

# 2019 TEST RESULTS



**Peanut & Pecan Fungicide Evaluations**

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Memo to: Industry Cooperators

From: Tim Brenneman

Subject: Field Trial Results

Attached are the results of our 2019 field trials on peanuts and pecans.

I want to acknowledge the hard work of our crew lead by Corey Thompson, Lewis Mullis, Pat Hilton, and Jessica Bell. Summer workers included Marissa Lee, Savannah Banner, Chris Termunde, and Joseph Asmussen. The cooperation of other scientists including Dr. Albert Culbreath, Dr. Bob Kemerait, Dr. Corley Holbrook, Dr. Patty Timper, Dr. Bill Branch, Dr. Scott Tubbs, Dr. Scott Monfort, and Dr. Barry Tillman is much appreciated. Graduate students Cole Brown, Kory Herrington, Jeff Standish, and Logan Moore were also an important part of these investigations.

Once again we are making this available primarily as an online document available at [www.timbrenneman.org](http://www.timbrenneman.org) by clicking on “Publications” then “2019 Report”. This site also has previous year reports. If you have any problems or any questions feel free to call. Thanks again for your support, and we look forward to cooperating with you again in the future.

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## GEORGIA-17SP TEST I, 2019

A. PURPOSE: To evaluate the relative nematode resistance and yield potential of GA-17SP and selections from it.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with six replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Different cultivars

C. APPLICATION OF TREATMENTS:

1. Cover sprays: Chlorothalonil (1.5 pt/a) was applied for leaf spot control on June 17, July 17, July 31, Aug. 28, and Sep. 10. Elatus (9.5 dry oz/a) was added for white mold control on 2 July and 13 Aug.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Woods Field Tifton, GA 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Fertilizer (5-10-15) was broadcast at 500 lb/a on Apr. 18. On Apr. 22, field was deep turned, beds marked 6 ft, and fertilizer turned under. A strip-till rig was run through to subsoil 18 inches deep on Apr. 23. Cultivated to remove volunteer peanuts and weeds 29 May.
4. Soil Fertility: pH – 6.30 P – 39 K – 13 Ca – 172 Mg – 18  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Tank mix of Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) on 24 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: Different cultivars, 6 seed/ft (2" deep) in single rows on 14 May.

8. Harvest Dates: Dug – 2 Oct. Picked – 7 Oct.

E: SUMMARY:

This was a lower pressure nematode site, but the results were very clear. Georgia-17SP, as released, was apparently a mixture and some component lines did not have all genes for nematode resistance. This test compared Georgia-17SP with selected components that were subsequently pure lined. It is obvious that all these lines have a full measure of nematode resistance as well as excellent TSWV resistance and much better yield potential than the current Spanish standard, Georgia-04S.

**GEORGIA-17SP TEST I, 2019  
BLACKSHANK FARM, WOODS FIELD**

Trt	Plant/ft <sup>1</sup>		% Dead Plants <sup>2</sup>			TSWV <sup>3</sup>	Root-knot <sup>4</sup>
	29-May	5-Jun	29-May	5-Jun	19-Jun	12-Aug	9-Sep
1. Georgia-04S	4.0	4.3	0.0	0.0	0.3	41.3	93.0
2. Georgia-17SP	4.0	4.4	0.0	0.0	0.2	6.3	136.0
3. GA-082549R-1	4.0	4.4	0.0	0.0	0.5	9.0	0.0
4. GA-082549R-2	3.8	4.0	0.0	0.0	0.2	12.0	0.0
5. GA-082549R-3	4.1	4.5	0.0	0.0	0.2	8.7	0.0
6. GA-082549R-MsgI	3.8	4.4	0.0	0.0	0.1	10.0	0.0
7. GA-082549R-MsgII	4.0	4.4	0.0	0.0	0.3	9.3	0.0
8. GA-082549R-MsgIII	3.7	4.2	0.0	0.1	0.2	14.7	0.0
<b>LSD(P&lt;0.05)</b>	0.3	0.5	N.S.	N.S.	N.S.	6.5	71.4

Plant/ft<sup>1</sup> = Stand count is the number of emerged plants per foot of row on May 29 and June 5.

% Dead Plants<sup>2</sup> = The % of emerged plants that were dead or dying per plot. Each week these plants are removed and the number reported is the cumulative total.

TSWV<sup>3</sup> = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Root-knot<sup>4</sup> = Number of *M. arenaria* juvenile per 100 cc of soil.

**GEORGIA-17SP TEST I, 2019**  
**BLACKSHANK FARM, WOODS FIELD**

<b>Trt</b>	<b>Ring<sup>5</sup> 9-Sep</b>	<b>Root Gall<sup>6</sup> 4-Oct</b>	<b>Yield lb/A</b>
1. Georgia-04S	253.7	12.5	3582
2. Georgia-17SP	193.3	6.5	5300
3. GA-082549R-1	172.5	0.0	4937
4. GA-082549R-2	196.8	0.3	4913
5. GA-082549R-3	380.0	0.0	4840
6. GA-082549R-MsgI	225.3	0.0	5227
7. GA-082549R-MsgII	261.0	0.2	5106
8. GA-082549R-MsgIII	232.2	0.3	5493
<b>LSD(P&lt;0.05)</b>	<b>160.6</b>	<b>3.9</b>	<b>646</b>

Ring<sup>5</sup> = Population of ring nematodes per 100 cc of soil.  
 Gall<sup>6</sup>=Visual rating of the percent of pods and roots  
 (1-100) with visible damage from root-knot nematode.

**SYNGENTA DELAYED HARVEST TEST, 2019**

- A. **PURPOSE:** To evaluate the effects of delayed harvesting following a single digging date where different fungicide inputs were applied.
- B. **EXPERIMENTAL DESIGN:**
1. Randomized complete blocks with six replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Tifguard



C. APPLICATION OF TREATMENTS:

1. Equipment: Sprays were applied using six TX6 hollow cone tips with 50 mesh ball check screens. A CO2 unit fungicide boom applied 45 PSI at 3 MPH.
2. Cover sprays for leaf spot control: Chlorothalanil (1.5 pt/a) was applied on 17 June, 2 July, 31 July, 26 Aug, and 10 Sep. Elatus 45 WG (9.5 oz/a) + Miravis (3.4 fl oz/a) was applied on 17 July and 13 Aug.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Woods Field Tifton, GA 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Ran strip till rig through to subsoil 18” deep on 23 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
4. Soil Fertility: pH – 5.62 P – 42 K – 24 Ca – 138 Mg – 12  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 24 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: Tifguard, 6 seed/ft (2” deep) on 22 May.
8. Harvest Dates: Dug – 30 Sep. Picked – 1<sup>st</sup> week: 3 Oct.  
2<sup>nd</sup> week: 14 Oct.  
3<sup>rd</sup> week: 23 Oct.

E: SUMMARY:

Disease pressure was low in this trial so differences between fungicide treatments were minimal. However, large differences were observed among harvest dates. Yields dropped dramatically between the first and second harvest (nearly 2000 lb/A), a difference of 11 days with very little rain. This illustrates the importance of timely harvest for optimum yields, even where disease control is excellent.

**SYNGENTA DELAYED HARVEST TEST, 2019**  
**BLACKSHANK FARM, WOODS FIELD**

<b>HARVEST 1</b>				<b>Yield*</b>			
<b>Seed Trt</b>	<b>App's</b>	<b>Rate/A</b>	<b>WM<sup>1</sup> 30-Sep</b>	<b>lb/A 7-Oct</b>	<b>SMKSS<sup>2</sup></b>	<b>\$/Ton</b>	<b>\$/Acre</b>
1. Bravo	3 & 5	1.5 pt	7.7	5009	70.2	333.0	835.8
2. Elatus 45WG + Miravis	3 & 5	9.5 oz 3.4 fl oz	4.7	5251	74.9	362.0	950.0
3. Elatus 45WG	3 & 5	9.5 oz	6.0	5445	69.3	322.5	878.3
<b>LSD(P&lt;0.05)</b>			N.S.	342	3.3	27.8	101.3

\*Yield at normal picking.

<b>HARVEST 2</b>				<b>Yield**</b>			
<b>Seed Trt</b>	<b>App's</b>	<b>Rate/A</b>	<b>WM<sup>1</sup> 30-Sep</b>	<b>lb/A 14-Oct</b>	<b>SMKSS<sup>2</sup></b>	<b>\$/Ton</b>	<b>\$/Acre</b>
1. Bravo	3 & 5	1.5 pt	5.0	3388	69.3	318.5	537.2
2. Elatus 45WG + Miravis	3 & 5	9.5 oz 3.4 fl oz	4.7	3291	73.2	355.0	584.9
3. Elatus 45WG	3 & 5	9.5 oz	4.3	3606	71.5	340.7	615.8
<b>LSD(P&lt;0.05)</b>			N.S.	N.S.	N.S.	N.S.	N.S.

\*\*Yield 1 week after first picking.

<b>HARVEST 3</b>				<b>Yield***</b>			
<b>Seed Trt</b>	<b>App's</b>	<b>Rate/A</b>	<b>WM<sup>1</sup> 30-Sep</b>	<b>lb/A 21-Oct</b>	<b>SMKSS<sup>2</sup></b>	<b>\$/Ton</b>	<b>\$/Acre</b>
1. Bravo	3 & 5	1.5 pt	7.7	3243	68.4	317.0	514.8
2. Elatus 45WG + Miravis	3 & 5	9.5 oz 3.4 fl oz	6.3	3243	67.5	327.0	531.1
3. Elatus 45WG	3 & 5	9.5 oz	5.0	3315	66.0	318.3	526.7
<b>LSD(P&lt;0.05)</b>			N.S.	N.S.	N.S.	N.S.	N.S.

\*\*\*Yield 2 weeks after first picking.

White Mold<sup>1</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

SMKSS<sup>2</sup> = The percent of sound mature kernels and sound splits.

**OFFICIAL DAILY RAINFALL, 2019**  
**BLACKSHANK FARM**  
**TIFTON, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
<b>1</b>	0.21	0.03				0.79	0.36	
<b>2</b>	0.09	0.21	0.02			0.03		
<b>3</b>	1.36							
<b>4</b>		0.02	0.22					
<b>5</b>	0.39	0.04	0.04	0.38	0.09	0.54		
<b>6</b>		0.06		0.05	0.03			0.32
<b>7</b>		0.01		0.28	0.50			0.01
<b>8</b>		0.08		0.44	0.01	0.64		0.01
<b>9</b>		0.43	0.12	0.69		0.01	0.05	
<b>10</b>	0.06	0.01	0.09	0.47		0.11		
<b>11</b>	0.79		1.23	0.51				
<b>12</b>			0.18	1.32	0.17	0.03		
<b>13</b>			0.01	0.01		0.27		
<b>14</b>		0.48				1.50	0.04	0.02
<b>15</b>	0.02	0.01				0.01	0.01	1.56
<b>16</b>								0.51
<b>17</b>						0.41		
<b>18</b>				0.02		0.55		
<b>19</b>		0.87			0.37	0.29		0.58
<b>20</b>				1.11	0.11	0.05		
<b>21</b>				0.01	0.01	0.16		
<b>22</b>				0.15		0.02		0.04
<b>23</b>				0.01	0.67			
<b>24</b>					0.01	0.03		
<b>25</b>	0.30	0.11				0.01		
<b>26</b>	0.01	0.02				0.19		
<b>27</b>	0.65							0.03
<b>28</b>				0.11				
<b>29</b>				0.02				0.82
<b>30</b>				0.01				
<b>31</b>	0.01					0.73		0.30
<b>TOTAL</b>	<b>3.9</b>	<b>2.4</b>	<b>1.9</b>	<b>5.6</b>	<b>2.0</b>	<b>6.4</b>	<b>0.5</b>	<b>4.2</b>

Rainfall = inches.

Irrigated as needed.

## EVALUATION OF NEMATICIDES FOR THE CONTROL OF PEANUT ROOTKNOT NEMATODES (BAYER PROPULSE IRRIGATION TIMING TEST, 2019)

- A. PURPOSE: To evaluate the comparative efficacy of Propulse when sprayed and then watered in at various times after application for the control of peanut root knot nematodes.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with five replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: GA-06G
- C. APPLICATION OF TREATMENTS:
1. Equipment: Spray treatments applied at 20 GPA using CO2 boom with six TX6 hollow cone tips and a 50 mesh ball check screen. Sprays were applied at 45 PSI and 3 MPH. The in furrow sprays were applied in 3.4 GPA using one 80015 flat fan tip per row with a 50 mesh ball check screen. A CO2 unit applied 16 PSI at a speed of 3.2 MPH.
  2. Cover sprays: Chlorothalanil (1.5 pt/a) was applied for leaf spot control on 17 June, 17 July, 31 July, 28 Aug, and 10 Sep. Chlorothalanil (1.5 pt/a) + Elatus (9.5 dry oz/a) was applied for leaf spot and white mold control on 2 July and 13 Aug.
  3. Propulse Treatments: applied 48 hr treatment at 3:30 pm on 24 June. Applied 32 hr treatment at 7:15 am, 24 hr treatment at 3:15 pm, and chemigation treatment at 1:30 pm on 25 June. Applied 8 hr treatment at 7:10 am, 4 hr treatment at 11:15 am, and one hr treatment at 3:00 pm on 26 June. Irrigation started at 3:10 pm on 26 June for 0.25" total.
  4. Chemigation Treatments: Each plot was chemigated 3 times using a tractor mounted tank with a water hose set at 64 PSI. Propulse (8.95 ml) was added to 60 gallons of water. It took one minute and 22 seconds to apply 9.35 gal/plot.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, Pond Field, Tifton, GA 31794
  2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016

3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Ran strip till rig through to subsoil 18" deep on 23 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May. Cultivated to remove weeds on 3 June.
4. Soil Fertility: pH -5.9 P -126 K -53 Ca -710 Mg -52  
Soil type: Tifton loamy sand, 2 - 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 24 Apr. Rototilled to incorporate. POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May. Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: GA-06G, 6 seed/ft (2" deep) on 7 May.
8. Harvest Dates: Dug - 30 Sep. Picked - 3 Oct.

E: SUMMARY:

The treatments applied reduced the level of nematode damage and tended to increase yields. However, there was quite a bit of variability, as evidenced by the very high LSD of 1468 lb/A for yield and \$292.40 for crop value. This made it difficult to definitively separate the most efficacious timings.

**BAYER PROPULSE IRRIGATION TIMING TEST, 2019**  
**BLACKSHANK FARM, POND FIELD**

Trt	App's	Rate	Root Gall <sup>1</sup> 30-Sep	Pod Gall <sup>1</sup> 30-Sep	WM <sup>2</sup> 30-Sep	Yield lb/A
1. Nontreated	-	-	64.0	50.0	6.8	3254
2. Velum Total	In furrow*	18.0 fl oz	32.0	23.0	6.8	4067
3. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate Immediately	18.0 fl oz 13.7 fl oz	37.0	24.0	8.0	4125
4. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 4 hours after app	18.0 fl oz 13.7 fl oz	34.0	23.0	7.6	3806
5. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 8 hours after app	18.0 fl oz 13.7 fl oz	40.0	27.0	3.6	4997
6. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 24 hours after app	18.0 fl oz 13.7 fl oz	42.0	21.0	5.6	4241
7. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 32 hours after app	18.0 fl oz 13.7 fl oz	38.0	28.0	7.2	3835
8. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 48 hours after app	18.0 fl oz 13.7 fl oz	42.0	36.0	6.0	3573
9. Velum Total Propulse	In furrow* Chemigated 0.1", 45 DAP**	18.0 fl oz 13.7 fl oz	40.0	18.0	3.6	3631
<b>LSD(P&lt;0.05)</b>			12.9	12.3	5.9	1468

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L volume.

\*\* Chemigated simulation in 0.10 inches per acre via nurse tank and sprinkler head.

Galling<sup>1</sup> = Visual rating of the percent of pods and roots (1-100) with visible damage from root-knot nematode.

White Mold<sup>2</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

**BAYER PROPULSE IRRIGATION TIMING TEST, 2019**  
**BLACKSHANK FARM, POND FIELD**

<b>Trt</b>	<b>App's</b>	<b>Rate</b>	<b>Root- Knot<sup>3</sup> 9-Sep</b>	<b>Ring<sup>4</sup> 9-Sep</b>	<b>SMKSS<sup>5</sup></b>	<b>\$/Ton</b>	<b>\$/Acre</b>
1. Nontreated	-	-	387.2	71.8	74.6	336.8	560.3
2. Velum Total	In furrow*	18.0 fl oz	268.6	43.8	76.8	362.9	739.5
3. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate Immediately	18.0 fl oz 13.7 fl oz	485.8	73.6	74.3	342.9	709.7
4. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 4 hours after app	18.0 fl oz 13.7 fl oz	474.4	40.2	75.1	343.9	662.5
5. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 8 hours after app	18.0 fl oz 13.7 fl oz	283.4	45.0	77.7	356.4	896.8
6. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 24 hours after app	18.0 fl oz 13.7 fl oz	456.4	33.6	77.4	354.9	771.4
7. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 32 hours after app	18.0 fl oz 13.7 fl oz	450.0	51.4	73.0	334.2	655.6
8. Velum Total Propulse	In furrow* B'cast 20 GPA, 45 DAP Irrigate 48 hours after app	18.0 fl oz 13.7 fl oz	569.0	42.8	74.1	331.0	599.7
9. Velum Total Propulse	In furrow* Chemigated 0.1", 45 DAP**	18.0 fl oz 13.7 fl oz	399.8	19.0	73.5	348.2	633.7
<b>LSD(P&lt;0.05)</b>			<b>N.S.</b>	<b>N.S.</b>	<b>N.S.</b>	<b>N.S.</b>	<b>292.4</b>

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L volume.

\*\* Chemigated simulation in 0.10 inches per acre via nurse tank and sprinkler head.

Root-knot<sup>3</sup> = Number of M. arenaria juvenile per 100 cc of soil.

Ring<sup>4</sup> = Population of ring nematodes per 100 cc of soil.

SMKSS<sup>5</sup> = The percent of sound mature kernels and sound splits.

## EVALUATION TREATMENTS OF PHOSPHITE FUNGICIDES EFFICACY AND RESIDUES IN KERNELS (PROPHYT RESIDUE TEST, 2019)

A. PURPOSE: To evaluate the efficacy of phosphite fungicides for disease control and also the resulting residue levels in peanut kernels.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with five replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: GA-06G

C. APPLICATION OF TREATMENTS:

1. Cover Sprays: Chlorothalonil (1.5 pt/a) was applied for leaf spot control on 17 June and 17 July. Chlorothalonil (1.5 pt/a) + Elatus (9.5 dry oz/a) was applied for leaf spot and white mold control on 2 July (after this early white mold control application was applied, the test was changed to include white mold control as part of the test).
2. Treatment Sprays: Treatment 2 was applied on 1 July, treatment 3 on 17 July, treatment 4 on 29 July, treatment 5 on 13 Aug, and treatment 6 on 28 Aug.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Pond Field, Tifton, GA 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Ran strip till rig through to subsoil 18” deep on 23 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May. Cultivated to remove weeds on 3 June.
4. Soil Fertility: pH –5.9 P –126 K –53 Ca –710 Mg –52  
  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 24 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.



6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: GA-06G, 6 seed/ft (2" deep) on 8 May.
8. Harvest Dates: Dug – 17 Sep. Picked – 20 Sep.

E: SUMMARY:

Plant growth was very poor in this block and pod yields were very low. Also, low levels of disease occurred, so the primary result from this test will be the residue data. The residue levels are still being determined, but hopefully will contribute to resolving the current issue of Phosphite MRL's which are preventing of these products on peanuts exported to the EU.

