

Emerging Technologies and Production Practices for MidSouth Cotton

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Discussion Topics

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

Landscape Factors On/And Around Farms

An aerial photograph of a rural landscape. The foreground is dominated by large, rectangular green fields, likely corn. A dirt road runs horizontally across the middle of the frame. Above the road, there are more fields in various shades of green, yellow, and brown, indicating different crops or stages of growth. A large, white, circular structure, possibly a silo or a covered area, is visible on the left side. In the background, a highway with multiple lanes runs diagonally from the top right towards the center. The overall scene depicts a typical agricultural landscape.

- **Pest distribution and abundance Across Crops**

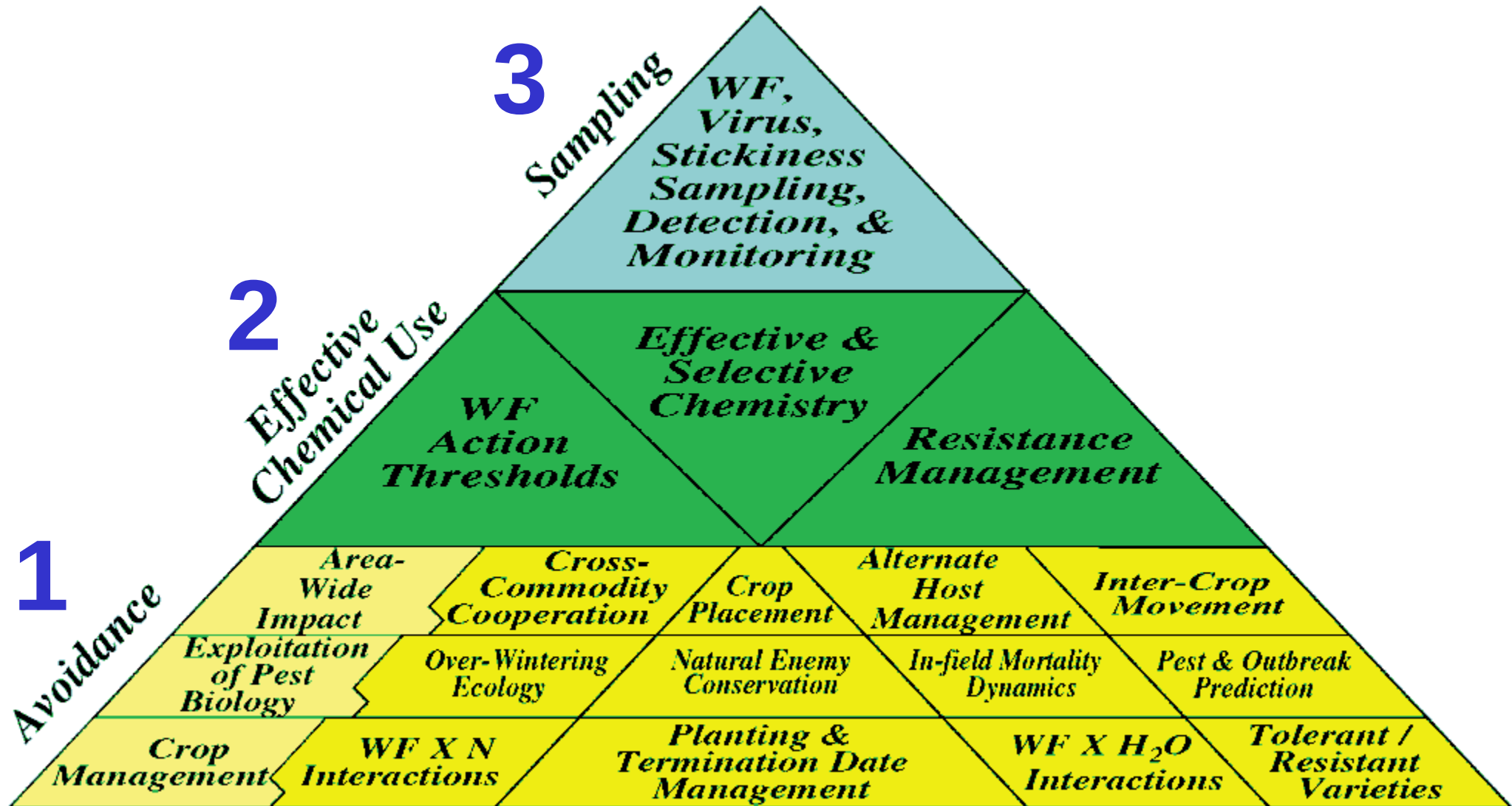
Mid-South Farmscape Components



Successful Pest Management

Cotton

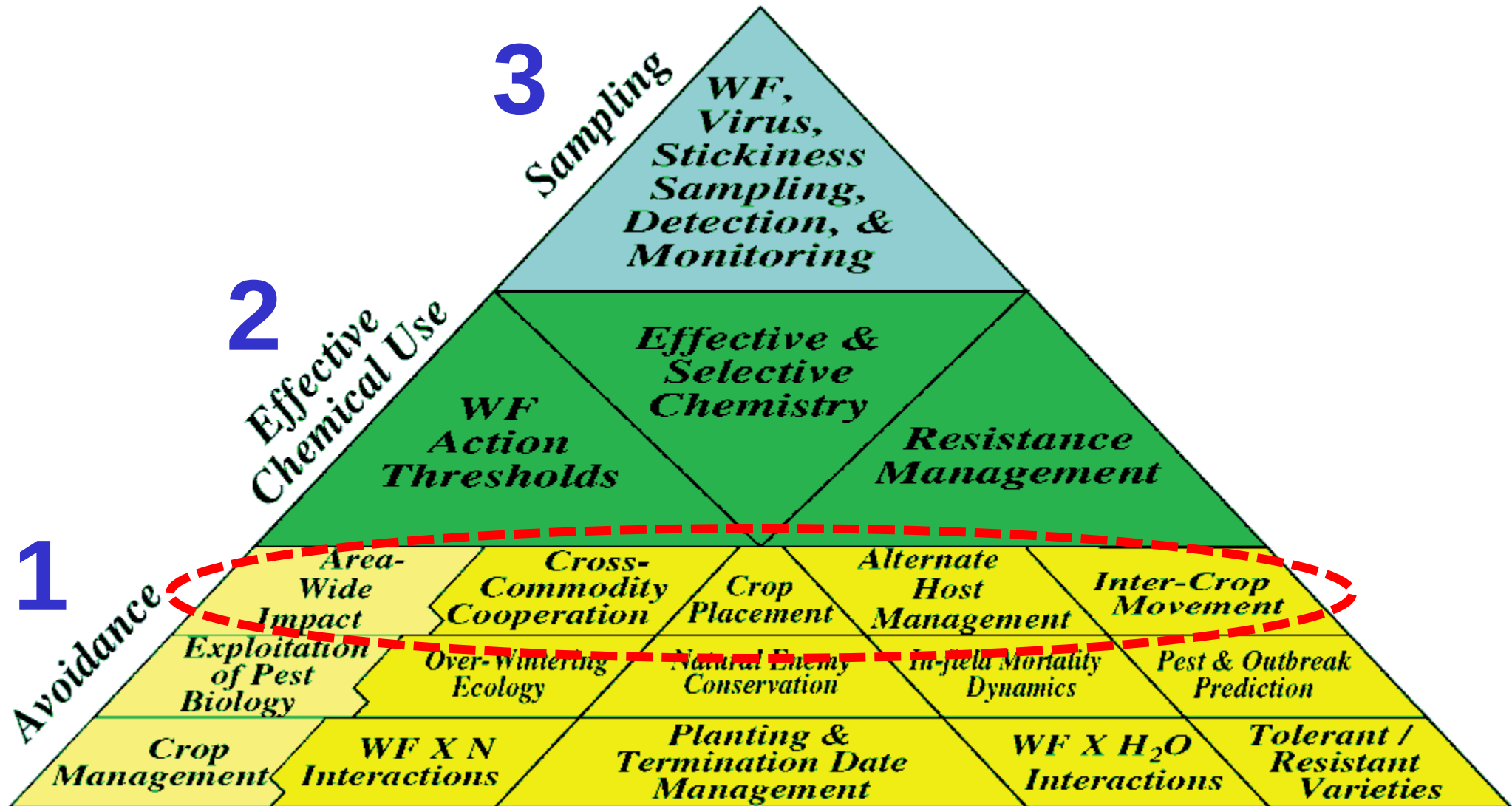
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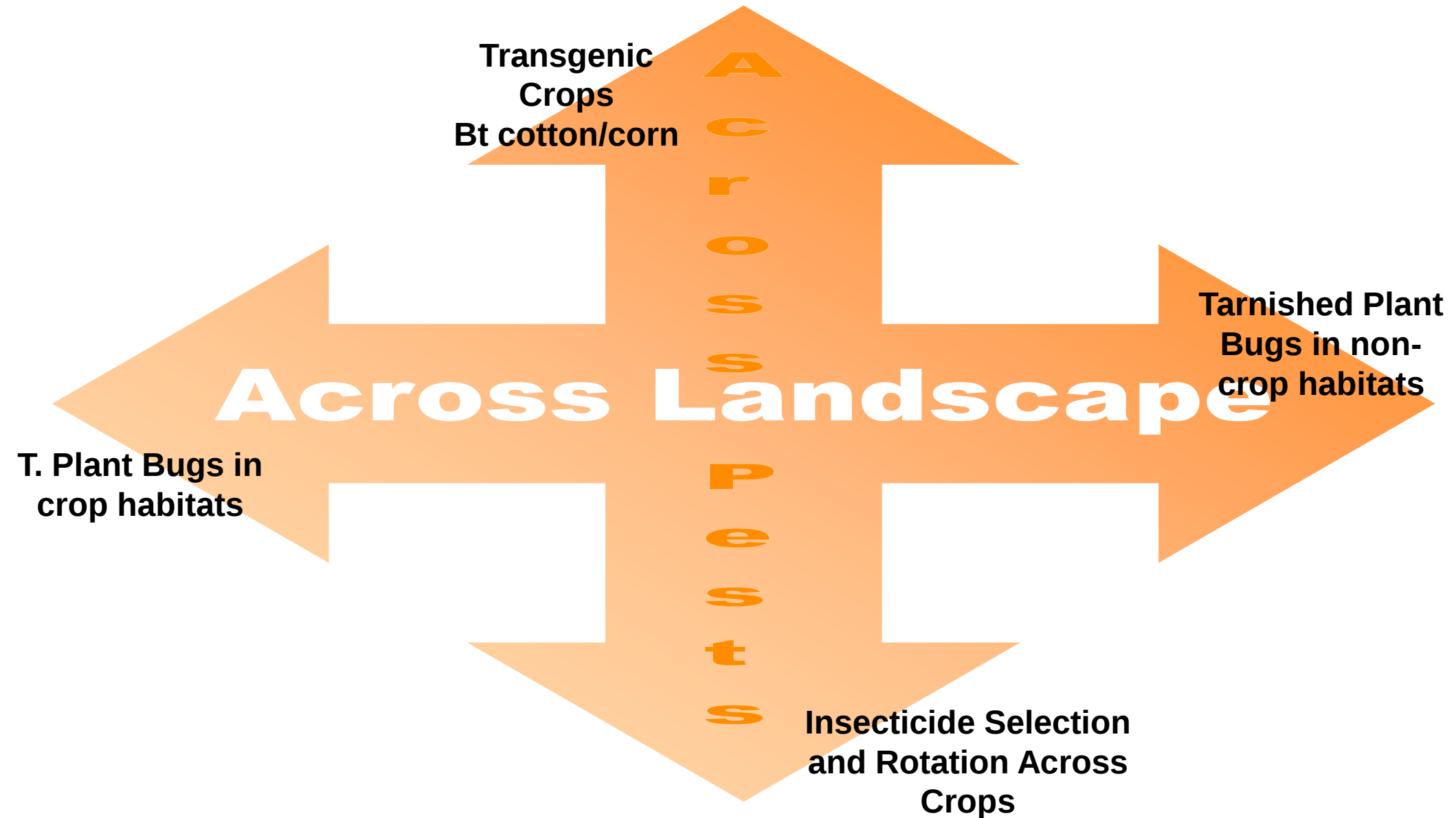
Successful Pest Management

