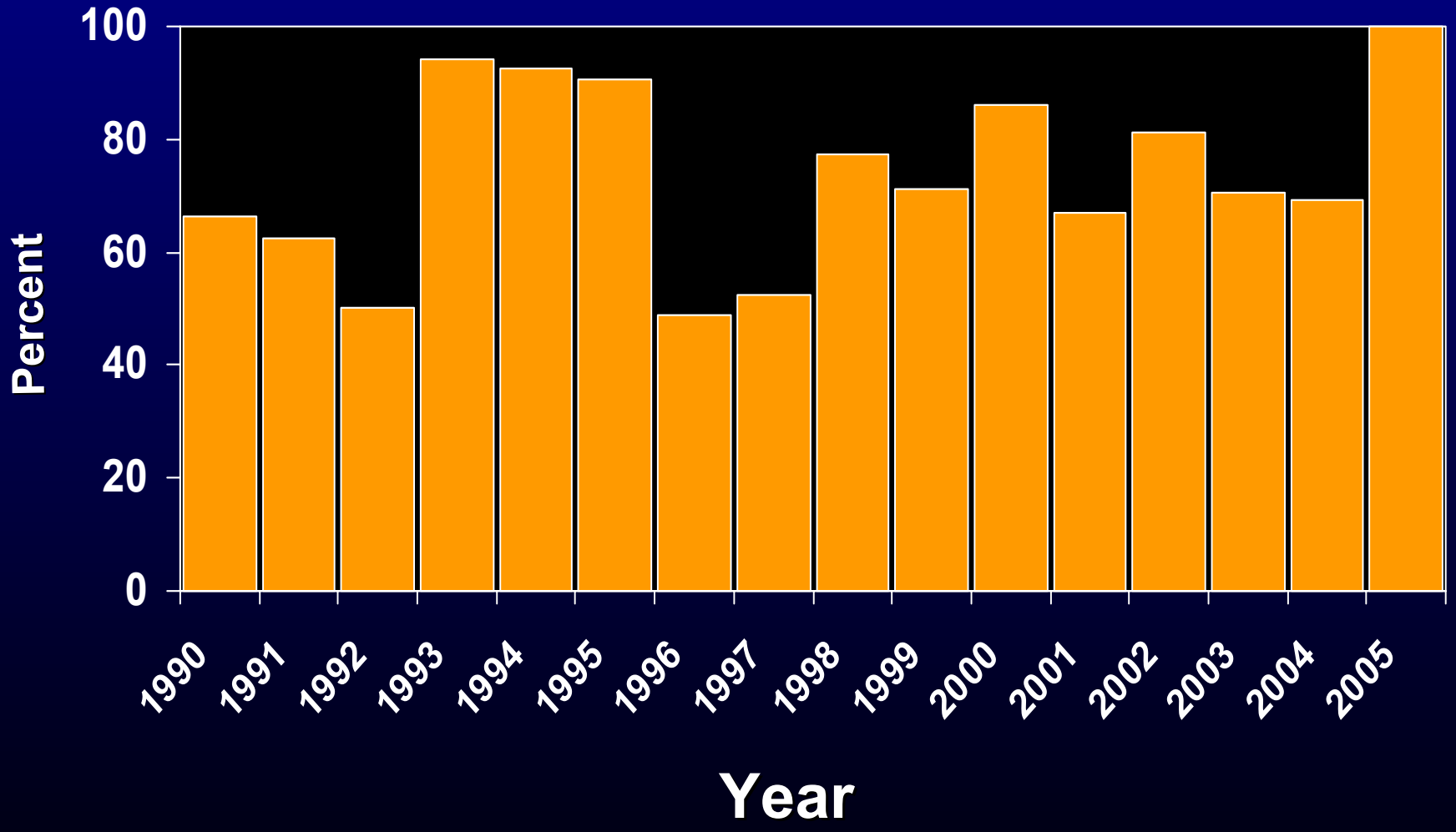
Considerations For IPM Strategies During 2007

