

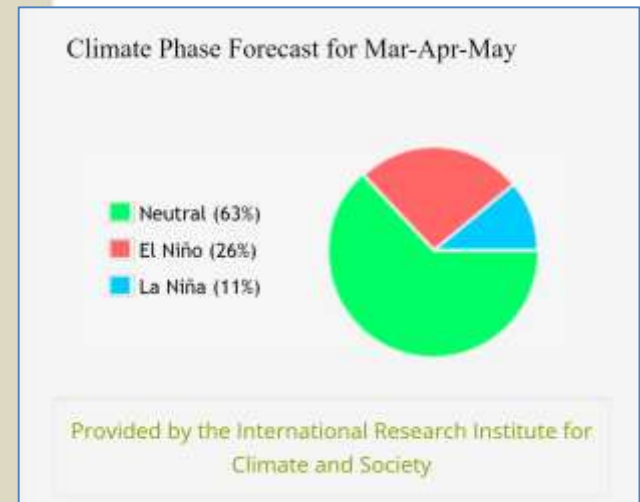
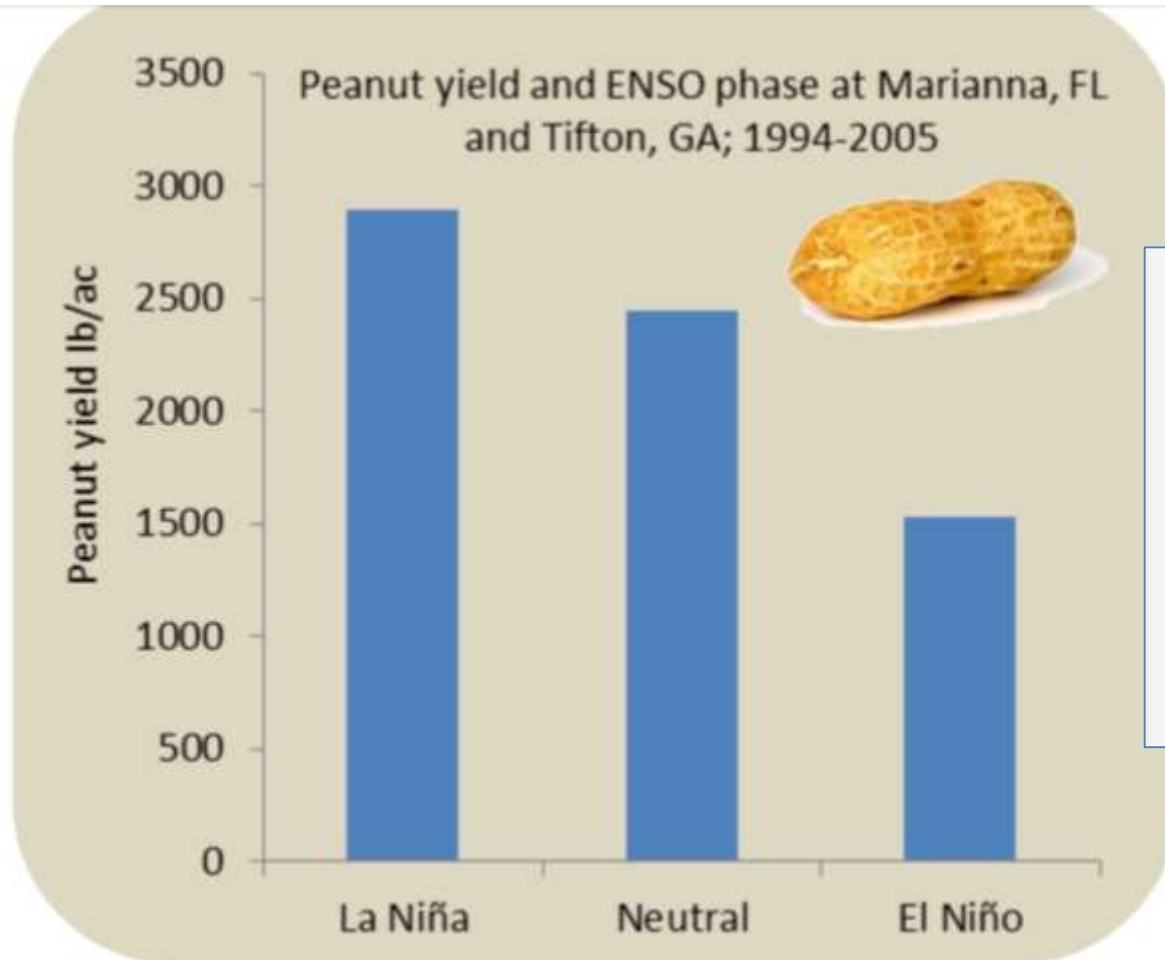
Crop Disease Management Focus on Peanut

**Row Crop Short Course, Marianna, FL
March 2nd, 2017**

Nicholas S. Dufault
Extension Specialist
Row Crops & Vegetables
Plant Pathology Department/IFAS
University of Florida



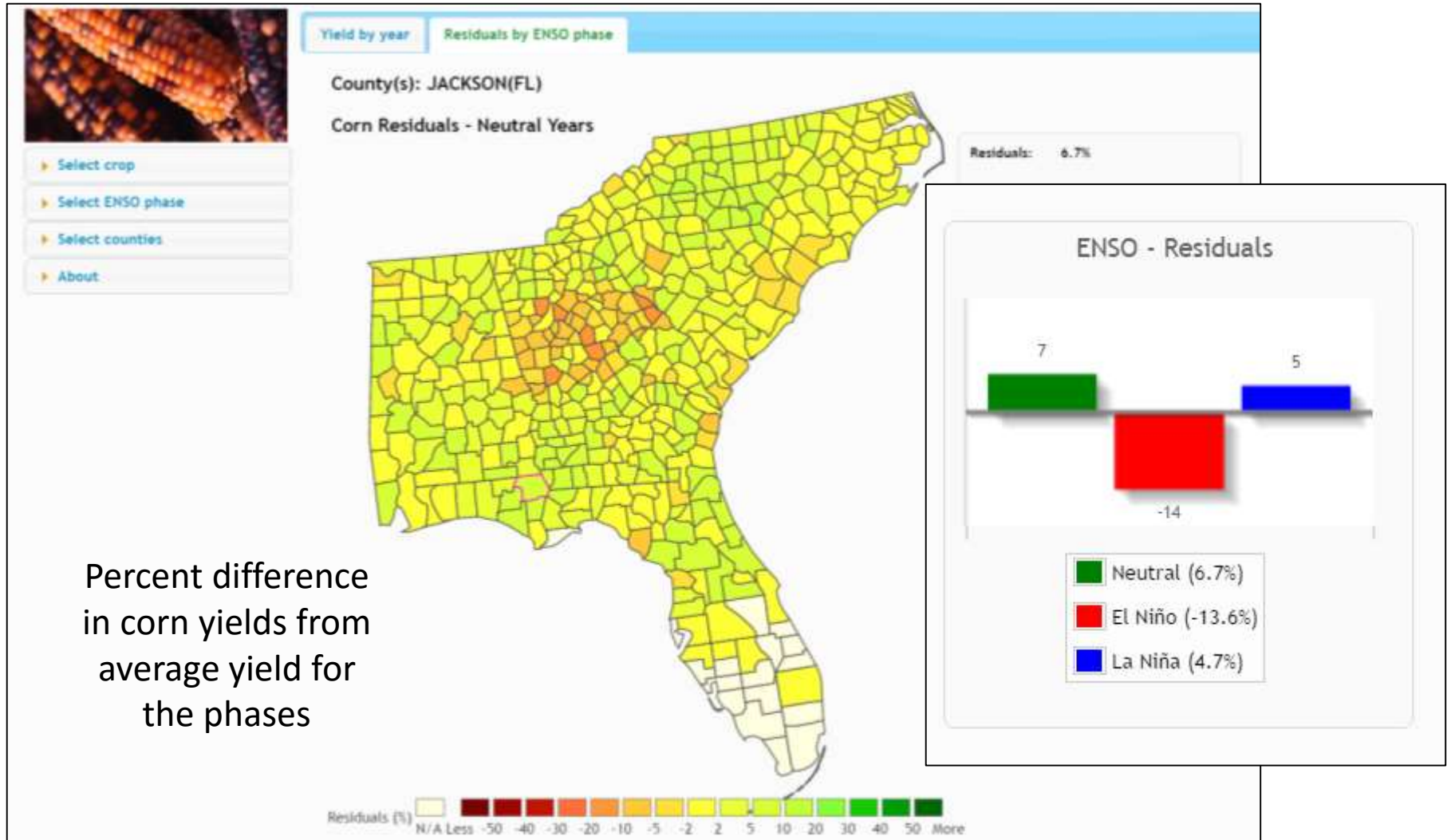
Climate can have impacts on the crops yield potential



Agroclimate.org

Data from: Olatinwo RO, Paz JO, Kemerait Jr. RC, Culbreath AK, Hoogenboom G. 2010. El Niño-Southern Oscillation (ENSO): impact on tomato spotted wilt intensity in peanut and the implication on yield. *Crop Protection* 29: 448-453.

