

# Cotton Variety Performance & Selection



**R. L. Nichols – Cotton Incorporated**

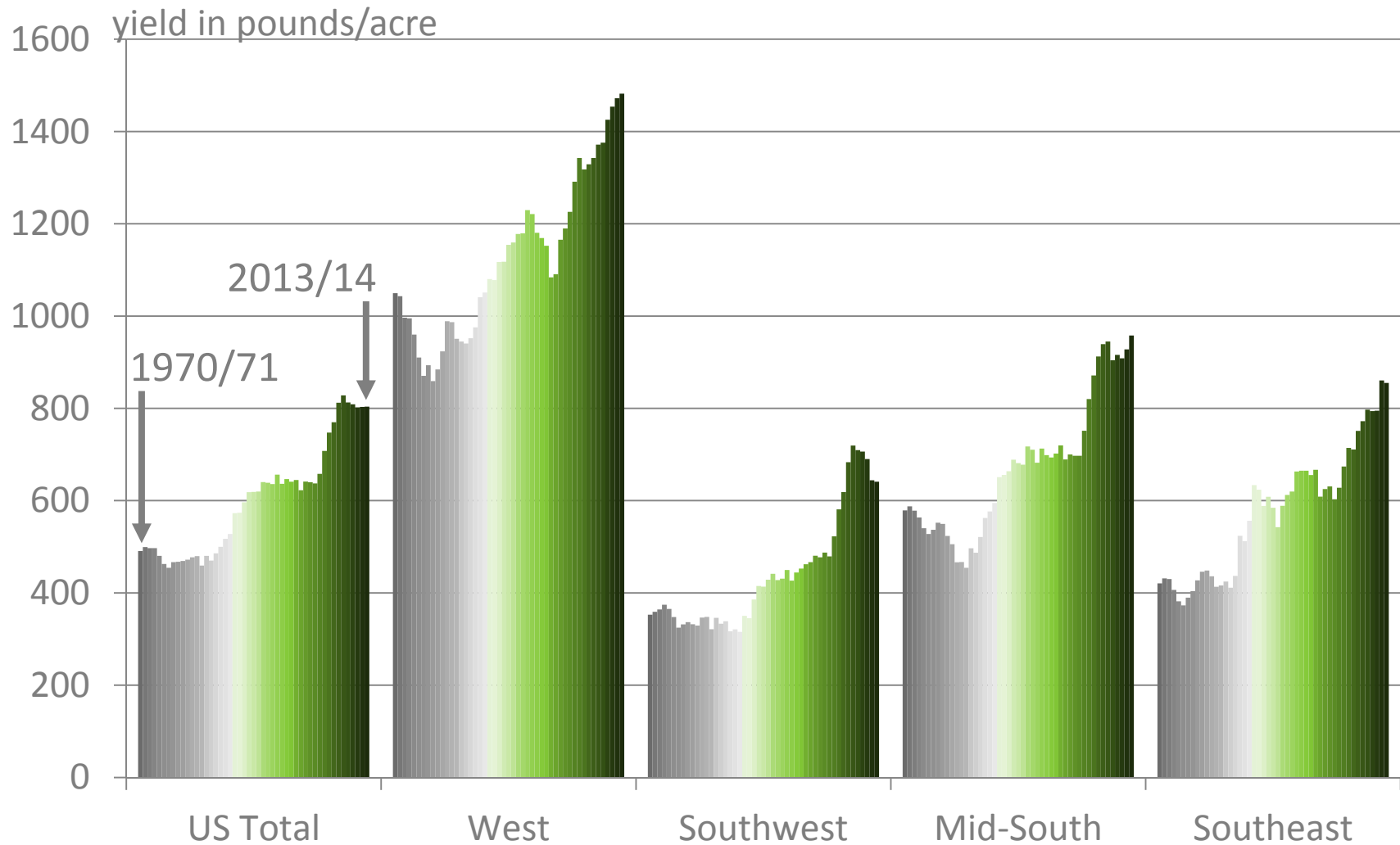
**Guy Collins – University of Georgia**

**Darrin Dodds – Mississippi State University**

**Hongzhi Li – Cotton Incorporated**

**Jon Devine – Cotton Incorporated**

# Yield Growth – by Region (1970/71-2013/14)

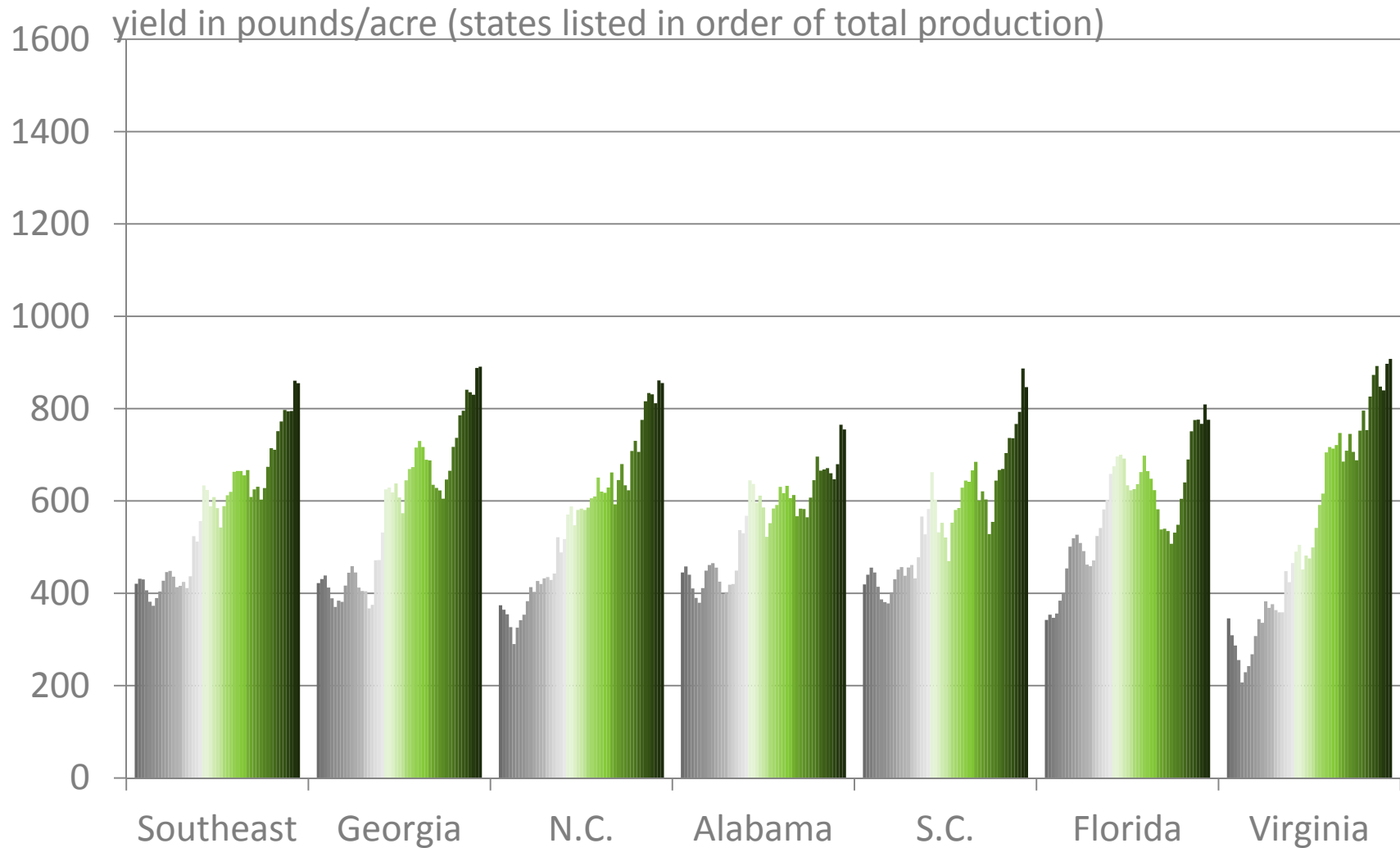


Source: USDA





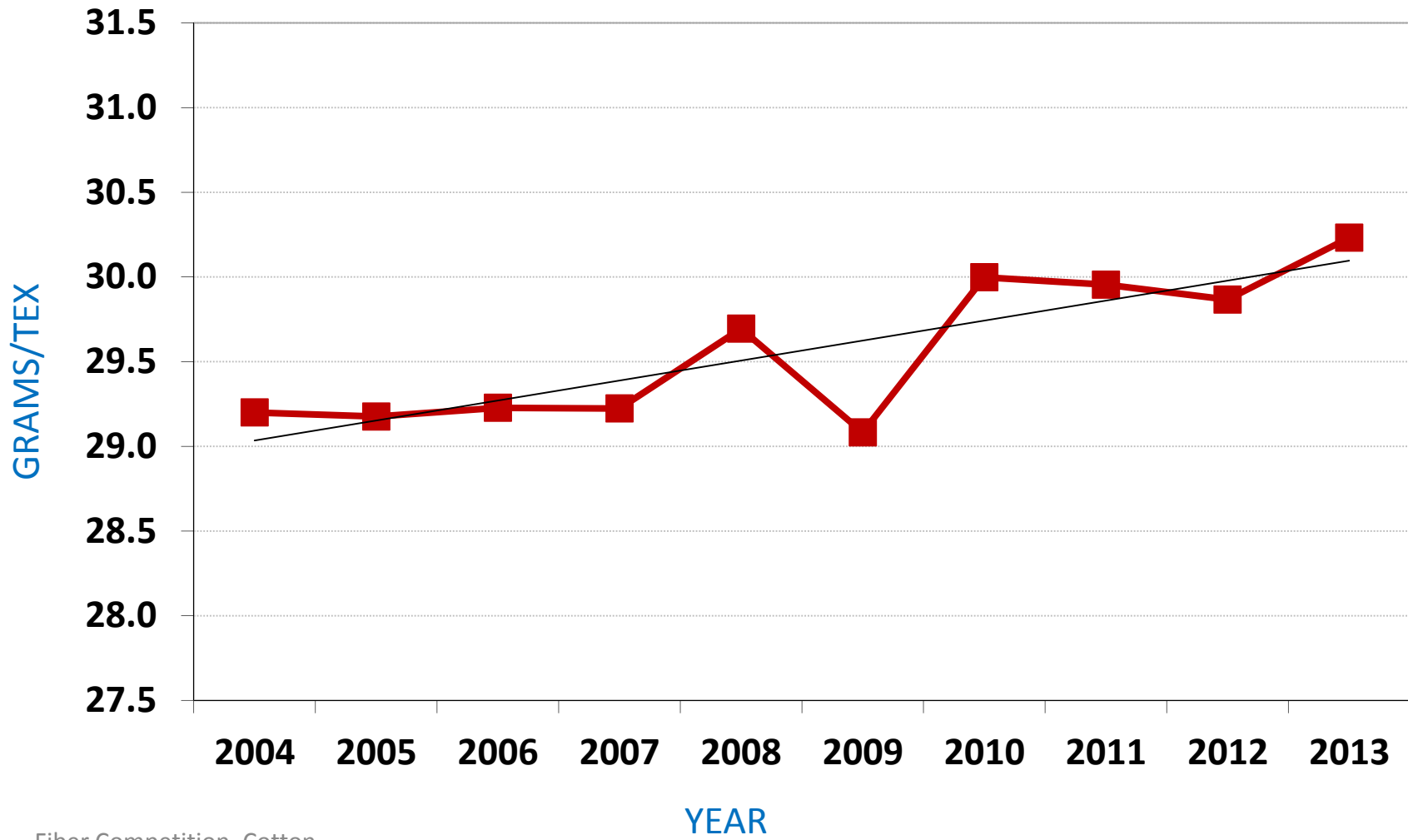
# Yield Growth – Southeast (1970/71-2013/14)