LATMC
Cotton Breakout Session

LSU AgCenter
Research & Extension

Cotton Aphid - Infested Acres

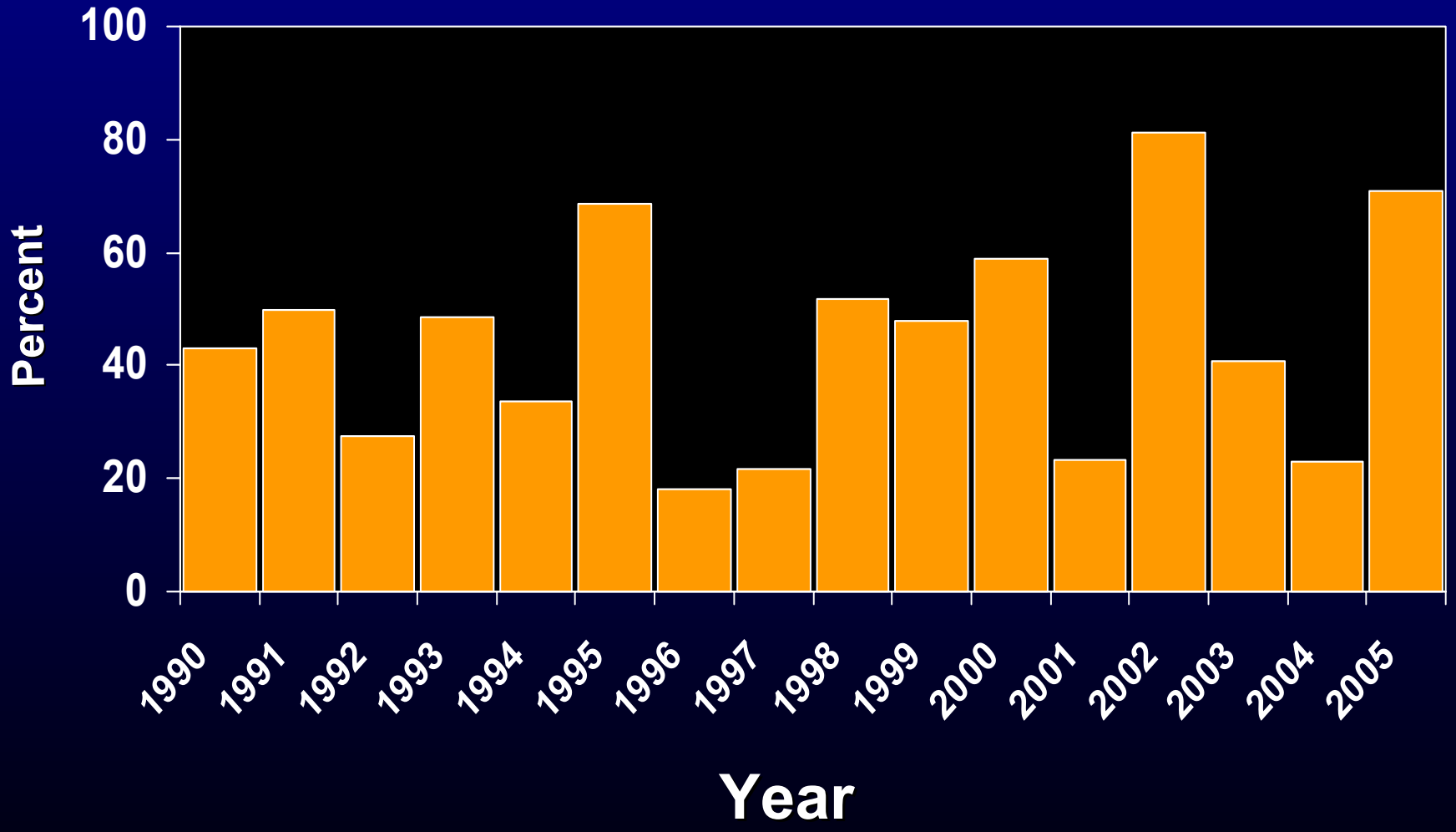
Louisiana



Adapted from Williams et al. Insect Losses Reports, BWCC

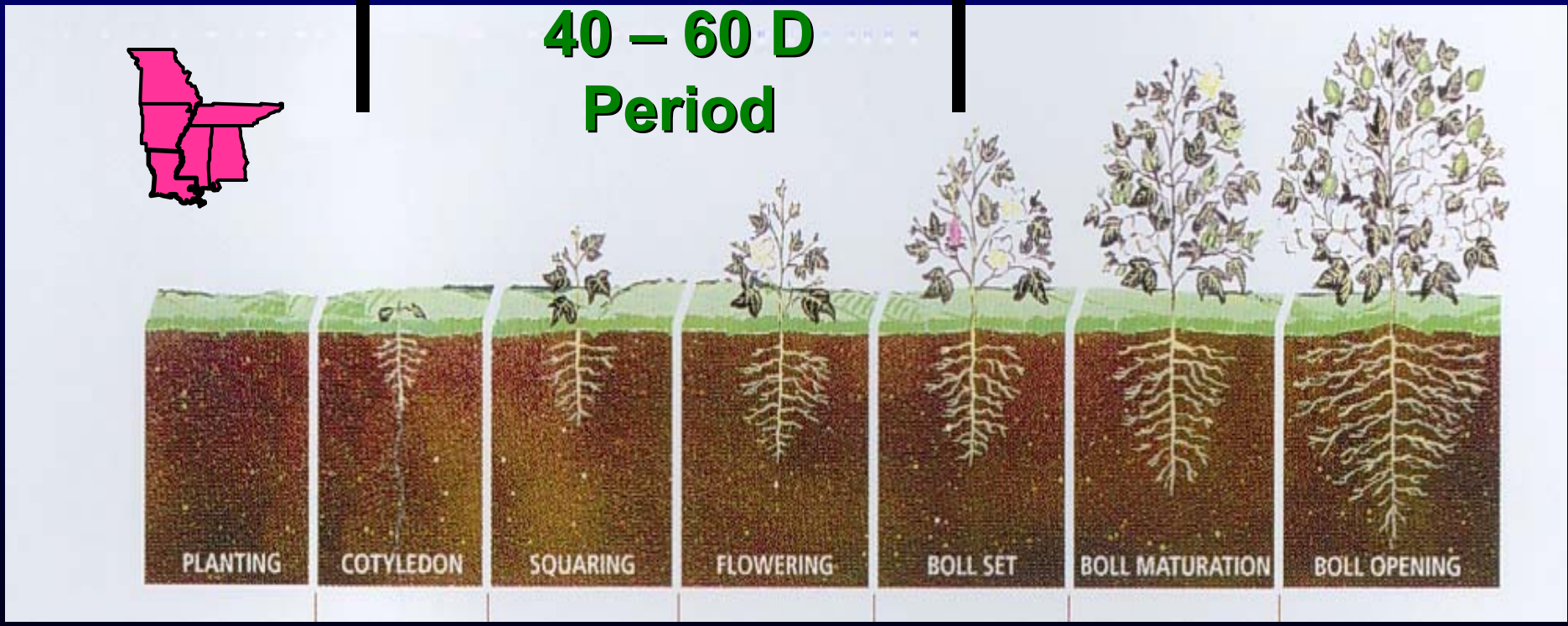
Cotton Aphid - Treated Acres

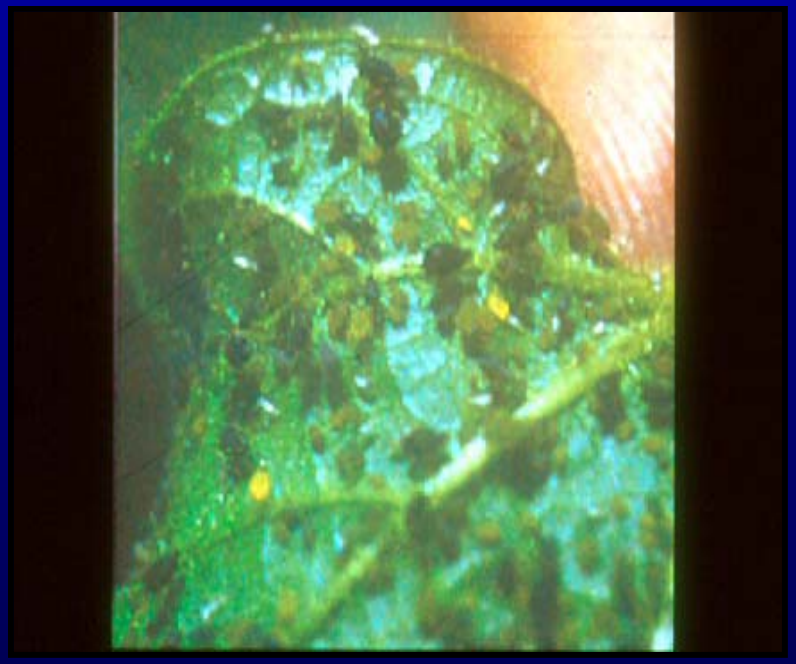
Louisiana



Adapted from Williams et al. Insect Losses Reports, BWCC

Occasional Pest