Each crop will have a different response to climate and weather.



Percent difference in corn yields from average yield for the phases

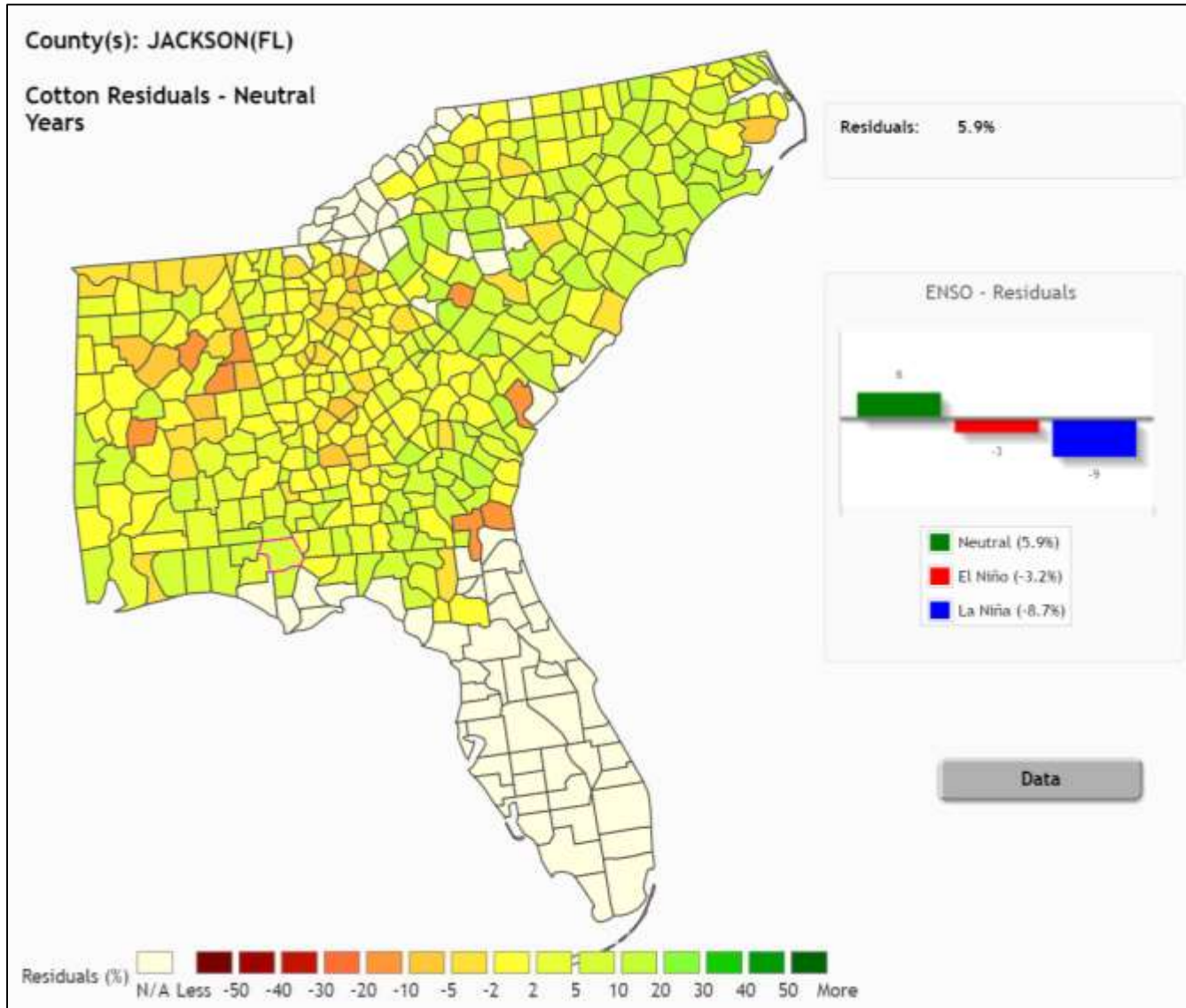
Preseason inputs can be made based on these expected yield potentials.

Should I spray a fungicide?

1. Decide early what you might want to spray in 2017
2. Determine yield savings needed for the products

Target Spot of Cotton

Cotton expected to have a higher yield in a neutral climate phase.



~ 6%
difference
from the
average

Agroclimate.org

Multistate trials indicate ~ 6% increase is possible when:



1. Susceptible cultivar
2. Rank canopy growth
3. Disease develops
4. Optimal environment
5. Only 1 spray

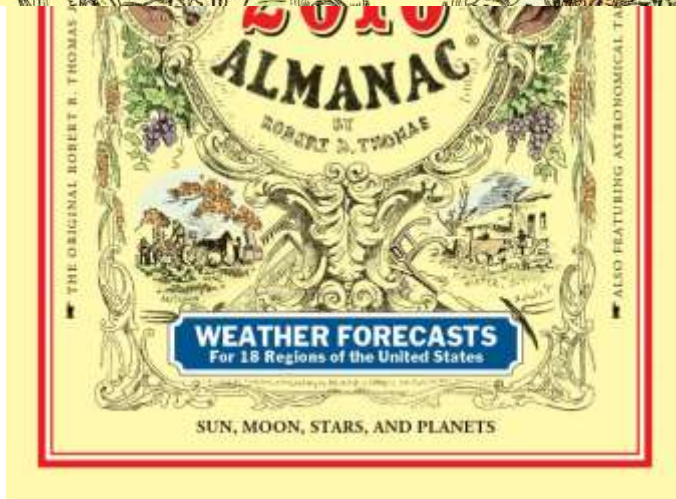
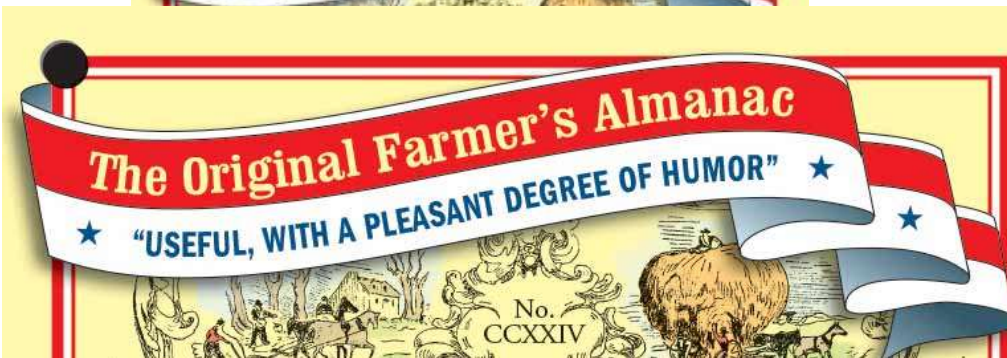
Is a 6% increase enough?

- If you expect 2 bales of cotton per acre:
 - ~60 lb increase per acre
 - at 75 cents that is \$45 per acre gain
 - fungicide cost alone is ~ \$13 per acre



The **return is ~\$32 per acre** not including application costs. Will this be enough?

Climate data is meant to assist with management, especially preseason.



Scouting and monitoring





The pathogen identification is critical to proper management.