Source: USDA

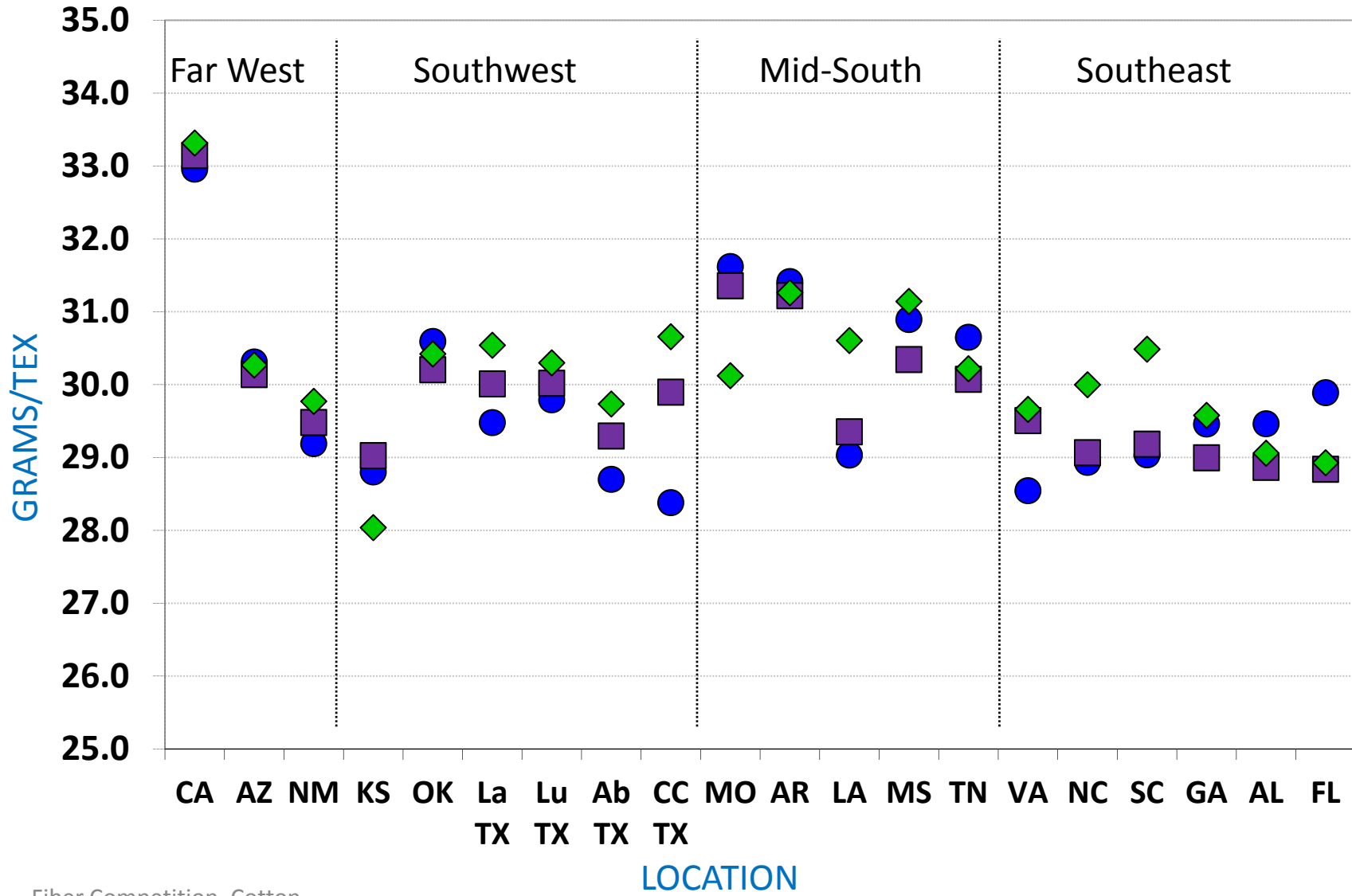


# Strength Trend US Upland



Fiber Competition, Cotton  
Incorporated

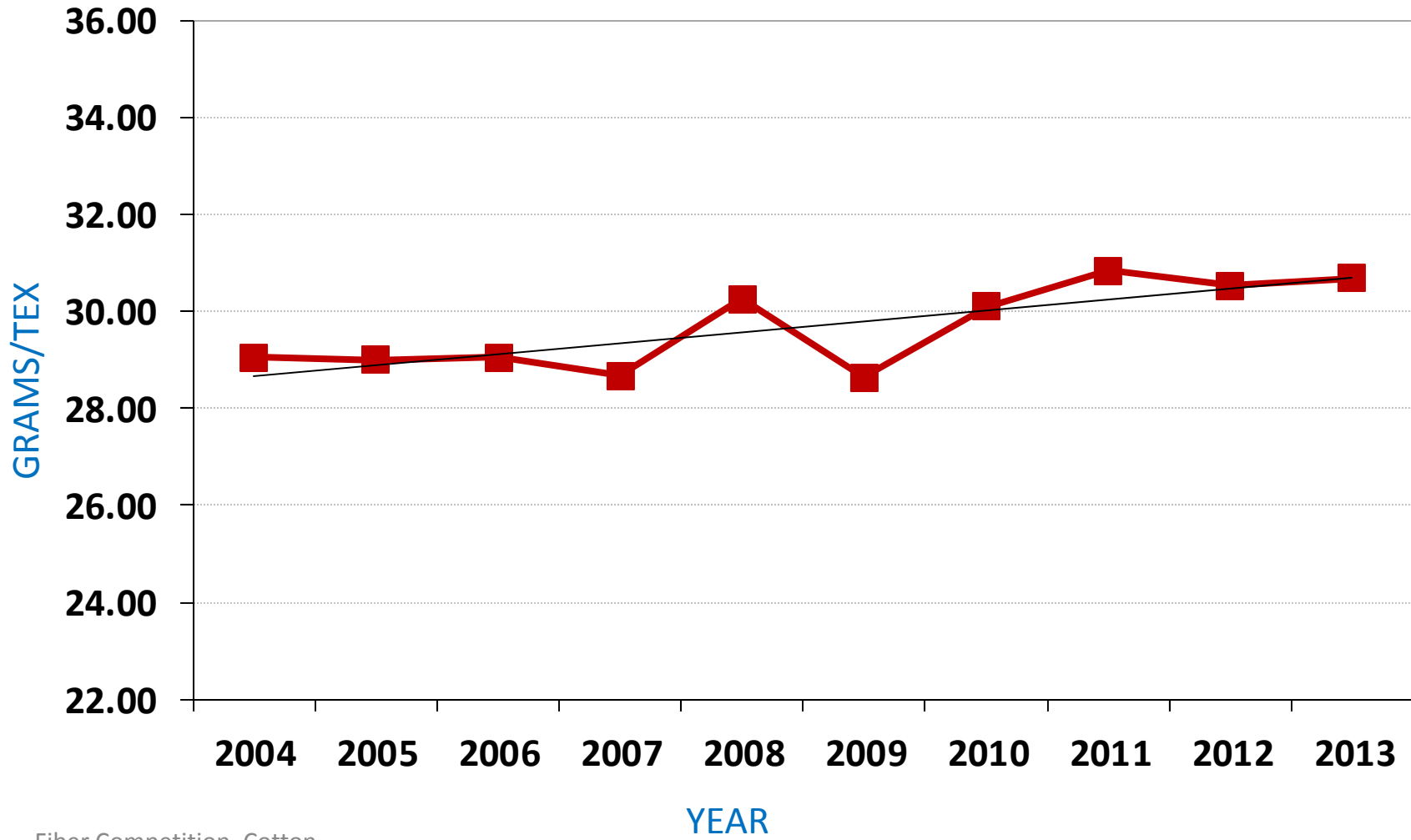
# Average Strength



Fiber Competition, Cotton Incorporated

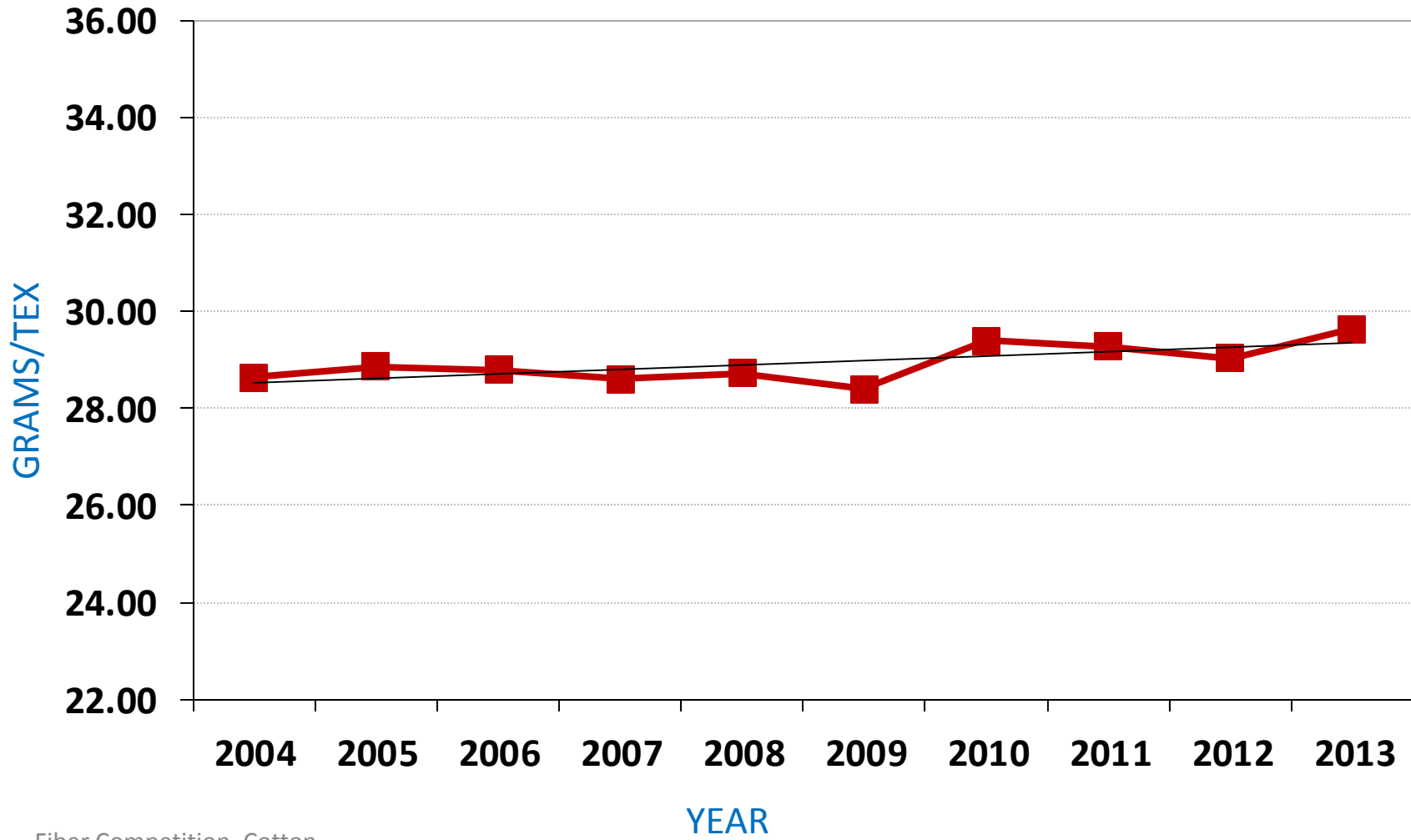