Full Season Opportunities





- Epizootic From an Insect Pathogen –

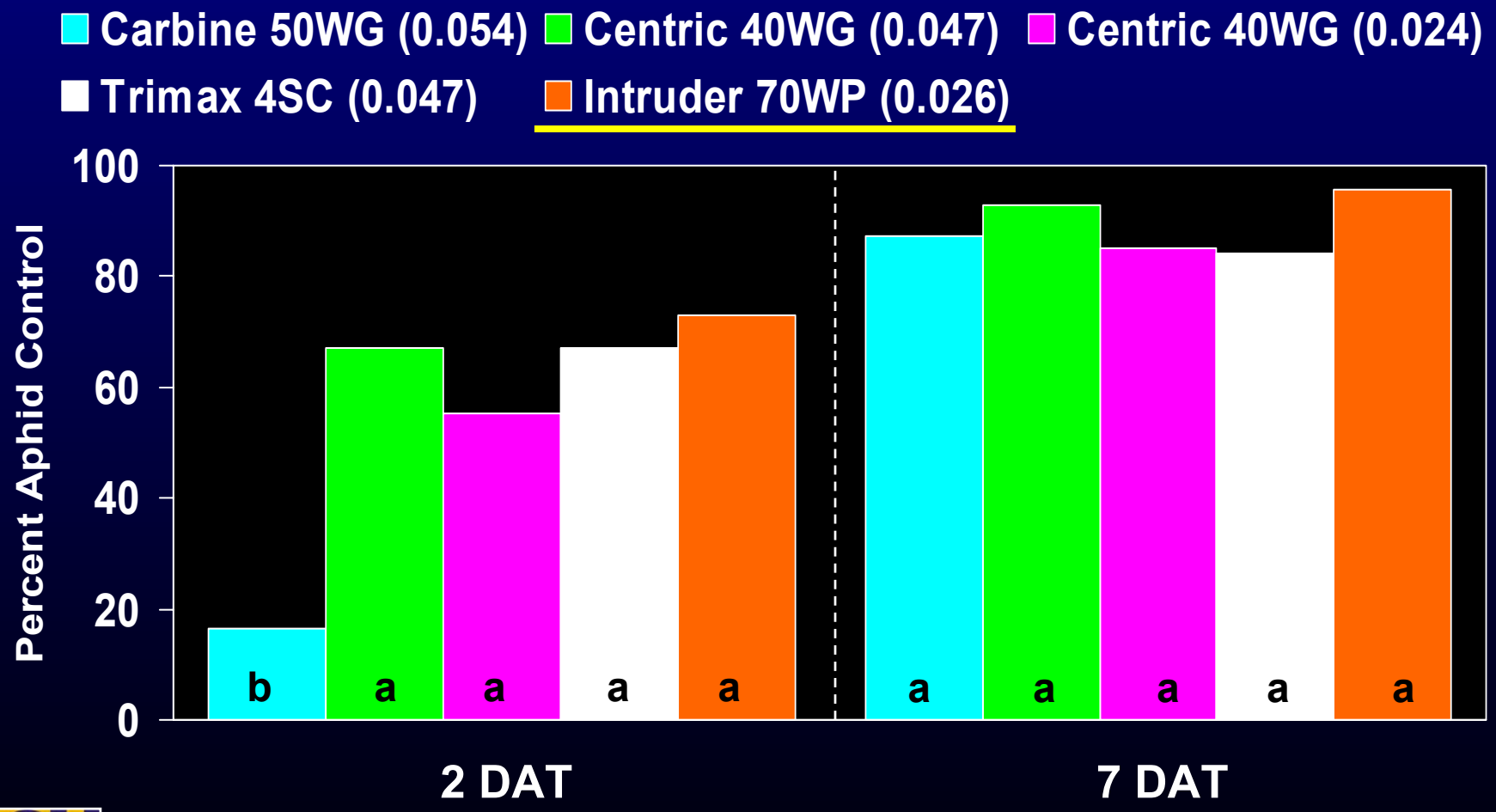
- *Neozygites Fresenii*

Insecticides - Cotton Aphid

- Bidrin 8EC - OP
- Centric 40WG - NEO
- Intruder 70WSP - NEO
- Trimax Pro 4.4SC - NEO
- Carbine 50WG – Pyr Carboxamide

LSU AgCenter Research & Extension

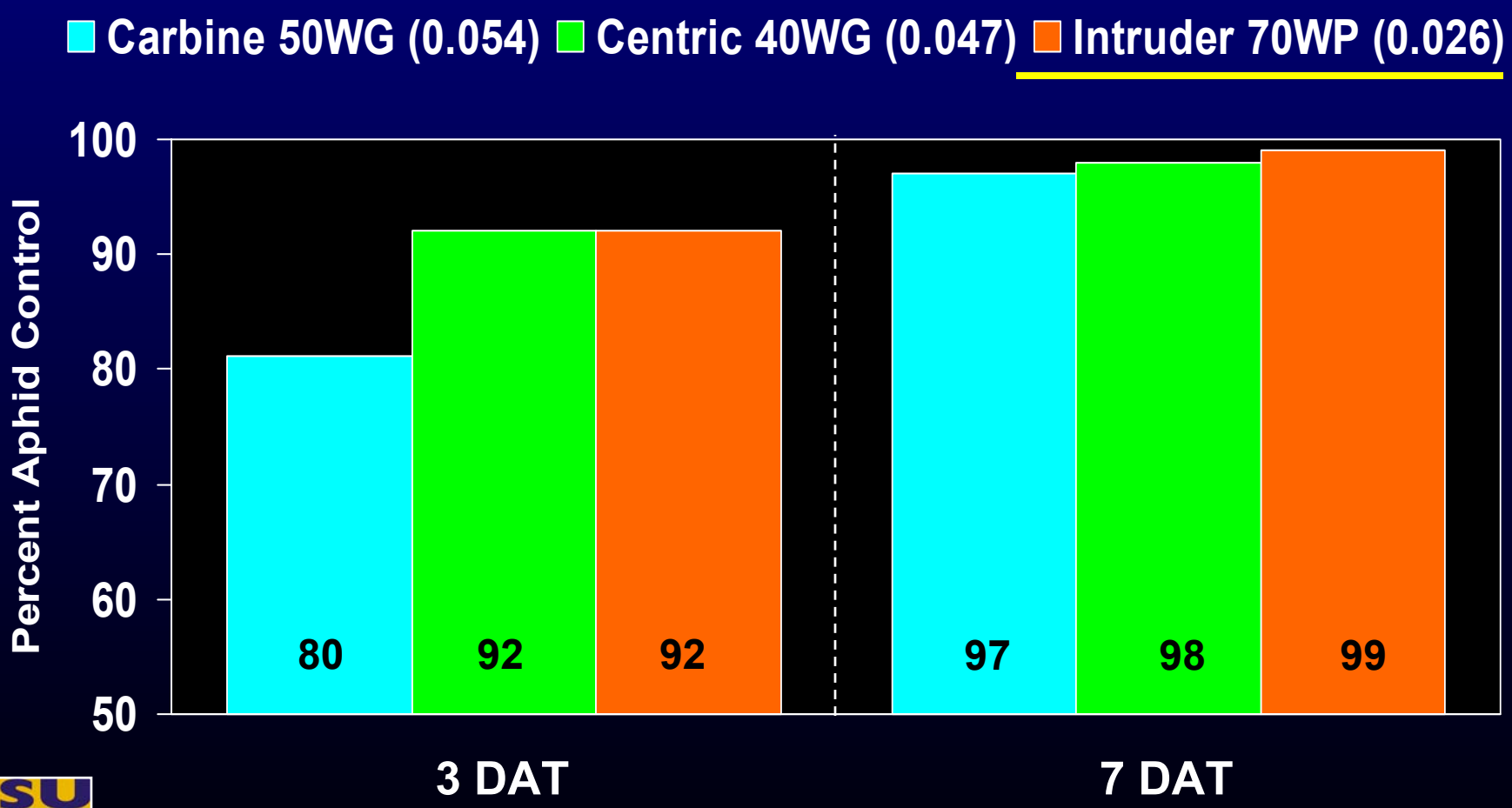
Insecticide Efficacy Against Aphids Mid-Season Trial - PreBloom