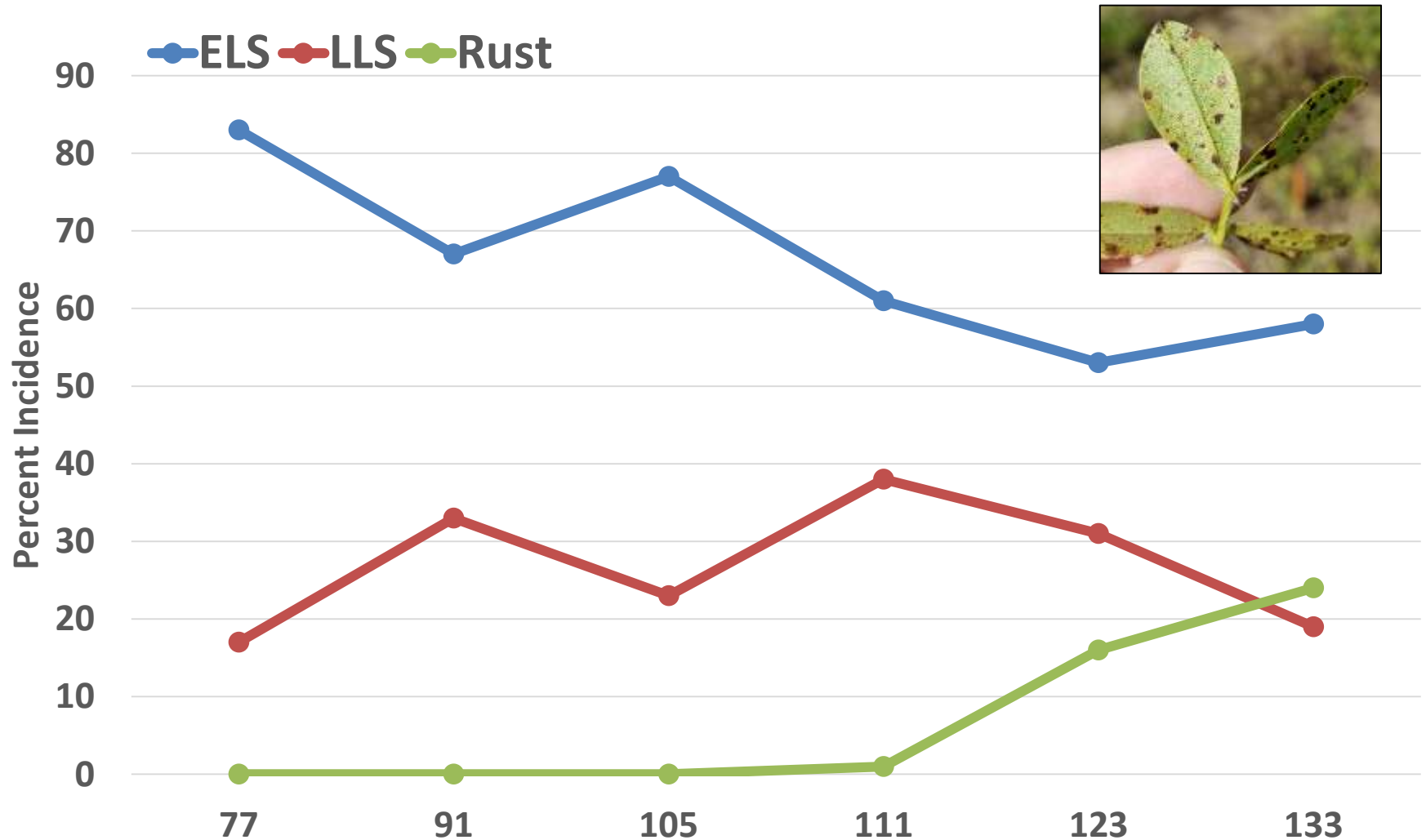
Products vary in their disease control

Leaf spot individual product trials

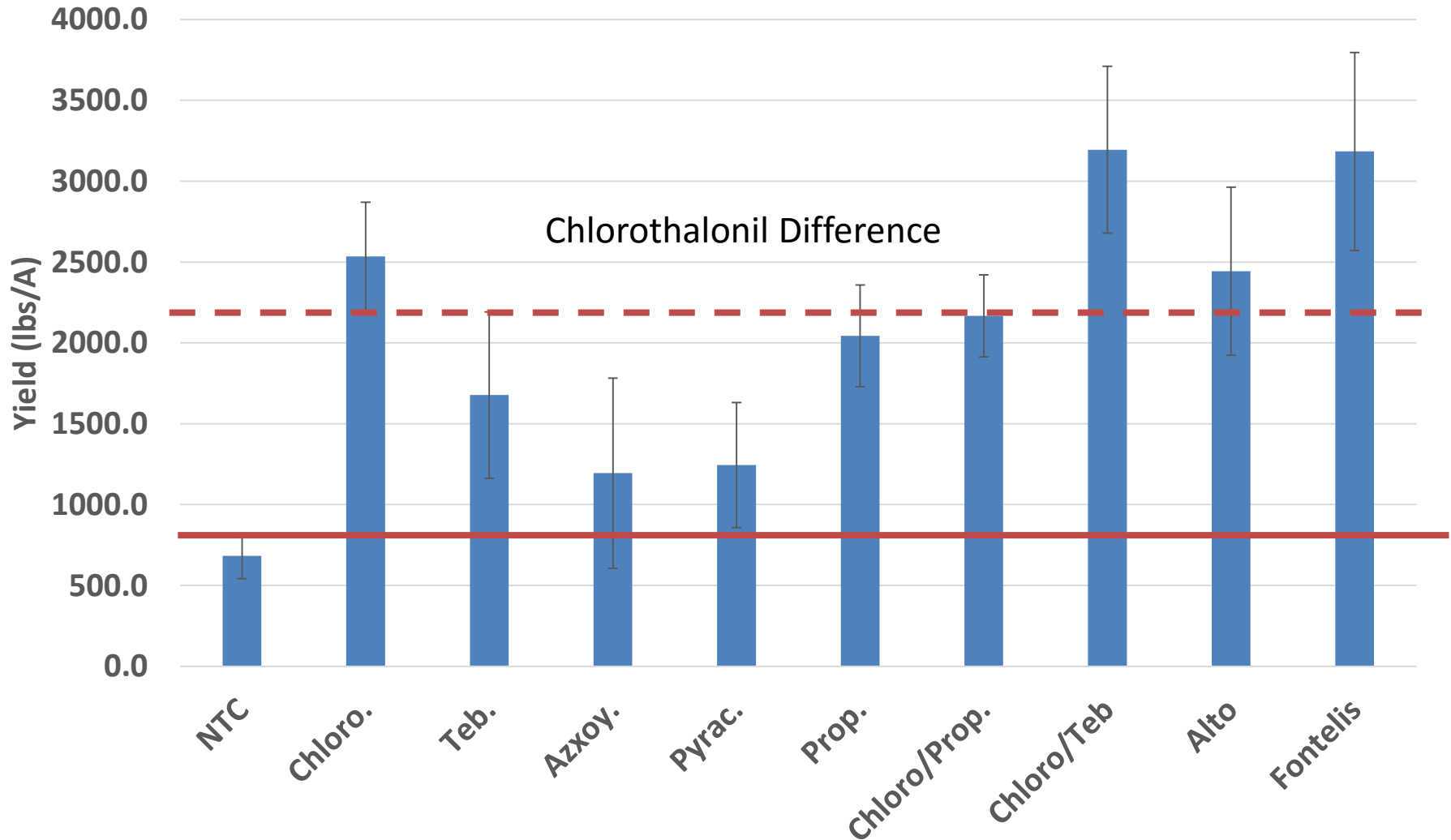
- Group 3 (Tebuconazole, Propiconazole, Alto)
- Group 11 (Azoxystrobin and Pyraclostrobin)
- Group 7 (Penthiopyrad)

- Planting date: 6/9/16
- Variety: Georgia-06G

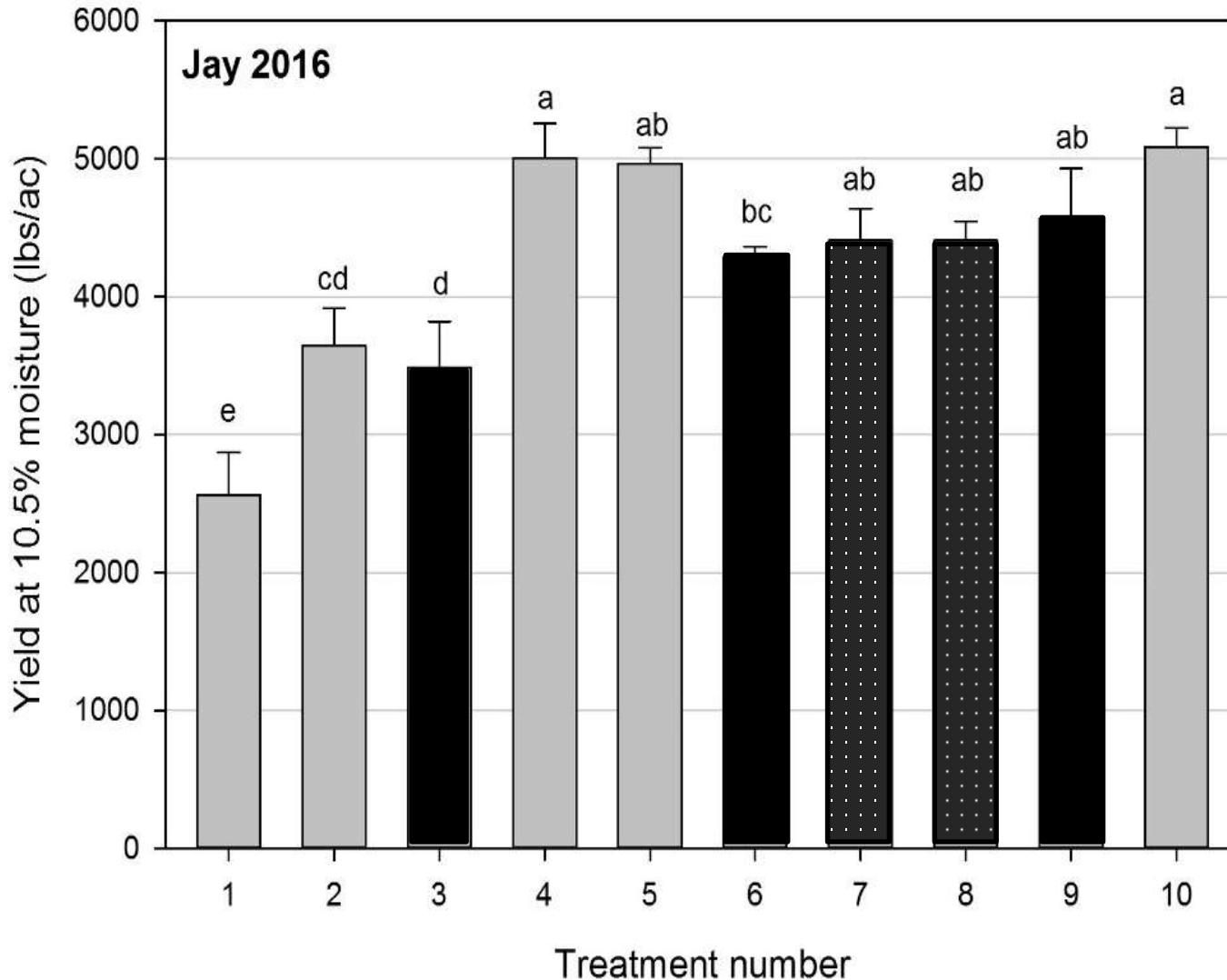
Early leaf spot was the predominate foliar pathogen.



