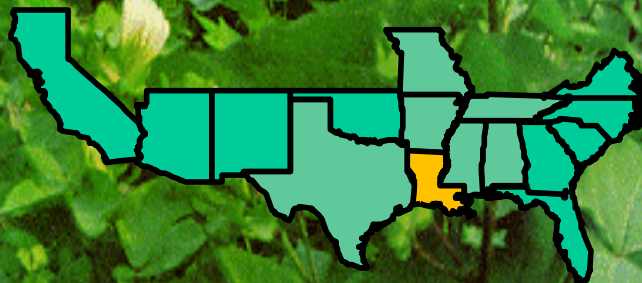
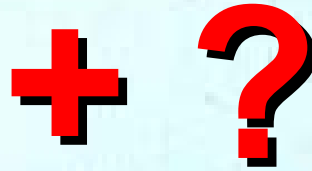


Louisiana Ag Consultants Conference

2008 Cotton IPM Update: Critical Pest Issues

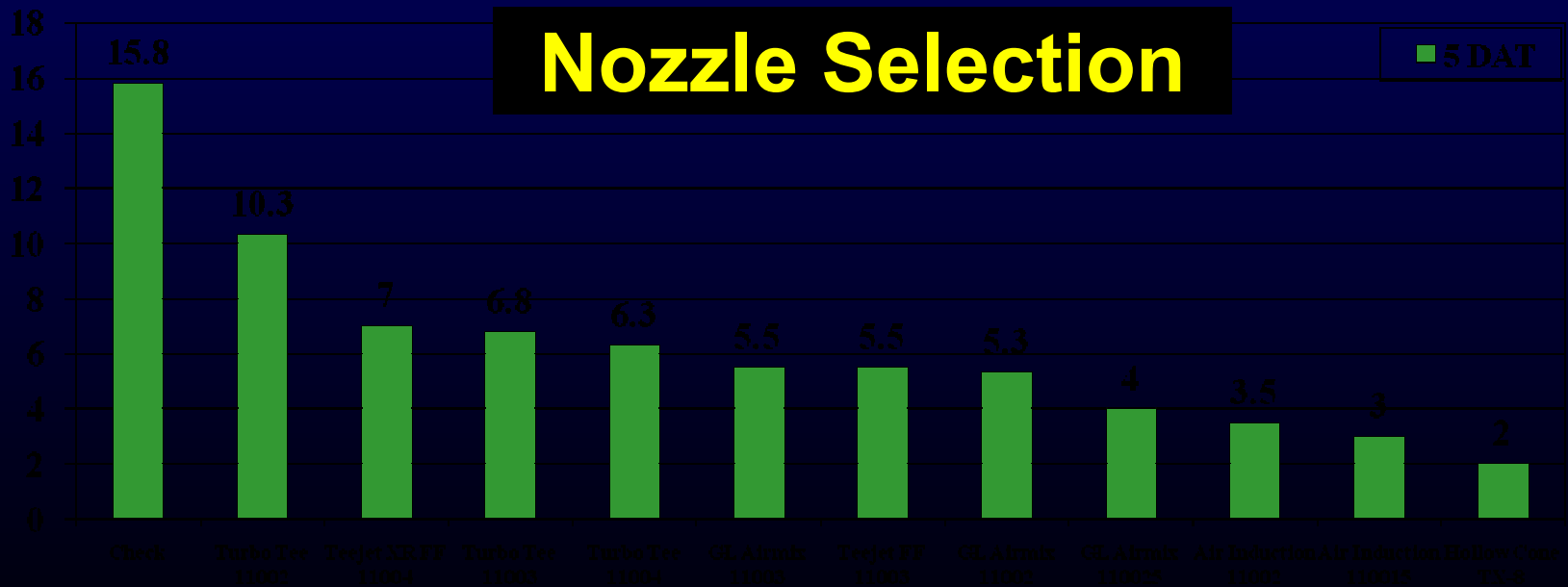
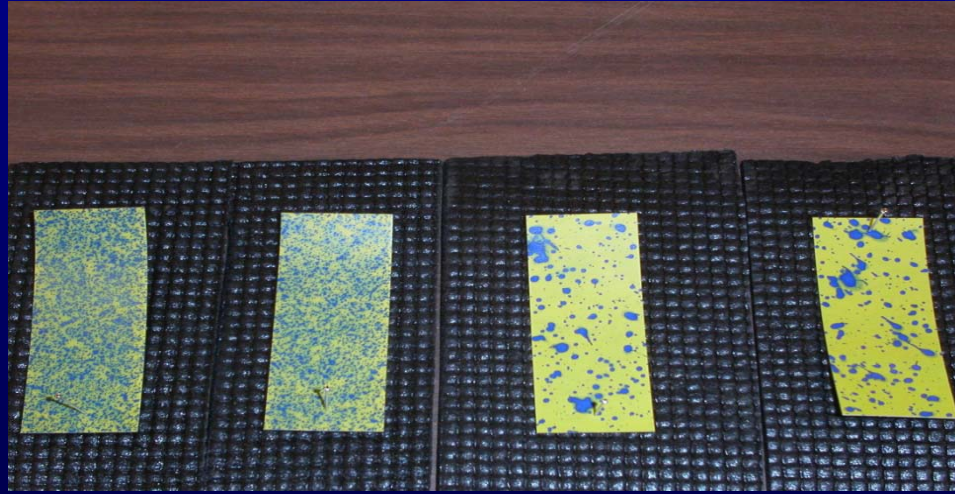