LSU AgCenter Research & Extension

MRCT0512A

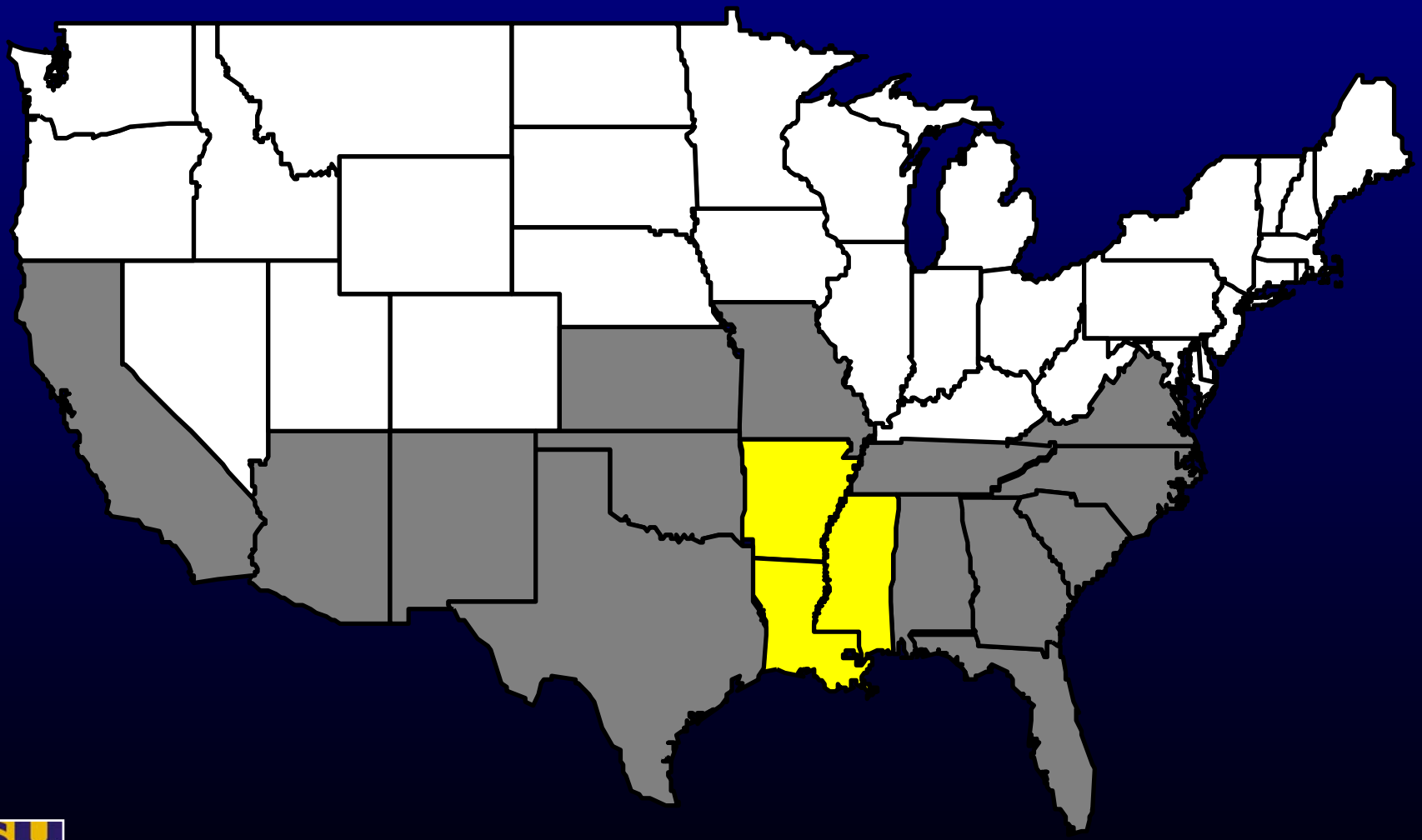
Insecticide Efficacy Against Aphids
Seedling (4-Lf) Cotton – No IST



LSU AgCenter Research & Extension

MRCT0613

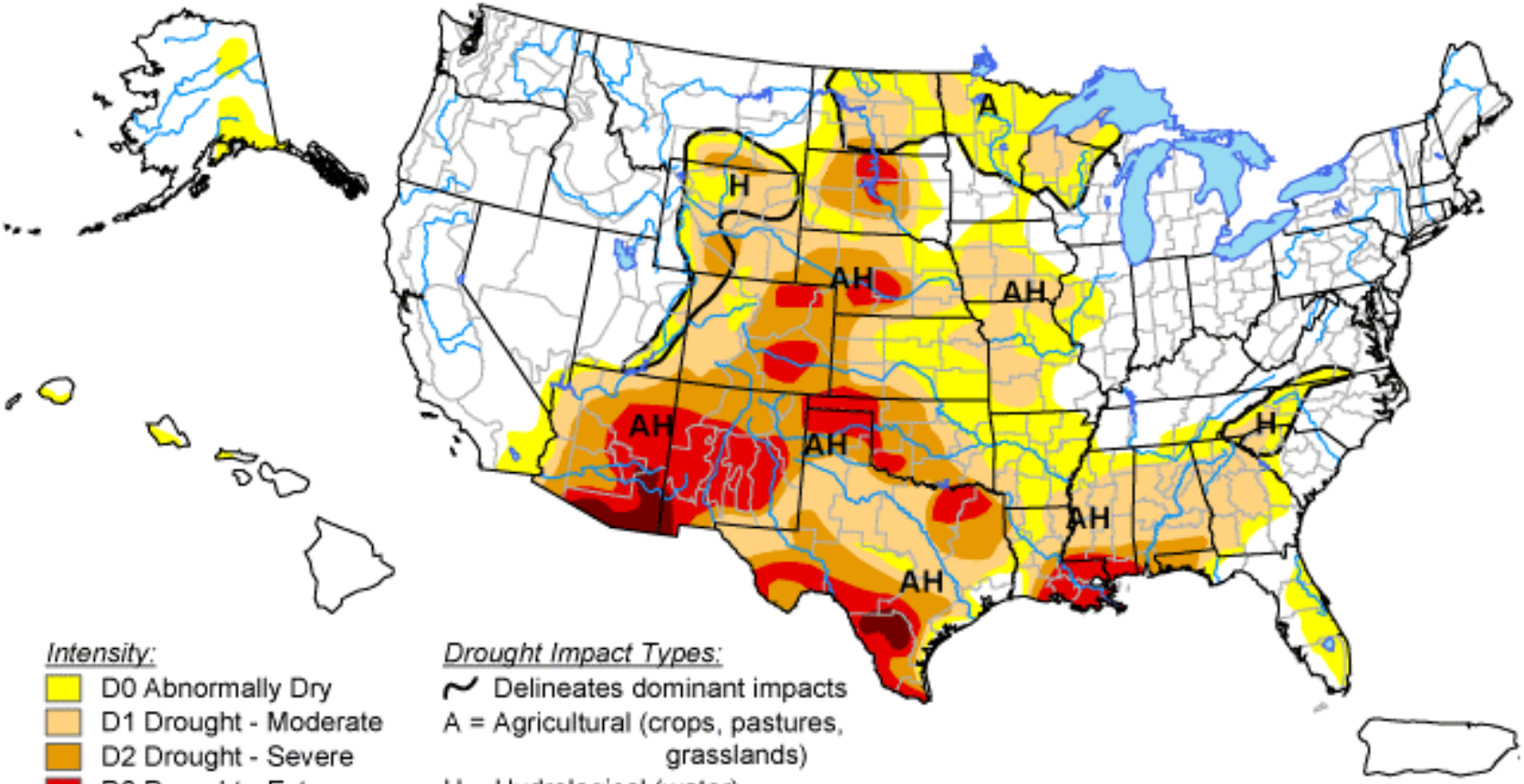
Cotton Aphid Control Issues During 2006



LSU AgCenter Research & Extension

U.S. Drought Monitor

July 4, 2006
Valid 8 a.m. EDT



Intensity:
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:
- Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