● 2011 ■ 2012 ◆ 2013

# Strength Trend Mid-South



Fiber Competition, Cotton  
Incorporated

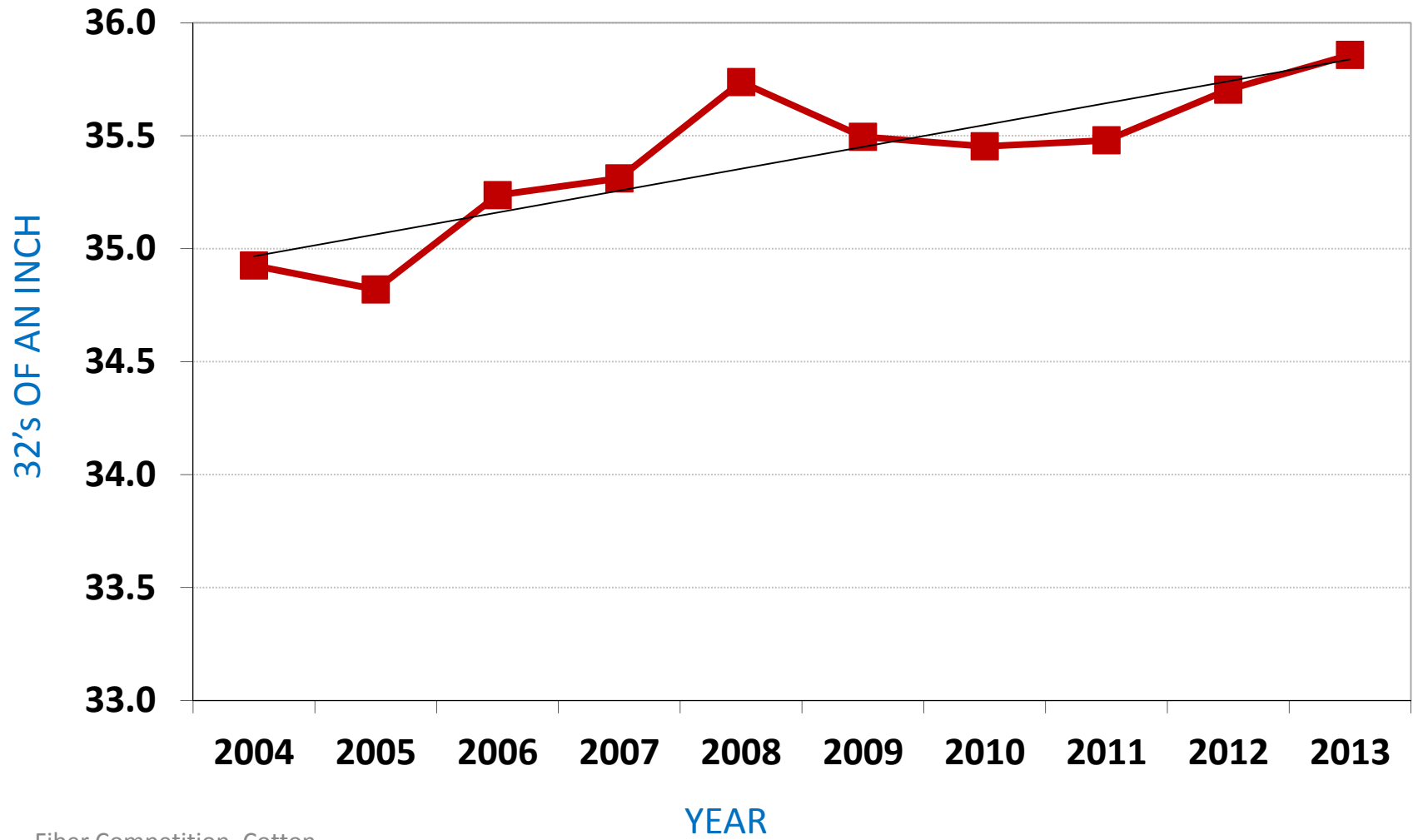
# Strength Trend Southeast



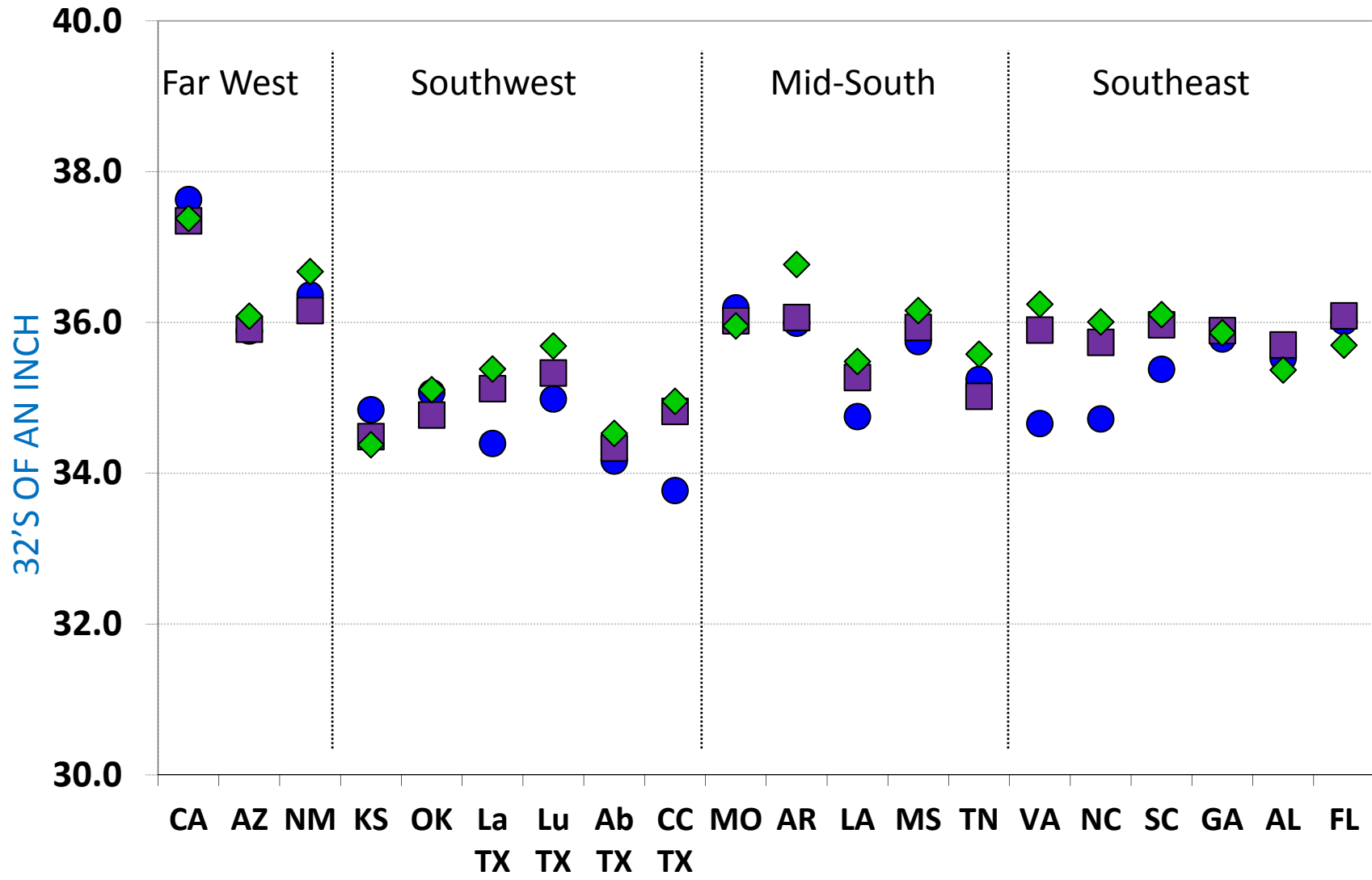
Fiber Competition, Cotton  
Incorporated