**PROPHYT RESIDUE TEST, 2019  
BLACKSHANK FARM, POND FIELD**

Trt	App's	Rate	WM <sup>1</sup> 17-Sep	Yield lb/A
1. Untreated	-	-	13.2	1301
2. ProPhyt	2	4.0 pt	16.4	1713
ProPhyt	4	4.0 pt		
+ Bravo		1.5 pt		
Bravo	5 & 6	1.5 pt		
3. ProPhyt	3	4.0 pt	14.4	1388
Bravo	4 & 6	1.5 pt		
ProPhyt	5	4.0 pt		
+ Bravo		1.5 pt		
4. Kphite	4 & 6	8.0 pt	12.8	993
Bravo	5	1.5 pt		
5. Bravo	4 - 6	1.5 pt	16.8	1080
<b>LSD(P&lt;0.05)</b>			7.8	574

White Mold<sup>1</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

NOTE - A composite sample showed 427 *M. arenaria* juveniles per 100 cc of soil, and 61 ring nematodes per 100 cc of soil.

**OFFICIAL DAILY RAINFALL, 2019**  
**BLACKSHANK FARM**  
**TIFTON, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
<b>1</b>	0.21	0.03				0.79	0.36	
<b>2</b>	0.09	0.21	0.02			0.03		
<b>3</b>	1.36							
<b>4</b>		0.02	0.22					
<b>5</b>	0.39	0.04	0.04	0.38	0.09	0.54		
<b>6</b>		0.06		0.05	0.03			0.32
<b>7</b>		0.01		0.28	0.50			0.01
<b>8</b>		0.08		0.44	0.01	0.64		0.01
<b>9</b>		0.43	0.12	0.69		0.01	0.05	
<b>10</b>	0.06	0.01	0.09	0.47		0.11		
<b>11</b>	0.79		1.23	0.51				
<b>12</b>			0.18	1.32	0.17	0.03		
<b>13</b>			0.01	0.01		0.27		
<b>14</b>		0.48				1.50	0.04	0.02
<b>15</b>	0.02	0.01				0.01	0.01	1.56
<b>16</b>								0.51
<b>17</b>						0.41		
<b>18</b>				0.02		0.55		
<b>19</b>		0.87			0.37	0.29		0.58
<b>20</b>				1.11	0.11	0.05		
<b>21</b>				0.01	0.01	0.16		
<b>22</b>				0.15		0.02		0.04
<b>23</b>				0.01	0.67			
<b>24</b>					0.01	0.03		
<b>25</b>	0.30	0.11				0.01		
<b>26</b>	0.01	0.02				0.19		
<b>27</b>	0.65							0.03
<b>28</b>				0.11				
<b>29</b>				0.02				0.82
<b>30</b>				0.01				
<b>31</b>	0.01					0.73		0.30
<b>TOTAL</b>	<b>3.9</b>	<b>2.4</b>	<b>1.9</b>	<b>5.6</b>	<b>2.0</b>	<b>6.4</b>	<b>0.5</b>	<b>4.2</b>

Rainfall = inches.

Irrigated as needed.

## BAYER WHITE MOLD TEST, 2019

A. PURPOSE: To evaluate the efficacy of different programs for southern stem rot (White Mold).

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with four replicates.
2. One two-row bed (20ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Tifguard

C. APPLICATION OF TREATMENTS:

1. Equipment: Banded spray applied with a CO2 boom with 2 nozzles. Used one 8003 flat fan tip per row with 50 mesh ball check screens. Spray applied at 42 PSI going 3 MPH. Other treatments applied broadcast with a CO2 boom with 6 nozzles. Used TX6 hollow cone tips with 50 mesh ball check screens applied at 45 PSI going 3 MPH.
2. Treatment sprays (1-7): applied on 19 June, 2 July, 17 July, 29 July, 14 Aug, 26 Aug, and 10 Sep. Spray 1 of treatment 6 was applied in a band the width of the plants on 19 June. Spray 3 for trt 4 was applied at 5:30 am on 17 July and irrigated from 8:30 am to 9:00 am for a total of 0.15". Spray 3 for trt 2 was applied at 8:15 am after irrigation on 17 July.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Irr/Non Field, Tifton, GA 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Ran strip till rig through to subsoil 18" deep on 23 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
4. Soil Fertility: pH – 6.5   P – 28   K – 42   Ca – 278   Mg – 32  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 24 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.

6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: Tifguard, 6 seed/ft (2" deep) on 9 May.
8. Harvest Dates: Dug – 24 Sep. Picked – 1 Oct.

E: SUMMARY:

Leaf spot developed very late in the season and had little impact on yield. However, significant white mold also occurred and had a big effect on yield. All treatments were effective, although the early banded application of Proline was clearly needed to give the maximum level of control.

**BAYER WHITE MOLD TEST, 2019**  
**BLACKSHANK FARM, IRR-NONIRRIGATED FIELD**

Trt	App's	Rate	LS <sup>1</sup> 23-Sep	WM <sup>2</sup> 25-Sep	Yield lb/A
1. Untreated	-	-	7.3	47.0	3049
2. Bravo	1 & 7	1.5 pt	3.5	20.5	4283
Absolute	2	3.5 fl oz			
Propulse	3*	13.6 fl oz			
Elatus	5	7.3 oz			
Provost Silver	4 & 6	13.0 fl oz			
3. Bravo	1 & 7	1.5 pt	3.5	17.0	4828
Absolute	2	3.5 fl oz			
Propulse	3**	13.6 fl oz			
Elatus	5	7.3 oz			
Provost Silver	4 & 6	13.0 fl oz			
4. Bravo	1 & 7	1.5 pt	3.6	17.5	4356
Absolute	2	3.5 fl oz			
Propulse	3***	13.6 fl oz			
Elatus	5	7.3 oz			
Provost Silver	4 & 6	13.0 fl oz			
5. Bravo	1 & 7	1.5 pt	3.6	23.0	4320
Absolute	2	3.5 fl oz			
Elatus	3 & 5	7.3 oz			
Provost Silver	4 & 6	13.0 fl oz			
6. Proline	1 (Banded, 20 GPA)	5.7 fl oz	3.8	9.5	5009
Absolute	2	3.5 fl oz			
Elatus	3 & 5	7.3 oz			
Provost Silver	4 & 6	13.0 fl oz			
Bravo	7	1.5 pt			
7. Bravo	1 - 7	1.5 pt	5.4	62.5	2977
<b>LSD(P&lt;0.05)</b>			0.5	9.6	498

Banded sprays applied with a single 8003 nozzle per row applying a total volume of 20 GPA in a band the width of the plant.

\* Wash off with irrigation soon after application.

\*\* Apply after the irrigation event in Trt 2.

\*\*\* Apply early morning in dark on the same day as Trt 2 & 3.

Leaf Spot<sup>1</sup>=Florida 1 - 10 scale where 1=no disease and 10=dead plant.

White Mold<sup>2</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

## CORTEVA IN FURROW TEST, 2019

A. PURPOSE: To evaluate the comparative efficacy of fungicides applied in furrow for the control of soil borne diseases, especially *Rhizoctonia solani*.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with four replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Tifguard

C. APPLICATION OF TREATMENTS:

1. Equipment: In furrow treatments applied in 3.4 GPA using one 80015 flat fan tip per row and 50 mesh ball check screens. Was applied with a CO2 unit at 16 PSI going 3.2 MPH.
2. Cover sprays for leaf spot control: Chlorothalanil (1.5 pt/a) on 17 June, 2 July, 17 July, 31 July, 13 Aug, 28 Aug, and 10 Sep.
3. *Rhizoctonia* treatment: Hand applied 650 ml of oats colonized with *Rhizoctonia solani* before planting on 9 May by banding it over the row and loosely incorporating with a rake. This was further incorporated by the planter as it planted the peanuts into this band.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Irr/Non Field, Tifton, GA 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 4 June.
4. Soil Fertility: pH – 6.5    P – 28    K – 42    Ca – 278    Mg – 32  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix in 17 gallons of water on 24 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.

6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May.  
Acephate 97 (0.75 lb/a) for worms on 14 Aug.
7. Planting Info: Tifguard, 6 seed/ft (1.5" deep) on 9 May.
8. Harvest Dates: Dug – 24 Sep. Picked – 1 Oct.

E: SUMMARY:

Very little seedling disease occurred in the trial, and no differences were evident between treatments other than minor differences in plant vigor and the % dead plants. There were no differences in yield.

**CORTEVA IN FURROW TEST, 2019**  
**BLACKSHANK, IRR/NONIRRIGATED FIELD**

Treatments	App's	Rate	RHIZ? <sup>1</sup>	Plants/ft <sup>2</sup>		% Dead Plants <sup>3</sup>		
				23-May	30-May	23-May	30-May	14-Jun
1. Fontelis	In furrow*	16.0 fl oz	Yes	3.6	3.8	0.0	0.0	0.9
2. Fontelis	In furrow*	24.0 fl oz	Yes	3.7	3.8	0.3	0.8	1.3
3. Aproach	In furrow*	6.0 fl oz	Yes	3.7	3.6	0.0	0.3	1.2
4. Aproach	In furrow*	12.0 fl oz	Yes	3.7	3.8	0.0	0.0	1.1
5. Abound	In furrow*	11.6 fl oz	Yes	3.7	3.6	0.0	0.1	0.7
6. Nontreated	-	-	Yes	3.9	4.0	0.0	0.4	2.3
7. Nontreated	-	-	No	3.8	3.8	0.0	0.9	2.5
<b>LSD(P&lt;0.05)</b>				N.S.	N.S.	N.S.	N.S.	1.8

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L. volume.

RHIZ<sup>1</sup>=Inoculated with *R.solani* with oat grain 650 ml per plot.

Plant/ft<sup>2</sup>=Stand count is the number of emerged plants per foot of row on May 21 and 30.

% Dead Plants<sup>3</sup>=The % of emerged plants that were dead or dying per plot. Each week these plants are removed and the number reported is the cumulative total.

**CORTEVA IN FURROW TEST, 2019**  
**BLACKSHANK, IRR/NONIRRIGATED FIELD**

Treatments	App's	Rate	RHIZ? <sup>1</sup>	Canopy Width <sup>4</sup> 27-Jun	Phyto <sup>5</sup> 20-Jun	Vigor <sup>6</sup> 20-Jun	WM <sup>7</sup> 25-Sep	Yield lb/A
1. Fontelis	In furrow*	16.0 fl oz	Yes	72.2	0.0	9.8	39.0	3521
2. Fontelis	In furrow*	24.0 fl oz	Yes	70.2	0.0	9.3	42.0	3194
3. Aproach	In furrow*	6.0 fl oz	Yes	70.4	0.0	9.8	44.0	3158
4. Aproach	In furrow*	12.0 fl oz	Yes	72.5	0.0	9.5	46.5	3194
5. Abound	In furrow*	11.6 fl oz	Yes	72.8	0.0	9.8	36.5	3594
6. Nontreated	-	-	Yes	67.5	0.0	8.8	40.5	3194
7. Nontreated	-	-	No	72.4	0.0	9.8	41.0	3340
<b>LSD(P&lt;0.05)</b>				4.1	N.S.	0.7	19.2	N.S.

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L. volume.

Canopy width<sup>4</sup>=The average width (cm) of 6 random locations per plot.

Phytotoxicity<sup>5</sup>=Based on a scale from 0-100, with 100 being dead.

Vigor<sup>6</sup>=Based on a scale from 0-10, with 10 being the best.

White Mold<sup>7</sup> = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

**VALENT WHITE MOLD TEST, 2019**

A. **PURPOSE:** To evaluate the comparative efficacy of fungicides applied in furrow for the control foliar and soil borne diseases.

B. **EXPERIMENTAL DESIGN:**

1. Randomized complete blocks with seven replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Tifguard



C. APPLICATION OF TREATMENTS:

1. Equipment: All treatments applied with a CO2 six nozzle boom unit with TX6 hollow cone tips and 50 mesh ball check screens. Applied at 45 PSI going 3 MPH.
2. Cover sprays for leaf spot control: Chlorothalanil (1.5 pt/a) on 17 June, 2 July, 17 July, 31 July, 13 Aug, 28 Aug, and 10 Sep.
3. Treatments sprays: Sprays 1, 3, 4, 5, and 6 were applied on 18 Jun, 16 July, 31 July, 13 Aug, and 26 Aug.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Irr/Non Field, Tifton, GA 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Ran strip till rig through to subsoil 18” deep on 23 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
4. Soil Fertility: pH – 6.5 P – 28 K – 42 Ca – 278 Mg – 32  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 24 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: Tifguard, 6 seed/ft (2” deep) on 9 May.
8. Harvest Dates: Dug – 24 Sep. Picked – 1 Oct.

E: SUMMARY:

This was a good test comparing fungicide efficacy, but all treatments would have benefited from starting earlier in the season. Treatment 10 initiated white mold applications at spray 1 (versus spray 3 in all others), and this was evident in the white mold ratings at harvest.

**VALENT WHITE MOLD TEST, 2019**  
**BLACKSHANK, IRR/NONIRRIGATED FIELD**

<b>Treatments</b>	<b>APP'S</b>	<b>Rate</b>	<b>Leaf Spot<sup>1</sup> 23-Sep</b>	<b>WM<sup>2</sup> 25-Sep</b>	<b>Yield lb/A</b>
1. Untreated	-	-	5.7	30.9	4335
2. Elatus	3 & 5	9.5 oz	3.5	16.6	4646
3. Convoy	3 - 6	16.0 fl oz	5.5	17.7	4729
4. Excalia*	3 - 6	2.0 fl oz	4.7	11.1	5020
5. Excalia*	3 - 5	2.0 fl oz	5.2	16.0	4584
6. Excalia*	3 - 5	2.65 fl oz	5.0	16.0	4875
7. Excalia*	3 & 5	3.0 fl oz	5.0	15.4	4646
8. Excalia*	3 & 5	4.0 fl oz	5.0	13.4	4522
9. V-10479	3 - 5	11.5 fl oz	4.5	21.7	4477
10. Excalia*	1, 3 & 5	2.65 fl oz	5.2	6.9	4667
<b>LSD(P&lt;0.05)</b>			0.5	7.9	550

\*Excalia = VC1946

Leaf Spot<sup>1</sup>=Florida 1 - 10 scale where 1=no disease and 10=dead plant.  
 White Mold<sup>2</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

**SYNGENTA MANAGEMENT TEST, 2019**

- A. **PURPOSE:** To evaluate the comparative efficacy of fungicides applied for the control of foliar and soil borne diseases.
- B. **EXPERIMENTAL DESIGN:**
1. Randomized complete blocks with four replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Tifguard

C. APPLICATION OF TREATMENTS:

1. Equipment: All treatments were applied with a CO2 six nozzle boom with TX6 hollow cone tips and 50 mesh ball check screens. Applied at 45 PSI going 3 MPH.
2. Treatment Sprays: Spray 1 was applied on 18 June, 1.5 on 25 June, 2 on 2 July, 2.5 on 8 July, 3 on 16 July, 4 on 31 July, 4.5 on 5 Aug, 5 on 14 Aug, 6 on 28 Aug, and 7 on 10 Sep.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Irr/Non Field, Tifton, GA 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Ran strip till rig through to subsoil 18” deep on 23 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
4. Soil Fertility: pH – 6.5    P – 28    K – 42    Ca – 278    Mg – 32  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 24 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: Tifguard, 6 seed/ft (2” deep) on 9 May.
8. Harvest Dates: Dug – 24 Sep.                  Picked – 2 Oct.

E: SUMMARY:

Yield differences were not as high as might be expected, but this was a very good test differentiating efficacy differences among treatments for both foliar and soilborne diseases.

**SYNGENTA MANAGEMENT TEST, 2019**  
**BLACKSHANK FARM, IRR/NONIRRIGATED FIELD**

Treatments	App's	Rate	LS <sup>1</sup> 23-Sep	WM <sup>2</sup> 25-Sep	Yield lb/A
1. Untreated	-	-	7.8	23.0	4356
2. Absolute	1	3.5 fl oz	4.2	15.0	4429
Bravo W'stik	2, 6 & 7	1.5 pt			
Provost Opti	3 - 5	10.7 fl oz			
3. Absolute	1	3.5 fl oz	4.2	9.5	4465
Propulse	2	13.7 fl oz			
Provost Opti	3 & 5	10.7 fl oz			
Bravo W'stik	4 & 6	1.5 pt			
+ Abound		24.0 fl oz			
Bravo W'stik	7	1.5 pt			
4. Priaxor	1.5	6.0 fl oz	4.8	11.5	4792
Bravo W'stik	3 & 7	1.5 pt			
Priaxor	4	8.0 fl oz			
Bravo	5 & 6	1.5 pt			
+ Orius 3.6		7.2 fl oz			
5. Priaxor	1.5	6.0 fl oz	4.3	6.5	4755
Bravo W'stik	3 & 5	1.0 pt			
+ Umbra		36.0 fl oz			
Priaxor	4	8.0 fl oz			
Bravo	6	1.0 pt			
+ Orius 3.6		7.2 fl oz			
Bravo W'stik	7	1.5 pt			
6. Alto	1	5.5 fl oz	2.4	11.5	4792
+ Bravo		1.0 pt			
Bravo	2 & 7	1.5 pt			
Elatus 45WG	3 & 5	9.5 oz			
+ Miravis		3.4 fl oz			
7. Elatus 45WG	1	7.3 oz	2.4	2.5	4792
+ Bravo		1.0 pt			
Elatus 45WG	2.5 & 4.5	7.3 oz			
+ Miravis		3.4 fl oz			
Bravo	6 & 7	1.5 pt			

Treatments	App's	Rate	LS <sup>1</sup> 23-Sep	WM <sup>2</sup> 25-Sep	Yield lb/A
8. Alto	1	5.5 fl oz	2.6	8.5	5155
+ Bravo		1.5 pt			
Elatus 45WG	3 & 5	9.5 oz			
+ Miravis		3.4 fl oz			
Bravo	7	1.5 pt			
9. Alto	1	5.5 fl oz	3.6	7.0	4864
+ Bravo		1.5 pt			
Elatus 45WG	3 & 5	9.5 oz			
+ A19649H		3.4 fl oz			
Bravo	7	1.5 pt			
10. Alto	1	5.5 fl oz	2.7	10.0	4683
+ Bravo		1.5 pt			
A19649H	3 & 5	3.4 fl oz			
+ A7402T		7.0 fl oz			
+A15457R		13.7 fl oz			
Bravo	7	1.5 pt			
11. Alto	1	5.5 fl oz	3.4	5.0	4719
+ Bravo		1.5 pt			
A19649H	3 & 5	3.4 fl oz			
+ A7402T		7.0 fl oz			
+ A15457R		13.7 fl oz			
+ Abound		11.0 fl oz			
Bravo	7	1.5 pt			
12. A19649H	1, 3 & 5	3.4 fl oz	2.7	8.5	5118
+ A7402T		7.0 fl oz			
+ A15457R		10.5 fl oz			
+ Abound		9.0 fl oz			
Bravo	7	1.5 pt			
13. Bravo W'stik	1, 2 & 7	1.5 pt	6.1	27.5	4429
STK-2A	3 - 6	13.7 fl oz			
14. Bravo W'stik	1, 2 & 7	1.5 pt	5.9	26.5	4392
STK-2A	3 - 6	20.5 fl oz			
<b>LSD(P&lt;0.05)</b>			<b>0.5</b>	<b>10.7</b>	<b>601</b>

Leaf Spot<sup>1</sup>=Florida 1 - 10 scale where 1=no disease and 10=dead plant.