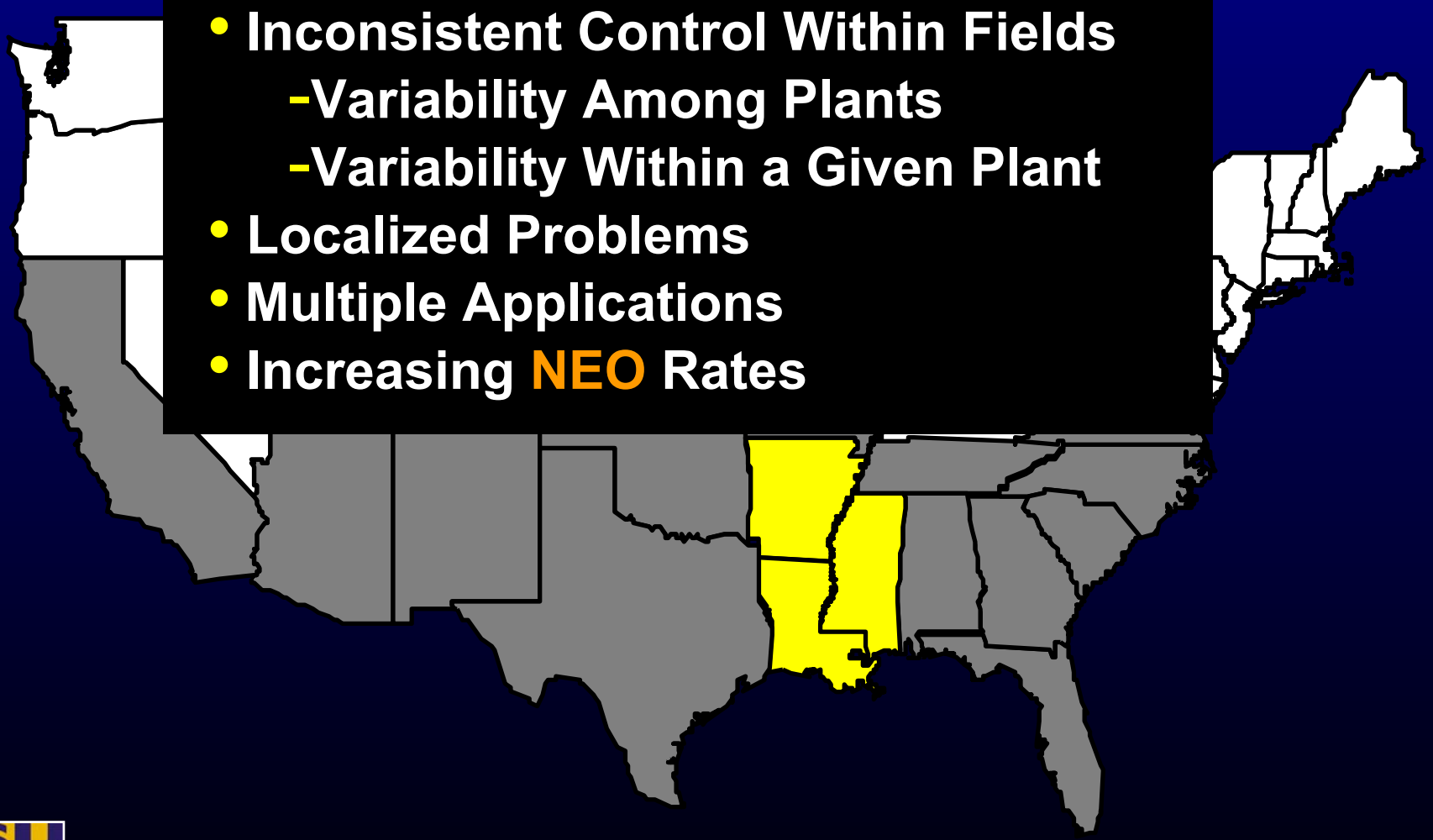
USDA National Drought Mitigation Center

Released Thursday, July 6, 2006

Author: Doug Le Comte and Tom Heddinghaus, CPC/NOAA

http://drought.unl.edu/dm

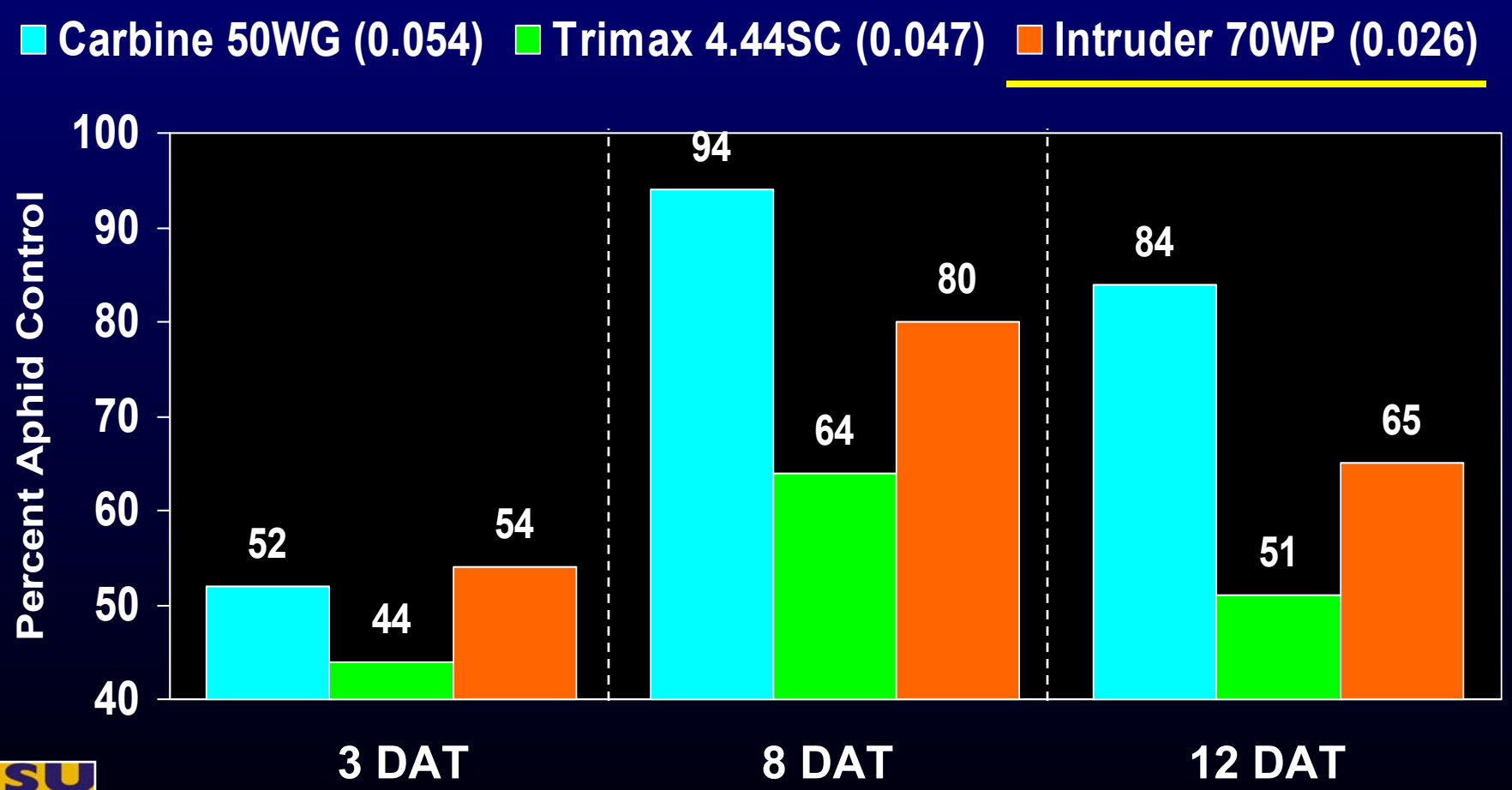
Cotton Aphid Control Issues During 2006



- Inconsistent Control Within Fields