# Length Trend US Upland



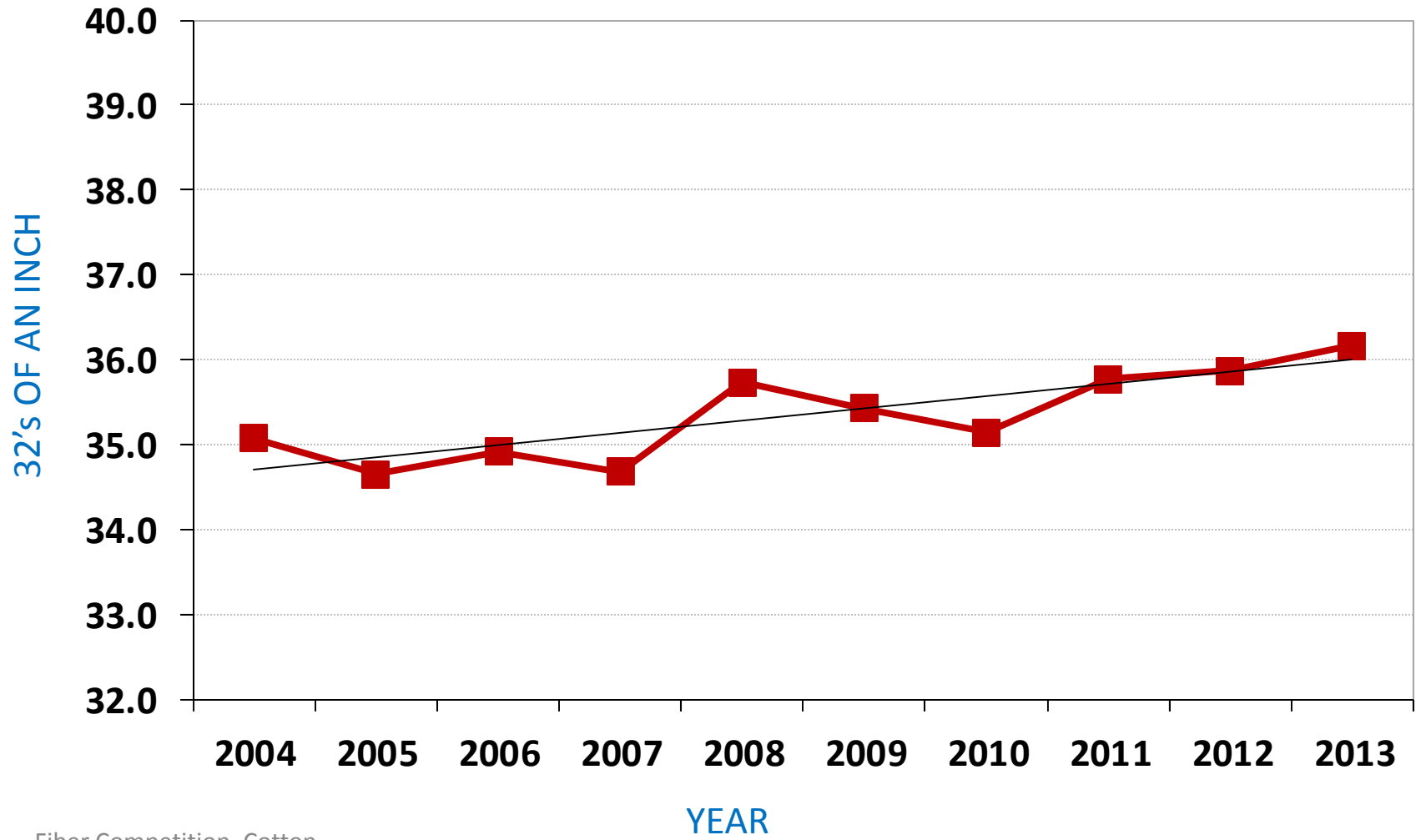
# Average Length



Fiber Competition, Cotton Incorporated

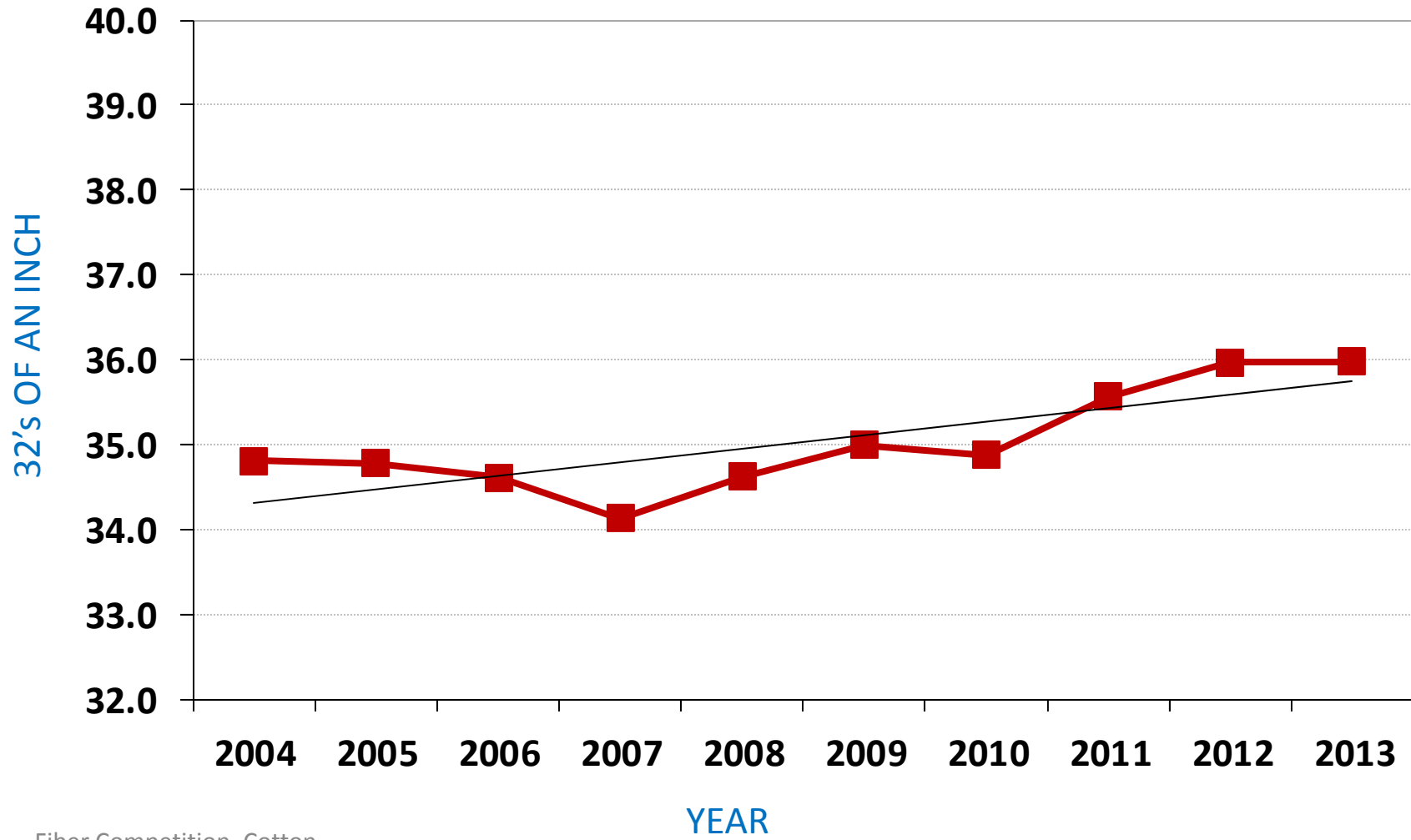
● 2011 ■ 2012 ◆ 2013

# Length Trend Mid-South

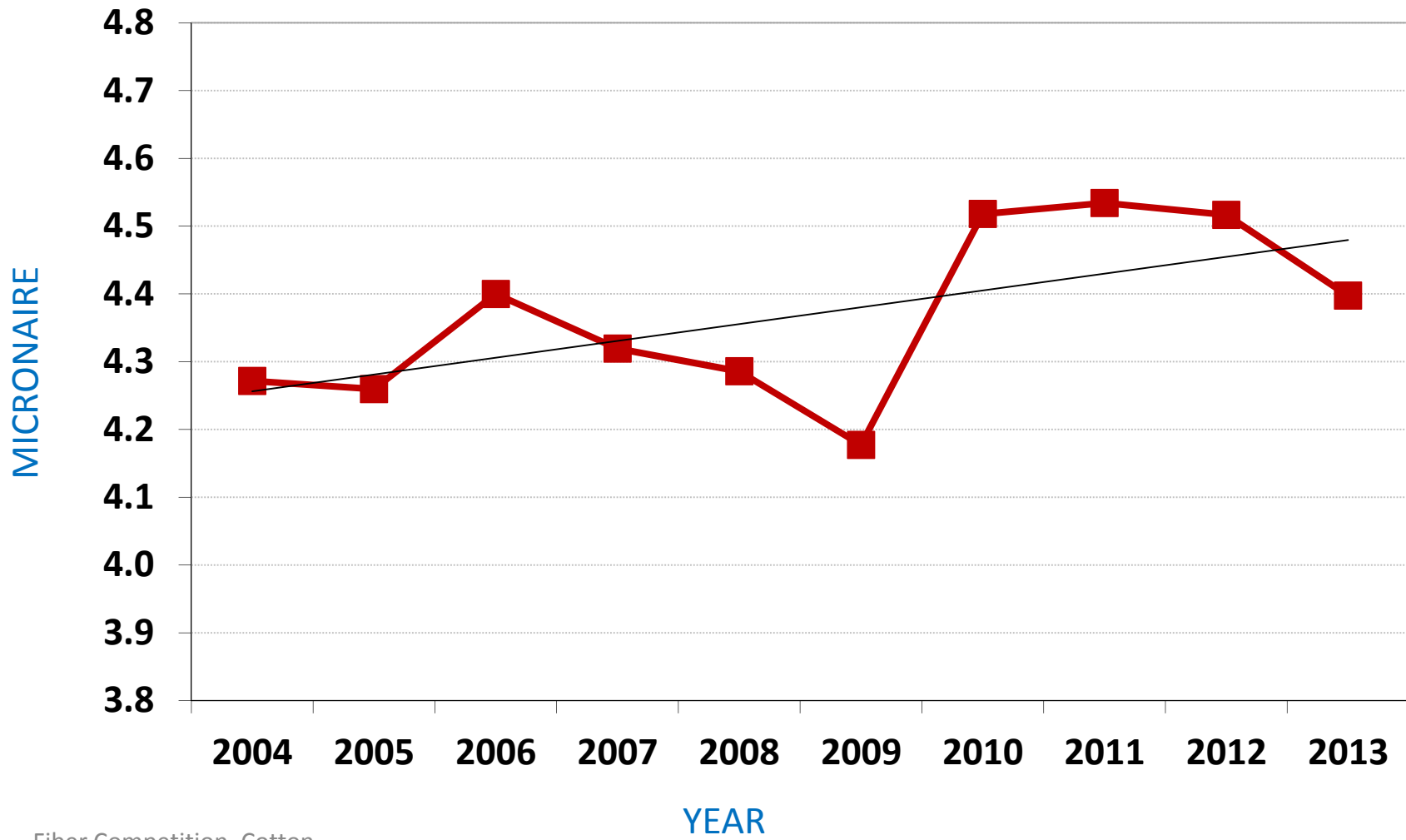


Fiber Competition, Cotton  
Incorporated

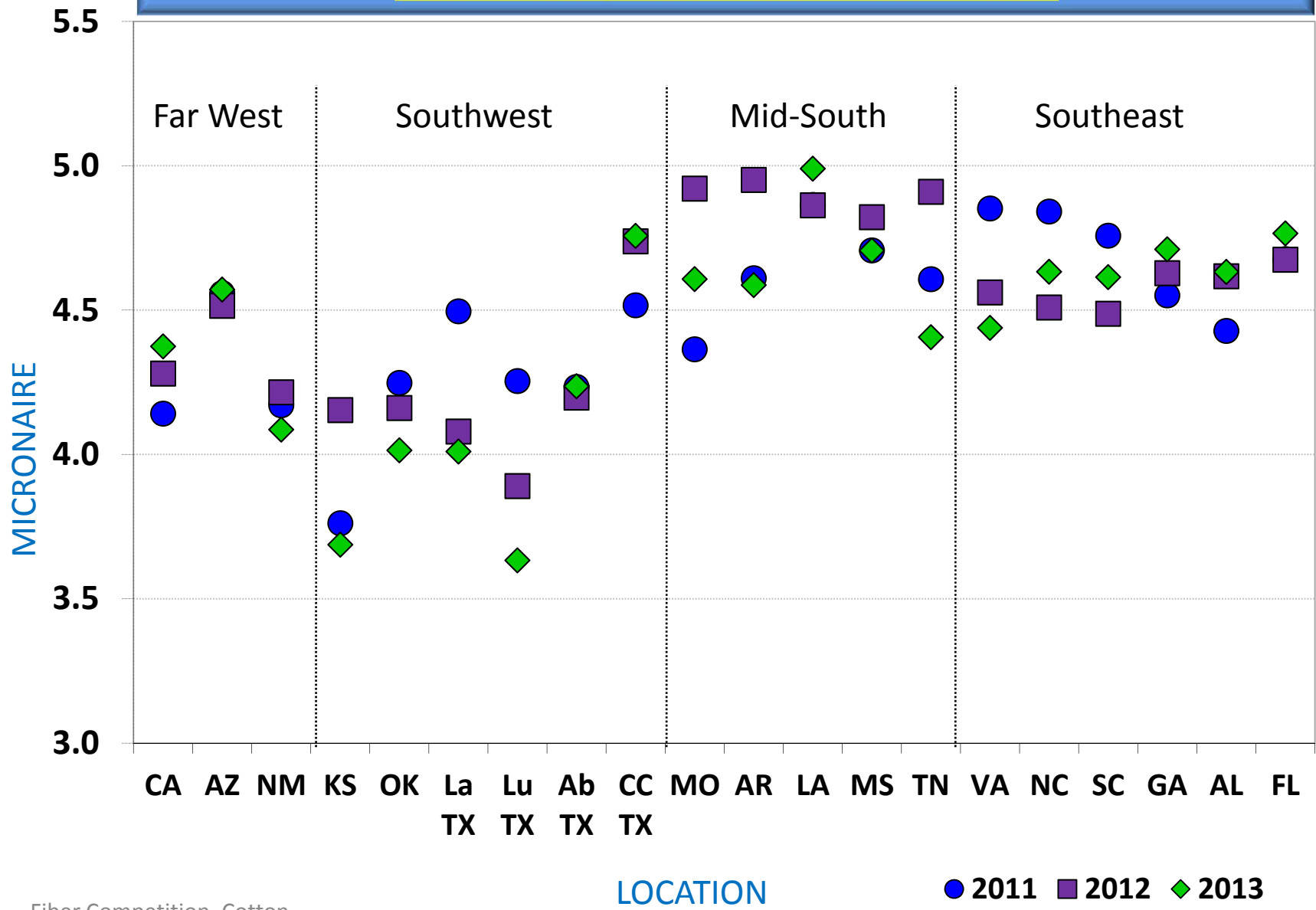
# Length Trend Southeast



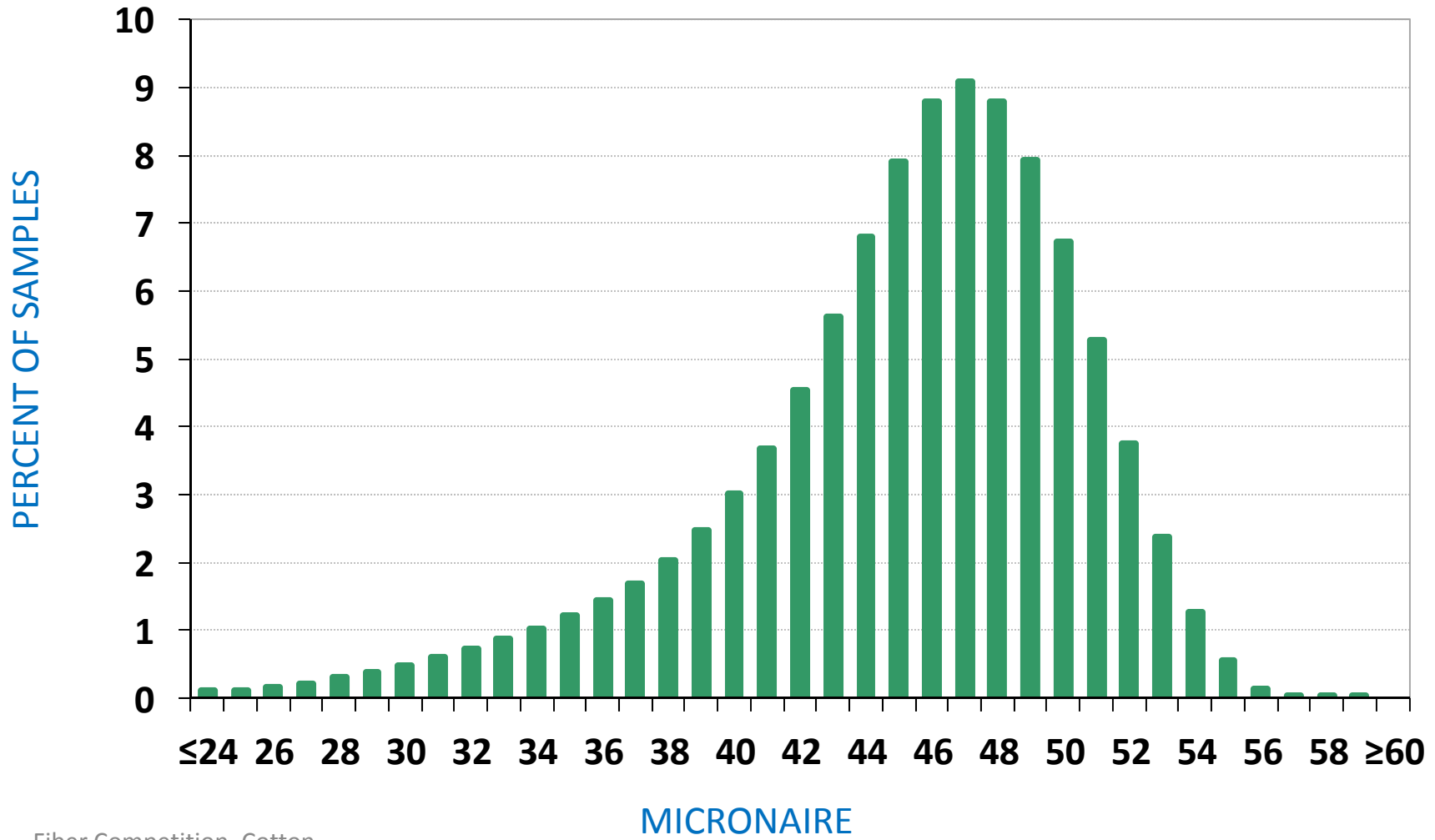
# Micronaire Trend U.S. Upland



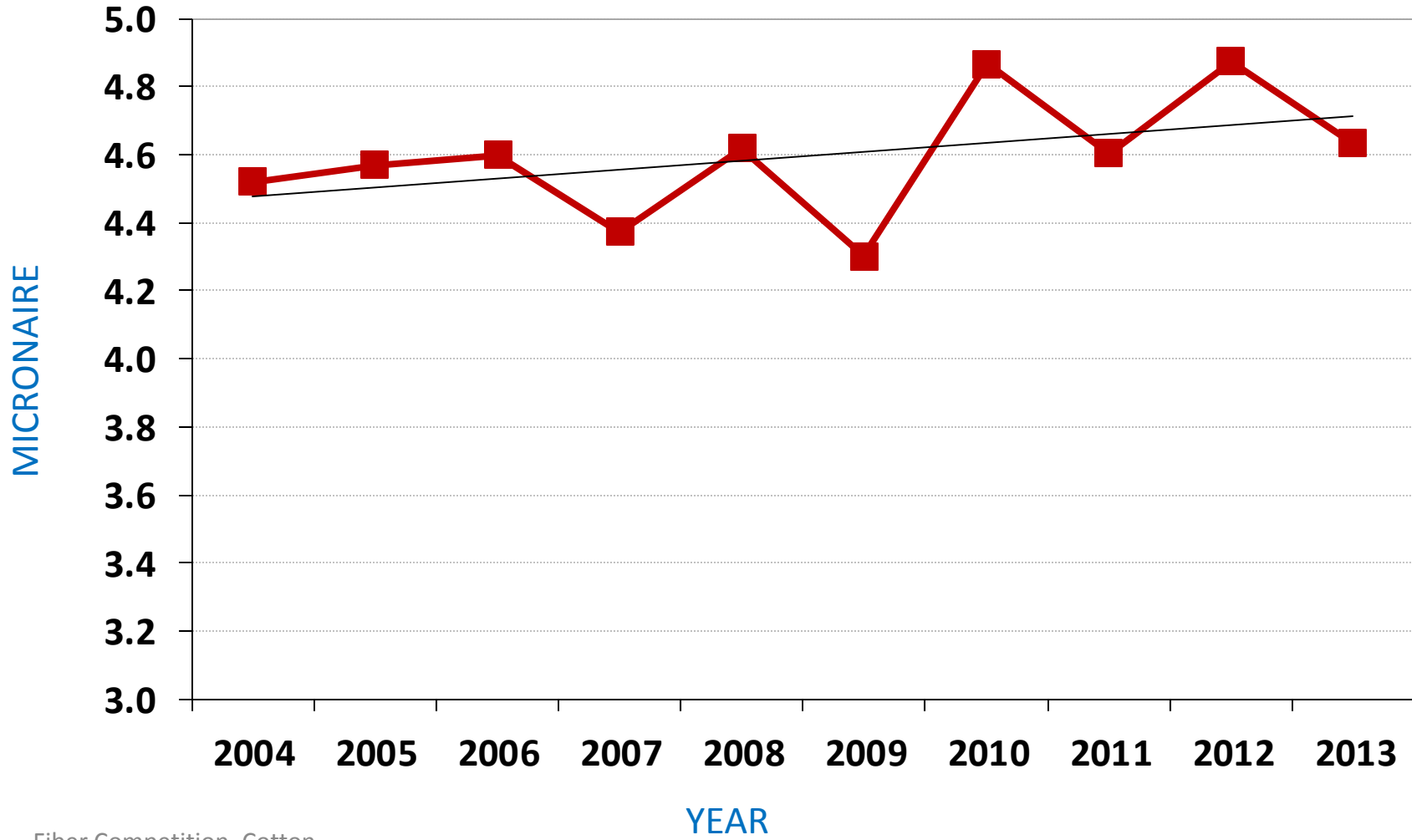
# Average Micronaire



# Micronaire Distribution U.S. Upland



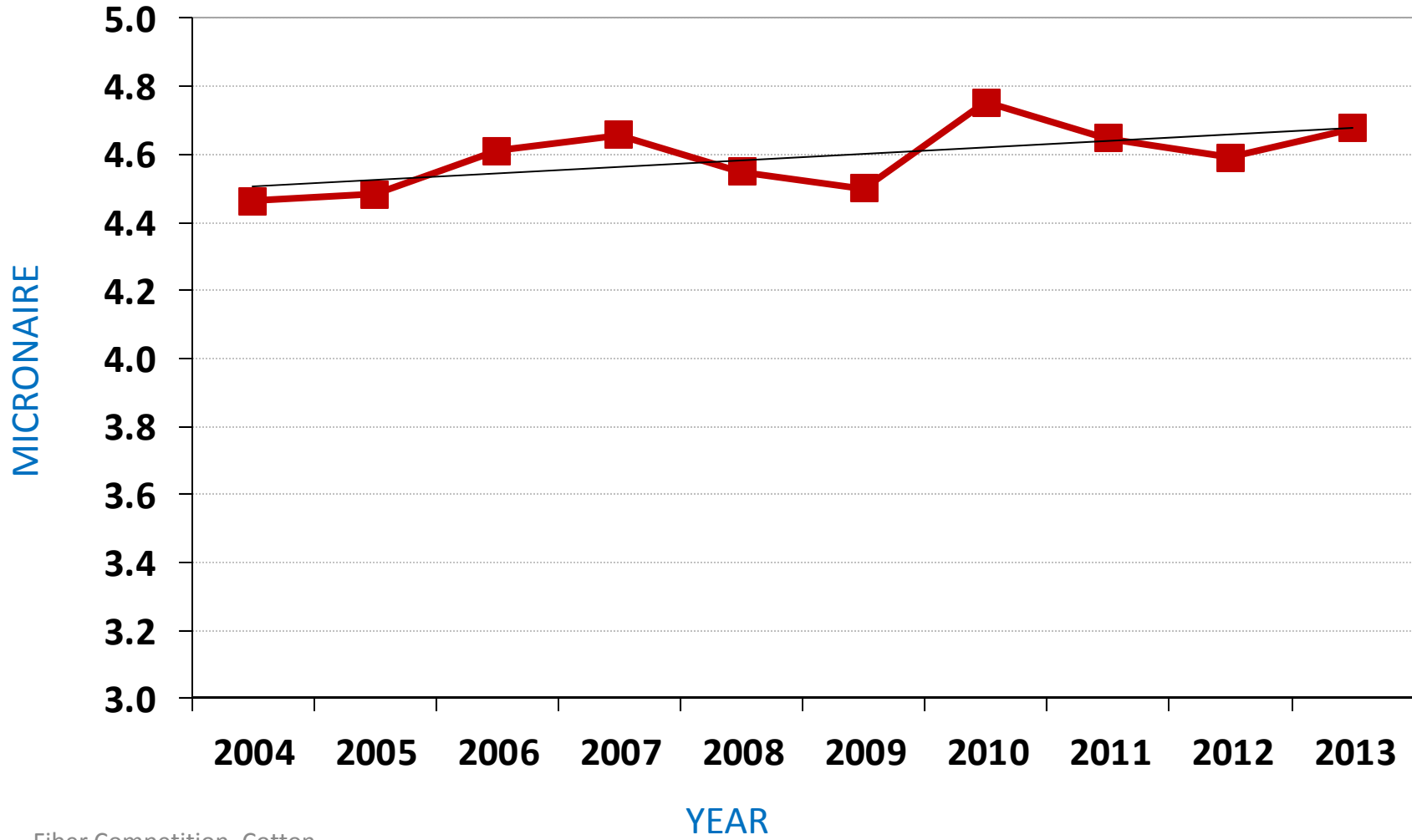
# Micronaire Trend Mid-South



Fiber Competition, Cotton  
Incorporated



# Micronaire Trend Southeast



## Cultivar Performance

National Yield Data may be viewed as a Display of Genotypes X Environments, where Planted Cultivars are Genotypes and Years are Environments.