White Mold<sup>2</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

**OFFICIAL DAILY RAINFALL, 2019**  
**BLACKSHANK FARM**  
**TIFTON, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
<b>1</b>	0.21	0.03				0.79	0.36	
<b>2</b>	0.09	0.21	0.02			0.03		
<b>3</b>	1.36							
<b>4</b>		0.02	0.22					
<b>5</b>	0.39	0.04	0.04	0.38	0.09	0.54		
<b>6</b>		0.06		0.05	0.03			0.32
<b>7</b>		0.01		0.28	0.50			0.01
<b>8</b>		0.08		0.44	0.01	0.64		0.01
<b>9</b>		0.43	0.12	0.69		0.01	0.05	
<b>10</b>	0.06	0.01	0.09	0.47		0.11		
<b>11</b>	0.79		1.23	0.51				
<b>12</b>			0.18	1.32	0.17	0.03		
<b>13</b>			0.01	0.01		0.27		
<b>14</b>		0.48				1.50	0.04	0.02
<b>15</b>	0.02	0.01				0.01	0.01	1.56
<b>16</b>								0.51
<b>17</b>						0.41		
<b>18</b>				0.02		0.55		
<b>19</b>		0.87			0.37	0.29		0.58
<b>20</b>				1.11	0.11	0.05		
<b>21</b>				0.01	0.01	0.16		
<b>22</b>				0.15		0.02		0.04
<b>23</b>				0.01	0.67			
<b>24</b>					0.01	0.03		
<b>25</b>	0.30	0.11				0.01		
<b>26</b>	0.01	0.02				0.19		
<b>27</b>	0.65							0.03
<b>28</b>				0.11				
<b>29</b>				0.02				0.82
<b>30</b>				0.01				
<b>31</b>	0.01					0.73		0.30
<b>TOTAL</b>	<b>3.9</b>	<b>2.4</b>	<b>1.9</b>	<b>5.6</b>	<b>2.0</b>	<b>6.4</b>	<b>0.5</b>	<b>4.2</b>

Rainfall = inches.

Irrigated as needed.

## MULTI-STATE DISEASE EVALUATION TEST, 2019

A. PURPOSE: To evaluate the comparative susceptibility of peanut breeding lines and cultivars to major peanut diseases in Georgia.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with four replicates.
2. One two-row bed (15ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Multiple Varieties

C. APPLICATION OF TREATMENTS:

1. Cover sprays for leaf spot control: Chlorothalanil (1.5 pt/a) on 17 June, 2 July, 17 July, and 28 Aug.
2. Inoculated test with white mold on 8 Aug.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Banana Field, Tifton, GA 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Field deep turned and smoothed over on 25 Mar. Fumigated with TRI-PIC 100 (300 lb/a) by injecting into soil and covering with plastic on 28 Mar. Removed tarp on 4 Apr. Marked 6 ft beds and ran strip till rig to subsoil on 23 Apr.
4. Soil Fertility: pH – 6.3    P – 16    K – 40    Ca – 244    Mg – 29  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 24 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May.  
Acephate 97 (0.5 lb/a) for worms on 6 June.  
Acephate 97 (1.0 lb/a) for fire ants on 2 Aug.
7. Planting Info: Multiple Varieties, 6 seed/ft (2" deep) on 22 May.

8. Harvest Dates: Dug – 10 Oct. Picked – 21 Oct.

E: SUMMARY:

This was a good test differentiating the susceptibility of peanut genotypes to various diseases and root knot nematodes.

**MULTISTATE/RIL FIELD TEST, 2019  
BLACKSHANK FARM (WHITE MOLD, TSWV & LEAF SPOT)**

<b>Genotypes</b>	<b>TSWV<sup>1</sup> 13-Aug</b>	<b>WM<sup>2</sup> 12-Oct</b>	<b>WM (% 0's)<sup>4</sup> 12-Oct</b>	<b>Yield lb/A</b>	<b>LS<sup>3</sup> 3-Oct</b>
1. GA01 13-3532	19.2	21.3	17.0	3872	7.7
2. GA02 13-1125	21.7	49.4	4.0	3388	7.8
3. GA03	30.8	27.7	25.0	3751	5.5
4. GA04	32.5	22.1	21.0	3267	6.2
5. GA05	31.7	27.9	13.0	3570	5.3
6. GA06	29.2	34.0	17.0	3751	6.1
7. GA07	22.5	41.0	0.0	4114	5.9
8. GA08	33.3	27.9	4.0	3267	4.4
9. GA09	19.2	19.4	4.0	3811	6.4
10. GA10	16.7	35.2	0.0	3207	5.6
11. GA11	17.5	32.7	13.0	3570	6.1
12. GA12	13.3	25.2	4.0	3086	5.8
13. GA13	30.8	39.2	17.0	3469	7.6
14. GA14	29.2	21.9	17.0	3549	6.3
15. T-1 ASUS-50	49.2	23.6	4.0	2581	5.5
16. T-2 ASUS-51	46.7	14.6	21.0	2985	4.6
17. T-3 ASUS-644	.	.	.	.	2.5
18. Bill 132724	14.2	32.7	4.0	4336	6.4
19. FL1 19UF1	20.0	37.1	13.0	2904	7.9
20. FL2 19UF2	24.2	28.3	0.0	3509	6.6
21. FL3 19UF3	22.5	19.6	13.0	4477	7.9
22. FL4 19UF4	40.8	14.4	8.0	2965	6.9
23. FL5 19UF5	30.8	60.2	8.0	2965	8.4
24. FL6 19UF6	.	.	.	.	3.9
25. FL7 19UF7	35.8	26.3	21.0	3388	7.4



**MULTISTATE/RIL FIELD TEST, 2019**  
**BLACKSHANK FARM (WHITE MOLD, TSWV & LEAF SPOT)**

<b>Genotypes</b>	<b>TSWV<sup>1</sup> 13-Aug</b>	<b>WM<sup>2</sup> 12-Oct</b>	<b>WM (% 0's)<sup>4</sup> 12-Oct</b>	<b>Yield lb/A</b>	<b>LS<sup>3</sup> 3-Oct</b>
26. FL8 19UF8	45.0	56.1	4.0	3146	5.9
27. KM1 ACI 1D19069	24.2	27.5	8.0	3630	6.3
28. KM2 ACI X 3F104	24.2	23.5	21.0	3509	4.0
29. KM3 ACI X 307	.	.	.	.	3.9
30. KM4 ACI 1D9684	28.3	34.2	13.0	3086	6.3
31. AG1 08-1-0016	49.2	57.2	4.0	2178	8.1
32. AG2 08-1-0568	48.3	57.8	0.0	2239	7.9
33. AG3 14-1-0086	56.7	53.5	0.0	1936	8.3
34. AG4 IPG 914	40.8	24.4	13.0	2844	7.1
35. AG5 12-1-4944	45.8	65.0	4.0	2420	8.4
36. GA-14N	42.5	20.3	8.0	3509	5.3
37. GA-16HO	23.3	45.0	13.0	3631	6.9
38. GA-12Y	12.5	37.9	13	4296	7.9
39. AU-NPL17	35.8	22.9	21	3449	6.0
40. TifNV High O/L	13.3	25.2	13.0	4296	5.1
41. GA-06G	32.2	67.8	0.0	3691	8.1
42. Florun 331	38.3	17.5	21.0	3630	7.4
43. Tufrunner 297	36.7	28.3	4.0	3751	7.1
44. GA-17SP	20.8	37.1	8.0	3751	5.8
45. GA-13M	16.7	66.4	0.0	3630	8.4
46. GA-18RU	23.3	49.8	4.0	3388	8.4
47. GA-11J	34.2	29.6	4.0	3267	6.8
48. Walton	30.0	28.1	13.0	3328	8.6
<b>LSD(P&lt;0.05)</b>	16.5	16.4	14.7	851	1.2

TSWV<sup>1</sup>=Percent of row feet infectd based on disease loci (up to 12" linear row) per plot.

White Mold<sup>2</sup>=Mean length of disease loci after digging (cm)

Leaf Spot<sup>3</sup>=Florida 1 - 10 scale where 1=no disease and 10=dead plant.

White Mold<sup>4</sup>=The percent of inoculated sites with no visible white mold symptoms

**MULTISTATE/RIL FIELD TEST, 2019**  
**BLACKSHANK FARM (ROOT KNOT NEMATODE)**

Genotypes	NEMATODE DATA			
	Galls <sup>5</sup>	Eggs <sup>5</sup>	Vigor <sup>6</sup>	N <sup>7</sup>
1. GA01 13-3532	1.1	0	3.3	4
2. GA02 13-1125	1.3	0.6	3.8	5
3. GA03	2.7	1.4	3.2	5
4. GA04	2.9	1.8	3	5
5. GA05	2	1.8	3.8	4
6. GA06	0.2	0	3.8	5
7. GA07	2.3	1.6	3.8	5
8. GA08	1.6	1.3	3.8	4
9. GA09	0.2	0	3.4	5
10. GA10	0.4	0	3.6	5
11. GA11	0	0	3.8	5
12. GA12	0.4	0	3.6	5
13. GA13	0.5	0	3.3	4
14. GA14	0.6	0.4	3.6	5
15. T-1 ASUS-50	3.8	3	3.5	2
16. T-2 ASUS-51	4.5	4	4	1
17. T-3 ASUS-644	3.5	2	4	1
18. Bill 132724	0.8	0	3.8	5
19. FL1 19UF1	4.1	3	3.8	4
20. FL2 19UF2	4.3	3.3	3.5	4
21. FL3 19UF3	3.3	2.6	3.8	5
22. FL4 19UF4	3.5	3	3.5	4
23. FL5 19UF5	3.4	2.8	3.8	5
24. FL6 19UF6	0	0	3.5	4
25. FL7 19UF7	3.4	3	3.8	4

**MULTISTATE/RIL FIELD TEST, 2019**  
**BLACKSHANK FARM (ROOT KNOT NEMATODE)**

Genotypes	NEMATODE DATA			
	Galls <sup>5</sup>	Eggs <sup>5</sup>	Vigor <sup>6</sup>	N <sup>7</sup>
26. FL8 19UF8	1.7	1.4	3.2	5
27. KM1 ACI 1D19069	2.2	2	3.7	3
28. KM2 ACI X 3F104	0	0	3.5	2
29. KM3 ACI X 307	4	3.5	3.5	2
30. KM4 ACI 1D9684	3.5	3	3.7	3
31. AG1 08-1-0016	3.8	3	3.3	4
32. AG2 08-1-0568	3.5	2.8	3.2	5
33. AG3 14-1-0086	3.2	2.3	3.7	3
34. AG4 IPG 914	3.2	2.3	3.7	3
35. AG5 12-1-4944	3.3	1.5	3.3	4
36. GA-14N	0	0	3.5	2
37. GA-16HO	2.7	0.7	4	3
38. GA-12Y	2.8	1.3	3.5	4
39. AU-NPL17	3.2	2.3	2.7	3
40. TifNV High O/L	0.4	0	3.2	5
41. GA-06G	4.2	3.6	3.8	5
42. Florun 331	4.3	3.5	3.5	4
43. Tufunner 297	3	1.8	3.6	5
44. GA-17SP	1.4	0.8	3.6	5
45. GA-13M	.	.	.	0
46. GA-18RU	2.7	2.3	4	3
47. GA-11J	3	1.6	3.8	5
48. Walton	2	1.8	3.8	4
49. GA-13M	4.1	3.4	3.6	5
50. GA-13M	3.9	3	3.8	4
<b>LSD(P&lt;0.05)</b>	1.4	1.5	0.6	-

Egg mass and gall indices<sup>5</sup>: 0 = 0; 1 = 1-2; 2 = 3-10; 4 = 31-100; 5 = > 100.

Vigor Index<sup>6</sup>: 1 = very small; 2 = small; 3 = average; 4 = large; 5 = very large.

N<sup>7</sup> = # of reps

**OFFICIAL DAILY RAINFALL, 2019**  
**BLACKSHANK FARM**  
**TIFTON, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
<b>1</b>	0.21	0.03				0.79	0.36	
<b>2</b>	0.09	0.21	0.02			0.03		
<b>3</b>	1.36							
<b>4</b>		0.02	0.22					
<b>5</b>	0.39	0.04	0.04	0.38	0.09	0.54		
<b>6</b>		0.06		0.05	0.03			0.32
<b>7</b>		0.01		0.28	0.50			0.01
<b>8</b>		0.08		0.44	0.01	0.64		0.01
<b>9</b>		0.43	0.12	0.69		0.01	0.05	
<b>10</b>	0.06	0.01	0.09	0.47		0.11		
<b>11</b>	0.79		1.23	0.51				
<b>12</b>			0.18	1.32	0.17	0.03		
<b>13</b>			0.01	0.01		0.27		
<b>14</b>		0.48				1.50	0.04	0.02
<b>15</b>	0.02	0.01				0.01	0.01	1.56
<b>16</b>								0.51
<b>17</b>						0.41		
<b>18</b>				0.02		0.55		
<b>19</b>		0.87			0.37	0.29		0.58
<b>20</b>				1.11	0.11	0.05		
<b>21</b>				0.01	0.01	0.16		
<b>22</b>				0.15		0.02		0.04
<b>23</b>				0.01	0.67			
<b>24</b>					0.01	0.03		
<b>25</b>	0.30	0.11				0.01		
<b>26</b>	0.01	0.02				0.19		
<b>27</b>	0.65							0.03
<b>28</b>				0.11				
<b>29</b>				0.02				0.82
<b>30</b>				0.01				
<b>31</b>	0.01					0.73		0.30
<b>TOTAL</b>	<b>3.9</b>	<b>2.4</b>	<b>1.9</b>	<b>5.6</b>	<b>2.0</b>	<b>6.4</b>	<b>0.5</b>	<b>4.2</b>

Rainfall = inches.

Irrigated as needed.

## EVALUATION OF SEED TREATMENTS FOR CONTROL OF PEANUT SEEDLING DISEASES (SYNGENTA SEED TREATMENT TEST III, 2019)

A. PURPOSE: To evaluate the efficacy of experimental peanut seed treatments.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with four replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Company treated stressed Tifguard

C. APPLICATION OF TREATMENTS:

1. Cover sprays: Chlorothalanil (1.5 pt/a) was applied for leaf spot control on 17 Jun, 17 July, 31 July, 28 Aug, and 10 Sep. Chlorothalanil (1.5 pt/a) + Elatus (9.5 dry oz/a) were applied for leaf spot and white mold control on 2 July and 13 Aug.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Raines Field, Tifton, GA, 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Ran strip till rig through to subsoil 18” deep on 23 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May. Cultivated to remove weeds on 3 June.
4. Soil Fertility: pH – 7.1 P – 70 K – 12 Ca – 396 Mg – 40  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 24 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 31 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: Treated stressed Tifguard, 6 seed/ft (2” deep) on 30 May.
8. Harvest Dates: Dug – 9 Oct. Picked – 14 Oct.

E: SUMMARY:

This was a duplicate test planted late in a very poor field. The stand counts have some useful comparisons, but nematodes were significant in the field and overall plant growth and development was very poor and highly variable. Overall this was not a reliable, comprehensive evaluation of potential seed treatments.

**SYNGENTA SEED TRT TEST III, 2019  
BLACKSHANK FARM, RAINES FIELD**

Seed Trt	Plant/ft <sup>1</sup>		% Dead Plants <sup>2</sup>			TSWV <sup>3</sup>	Roots/ft <sup>4</sup>	Yield
	14-Jun	20-Jun	14-Jun	20-Jun	3-Jul	13-Aug	9-Oct	lb/A
1	0.8	1.2	3.2	7.2	13.5	7.0	0.5	835
2	2.0	1.9	0.0	1.4	2.4	11.5	1.3	690
3	1.4	1.5	0.0	0.0	3.0	8.5	1.1	1271
4	1.7	1.6	0.0	0.0	0.7	9.5	1.2	617
5	1.5	1.5	0.0	1.0	3.1	9.5	1.0	835
6	1.7	1.8	0.3	1.1	2.5	12.0	1.1	726
7	1.3	1.5	0.0	0.0	1.1	11.0	1.0	654
8	2.1	2.1	0.0	0.2	0.8	10.0	1.3	763
9	1.7	1.7	0.0	0.0	0.4	11.0	1.2	944
10	2.0	2.0	0.0	0.0	0.2	11.0	1.4	690
<b>LSD(P&lt;0.05)</b>	0.4	0.5	1.2	2.7	3.4	N.S.	0.3	448

Plant/ft<sup>1</sup> = Stand count is the number of emerged plants per foot of row on June 14 and 20.

% Dead Plants<sup>2</sup> = The % of emerged plants that were dead or dying per plot. Each week these plants are removed and the number reported is the cumulative total.

TSWV<sup>3</sup> = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Roots/ft<sup>4</sup> = Number of tap roots per foot of row after the plots were inverted.

NOTE - A composite sample showed 232 *M. arenaria* juveniles per 100 cc of soil and 26 ring nematodes per 100 cc of soil.

**OFFICIAL DAILY RAINFALL, 2019**  
**BLACKSHANK FARM**  
**TIFTON, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
<b>1</b>	0.21	0.03				0.79	0.36	
<b>2</b>	0.09	0.21	0.02			0.03		
<b>3</b>	1.36							
<b>4</b>		0.02	0.22					
<b>5</b>	0.39	0.04	0.04	0.38	0.09	0.54		
<b>6</b>		0.06		0.05	0.03			0.32
<b>7</b>		0.01		0.28	0.50			0.01
<b>8</b>		0.08		0.44	0.01	0.64		0.01
<b>9</b>		0.43	0.12	0.69		0.01	0.05	
<b>10</b>	0.06	0.01	0.09	0.47		0.11		
<b>11</b>	0.79		1.23	0.51				
<b>12</b>			0.18	1.32	0.17	0.03		
<b>13</b>			0.01	0.01		0.27		
<b>14</b>		0.48				1.50	0.04	0.02
<b>15</b>	0.02	0.01				0.01	0.01	1.56
<b>16</b>								0.51
<b>17</b>						0.41		
<b>18</b>				0.02		0.55		
<b>19</b>		0.87			0.37	0.29		0.58
<b>20</b>				1.11	0.11	0.05		
<b>21</b>				0.01	0.01	0.16		
<b>22</b>				0.15		0.02		0.04
<b>23</b>				0.01	0.67			
<b>24</b>					0.01	0.03		
<b>25</b>	0.30	0.11				0.01		
<b>26</b>	0.01	0.02				0.19		
<b>27</b>	0.65							0.03
<b>28</b>				0.11				
<b>29</b>				0.02				0.82
<b>30</b>				0.01				
<b>31</b>	0.01					0.73		0.30
<b>TOTAL</b>	<b>3.9</b>	<b>2.4</b>	<b>1.9</b>	<b>5.6</b>	<b>2.0</b>	<b>6.4</b>	<b>0.5</b>	<b>4.2</b>

Rainfall = inches.

Irrigated as needed.

## EVALUATION OF SEED TREATMENTS FOR CONTROL OF PEANUT SEEDLING DISEASES (ARYSTA IN-FURROW SEED TREATMENT TEST, 2019)

- A. PURPOSE: To evaluate the efficacy of experimental peanut seed treatments.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with four replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Company Treated Tifguard.
- C. APPLICATION OF TREATMENTS:
1. Cover sprays: Chlorothalanil (1.5 pt/a) was applied for leaf spot control on 17 Jun, 25 Jun, 6 Aug, and 3 Sep. Chlorothalanil (1.5 pt/a) + Elatus (9.5 dry oz/a) applied for leaf spot and white mold control on 8 July, 23 July, and 21 Aug.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, South Field, Tifton, GA, 31794
  2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
  3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
  4. Soil Fertility: pH – 6.4    P – 36    K – 66    Ca – 942    Mg – 93  
Soil type: Tifton loamy sand, 2 – 5% slope.
  5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 25 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
  6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.
  7. Planting Info: Treated Tifguard, 6 seed/ft (2" deep) on 1 May.
  8. Harvest Dates: Dug – 17 Sep.                      Picked – 26 Sep.



E: SUMMARY:

This was an excellent seed treatment trial with severe issues from *Aspergillus* crown rot as reflected by the % dead plants. The potential contributions of seed treatments and in furrow sprays are clearly shown, and are influenced by probable QoI resistance in *A. niger*.