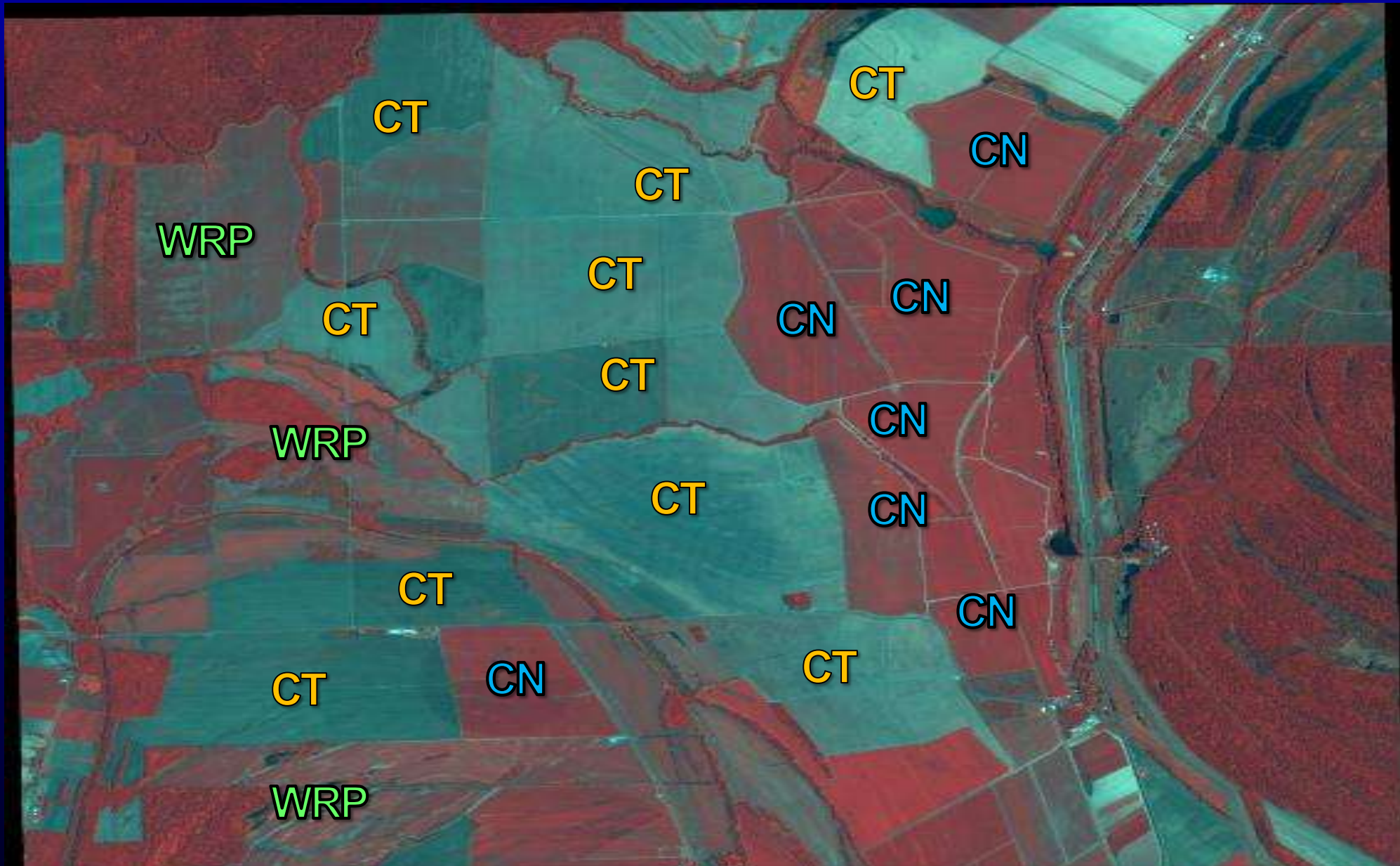
Cotton

...depends on integration



Integration: Landscapes vs Pests





► **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**

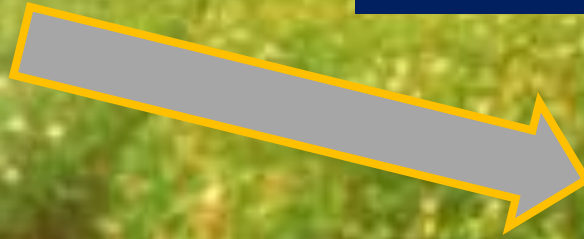
Novel Insecticides/Acaricides

Common	Trade	Company
Chlorantraniliprole (Rynaxypyr)	Coragen	DuPont
Flubendiamide	Belt	Bayer CropScience
Abamectin	Zoro	Cheminova
Fenpyroximate	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