Pesticide Application Issues

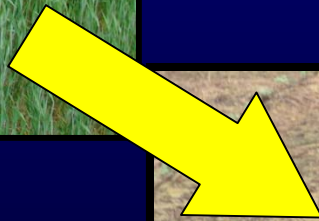
Pesticide Application Issues



Chemical Control Issues

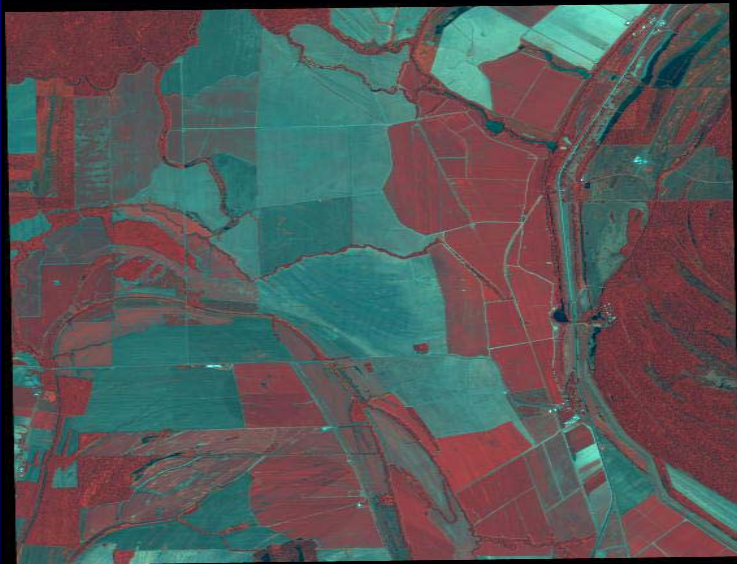
- **Expected vs Observed Efficacy**
- **Cost of a Treatment (Value)**
- **Product Similarity (Rotations)**
- **AI Limitations**
- **Evaluation Criteria**
- **Selectivity**





**Beware of
Alternate
Host Plants**

Best Management Practices (BMP's) For Cotton Insects



Spider Mite Biology



Spider Mites – Early Season

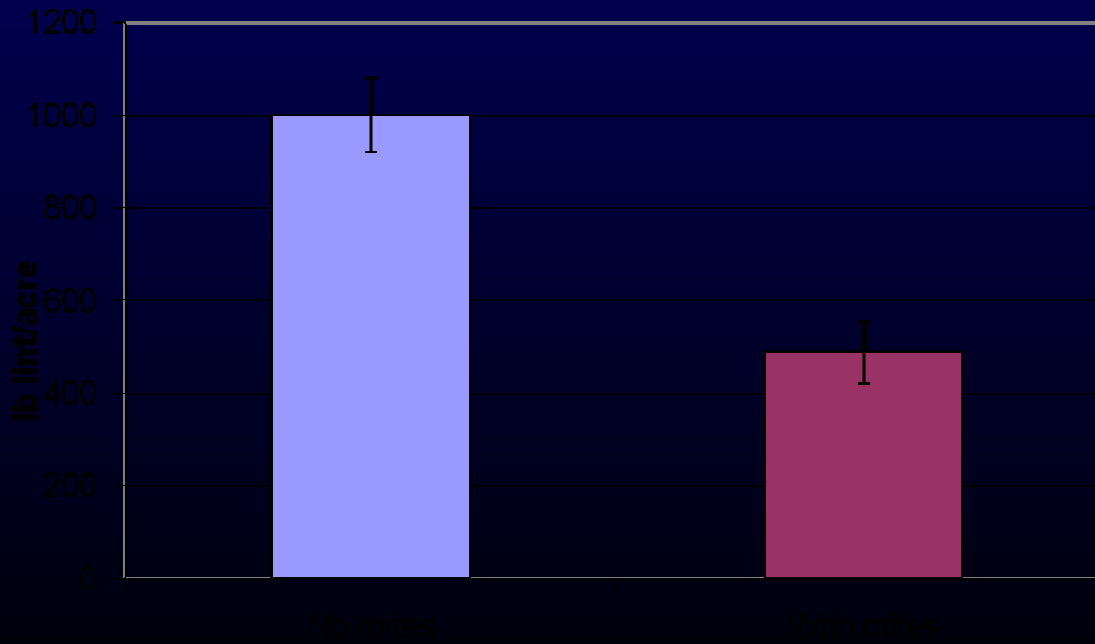


Wild Hosts / Overwintering

- Active on henbit during December
- Overwintering in fields
- May explain hot spots often scattered in fields of seedling cotton



