

**Fungicide Trial Update Presentation  
Delivered at 8 Peanut Producer Meetings in  
2019/2020**

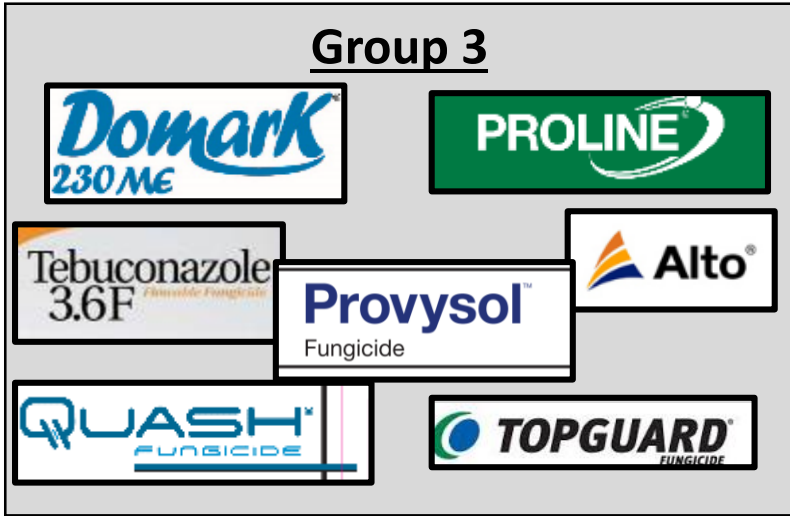
# Peanut Plant Disease / Fungicide Trial Update

Keith Wynn, UF/IFAS, Extension Hamilton County

Nicholas Dufault, UF/IFAS, Plant Pathology, Gainesville, FL

# Available fungicides by FRAC grouping

**Group 3**



Domark 230 ME

PROLINE

Tebuconazole 3.6F Fungicide

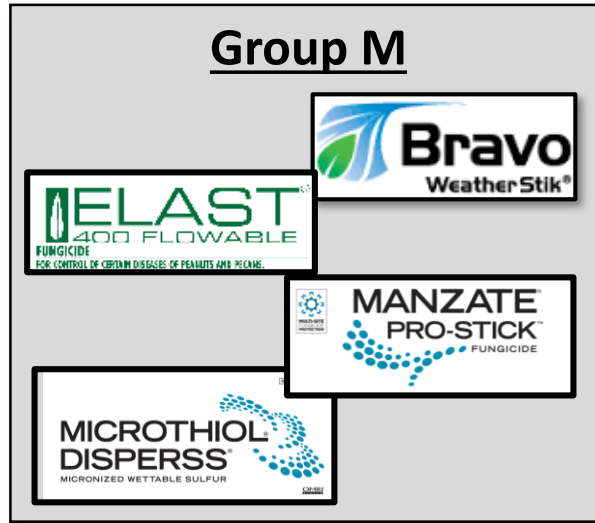
Provysol Fungicide

Alto

QUASH FUNGICIDE

TOPGUARD FUNGICIDE

**Group M**



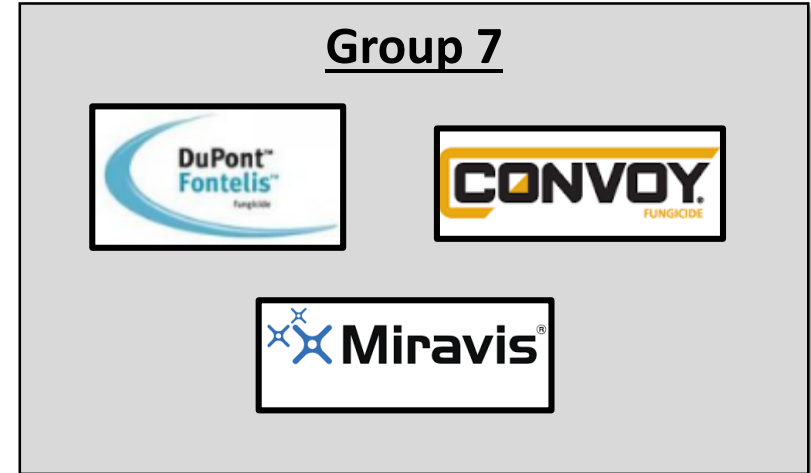
ELAST 400 FLOWABLE FUNGICIDE FOR CONTROL OF CERTAIN DISEASES OF PEANUTS AND PECANS.

Bravo WeatherStik

MANZATE PRO-STICK FUNGICIDE

MICROTHIOL DISPERSS MICRONIZED WETTABLE SULFUR

**Group 7**



DuPont Fontelis fungicide

CONVOY FUNGICIDE

Miravis

**Group 1**



TOPSIN 4.5FL FUNGICIDE

Incognito

**Group 11**

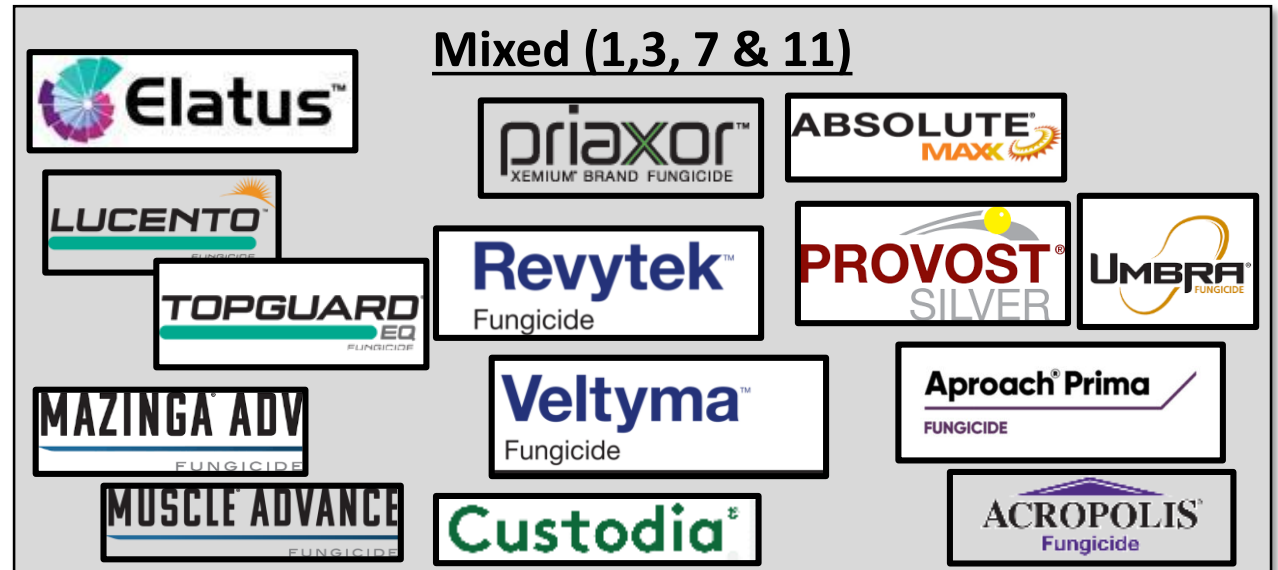


Headline Fungicide

Evito

Abound Flowable Fungicide

**Mixed (1,3, 7 & 11)**



Elatus

priaxor XEMUM BRAND FUNGICIDE

ABSOLUTE MAXX

LUCENTO

TOPGUARD EQ FUNGICIDE

Revytek Fungicide

PROVOST SILVER

UMBRA FUNGICIDE

MAZINGA ADV FUNGICIDE

Veltyma Fungicide

Aproach Prima FUNGICIDE

MUSCLE ADVANCE FUNGICIDE

Custodia

ACROPOLIS Fungicide

*No endorsement of products or services is implied or intended. Note this is not a complete list of peanut fungicides.*

# Stem Rot/White Mold fungicides

## Group 3



## Group M

## Group 7



## Group 1

## Group 11



## Mixed (1,3, 7 & 11)



*No endorsement of products or services is implied or intended. Note this is not a complete list of peanut fungicides.*

# Leaf spot fungicides

**Group 3**

**Group M**

**Group 7**

**Group 1**

**Group 11**

**Mixed (1,3, 7 & 11)**

No endorsement of products or services is implied or intended. Note this is not a complete list of peanut fungicides.

# All the fungicides will have activity for pathogens on the labels



Rating based on research from azoxystrobin and pyraclostrobin

Strong	Moderate	Weak
		Early Leaf Spot
Rust		
	Late Leaf Spot	
	White mold	



Mostly research from tebuconazole

- \*Proline has been strong:
- White mold
  - Leafspots

Strong	Moderate	Weak
		Early Leaf Spot
		Rust
		Late Leaf Spot
White mold*		

Limitations do exist, but depends a lot on the pathogen present in your field


# 2019 UF/IFAS Peanut Fungicide Trials

- 70 acre on-farm research trial in Hamilton County
- Large plot input trial at the North Florida Research and Education Center-Suwannee Valley
- Small plot research trial at the North Florida Research and Education Center-Suwannee Valley

# Hamilton County Fungicide On-Farm Trial



2012 to Present



24 row plots  
Replicated 4 times







Each treatment consists of approximately 10 acres



# Spray schedules followed company Peanut Rx spray programs



- Miravis<sup>®</sup>
- Elatus<sup>®</sup>



- Miravis<sup>®</sup>
- Tebuconazole



- Provost Silver<sup>®</sup>
- Absolute Maxx<sup>®</sup>



- Velum Total<sup>®</sup>
- Provost Silver<sup>®</sup>
- Absolute Maxx<sup>®</sup>



- Fontelis<sup>®</sup>
- Absolute Maxx<sup>®</sup>
- Provost Silver<sup>®</sup>

Note: all trials were **treated** with Abound<sup>®</sup> in-furrow at planting.  
Chlorothalonil and Tebuconazole were also used

