

2023 TEST RESULTS



Peanut & Pecan Fungicide Evaluations

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Date: Jan. 10, 2024

Memo to: Industry Cooperators

From: Tim Brenneman

Subject: Field Trial Results

It is amazing how each year is different (I said that last year also!). Biological systems are driven by environmental conditions, and we went from very wet early (with some very challenging conditions for seedling emergence and growth) to pretty dry late season. For peanuts, this resulted in rapid vine growth mid season, with the dry weather later not washing off fungicides and resulting in reduced control of white mold. In our trials, we also intentionally utilized a “dirtting” cultivation event in early July, which increased the intensity and uniformity of our white mold epidemics. Hurricane Idalia actually brought us some much-needed precipitation. The early rains also resulted in severe pecan scab in July, which was an acid test for fungicides. I want to acknowledge the hard work of our crew lead by Corey Thompson, Lance Alberson, and Jessica Bell. Summer workers included Wyatt Williams, Lucinda McEachin, and Clint Herndon. The cooperation of other scientists including Dr. Albert Culbreath, Dr. Bob Kemeraite, Dr. Corley Holbrook, Dr. Patty Timper, Dr. Bill Branch, Dr. Scott Tubbs, Dr. Scott Monfort, Dr. Nino Brown, Dr. David Bertioli, Dr. Soraya Bertioli and Dr. Barry Tillman is much appreciated.

Once again, we are making this available primarily as an online document available at **www.timbrenneman.org** by clicking on “Publications” then “2023 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.

TABLE OF CONTENTS

SOILBORNE DISEASES, 2023

POND FIELD

BLACKSHANK FARM

FMC NEMATODE TEST	6
IN FURROW MIX TEST II	8
KANNAR NEMATODE TEST	10
PROFARM NEMATODE TEST	12
VALENT NEMATODE TEST	14
DAILY RAINFALL	17

WOODS FIELD

BLACKSHANK FARM

NEMATODE CULTIVAR TEST	18
DAILY RAINFALL	20

IRRIGATED/NON-IRRIGATED FIELD

BLACKSHANK FARM

BASF NEMATODE TEST.....	21
FMC XYWAY TEST I.....	22
IN FURROW MIX TEST I.....	26
NICHINO FUNGICIDE TEST.....	28
DAILY RAINFALL	31

BANANA FIELD
BLACKSHANK FARM

MULTI-STATE EVALUATION TEST.....	32
RHIZOCTONIA FUNGICIDE TEST	34
DAILY RAINFALL	37

SOUTH FIELD
LANG/RIGDON FARM

BASF SEEDLING DISEASE TEST	38
BAYER IN FURROW RATE TEST.....	40
FMC XYWAY TEST II.....	42
KANNAR SEED TREATMENT TEST I	45
KANNAR SEED TREATMENT TEST II.....	47
SYNGENTA SEED TREATMENT TEST I.....	49
SYNGENTA SEED TREATMENT TEST II.....	51
DAILY RAINFALL + IRRIGATION.....	53

NEW FIELD
LANG/RIGDON FARM

SYNGENTA FUNGICIDE TEST	54
BASF FUNGICIDE TEST	58
DAILY RAINFALL + IRRIGATION.....	62

COTTON FIELD
LANG/RIGDON FARM

ADAMA FUNGICIDE TEST I.....	63
ADAMA FUNGICIDE TEST II.....	66
FMC EXPERIMENTAL RROGRAMS TEST	69
FMC FUNGICIDE RROGRAMS TEST	71
ISK TEST.....	75
DAILY RAINFALL + IRRIGATION.....	77

NORTH ORCHARD
PONDER FARM

PECAN FUNGICIDE TEST I, WICHITA.....	78
PECAN FUNGICIDE TEST I, DESIRABLE	81
MISCELLANEOUS FUNGICIDE TEST I.....	84
MISCELLANEOUS FUNGICIDE TEST II	86
KPHITE TIMING TEST	88
DAILY RAINFALL	90

