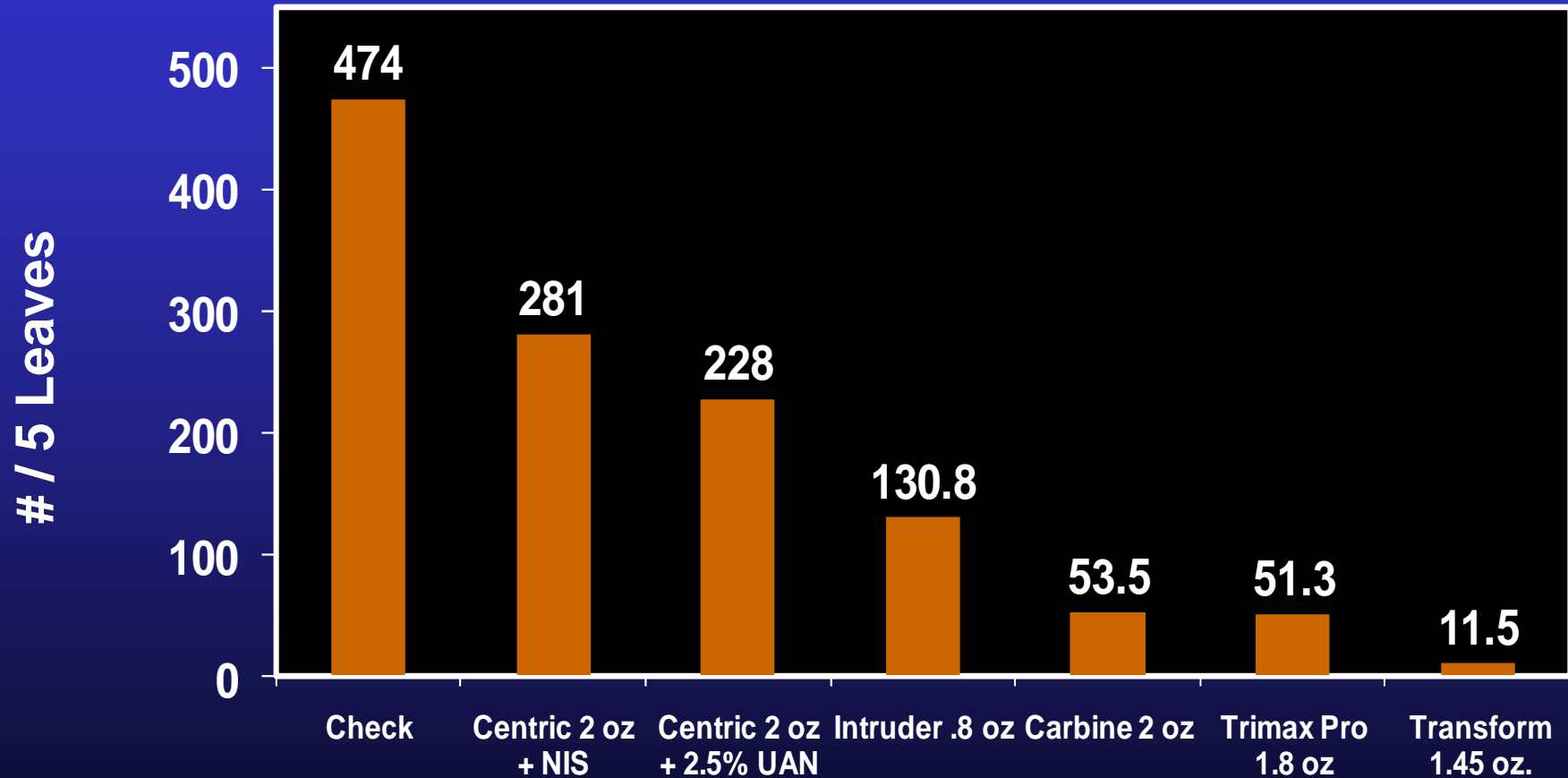
- **Dow AgroSciences**
- **Sulfoxaflor**
- **50% WG**
- **Cotton**
- **0.7-2.88 oz/A**
- **True Bugs:**
cotton aphid, tarnished plant bug,
stink bugs?



