

# Emerging Technologies and Production Practices for MidSouth Cotton

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# Discussion Topics

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- **Evolving “Farmscape”**
- **Agronomic Practices**
- **Conventional Pesticide Strategies**
- **Transgenic Technologies**
- **Sources of Information**

# Landscape Factors On/And Around Farms

An aerial photograph of a farm landscape. The foreground is dominated by large, rectangular green fields, likely corn, separated by dirt roads. In the middle ground, there are smaller fields in various colors (yellow, brown, green) and a cluster of buildings, possibly a farmstead. A large, white, dome-shaped structure is visible on the left side. The background shows more fields and a road that curves through the landscape.

- **Pest distribution and abundance Across Crops**

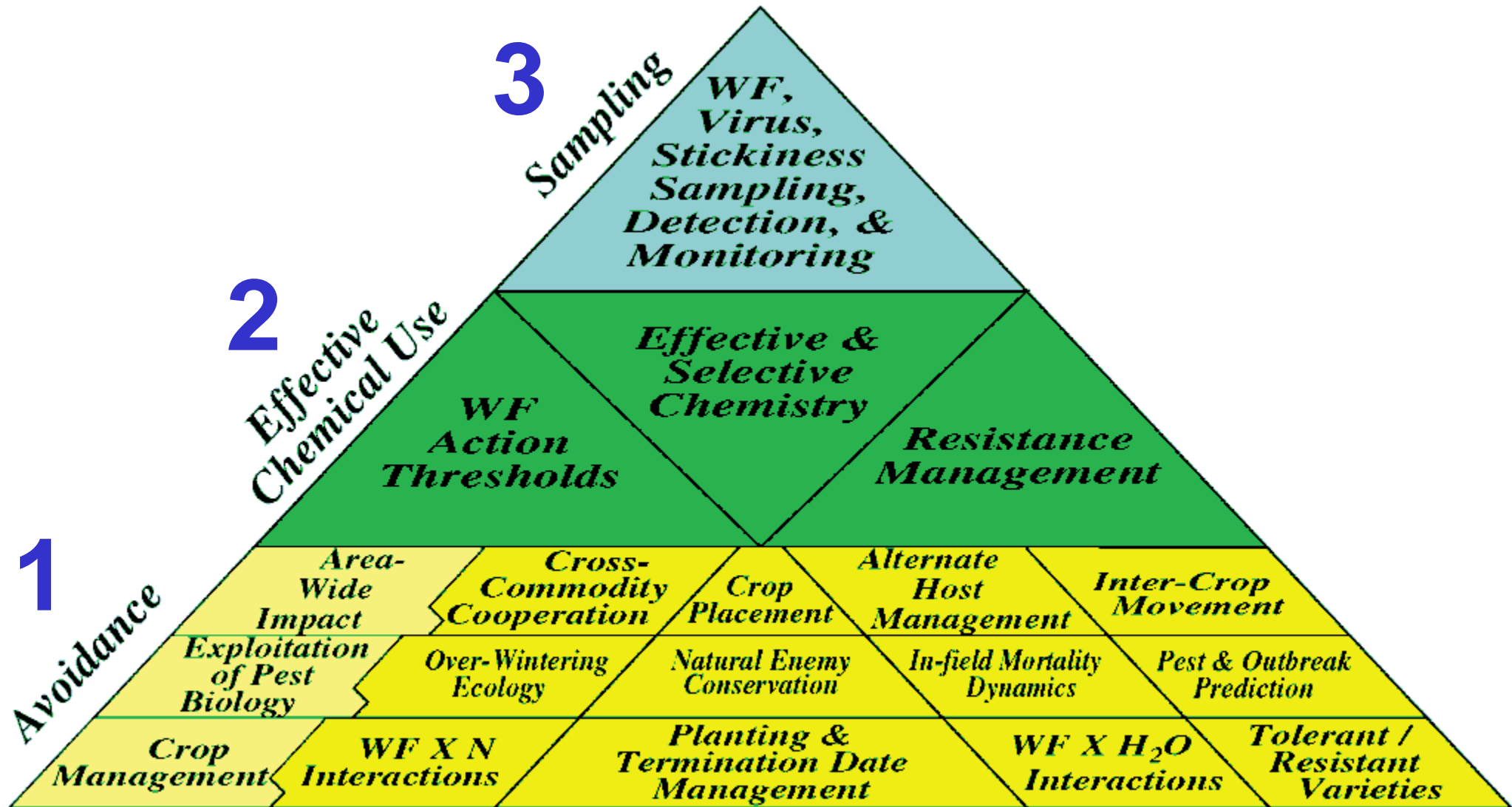
# Mid-South Farmscape Components



# Successful Pest Management

# Cotton

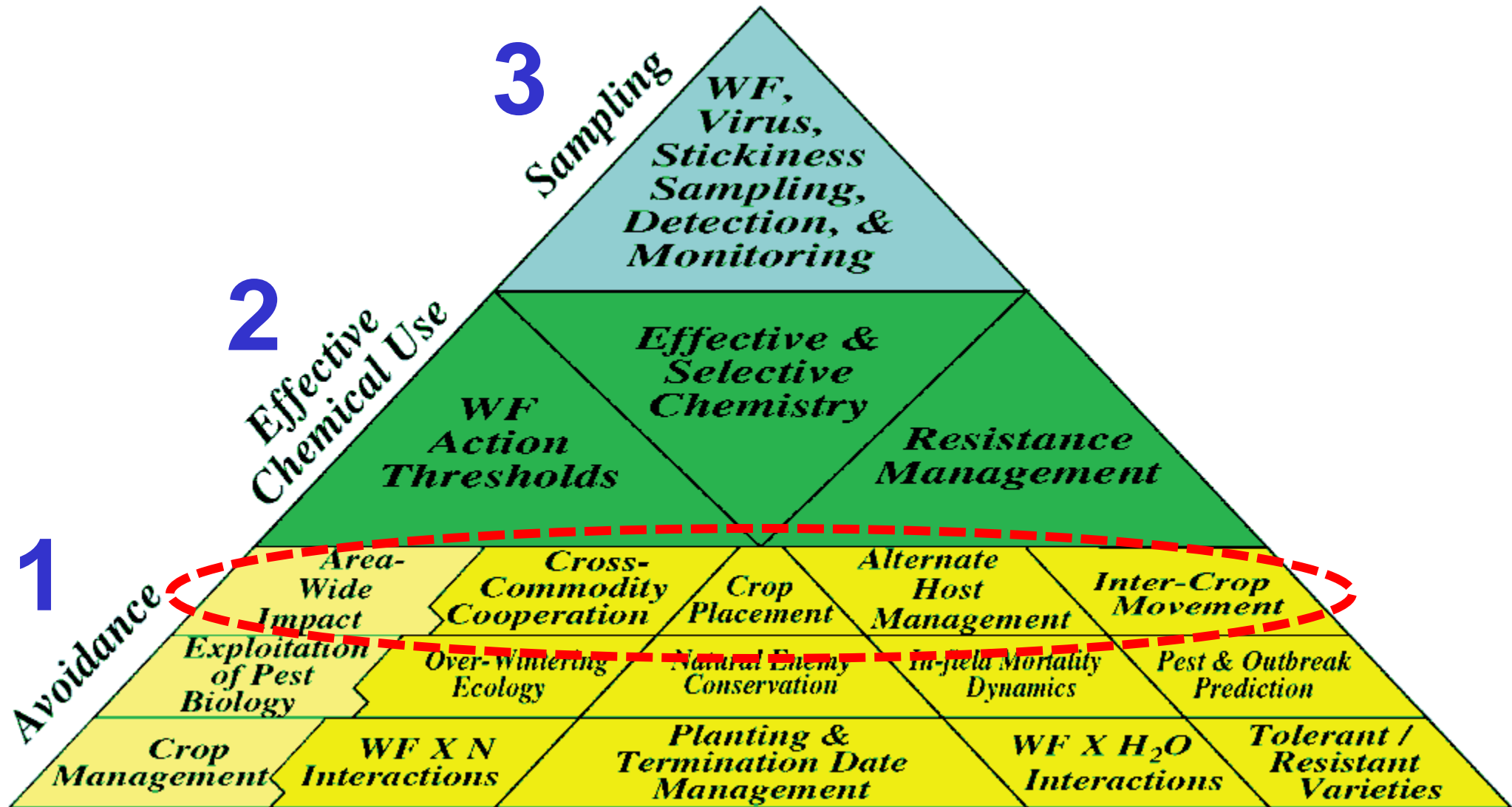
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# Successful Pest Management