**ARYSTA IN FURROW SEED TRT TEST, 2019  
LANG FARM, SOUTH FIELD**

Trt	In Furrow*	Rate	Plant/ft <sup>1</sup>		% Dead Plants <sup>2</sup>		
			15-May	28-May	15-May	28-May	5-Jun
1. Nontreated	None	-	0.9	0.9	4.3	27.3	43.5
2. Nontreated	Abound	6.0 fl oz	0.7	1.0	6.7	25.4	32.9
3. Nontreated	Velum Total	18.0 fl oz	1.8	2.1	0.0	1.7	2.3
4. Nontreated	Proline	5.7 fl oz	0.8	1.2	0.4	4.7	6.3
5. Rancona V PD	None	-	3.9	4.1	0.0	0.2	1.0
6. Rancona V PD	Abound	6.0 fl oz	3.3	3.5	0.0	1.1	1.7
7. Rancona V PD	Velum Total	18.0 fl oz	3.7	3.8	0.0	0.5	0.9
8. Rancona V PD	Proline	5.7 fl oz	3.8	3.9	0.0	0.1	0.4
9. Dynasty PD	None	-	3.7	3.8	0.3	4.0	8.5
10. Dynasty PD	Abound	6.0 fl oz	3.7	3.7	0.0	3.5	7.3
11. Dynasty PD	Velum Total	18.0 fl oz	3.8	4.1	0.0	2.0	3.3
12. Dynasty PD	Proline	5.7 fl oz	3.3	3.4	0.0	1.0	2.4
<b>LSD(P&lt;0.05)</b>			<b>0.7</b>	<b>0.5</b>	<b>3.6</b>	<b>5.8</b>	<b>9.0</b>

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L volume.

Plant/ft<sup>1</sup> = Stand count is the number of emerged plants per foot of row on May 15 and 28.

% Dead Plants<sup>2</sup>=The % of emerged plants that were dead or dying per plot. Each week these plants are removed and the number reported is the cumulative total.

**ARYSTA IN FURROW SEED TRT TEST, 2019**  
**LANG FARM, SOUTH FIELD**

Trt	In Furrow*	Rate	Reg Germ. 23-May	Cold Germ 23-May	Reg Germ. 25-Jun	Cold Germ 25-Jun	TSWV <sup>3</sup> 1-Aug
1. Nontreated	None	-	-	-	-	-	23.0
2. Nontreated	Abound	6.0 fl oz	-	-	-	-	15.5
3. Nontreated	Velum Total	18.0 fl oz	-	-	-	-	12.5
4. Nontreated	Proline	5.7 fl oz	-	-	-	-	17.5
5. Rancona V PD	None	-	81	86	84	63	6.0
6. Rancona V PD	Abound	6.0 fl oz	-	-	-	-	6.0
7. Rancona V PD	Velum Total	18.0 fl oz	-	-	-	-	7.5
8. Rancona V PD	Proline	5.7 fl oz	-	-	-	-	4.5
9. Dynasty PD	None	-	76	76	80	62	13.5
10. Dynasty PD	Abound	6.0 fl oz	-	-	-	-	15.0
11. Dynasty PD	Velum Total	18.0 fl oz	-	-	-	-	12.5
12. Dynasty PD	Proline	5.7 fl oz	-	-	-	-	7.0
<b>LSD(P&lt;0.05)</b>			-	-	-	-	7.8

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L volume.

TSWV<sup>3</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

**ARYSTA IN FURROW SEED TRT TEST, 2019**  
**LANG FARM, SOUTH FIELD**

<b>Trt</b>	<b>In Furrow*</b>	<b>Rate</b>	<b>Roots/ft<sup>4</sup> 18-Sep</b>	<b>Yield lb/A</b>
1. Nontreated	None	-	0.7	1706
2. Nontreated	Abound	6.0 fl oz	0.5	1924
3. Nontreated	Velum Total	18.0 fl oz	2.3	4452
4. Nontreated	Proline	5.7 fl oz	0.8	2505
5. Rancona V PD	None	-	3.4	4356
6. Rancona V PD	Abound	6.0 fl oz	3.4	5227
7. Rancona V PD	Velum Total	18.0 fl oz	3.4	5276
8. Rancona V PD	Proline	5.7 fl oz	3.3	4646
9. Dynasty PD	None	-	2.3	4211
10. Dynasty PD	Abound	6.0 fl oz	3.1	4792
11. Dynasty PD	Velum Total	18.0 fl oz	3.5	5009
12. Dynasty PD	Proline	5.7 fl oz	3.5	5300
<b>LSD(P&lt;0.05)</b>			<b>0.9</b>	<b>871</b>

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L volume.

Roots/ft<sup>4</sup>=Number of tap roots per foot of row after the plots were inverted.

## EVALUATION OF SEED TREATMENTS FOR CONTROL OF PEANUT SEEDLING DISEASES (ARYSTA SEED TREATMENT/BIOSTIMULANT TEST, 2019)

A. PURPOSE: To evaluate the efficacy of experimental peanut seed treatments.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with four replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Company Treated Tifguard.

C. APPLICATION OF TREATMENTS:

1. Cover sprays: Chlorothalanil (1.5 pt/a) was applied for leaf spot control on 17 Jun, 25 Jun, 6 Aug, and 3 Sep. Chlorothalanil (1.5 pt/a) + Elatus (9.5 dry oz/a) applied for leaf spot and white mold control on 8 July, 23 July, and 21 Aug.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, South Field, Tifton, GA, 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
4. Soil Fertility: pH – 6.4    P – 36    K – 66    Ca – 942    Mg – 93  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 25 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.
7. Planting Info: Treated Tifguard, 6 seed/ft (2” deep) on 1 May.
8. Harvest Dates: Dug – 17 Sep.                      Picked – 26 Sep.

E: SUMMARY:

This was an excellent seed treatment trial with severe issues from *Aspergillus* crown rot as reflected by the % dead plants. The contributions of seed treatments are clearly shown, but the in furrow sprays had little to no effect.

**ARYSTA SEED TRT / BIOSTIMULANT TEST, 2019  
LANG FARM, SOUTH FIELD**

Trt	Rate / 100 lb	Plant/ft <sup>1</sup>		% Dead Plants <sup>2</sup>			TSWV <sup>3</sup> 1-Aug
		15-May	22-May	15-May	22-May	5-Jun	
1. Nontreated		0.6	0.6	6.4	20.8	41.4	19.0
2. Dynasty PD	4.0 oz	3.7	3.8	0.1	0.9	5.7	17.0
3. Rancona V PD	4.0 oz	4.0	4.2	0.0	0.1	0.7	11.0
4. Rancona V PD + Abound	4.0 oz 6.0 fl oz IF*	3.8	4.0	0.0	0.1	1.7	16.0
5. Rancona V PD + ARYGB2	4.0 oz 8.0 fl oz IF*	3.9	3.8	0.1	0.3	1.1	16.5
6. Rancona V PD + ARYG1	4.0 oz 6.0 fl oz IF*	4.1	4.1	0.0	0.0	0.5	14.0
7. Rancona V PD + ARYG2	4.0 oz 32.0 fl oz IF*	4.0	4.0	0.0	0.1	0.9	14.5
8. Rancona V PD + ARYG3	4.0 oz 16.0 fl oz IF*	3.8	3.9	0.0	0.1	1.4	16.0
<b>LSD(P&lt;0.05)</b>		0.4	0.4	3.8	8.5	12.4	7.3

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L volume.

Plant/ft<sup>1</sup> = Stand count is the number of emerged plants per foot of row on May 15 and 22.

% Dead Plants<sup>2</sup> = The % of emerged plants that were dead or dying per plot. Each week these plants are removed and the number reported is the cumulative total.

TSWV<sup>3</sup> = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

**ARYSTA SEED TRT / BIOSTIMULANT TEST, 2019**  
**LANG FARM, SOUTH FIELD**

Trt	Rate / 100 lb	Yield lb/A	Roots/ft <sup>4</sup> 18-Sep
1. Nontreated		2105	0.4
2. Dynasty PD	4.0 oz	5469	3.0
3. Rancona V PD	4.0 oz	5445	3.9
4. Rancona V PD + Abound	4.0 oz 6.0 fl oz IF*	5518	3.6
5. Rancona V PD + ARYGB2	4.0 oz 8.0 fl oz IF*	5409	3.3
6. Rancona V PD +ARYG1	4.0 oz 6.0 fl oz IF*	5735	3.9
7. Rancona V PD + ARYG2	4.0 oz 32.0 fl oz IF*	5699	3.9
8. Rancona V PD + ARYG3	4.0 oz 16.0 fl oz IF*	5227	3.3
<b>LSD(P&lt;0.05)</b>		892	0.5

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L volume.

Roots/ft<sup>4</sup>=Number of tap roots per foot of row after the plots were inverted.

## CORTEVA-SUMMIT TEST, 2019

A. PURPOSE: To evaluate the comparative efficacy of experimental treatments for control of foliar and soilborne diseases.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with six replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Tifguard.

C. APPLICATION OF TREATMENTS:

1. Treatment sprays: Treatments 4, 7, and 8 were sprayed on 14 June. Treatments 2-8 were sprayed 2 July, 12 July, 26 July, 9 Aug, 23 Aug, and 5 Sep.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, South Field, Tifton, GA, 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
4. Soil Fertility: pH – 6.4 P – 36 K – 66 Ca – 942 Mg – 93  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 25 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.
7. Planting Info: Tifguard, 6 seed/ft (2" deep) on 7 May.
8. Harvest Dates: Dug – 17 Sep. Picked – 26 Sep.

E. SUMMARY:

A solid trial differentiating efficacy of treatments for foliar and soilborne diseases.

**CORTEVA-SUMMIT TEST, 2019**  
**LANG FARM, SOUTH FIELD**

<b>Treatments</b>	<b>App's</b>	<b>Rate</b>	<b>Lf Spot<sup>1</sup> 16-Sep</b>	<b>WM<sup>2</sup> 17-Sep</b>	<b>Yield lb/A</b>
1. Nontreated			7.3	38.0	3267
2. Aproach Prima + Induce	2	6.8 fl oz	4.0	25.7	4622
Fontelis	3 - 5	16.0 fl oz			
+ Induce		0.25%			
Bravo W'stik	6 & 7	1.5 pt			
3. Priaxor + Induce	2	6.0 fl oz	4.1	14.3	4767
Fontelis	3 - 5	16.0 fl oz			
+ Induce		0.25%			
Bravo W'stik	6 & 7	1.5 pt			
4. Aproach Prima + Induce	1	6.8 fl oz	3.6	15.7	4695
Bravo W'stik	2 & 6	1.5 pt			
+ Onset 3.6L		7.2 fl oz			
Fontelis	3 - 5	16.0 fl oz			
+ Induce		0.25%			
Bravo W'stik	7	1.5 pt			
5. Aproach Prima + Induce	2 & 6	6.8 fl oz	3.9	26.0	4840
Fontelis	3 - 5	10.0 fl oz			
+ Induce		0.25%			
Bravo W'stik	7	1.5 pt			
6. Alto + Bravo	2	5.5 fl oz	4.6	24.7	4211
Elatus	3 & 5	1.5 pt			
Bravo W'stik	4, 6 & 7	9.5 oz			
		1.5 pt			
7. Bravo W'stik STK-2A	1, 2 & 7 3 - 6	1.5 pt 13.7 fl oz	5.8	31.3	4090
8. Bravo W'stik STK-2A	1, 2 & 7 3 - 6	1.5 pt 20.5 fl oz	5.6	29.3	4114
<b>LSD(P&lt;0.05)</b>			<b>0.6</b>	<b>12.9</b>	<b>709</b>

Leaf Spot<sup>1</sup> = Florida 1-10 scale, where 1=no disease and 10=dead plant.

White Mold<sup>2</sup>= Percent of row feet infected based on stem rot loci (up to 12" linear row) per plot.



EVALUATION OF SEED TREATMENTS FOR CONTROL OF PEANUT SEEDLING DISEASES (INCOTECH SEED TREATMENT TEST, 2019)

- A. PURPOSE: To evaluate the efficacy of experimental peanut seed treatments.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with four replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Company treated GA-06G.
- C. APPLICATION OF TREATMENTS:
1. Cover sprays: Chlorothalanil (1.5 pt/a) was applied for leaf spot control on 17 Jun, 25 Jun, 6 Aug, and 3 Sep. Chlorothalanil (1.5 pt/a) + Elatus (9.5 dry oz/a) applied for leaf spot and white mold control on 8 July, 23 July, and 21 Aug.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, South Field, Tifton, GA, 31794
  2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
  3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
  4. Soil Fertility: pH – 6.4 P – 36 K – 66 Ca – 942 Mg – 93  
Soil type: Tifton loamy sand, 2 – 5% slope.
  5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 25 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
  6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.
  7. Planting Info: Treated GA-06G, 6 seed/ft (2” deep) on 1 May.
  8. Harvest Dates: Dug –17 Sep. Picked – 26 Sep.

E: SUMMARY:

This was an excellent seed treatment trial with severe issues from *Aspergillus* crown rot as reflected by the % dead plants. The contributions of seed treatments are clearly shown, in the huge stand and yield differences, particularly with the lower quality seed.

**INCOTECH SEED TRT TEST, 2019  
LANG FARM, SOUTH FIELD**

Trt	Rate/ 100 lb	Plant/ft <sup>1</sup>		% Dead Plants <sup>2</sup>		
		15-May	22-May	15-May	22-May	5-Jun
1. Filmcoat 1, ai trt 1--Medium Germ Seed*	4.0 oz	3.6	3.4	0.2	0.7	6.0
2. Filmcoat 1, ai trt 1--High Germ Seed**	4.0 oz	4.2	4.3	0.1	0.2	3.6
3. Filmcoat 2, ai trt 1--Medium Germ Seed*	4.0 oz	3.5	3.5	0.0	0.0	7.0
4. Filmcoat 2, ai trt 1--High Germ Seed**	4.0 oz	4.0	4.2	0.0	0.3	1.9
5. Filmcoat 2, ai trt 2--High Germ Seed**	4.0 oz	4.4	4.4	0.0	0.1	1.1
6. Filmcoat 2, ai trt 3--High Germ Seed**	4.0 oz	3.9	4.4	0.0	0.5	4.2
7. Filmcoat 2, ai trt 4--High Germ Seed**	4.0 oz	4.7	4.3	0.0	0.0	1.1
8. Filmcoat 2, ai trt 5--High Germ Seed**	4.0 oz	4.8	4.3	0.0	0.2	1.9
9. Dynasty PD--Medium Germ Seed*	4.0 oz	3.7	4.0	0.3	0.8	7.6
10. Dynasty PD--High Germ Seed**	4.0 oz	4.4	4.3	0.0	0.0	1.8
11. Untreated--Medium Germ Seed*	4.0 oz	1.1	0.9	3.5	18.5	52.3
12. Untreated--High Germ Seed**	4.0 oz	2.4	1.8	0.4	9.0	34.9
<b>LSD(P&lt;0.05)</b>		0.6	0.6	1.4	5.5	9.0

\*Medium germ seed: 06-G peanut seed, Lot #742, R.L Cunningham & Sons, initial germ: 84%

\*\*High germ seed: 06-G peanut seed, Lot #798, R.L Cunningham & Sons, initial germ: 94%

Plant/ft<sup>1</sup>=Stand count is the number of emerged plants per foot of row on May 15 & 22.

% Dead Plants<sup>2</sup>=The % of emerged plants that were dead or dying per plot. Each week these plants are removed and the number reported is the cumulative total.

INCOTECH SEED TRT TEST, 2019						
LANG FARM, SOUTH FIELD						
		Reg	Cold	Reg	Cold	
	Rate/	Germ.	Germ	Germ.	Germ	TSWV <sup>3</sup>
Trt	100 lb	3-Jul	3-Jul	5-Aug	5-Aug	1-Aug
1. Filmcoat 1, ai trt 1--Medium Germ Seed*	4.0 oz	81	32	81	56	15.0
2. Filmcoat 1, ai trt 1--High Germ Seed**	4.0 oz	92	73	91	73	14.5
3. Filmcoat 2, ai trt 1--Medium Germ Seed*	4.0 oz	79	28	84	45	18.5
4. Filmcoat 2, ai trt 1--High Germ Seed**	4.0 oz	85	83	90	82	13.0
5. Filmcoat 2, ai trt 2--High Germ Seed**	4.0 oz	88	76	85	86	16.5
6. Filmcoat 2, ai trt 3--High Germ Seed**	4.0 oz	89	81	89	85	16.5
7. Filmcoat 2, ai trt 4--High Germ Seed**	4.0 oz	82	80	91	76	16.5
8. Filmcoat 2, ai trt 5--High Germ Seed**	4.0 oz	83	87	89	87	16.0
9. Dynasty PD--Medium Germ Seed*	4.0 oz	76	67	88	55	14.0
10. Dynasty PD--High Germ Seed**	4.0 oz	94	86	94	82	10.5
11. Untreated--Medium Germ Seed*	4.0 oz	-	-	-	-	22.5
12. Untreated--High Germ Seed**	4.0 oz	-	-	-	-	19.5
<b>LSD(P&lt;0.05)</b>		-	-	-	-	9.3
*Medium germ seed: 06-G peanut seed, Lot #742, R.L Cunningham & Sons, initial germ: 84%						
**High germ seed: 06-G peanut seed, Lot #798, R.L Cunningham & Sons, initial germ: 94%						
TSWV <sup>3</sup> =Percent of row feet infected based on disease loci (up to 12" linear row) per plot.						

**INCOTECH SEED TRT TEST, 2019**  
**LANG FARM, SOUTH FIELD**

<b>Trt</b>	<b>Rate/ 100 lb</b>	<b>Yield lb/A</b>	<b>Roots/ft<sup>4</sup> 20-Sep</b>
1. Filmcoat 1, ai trt 1--Medium Germ Seed*	4.0 oz	4211	2.9
2. Filmcoat 1, ai trt 1--High Germ Seed**	4.0 oz	5566	3.9
3. Filmcoat 2, ai trt 1--Medium Germ Seed*	4.0 oz	4864	3.1
4. Filmcoat 2, ai trt 1--High Germ Seed**	4.0 oz	4901	3.8
5. Filmcoat 2, ai trt 2--High Germ Seed**	4.0 oz	5118	3.8
6. Filmcoat 2, ai trt 3--High Germ Seed**	4.0 oz	4973	3.6
7. Filmcoat 2, ai trt 4--High Germ Seed**	4.0 oz	5053	4.0
8. Filmcoat 2, ai trt 5--High Germ Seed**	4.0 oz	4864	3.8
9. Dynasty PD--Medium Germ Seed*	4.0 oz	5034	3.9
10. Dynasty PD--High Germ Seed**	4.0 oz	5227	3.3
11. Untreated--Medium Germ Seed*	4.0 oz	2142	0.6
12. Untreated--High Germ Seed**	4.0 oz	3594	1.4
<b>LSD(P&lt;0.05)</b>		<b>817</b>	<b>0.5</b>

\*Medium germ seed: 06-G peanut seed, Lot #742, R.L Cunningham & Sons, initial germ: 84%

\*\*High germ seed: 06-G peanut seed, Lot #798, R.L Cunningham & Sons, initial germ: 94%

Roots/ft<sup>4</sup>=Number of tap roots per foot of row after the plots were inverted.

EVALUATION OF SEED TREATMENTS FOR CONTROL OF PEANUT SEEDLING DISEASES (SYNGENTA SEED TREATMENT TEST I, 2019)

- A. PURPOSE: To evaluate the efficacy of experimental peanut seed treatments.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with four replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: GA-06G
- C. APPLICATION OF TREATMENTS:
1. Cover sprays: Chlorothalanil (1.5 pt/a) was applied for leaf spot control on 17 Jun, 25 Jun, 6 Aug, and 3 Sep. Chlorothalanil (1.5 pt/a) + Elatus (9.5 dry oz/a) applied for leaf spot and white mold control on 8 July, 23 July, and 21 Aug.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, South Field, Tifton, GA, 31794
  2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
  3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
  4. Soil Fertility: pH – 6.4 P – 36 K – 66 Ca – 942 Mg – 93  
Soil type: Tifton loamy sand, 2 – 5% slope.
  5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 25 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
  6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.
  7. Planting Info: GA-06G, 6 seed/ft (2" deep) on 7 May.
  8. Harvest Dates: Dug – 17 Sep. Picked – 26 Sep.