Qol fungicides did not do well when ELS is predominate.

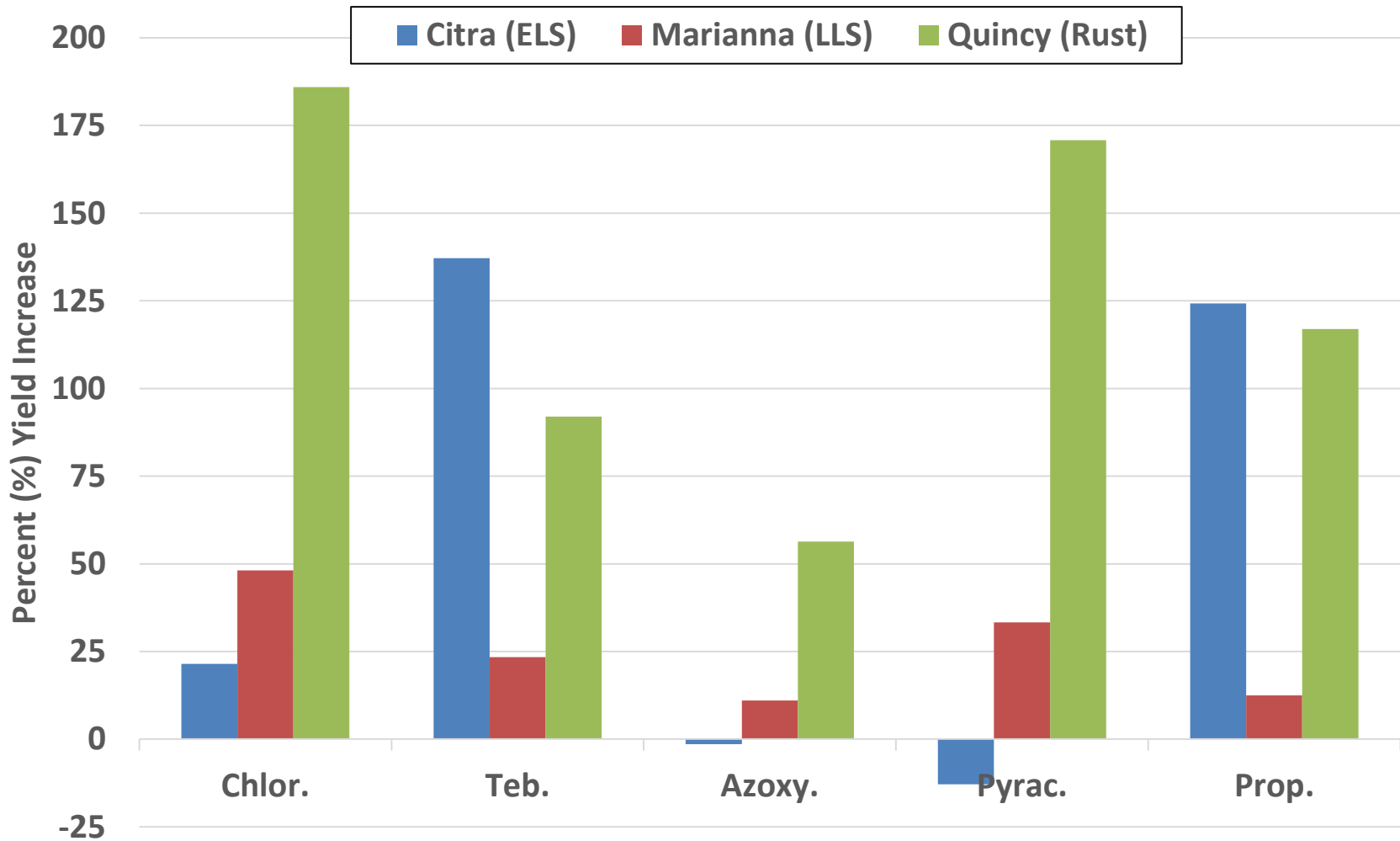


DMI had less control when LLS was predominate, but products varied.



1	NTC
2	Chloro.
3	Teb.
4	Azoxy.
5	Pyrac.
6	Prop.
7	Chloro/Prop
8	Teb/Chloro
9	Alto.
10	Fontelis

The dominate pathogen varies across Florida, so scouting is important.



Avoid using Qols alone, unless looking for rust control.

Azoxystrobin

- Weak – LLS
- Weak – ELS
- Strong - Rust



Pyraclostrobin

- Moderate - LLS
- Weak - ELS
- Strong - Rust



DIMs (if available) should also have a good leaf spot mixing partner.

Propiconazole

- Weak - LLS
- Strong - ELS
- Mod./Strong - Rust



Tebuconazole

- Weak - LLS
- Strong - ELS
- Moderate - Rust



Provost® and Alto® (FRAC 3) can perform better but...

- Provost different results in 2016 trials
 - Low white mold in trials
 - Provost®Opti new formulation
 - Expect 10.7 fl oz/A rate in 2017
- Alto is not consistent
 - Resistance has been reported before
 - Mixing partner will be important
 - Bravo and Topsin
 - Abound is promising



Rotating modes of action key to disease control when resistance is present.