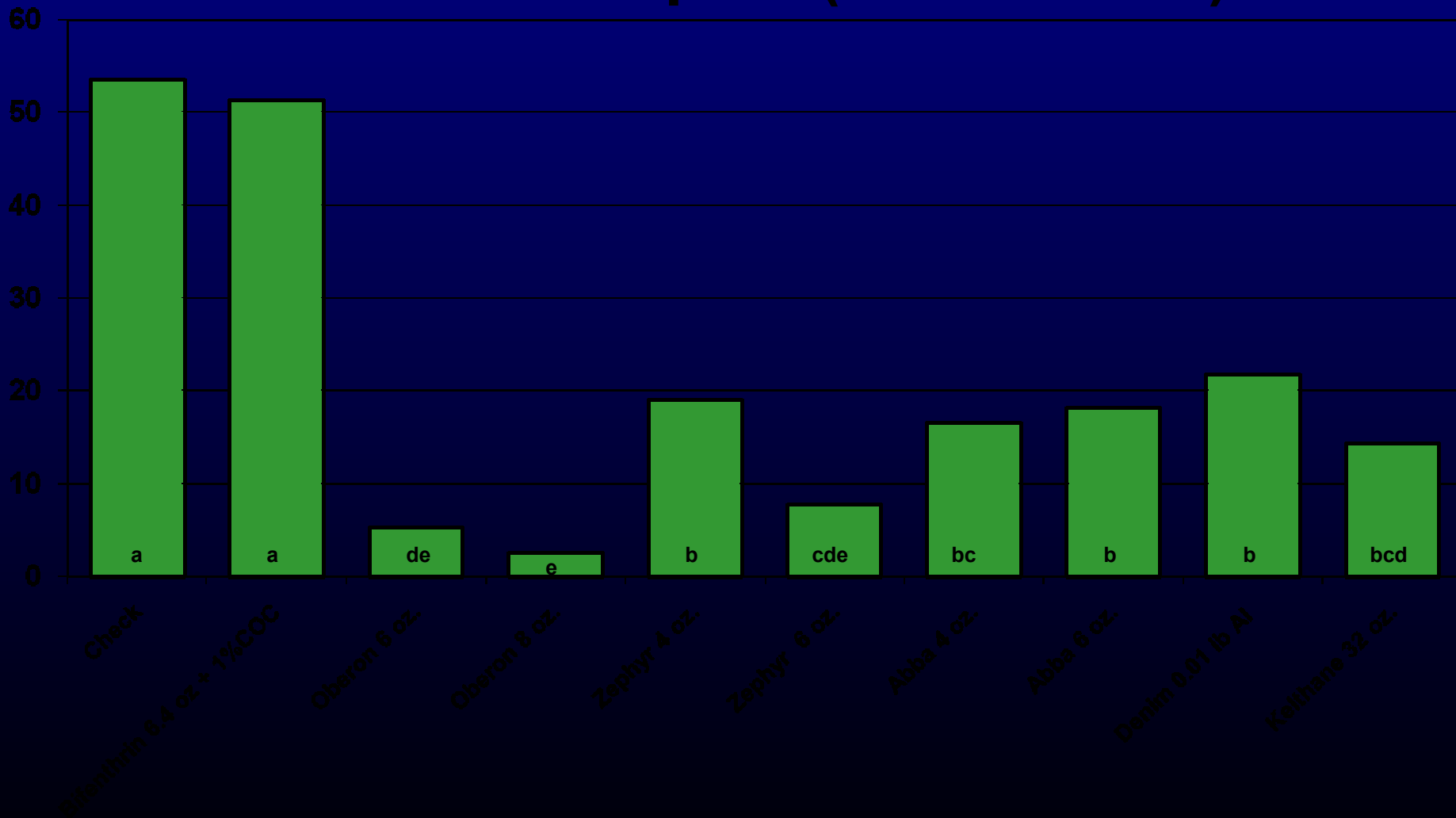
Late-Season Yield Loss



Spider Mite Efficacy Trial

Bayou Macon, LA (7 DAT) ($P < 0.01$)

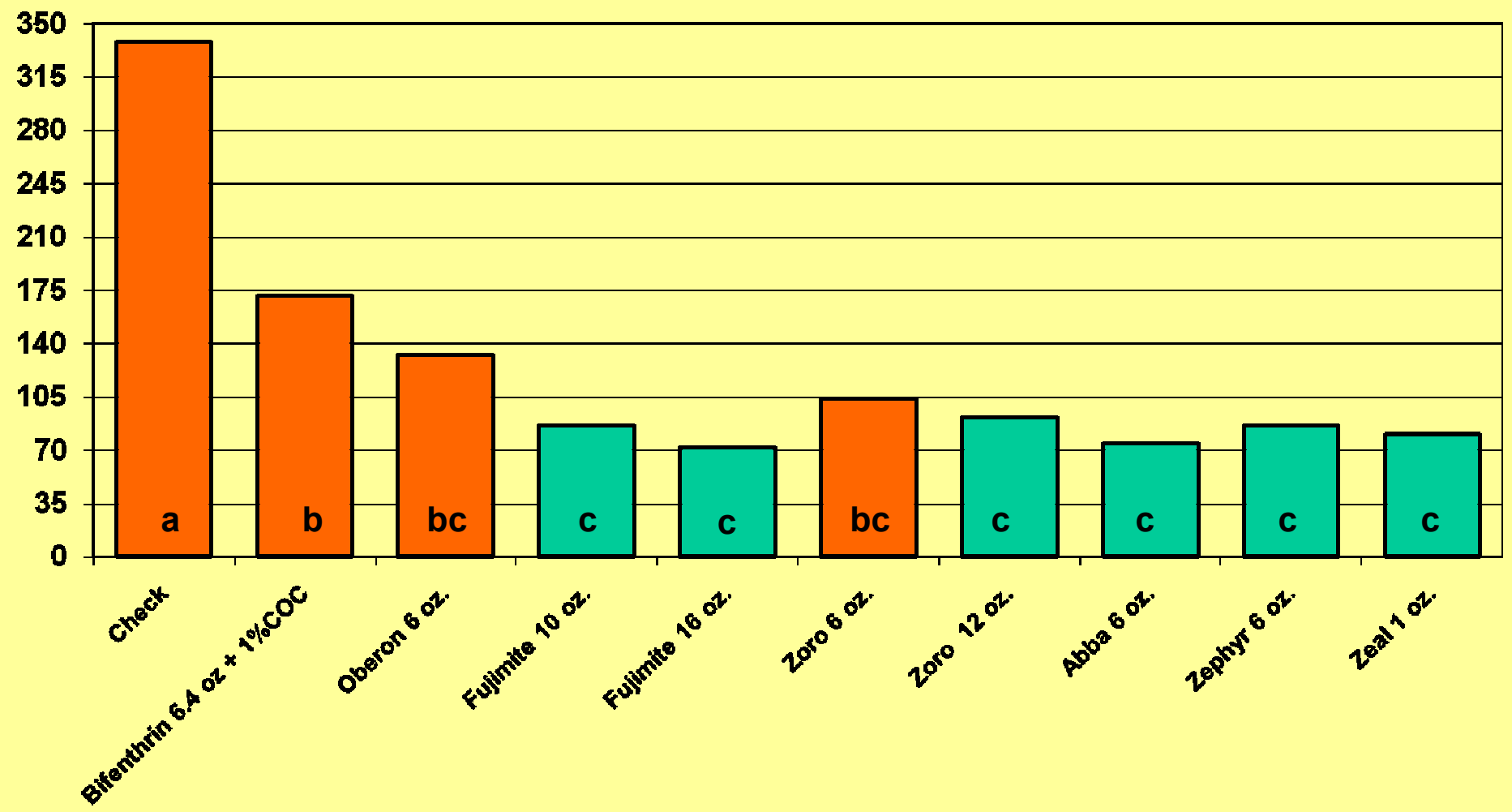
Number/10 sq. in. (June - 2006)