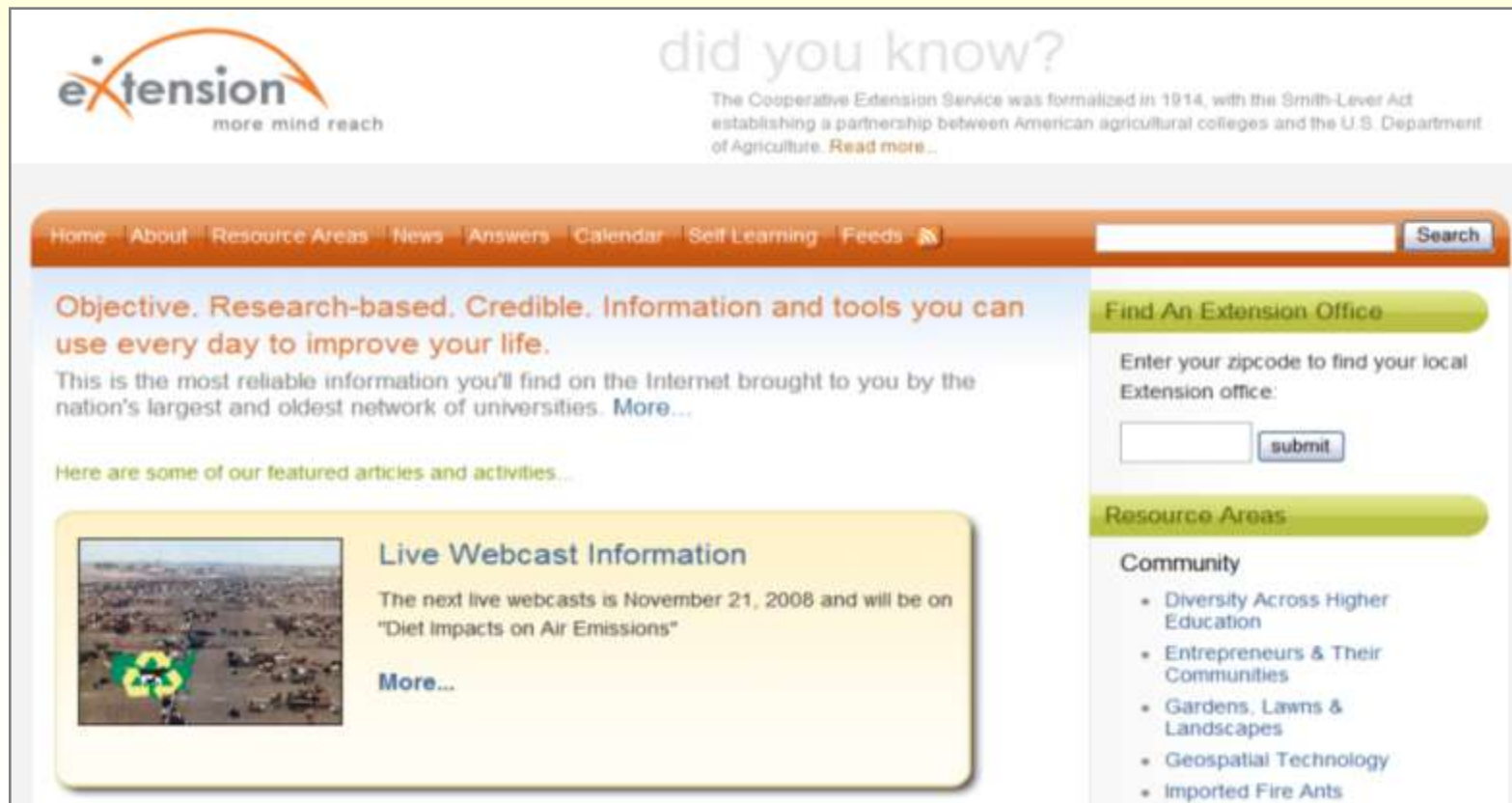


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Information Technology and Acquisition

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



The screenshot shows the homepage of the Extension.org website. At the top left is the 'extension' logo 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: 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 blue box with the text: 'Objective. Research-based. Credible. Information and tools you can use every day to improve your life.' followed by a paragraph about the network's reliability and a 'More...' link. Below this, a section titled 'Here are some of our featured articles and activities...' introduces a 'Live Webcast Information' box. This box includes a small image of a field with a recycling symbol and text stating the next live webcast is on November 21, 2008, about 'Diet Impacts on Air Emissions', with a 'More...' link. On the right side of the page, there is a 'Find An Extension Office' section with a zip code input field and a 'submit' button. Below that is a 'Resource Areas' section with a 'Community' list containing: 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 | 

Objective. Research-based. Credible. Information and tools you can use every day to improve your life.
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Here are some of our featured articles and activities...

Live Webcast Information
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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



- 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