# 2019 Fungicide Spray Schedules

	<b>Infurrow 30-May-19</b>	<b>48 DAP 17-Jul-19</b>	<b>67 DAP 5-Aug-19</b>	<b>83 DAP 21-Aug-19</b>	<b>98 DAP 5-Sep-19</b>	<b>113 DAP 20-Sep-19</b>	<b>127 DAP 4-Oct-19</b>	<b>Total Fugicide Yearly Cost</b>
<b>Syngenta 1</b>	Abound (18 oz/A) \$17.64/A	Elatus (7.3 oz/A) \$15.04/A	Miravis (3.4 oz/A) \$22.10/A Elatus (7.3 oz/A) \$15.04/A		Miravis (3.4 oz/A) \$22.10/A Elatus (7.3 oz/A) \$15.04/A		Chlorothalonil (24 oz/A) \$7.20/A	\$114.16/Acre
<b>Syngenta 2</b>	Abound (18 oz/A) \$17.64/A	Chlorothalonil (24 fl oz/A) \$7.20/A Tebuconazole (7.2 fl oz/A) \$3.31/A	Miravis (3.4 oz/A) \$22.10/A Tebuconazole (7.2 fl oz/A) \$3.31/A		Miravis (3.4 oz/A) \$22.10/A Tebuconazole (7.2 fl oz/A) \$3.31/A		Chlorothalonil (24 oz/A) \$7.20/A	\$86.17/Acre
<b>Bayer 1</b>	Abound (18 oz/A) \$17.64/A	Absolute Maxx (3.5 fl oz/A) \$7.25/A	Provost Silver (13 fl oz/A) \$15.73	Abound (18.5 fl oz/A) \$18.13/A Chlorothalonil (24 fl oz/A) \$7.20/A	Provost Silver (13 fl oz/A) \$15.73	Abound (18.5 fl oz/A) \$18.13/A Chlorothalonil (24 fl oz/A) \$7.20/A	Chlorothalonil (24 oz/A) \$7.20/A	\$114.21/Acre
<b>Bayer 2</b>	VelumTotal (18 oz/A) \$34.74	Absolute Maxx (3.5 fl oz/A) \$7.25/A	Provost Silver (13 fl oz/A) \$15.73	Abound (18.5 fl oz/A) \$18.13/A Chlorothalonil (24 fl oz/A) \$7.20/A	Provost Silver (13 fl oz/A) \$15.73	Abound (18.5 fl oz/A) \$18.13/A Chlorothalonil (24 fl oz/A) \$7.20/A	Chlorothalonil (24 oz/A) \$7.20/A	\$131.31/Acre
<b>Corteva</b>	Abound (18 oz/A) \$17.64/A	Absolute Maxx (3.5 fl oz/A) \$7.25/A	Provost Silver (13 fl oz/A) \$15.73	Fontelis (16 oz/A) \$23.20/A	Provost Silver (13 fl oz/A) \$15.73	Fontelis (16 oz/A) \$23.20/A	Chlorothalonil (24 oz/A) \$7.20/A	\$109.95/Acre



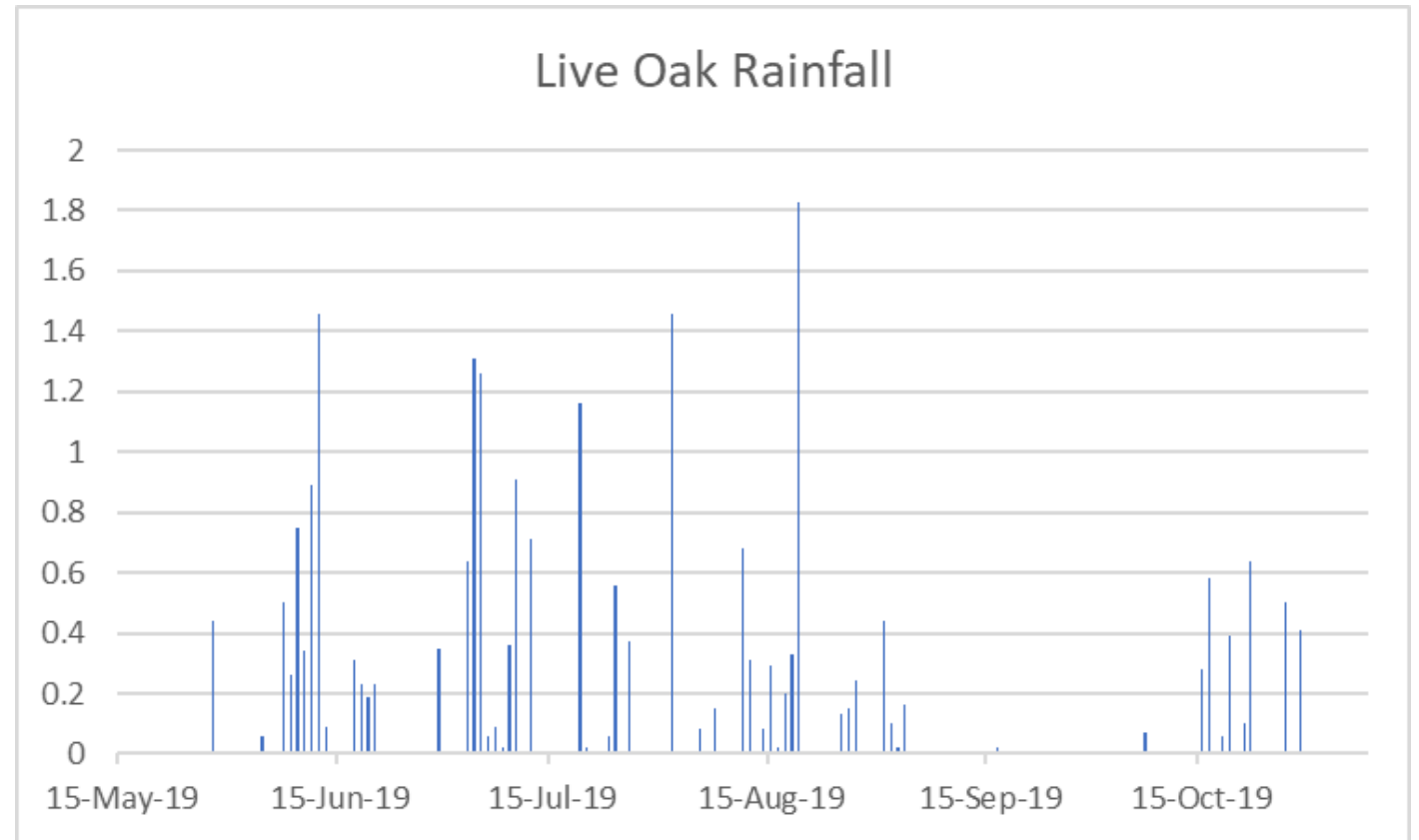
Disease was minimal, but foliar pathogens were present.

# On-farm images 2019



# Hamilton Co. On-Farm

- **Georgia-06G**
- **Four replications**
- **Planted: 5/30/19**
- **Invert: 10/23/19 (146 DAP)**
- **Harvest: 11/02/19**
- **Acres:**
  - 5.08 to 5.34 totals
  - 0.64 to 1.69 reps
- **Irrigated, dry corners**



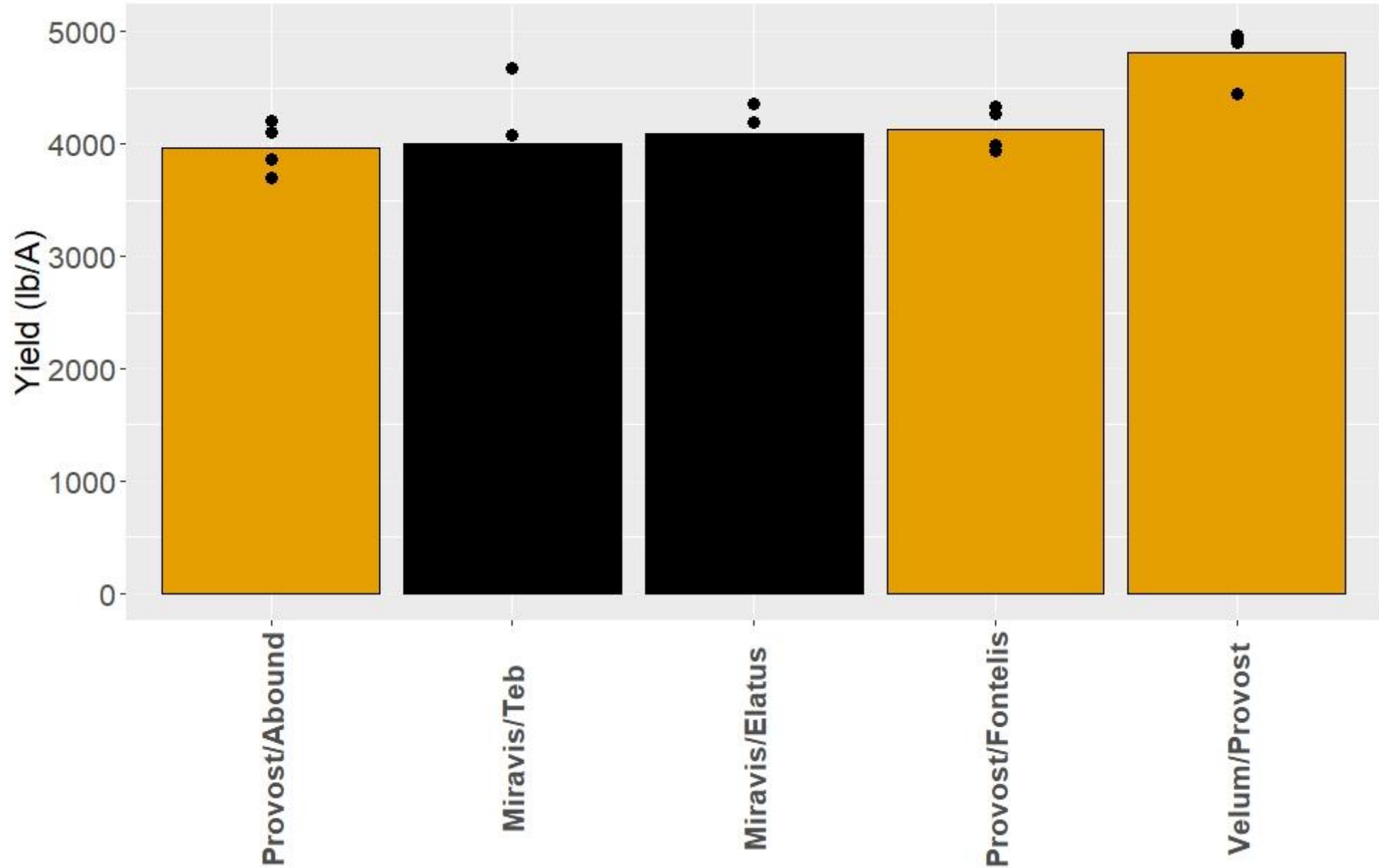
Avg Temp: 86 F  
94 days  $\geq$  90 F max