SOUTH ORCHARD
PONDER FARM

PECAN FUNGICIDE TEST II, DESIRABLE.....	91
DAILY RAINFALL	94

FMC NEMATODE TEST, 2023

- A. PURPOSE: To evaluate management programs for 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 and TifNV-HG
- C. APPLICATION OF TREATMENTS:
1. Equipment: In furrow sprays applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Treatment sprays: In furrow sprays were applied at planting on May 4. Plots were cover sprayed with Chlorothalonil (1.5 pts/a) on June 8, June 22, July 5, July 19, Aug. 8, Aug. 16, and Aug. 30, and Elatus (9 oz/a) was sprayed on July 5, July 19, and Aug. 8.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, Pond Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 5.94 P: 30.18 K: 14.55 Ca: 175.8 Mg: 8.97
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 19.
Rototilled to incorporate.
 5. Insecticides: None.
 6. Planting Info: GA-06G + TifNV-HG, 6.6 seed/ft (2" deep) on May 4.
 7. Harvest Dates: Dug – Oct. 2 Picked – Oct. 5

E: SUMMARY:

Peanut has been cultivated in this field for many years. The lack of crop rotation and the sandy soil is conducive to root knot nematodes, however over the years a high population of *Pasteuria penetrans* has developed and virtually wiped out the *Meloidogyne arenaria*, as evidenced by the extremely low numbers of juveniles and the lack of galling, even in the nontreated plots. Even though fertilizer has been applied each year, some elements are still low and overall plant growth was very poor. This field will no longer be used for peanut field trials, and other than data on plant stands and TSWV, there is little to be learned regarding nematode control.

FMC NEMATODE TEST, 2023									
BLACKSHANK FARM, POND FIELD									
Treatment	App's	Rate/A	Plant/ft ¹ 26-May	% Dead Plants ² 26-May	TSWV ³ 22-Aug	Galling ⁴ 2-Oct	Root Knot ⁵ 7-Sep	Ring ⁶ 7-Sep	Yield lb/A
GA-06G									
1. Nontreated	-	-	3.7	0.0	29.2	2.4	0.8	72.0	505
2. Zironar + Velum	In furrow	12.0 fl oz 6.84 fl oz	3.8	0.0	35.6	0.0	2.0	104.4	468
3. Zironar + Velum	In furrow	15.0 fl oz 6.84 fl oz	3.8	0.0	31.2	1.0	8.4	76.8	558
4. Zironar LFR + Velum	In furrow	12.0 fl oz 6.84 fl oz	3.8	0.0	28.0	0.6	1.4	61.2	518
5. Zironar LFR + Velum	In furrow	15.0 fl oz 6.84 fl oz	3.6	0.0	23.2	0.0	14.8	64.0	555
6. Velum	In furrow	6.84 fl oz	3.9	0.0	19.6	0.0	3.2	50.4	490
TifNV-HG									
7. Nontreated	-	-	4.0	0.0	15.2	0.0	0.0	106.6	678
LSD(P<0.05)	-	-	0.4	N. S.	13.0	2.1	10.9	N. S.	180
In furrow applications applied in 3.4 GPA singles.									
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.									
% Dead Plants ² =The % of emerged plants that were dead or dying per plot.									
TSWV ³ =Percent of row feet infected based on disease loci (up to 12" linear row) per plot.									
Galling ⁴ = Visual rating of the percent of pods and roots (1-100) with visible damage from root-knot nematode.									
Root-knot ⁵ = Number of <i>M. arenaria</i> juvenile per 100 cc of soil.									
Ring ⁶ = Population of ring nematodes per 100 cc of soil.									