Year-to-Year Variations in Yields are Rather Small.

Trends in Yields, Fiber Strength, and Length are Positive and Strongly Suggest Breeding Progress.

Micronaire is more Subject to Environment than Other Fiber Properties but Appears to be Increasing

## Top Producer Issues

<b>% of Producers who rated these concern in their top 5, out of 72</b>	<b>Far West</b>	<b>South West</b>	<b>Mid-South</b>	<b>South East</b>
Cotton input costs (69%)	70%	73%	64%	66%
Herbicide resistant weeds (54%)	23%	34%	73%	76%
Variety selection (42%)	53%	44%	36%	41%
Cotton's tolerance to heat & drought (33%)	28%	43%	18%	29%
Early weed control (32%)	25%	27%	36%	39%
Seedling Vigor (15%)	18%	21%	9%	11%
Cottonseed Value (15%)	18%	19%	11%	13%

**2012, 2013 Cotton Incorporated,  
Cotton Specialists, & SeedMatrix  
New Variety Evaluation & Demonstration**

**Cotton Incorporated Sponsored Research  
Replicated, Large-Plot Variety Trials  
Limited to 12 Entries**

**Plots approximately 0.5 acres**

**AR, AZ, FL, GA, LA, KS, MO, MS, NC,  
OK, SC, TX, VA**

# On-Farm Trials vs. Small-Plot OVT

- Focuses on top performing varieties
- Compare early and late maturing varieties simultaneously
- Evaluates across a broad range of environments (yield potential / rainfall / irrigation, soils, management)
- Evaluates stability very quickly.

- Evaluates a larger number of varieties
- Tests many experimental varieties for future release or for promotion to on-farm testing
- Comparison of yields without regard to technology – managed conventionally