# 2019 On-Farm Trial results



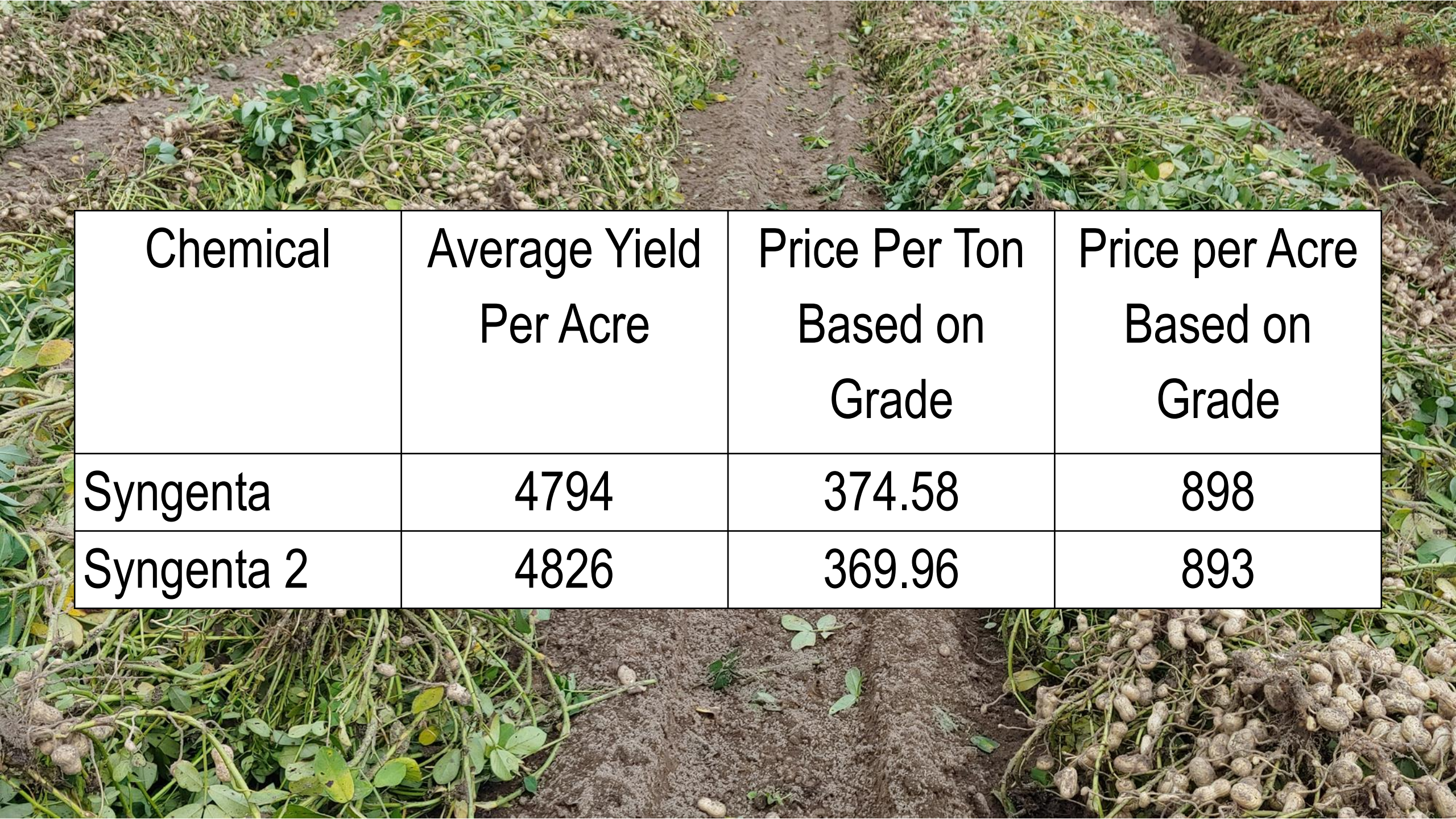
# NFREC-SV Input Trial (2015-Present)



- (2019) 3 acre trial with 2 treatments replicated three times
- Plant Date: 5/20/19
- Invert Date: 10/10/19 (147 DAP)
- Harvest Date: 10/14/19
- 1 treatment was Syngenta (Miravis and Elatus)
- 1 treatment was Syngenta (Miravis and Tebuconazole)

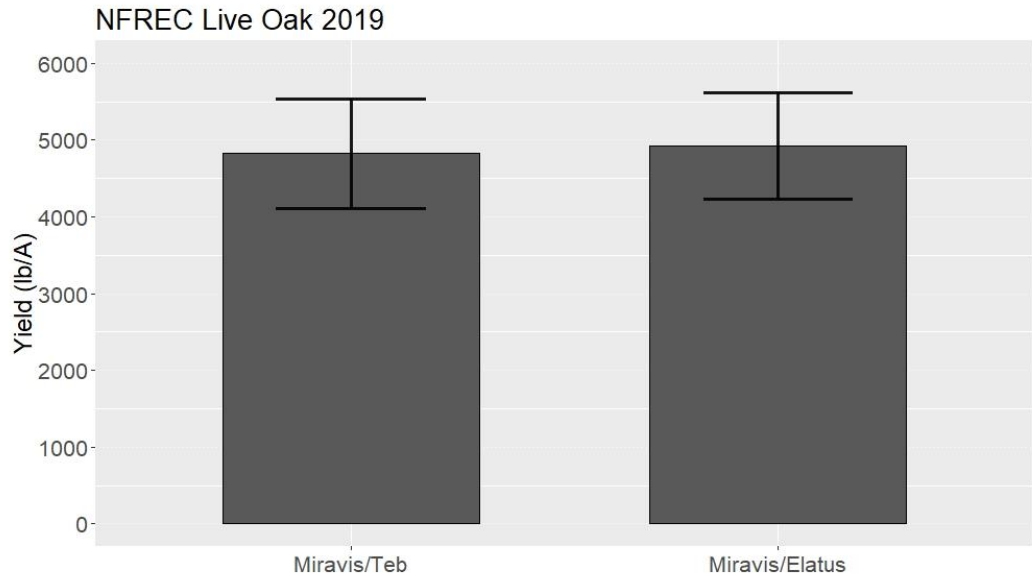
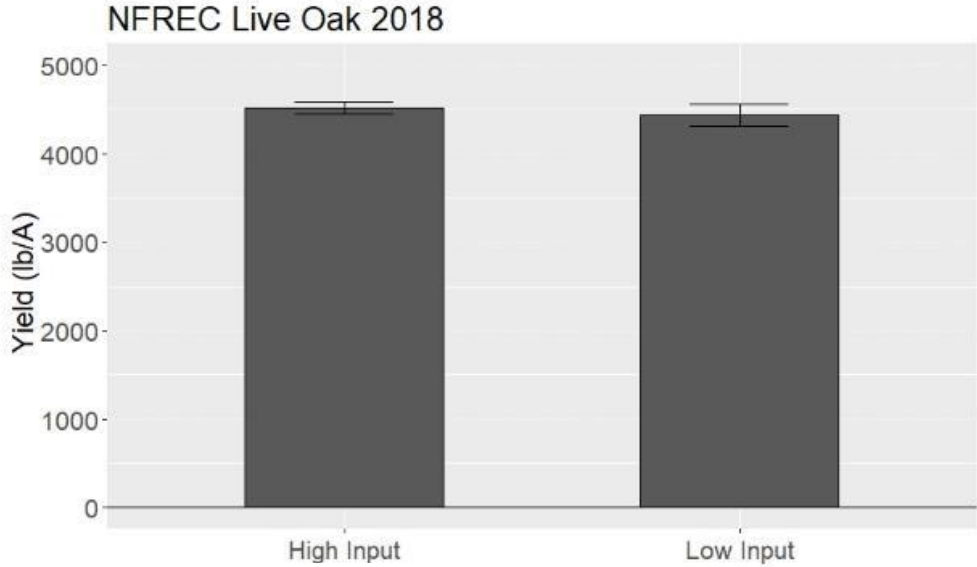
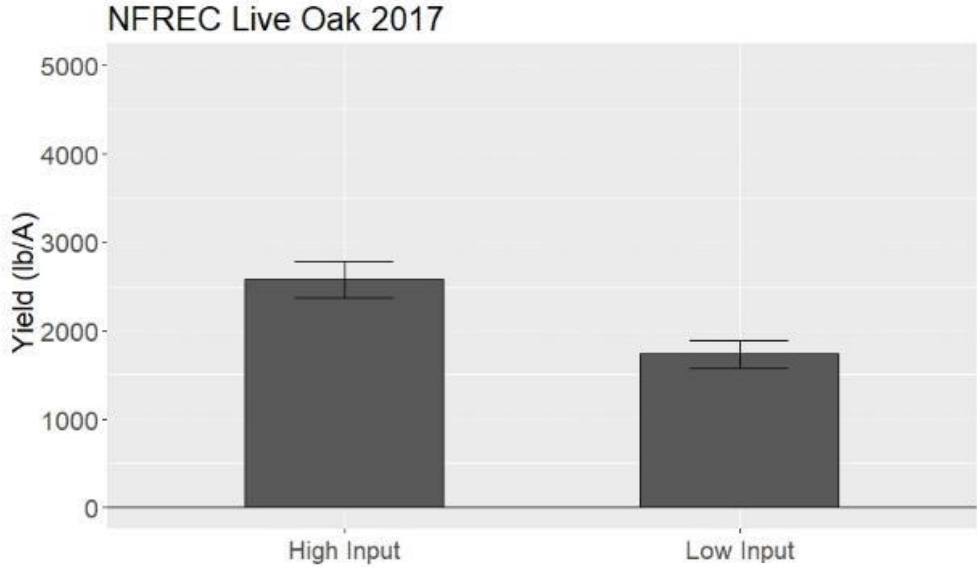
<b>Plant Date: 5/20/2019</b>	<b>6/21/19</b>	<b>7/15/19</b>	<b>8/07/19</b>	<b>9/04/19</b>	<b>9/18/19</b>	
<b>Days After Plant</b>	<b>32</b>	<b>56</b>	<b>79</b>	<b>107</b>	<b>121</b>	<b>Total Fung. Cost</b>
<b>High input</b>	<b>Elatus (7.3 fl oz/A) \$15.04/A</b>	<b>Miravis (3.4 fl oz/A) \$22.10/A Elatus (7.3 fl oz/A) \$15.04/A</b>	<b>Miravis (3.4fl oz/A) \$22.10/A Elatus (7.3fl oz/A) \$15.04/A</b>	<b>Chlorothalonil (24 fl oz/A) \$7.20/A</b>	<b>Chlorothalonil (24 fl oz/A) \$7.20/A</b>	<b>\$103.72</b>
<b>Low input</b>	<b>Chlorothalonil (24 fl oz/A) \$7.20/A Tebuconazole (7.2 fl oz/A) \$3.31/A</b>	<b>Miravis (3.4 fl oz/A) \$22.10/A Tebuconazole (7.2 fl oz/A) \$3.31/A</b>	<b>Miravis (3.4 fl oz/A ) \$22.10/A Tebuconazole (7.2 fl oz/A) \$3.31/A</b>	<b>Chlorothalonil (24 fl oz/A) \$7.20/A</b>	<b>Chlorothalonil (24 fl oz/A) \$7.20/A</b>	<b>\$75.73</b>