  - -Variability Among Plants
  - -Variability Within a Given Plant
- Localized Problems
- Multiple Applications
- Increasing NEO Rates

LSU AgCenter Research & Extension

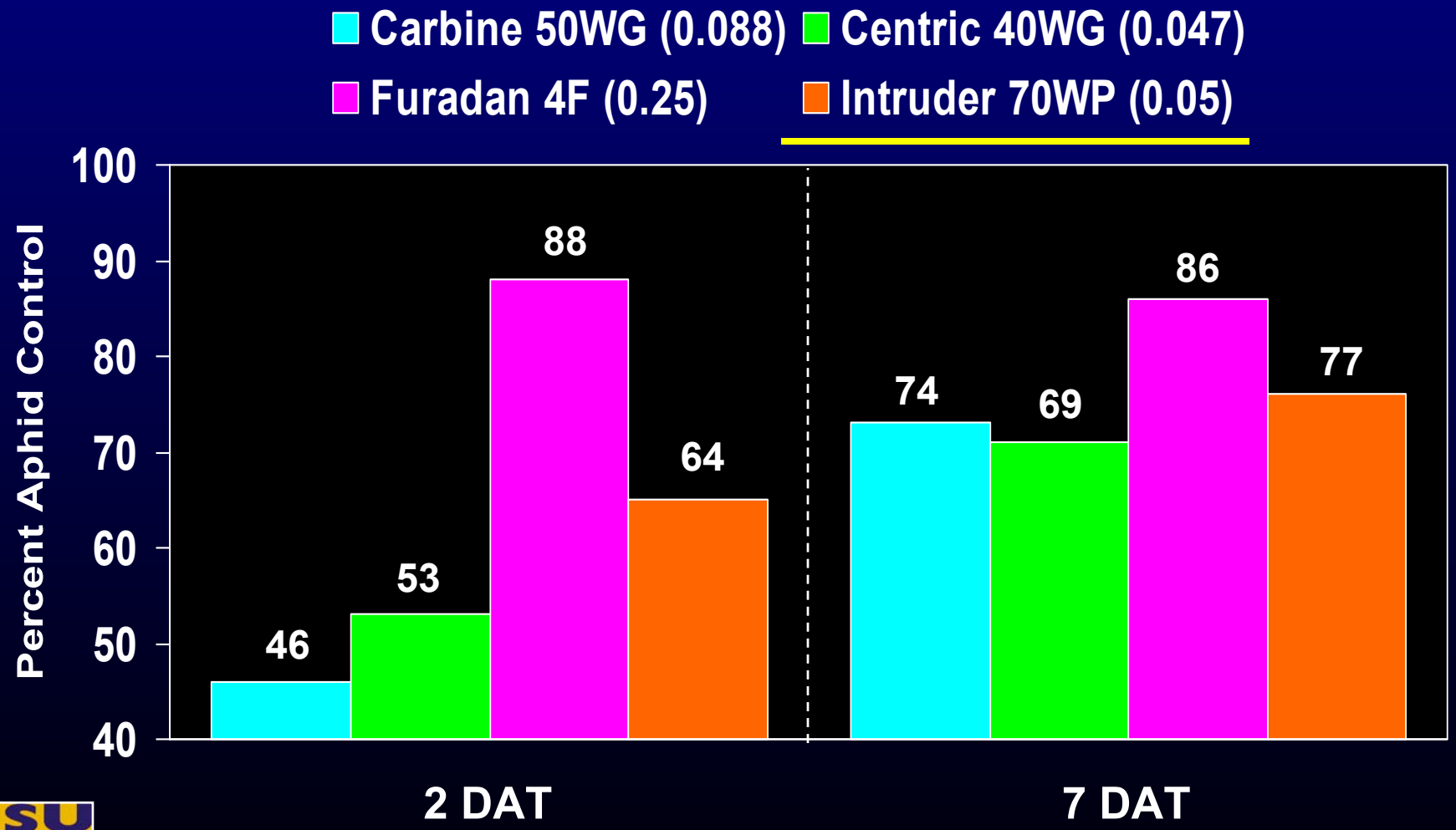
Insecticide Efficacy Against Aphids Mid-Season Pre-Bloom – IST Selected