IN FURROW MIX TEST II, 2023

- A. PURPOSE: To evaluate the comparative efficacy of labeled in furrow fungicides on untreated, compromised seed.
- 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: Untreated compromised GA-06G (lot #6832, 69% germ w/ Rancona) 42% *A. niger* and 54% *Rhizopus* in nontreated seed
- C. APPLICATION OF TREATMENTS:
1. Equipment: In furrow sprays applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Treatment sprays: In furrow sprays applied at planting on May 26.
 3. Cover Sprays: Plots were cover sprayed with Chlorothalonil (1.5 pts/a) on June 27, July 12, July 27, Aug. 8, Aug. 23, Sep. 5, and Sep. 19, and Elatus (9 oz/a) on July 27, Aug. 8, and Aug. 23.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, Pond Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 5.94 P: 30.18 K: 14.55 Ca: 175.8 Mg: 8.97
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 19.
Rototilled to incorporate.
 5. Insecticides: None.
 6. Planting Info: GA-06G, 6.6 seed/ft (2" deep) on May 26.

7. Harvest Dates:

Dug – Oct. 6

Picked – Oct. 9

E: SUMMARY:

Following planting, the test site experienced heavy rain and cold soil temperatures that were very challenging for plant stand establishment, especially considering the poor quality of seed used. The seed were selected to insure disease pressure and separation of effective and ineffective treatments, but the combination of poor seed and highly stressed environment created a real acid test for seed/seedling diseases. It should be noted that these conditions are very unfavorable for development of *Aspergillus spp.* which have been the primary pathogens in recent years. There was some *Aspergillus* crown rot (*Aspergillus niger*) which was responsible for the “Dead plant” ratings, and the Velum in furrow was highly active as we have seen previously. Overall, plant growth and yields were very low.

IN FURROW MIX TEST II, 2023									
BLACKSHANK FARM, POND FIELD									
Seed Treatment	In furrow	Rate/A	Plant/ft¹		% Dead Plants²			Roots/ft³	Yield lb/A
			9-Jun	20-Jun	9-Jun	20-Jun	29-Jun	29-Sep	
1. None	None	-	0.6	0.5	0.0	2.7	13.8	0.9	99
2. None	Velum	4.3 fl oz	1.7	1.6	0.0	0.5	0.5	1.0	192
3. None	Abound	6.0 fl oz	1.8	1.4	1.0	5.9	8.9	1.2	194
4. None	Kphite	32.0 fl oz	1.7	1.7	0.3	2.6	6.0	1.5	189
5. None	Velum	4.3 fl oz	2.1	1.8	0.2	1.6	2.7	1.5	204
	+ Abound	6.0 fl oz							
	+ Kphite	32.0 fl oz							
6. Rancona VPD*	None	-	2.2	2.1	0.0	0.2	0.2	1.6	236
LSD(P<0.05)	-	-	0.3	0.3	0.7	3.5	5.0	N. S.	63
* Rancona VPD applied at 4 oz/100 lb.									
Seed used was untreated compromised seed from Premium (GA-06G Lot 6832).									
Seed used was untreated GA-06G from Olam Lot 677.									
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.									
% Dead Plants ² = The % of emerged plants that were dead or dying per plot.									
Roots/ft ³ = Number of tap roots per foot of row after the plots were inverted.									

KANNAR NEMATODE TEST, 2023

- A. PURPOSE: To evaluate the comparative efficacy of labeled and experimental nematicides applied for the control of 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: In furrow sprays applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Treatment prays: In furrow sprays applied at planting on May 15.
 3. Cover Sprays: Plots were cover sprayed with Chlorothalonil (1.5 pts/a) on June 19, July 5, July 19, Aug. 7, Aug. 16, Aug. 30, and Sep. 11.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, Pond Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 5.94 P: 30.18 K: 14.55 Ca: 175.8 Mg: 8.97
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 19.
Rototilled to incorporate.
 5. Insecticides: None.
 6. Planting Info: GA-06G, 6.6 seed/ft (2" deep) on May 15.
 7. Harvest Dates: Dug – Oct. 2 Picked – Oct. 6

E: SUMMARY:

Peanut has been cultivated in this field for many years. The lack of crop rotation and the sandy soil is conducive to root knot nematodes, however over the years a high population of *Pasteuria penetrans* has developed and virtually wiped out the *Meloidogyne arenaria*, as evidenced by the extremely low numbers of juveniles and the lack of galling, even in the nontreated plots. Even though fertilizer has been applied each year, some elements are still low and overall plant growth was poor. There was significant white mold present and there was no effect of the treatments on this disease.