# Cotton

...depends on integration



# Integration: Landscapes vs Pests

Transgenic  
Crops  
Bt cotton/corn

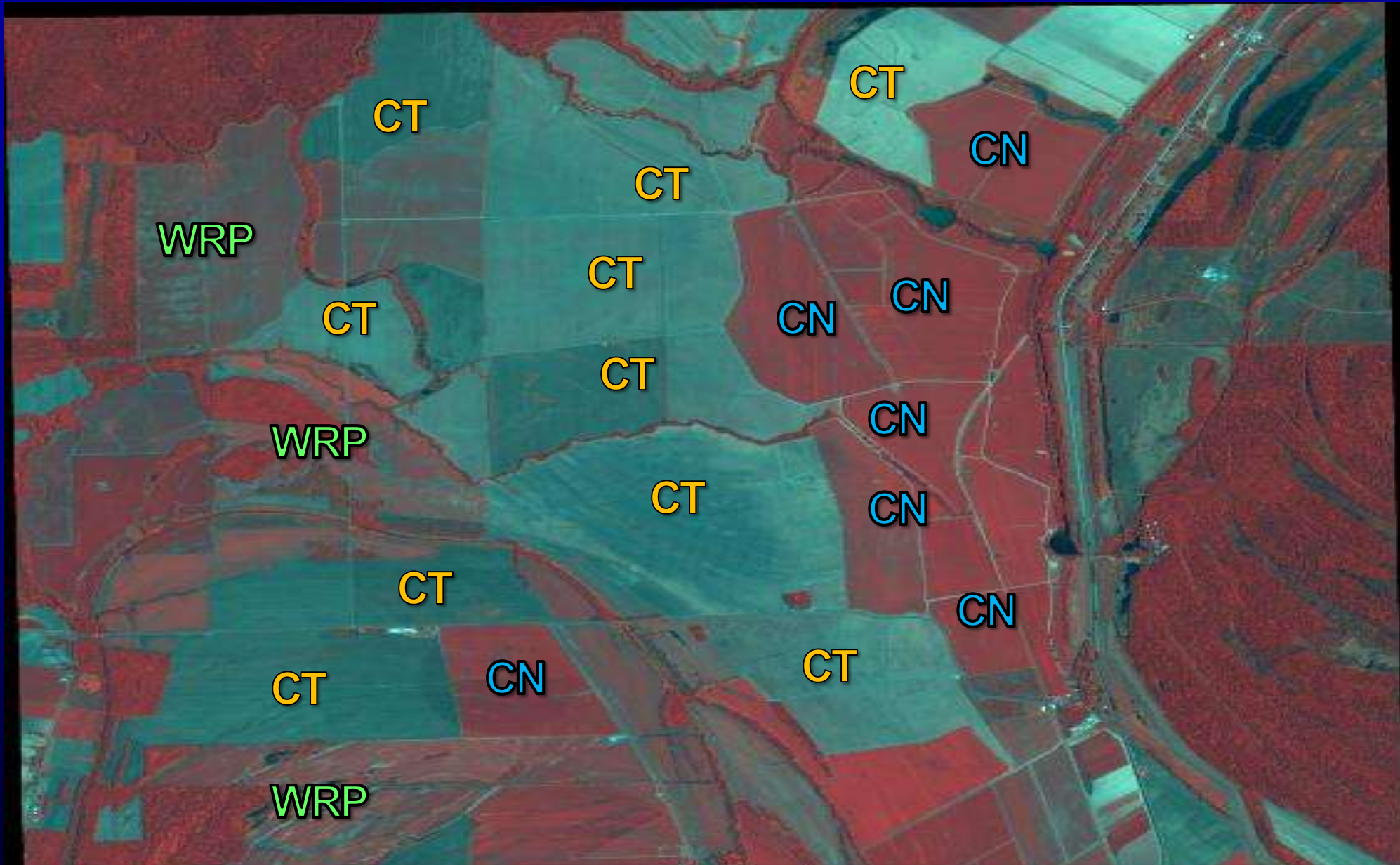
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**Across Landscape**