Spider Mite Efficacy Trial

St. Joseph, LA (3 DAT) ($P < 0.01$)
Number/10 sq. in. (July - 2007)

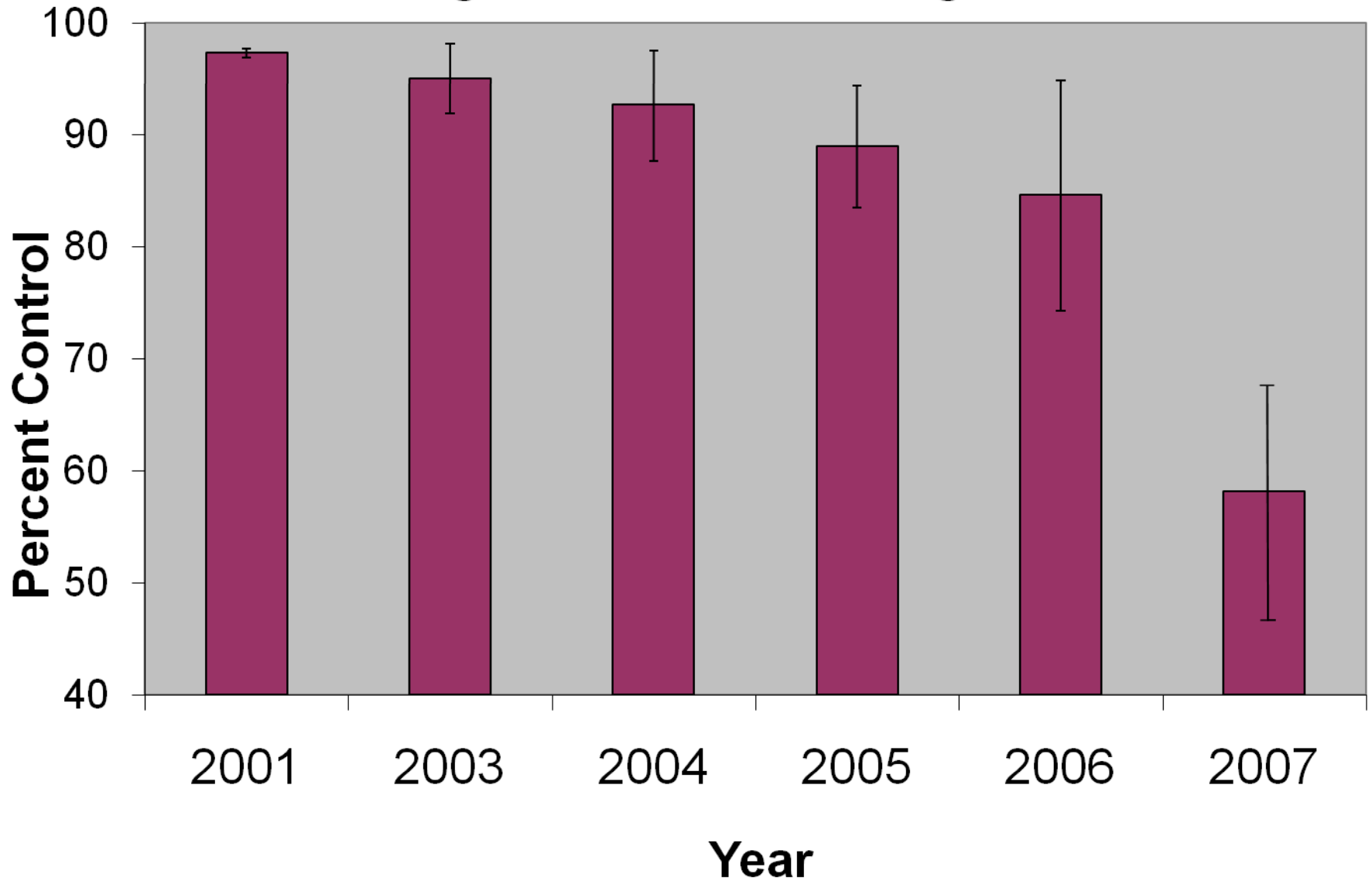




Injury Almost Always Appears Worse Than Actually Is!!