KANNAR NEMATODE TEST, 2023										
BLACKSHANK FARM, POND FIELD										
				% Dead				Root		
			Plant/ft ¹	Plants ²	TSWV ³	Galling ⁴	WM ⁵	Knot ⁶	Ring ⁷	Yield
Treatment	App's	Rate/A	1-Jun	1-Jun	22-Aug	2-Oct	4-Oct	24-Aug	24-Aug	lb/A
1. Untreated			2.6	0.0	18.8	0.0	40.8	2.6	94.6	1255
2. K-357	In Furrow	5.0 fl oz	2.7	0.0	15.6	0.0	37.2	2.6	62.6	1019
3. Yellow Nematicide 2.0	In Furrow	32.0 fl oz	2.8	0.0	16.0	0.0	38.4	3.6	50.0	1045
4. Blue Nematicide 2.0	In Furrow	32.0 fl oz	2.7	0.0	14.0	0.0	41.6	3.4	79.0	1084
5. Velum	In Furrow	6.5 fl oz	2.6	0.0	11.2	0.0	33.2	9.0	27.6	1291
6. Nematicide O	In Furrow	5.0 fl oz	2.7	0.0	22.4	0.0	35.2	2.0	54.6	1019
7. Yellow Nematicide 2.0 + Blue Nematicide 2.0	In Furrow	16.0 fl oz 16.0 fl oz	3.0	0.0	17.2	0.0	42.8	2.2	61.0	1000
LSD(P<0.05)	-	-	0.3	N. S.	10.7	N. S.	9.1	N. S.	N. S.	N. S.
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.										
% Dead Plants ² =The % of emerged plants that were dead or dying per plot.										
TSWV ³ =Percent of row feet infected based on disease loci (up to 12" linear row) per plot.										
Galling ⁴ = Visual rating of the percent of pods and roots (1-100) with visible damage from root-knot nematode.										
White Mold ⁵ =Percent of row feet infected based on disease loci (up to 12" linear row) per plot.										
Root-knot ⁶ = Number of <i>M. arenaria</i> juvenile per 100 cc of soil.										
Ring ⁷ = Population of ring nematodes per 100 cc of soil.										

PROFARM NEMATODE TEST, 2023

- A. PURPOSE: To evaluate the comparative efficacy of labeled and experimental nematicides applied for the control of 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 and TifNV-HiOL

C. APPLICATION OF TREATMENTS:

1. Equipment: In furrow sprays applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
2. Treatment sprays: In furrow sprays applied at planting on May 4, and 30 DAP applications applied on June 2.
3. Cover Sprays: Plots were cover sprayed with Chlorothalonil (1.5 pts/a) on June 8, June 22, July 5, July 19, Aug. 8, Aug. 16, and Aug. 30, and Elatus (9 oz/a) on July 5, July 19, and Aug. 8.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Pond Field, Tifton, GA 31794
2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
3. Soil Fertility: pH: 5.94 P: 30.18 K: 14.55 Ca: 175.8 Mg: 8.97
Soil type: Tifton loamy sand, 2 – 5% slope.
4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 19.
Rototilled to incorporate.
5. Insecticides: None.
6. Planting Info: GA-06G and TifNV-HiOL
6.6 seed/ft (2" deep) on May 4.
7. Harvest Dates: Dug – Oct. 2 Picked – Oct. 5

E: SUMMARY:

Peanut has been cultivated in this field for many years. The lack of crop rotation and the sandy soil is conducive to root knot nematodes, however over the years a high population of *Pasteuria penetrans* has developed and virtually wiped out the *Meloidogyne arenaria*, as evidenced by the low numbers of juveniles and the minimal root and pod galling, even in the nontreated plots. There were some differences in treatments, with the most obvious being the reduced damage and higher yields with the nematode-resistant cultivar, TifNV-HiOL.