Chemical	Average Yield Per Acre	Price Per Ton Based on Grade	Price per Acre Based on Grade
Syngenta	4794	374.58	898
Syngenta 2	4826	369.96	893

# Different results between 17 and 18 trials



Disease pressure was low in both plots but check strips were completely defoliated by leaf spot



# PeanutRx Program Comparisons, Small Plot NFREC-SV

- **Cultivar: Georgia-06G**
- **Four replications**
- **Planted: 5/22/19**
- **Dug: 10/08/19 (139 DAP)**
- **5 years continuous peanut**







## 2019 NFREC - Suwannee Vally Small Plot Peanut Fungicide Trial

Planting Date												
5/22/2019	Date		22-May	21-Jun	5-Jul	12-Jul	22-Jul	5-Aug	9-Aug	20-Aug	4-Sep	20-Sep
	DAP		0	30	44	51	61	75	79	90	105	121
			InFurrow	Leaf Spot	Leaf Spot		Stem Rot	Leaf Spot		Stem Rot/Limb Rot	Leaf Spot	Leaf Spot
Untreated		1										
Chloro. Only		2		Chloro. 24 fl oz/a	Chloro. 24 fl oz/a		Chloro. 24 fl oz/a	Chloro. 24 fl oz/a		Chloro. 24 fl oz/a	Chloro. 24 fl oz/a	Chloro. 24 fl oz/a
VelumT1		3	VelumTotal 18 fl oz/a		AbsoluteMax 3.5 fl oz/a		Elatus 7.3 oz/a	ProvostSilver 13 fl oz/a		Elatus 7.3 oz/a	ProvostSilver 13 fl oz/a	Chloro. 24 fl oz/a
VelumT2		4	VelumTotal 18 fl oz/a		AbsoluteMax 3.5 fl oz/a		Propulse 13.6 fl oz/a	ProvostSilver 13 fl oz/a		Elatus 7.3 oz/a	ProvostSilver 13 fl oz/a	Chloro. 24 fl oz/a
Lucento		5			AbsoluteMax 3.5 fl oz/a		Lucento 5.5 fl oz/a	ProvostSilver 13 fl oz/a		Lucento 5.5 fl oz/a	ProvostSilver 13 fl oz/a	Chloro. 24 fl oz/a
Provost		6			AbsoluteMax 3.5 fl oz/a		Elatus 7.3 oz/a	ProvostSilver 13 fl oz/a		Elatus 7.3 oz/a	ProvostSilver 13 fl oz/a	Chloro. 24 fl oz/a

5/22/2019	Date		22-May	21-Jun	5-Jul	12-Jul	22-Jul	5-Aug	9-Aug	20-Aug	4-Sep	20-Sep
	DAP		0	30	44	51	61	75	79	90	105	121
Miravis1		7		Elatus 7.3 oz/a		Miravis 3.4 fl oz/a Elatus 7.3 oz/a			Miravis 3.4 fl oz/a Elatus 7.3 oz/a		Chloro. 24 fl oz/a	Chloro. 24 fl oz/a
Miravis2		8		Chloro. 24 fl oz/a Teb. 3.6SC 7.2 fl oz/a		Miravis 3.4 fl oz/a Teb. 3.6 SC 7.2 fl oz/a			Miravis 3.4 fl oz/a Teb. 3.6 SC 7.2 fl oz/a		Chloro. 24 fl oz/a	Chloro. 24 fl oz/a
ProvostLow		9			AbsoluteMax 3.5 fl oz/a		Chloro. 24 fl oz/a	ProvostSilver 13 fl oz/a		Chloro. 24 fl oz/a	ProvostSilver 13 fl oz/a	Chloro. 24 fl oz/a
AproachPrima		10			Aproach Prima 6.8 fl oz/a		Chloro. 24 fl oz/a	ProvostSilver 13 fl oz/a		Chloro. 24 fl oz/a	ProvostSilver 13 fl oz/a	Chloro. 24 fl oz/a
Fontelis		11			Aproach Prima 6.8 fl oz/a		Fontelis 16 fl oz/a	Chloro. 24 fl oz/a Teb. 3.6SC 7.2 fl oz/a		Fontelis 16 fl oz/a	Chloro. 24 fl oz/a Teb. 3.6SC 7.2 fl oz/a	Chloro. 24 fl oz/a
Umbra		12			AbsoluteMax 3.5 fl oz/a		Umbra 26 fl oz/a Chloro. 16 fl oz/a	Chloro. 24 fl oz/a		Umbra 26 fl oz/a Chloro. 16 fl oz/a	Chloro. 24 fl oz/a	Chloro. 24 fl oz/a

# 2019 NFREC Small Peanut Plot Map

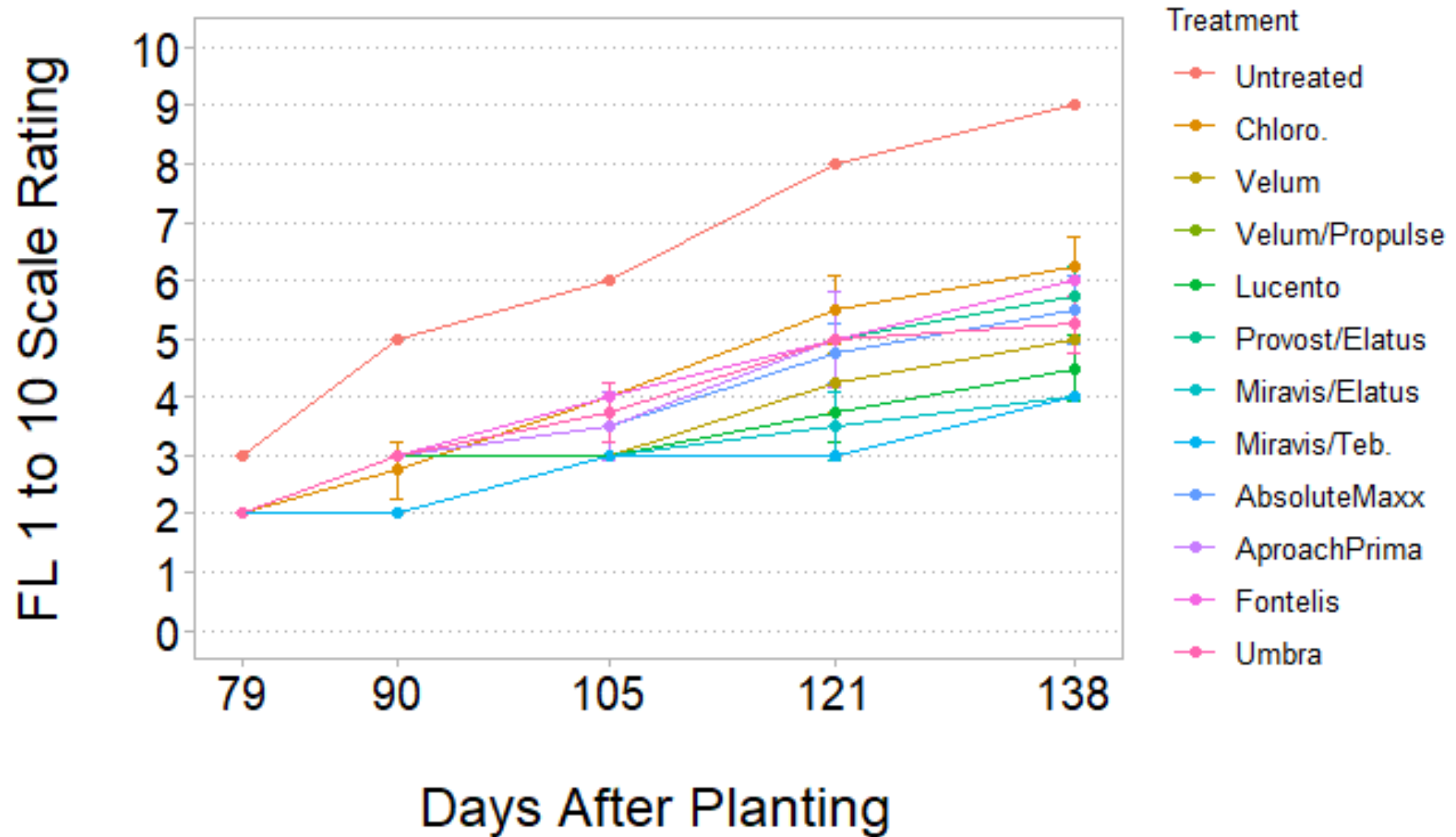
30 FT				9 9			8 8					11 11			6 6			10 10			3 3			2 2				12 12			5 5			7 7			1 1			4 4																				
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Row Type	B	B	B	B	T	T	B	B	T	T	B	D	D	B	T	T	B	B	T	T	B	B	T	T	B	B	T	T	B	B	T	T	B	B	T	T	B	B	T	T	B	B	T	T	B	B	B	D												
Row #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60