Neonicotinoid Efficacy Against Cotton Aphid LSU AgCenter - Macon Ridge Station

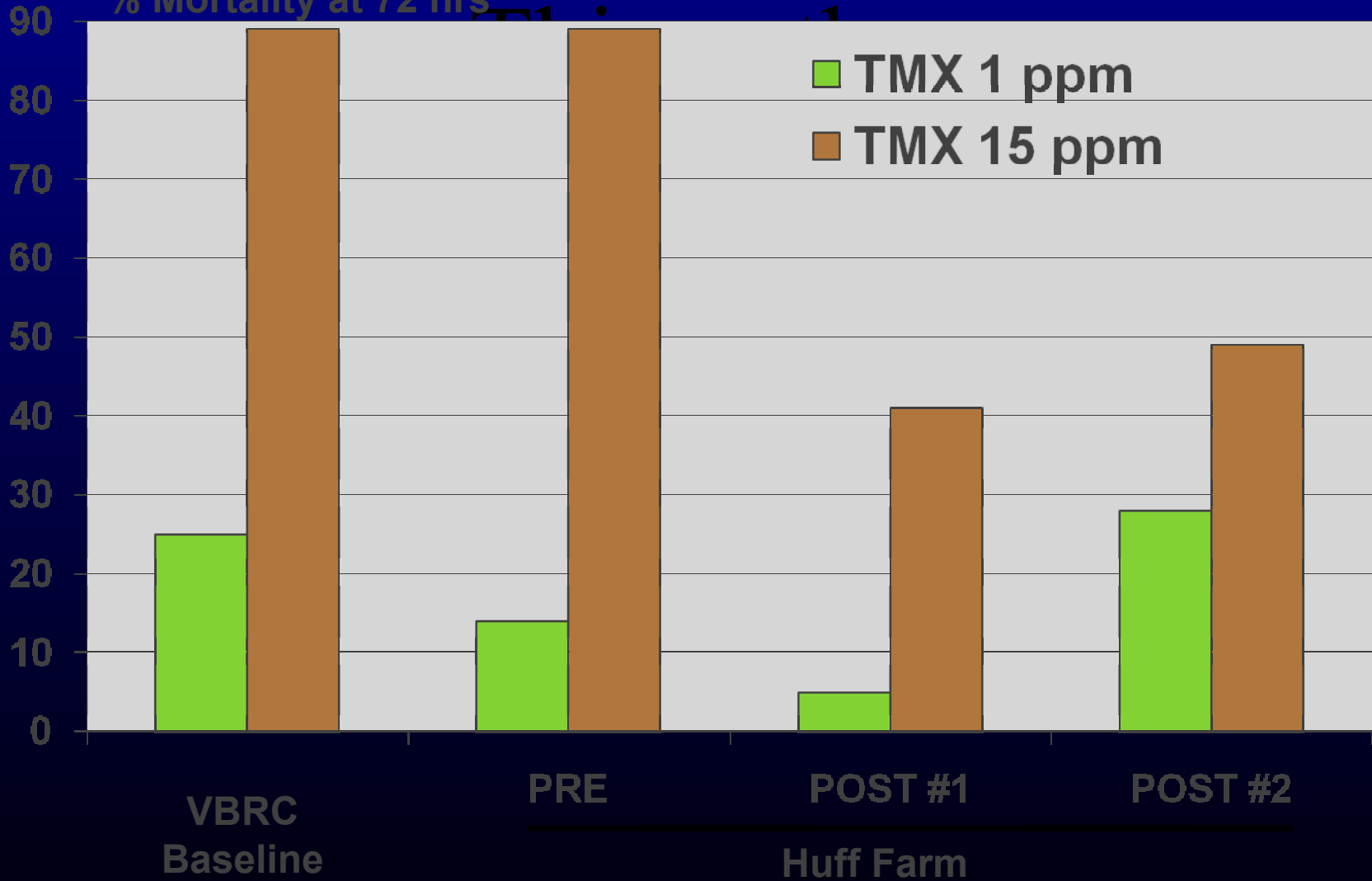


Field Collection of Cotton Aphids Louisiana 2007



Cotton Aphid Susceptibility -

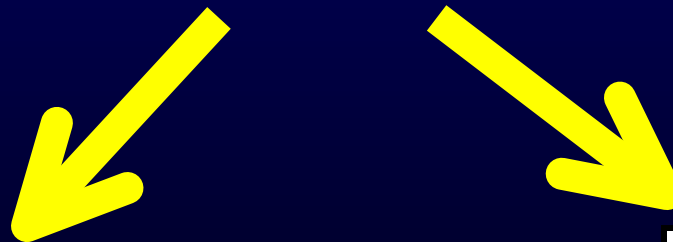
% Mortality at 72 hrs



Recommended Insecticides - Cotton Aphid

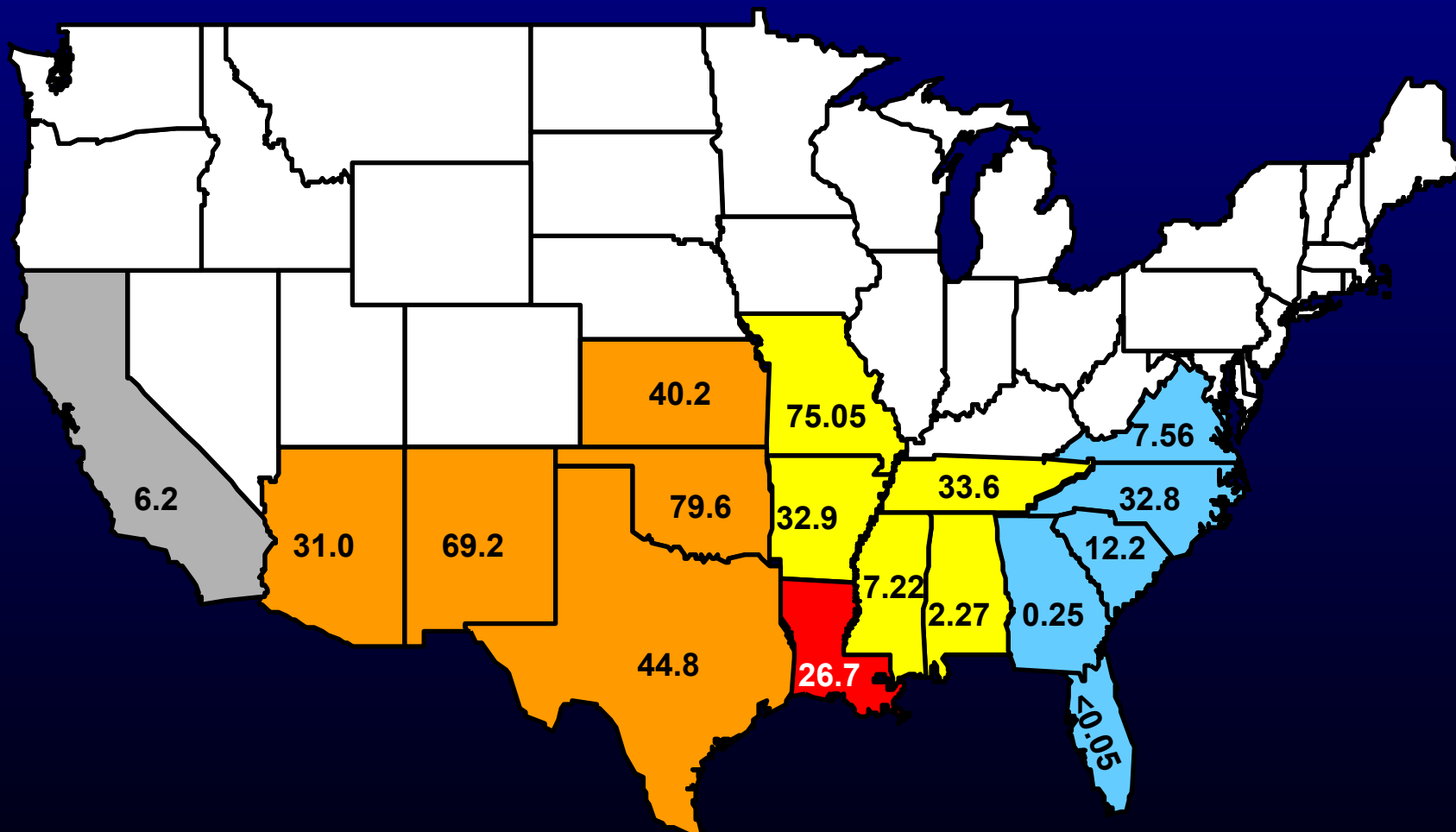
- **Centric 40WG - NEO**
- **Intruder 70WSP - NEO**
- **Trimax Pro 4.4SC - NEO**
- **Carbine 50WG – Pyr Carboxamide**