PROFARM NEMATODE TEST, 2023

BLACKSHANK FARM, POND FIELD

				% Dead			Root		
			Plant/ft ¹	Plants ²	TSWV ³	Galling ⁴	Knot ⁵	Ring ⁶	Yield
Treatments	App's	Rate/A	26-May	26-May	22-Aug	2-Oct	7-Sep	7-Sep	lb/A
GA-06G									
1. Nontreated			3.9	0.1	34.0	12.6	89.8	114.2	1607
2. Velum	In Furrow	6.5 fl oz	4.0	0.0	30.0	4.4	110.0	140.4	1988
3. MBI-306	In Furrow	20.0 fl oz	3.8	0.0	32.0	12.6	117.4	117.8	1725
4. MBI-306	In Furrow	20.0 fl oz	-	-	32.4	7.8	38.8	188.0	1622
MBI-306	30 DAP, 8 " Band*	20.0 fl oz							
5. MBI-306	30 DAP, 8 " Band*	20.0 fl oz	-	-	35.2	7.0	149.6	107.8	1487
TifNV-HiOL									
6. Nontreated			4.1	0.0	14.4	2.6	4.6	109.2	2499
LSD(P<0.05)	-	-	N. S.	N. S.	9.6	5.9	89.2	N. S.	438

*The 30 DAP banded spray was in 20 GPA.

Plant/ft¹ = Stand count is the number of emerged plants per foot of row.

% Dead Plants² = The % of emerged plants that were dead or dying per plot.

TSWV³ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Galling⁴ = Visual rating of the percent of pods and roots (1-100) with visible damage from root-knot nematode.

Root-knot⁵ = Number of *M. arenaria* juvenile per 100 cc of soil.

Ring⁶ = Population of ring nematodes per 100 cc of soil.

VALENT NEMATODE TEST, 2023

- A. PURPOSE: To evaluate the comparative efficacy of labeled and experimental nematicides applied for the control of 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: In furrow sprays applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
2. Treatment sprays: In furrow sprays applied at planting on May 4.
3. Cover Sprays: Plots were cover sprayed with Chlorothalonil (1.5 pts/a) on June 8, June 22, July 5, July 19, Aug. 8, Aug. 16, and Aug. 30, and Elatus (9 oz/a) was sprayed on July 5, July 19, and Aug. 8.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Pond Field, Tifton, GA 31794
2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
3. Soil Fertility: pH: 5.94 P: 30.18 K: 14.55 Ca: 175.8 Mg: 8.97
Soil type: Tifton loamy sand, 2 – 5% slope.
4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 19.
Rototilled to incorporate.
5. Insecticides: None.
6. Planting Info: GA-06G, 6.6 seed/ft (2" deep) on May 4.
7. Harvest Dates: Dug – Oct. 2 Picked – Oct. 5

E: SUMMARY:

Peanut has been cultivated in this field for many years. The lack of crop rotation and the sandy soil is conducive to root knot nematodes, however over the years a high population of *Pasteuria penetrans* has developed and virtually wiped out the *Meloidogyne arenaria*, as evidenced by the low numbers of juveniles and the minimal root and pod galling, even in the nontreated plots. While there were some treatment effects on intensity of galling, this level of damage was insufficient to impact yield.