LSU AgCenter Research & Extension

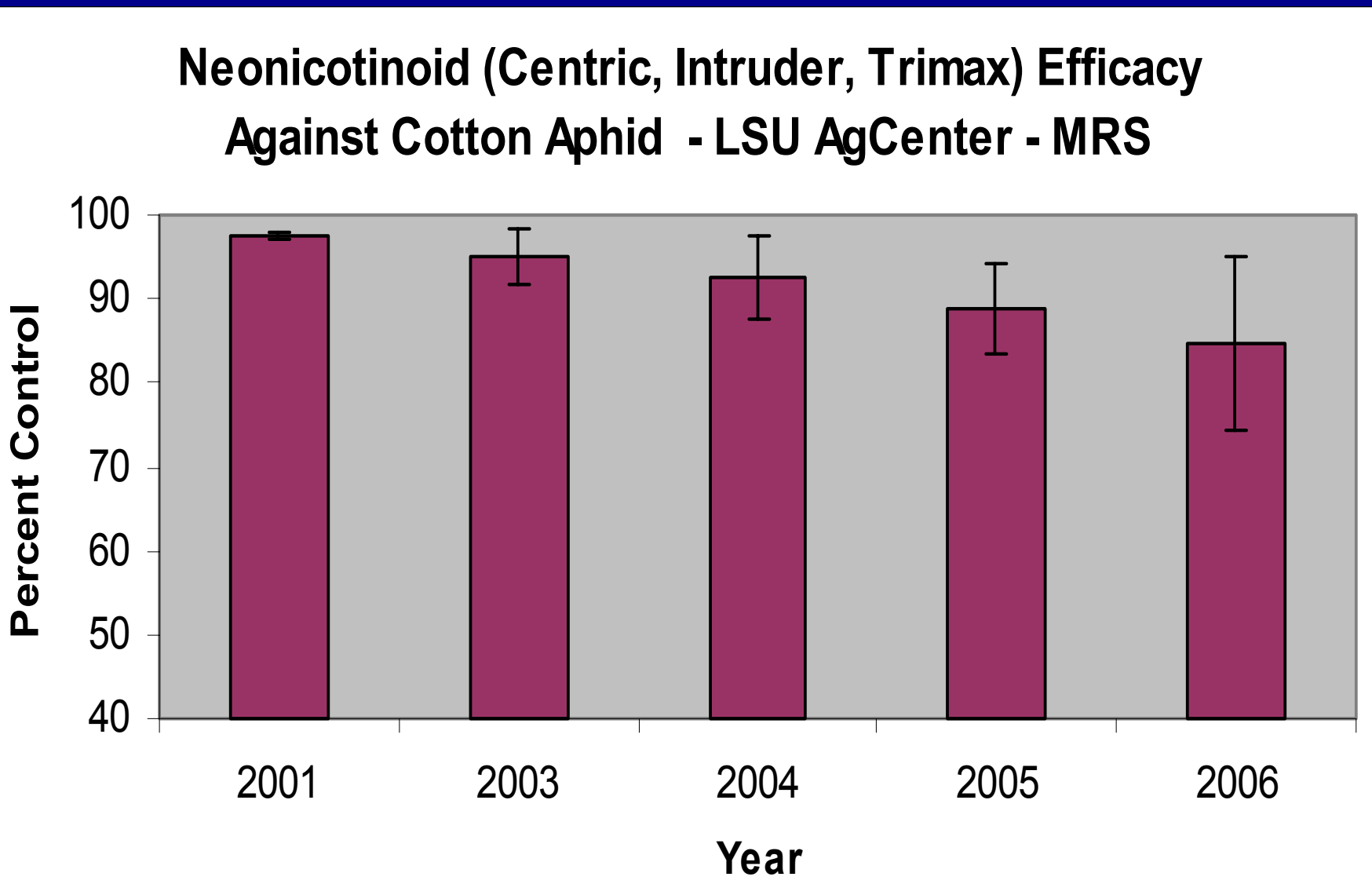
MRCT0611B

Insecticide Efficacy Against Aphids Mid-Season PreBloom – IST Selected

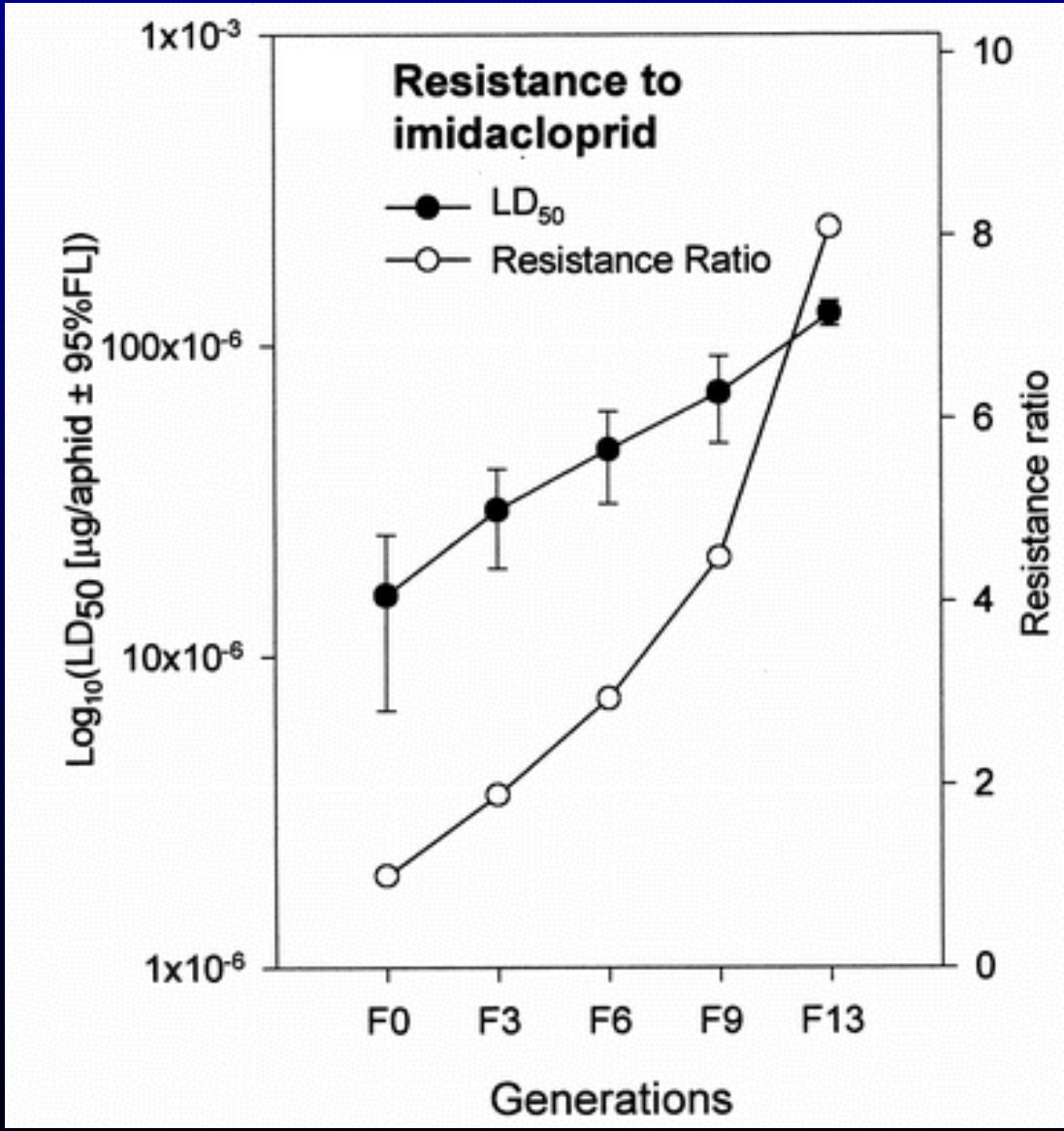


LSU AgCenter Research & Extension

MRCT0611B


Neonicotinoid (Centric, Intruder, Trimax) Efficacy Against Cotton Aphid - LSU AgCenter - MRS
Percent Control
100
90
80
70
60
50
40
2001
2003
2004
2005
2006
Year

Laboratory Selection of Cotton Aphid



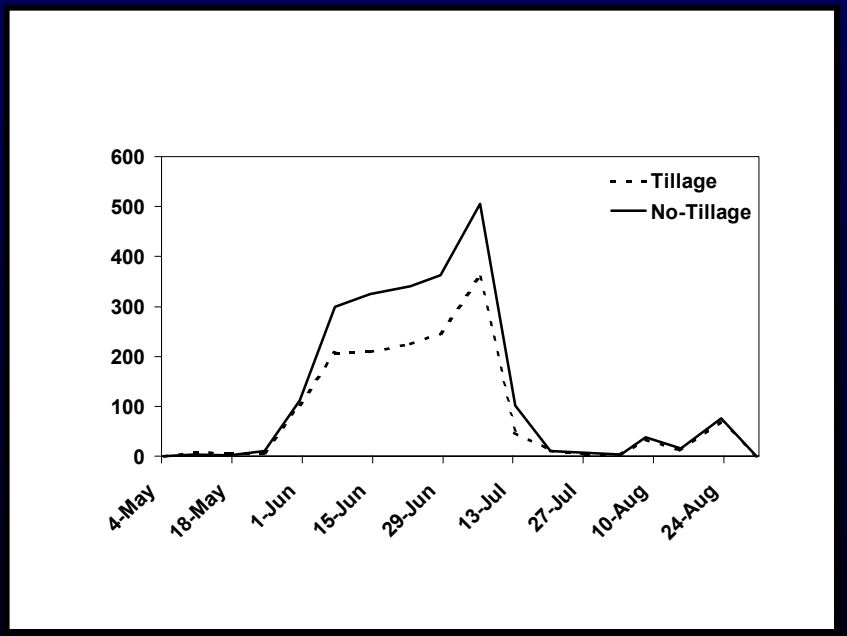
Wang et al. 2002; JEE 95:407-413

Concurrent Factors Influencing Cotton Aphid Dynamics and Insecticide Susceptibility