****Transform is not labeled at this time****

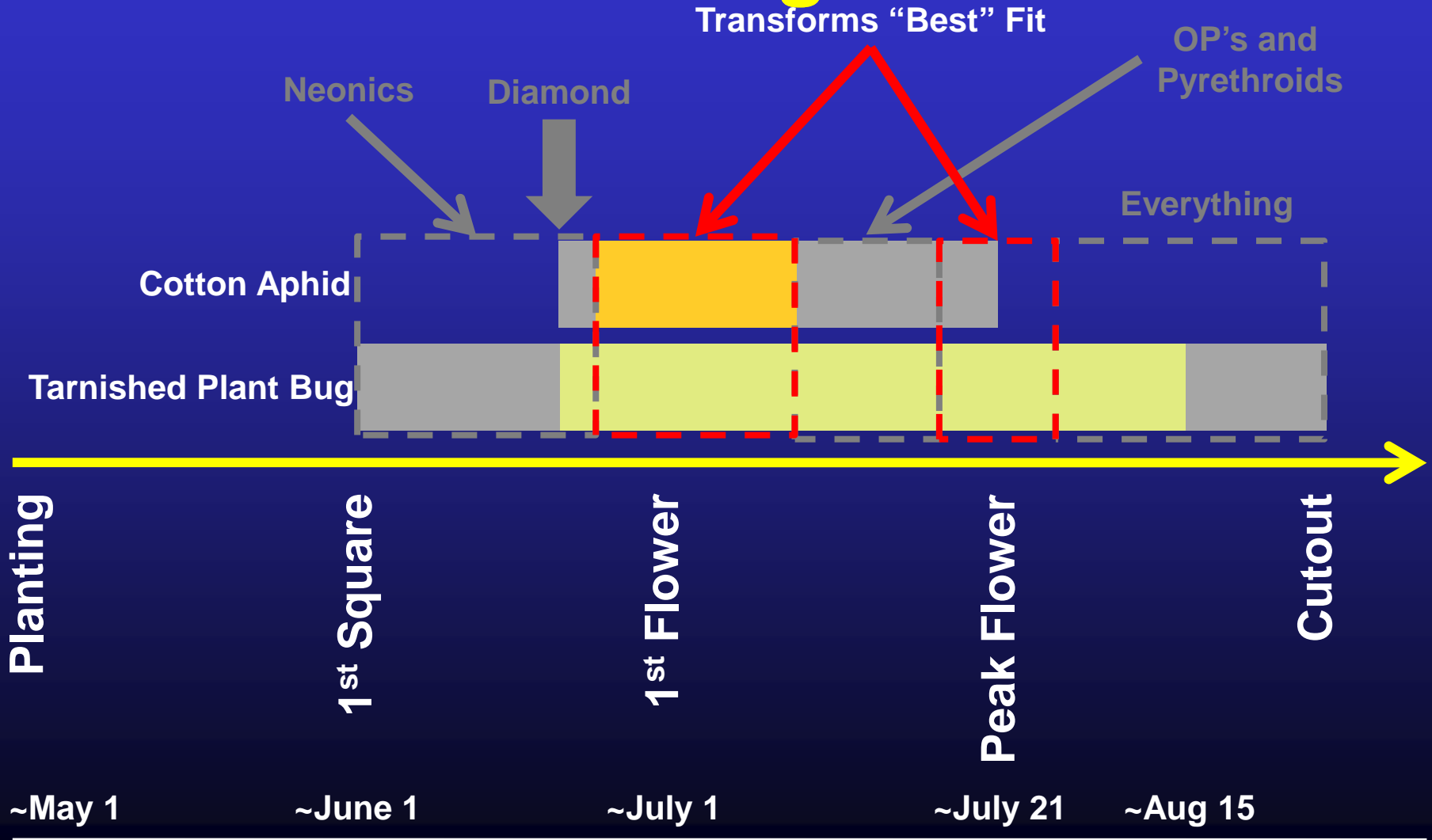
Foliar Aphid Control

Angus Catchot - Grenada, MS



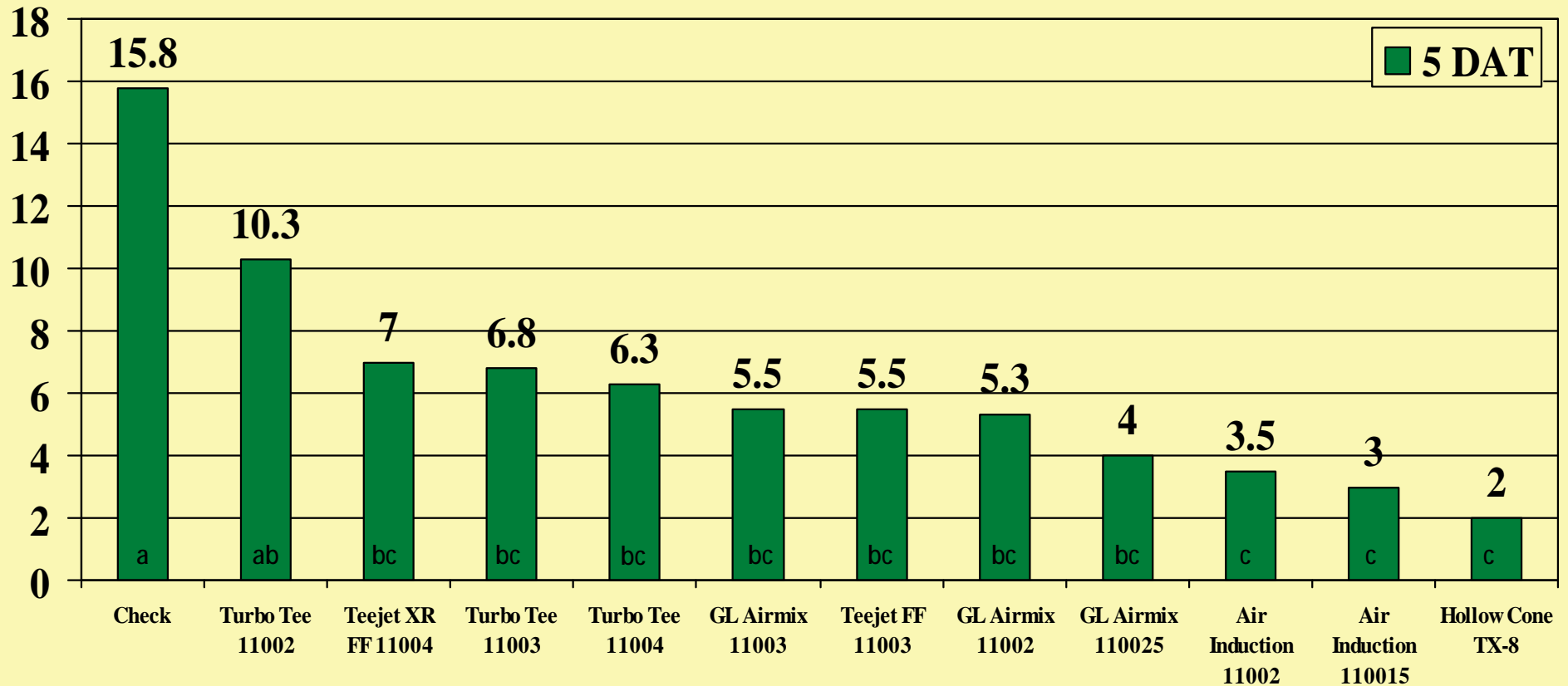
Centric LC50 = 10.71 at 72h

Insecticide Application Timings