Group 3



Group 7



Elatus™



Group 11



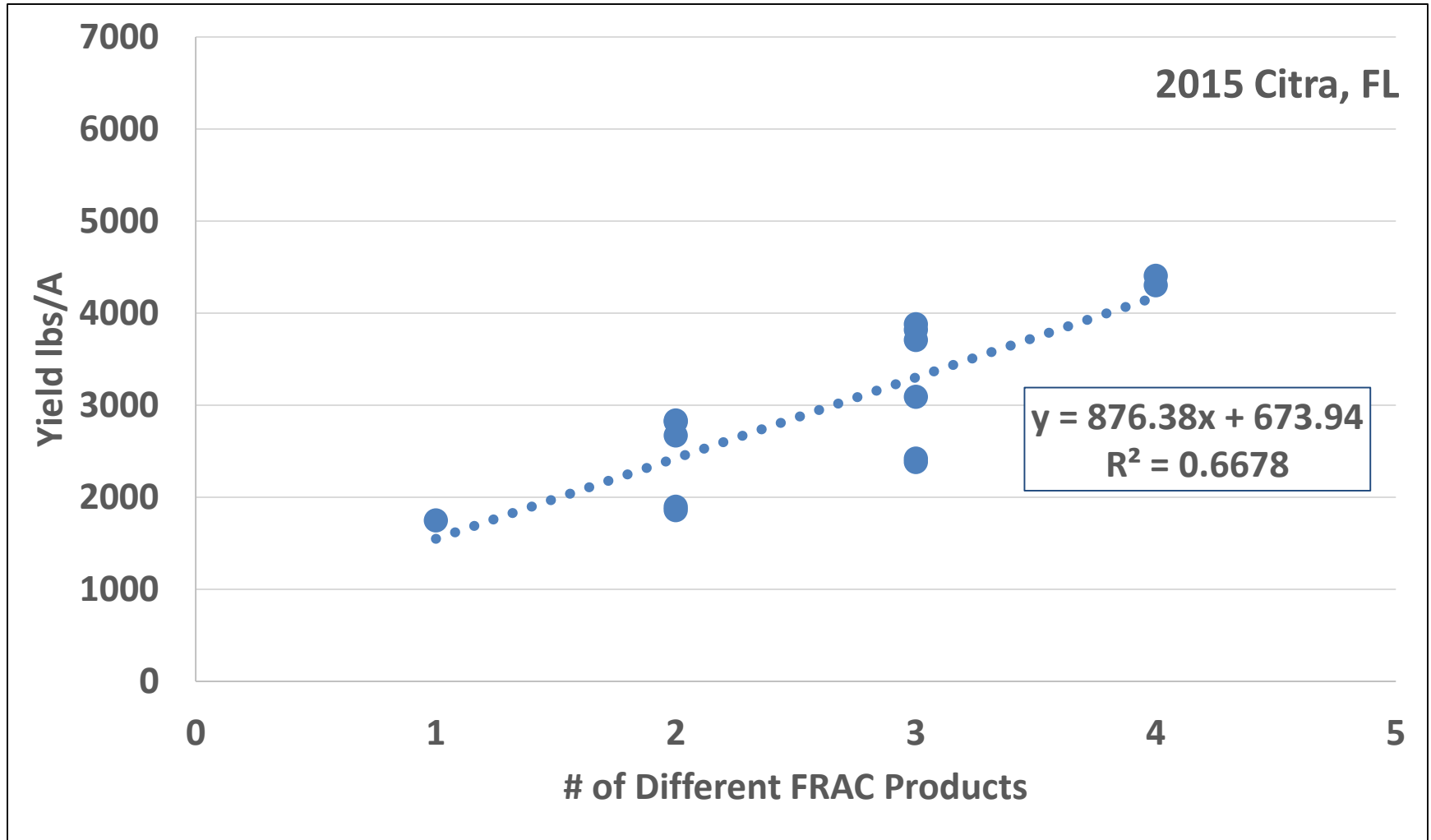
Mixed



Elatus™

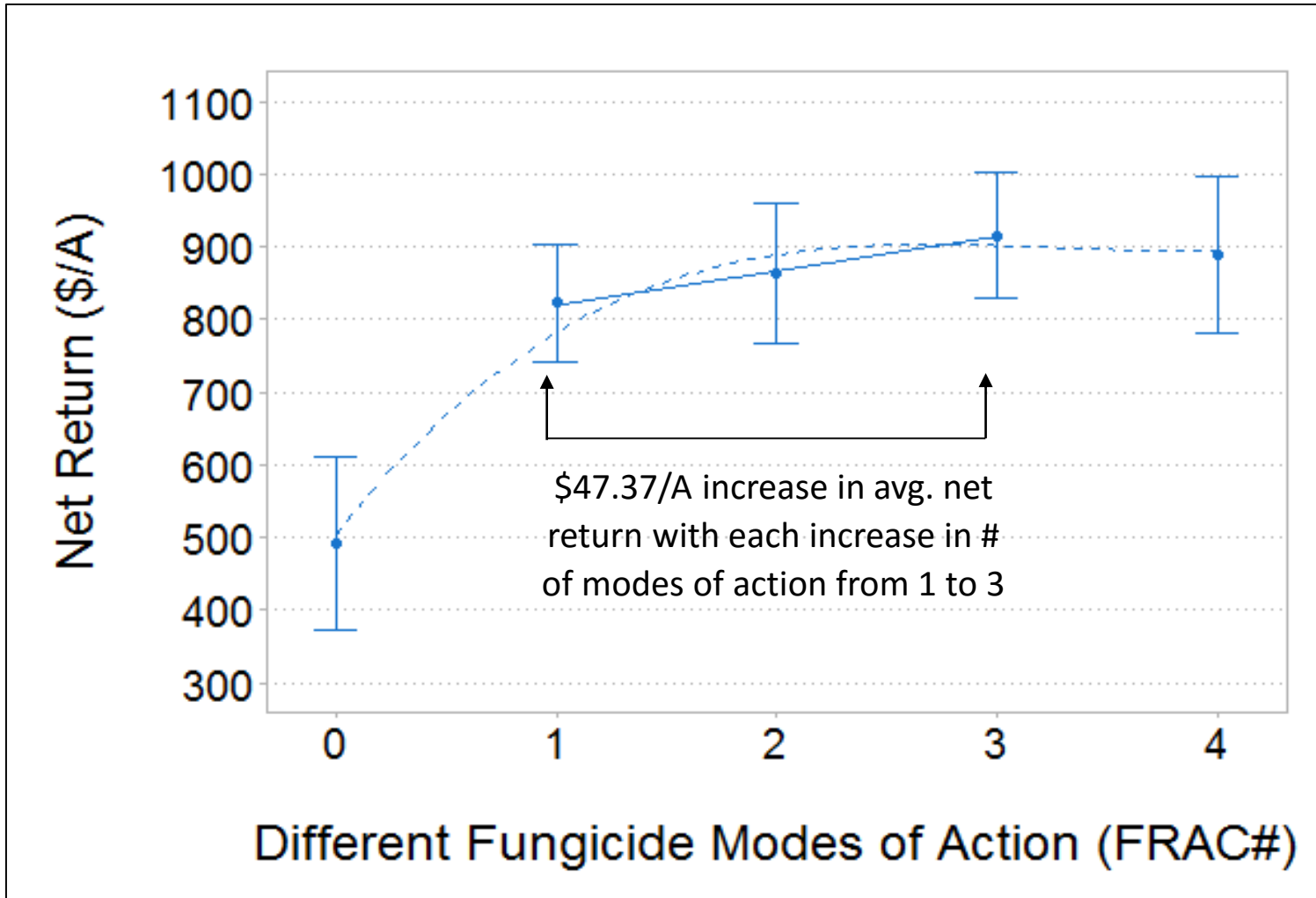


Rotating fungicide MOAs, increases the likelihood of a yield savings.



~ 900 lb/A increase for each FRAC # added

However, net returns tend to max out at 3 modes of action.



Cultivar selection is critical to determining what and how many fungicides to use.

Disease history

Expected disease



<http://nwdistrict.ifas.ufl.edu/phag/2015/01/09/2014-uf-peanut-variety-test-results/>

Wednesday, March 11, 2017 Cotton Farming Rice Farming Soybean South Corn/South

The PEANUT GROWER

"...we hit 7,000 lbs. in peanut yield."
- James Corbitt, Georgia Peanut Farmer

TagTeam LCO
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PEANUT VARIETY GUIDE 2017

2017
VARIETY
GUIDE

MONSANTO
BioAg
Here, it's powerful technology.

The best variety choice is one that will achieve a rapid, uniform stand and provide good yields and grades over a wide range of growing conditions. With so many varieties to choose from, careful

Cultivar choice can determine the appropriate spray program.

Planting Dates:

4/30 and 6/5 - 2014

5/18 - 2015

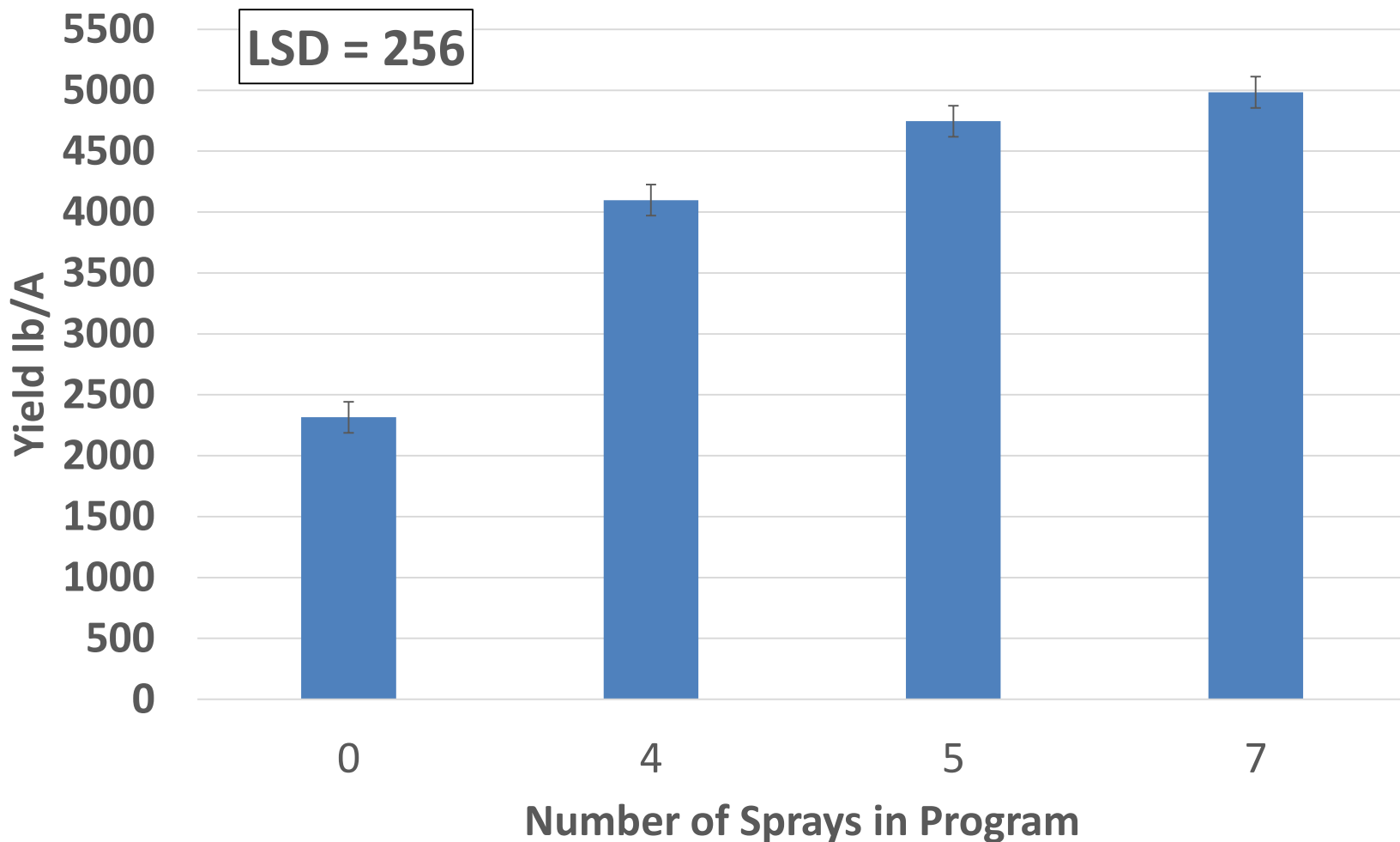
5/11 - 2016

Cultivars	
Georgia-06G	TUFRunner 511
Florida 07	UF15302
FloRun 107	FloRun157
TUFRunner727	TUFRunner297