E: SUMMARY:

This was an excellent seed treatment trial with big differences in plant stands and vigor ratings, even with the higher germination seed. Yields were relatively high, even in the sparser stands due to excellent growing conditions.

**SYNGENTA SEED TRT TEST I (HIGHER GERM), 2019  
LANG FARM, SOUTH FIELD**

Seed Trt	Plant/ft <sup>1</sup>		% Dead Plants <sup>2</sup>			Reg Germ.	Cold Germ	Reg Germ.	Cold Germ
	21-May	28-May	21-May	28-May	10-Jun	23-May	23-May	25-Jun	25-Jun
1	2.0	2.3	0.0	3.2	12.5	-	-	-	-
2	2.9	3.5	0.0	0.1	1.8	92	87	85	94
3	2.9	3.1	0.0	0.8	2.3	91	87	93	88
4	3.0	3.2	0.0	0.3	1.0	88	86	89	93
5	2.9	3.2	0.0	0.0	1.3	91	89	91	92
6	2.8	3.4	0.0	0.1	1.0	95	88	89	90
7	3.2	3.4	0.0	0.5	1.0	96	89	94	92
8	3.5	3.4	0.0	0.0	0.3	94	94	95	91
<b>LSD(P&lt;0.05)</b>	0.5	0.5	N.S.	1.1	3.9	-	-	-	-

Plant/ft<sup>1</sup> = Stand count is the number of emerged plants per foot of row on May 21 and 28.

% Dead Plants<sup>2</sup>=The % of emerged plants that were dead or dying per plot. Each week these plants are removed and the number reported is the cumulative total.

**SYNGENTA SEED TRT TEST I (HIGHER GERM), 2019  
LANG FARM, SOUTH FIELD**

Seed Trt	Vigor <sup>3</sup> 20-Jun	TSWV <sup>4</sup> 1-Aug	Roots/ft <sup>5</sup> 19-Sep	Yield lb/A
1	63.8	25.5	1.9	4466
2	90.0	14.0	3.4	5277
3	83.8	20.0	4.0	5047
4	86.3	18.5	3.9	5229
5	89.5	14.0	3.7	5520
6	83.8	17.5	3.9	4939
7	88.8	16.0	3.8	4684
8	87.5	17.0	3.9	4551
<b>LSD(P&lt;0.05)</b>	8.9	N.S.	0.8	942

Vigor<sup>3</sup>=Based on a scale from 1-100 (100 = best).

TSWV<sup>4</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Roots/ft<sup>5</sup>=Number of tap roots per foot of row after the plots were inverted.

**EVALUATION OF SEED TREATMENTS FOR CONTROL OF PEANUT SEEDLING  
DISEASES (SYNGENTA SEED TREATMENT TEST II, 2019)**

- A. PURPOSE: To evaluate the efficacy of experimental peanut seed treatments.
- B. EXPERIMENTAL DESIGN:
  - 1. Randomized complete blocks with four replicates.
  - 2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  - 3. There are eight-foot alleyways between blocks.
  - 4. Plots were established in an area of continuous peanut production.
  - 5. Variety: Stressed Tifguard.

C. APPLICATION OF TREATMENTS:

1. Cover sprays: Chlorothalanil (1.5 pt/a) was applied for leaf spot control on 17 Jun, 25 Jun, 6 Aug, and 3 Sep. Chlorothalanil (1.5 pt/a) + Elatus (9.5 dry oz/a) applied for leaf spot and white mold control on 8 July, 23 July, and 21 Aug.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, South Field, Tifton, GA, 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
4. Soil Fertility: pH – 6.4 P – 36 K – 66 Ca – 942 Mg – 93  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 25 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.
7. Planting Info: Stressed Tifguard, 6 seed/ft (2” deep) on 7 May.
8. Harvest Dates: Dug – 17 Sep. Picked – 26 Sep.

E. SUMMARY:

This was an excellent seed treatment trial with severe issues from *Aspergillus* crown rot as reflected by the % dead plants. The contributions of seed treatments are clearly shown, in the huge stand and yield differences with the lower quality seed used in the trial.



**SYNGENTA SEED TRT TEST II (LOWER GERM), 2019**  
**LANG FARM, SOUTH FIELD**

Seed Trt	Plant/ft <sup>1</sup>		% Dead Plants <sup>2</sup>			Reg Germ.	Cold Germ	Reg Germ.	Cold Germ
	21-May	28-May	21-May	28-May	10-Jun	23-May	23-May	25-Jun	25-Jun
1	0.9	1.0	0.0	7.3	25.6	-	-	-	-
2	1.9	2.0	0.0	0.9	4.9	65	43	65	52
3	1.7	1.7	0.0	1.3	4.9	71	44	70	52
4	1.7	2.2	0.0	0.4	3.7	66	36	63	57
5	1.8	2.1	0.0	1.2	3.3	59	38	69	54
6	1.8	1.9	0.0	0.8	3.1	61	45	61	64
7	1.6	1.9	0.0	3.2	4.8	60	45	75	64
8	2.1	2.0	0.0	0.7	3.8	67	49	69	57
9	1.6	1.6	0.0	0.0	0.0	73	35	75	59
10	1.9	2.4	0.0	0.4	2.4	71	41	76	68
<b>LSD(P&lt;0.05)</b>	<b>0.4</b>	<b>0.5</b>	<b>N.S.</b>	<b>2.6</b>	<b>5.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Plant/ft<sup>1</sup> = Stand count is the number of emerged plants per foot of row on May 21 and 28.

% Dead Plants<sup>2</sup>=The % of emerged plants that were dead or dying per plot. Each week these plants are removed and the number reported is the cumulative total.

**SYNGENTA SEED TRT TEST II (LOWER GERM), 2019  
LANG FARM, SOUTH FIELD**

<b>Seed Trt</b>	<b>Vigor<sup>3</sup> 20-Jun</b>	<b>TSWV<sup>4</sup> 1-Aug</b>	<b>Roots/ft<sup>5</sup> 19-Sep</b>	<b>Yield lb/A</b>
1	37.5	19.5	0.5	2506
2	80.0	19.0	2.1	5374
3	78.8	23.0	2.1	4358
4	80.0	25.5	2.0	4261
5	75.0	24.5	2.3	4539
6	77.5	24.0	2.2	4430
7	72.5	27.5	2.1	4067
8	83.8	20.5	2.4	4430
9	81.3	28.5	2.2	4430
10	80.0	26.5	2.4	5011
<b>LSD(P&lt;0.05)</b>	9.9	N.S.	0.3	955

Vigor<sup>3</sup>=Based on a scale from 1-100 (100 = best).

TSWV<sup>4</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Roots/ft<sup>5</sup>=Number of tap roots per foot of row after the plots were inverted.

**OFFICIAL DAILY RAINFALL, 2019**  
**LANG FARM**  
**TIFTON, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
1	0.21	0.03				0.79	0.36	
2	0.09	0.21	0.02			0.03		
3	1.36							
4		0.02	0.22					
5	0.39	0.04	0.04	0.38	0.09	0.54		
6		0.06		0.05	0.03			0.32
7		0.01		0.28	0.50			0.01
8		0.08		0.44	0.01	0.64		0.01
9		0.43	0.12	0.69		0.01	0.05	
10	0.06	0.01	0.09	0.47		0.11		
11	0.79		1.23	0.51				
12			0.18	1.32	0.17	0.03		
13			0.01	0.01		0.27		
14		0.48				1.50	0.04	0.02
15	0.02	0.01				0.01	0.01	1.56
16								0.51
17						0.41		
18				0.02		0.55		
19		0.87			0.37	0.29		0.58
20				1.11	0.11	0.05		
21				0.01	0.01	0.16		
22				0.15		0.02		0.04
23				0.01	0.67			
24					0.01	0.03		
25	0.30	0.11				0.01		
26	0.01	0.02				0.19		
27	0.65							0.03
28				0.11				
29				0.02				0.82
30				0.01				
31	0.01					0.73		0.30
<b>TOTAL</b>	<b>3.9</b>	<b>2.4</b>	<b>1.9</b>	<b>5.6</b>	<b>2.0</b>	<b>6.4</b>	<b>0.5</b>	<b>4.2</b>

Rainfall = inches.

Irrigated as needed.

## BASF TEST, 2019

- A. PURPOSE: To evaluate the comparative efficacy of fungicides for control of foliar and soilborne peanut diseases.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with five replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Tifguard
- C. APPLICATION OF TREATMENTS:
1. Equipment: Midseason spray treatments were applied with a CO<sub>2</sub> pressurized belt-pack sprayer using 2-liter bottles and a 20 GPA broadcast boom with three TX-SS6 conejet nozzles per row at 40 PSI.
  2. Treatment sprays 1-7 were applied on 24 Jun, 2 Jul, 18 Jul, 30 Jul, 12 Aug, 26 Aug, and 9 Sep. No cover sprays were applied to this test.
- D. ADDITIONAL INFORMATION:
1. Location: Rigdon Farm, New Field, Tifton, GA, 31794
  2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
  3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr.
  4. Soil Fertility: pH – 6.3    P – 19    K – 38    Ca – 514    Mg – 55  
Soil type: Tifton loamy sand, 2 – 5% slope.
  5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 17 May. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 27 May.
  6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.
  7. Planting Info: Tifguard, 6 seed/ft (2" deep) on 17 May.
  8. Harvest Dates: Dug – 3 Oct.                      Picked – 9 Oct.

E: SUMMARY:

Yield differences were not as high as might be expected, but this was a good test differentiating differences among treatments, especially for foliar diseases

**BASF TEST, 2019  
RIGDON FARM, NEW FIELD**

<b>Treatment</b>	<b>App's</b>	<b>Rate</b>	<b>LS<sup>1</sup> 4-Oct</b>	<b>WM<sup>2</sup> 4-Oct</b>	<b>Yield lb/A</b>
1. Nontreated	-	-	7.0	50.8	2991
2. Bravo BAS 750 07F + Orius 3.6F	1, 2, 4, 6, 7 3 & 5	1.5 pt 3.5 fl oz 7.2 fl oz	4.4	32.8	3688
3. Bravo BAS 750 07F + Orius 3.6F	1, 2, 4, 6, 7 3 & 5	1.5 pt 5.0 fl oz 7.2 fl oz	4.5	39.2	3572
4. Bravo BAS 750 07F + Orius 3.6F	1, 2, 4, 6, 7 3 & 5	1.5 pt 7.0 fl oz 7.2 fl oz	3.9	32.4	3369
5. Bravo Orius 3.6F	1, 2, 4, 6, 7 3 & 5	1.5 pt 7.2 fl oz	5.4	47.6	3049
6. Bravo BAS 750 07F + Convoy	1, 2, 4, 6, 7 3 & 5	1.5 pt 5.0 fl oz 32.0 fl oz	4.5	38.8	3659
7. Bravo BAS 750 07F + Elatus 45WG	1, 2, 4, 6, 7 3 & 5	1.5 pt 7.0 fl oz 9.5 oz	4.3	29.2	3833
8. Bravo BAS 750 07F + Orius 3.6F + Microthiol Disperse	1, 2, 4, 6, 7 3 & 5	1.5 pt 5.0 fl oz 7.2 fl oz 2.5 lb	3.8	35.6	3630
9. Bravo BAS 750 07F + Orius 3.6F + Microthiol Disperse	1, 2, 4, 6, 7 3 & 5	1.5 pt 5.0 fl oz 7.2 fl oz 5.0 lb	4.5	37.2	3804

Treatment	App's	Rate	LS <sup>1</sup> 4-Oct	WM <sup>2</sup> 4-Oct	Yield lb/A
10. Bravo Miravis + Elatus 45WG	1, 2, 4, 6, 7 3 & 5	1.5 pt 3.4 fl oz 9.5 oz	3.2	32.0	3601
11. Bravo Priaxor BAS 750 07F + Orius 3.6F	1, 4, 6, 7 2 3 & 5	1.5 pt 6.0 fl oz 5.0 fl oz 7.2 fl oz	3.8	24.4	4182
12. Priaxor BAS 750 07F + Orius 3.6F + Microthiol Disperse Priaxor + Bravo Bravo	1 2 & 4   3 5, 6, 7	6.0 fl oz 5.0 fl oz 7.2 fl oz 2.5 lb 8.0 fl oz 1.5 pt 1.5 pt	3.0	16.0	3891
13. Bravo	1 – 7	1.5 pt	5.4	40.4	3979
14. Bravo BAS 750 07F + Orius 3.6F	1, 2 & 7 3 - 6	1.5 pt 3.5 fl oz 7.2 fl oz	3.9	32.8	3601
15. Bravo BAS 750 07F + Orius 3.6F	1, 2 & 7 3 - 6	1.5 pt 5.0 fl oz 7.2 fl oz	3.3	33.6	3717
16. Bravo BAS 750 07F + Orius 3.6F	1, 2, 4 & 7 3, 5 & 6	1.5 pt 5.0 fl oz 7.2 fl oz	4.2	39.6	3485
17. Bravo Priaxor BAS 750 07F + Orius 3.6F + Microthiol Disperse Priaxor	1, 6 & 7 2 3 & 5 4	1.5 pt 6.0 fl oz 7.0 fl oz 7.2 fl oz 2.5 lb 8.0 fl oz	2.8	20.4	4559
<b>LSD (P&lt;0.05)</b>			0.5	14.1	741

Leaf Spot<sup>1</sup>=Florida 1 - 10 scale where 1=no disease and 10=dead plant.

White Mold<sup>2</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

## EVALUATION OF FUNGICIDES FOR FOLIAR AND SOILBORNE DISEASE CONTROL ON TIFGUARD (FMC TEST II, 2019)

- A. PURPOSE: To evaluate the comparative efficacy of fungicides applied for the control foliar and soil borne diseases.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with five replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Tifguard
- C. APPLICATION OF TREATMENTS:
1. Equipment: Midseason spray treatments were applied with a CO<sub>2</sub> pressurized belt-pack sprayer using 2-liter bottles and a 20 GPA broadcast boom with three TX-SS6 conejet nozzles per row at 40 PSI.
  2. Treatments 1-7 were applied on 21 Jun, 2 Jul, 15 Jul, 29 Jul, 5 Aug, 19 Aug, and 3 Sep. No cover sprays were applied to this test.
- D. ADDITIONAL INFORMATION:
1. Location: Rigdon Farm, New Field, Tifton, GA, 31794
  2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
  3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr.
  4. Soil Fertility: pH – 6.3    P – 19    K – 38    Ca – 514    Mg – 55  
Soil type: Tifton loamy sand, 2 – 5% slope.
  5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 17 May. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 27 May.
  6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.
  7. Planting Info: Tifguard, 6 seed/ft (2" deep) on 17 May.
  8. Harvest Dates: Dug – 3 Oct.                      Picked – 9 Oct.

E: SUMMARY:

Yield differences were not as high as expected, but this was a good test showing differences among treatments for both foliar and soilborne diseases. Some earlier white mold sprays would have probably resulted in better control of that disease.

**FMC TEST II, 2019  
LANG FARM, NEW FIELD**

Treatments	App's	Rate	Lf Spot <sup>1</sup> 4-Oct	WM <sup>2</sup> 4-Oct	Yield lb/A
1. Untreated			7.2	28.6	3282
2. Priaxor	2 & 4	6.0 fl oz	4.5	10.2	4559
Convoy	3, 5 & 6	21.0 fl oz			
+ Bravo		1.5 pt			
Bravo	7	1.5 pt			
3. Lucento	2, 4	5.5 fl oz	4.1	12.0	4588
Convoy	3, 5 & 6	21.0 fl oz			
+ Bravo		1.5 pt			
Bravo	7	1.5 pt			
4. Bravo	1, 2, & 7	1.5 pt	4.1	13.3	4320
Fontelis	3 – 5	16.0 fl oz			
Bravo	7	1.5 pt			
+ Alto		5.5 fl oz			
5. Bravo	1, 2, & 7	1.5 pt	3.9	17.3	4453
Lucento	3 & 5	5.5 fl oz			
Fontelis	4	16.0 fl oz			
Bravo	6	1.5 pt			
+ Alto		5.5 fl oz			
6. Bravo	1, 2, 4 & 7	1.5 pt	3.3	12.5	4392
Elatus	3 & 5	9.5 oz			
Bravo	6	1.5 pt			
+ Alto		5.5 fl oz			
7. Bravo	1, 2, & 7	1.5 pt	3.8	19.0	4501
Lucento	3 & 5	5.5 fl oz			
Muscle ADV	4 & 6	2.0 pt			
8. Bravo	1, 2, & 7	1.5 pt	4.7	14.8	4269
Provost Opti	3 - 6	10.7 fl oz			



Treatments	App's	Rate	Lf Spot <sup>1</sup> 4-Oct	WM <sup>2</sup> 4-Oct	Yield lb/A
9. Bravo	1, 2, & 7	1.5 pt	3.7	16.8	4153
Lucento	3 & 5	5.5 fl oz			
Provost Opti	4 & 6	10.7 fl oz			
10. Bravo	1, 2, & 7	1.5 pt	5.7	17.2	4356
Muscle ADV	3 - 6	2.0 pt			
11. Bravo	1, 2, & 7	1.5 pt	4.8	18.0	4153
Muscle ADV	3 & 5	2.0 pt			
Lucento	4 & 6	5.5 fl oz			
<b>LSD(P&lt;0.05)</b>			0.8	7.0	952

Leaf Spot<sup>1</sup> = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold<sup>2</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

## EVALUATION OF FUNGICIDES FOR FOLIAR AND SOILBORNE DISEASE CONTROL ON TIFGUARD (VALENT PEANUT RX TEST, 2019)

- A. PURPOSE: To evaluate the comparative efficacy of fungicides applied for the control foliar and soil borne diseases.
- B. EXPERIMENTAL DESIGN:
  1. Randomized complete blocks with five replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Tifguard
- C. APPLICATION OF TREATMENTS:
  1. Equipment: Midseason spray treatments were applied with a CO2 pressurized belt-pack sprayer using 2-liter bottles and a 20 GPA broadcast boom with three TX-SS6 conejet nozzles per row at 40 PSI.
  2. Treatments 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 6, and 7 were applied on 21 June, 27 June, 2 July, 15 July, 25 July, 5 Aug, 20 Aug, 30 Aug, 6 sep, 17 sep, and 25 Sep. No cover sprays were applied to this test.

D. ADDITIONAL INFORMATION:

1. Location: Rigdon Farm, New Field, Tifton, GA, 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr.
4. Soil Fertility: pH – 6.3 P – 19 K – 38 Ca – 514 Mg – 55  
Soil type: Tifton loamy sand, 2 – 5% slope.
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 17 May. Rototilled to incorporate. POST: Strongarm (0.45 dry oz/a) on 27 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.
7. Planting Info: Tifguard, 6 seed/ft (2” deep) on 17 May.
8. Harvest Dates: Dug – 3 Oct. Picked – 9 Oct.

E: SUMMARY:

This was an excellent test showing differences among treatments for both foliar and soilborne diseases. Some earlier white mold sprays would have probably resulted in better control of that disease, as demonstrated by Trt 8.