VALENT NEMATODE TEST, 2023

BLACKSHANK FARM, POND FIELD

				% Dead		Root			
			Plant/ft ¹	Plants ²	TSWV ³	Knot ⁴	Ring ⁵	Galling ⁶	Yield
Treatments	App's	Rate/A	26-May	26-May	22-Aug	24-Aug	24-Aug	28-Sep	lb/A
1. Admire Pro	In Furrow	8.5 fl oz	3.7	0.1	30.4	22.0	23.2	4.2	1015
2. VBC-90063B	In Furrow	8.0 fl oz	4.1	0.1	24.0	11.2	4.8	1.6	986
+ Admire Pro		8.5 fl oz							
3. Velum	In Furrow	6.5 fl oz	3.9	0.0	22.8	8.2	4.8	1.6	1199
+ Admire Pro		8.5 fl oz							
4. VBC-90062B	In Furrow	8.0 fl oz	3.9	0.0	30.8	25.6	4.0	2.6	1141
+ Admire Pro		8.5 fl oz							
5. VBC-90062B	In Furrow	10.0 fl oz	3.9	0.1	24.4	25.6	6.0	0.4	1015
+ Admire Pro		8.5 fl oz							
LSD(P<0.05)	-	-	0.4	N. S.	10.9	N. S.	12.7	2.9	N. S.

Plant/ft¹ = Stand count is the number of emerged plants per foot of row.

% Dead Plants² = The % of emerged plants that were dead or dying per plot.

TSWV³ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Root-knot⁴ = Number of *M. arenaria* juvenile per 100 cc of soil.

Ring⁵ = Population of ring nematodes per 100 cc of soil.

Galling⁶ = Visual rating of the percent of pods and roots (1-100) with visible damage from root-knot nematode.

DAILY RAINFALL, 2023

BLACKSHANK FARM, POND FIELD

DATE	Mar	Apr	May	June	July	Aug	Sep	Oct
1	0	0	0	0	0.10	0	0	0
2	0	0	0	0	0	0	0	0
3	0.60	0	0	0	0.25	1.25	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0.75	0	0
7	0	0	0	0	0	0	0	0
8	0	1.50	0	0.05	0	1.50	0	0
9	0	0	0	0.10	1.05	0.25	0	0
10	0	0	0	0	1.00	0	0	0
11	0	0	0.10	0	0	0	0	0
12	0.75	0	1.25	0.20	0	0	0.80	1.25
13	0	0	0	0.30	0	0	0	0
14	0	0	0	0.20	0	0.20	0	0
15	0	0.30	0	0.20	0.80	0.10	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0.25	0	0	0.25	0
18	1.00	0	0	0.90	0	0	0	0
19	0	0	0.50	0	0	0	0	0
20	0	0	0	1.20	0	0	0	0
21	0	0	0.25	0	0	0	0	0
22	0	0	0.50	0.20	2.00	0	0	0
23	0	0	0	0.80	0.50	0	0	0
24	0	0	0.01	0	0	0	0	0
25	0.50	0	0	0	0	0	0	0
26	0	0	0	0	0	0	1.25	0
27	0.25	0	0	0	0	0	0	0
28	0.75	2.25	0	0	0	0	0	0
29	0	0.30	0	0	0.50	0	0	0
30	0	0	0	0	0	2.00	0	0
31	0	0	0.30	0	0	0.75	0	0
TOTAL (inches)	3.85	4.35	2.90	4.35	6.20	6.80	2.30	1.25

*Irrigated as needed.

NEMATODE CULTIVAR TEST, 2023

- A. PURPOSE: To evaluate the comparative susceptibility of peanut cultivars with and without in furrow treatments to major 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: Commercial cultivars
- C. APPLICATION OF TREATMENTS:
1. Equipment: In furrow sprays applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Treatment sprays: In furrow sprays were applied at planting on May 15.
 3. Cover Sprays: Plots were cover sprayed with Chlorothalonil (1.5 pts/a) on June 19, July 5, July 19, Aug. 7, Aug. 16, Aug. 30, and Sep. 11.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, Woods Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.34 P: 50.26 K: 25.53 Ca: 234.1 Mg: 10.71
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 19.
Rototilled to incorporate.
 5. Insecticides: None.
 6. Planting Info: Commercial cultivars, 6.6 seed/ft (2” deep) on May 15.
 7. Harvest Dates: Dug – Oct. 5 Picked – Oct. 9