# Florida 1 to 10 Intensity Scale for Leaf Spots and Rust

Rank	Description
1	No disease
2	Very few lesions (none on upper canopy)
3	Few lesions (very few on upper canopy)
4	Some lesions with more on upper canopy than for rank of 3 and slight defoliation noticeable
5	Lesions noticeable even on upper canopy with noticeable defoliation
6	Lesions numerous and very evident on upper canopy with significant defoliation (50%+)
7	Lesions numerous on upper canopy with much defoliation (75%+)
8	Upper canopy covered with lesions with high defoliation (90%+)
9	Very few leaves remaining and those covered with lesions (some plants completely defoliated)
10	Plants are dead.

# Disease started about 70 DAP





09/20/19

121 Days Old

TREATMENT 3

TREATMENT 10





TRANSACT 1

# Nearly complete defoliation 127 DAP

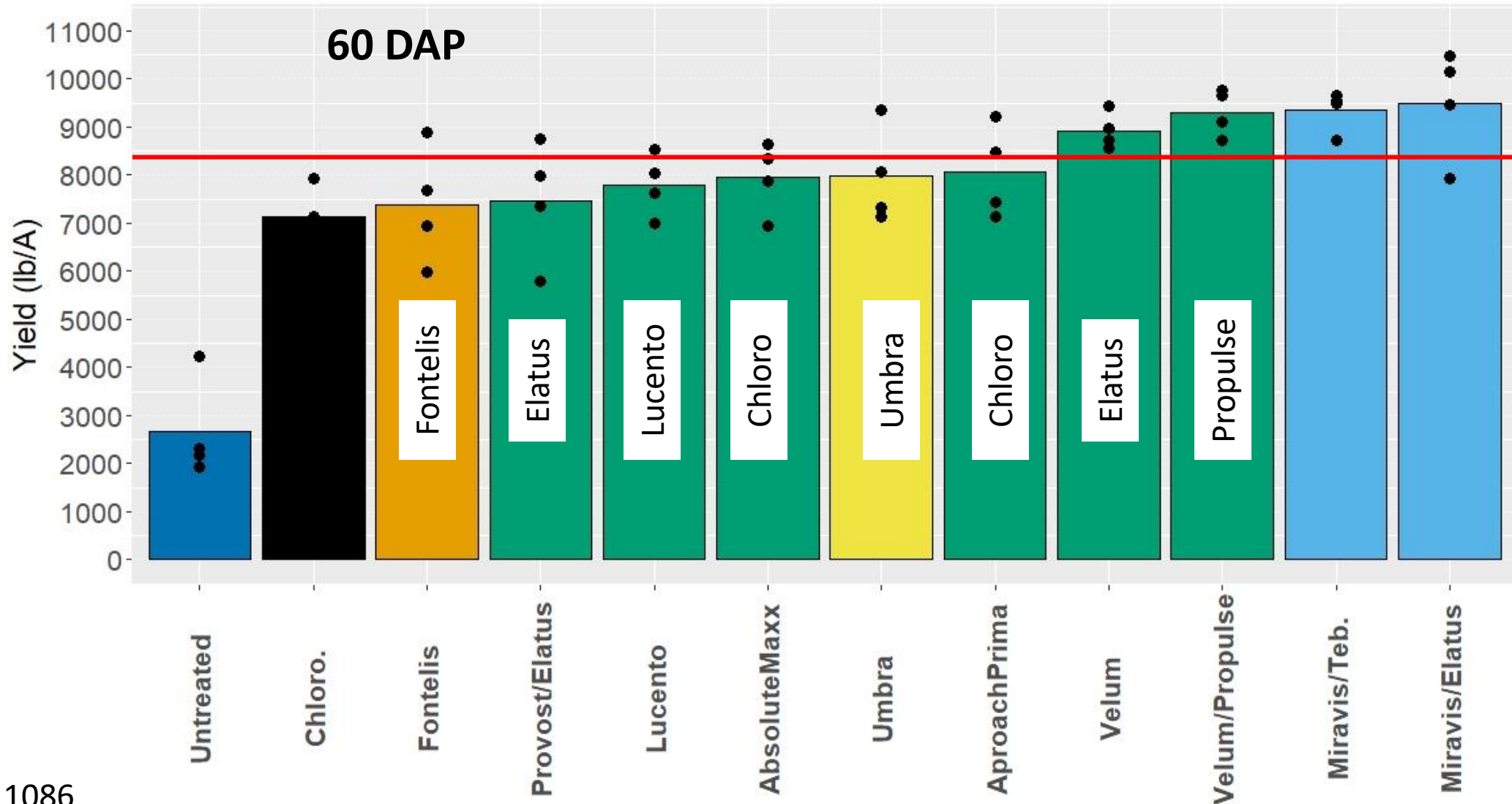
(Late and Early Leaf Spot)





10/07/19 138 Days Old

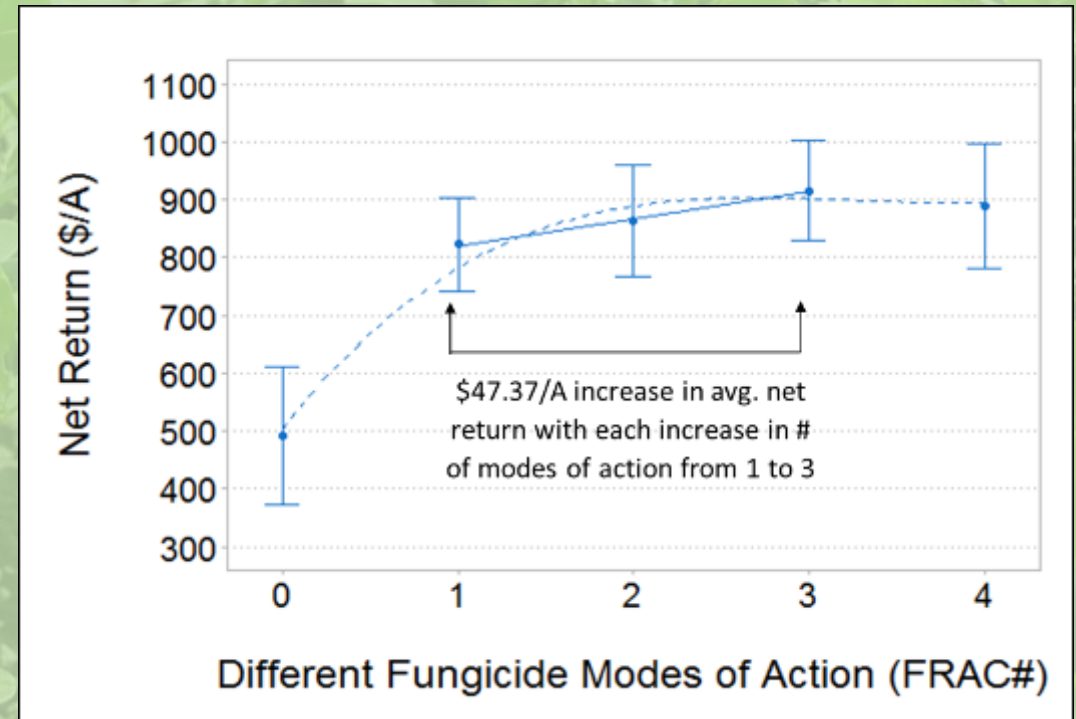
# Velum and Miravis top yielding programs



Yld LSD = 1086

# All Fungicide Programs Protect Well Against Disease

- All plot sizes produced similar results
- Relationship between FRAC# and Net Return
  - Product rotation critical
  - 3 MOA seems optimal
  - 2 MOA good but variable
    - Product selection critical
    - Timing also important



# Thanks



**North Florida Research and Education Center - Suwannee Valley**

**Suwannee River Peanut Company**

**Adams Farm INC**

**R.L. Cunningham & Sons**

A photograph of a dirt path winding through a field of tall, dry grass. In the foreground, a burlap sack is placed on the path. The word "Questions" is overlaid in the center of the image.

# Questions

# Small Plot Peanut Fungicide Efficacy Trial Presentation Delivered at National and State Extension Conferences

- 2018 National Association County Agricultural Agents Annual Meeting and Professional Improvement Conference
- 2018 Florida Association of County Agricultural Agents Mid Year Meeting
- 2019 American Peanut Research and Education Society



# Small Plot Peanut Fungicide Efficacy Trials

Keith Wynn, UF/IFAS, Hamilton County Extension

Dr. Nicholas S. Dufault, UF/IFAS, Plant Pathology

# Small Plot Peanut Fungicide Efficacy Trials

Keith Wynn, UF/IFAS, Hamilton County Extension

De Broughton, UF/IFAS, Suwannee County Extension

Dan Fenneman, UF/IFAS, Madison County Extension

Patrick Troy, UF/IFAS, Extension Regional Specialized Agent

Chris Vann, UF/IFAS, Lafayette County Extension

Nicholas S. Dufault, Ph. D., UF/IFAS, Department of Plant Pathology

# Fungicide Efficacy Trial Promotes Agent Training Through Experiential Learning

Keith Wynn, UF/IFAS, Hamilton County Extension

Dr. Nicholas S. Dufault, UF/IFAS, Associate Professor and Extension Specialist

De Broughton, UF/IFAS, Regional Specialized Agent, Agronomic Crops

Dan Fenneman, UF/IFAS, Madison County Extension

Chris Vann, UF/IFAS, Lafayette County Extension

Kevin Korus, UF/IFAS, Alachua County

The background of the slide is a photograph of a lush green peanut field. The plants are densely packed, and the leaves are vibrant green. A semi-transparent white rectangular box is overlaid on the center of the image, containing the text. The text is in a clean, black, sans-serif font.