Tarnished Plant  
Bugs in non-  
crop habitats

T. Plant Bugs in  
crop habitats

Insecticide Selection  
and Rotation Across  
Crops



▶ **Successful IPM Starts With Crop Planting Patterns**



# Weed Resistance and Herbicide Use Strategies





**Insecticides Will Remain An Essential Component Of Cotton  
IPM For The Foreseeable Future**

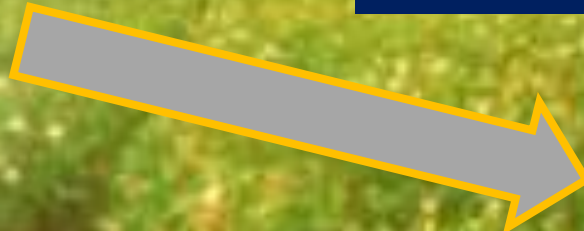
# Novel Insecticides/Acaricides

Common	Trade	Company
<b>Chlorantraniliprole (Rynaxypyr)</b>	Coragen	DuPont
<b>Flubendiamide</b>	Belt	Bayer CropScience
<b>Abamectin</b>	Zoro	Cheminova
<b>Fenpyroximate</b>	Portal	Nichino America, Inc

# Insecticide Combinations

Name	Compounds	Company
Leverage	Cyfluthrin + imidacloprid	Bayer CropScience
Endigo	Lambda-cyhalothrin + Thiamethoxam	Syngenta
Bidrin XP	Bifenthrin + dicrotophos	Amvac
Cobalt	Gamma-cyhalothrin + Chlorpyrifos	Dow AgroSciences
EXP's	SP + Alternate Chemistry	Generics