**VALENT PEANUT RX TEST  
LANG, NEW FIELD**

<b>Treatments</b>	<b>APP'S</b>	<b>Rate</b>	<b>LS<sup>1</sup> 4-Oct</b>	<b>WM<sup>2</sup> 4-Oct</b>	<b>Yield lb/A</b>
1. Untreated	-	-	7.5	43.2	3804
2. Bravo	1 - 7	1.5 pt	5.9	44.8	4530
3. Alto	1 & 6	5.5 fl oz	2.6	23.6	4937
+ Bravo		1.5 pt			
Bravo	2, 4 & 7	1.5 pt			
Elatus 45WG	3 & 5	9.5 oz			
4. Bravo	2 & 6	1.5 pt	6.5	21.6	4995
+ Orius 3.6F		7.2 fl oz			
Bravo	3.5 & 5	1.5 pt			
+ Excalia		2.0 fl oz			
5. Bravo	1.5, 4.5 & 6	1.5 pt	5.9	22.4	5140
+ Orius 3.6F		7.2 fl oz			
Bravo	2.5 & 5	1.5 pt			
+ Excalia		3.0 fl oz			
6. Bravo	1, 3 & 5	1.5 pt	5.0	16.0	5140
+ Excalia		2.65 fl oz			
Bravo	2 & 6	1.5 pt			
+ Orius 3.6F		7.2 fl oz			
Bravo	4 & 7	1.5 pt			
7. Bravo	1 & 6	1.5 pt	5.6	19.6	4995
+ Orius 3.6F		7.2 fl oz			
Bravo	2, 4 & 7	1.5 pt			
Bravo	3 & 5	1.5 pt			
+ Excalia		4.0 fl oz			
8. V10479	1, 3, 5	11.5 fl oz	5.9	9.6	5576
Bravo	2, 4, 6 & 7	1.5 pt			
<b>LSD(P&lt;0.05)</b>			<b>0.5</b>	<b>11.3</b>	<b>631</b>

Leaf Spot<sup>1</sup>=Florida 1 - 10 scale where 1=no disease and 10=dead plant.  
White Mold<sup>2</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

**OFFICIAL DAILY RAINFALL, 2019**  
**LANG FARM**  
**TIFTON, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
<b>1</b>	0.21	0.03				0.79	0.36	
<b>2</b>	0.09	0.21	0.02			0.03		
<b>3</b>	1.36							
<b>4</b>		0.02	0.22					
<b>5</b>	0.39	0.04	0.04	0.38	0.09	0.54		
<b>6</b>		0.06		0.05	0.03			0.32
<b>7</b>		0.01		0.28	0.50			0.01
<b>8</b>		0.08		0.44	0.01	0.64		0.01
<b>9</b>		0.43	0.12	0.69		0.01	0.05	
<b>10</b>	0.06	0.01	0.09	0.47		0.11		
<b>11</b>	0.79		1.23	0.51				
<b>12</b>			0.18	1.32	0.17	0.03		
<b>13</b>			0.01	0.01		0.27		
<b>14</b>		0.48				1.50	0.04	0.02
<b>15</b>	0.02	0.01				0.01	0.01	1.56
<b>16</b>								0.51
<b>17</b>						0.41		
<b>18</b>				0.02		0.55		
<b>19</b>		0.87			0.37	0.29		0.58
<b>20</b>				1.11	0.11	0.05		
<b>21</b>				0.01	0.01	0.16		
<b>22</b>				0.15		0.02		0.04
<b>23</b>				0.01	0.67			
<b>24</b>					0.01	0.03		
<b>25</b>	0.30	0.11				0.01		
<b>26</b>	0.01	0.02				0.19		
<b>27</b>	0.65							0.03
<b>28</b>				0.11				
<b>29</b>				0.02				0.82
<b>30</b>				0.01				
<b>31</b>	0.01					0.73		0.30
<b>TOTAL</b>	<b>3.9</b>	<b>2.4</b>	<b>1.9</b>	<b>5.6</b>	<b>2.0</b>	<b>6.4</b>	<b>0.5</b>	<b>4.2</b>

Rainfall = inches.

Irrigated as needed.

## BAYER PROPULSE TIMING NEMATODE TEST, 2019

A. PURPOSE: To evaluate the efficacy of Propulse for nematode and disease control when applied at different times.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with six replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: GA-06G and GA-14N

C. APPLICATION OF TREATMENTS:

1. Equipment: In furrow sprays applied in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Applied at 16 PSI going 3.2 MPH. Treatment sprays were applied in 20 GPA using a CO2 unit with six TX6 hollow cone tips and 50 mesh ball check screens. Applied at 45 PSI at 3 MPH.
2. Cover Sprays: Chlorothalanil (1.5 pt/a) was applied for leaf spot control on 25 Jun, 6 Aug, 21 Aug, and 3 Sep. Chlorothalanil (1.5 pt/a) + Elatus (9.5 dry oz/a) were applied for leaf spot and white mold control on 8 July and 23 July.
3. Treatments: 30 DAP treatment was applied on 10 June, 45 DAP on 27 June, 60 DAP on 8 July, and 75 DAP on 23 July. All were irrigated to 0.45" to 0.6" within 24 hours.

D. ADDITIONAL INFORMATION:

1. Location: Rigdon Farm, Cotton Field, Tifton, GA, 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
4. Soil Fertility: pH – 6.1    P – 103    K – 62    Ca – 695    Mg – 59  
Soil type: Norfolk loamy sand
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 25 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.

6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: GA-06G and GA-14N, 6 seed/ft (2" deep) on 2 May.
8. Harvest Dates: Dug – 26 Sep. Picked – 30 Sep.

E: SUMMARY:

This was a very good test showing the effects of treatment timings on Propulse efficacy on nematodes, white mold, and the resulting yields.

**BAYER PROPULSE TIMING NEMATODE TEST, 2019  
LANG FARM, COTTON FIELD**

Trt	App's	Rate	Root-knot <sup>1</sup> 9-Sep	Ring <sup>2</sup> 9-Sep	Root Galling <sup>3</sup> 26-Sep	Pod Galling <sup>3</sup> 26-Sep
<u>GA-06G</u>						
1. Admire Pro	In furrow*	8.5 fl oz	213.0	94.0	35.0	18.0
2. Velum Total	In furrow*	18.0 fl oz	418.8	107.8	15.0	12.0
3. Velum Total + Propulse	In furrow* B'cast, 30 DAP**	18.0 fl oz 13.7 fl oz	211.0	67.2	15.0	6.7
4. Velum Total + Propulse	In furrow* B'cast, 45 DAP**	18.0 fl oz 13.7 fl oz	296.2	188.2	15.3	5.0
5. Velum Total + Propulse	In furrow* B'cast, 60 DAP**	18.0 fl oz 13.7 fl oz	193.2	168.3	13.3	5.5
6. Velum Total + Propulse	In furrow* B'cast, 75 DAP**	18.0 fl oz 13.7 fl oz	464.3	152.5	11.7	6.5
<u>GA-14N</u>						
7. Admire Pro	In furrow*	8.5 fl oz	66.3	175.0	1.0	0.0
<b>LSD(P&lt;0.05)</b>			255.6	N.S.	12.3	5.1

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L volume.

\*\*B'cast = Applied the Propulse in 20 GPA and irrigated with 0.1-0.5 inches afterwards.

Root-knot<sup>1</sup> = Number of *M. arenaria* juvenile per 100 cc of soil.

Ring<sup>2</sup> = Population of ring nematodes per 100 cc of soil.

Galling<sup>6</sup> = Visual rating of the percent of pods and roots (1-100) with visible damage from root-knot nematode.

**BAYER PROPULSE TIMING NEMATODE TEST, 2019**  
**LANG FARM, COTTON FIELD**

Trt	App's	Rate	WM <sup>4</sup> 27-Sep	Yield lb/A	SMKSS <sup>5</sup>	\$/Ton	\$/Acre
<u>GA-06G</u>							
1. Admire Pro	In furrow*	8.5 fl oz	21.3	4114	65.7	277.2	573.3
2. Velum Total	In furrow*	18.0 fl oz	19.7	5169	65.8	274.4	759.5
3. Velum Total + Propulse	In furrow* B'cast, 30 DAP**	18.0 fl oz 13.7 fl oz	10.7	5634	68.2	270.2	789.8
4. Velum Total + Propulse	In furrow* B'cast, 45 DAP**	18.0 fl oz 13.7 fl oz	14.0	5256	65.3	287.8	770.2
5. Velum Total + Propulse	In furrow* B'cast, 60 DAP**	18.0 fl oz 13.7 fl oz	18.3	5547	67.7	274.5	652.8
6. Velum Total + Propulse	In furrow* B'cast, 75 DAP**	18.0 fl oz 13.7 fl oz	14.3	5547	67.6	287.1	794.8
<u>GA-14N</u>							
7. Admire Pro	In furrow*	8.5 fl oz	18.3	4850	67.8	266.0	661.1
<b>LSD(P&lt;0.05)</b>			8.0	831	N.S.	N.S.	152.42

\*In furrow applications applied in 3.4 GPA singles, mixed in 2 L volume.

\*\*B'cast = Applied the Propulse in 20 GPA and irrigated with 0.1-0.5 inches afterwards.

White Mold<sup>4</sup> = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

SMKSS<sup>5</sup> = The percent of sound mature kernels and sound splits.

## EVALUATION OF FUNGICIDE PROGRAMS FOR THE CONTROL OF PEANUT SOILBORNE DISEASE, (FMC TEST I, 2019)

A. PURPOSE: To evaluate the efficacy of different programs for foliar and soilborne diseases.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with five replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Tifguard

C. APPLICATION OF TREATMENTS:

1. Equipment: All treatments were broadcast using a CO2 unit with six TX6 hollow cone tips and 50 mesh ball check screens. Applied at 45 PSI at 3 MPH.
2. Treatment Sprays: Application 1 was applied on 13 June, 2 on 25 June, 3 on 10 July, 4 on 22 July, 5 on 6 Aug, 6 on 21 Aug, and 7 on 3 Sep.

D. ADDITIONAL INFORMATION:

1. Location: Rigdon Farm, Cotton Field, Tifton, GA, 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.
4. Soil Fertility: pH – 6.1 P – 103 K – 62 Ca – 695 Mg – 59  
Soil type: Norfolk loamy sand
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 25 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: Tifguard, 6 seed/ft (2" deep) on 2 May.



8. Harvest Dates: Dug – 9 Sep. Picked – 25 Sep.

E: SUMMARY:

Excellent test to demonstrate relative control of foliar and soilborne diseases.

**FMC TEST I, 2019  
LANG FARM, COTTON FIELD**

Treatments	App's	Rate	LS <sup>1</sup> 16-Sep	WM <sup>2</sup> 19-Sep	Yield lb/A
1. Untreated	-		4.8	35.7	4187
2. Lucento	2 & 4	5.5 fl oz	2.3	17.0	5372
Provost Opti	3, 5 & 6	8.0 fl oz			
Bravo	7	1.5 pt			
3. Bravo	1, 2, & 7	1.5 pt	2.6	16.0	5179
Lucento	3 & 4	5.5 fl oz			
Provost Opti	5 & 6	8.0 fl oz			
4. Bravo	1, 2, & 7	1.5 pt	2.5	22.0	5082
Lucento	3 & 5	5.5 fl oz			
Provost Opti	4 & 6	8.0 fl oz			
5. Bravo	1, 2, & 7	1.5 pt	2.5	13.7	5203
Provost Opti	3 & 5	8.0 fl oz			
Lucento	4 & 6	5.5 fl oz			
6. Bravo	1, 2, & 7	1.5 pt	2.5	15.7	5300
Provost Opti	3 & 4	8.0 fl oz			
Lucento	5 & 6	5.5 fl oz			
7. Bravo	1, 2, & 7	1.5 pt	2.4	19.3	5343
Lucento	3 - 6	5.5 fl oz			
8. Bravo	1, 2, & 7	1.5 pt	2.5	25.0	5566
Lucento	3 - 5	5.5 fl oz			
Muscle ADV	6	2.0 pt			
9. Bravo	1, 2, & 7	1.5 pt	2.5	22.0	5227
Lucento	3 & 5	5.5 fl oz			
Muscle ADV	4 & 6	2.0 pt			

10. Lucento	2 & 4	5.5 fl oz	2.4	15.3	5566
Elatus	3	9.5 oz			
Convoy	5	16.0 fl oz			
+ Bravo		1.5 pt			
Muscle ADV	6	2.0 pt			
Bravo	7	1.5 pt			
<b>LSD(P&lt;0.05)</b>			0.4	10.0	711

Leaf Spot<sup>1</sup> = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold<sup>2</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

## EVALUATION OF FUNGICIDE PROGRAMS FOR THE CONTROL OF PEANUT SOILBORNE DISEASE, (NICHINO TEST, 2019)

A. PURPOSE: To evaluate the efficacy of different programs for foliar and soilborne diseases.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with five replicates.
2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
3. There are eight-foot alleyways between blocks.
4. Plots were established in an area of continuous peanut production.
5. Variety: Tifguard

C. APPLICATION OF TREATMENTS:

1. Equipment: All treatments were broadcast using a CO2 unit with six TX6 hollow cone tips and 50 mesh ball check screens. Applied at 45 PSI at 3 MPH.
2. Treatment Sprays: Application 1 was applied on 13 June, 2 on 25 June, 3 on 10 July, 4 on 23 July, 5 on 5 Aug, 6 on 21 Aug, and 7 on 3 Sep.

D. ADDITIONAL INFORMATION:

1. Location: Rigdon Farm, Cotton Field, Tifton, GA, 31794
2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
3. Land Preparation: Broadcast 5-10-15 fertilizer (500 lb/a) on 18 Apr. Deep turned field, marked beds 6 ft, and turned under fertilizer on 22 Apr. Cultivated to remove volunteer peanuts and weeds on 29 May.

4. Soil Fertility: pH – 6.1 P – 103 K – 62 Ca – 695 Mg – 59  
Soil type: Norfolk loamy sand
5. Herbicides: PPI: Sonalan (2 pt/a) + Dual Magnum (1.5 pt/a) tank mix on 25 Apr. Rototilled to incorporate.  
POST: Strongarm (0.45 dry oz/a) on 20 May.
6. Insecticides: Acephate 97 (0.5 lb/a) for thrips on 29 May.  
Acephate 97 (0.75 lb/a) for worms on 16 Aug.
7. Planting Info: Tifguard, 6 seed/ft (2” deep) on 2 May.
8. Harvest Dates: Dug – 9 Sep. Picked – 25 Sep.

E: SUMMARY:

Excellent test to demonstrate relative control of foliar and soilborne diseases.

**NICHINO TEST, 2019  
RIGDON FARM, COTTON FIELD**

Seed Trt	App's	Rate	LS <sup>1</sup> 16-Sep	WM <sup>2</sup> 19-Sep	Yield lb/A
1. Bravo W'stik	1 – 7	1.5 pt	4.5	33.0	4283
2. Bravo W'stik	1, 2 & 7	1.5 pt	2.8	17.5	5445
Elatus	3 & 5	9.5 oz			
+ Miravis		3.4 fl oz			
3. Elatus	1, 3 & 5	7.3 oz	2.5	21.5	5300
Bravo W'stik	2, 4, 6, 7	1.5 pt			
4. Elatus	1	7.3 oz	3.4	9.0	5336
Bravo W'stik	2, 4, 6 & 7	1.5 pt			
Bravo W'stik	3 & 5	1.0 pt			
+ Convoy		26.0 fl oz			
5. Priaxor	2	6.0 fl oz	2.8	5.0	5554
Bravo W'stik	3 & 5	1.0 pt			
+ Umbra		36.0 fl oz			
Bravo W'stik	4 & 6	1.5 pt			
+ Orius 3.6F		7.2 fl oz			
Bravo W'stik	7	1.5 pt			

**NICHINO TEST, 2019**  
**RIGDON FARM, COTTON FIELD**

Seed Trt	App's	Rate	Lf Spot <sup>1</sup> 16-Sep	W.M. <sup>2</sup> 19-Sep	Yield lb/A
6. Priaxor	2	6.0 fl oz	3.4	6.5	5663
Alto	3 & 5	5.5 fl oz			
+ Convoy		32.0 fl oz			
+ Bravo		16.0 fl oz			
Bravo	4 & 6	16.0 fl oz			
+ Orius 3.6F		7.2 fl oz			
Bravo W'stik	7	1.5 pt			
7. Bravo W'stik	1, 2, 7	1.5 pt	3.2	41.0	4211
Pyraziflumid	3 - 6	2.3 fl oz			
8. Bravo W'stik	1, 2, 7	1.5 pt	2.4	34.5	4283
Pyraziflumid	3 - 6	3.1 fl oz			
9. Bravo W'stik	1, 2, 4, 6, 7	1.5 pt	2.5	33.0	4864
Pyraziflumid	3 - 6	4.6 fl oz			
10. Bravo W'stik	1,2,4,6,7	1.5 pt	3.1	15.5	4646
Pyraziflumid	3 & 5	3.1 fl oz			
11. Bravo W'stik	1,2,4,6,7	1.5 pt	2.5	36.5	3920
Pyraziflumid	3 & 5	4.6 fl oz			
12. Bravo W'stik	1,2,4,6,7	1.5 pt	3.0	23.5	4646
Pyraziflumid	3 & 5	2.3 fl oz			
+ Abound		11 fl oz			
13. Bravo W'stik	1,2,4,6,7	1.5 pt	2.4	27.5	4574
Pyraziflumid	3 & 5	3.1 fl oz			
+ Abound		11 fl oz			
14. Bravo W'stik	1, 2, 7	1.5 pt	3.0	19.5	4792
Convoy	3 - 6	10 fl oz			
+ Pyraziflumid		2.3 fl oz			
15. Bravo W'stik	1, 2, 7	1.5 pt	2.8	27.5	4900
Convoy	3 - 6	10 fl oz			
+ Pyraziflumid		3.1 fl oz			
<b>LSD(P&lt;0.05)</b>			0.5	14.2	771

Leaf Spot<sup>1</sup> = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold<sup>2</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

**OFFICIAL DAILY RAINFALL, 2019**  
**LANG FARM**  
**TIFTON, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
<b>1</b>	0.21	0.03				0.79	0.36	
<b>2</b>	0.09	0.21	0.02			0.03		
<b>3</b>	1.36							
<b>4</b>		0.02	0.22					
<b>5</b>	0.39	0.04	0.04	0.38	0.09	0.54		
<b>6</b>		0.06		0.05	0.03			0.32
<b>7</b>		0.01		0.28	0.50			0.01
<b>8</b>		0.08		0.44	0.01	0.64		0.01
<b>9</b>		0.43	0.12	0.69		0.01	0.05	
<b>10</b>	0.06	0.01	0.09	0.47		0.11		
<b>11</b>	0.79		1.23	0.51				
<b>12</b>			0.18	1.32	0.17	0.03		
<b>13</b>			0.01	0.01		0.27		
<b>14</b>		0.48				1.50	0.04	0.02
<b>15</b>	0.02	0.01				0.01	0.01	1.56
<b>16</b>								0.51
<b>17</b>						0.41		
<b>18</b>				0.02		0.55		
<b>19</b>		0.87			0.37	0.29		0.58
<b>20</b>				1.11	0.11	0.05		
<b>21</b>				0.01	0.01	0.16		
<b>22</b>				0.15		0.02		0.04
<b>23</b>				0.01	0.67			
<b>24</b>					0.01	0.03		
<b>25</b>	0.30	0.11				0.01		
<b>26</b>	0.01	0.02				0.19		
<b>27</b>	0.65							0.03
<b>28</b>				0.11				
<b>29</b>				0.02				0.82
<b>30</b>				0.01				
<b>31</b>	0.01					0.73		0.30
<b>TOTAL</b>	<b>3.9</b>	<b>2.4</b>	<b>1.9</b>	<b>5.6</b>	<b>2.0</b>	<b>6.4</b>	<b>0.5</b>	<b>4.2</b>

Rainfall = inches.

Irrigated as needed.