## **Discussion Topics:**

Area Peanut Production

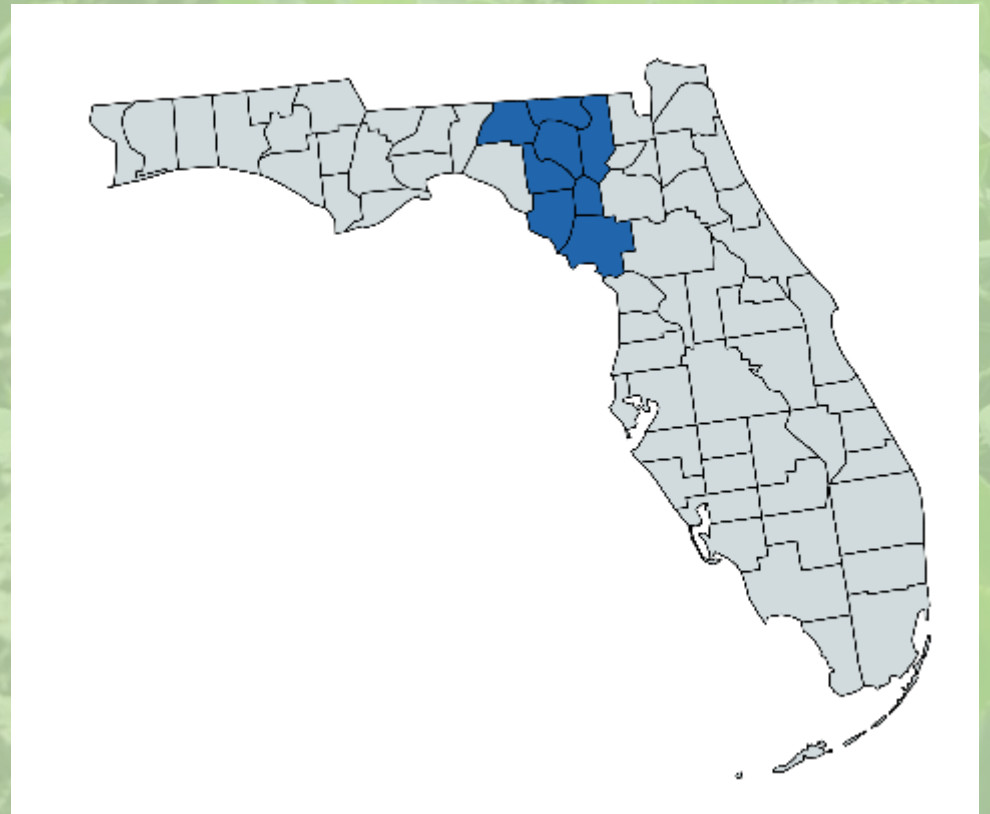
NFREC – Suwannee Valley Peanut Fungicide Research

Extension Agent Hands-on Training

Results and Impacts

# Suwannee River Valley Peanut Production Area

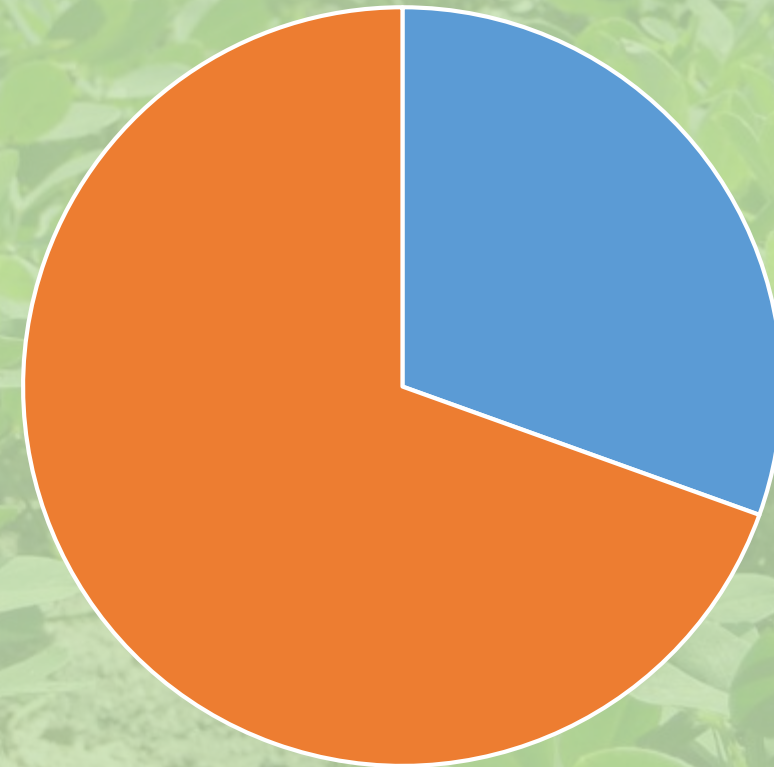
Columbia, Dixie,  
Gilchrist, Hamilton,  
Lafayette, Madison,  
Suwannee, and Levy Counties



**2017**

## Suwannee River Valley

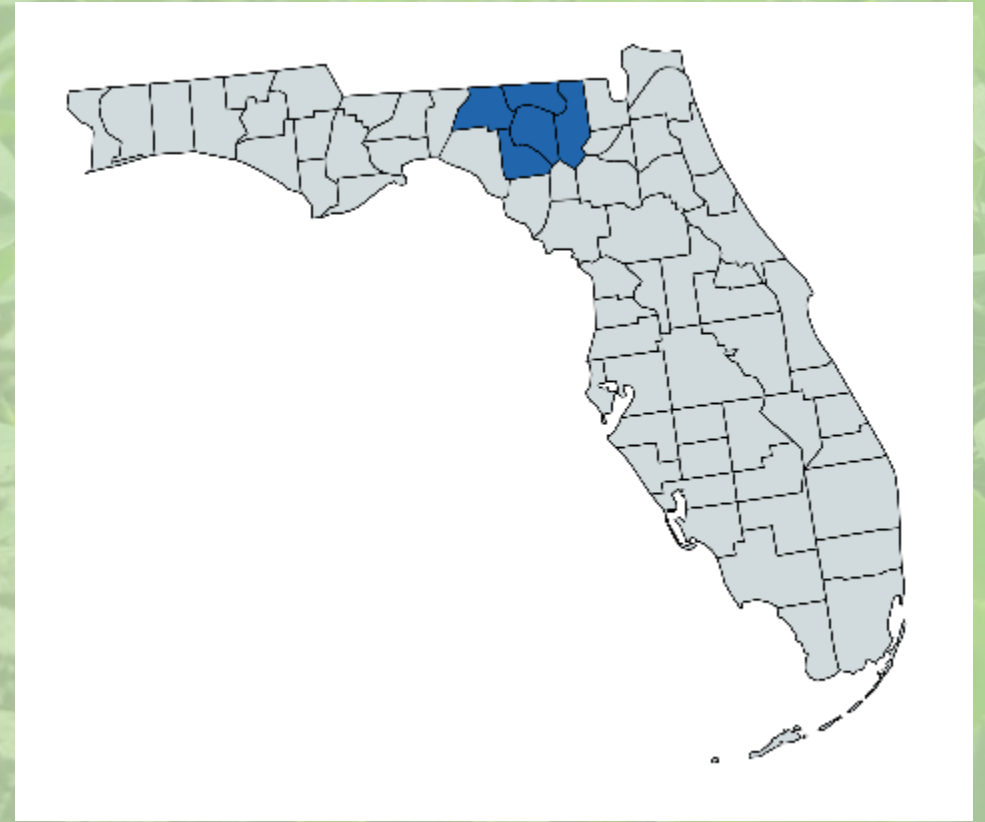
- Total acreage is approximately 81,600 acres
- Farm gate value estimated at \$67,495,440



■ Suwannee River Valley    ■ Rest of Florida

# Counties Surrounding the NFREC – Suwannee Valley

Columbia, Hamilton,  
Lafayette, Madison,  
and Suwannee



# 2017 Peanut Acreage

Columbia	6,614
Hamilton	4,782
Lafayette	4,565
Madison	13,205
<u>Suwannee</u>	<u>15,731</u>
Total:	44,897

Source: FSA as of 11/27/17 Report



# NFREC – Suwannee Valley (2015)



- 10 treatments
- Replicated 4 times
- 40 ft. long rows

# Spray Schedules Generally Followed

## Company Peanut Rx Spray Programs



Abound®  
Alto®  
Elatus®  
Tilt Bravo SE  
Tilt  
Miravis



Provost®  
Provost Opti  
Proline®  
Velum Total  
Stratego



Lucento  
Topguard



Convoy®  
Artisan®



Headline®  
Priaxor®



*The miracles of science™*

Fontelis®

# 2017 Small Plot Trial Treatments

Planting Date: 5/15/17

Harvest Date: 10/12/17

Company Name	Key Fungicides – Rate per Acre
Nichino	Convoy – 32 oz, Topsin – 7.2 oz
Bayer	Proline – 5.7 oz, Provost Opti – 10.7 oz, Abound – 18.5 oz
Syngenta	Elatus – 7.3 oz
Dupont	Fontelis – 16 oz
BASF	Priaxor – 6 and 8 oz
Generic	Tebuconazole – 7.2 oz, Abound – 18.5 oz, Chlorothalonil – 24 oz
Chlorothalonil-Only	Chlorothalonil – 24 oz
Check	No Fungicides

Disease developed late; after July or 75 DAP.