Days After Planting

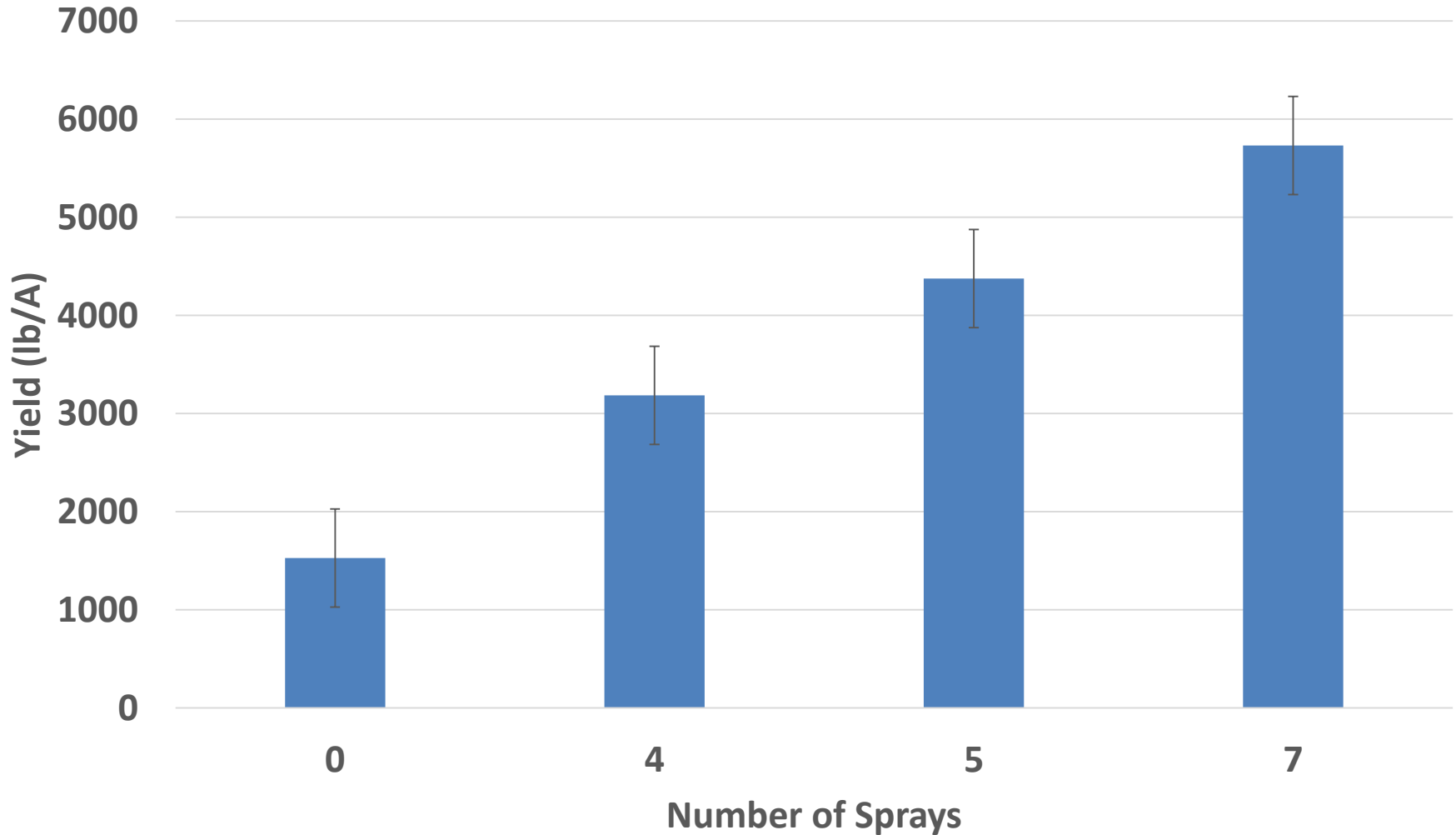
	31	40	48	62	76	91	105	112	118
4 Sprays		Echo 720 @ 1.5 pt/a		TebuStar @ 7.2 fl oz/a + Echo 720 1 pt/a		Abound 2.08SC @ 18 fl oz/a + Echo 720 1 pt/a		TebuStar @ 7.2 fl oz/a + Echo 720 1 pt/a	
5 Sprays		Echo 720 @ 1.5 pt/a		TebuStar @ 7.2 fl oz/a + Echo 720 1 pt/a	Echo 720 @ 1.5 pt/a	Abound 2.08SC @ 18 fl oz/a + Echo 720 1 pt/a		TebuStar @ 7.2 fl oz/a + Echo 720 1 pt/a	
7 Sprays	Echo 720 @ 1.5 pt/a		Echo 720 @ 1.5 pt/a	TebuStar @ 7.2 fl oz/a + Echo 720 1 pt/a	TebuStar @ 7.2 fl oz/a + Echo 720 1 pt/a	Abound 2.08SC @ 18 fl oz/a + Echo 720 1 pt/a	TebuStar @ 7.2 fl oz/a + Echo 720 1 pt/a		Echo 720 @ 1.5 pt/a

Yield differences between 5 & 7 sprays were not significant with low to mod. disease.



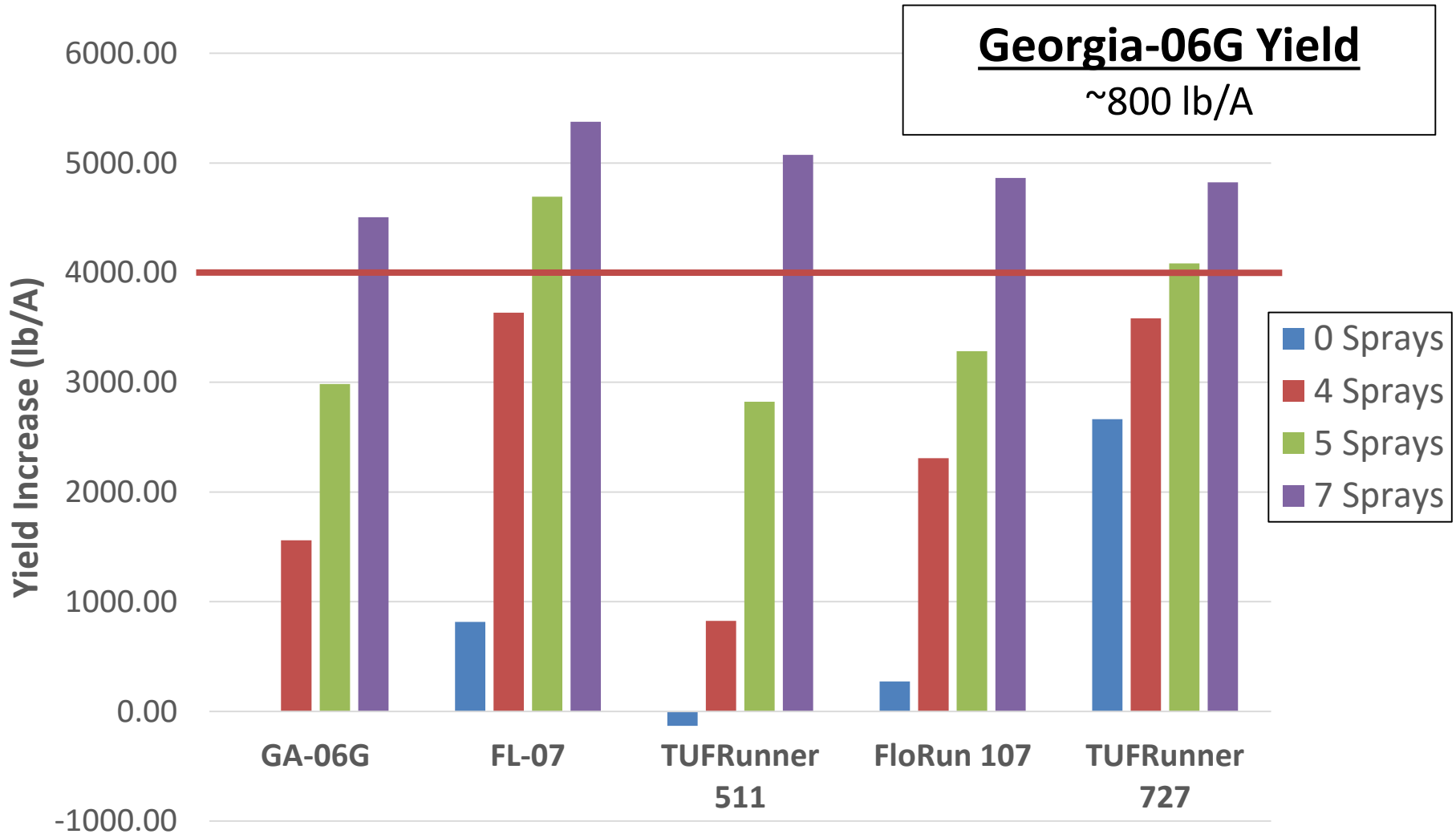
Low white mold; Leaf spot max defoliation ~50%

However, with high disease all fungicide spray numbers separated significantly.