LSU AgCenter Research & Extension

Concurrent Factors Influencing Cotton Aphid Dynamics

- Reduced Tillage Strategies



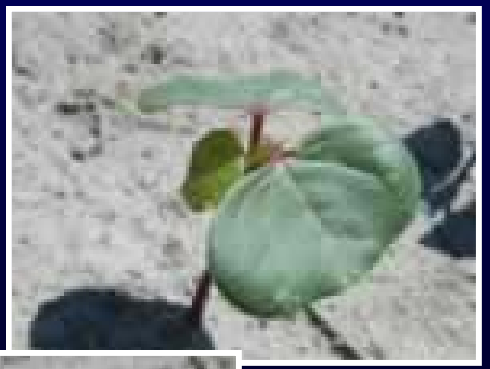
LSU AgCenter Research & Extension

Concurrent Factors Influencing Cotton Aphid Dynamics

- Seed Treatment Adoption

Concurrent Factors Influencing Cotton Aphid Dynamics

- Cotton Aphid Infestation Timing



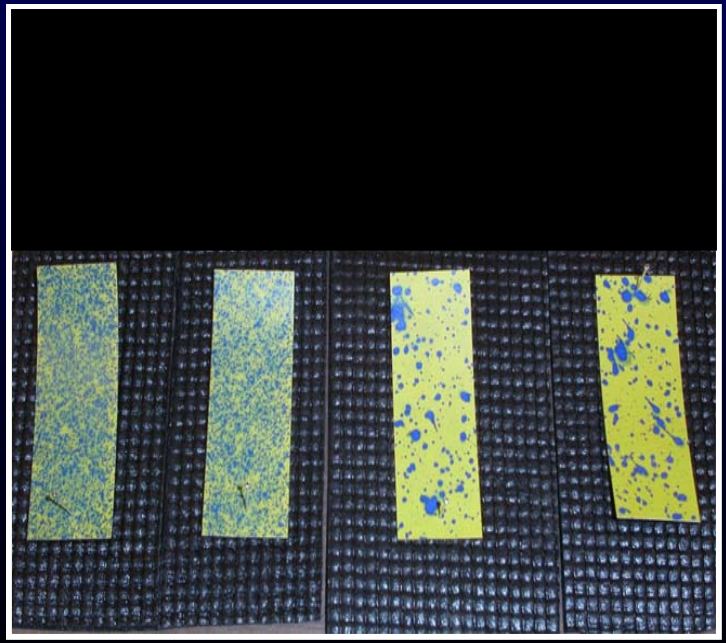
LSU AgCenter Research & Extension

Concurrent Factors Influencing Cotton Aphid Dynamics

- Seed Treatment Adoption
  - OP and PY Sprays on Pre-Square Cotton

Concurrent Factors Influencing Cotton Aphid Dynamics

- Convenience Co-Applications



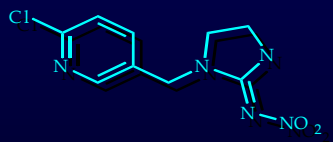
LSU AgCenter Research & Extension

Current Factors Influencing Cotton Aphid Dynamics

- **Single Class Selection**

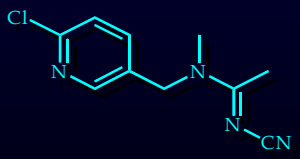
Neo-Nicotinoids

Cruiser, Centric
(Thiamethoxam)



Gaucho, Trimax
(Imidacloprid)

Poncho
(Clothianidin)

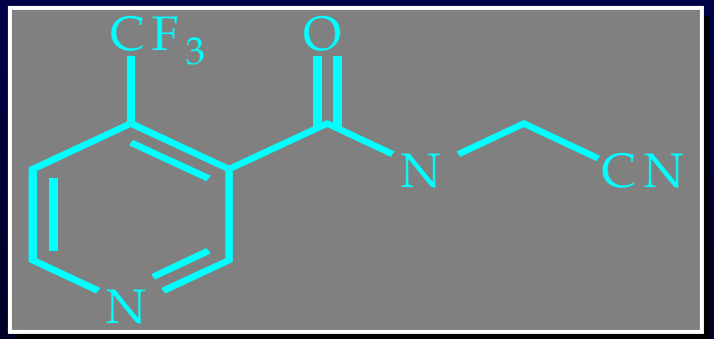


Intruder
(Acetamiprid)

Concurrent Factors Influencing Cotton Aphid Dynamics

- Lack of Available Alternatives

Pyridine Carboxamide



Carbine (Flonicamid)

Cotton Aphid Management

- **Lack of Available Alternatives**
  - **Consider Soil Insecticides**

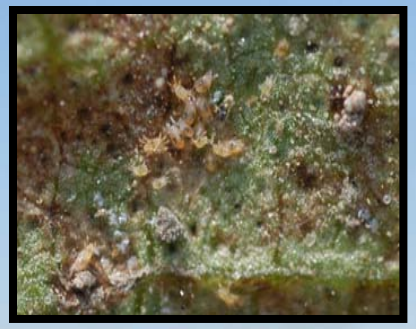
Cotton Aphid Management

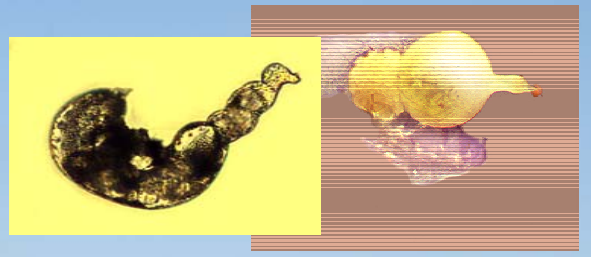
- **Lack of Available Alternatives**
  - Consider Soil Insecticides
  - Limit Early Season Foliar Sprays

- No Automatic Applications – Plant Stage or Calendar
- Restrict Co-Applications with Herbicides
- Select Insecticides Carefully

Cotton Aphid Management

- **Lack of Available Alternatives**
  - Consider Soil Insecticides
  - Limit Early Season Foliar Sprays
  - Consider Side-Dress Applications





Cotton Aphid Management

- **Lack of Available Alternatives**
  - Consider Soil Insecticides
  - Limit Early Season Foliar Sprays
  - Consider Side-Dress Applications
  - **Use Maximum Rates of Aphicides**

Summary

- Neo Susceptibility Changed – 2006.
- Problem Will Likely Evolve.
- Limited Alternatives - Intensify Problem.
- No Simple Solution.

LSU AgCenter Research & Extension

LSU AgCenter
Research & Extension

COTTON INCORPORATED

Building Markets For Cotton and Cotton Products