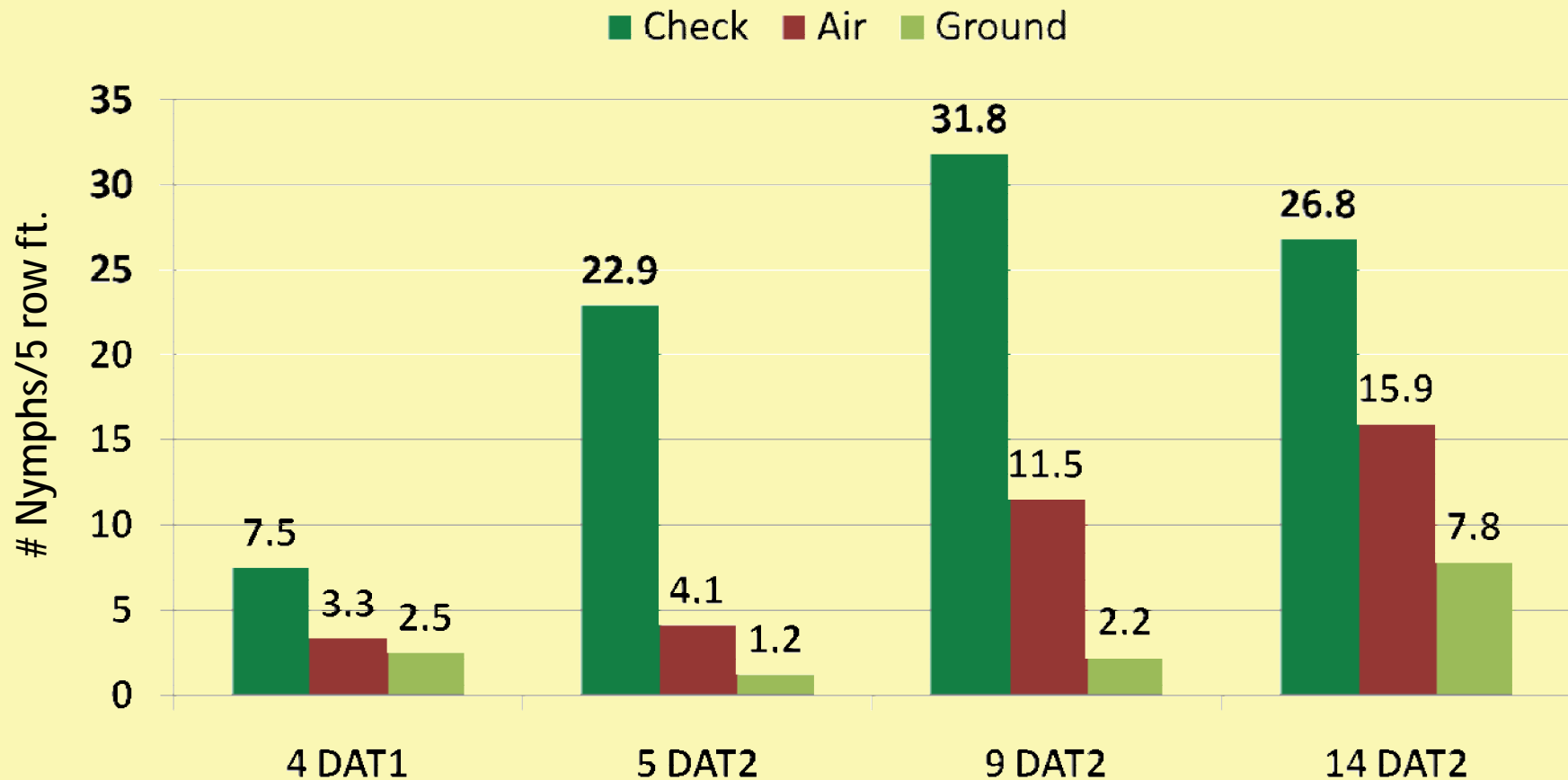


Nozzle Type Efficacy with Acephate-Tarnished Plant Bug

Greenwood, MS 8/9/06 TPB Nymphs/10 row ft.



Air vs. Ground Test Glendora, MS 2010



Monitoring Square Retention



A photograph of a cotton field during harvest. The plants are densely packed, and the cotton bolls are white and fluffy, contrasting with the brown, woody stems. A yellow rectangular box is centered in the image, containing the word "Questions" in a black, italicized serif font.

Questions