Low white mold; Leaf spot max defoliation ~99%

Certain varieties can maintain high yields in a reduced spray program.



TUFRRunner 727 and FL-07 total yields more than 4,700 lb/A at 5 sprays.

Based on 3 years of research the cultivars can be separated into 2 categories

Low impact from spray reduction

- FloRun 331*
- Florida 07
- TUFRRunner 727



Early leaf spot was the primary pathogen present.

High(er) impact from spray reduction

- Georgia 06G
- TUFRRunner 511
- TUFRRunner 297
- FloRun 107



* Only 1 year's worth of data

Peanut Rx provides risk information about varieties related to the whole Southeast.

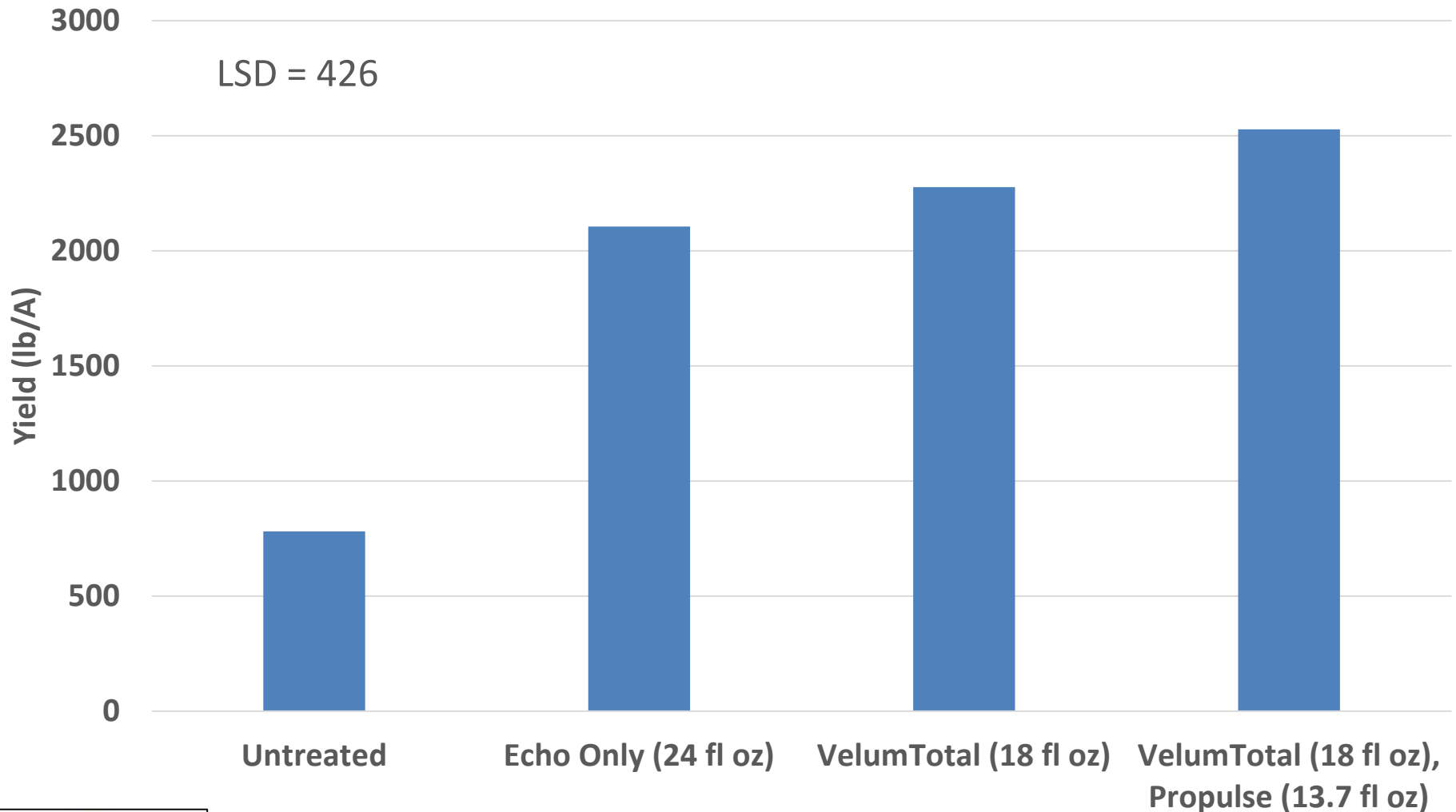
Peanut Variety

Variety ¹	Spotted Wilt Points	Leaf Spot Points	Soilborne Disease Points
			White mold
Bailey ³	10	15	10
Florida-07 ²	10	20	15
Florida Fancy ²	25	20	20
FloRun™ '107 ²	20	25	20
FloRun™ '157' ^{1,2}	25	25	20
Georgia-06G	10	20	20
Georgia-07W	10	20	15
Georgia-09B ²	20	25	25
Georgia-12Y ⁵	5	15	10
Georgia-13M ^{1,2}	10	30	25
Georgia-14N ^{1,2,4}	10	15	15
Georgia Green	30	20	25
Sullivan ^{1,2}	10	20	15
Tifguard ⁴	10	15	15
TUFRunner™ '297' ^{1,2}	10	25	20
TUFRunner™ '511' ²	20	30	15

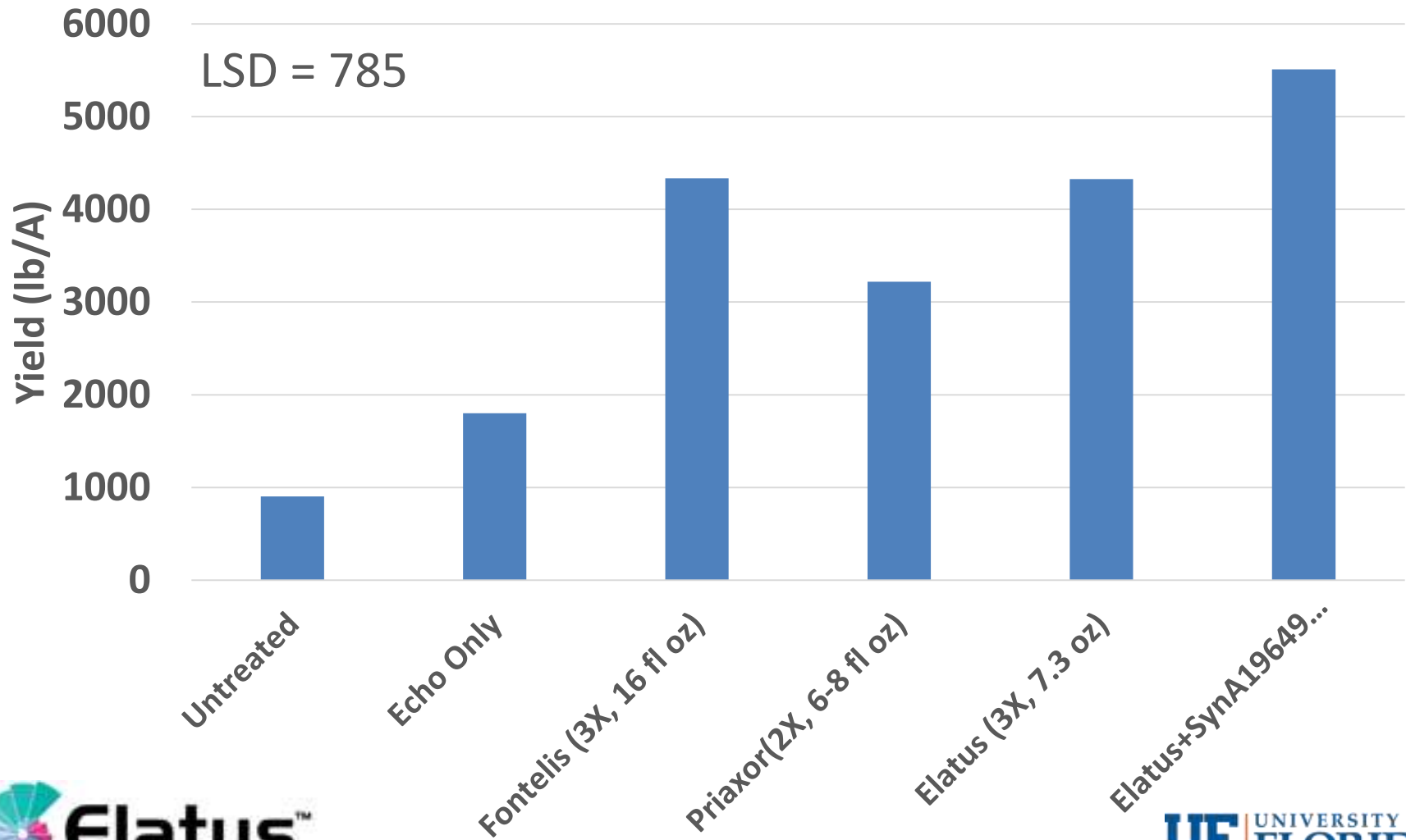
2016 General Fungicide Trial Observations