# Large-Plot Variety Evaluation Program



# Southeast

## University Cotton Specialists

Guy Collins – GA

Jared Whitaker – GA

Hunter Frame - VA

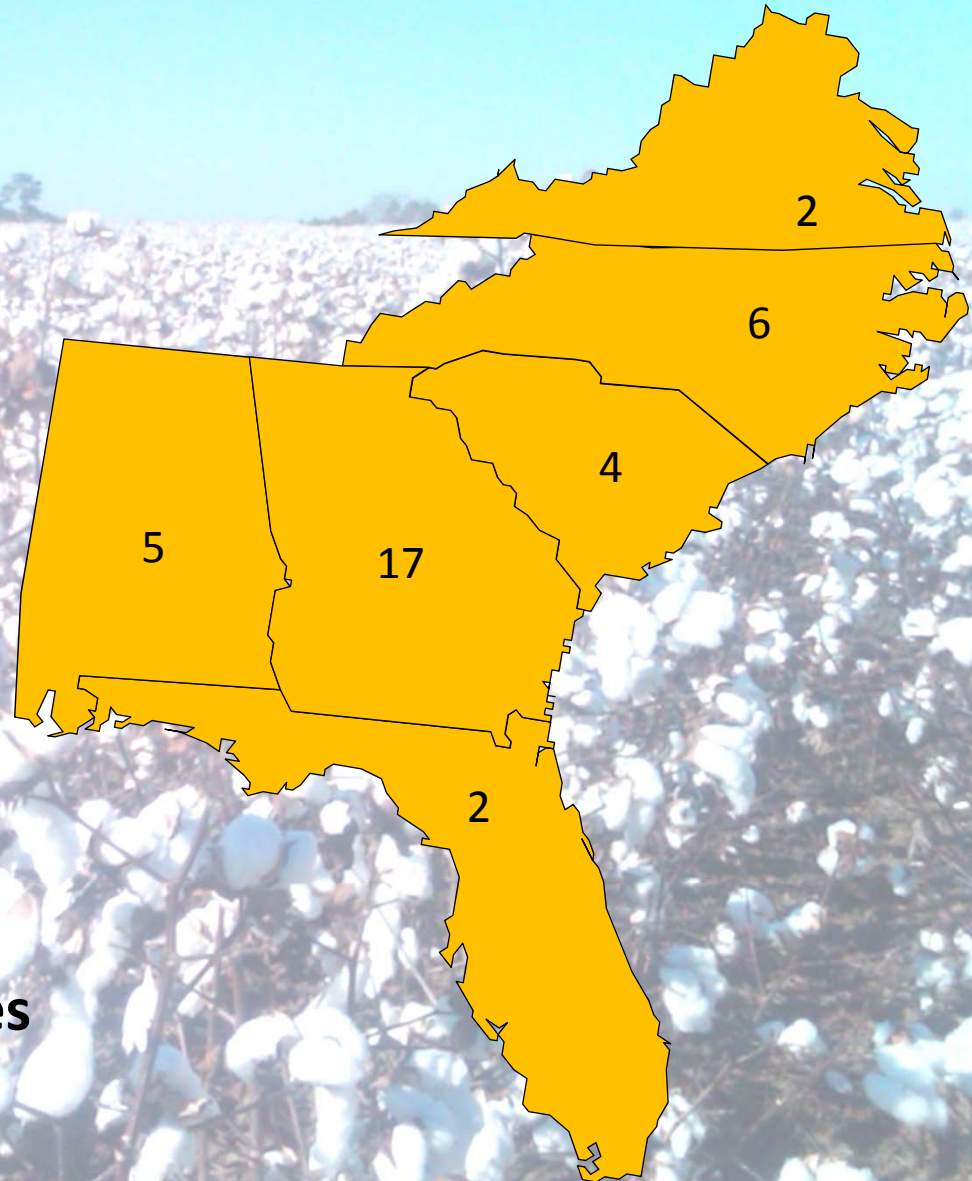
Keith Edmisten – NC

Mike Jones – SC

Charlie Burmester – AL

Dale Monks - AL

David Wright - FL



**2,611,000 acres**  
**- USDA NASS**

# Mid-South

## University Cotton Specialists

Darrin Dodds – MS

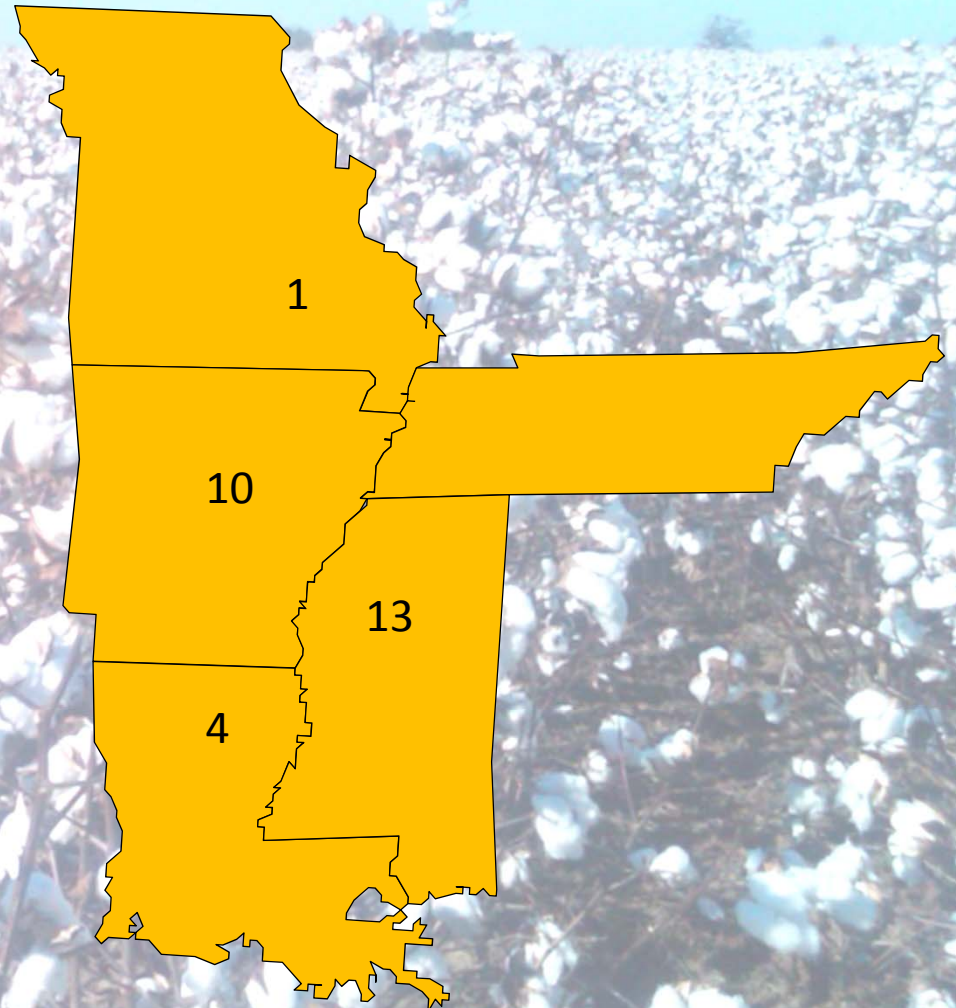
Blake McClelland - AR

Gerald Myers – LA

Dan Fromme – LA

Andrea Phillips - MO

1,196,000 acres  
- USDA NASS







## Introduction to SeedMatrix

### Single Trial Data

Single Trial Data makes it very easy to view or print any trial in the system. There's no need to go to a university website anymore. Everything is right here.

### Head to Head Comparison

Select specific products to see how they performed when grown in the same trials. No matter how many products you select, your results will always come from the same trials. You also have the option to use filters. Filters allow you to create any environment you'd like. Some of the items available in filters are soil type, irrigation type, and geography.

### One to Many Comparison

In One to Many you select one product to see how that product performed against all others with which it was tested. If you have a favorite product, then One to Many gives you a "cheat sheet" for that product. Filters are also available for this report.

### Top Performing Products

Top Performing allows you to find the "best" products available. Products are listed in order of "How often they yielded near the top." You can plot a product's performance on a map by selecting the product and then clicking the map icon. Once on the map, click on a pin to see how that product performed in a particular location.

<http://seedmatrix.com/CottonIncRegistration>

## User Profile

**Username:** dalecottoninc  
**Full Name:** Dale Logan  
**Company:** Cotton Incorporated  
**Your Roles:** Standard User  
Report Viewer  
**Address:**

[Edit Profile](#)

## Recent Updates

### New Version Released

January 14th, 2012

- Added more searchable columns to the Single Trial report.
- Added Trial Type column to Top Performing Details tab.
- Improved geolocation.
- Clarified some headings on Cotton Head To Head reports.
- Renamed "Private" data to "Your Company's" data.
- Added mouseover help to the Top Performing column headers.