# 2018 Small Plot Trial Treatments

Company Name	Key Fungicides – Rate per Acre
Nichino	Convoy – 32 oz, Topsin – 7.2 oz
Bayer	Proline – 5.7 oz, Provost Opti – 10.7 oz, Abound – 18.5 oz
Syngenta	Elatus – 7.3 oz, Miravis – 3.4 oz
BASF	Priaxor – 8 oz
FMC	Lucento – 5.53 oz
FMC	Topguard – 8 oz
Chlorothalonil-Only	Chlorothalonil – 24 oz
Check	No Fungicides

Planting Date: 5/22/18

Scouted last on 7/23/18 (63 DAP) No notable disease was present

# 2018 Spray Schedule

		Leaf Spot	Leaf Spot	Stem Rot	Leaf Spot	Stem Rot/Limb Rot	Leaf Spot	Leaf Spot
Companyt ID	Trt #	1	2	3	4	5	6	7
Untreated	1							
Chloro. Only	2	Chloro. (24)	Chloro. (24)	Chloro. (24)	Chloro. (24)	Chloro. (24)	Chloro. (24)	Chloro. (24)
UF/Nichino	3	Chloro. (24)	Chloro. (24)	Convoy (32) + Chloro (16) + Topsin (5)	Teb. (7.2) + Chloro. (24)	Convoy (32) + Chloro (16) + Topsin (5)	Teb. (7.2) + Chloro. (24)	Chloro. (24)
UF/Bayer	4	Proline (5.7)		Provost Opti (10.7)	Aboud (18) + Chloro. (24)	Provost Opti (10.7)	Provost Opti (10.7)	Chloro. (24)
UF//Syngenta	5	Elatus 7.3 oz/A		Elatus (7.3)+Miravis (3.4)		Elatus (7.3) + Miravis (3.4)	Chloro. (24)	Chloro. (24)
Lucento1	6	Chloro. (24)	Chloro. (24)	Lucento (5.53)	Chloro. (24)	Lucento (5.53)	Chloro. (24)	Chloro. (24)
Lucento2	7	Chloro. (24)	Chloro. (24)	Lucento (5.53)	Lucento (5.53)	Lucento (5.53)	Chloro. (24)	Chloro. (24)
Lucento+Top.	8	Chloro. (24)	Chloro. (24)	Lucento (5.53)	TopguardEQ (8)	Lucento (5.53)	TopguardEQ (8)	Chloro. (24)
Lucento+Teb.	9	Chloro. (24)	Chloro. (24)	Lucento (5.53)	Lucento (5.53)	Teb. (7.2) + Chloro. (24)	Lucento (5.53)	Chloro. (24)
Top.+Teb.	10	Chloro. (24)	Chloro. (24)	TopguardEQ (8)	Teb. (7.2) + Chloro. (24)	TopguardEQ (8)	Teb. (7.2) + Chloro. (24)	Chloro. (24)
UF/BASF	11	Chloro. (24)	Chloro. (24)	Teb. (7.2) + Chloro. (24)	Priaxor (8)	Teb. (7.2) + Chloro. (24)	Priaxor (8)	Chloro. (24)

# NFREC – Suwannee Valley (2018)

## 2018 Plot Map

409	411	408	404	401	407	402	403	405	410	406
311	308	306	310	303	307	305	302	304	309	301
208	201	203	210	206	211	204	207	209	202	205
101	102	103	104	105	106	107	108	109	110	111

- 11 treatments
- Replicated 4 times
- 30 ft. long rows



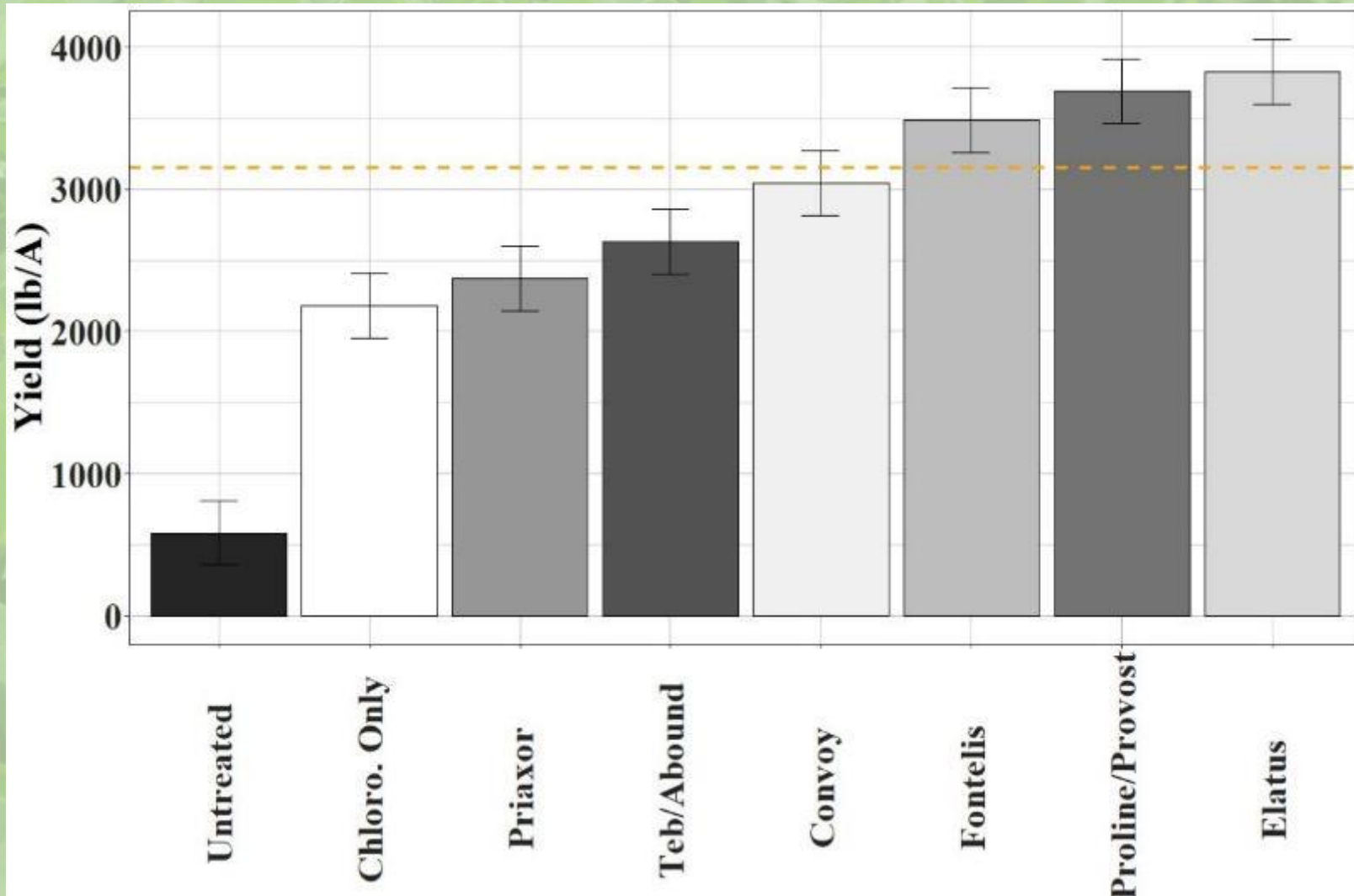








# In 2017 All Programs Performed Well, but Some Differences Were Present



Below **orange line** is sig. diff from Elatus

LSD = 672

**Table 1.** A summary of the effects of fungicide treatments on disease and yield for small peanut plots (0.02 acres combined) of the cultivar Georgia-06G from the NFREC - Suwannee Valley in 2015.

Product (rate/A)	Leaf Spot <sup>a</sup>	Yield (lbs/A) <sup>b</sup>
Untreated check	8.5	2620
<b>Chlorothalonil-only</b> Chlorothalonil	4.5	3773
<b>Nichino<sup>®</sup></b> Priaxor Convoy Chlorothalonil	4.3	4676
<b>Generic</b> Chlorothalonil Tebuconazole Abound	4.5	4623
<b>Syngenta<sup>®</sup></b> Alto Abound Chlorothalonil	4.5	4857
<b>BASF<sup>®</sup></b> Priaxor Chlorothalonil Tebuconazole	4.3	4614
<b>Dupont</b> Fontelis Chlorothalonil	3	4088
<b>Bayer<sup>®</sup> 1</b> Provost 433 SC Chlorothalonil	3.5	4701
<b>Bayer<sup>®</sup> 2</b> Proline SC Provost 433 SC Chlorothalonil	4	4349
<b>Bayer<sup>®</sup> 3</b> Velum Total Provost 433 SC Chlorothalonil	3.3	4653
<b>P-value</b>	<b>&lt; 0.01</b>	<b>&lt;0.0001</b>
<b>LSD</b>	<b>0.19</b>	<b>425.86</b>

**Table 2.** A summary of the effects of fungicide treatments on disease and yield for small peanut plots (0.01 acres combined) of the cultivar Georgia-06G from the NFREC - Suwannee Valley in 2016.