# Sampling Protocols and Action Thresholds



Regional Projects

“Dirty Squares” – Evidence of Feeding



# Herbicides, Insecticides, and Co-Applications



TeeJet AI11003



ConeJet TX-12





# Prescription Treatments

# Are Field Border Effects Important?





# Evolution of Commercialized Bt Cotton

1996  
Bollgard  
Single gene  
*cry1Ac*  
(endotoxin)

2003  
Bollgard II  
Stacked genes  
*cry1Ac* + *cry2Ab*  
(endotoxins)

2005  
Widestrike  
Stacked genes  
*cry1Ac* + *cry1f*  
(endotoxins)

2009  
VipCot  
Novel Protein  
*Vip3A* + *cry1Ab*  
(exo/endotoxins)

≈2012  
TwinLink  
Stacked  
Proteins

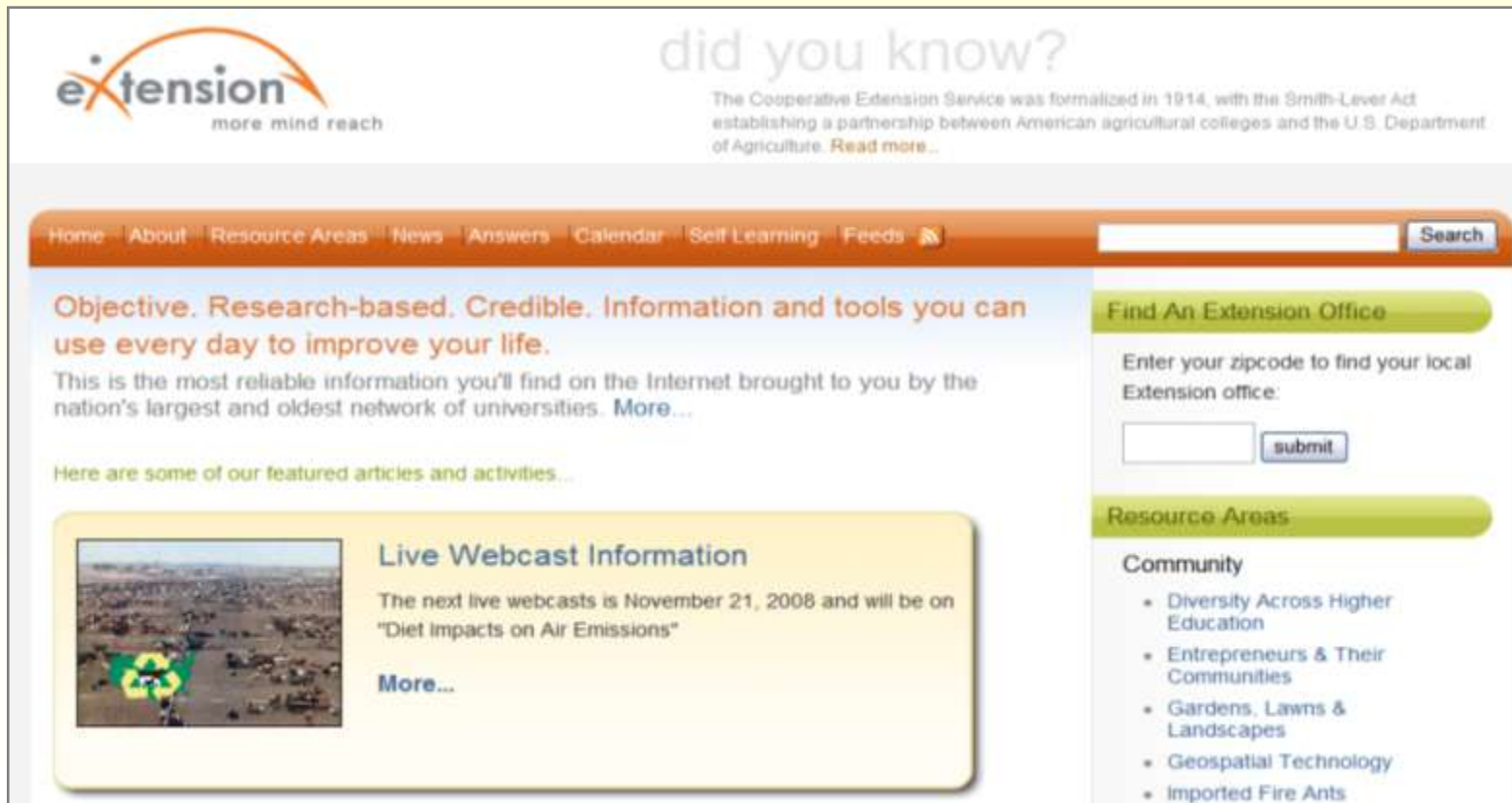


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# Information Technology and Acquisition

- IPM Web Resources
  - Pest ID, Control recommendations
  - Conferencing, on-line databases, etc.



The screenshot shows the homepage of the Extension website. At the top left is the logo for "extension" with the tagline "more mind reach". To the right, a "did you know?" section provides historical context about the Cooperative Extension Service, established in 1914. Below the header is a navigation bar with links for Home, About, Resource Areas, News, Answers, Calendar, Self Learning, and Feeds. A search bar is located on the right side of the navigation bar. The main content area features a central message: "Objective. Research-based. Credible. Information and tools you can use every day to improve your life." This is followed by a paragraph stating that the site is the most reliable information on the Internet, brought to you by the nation's largest and oldest network of universities. Below this, a section titled "Here are some of our featured articles and activities..." highlights a "Live Webcast Information" for November 21, 2008, about "Diet Impacts on Air Emissions". On the right side, there are two green buttons: "Find An Extension Office" and "Resource Areas". Under "Find An Extension Office", there is a form to enter a zip code and a "submit" button. Under "Resource Areas", there is a "Community" section with a list of topics: Diversity Across Higher Education, Entrepreneurs & Their Communities, Gardens, Lawns & Landscapes, Geospatial Technology, and Imported Fire Ants.

**extension**  
more mind reach

did you know?  
The Cooperative Extension Service was formalized in 1914, with the Smith-Lever Act establishing a partnership between American agricultural colleges and the U.S. Department of Agriculture. [Read more...](#)

Home | About | Resource Areas | News | Answers | Calendar | Self Learning | Feeds |

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[More...](#)

**Find An Extension Office**  
Enter your zipcode to find your local Extension office:

**Resource Areas**

**Community**

- Diversity Across Higher Education
- Entrepreneurs & Their Communities
- Gardens, Lawns & Landscapes
- Geospatial Technology
- Imported Fire Ants

# Summary

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- **Consideration of Farmscape IPM**
- **Agronomy and Weed RST - Strong Effects**
- **Insecticide Development is Continuous**
- **More Options for Transgenes**
- **Sources of Production / IPM Information**

**Only Integrated PM is Sustainable**

# Louisiana Cotton Producers Association



## COTTON INCORPORATED



## Building Markets For Cotton And Cotton Products