E: SUMMARY:

Peanut has been cultivated in this field for many years. The lack of crop rotation and the sandy soil is conducive to root knot nematodes, however over the years a high population of *Pasteuria penetrans* has developed and virtually wiped out the *Meloidogyne arenaria*, as evidenced by the low numbers of juveniles and the minimal root and pod galling, even in the nontreated plots. The deep sand and lower fertility reduced the yield potential, but the primary benefit of this trial would be a comparison of these new nematode-resistant cultivars in a low yield situation where root knot nematodes are not a factor. With very little seedling disease or nematode pressure, there was no benefit of applying the Velum in furrow.

<u>NEMATODE CULTIVAR TEST, 2023</u>							
BLACKSHANK, WOODS FIELD							
			TSWV ¹	Galling ²	Root		
			22-Aug	5-Oct	Knot ³	Ring ⁴	Yield
Cultivar	In Furrow	Rate/A			24-Aug	24-Aug	lb/A
1. Georgia-22MPR	Velum	6.84 fl oz	16.0	0.0	0.0	79.2	1985
2. Georgia-22MPR	None	-	16.8	0.0	2.0	113.4	2046
3. TifNV-HG	Velum	6.84 fl oz	14.8	0.0	0.2	60.2	2187
4. TifNV-HG	None	-	11.2	0.0	0.0	25.8	1893
5. Tif-Jumbo	Velum	6.84 fl oz	18.4	0.0	0.2	32.2	2189
6. Tif-Jumbo	None	-	16.8	0.0	1.4	81.8	2417
7. TifNV-HiOL	Velum	6.84 fl oz	14.8	0.0	0.0	117.8	2010
8. TifNV-HiOL	None	-	19.6	0.0	0.0	84.4	2003
9. GA-06G	Velum	6.84 fl oz	21.0	2.0	1.8	31.0	1679
10. GA-06G	None	-	28.4	1.2	3.8	162.6	1618
LSD(P<0.05)			8.2	0.8	2.9	87.9	346
TSWV ¹ =Percent of row feet infectd based on disease loci (up to 12" linear row) per plot.							
Galling ² = Visual rating of the percent of pods and roots (1-100) with visible damage from root-knot nematode.							
Root-knot ³ = Number of <i>M. arenaria</i> juvenile per 100 cc of soil.							
Ring ⁴ = Population of ring nematodes per 100 cc of soil.							

<u>DAILY RAINFALL, 2023</u>								
BLACKSHANK FARM, WOODS FIELD								
DATE	Mar	Apr	May	June	July	Aug	Sep	Oct
1	0	0	0	0	0.10	0	0	0
2	0	0	0	0	0	0	0	0
3	0.60	0	0	0	0.25	1.25	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0.75	0	0
7	0	0	0	0	0	0	0	0
8	0	1.50	0	0.05	0	1.50	0	0
9	0	0	0	0.10	1.05	0.25	0	0
10	0	0	0	0	1.00	0	0	0
11	0	0	0.10	0	0	0	0	0
12	0.75	0	1.25	0.20	0	0	0.80	1.25
13	0	0	0	0.30	0	0	0	0
14	0	0	0	0.20	0	0.20	0	0
15	0	0.30	0	0.20	0.80	0.10	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0.25	0	0	0.25	0
18	1.00	0	0	0.90	0	0	0	0
19	0	0	0.50	0	0	0	0	0
20	0	0	0	1.20	0	0	0	0
21	0	0	0.25	0	0	0	0	0
22	0	0	0.50	0.20	2.00	0	0	0
23	0	0	0	0.80	0.50	0	0	0
24	0	0	0.01	0	0	0	0	0
25	0.50	0	0	0	0	0	0	0
26	0	0	0	0	0	0	1.25	0
27	0.25	0	0	0	0	0	0	0
28	0.75	2.25	0	0	0	0	0	0
29	0	0.30	0	0	0.50	0	0	0
30	0	0	0	0	0	2.00	0	0
31	0	0	0.30	0	0	0.75	0	0
TOTAL (inches)	3.85	4.35	2.90	4.35	6.20	6.80	2.30	1.25
*Irrigated as needed.								