- 6th year of continuous peanuts
 - Inoculated with White Mold 2011 and 2012
 - Inoculated with Rhizoctonia 2012
- Planting date: 5/16
- Harvest date: 10/16
- Variety: Georgia-06G

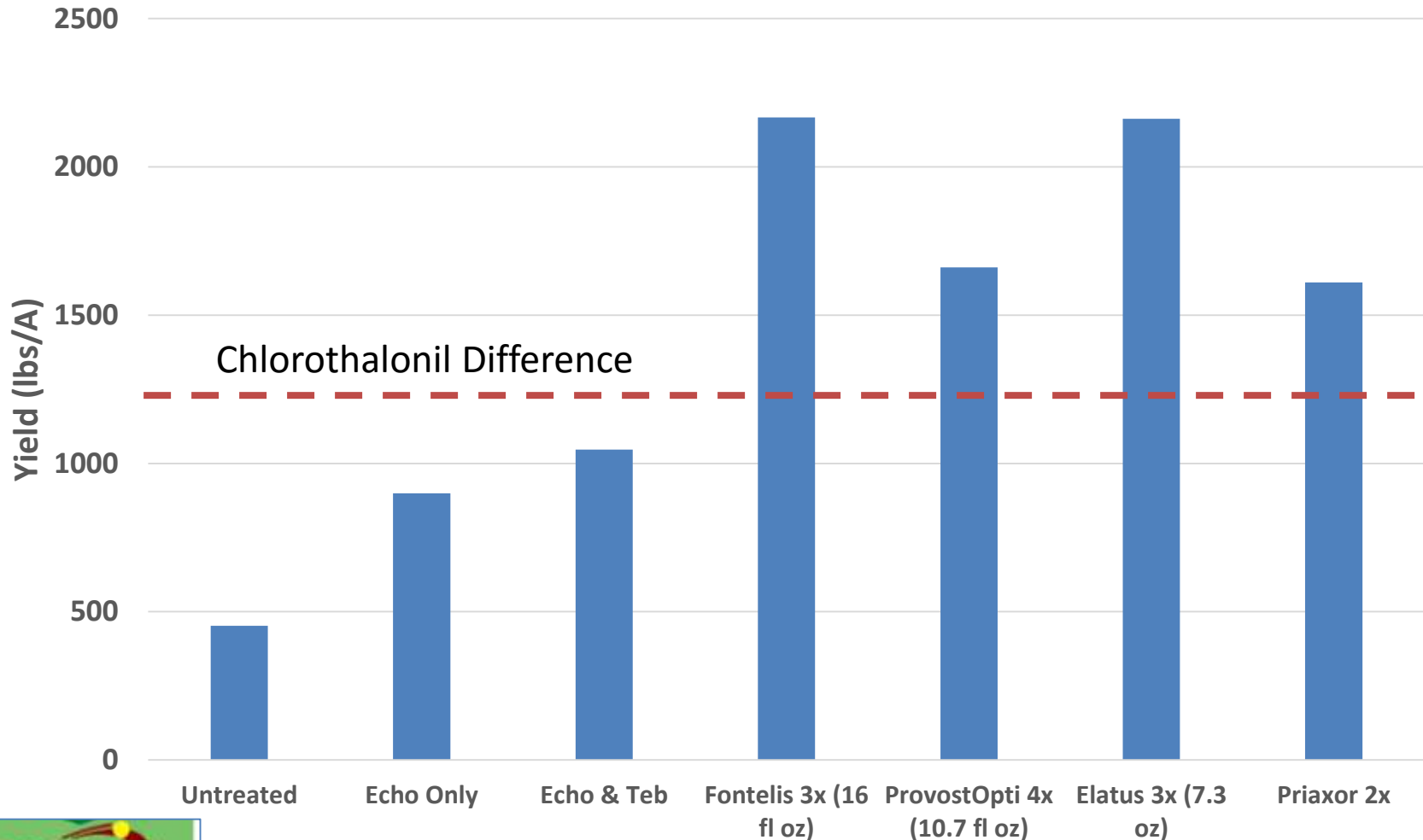
Velum®Total provided some disease benefits, but focus use as nematicide.



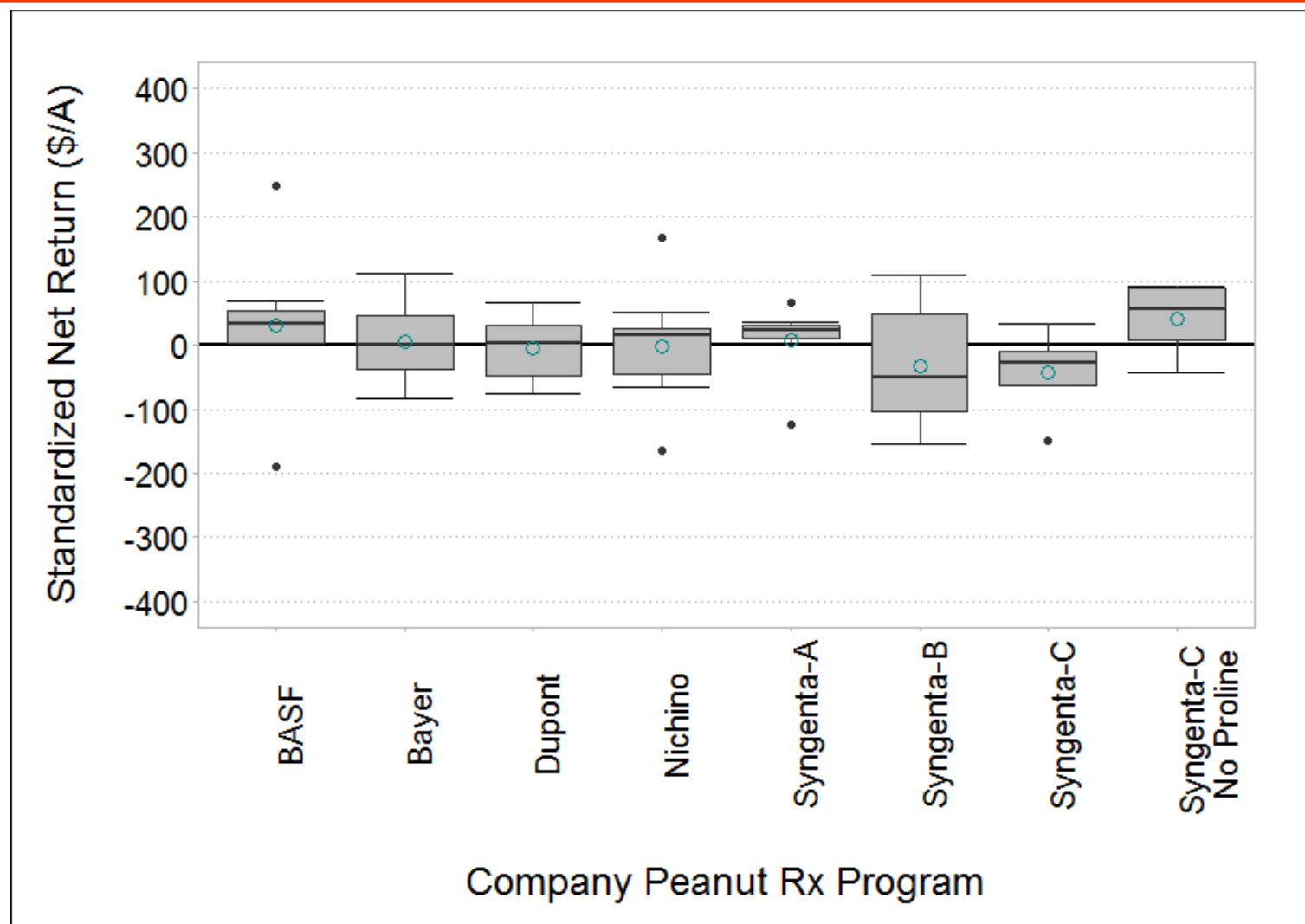
Elatus continues to perform well and new compound shows promise for leaf spots.



Provost®Opti performed better than generic sprays & similar to Priaxor.



Chemical diversity, timing & number of sprays all important for disease management.



Questions?



Please Stay On Trail

For your safety and to avoid harmful erosion, please remain on designated trail. The canal is home to many animals, and they may see you as a threat—or food! These animals are well camouflaged and may not be visible until you are too close.