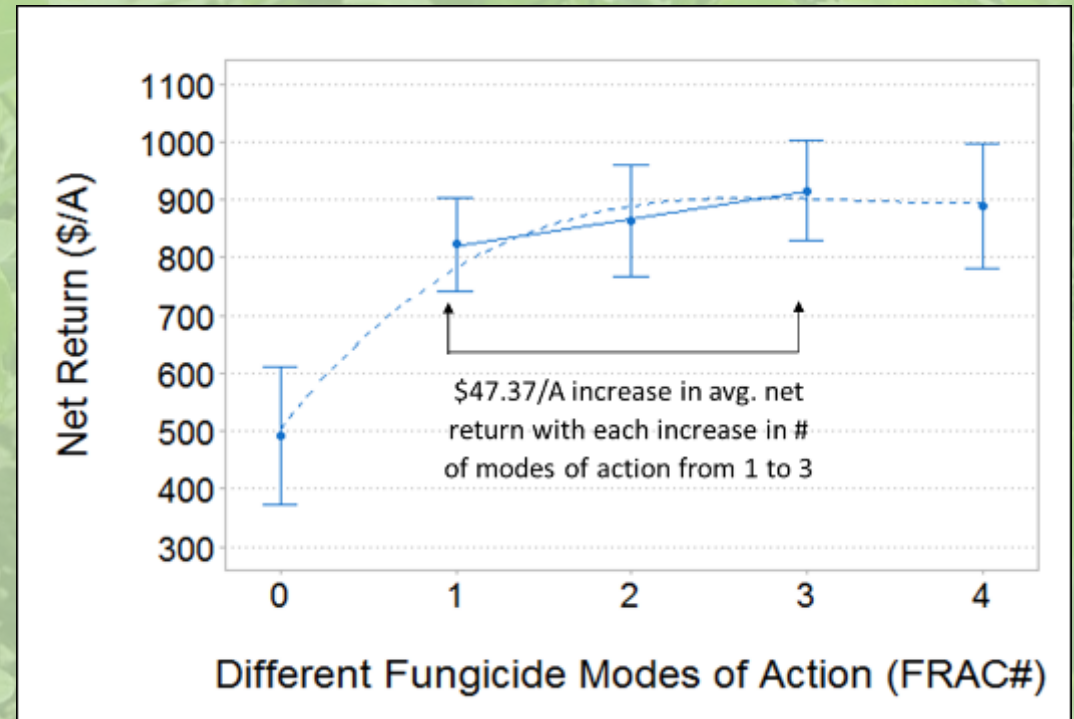
Product (rate/A)	Leaf Spot <sup>a</sup>	Yield (lbs/A) <sup>b</sup>
Untreated check	6.0	2178
<b>Chlorothalonil-only</b> Chlorothalonil	3.0	4741
<b>Nichino<sup>®</sup></b> Convoy Chlorothalonil Tebuconazole	3.0	5013
<b>Generic</b> Chlorothalonil Tebuconazole	3.5	4955
<b>Syngenta<sup>®</sup></b> Elatus Alto Chlorothalonil	3.0	5365
<b>BASF<sup>®</sup></b> Priaxor Chlorothalonil Tebuconazole	3.0	4810
<b>Dupont<sup>®</sup></b> Fontelis Chlorothalonil Tebuconazole	3.0	4999
<b>Bayer<sup>®</sup></b> Proline SC Provost Opti Chlorothalonil	2.5	4788
<b>P-value</b>	<b>&lt; 0.01</b>	<b>&lt; 0.0001</b>
<b>LSD</b>	<b>0.28</b>	<b>625.20</b>
Application timings follow a calendar based fungicide schedule in which products are applied on 34, 44, 49, 65, 82, 93, 107, and 121 days after plant (DAP) for timings 1, 1.5, 2, 3, 4, 5, 6, and 7.		
<sup>a</sup> Leaf spot refers to the average Florida 1 to 10 scale data recorded for the 4 plots with 1 = no disease and 10 = dead plants.		
<sup>b</sup> Calculated average plot yields based on plot weights.		

**Table 3.** A summary of the effects of fungicide treatments on disease and yield for small peanut plots (0.01 acres combined) of the cultivar Georgia-06G from the NFREC - Suwannee Valley in 2017.

Product (rate/A)	Leaf Spot <sup>a</sup>	Yield (lbs/A) <sup>b</sup>
Untreated check	6.5	584
<b>Chlorothalonil-only</b> Chlorothalonil	5.0	2182
<b>Nichino<sup>®</sup></b> Convoy Topsin Chlorothalonil Tebuconazole	4.0	3046
<b>Generic</b> Chlorothalonil Tebuconazole Abound	5.0	2628
<b>Syngenta<sup>®</sup></b> Elatus Chlorothalonil	4.0	3822
<b>BASF<sup>®</sup></b> Priaxor Chlorothalonil Tebuconazole	4.5	2370
<b>Dupont<sup>®</sup></b> Fontelis Chlorothalonil Tebuconazole	4.0	3485
<b>Bayer<sup>®</sup></b> Proline SC Provost Opti Abound Chlorothalonil	4.0	3688
<b>P-value</b>	<b>&lt; 0.01</b>	<b>&lt; 0.0001</b>
<b>LSD</b>	<b>0.67</b>	<b>667.09</b>
Application timings follow a calendar based fungicide schedule in which products are applied on 34, 44, 49, 65, 82, 93, 107, and 121 days after plant (DAP) for timings 1, 1.5, 2, 3, 4, 5, 6, and 7.		
<sup>a</sup> Leaf spot refers to the average Florida 1 to 10 scale data recorded for the 4 plots with 1 = no disease and 10 = dead plants.		

# All Fungicide Programs Protect Well Against Disease

- All plot sizes produced similar results
- Relationship between FRAC# and Net Return
  - Product rotation critical
  - 3 MOA seems optimal
  - 2 MOA good but variable
    - Product selection critical
    - Timing also important



# Thanks



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# Questions

# Small Plot Peanut Fungicide Efficacy Trial Poster Presented at National and State Extension Conferences

- 2018 National Association County Agricultural Agents Annual Meeting and Professional Improvement Conference
- 2018 Florida Association of County Agricultural Agents Extension Professional Associations of Florida



# SMALL PLOT PEANUT FUNGICIDE EFFICACY TRIALS

## AUTHORS

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## REASON

Peanut is an important commodity crop in the Suwannee River Valley. In 2017, 45,000 acres of peanuts were planted in counties surrounding the UF/IFAS North Florida Research and Education Center (NFREC) – Suwannee Valley. To assess the efficacy of commonly used peanut fungicide programs and provide local UF/IFAS Extension agents with experiential learning opportunities related to disease management a peanut disease research program was established.

## EXPECTED OUTCOME

Data collected from disease ratings and yields are used to generate fact sheets, publications, and presentations that are distributed in production meetings throughout the state. UF/IFAS Extension agents receive hands-on training with fungicide application methods and disease identification which increases their confidence when interacting with producers.

## SUMMARY

This research allowed UF/IFAS Extension agents to provide producers with timely information about the efficacy of fungicide products and monitor diseases throughout the season. Because of these trials, producers have seen the benefit of incorporating fungicides into their management programs and have made changes to their disease management plans.

Table 1. A summary of the effects of fungicide treatments on disease and yield for small peanut plots (0.02 acres combined) of the cultivar Georgia-066 from the NFREC – Suwannee Valley in 2015.

Product (rate/A)	Leaf Spot*	Yield (lb/A) <sup>b</sup>
Untreated check	8.5	2630
Chlorothalonil-only Chlorothalonil	4.5	3773
Nichino <sup>a</sup> Priaxor Convoy Chlorothalonil	4.3	4676
Generic Chlorothalonil Tebuconazole Abound	4.5	4623
Syngenta <sup>a</sup> Alto Abound Chlorothalonil	4.5	4857
BASF <sup>a</sup> Priaxor Chlorothalonil Tebuconazole	4.3	4634
Dupont <sup>a</sup> Fontalis Chlorothalonil	3	4088
Bayer <sup>a</sup> 1 Provest 433 SC Chlorothalonil	3.5	4701
Bayer <sup>a</sup> 2 Proline SC Provest 433 SC Chlorothalonil	4	4349
Bayer <sup>a</sup> 3 Volum Total Provest 433 SC Chlorothalonil	3.3	4653
<b>P-value</b>	<b>&lt; 0.01</b>	<b>&lt;0.0001</b>
<b>LSD</b>	<b>0.19</b>	<b>425.66</b>

Application timings follow a calendar based fungicide schedule in which products are applied on 0, 21, 30, 40, 49, 65, 82, 93, 107, and 121 days after plant (DAP) for timings 1, 1.5, 2, 3, 4, 5, 6, and 7.

\*Leaf spot refers to the average Florida 1 to 10 scale data recorded for the 4 plots with 1 = no disease and 10 = dead plants.

<sup>b</sup>Calculated average plot yields based on plot weights.

Table 2. A summary of the effects of fungicide treatments on disease and yield for small peanut plots (0.01 acres combined) of the cultivar Georgia-066 from the NFREC – Suwannee Valley in 2016.

Product (rate/A)	Leaf Spot*	Yield (lb/A) <sup>b</sup>
Untreated check	6.0	2178
Chlorothalonil-only Chlorothalonil	3.0	4741
Nichino <sup>a</sup> Convoy Chlorothalonil Tebuconazole	3.0	5013
Generic Chlorothalonil Tebuconazole	3.5	4955
Syngenta <sup>a</sup> Elatius Alto Chlorothalonil	3.0	5365
BASF <sup>a</sup> Priaxor Chlorothalonil Tebuconazole	3.0	4610
Dupont <sup>a</sup> Fontalis Chlorothalonil Tebuconazole	3.0	4999
Bayer <sup>a</sup> Proline SC Provest Opti Chlorothalonil	2.5	4788
<b>P-value</b>	<b>&lt; 0.01</b>	<b>&lt; 0.0001</b>
<b>LSD</b>	<b>0.28</b>	<b>625.20</b>

Application timings follow a calendar based fungicide schedule in which products are applied on 34, 44, 49, 65, 82, 93, 107, and 121 days after plant (DAP) for timings 1, 1.5, 2, 3, 4, 5, 6, and 7.

\*Leaf spot refers to the average Florida 1 to 10 scale data recorded for the 4 plots with 1 = no disease and 10 = dead plants.

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Table 3. A summary of the effects of fungicide treatments on disease and yield for small peanut plots (0.01 acres combined) of the cultivar Georgia-066 from the NFREC – Suwannee Valley in 2017.

Product (rate/A)	Leaf Spot*	Yield (lb/A) <sup>b</sup>
Untreated check	6.5	584
Chlorothalonil-only Chlorothalonil	5.0	2182
Nichino <sup>a</sup> Convoy Topzin Chlorothalonil Tebuconazole	4.0	3046
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<b>P-value</b>	<b>&lt; 0.01</b>	<b>&lt; 0.0001</b>
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