Bt Traits in Cotton: Understanding Potential Economic Injury and Action Thresholds



U.S. Cotton Belt

Bollgard II Variety Plantings - 2007



Total Percentage of Bollgard II Varieties Planted

Adapted from Agricultural Marketing Service – Cotton Program, USDA, 2007

Will you have to spray for worms or not?

Q. Will you have to spray Bollgard II for Lepids?

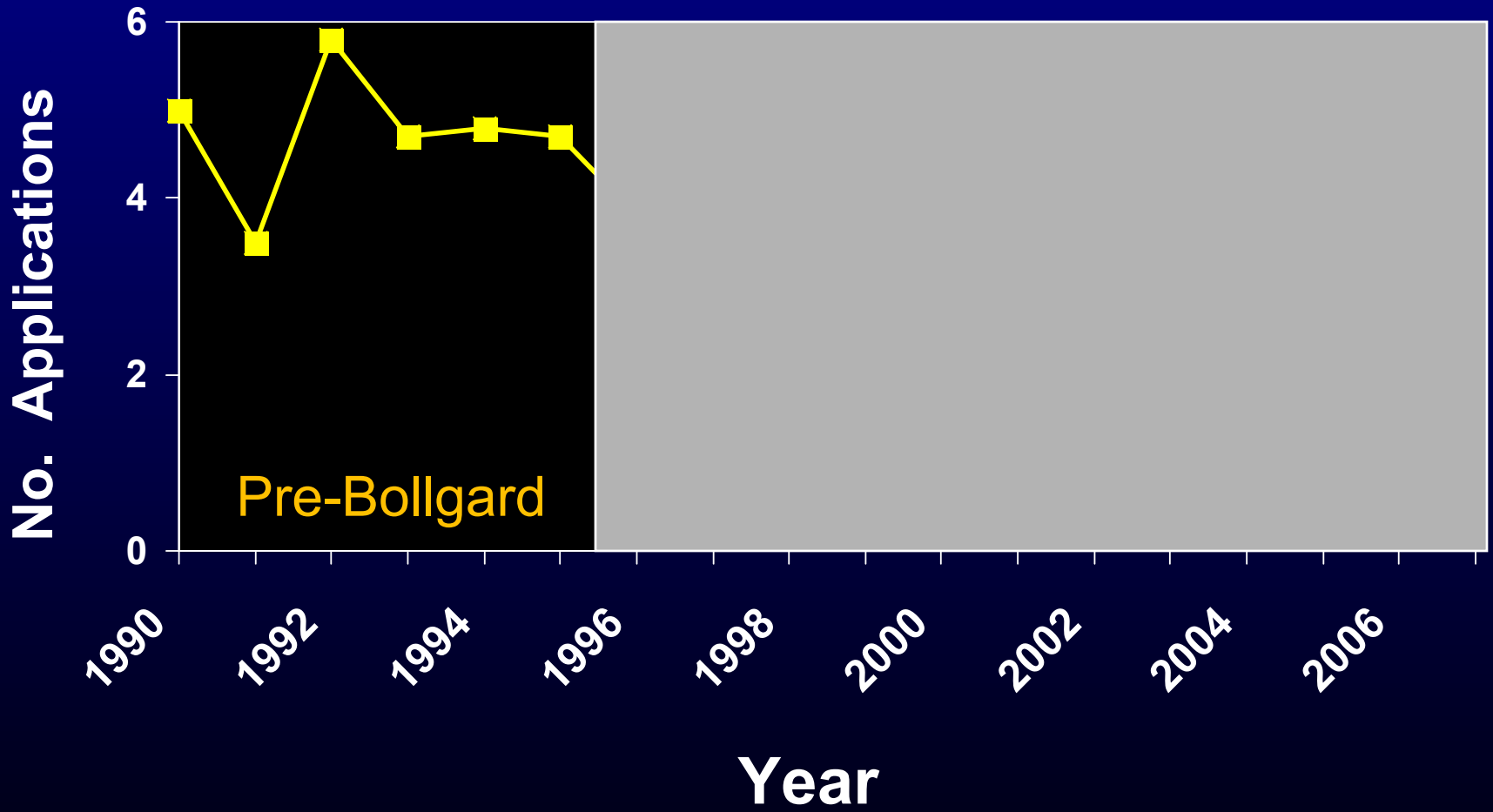
A. Based on field experiences – Not very likely. However, based on the biological nature of this technology and the target pests, not all environmental/insect conditions can be tested or predicted. Monsanto recommends that all Bollgard II fields be scouted for worm pests and treated when needed.