## EVALUATION OF PEANUT GENOTYPES FOR RESISTANCE TO PEANUT ROOT-KNOT NEMATODE, (BILL BRANCH NEMATODE EVALUATION TEST I, 2019)

- A. PURPOSE: To evaluate the susceptibility of genotypes to root-knot nematode.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with five replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Different varieties
- C. APPLICATION OF TREATMENTS:
1. Equipment: All fungicides were broadcast to all plots with a tractor sprayer.
  2. Cover Sprays: Bravo (1.5 pt/a) + Convoy (1 pt/a) were applied on 4 June and 15 July. Bravo (1.5 pt/a) + Provost (10 oz/a) were applied on 25 June and 3 July. Bravo (1.5 pt/a) + Headlind (15 oz/a) were applied on 22 July. Priaxor (8 oz/a) on 31 July, Orius (7.2 oz/a) on 6 Aug, and Provost (8 oz/a) on 15 Aug.
- D. ADDITIONAL INFORMATION:
1. Location: Attapulgis Research & Education Center, Attapulgis, GA
  2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
  3. Land Preparation: Turned field, cultivated, tracked and roto tilled seed beds.
  4. Soil Fertility: pH – 6.7 P – 62 K – 28 Ca – 370 Mg – 42 Sulfur (2 pt/a) on 15 July.  
Soil type: Norfolk loamy sand
  5. Herbicides: PPI: Valor (3 oz/a) + Strongarm (0.45 oz/a) + Dual (1.33 pt/a) were applied on 16 May.
  6. Planting Info: Different varieties, 5 seed/ft (1.5” deep) on 16 May.
  7. Harvest Dates: Dug – 7 Oct. Picked – 11 Oct.
- E. SUMMARY:

Excellent test to differentiate high and medium levels of resistance to *M. arenaria*.

**BILL BRANCH NEMATODE EVALUATION TEST I, 2019**  
**ATTAPULGUS, NEW FIELD**

<b>Trt</b>	<b>Root-knot<sup>1</sup> 13-Sep</b>	<b>Ring<sup>2</sup> 13-Sep</b>	<b>Root Gall<sup>3</sup> 8-Oct</b>	<b>TSWV<sup>4</sup> 13-Sep</b>	<b>Yield lb/A</b>
1. GA-07W	639	81	37.0	20.4	5820
2. GA-163101	12	119	1.0	14.0	6127
3. GA-163102	280	173	1.6	21.2	6447
4. GA-163103	7	174	3.6	26.8	6261
5. GA-163104	167	140	3.8	18.0	6069
6. GA-163105	453	95	36.0	16.8	5489
7. GA-163106	4	141	0.0	17.2	6244
8. GA-163107	486	144	18.6	20.4	6157
9. GA-163109	41	197	0.0	10.8	7376
10. GA-163110	15	187	2.0	12.0	7521
<b>LSD(P&lt;0.05)</b>	<b>150</b>	<b>96</b>	<b>5.2</b>	<b>11.6</b>	<b>1038</b>

Root-knot<sup>1</sup>= Number of *M. arenaria* juvenile per 100 cc of soil.

Ring<sup>2</sup> = Population of ring nematodes per 100 cc of soil.

Galling<sup>3</sup>=Visual rating of the percent of pods and roots (1-100) with visible damage from rootknot nematode.

TSWV<sup>4</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

## EVALUATION OF PEANUT GENOTYPES FOR RESISTANCE TO PEANUT ROOT-KNOT NEMATODE, (BILL BRANCH NEMATODE EVALUATION TEST II, 2019)

- A. PURPOSE: To evaluate the susceptibility of genotypes to root-knot nematode.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with five replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Different varieties
- C. APPLICATION OF TREATMENTS:
1. Equipment: All fungicides were broadcast over all plots with a 3 pt hitch boom sprayer.
  2. Cover Sprays: Bravo (1.5 pt/a) + Convoy (1 pt/a) were applied on 4 June and 15 July. Bravo (1.5 pt/a) + Provost (10 oz/a) were applied on 25 June and 3 July. Bravo (1.5 pt/a) + Headlind (15 oz/a) were applied on 22 July. Priaxor (8 oz/a) was applied on 31 July, Orius (7.2 oz/a) on 6 Aug, and Provost (8 oz/a) on 15 Aug.
- D. ADDITIONAL INFORMATION:
1. Location: Attapulgis Research & Education Center, Attapulgis, GA
  2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
  3. Land Preparation: Turned field, cultivated, tracked and roto tilled seed beds.
  4. Soil Fertility: pH – 6.5 P – 31 K – 23 Ca – 325 Mg – 28 Sulfur (2 pt/a) on 15 July.  
Soil type: Norfolk loamy sand
  5. Herbicides: PPI: Valor (3 oz/a) + Strongarm (0.45 oz/a) + Dual (1.33 pt/a) were applied on 16 May.
  6. Planting Info: Different varieties, 5 seed/ft (1.5” deep) on 16 May.
  7. Harvest Dates: Dug – 7 Oct. Picked – 11 Oct.
- E: SUMMARY:

Excellent test to differentiate high and medium levels of resistance to *M. arenaria*



**BILL BRANCH NEMATODE EVALUATION TEST II, 2019**  
**ATTAPULGUS, TUBB'S OLD FIELD**

<b>Trt</b>	<b>TSWV<sup>1</sup> 13-Sep</b>	<b>Root Gall<sup>2</sup> 8-Oct</b>	<b>Pod Gall<sup>2</sup> 8-Oct</b>	<b>Yield lb/A</b>	<b>Root-knot<sup>3</sup> 13-Sep</b>	<b>Ring<sup>4</sup> 13-Sep</b>
11. GA-07W	24.4	46.0	33.0	3369	812	63
12. GA-163111	9.6	0.0	0.0	5605	62	100
13. GA-163114	10.0	0.0	0.0	6447	2	107
14. GA-163115	16.0	18.0	5.6	4327	308	132
15. GA-163116	16.0	0.0	0.0	4356	30	178
16. GA-163117	10.4	0.0	0.0	5924	7	73
17. GA-163118	9.2	0.0	0.0	6244	8	134
18. GA-163119	12.8	0.0	0.0	5721	2	125
19. GA-163120	12.8	0.0	0.0	5866	17	116
20. GA-14N	16.4	0.0	0.0	6331	3	145
<b>LSD(P&lt;0.05)</b>	<b>7.3</b>	<b>8.1</b>	<b>8.4</b>	<b>689</b>	<b>130</b>	<b>109</b>

TSWV<sup>1</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Galling<sup>2</sup>=Visual rating of the percent of pods and roots (1-100) with visible damage from rootknot nematode.

Root-knot<sup>3</sup>= Number of *M. arenaria* juvenile per 100 cc of soil.

Ring<sup>4</sup> = Population of ring nematodes per 100 cc of soil.

## EVALUATION OF PEANUT GENOTYPES FOR RESISTANCE TO PEANUT ROOT-KNOT NEMATODE, (GEORGIA-17SP, TEST II, 2019)

- A. PURPOSE: To evaluate the susceptibility of genotypes to root-knot nematode.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with six replicates.
  2. One two-row bed (25ft x 6ft) per plot, 36-inch row spacing.
  3. There are eight-foot alleyways between blocks.
  4. Plots were established in an area of continuous peanut production.
  5. Variety: Different varieties
- C. APPLICATION OF TREATMENTS:
1. Equipment: All fungicides were broadcast over all plots with a 3 pt hitch boom sprayer.
  2. Cover Sprays: Bravo (1.5 pt/a) + Convoy (1 pt/a) were applied on 4 June and 15 July. Bravo (1.5 pt/a) + Provost (10 oz/a) were applied on 25 June and 3 July. Bravo (1.5 pt/a) + Headlind (15 oz/a) were applied on 22 July. Priaxor (8 oz/a) was applied on 31 July, Orius (7.2 oz/a) on 6 Aug, and Provost (8 oz/a) on 15 Aug.
- D. ADDITIONAL INFORMATION:
1. Location: Attapulgis Research & Education Center, Attapulgis, GA
  2. Crop History: Peanut – 2018, Peanut – 2017, Peanut – 2016
  3. Land Preparation: Turned field, cultivated, tracked and roto tilled seed beds.
  4. Soil Fertility: pH – 6.5 P – 31 K – 23 Ca – 325 Mg – 28 Sulfur (2 pt/a) on 15 July.  
Soil type: Norfolk loamy sand
  5. Herbicides: PPI: Valor (3 oz/a) + Strongarm (0.45 oz/a) + Dual (1.33 pt/a) were applied on 16 May.
  6. Planting Info: Different varieties, 5 seed/ft (1.5” deep) on 16 May.
  7. Harvest Dates: Dug – 7 Oct. Picked – 11 Oct.

E: SUMMARY:

This was a high-pressure nematode site, and the results were very clear. Georgia-17SP, as released, was apparently a mixture and some component lines did not have all genes for nematode resistance. This test compared Georgia-17SP with selected components that were subsequently pure lined. It is obvious that all these lines have a full measure of nematode resistance as well as excellent TSWV resistance and much better yield potential than the current Spanish standard, Georgia-04S.

**GEORGIA-17SP, TEST II, 2019  
ATTAPULGUS, TUBB'S OLD FIELD**

<b>Trt</b>	<b>Root-knot<sup>1</sup> 13-Sep</b>	<b>Ring<sup>2</sup> 13-Sep</b>	<b>TSWV<sup>3</sup> 13-Sep</b>	<b>Root Gall<sup>4</sup> 8-Oct</b>	<b>Pod Gall<sup>4</sup> 8-Oct</b>	<b>Yield lb/A</b>
1. Georgia-04S	867	149	31.0	53.3	60.0	3412
2. Georgia-17SP	294	139	6.7	26.7	10.5	6098
3. GA-082549R-1	86	171	4.0	0.0	0.0	5905
4. GA-082549R-2	57	145	5.7	0.0	0.0	6050
5. GA-082549R-3	39	143	3.3	0.0	0.0	5639
6. GA-082549R-MsgI	55	139	6.7	0.0	0.0	6389
7. GA-082549R-MsgII	66	128	5.7	0.0	0.0	6316
8. GA-082549R-MsgIII	120	122	6.0	0.0	0.0	6655
<b>LSD(P&lt;0.05)</b>	<b>127</b>	<b>N.S.</b>	<b>5.3</b>	<b>6.9</b>	<b>7.9</b>	<b>555</b>

Root-knot<sup>1</sup>= Number of *M. arenaria* juvenile per 100 cc of soil.

Ring<sup>2</sup> = Population of ring nematodes per 100 cc of soil.

TSWV<sup>3</sup>=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Galling<sup>4</sup>=Visual rating of the percent of pods and roots (1-100) with visible damage from rootknot nematode.

**OFFICIAL DAILY RAINFALL, 2019**  
**ATTAPULGUS FARM**  
**ATTAPULGUS, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
<b>1</b>	0.63	0.04					0.08	
<b>2</b>	0.56	0.07			0.34	0.29	0.01	
<b>3</b>	0.73							
<b>4</b>		1.13	0.58					
<b>5</b>	0.26	0.19	0.14			0.65		
<b>6</b>				0.06	1.65			
<b>7</b>				0.02	1.88			
<b>8</b>		0.12			1.15			
<b>9</b>		0.01	0.44	1.06	0.45			
<b>10</b>			0.06	0.07	0.56	0.71		
<b>11</b>	0.19		0.03	1.34	0.72	0.01		
<b>12</b>			0.16	0.67	0.14	0.31		
<b>13</b>			0.01		0.04			
<b>14</b>		0.94				0.16		0.14
<b>15</b>	0.13				1.10	2.23		1.39
<b>16</b>					0.01	0.01		
<b>17</b>	0.02			0.02		0.25		
<b>18</b>				1.02		0.12		0.04
<b>19</b>		1.45		1.00	0.07	2.47		0.46
<b>20</b>				0.36	0.43	0.03		0.02
<b>21</b>								
<b>22</b>						0.04		0.26
<b>23</b>					1.26	0.01		
<b>24</b>						0.13		
<b>25</b>		0.67		0.12		0.12		0.02
<b>26</b>		0.01				0.47		0.02
<b>27</b>	0.10					0.03		
<b>28</b>				0.05				
<b>29</b>				0.07				0.80
<b>30</b>								0.02
<b>31</b>	0.02							0.24
<b>TOTAL</b>	<b>2.6</b>	<b>4.6</b>	<b>1.4</b>	<b>5.9</b>	<b>9.8</b>	<b>8.0</b>	<b>0.1</b>	<b>3.4</b>

Rainfall = inches.

Irrigated as needed.

EVALUATION OF VARIOUS FUNGICIDES FOR SCAB CONTROL ON WICHITA  
PECAN NORTH ORCHARD (PECAN FUNGICIDE TEST, 2019)

- A. PURPOSE: To evaluate the comparative efficacy of registered and experimental fungicides against pecan foliar and nut diseases, mainly scab, on a highly susceptible cultivar.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with four replicates.
  2. Each replication consisted of single-tree treatments.
  3. The orchard was established in 1988 with alternating rows of Wichita and desirable trees planted on a 40 ft x 40 ft spacing running north and south. Every other tree in each row was replanted in 2000, and these were the test trees. Alternating trees were replanted in 2008 and were not sprayed, serving as buffer trees. This test used Wichita trees only.
- C. APPLICATION OF TREATMENTS:
1. Equipment: All spray treatments were applied with a Durand Wayland PTO-driven air-blast sprayer (AF-100-32) delivering 95 gallon per acre at 125 PSI traveling 2 MPH.
  2. Calendar-based spray treatments (1-10) were applied on 10 Apr, 24 Apr, 7 May, 21 May, 12 Jun, 25 Jun, 4 Jul, 17 Jul, 31 Jul, and 14 Aug.
- D. ADDITIONAL INFORMATION:
1. Location: Ponder Farm, CPES Tifton, GA, 31794
  2. Soil Fertility: pH – 5.4    P – 55    K – 54    Ca – 358    Mg – 40  
Soil type: Tifton loamy sand, 2 – 5 % slope.
  3. Herbicides: Alion (5 oz/a) and Interlinn (56 oz/a) on 12 Apr.  
Roundup (2 qt./a) on 3 June.
  4. Fertilizer: 10-10-10 (600 lbs/a) on 28 Mar.
  5. Harvest Information: Trees were shaken with a Savage Model 2138 PTO-driven trunk shaker on 4 Nov. A 50-nut sample was collected per tree for yield and quality.
- E. SUMMARY:
- Excellent scab test with high pressure and good differentiation of treatments.

**PECAN FUNGICIDE TEST, 2019  
PONDER FARM, NORTH ORCHARD  
WICHITA**

<b>Treatments</b>	<b>Rate/A</b>	<b>App's</b>	<b>Leaf Inc.<sup>1</sup> 14-Jun</b>	<b>Leaf Sev<sup>2</sup> 14-Jun</b>	<b>Nut Inc.<sup>3</sup> 22-Jul</b>	<b>Nut Sev.<sup>4</sup> 22-Jul</b>	<b>Nut Inc.<sup>3</sup> 30-Aug</b>	<b>Nut Sev.<sup>4</sup> 30-Aug</b>
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	43.0	3.6	99.4	28.8	100.0	50.8
+ Elast 400F	25.0 fl oz							
EXP 1	4.0 fl oz	2, 4, 6, 8, 10						
+ Abound	11.2 fl oz							
+ Remain	8.0 fl oz							
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	40.9	3.3	99.0	26.5	100.0	32.3
+ Elast 400F	25.0 fl oz							
EXP 1	5.0 fl oz	2, 4, 6, 8, 10						
+ Abound	11.2 fl oz							
+ Remain	8.0 fl oz							
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	44.7	4.0	100.0	35.1	100.0	75.9
+ Elast 400F	25.0 fl oz							
Nontreated								
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	38.8	3.3	99.2	32.1	100.0	51.3
+ Elast 400F	25.0 fl oz							
Enable	8.0 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	27.8	2.2	95.8	29.8	100.0	45.6
+ Elast 400F	25.0 fl oz							
Approach	12.0 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	30.9	1.9	80.2	8.9	100.0	15.4
+ Elast 400F	25.0 fl oz							
Amistar Top	14.0 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	27.2	1.8	77.8	9.1	98.4	17.2
+ Elast 400F	25.0 fl oz							
Miravis Prime								
3.3SC	6.8 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	28.8	2.3	75.5	9.8	91.7	6.5
+ Elast 400F	25.0 fl oz							
Miravis Prime								
3.3SC	9.1 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							

**PECAN FUNGICIDE TEST, 2019**  
**PONDER FARM, NORTH ORCHARD**  
**WICHITA**

Treatments	Rate/A	App's	Leaf Inc. <sup>1</sup> 14-Jun	Leaf Sev <sup>2</sup> 14-Jun	Nut Inc. <sup>3</sup> 22-Jul	Nut Sev. <sup>4</sup> 22-Jul	Nut Inc. <sup>3</sup> 30-Aug	Nut Sev. <sup>4</sup> 30-Aug
Super Tin 4L + Elast 400F	6.0 fl oz 25.0 fl oz	1, 3, 5, 7, 9	28.8	2.3	76.2	4.5	100.0	25.6
Miravis Top + Remain	13.7 fl oz 8.0 fl oz	2, 4, 6, 8, 10						
Super Tin 4L + Elast 400F	6.0 fl oz 25.0 fl oz	1, 3, 5, 7, 9	35.4	3.0	100.0	11.2	100.0	32.3
Luna Sensation + Remain	5.0 fl oz 8.0 fl oz	2, 4, 6, 8, 10						
Super Tin 4L + Elast 400F	6.0 fl oz 25.0 fl oz	1, 3, 5, 7, 9	30.6	2.8	97.4	21.0	100.0	38.7
Absolute Maxx + Remain	7.5 fl oz 8.0 fl oz	2, 4, 6, 8, 10						
Kphite	3.0 qt	1 & 3	25.4	2.1	99.2	28.9	100.0	48.3
Miravis Top + Remain	13.7 fl oz 8.0 fl oz	5, 6, 8						
Super Tin 4L + Elast 400F + Kphite	6.0 fl oz 25.0 fl oz 2.0 qt	7, 9, 10						
Super Tin 4L + Elast 400F	6.0 fl oz 25.0 fl oz	1--10	38.6	3.3	93.2	15.6	100.0	52.7
Nontreated	-		65.2	9.8	100.0	98.0	100.0	100.0
<b>LSD(P&lt;0.05)</b>			9.2	1.1	9.5	9.3	3.3	9.5

Leaf Inc.<sup>1</sup>=Leaf scab incidence, based on 8 terminals per tree (% of leaflets on end of leaf with scab).

Leaf Sev.<sup>2</sup>=Leaf scab severity, based on end leaf of 8 terminals per tree.

Nut Inc.<sup>3</sup>=Nut scab incidence, based on ratings of 8 nut clusters per tree (% of nuts with any scab).

Nut Sev.<sup>4</sup>=Nut scab severity, based on 8 nuts clusters per tree (% of shuck covered with scab).

## EVALUATION OF VARIOUS FUNGICIDES FOR SCAB CONTROL ON DESIRABLE PECAN NORTH ORCHARD (PECAN FUNGICIDE TEST, 2019)

- A. PURPOSE: To evaluate the comparative efficacy of registered and experimental fungicides against pecan foliar and nut diseases, mainly scab, on a standard commercial cultivar.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with four replicates.
  2. Each replication consisted of single-tree treatments.
  3. The orchard was established in 1988 with alternating rows of Wichita and Desirable trees planted on a 40 ft x 40 ft spacing running north and south. Every other tree in each row was replanted in 2000, and these were the test trees. Alternating trees were replanted in 2008 and were not sprayed, serving as buffer trees. This test used Desirable trees only.
- C. APPLICATION OF TREATMENTS:
1. Equipment: All spray treatments were applied with a Durand Wayland PTO-driven air-blast sprayer (AF-100-32) delivering 95 gallon per acre at 125 PSI traveling 2 MPH.
  2. Calendar-based spray treatments (1-10) were applied on 10 Apr, 24 Apr, 7 May, 21 May, 12 Jun, 25 Jun, 4 Jul, 17 Jul, 31 Jul, and 14 Aug.
- D. ADDITIONAL INFORMATION:
1. Location: Ponder Farm, CPES Tifton, GA, 31794
  2. Soil Fertility: pH – 5.4    P – 55    K – 54    Ca – 358    Mg – 40  
Soil type: Tifton loamy sand, 2 – 5 % slope
  3. Herbicides: Alion (5 oz/a) and Interlinn (56 oz/a) on 12 Apr.  
Roundup (2 qt./a) on 3 June.
  4. Fertilizer: 10-10-10 (600 lbs/a) on 28 Mar.
  5. Harvest Information: Trees were shaken with a Savage Model 2138 PTO-driven trunk shaker on 4 Nov. A 50 nut sample was collected per tree for yield and quality.
- E. SUMMARY:
- Excellent scab test with high pressure and good differentiation of treatments.