- Fixed intermittent issue preventing the export of a report to PDF or Excel.
- Fixed region manager form so that names cannot exceed 32 characters.

### New Version Released

November 29th, 2012

- Redesigned dual axis graphs on One To Many and Head To Head.
- Added empty filter alert for brand and product drop-downs on Head To Head

# 2013 NC & VA On-Farm Trials

**4 Trials = 1104 – 1536 lbs/A**

Variety	Combined Average	% Top 2
PHY 375 WRF	1266	50
DP 1321 B2RF	1264	50
PHY 499 WRF	1248	25
ST 4946 GLB2	1221	0
FM 1944 GLB2	1219	25
NG 1511 B2RF	1201	25
PHY 339 WRF	1200	25
DP 1028 B2RF	1157	0

# 2013 SC, GA, FL On-Farm Trials

**23 Trials = 627 – 1534 lbs/A**

<b>Variety</b>	<b>Combined Average</b>	<b>% Top 2</b>
DP 1252 B2RF	1255	61
DP 1050 B2RF	1254	44
DP 1137 B2RF	1242	39
PHY 499 WRF	1197	13
PHY 339 WRF	1190	17
ST 6448 GLB2	1162	13
PHY 575 WRF	1144	9
FM 1944 GLB2	1131	4

# 2013 AL On-Farm Trials

**4 Trials = 855 – 1908 lbs/A**

Variety	Combined Average	% Top 2
DP 1050 B2RF	1366	50
NG 5315 B2RF	1337	25
DP 1252 B2RF	1331	25
PHY 375 WRF	1324	25
PHY 499 WRF	1314	25
ST 6448 GLB2	1309	50
PHY 565 WRF	1273	0

# 2013 AR & MO On-Farm Trials

**11 Trials = 946 – 1792 lbs/A**

Variety	Combined Average	% Top 2
ST 4946 GLB2	1539	64
DP 0912 B2RF	1503	36
DG 2285 B2RF	1487	36
NG 1511 B2RF	1471	18
DP 1311 B2RF	1446	9
PHY 339 WRF	1411	9
PHY 499 WRF	1393	18
FM 1944 GLB2	1386	9

# 2013 MS On-Farm Trials

**10 Trials = 606 – 2039 lbs/A**

<b>Variety</b>	<b>Combined Average</b>	<b>% Top 2</b>
NG 1511 B2RF	1352	40
DP 1321 B2RF	1347	60
PHY 499 WRF	1333	60
PHY 339 WRF	1266	30
DG 2570 B2RF	1265	0
ST 4946 GLB2	1242	0
DP 1311 B2RF	1188	0
FM 1944 GLB2	1162	0
ST 6448 GLB2	1155	10
DP 1133 B2RF	1154	0

# 2013 LA On-Farm Trials

**4 Trials = 914 – 1689 lbs/A**

Variety	Combined Average	% Top 2
DP 1133 B2RF	1596	50
FM 1944 GLB2	1562	50
ST 4946 GLB2	1556	25
ST 6448 GLB2	1555	0
DP 1311 B2RF	1536	50
ST 5288 B2RF	1493	25
PHY 499 WRF	1454	0
NG 5315 B2RF	1378	0

# Variety Selection

Depending on Acres Planted Choose 3-5 Varieties.  
Most Should be Varieties with which you are Familiar.

See Cotton Incorporated supported Variety  
Comparisons at

<http://seedmatrix.com/CottonIncRegistration>

and your State's Cooperative Extension Reports of  
Replicated Variety Trials



# Thank You

**Cotton Incorporated**

**State Cotton Commodity Boards**

**Seed Companies - Industry Partners**

**University Cotton Specialists**

**County Agents & Cooperating Growers**