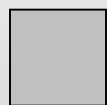
Bollgard/Bollgard 2, 1999-2003

Genotype	Overspray ¹	Percent	
		Larvae	Da
Conventional	Non-treated	5.4	16.3
Conventional	Sprayed	2.2	8.1
Bollgard	Non-treated	1.1	3.8
Bollgard 2	Non-treated	0.1	0.9

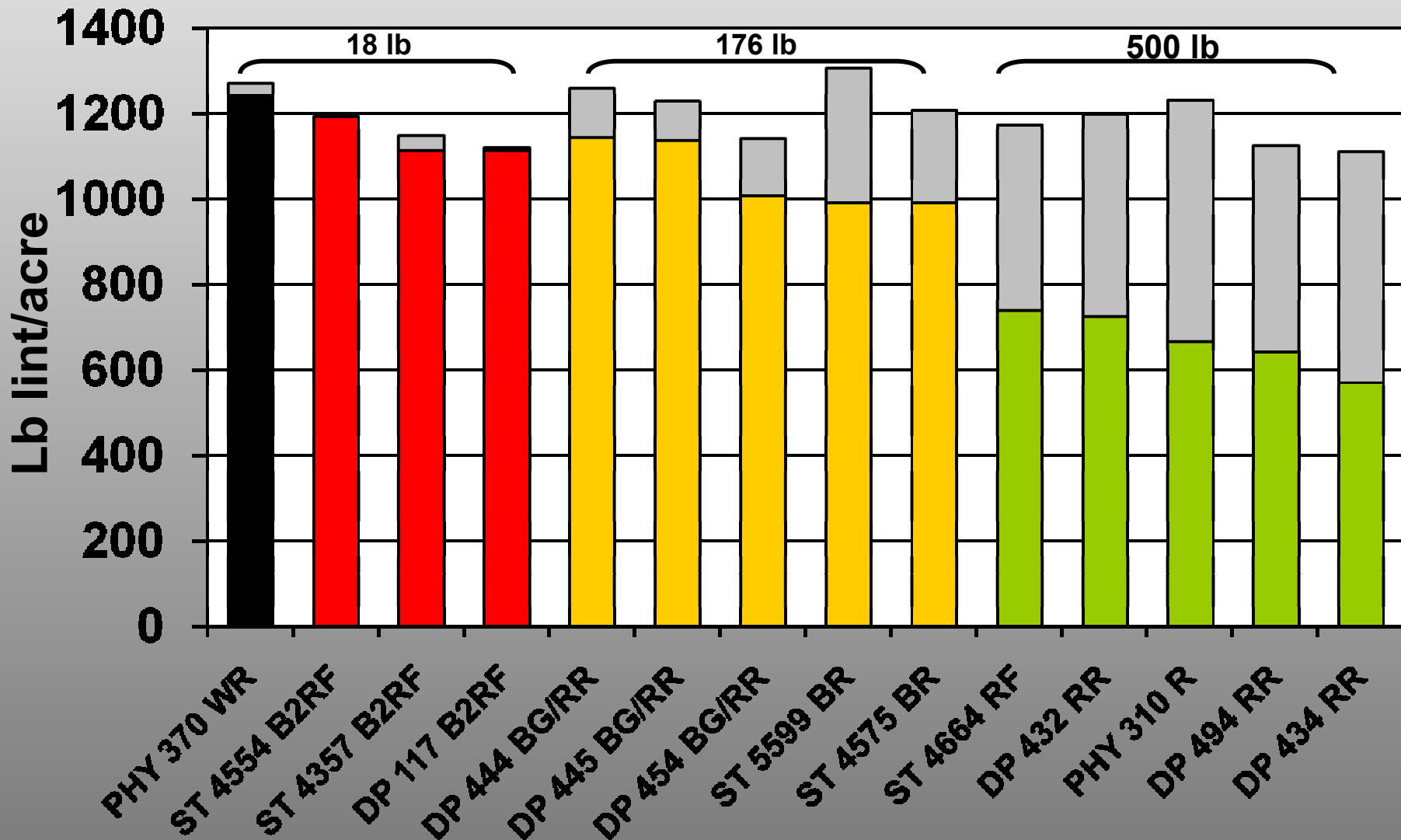
¹Treated plots received four-six applications of insecticides for caterpillar pests.

Heliothine Insecticides (Application Frequency)