**PECAN FUNGICIDE TEST, 2019**  
**PONDER FARM, NORTH ORCHARD**  
**DESIRABLE**

<b>Treatments</b>	<b>Rate/A</b>	<b>App's</b>	<b>Leaf Inc<sup>1</sup> 14-Jun</b>	<b>Leaf Sev<sup>2</sup> 14-Jun</b>	<b>Nut Inc<sup>3</sup> 22-Jul</b>	<b>Nut Sev<sup>4</sup> 22-Jul</b>	<b>Nut Inc<sup>3</sup> 30-Aug</b>	<b>Nut Sev<sup>4</sup> 30-Aug</b>
1. Super Tin 4L + Elast 400F EXP 1 + Abound + Remain	6.0 fl oz 25.0 fl oz 4.0 fl oz 11.2 fl oz 8.0 fl oz	1, 3, 5, 7, 9  2, 4, 6, 8, 10	23.3	3.0	47.4	2.8	89.8	5.5
2. Super Tin 4L + Elast 400F EXP 1 + Abound + Remain	6.0 fl oz 25.0 fl oz 5.0 fl oz 11.2 fl oz 8.0 fl oz	1, 3, 5, 7, 9  2, 4, 6, 8, 10	16.4	1.9	39.1	1.1	90.6	4.3
3. Super Tin 4L + Elast 400F Nontreated	6.0 fl oz 25.0 fl oz	1, 3, 5, 7, 9	19.0	2.7	73.4	7.7	100.0	21.4
4. Super Tin 4L + Elast 400F Enable + Remain	6.0 fl oz 25.0 fl oz 8.0 fl oz 8.0 fl oz	1, 3, 5, 7, 9  2, 4, 6, 8, 10	25.2	3.2	80.7	7.7	98.4	22.0
5. Super Tin 4L + Elast 400F Approach + Remain	6.0 fl oz 25.0 fl oz 12.0 fl oz 8.0 fl oz	1, 3, 5, 7, 9  2, 4, 6, 8, 10	14.6	1.7	74.5	5.3	100.0	14.0
6. Super Tin 4L + Elast 400F Amistar Top + Remain	6.0 fl oz 25.0 fl oz 14.0 fl oz 8.0 fl oz	1, 3, 5, 7, 9  2, 4, 6, 8, 10	15.3	1.7	34.4	1.1	79.7	5.6
7. Super Tin 4L + Elast 400F Miravis Prime + Remain	6.0 fl oz 25.0 fl oz 6.8 fl oz 8.0 fl oz	1, 3, 5, 7, 9  2, 4, 6, 8, 10	13.0	1.5	23.2	0.9	68.8	1.8
8. Super Tin 4L + Elast 400F Miravis Prime + Remain	6.0 fl oz 25.0 fl oz 9.1 fl oz 8.0 fl oz	1, 3, 5, 7, 9  2, 4, 6, 8, 10	11.1	1.4	18.2	0.7	43.2	1.1

**PECAN FUNGICIDE TEST, 2019**  
**PONDER FARM, NORTH ORCHARD**  
**DESIRABLE**

<b>Treatments</b>	<b>Rate/A</b>	<b>App's</b>	<b>Leaf Inc<sup>1</sup> 14-Jun</b>	<b>Leaf Sev<sup>2</sup> 14-Jun</b>	<b>Nut Inc<sup>3</sup> 22-Jul</b>	<b>Nut Sev<sup>4</sup> 22-Jul</b>	<b>Nut Inc<sup>3</sup> 30-Aug</b>	<b>Nut Sev<sup>4</sup> 30-Aug</b>
9. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	18.1	2.0	12.5	0.2	76.6	2.9
+ Elast 400F	25.0 fl oz							
Miravis Top	13.7 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							
10. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	13.6	1.7	44.0	3.3	93.8	10.6
+ Elast 400F	25.0 fl oz							
Luna Sensation	5.0 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							
11. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	14.0	2.0	32.3	1.7	92.7	9.4
+ Elast 400F	25.0 fl oz							
Absolute Maxx	7.5 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							
12. Kphite	3.0 qt	1 & 3	14.9	2.0	60.9	4.2	92.2	13.3
Miravis Top	13.7 fl oz	5, 6, 8						
+ Remain	8.0 fl oz							
Super Tin 4L	6.0 fl oz	7, 9, 10						
+ Elast 400F	25.0 fl oz							
+ Kphite	2.0 qt							
13. Super Tin 4L	6.0 fl oz	1--10	15.6	1.9	57.8	3.2	93.2	9.2
+ Elast 400F	25.0 fl oz							
14. Nontreated	-	-	43.9	6.9	100.0	44.6	100.0	90.3
<b>LSD(P&lt;0.05)</b>			<b>7.3</b>	<b>1.4</b>	<b>19.1</b>	<b>3.7</b>	<b>13.3</b>	<b>5.1</b>

Leaf Inc.<sup>1</sup>=Leaf scab incidence, based on 8 terminals per tree (% of leaflets on end of leaf with scab).

Leaf Sev.<sup>2</sup>=Leaf scab severity, based on end leaf of 8 terminals per tree.

Nut Inc.<sup>3</sup>=Nut scab incidence, based on ratings of 8 nut clusters per tree (% of nuts with any scab).

Nut Sev.<sup>4</sup>=Nut scab severity, based on 8 nuts clusters per tree (% of shuck covered with scab).

EVALUATION OF VARIOUS FUNGICIDES FOR SCAB CONTROL ON  
DESIRABLE PECAN SOUTH ORCHARD (PECAN FUNGICIDE TEST II, 2019)

- A. PURPOSE: To evaluate the efficacy of registered and experimental fungicides against pecan scab on a standard commercial cultivar.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with five replicates.
  2. Each replication consisted of single-tree treatments.
  3. The orchard was established in 1988 planted on a 40 ft x 40 ft spacing running north and south. This test used Desirable trees only. Every other row was removed and replanted. These younger trees serve as unsprayed borders, and all treatments were applied to the original trees.
- C. APPLICATION OF TREATMENTS:
1. Equipment: All spray treatments were applied with a Durand Wayland PTO-driven air-blast sprayer (AF-100-32) delivering 95 gallon per acre at 125 PSI traveling 2 MPH.
  2. Calendar-based spray treatments (1-21) were applied 11 Apr, 25 Apr, 8 May, 22 May, 13 Jun, 27 Jun, 4 Jul, 18 Jul, 1 Aug, and 15 Aug.
- D. ADDITIONAL INFORMATION:
1. Location: Ponder Farm, CPES Tifton, GA, 31794
  2. Soil Fertility: pH – 5.7 P – 84 K – 115 Ca – 409 Mg – 79  
Soil type: Tifton loamy sand, 2 – 5 % slope
  3. Herbicides: Alion (5 oz/a) and Interlinn (56 oz/a) on 12 Apr.  
Roundup (2 qt./a) on 3 June.
  4. Fertilizer: 10-10-10 (600 lbs/a) on 28 Mar.
  5. Harvest Information: Trees were shaken with a Savage Model 2138 PTO-driven trunk shaker on 4 Nov. A 50 nut sample was collected per tree for yield and quality.
- E. SUMMARY:
- Good scab test with moderate pressure and good differentiation of treatments.

**PECAN FUNGICIDE TEST II, 2019**  
**PONDER FARM, SOUTH ORCHARD**  
**DESIRABLE**

<b>Treatments</b>	<b>Rate/A</b>	<b>App's</b>	<b>Leaf Inc.<sup>1</sup> 24-Jun</b>	<b>Leaf Sev<sup>2</sup> 24-Jun</b>	<b>Nut Inc.<sup>3</sup> 24-Jun</b>	<b>Nut Inc.<sup>3</sup> 23-Jul</b>	<b>Nut Sev.<sup>4</sup> 23-Jul</b>
1. ACS 5073	16.0 fl oz	2, 4, 6, 8, 10	13.4	2.4	0.6	87.5	10.4
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9					
+Elast 400F	25.0 fl oz						
2. ACS 5073	16.0 fl oz	2, 4, 6, 8, 10	9.4	1.5	0.0	68.8	3.9
+ Topguard EQ	6.0 fl oz						
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9					
+Elast 400F	25.0 fl oz						
3. Brixen	20.0 fl oz	2, 4, 6, 8, 10	8.6	1.1	0.0	55.4	2.0
+ Potente	16.0 fl oz						
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9					
+Elast 400F	25.0 fl oz						
4. Brixen	20.0 fl oz	2, 4, 6, 8, 10	8.4	1.1	0.0	53.8	2.2
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9					
+Elast 400F	25.0 fl oz						
5. Minerva Duo	16.0 fl oz	2, 4, 6, 8, 10	10.9	1.7	0.0	71.3	5.0
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9					
+Elast 400F	25.0 fl oz						
6. SA-0650004	4.6 fl oz	2, 4, 6, 8, 10	9.9	1.7	0.0	75.0	6.3
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9					
+Elast 400F	25.0 fl oz						
7. Topguard EQ	6.0 fl oz	2, 4, 6, 8, 10	9.5	1.5	0.0	64.0	2.3
+ Induce	0.06 % v/v						
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9					
+Elast 400F	25.0 fl oz						
8. Topguard EQ	8.0 fl oz	2, 4, 6, 8, 10	9.2	1.4	0.0	66.7	5.4
+ Induce	0.06 % v/v						
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9					
+Elast 400F	25.0 fl oz						

**PECAN FUNGICIDE TEST II, 2019**  
**PONDER FARM, SOUTH ORCHARD**  
**DESIRABLE**

<b>Treatments</b>	<b>Rate/A</b>	<b>App's</b>	<b>Leaf Inc.<sup>1</sup> 24-Jun</b>	<b>Leaf Sev<sup>2</sup> 24-Jun</b>	<b>Nut Inc.<sup>3</sup> 24-Jun</b>	<b>Nut Inc.<sup>3</sup> 23-Jul</b>	<b>Nut Sev.<sup>4</sup> 23-Jul</b>
9. VJR84-R002 + Induce Super Tin 4L +Elast 400F	5.0 fl oz 0.06 % v/v 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10  1, 3, 5, 7, 9	10.5	1.4	0.0	76.3	5.1
10. VJR84-R002 + Induce Super Tin 4L +Elast 400F	7.0 fl oz 0.06 % v/v 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10  1, 3, 5, 7, 9	15.3	2.7	2.5	70.0	5.9
11. Bravo W'stik Super Tin 4L +Elast 400F	2.0 pt 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10 1, 3, 5, 7, 9	13.9	2.2	0.0	76.3	3.8
12. Bravo W'stik Super Tin 4L +Elast 400F	3.0 pt 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10 1, 3, 5, 7, 9	10.0	1.5	0.0	78.8	6.1
13. Bravo W'stik Super Tin 4L +Elast 400F	4.0 pt 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10 1, 3, 5, 7, 9	10.9	1.5	0.0	86.3	20.1
14. Miravis Top + Induce Super Tin 4L +Elast 400F	13.7 fl oz 0.06 % v/v 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10  1, 3, 5, 7, 9	10.7	1.8	0.0	50.4	1.5
15. Topguard EQ + Dispers-Sulfur Super Tin 4L +Elast 400F	6.0 fl oz 10.0 lb 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10  1, 3, 5, 7, 9	11.4	1.8	0.0	79.6	6.4

**PECAN FUNGICIDE TEST II, 2019**  
**PONDER FARM, SOUTH ORCHARD**  
**DESIRABLE**

<b>Treatments</b>	<b>Rate/A</b>	<b>App's</b>	<b>Leaf Inc.<sup>1</sup> 24-Jun</b>	<b>Leaf Sev<sup>2</sup> 24-Jun</b>	<b>Nut Inc.<sup>3</sup> 24-Jun</b>	<b>Nut Inc.<sup>3</sup> 23-Jul</b>	<b>Nut Sev.<sup>4</sup> 23-Jul</b>
16. Super Tin 4L +Elast 400F + ProPhyt Super Tin 4L +Elast 400F	6.0 fl oz 25.0 fl oz 2.0 qt 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10   1, 3, 5, 7, 9	8.9	1.5	10.0	59.2	3.3
17. Super Tin 4L +Elast 400F Kphite	6.0 fl oz 25.0 fl oz 4.0 qt	5-10  1 & 3	8.3	1.1	2.5	82.1	6.7
18. Super Tin 4L +Elast 400F Kphite	6.0 fl oz 25.0 fl oz 2.0 qt	5-10  1, 2, 3, 4	6.8	1.0	0.0	63.8	4.0
19. Nontreated Super Tin 4L +Elast 400F	- 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10 1, 3, 5, 7, 9	15.2	2.6	0.0	82.1	6.4
20. Super Tin 4L +Elast 400F	6.0 fl oz 25.0 fl oz	1-10	10.7	1.8	0.0	73.8	3.7
21. Nontreated	-		14.3	2.4	0.0	98.8	26.9
<b>LSD(P&lt;0.05)</b>			5.0	1.0	6.3	17.7	4.1

Leaf Inc<sup>1</sup>=Leaf scab incidence, based on 8 terminals per tree (% of leaflets on end of leaf with scab).

Leaf Sev<sup>2</sup>=Leaf scab severity, based on end leaf of 8 terminals per tree.

Nut Inc<sup>3</sup>=Nut scab incidence, based on ratings of 8 nut clusters per tree (% of nuts with any scab).

Nut Sev<sup>4</sup>=Nut scab severity, based on 8 nuts clusters per tree (% of shuck covered with scab).

**PECAN FUNGICIDE TEST II, 2019**  
**PONDER FARM, SOUTH ORCHARD**  
**DESIRABLE**

<b>Treatments</b>	<b>Rate/A</b>	<b>App's</b>	<b>Nut Inc.<sup>3</sup> 30-Aug</b>	<b>Nut Sev.<sup>4</sup> 30-Aug</b>
1. Agromos	16.0 fl oz	2, 4, 6, 8, 10	97.5	20.0
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			
2. Agromos	16.0 fl oz	2, 4, 6, 8, 10	98.8	11.2
+ Topguard EQ	6.0 fl oz			
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			
3. Brixen	20.0 fl oz	2, 4, 6, 8, 10	100.0	11.1
+ Potente	16.0 fl oz			
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			
4. Brixen	20.0 fl oz	2, 4, 6, 8, 10	95.0	6.0
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			
5. Minerva Duo	16.0 fl oz	2, 4, 6, 8, 10	97.5	9.6
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			
6. SA-0650004	4.6 fl oz	2, 4, 6, 8, 10	100.0	12.1
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			
7. Topguard EQ	6.0 fl oz	2, 4, 6, 8, 10	100.0	9.3
+ Induce	0.06 % v/v			
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			
8. Topguard EQ	8.0 fl oz	2, 4, 6, 8, 10	95.3	6.2
+ Induce	0.06 % v/v			
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			
9. VJR84-R002	5.0 fl oz	2, 4, 6, 8, 10	95.0	15.5
+ Induce	0.06 % v/v			
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			

**PECAN FUNGICIDE TEST II, 2019**  
**PONDER FARM, SOUTH ORCHARD**  
**DESIRABLE**

<b>Treatments</b>	<b>Rate/A</b>	<b>App's</b>	<b>Nut Inc.<sup>3</sup> 30-Aug</b>	<b>Nut Sev.<sup>4</sup> 30-Aug</b>
10. VJR84-R002 + Induce Super Tin 4L +Elast 400F	7.0 fl oz 0.06 % v/v 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10  1, 3, 5, 7, 9	92.5	10.9
11. Bravo W'stik Super Tin 4L +Elast 400F	2.0 pt 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10 1, 3, 5, 7, 9	96.3	15.2
12. Bravo W'stik Super Tin 4L +Elast 400F	3.0 pt 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10 1, 3, 5, 7, 9	97.5	9.8
13. Bravo W'stik Super Tin 4L +Elast 400F	4.0 pt 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10 1, 3, 5, 7, 9	100.0	19.0
14. Miravis Top + Induce Super Tin 4L +Elast 400F	13.7 fl oz 0.06 % v/v 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10  1, 3, 5, 7, 9	80.0	2.3
15. Topguard EQ + Dispers-Sulfur Super Tin 4L +Elast 400F	6.0 fl oz 10.0 lb 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10  1, 3, 5, 7, 9	97.9	18.7
16. Super Tin 4L +Elast 400F + ProPhyt Super Tin 4L +Elast 400F	6.0 fl oz 25.0 fl oz 2.0 qt 6.0 fl oz 25.0 fl oz	2, 4, 6, 8, 10   1, 3, 5, 7, 9	93.8	8.7
17. Super Tin 4L +Elast 400F Kphite	6.0 fl oz 25.0 fl oz 4.0 qt	5-10  1 & 3	100.0	17.7
18. Super Tin 4L +Elast 400F Kphite	6.0 fl oz 25.0 fl oz 2.0 qt	5-10  1, 2, 3, 4	100.0	8.5



**PECAN FUNGICIDE TEST II, 2019**  
**PONDER FARM, SOUTH ORCHARD**  
**DESIRABLE**

<b>Treatments</b>	<b>Rate/A</b>	<b>App's</b>	<b>Nut Inc.<sup>3</sup> 30-Aug</b>	<b>Nut Sev.<sup>4</sup> 30-Aug</b>
19. Nontreated	-	2, 4, 6, 8, 10	100.0	31.6
Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9		
+Elast 400F	25.0 fl oz			
20. Super Tin 4L	6.0 fl oz	1-10	97.9	8.3
+Elast 400F	25.0 fl oz			
21. Nontreated	-		100.0	82.1
<b>LSD(P&lt;0.05)</b>			<b>6.8</b>	<b>6.7</b>

Nut Inc<sup>3</sup>=Nut scab incidence, based on ratings of 8 nut clusters per tree (% of nuts with any scab).

Nut Sev<sup>4</sup>=Nut scab severity, based on 8 nuts clusters per tree (% of shuck covered with scab).

**OFFICIAL DAILY RAINFALL, 2019**  
**PONDER FARM**  
**TY TY, GA**

<b>RAINFALL</b>								
<b>DATE</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>
<b>1</b>	0.16					0.47	0.13	
<b>2</b>	0.46	0.13	0.01				0.01	
<b>3</b>	0.96							
<b>4</b>		0.02	0.09		0.14			
<b>5</b>	0.37	0.02	0.02	0.05	0.16	0.08		
<b>6</b>		0.21		0.02	0.05	0.04		0.29
<b>7</b>				0.25	1.04			
<b>8</b>				0.09		0.08		
<b>9</b>		0.17	0.12	0.51				
<b>10</b>	0.23		0.11	0.05				
<b>11</b>	0.94		0.70	0.88	0.02	2.58		
<b>12</b>			0.27	1.38	1.09			
<b>13</b>								
<b>14</b>		0.83						0.03
<b>15</b>	0.29					0.53		1.40
<b>16</b>				0.19				0.25
<b>17</b>			0.46			0.65		
<b>18</b>				0.07		0.05		
<b>19</b>		1.43			0.85	2.66		0.61
<b>20</b>				0.58	0.85	0.08		0.02
<b>21</b>						0.43		
<b>22</b>				0.72				0.08
<b>23</b>				0.01				
<b>24</b>						0.21		
<b>25</b>	0.26	0.05				0.01		
<b>26</b>	0.01	0.01				0.25		
<b>27</b>	0.69							0.05
<b>28</b>				0.84				
<b>29</b>				0.16				0.67
<b>30</b>								
<b>31</b>					0.09	0.34		0.25
<b>TOTAL</b>	<b>4.4</b>	<b>2.9</b>	<b>1.8</b>	<b>5.8</b>	<b>4.3</b>	<b>8.5</b>	<b>0.1</b>	<b>3.7</b>

Rainfall = inches.

Irrigated as needed.