Yield increase with insecticide sprays



Herbert, 2006

CT06VAR

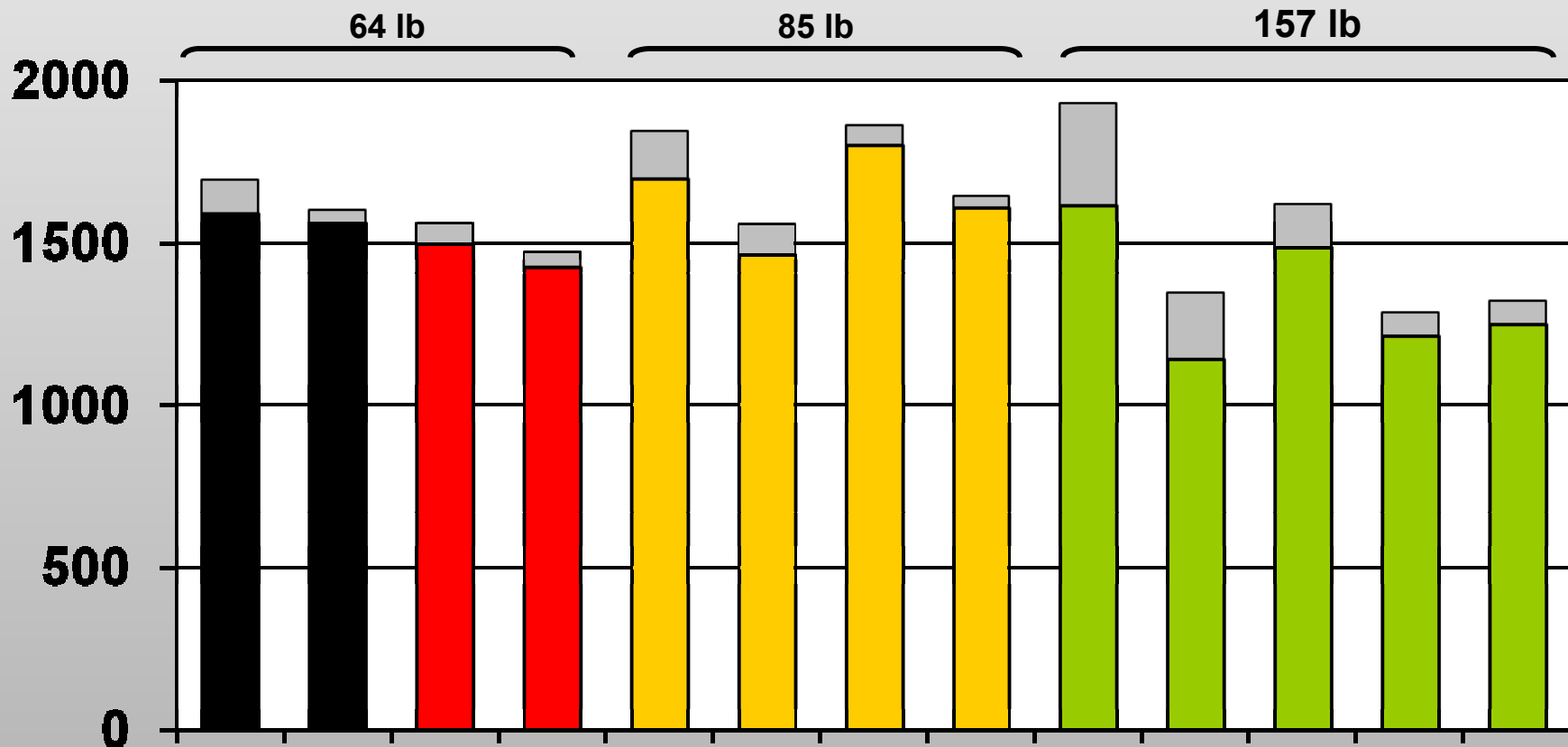
RR

BR

B2R

WS

Yield increase with insecticide sprays



RR
 BR
 B2R
 WS

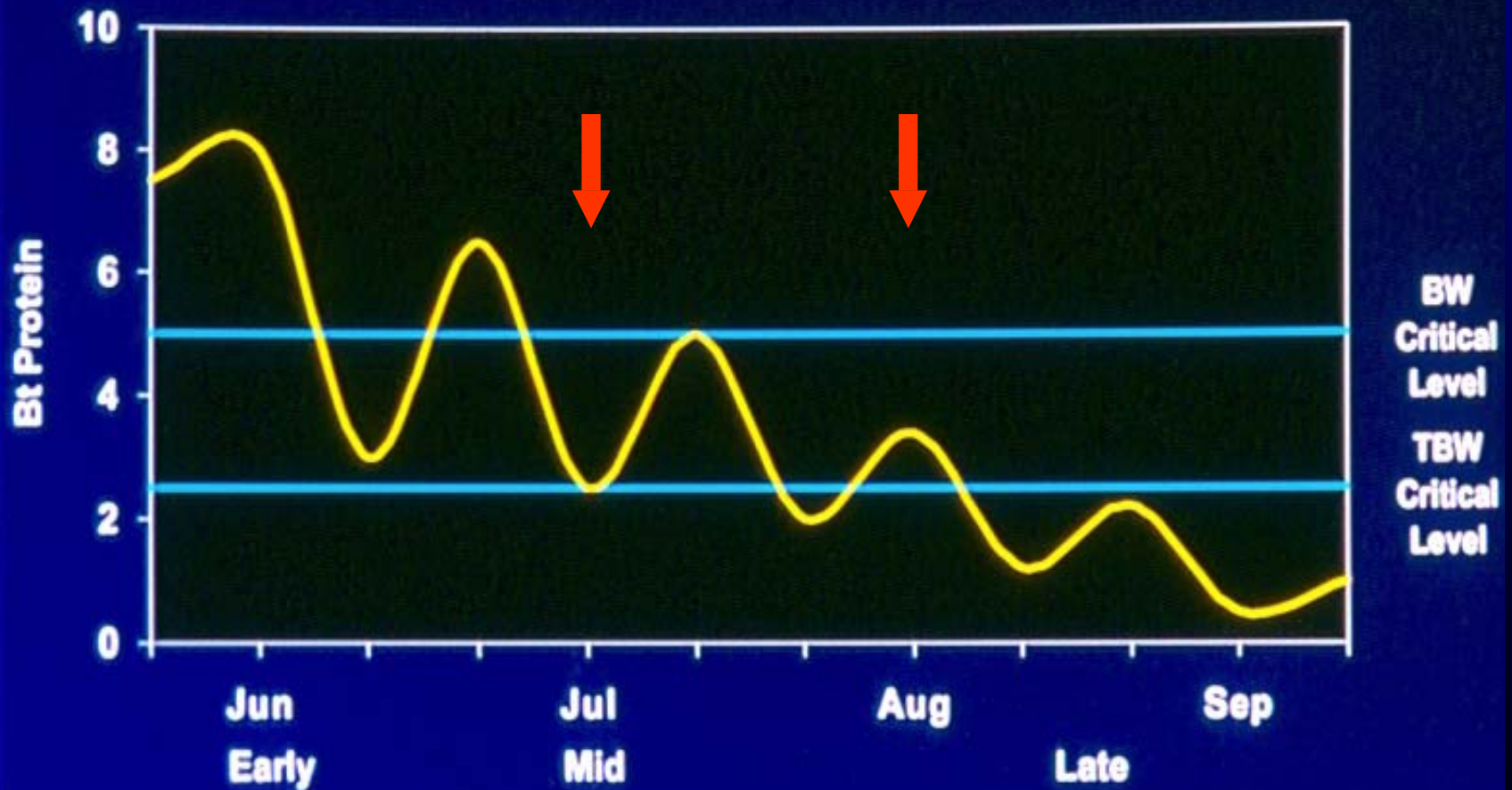
Herbert, 2007

CT07VAR





Hypothetical Degradation Curves for Bt Protein





Turn Row Recommendation
INSECTICIDES ARE
ESSENTIAL TO COTTON IPM
ON BT (BG/BG2/WS)
COTTON



COTTON INCORPORATED



**Building Markets For Cotton and
Cotton Products**