BASF NEMATODE TEST, 2023

- A. PURPOSE: To evaluate seed treatment management for peanut nematodes.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with six 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: GA-06G
- C. APPLICATION OF TREATMENTS:
1. Equipment: In furrow spray applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Treatment sprays: In furrow spray was applied at planting on May 15.
 3. Cover Sprays: Plots were cover sprayed with Chlorothalonil (1.5 pts/a) on June 19, July 5, July 19, Aug. 7, Aug. 16, Aug. 30, and Sep. 11, and Elatus (9 oz/a) was sprayed on July 19, Aug. 7, and Aug. 16.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, Irr/Non Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 5.94 P: 28.18 K: 40.64 Ca: 267.7 Mg: 21.52
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 8.
Rototilled to incorporate.
 5. Insecticides: None.
 6. Planting Info: GA-06G, 6.6 seed/ft (2" deep) on May 15.
 7. Harvest Dates: Dug – Oct. 6 Picked – Oct. 10

E: SUMMARY:

There were significant levels of galling from root knot nematodes as well as from populations of J2's in the soil late season. There were some differences among treatments for both parameters as well as yield, but yield was not highly correlated with galling, indicating that other factors may have been involved.

BASF NEMATODE TEST, 2023									
BLACKSHANK FARM, IRR/NON FIELD									
				% Dead			Root		
			Plant/ft ¹	Plants ²	TSWV ³	Galling ⁴	Knot ⁵	Ring ⁶	Yield
Treatment	App's	Rate/A	1-Jun	1-Jun	21-Aug	5-Oct	7-Sep	7-Sep	lb/A
1. Treatment 1	Seed Trt	-	3.1	0.0	24.2	28.3	68.3	135.7	5803
2. Treatment 2	Seed Trt	-	2.9	0.0	18.8	20.5	547.5	190.2	6057
3. Treatment 3	Seed Trt	-	3.1	0.0	20.4	22.5	172.8	347.7	5663
4. Treatment 1	Seed Trt	-		0.0	18.3	13.5	262.8	385.3	5282
+ Velum	In Furrow	6.5 fl oz	3.2						
LSD(P<0.05)			N. S.	N. S.	N. S.	10.2	275.4	166.9	739
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.									
% Dead Plants ² = The % of emerged plants that were dead or dying per plot.									
TSWV ³ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.									
Galling ⁴ = Visual rating of the percent of pods and roots (1-100) with visible damage from root-knot nematode.									
Root-knot ⁵ = Number of <i>M. arenaria</i> juvenile per 100 cc of soil.									
Ring ⁶ = Population of ring nematodes per 100 cc of soil.									

FMC XYWAY TEST I, 2023

- A. PURPOSE: To evaluate the comparative efficacy of various Xyway LFR application methods at planting for the control of soil borne and foliar diseases.
- 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: TifNV-HiOL

C. APPLICATION OF TREATMENTS:

1. Equipment: T band treatment sprays used in furrow nozzle raised to band 4-6 inches over open furrow and were applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Surface band treatments were applied over the top of the row in a 4-6-inch band at 50 PSI going 3.5 MPH in 20 GPA using a CO2 unit with one 8003 flat fan tip per row and 50 mesh ball check screens. Treatment sprays 1-7 were applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens.
2. Treatment sprays: T band sprays were applied at planting on May 9, and surface band sprays were applied after planting on May 9. Applications 1-7 were applied on June 13, June 26, July 12, July 25, Aug. 7, Aug. 22, and Sep. 4.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, Irr/Non Field, Tifton, GA 31794
2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
3. Soil Fertility: pH: 5.94 P: 28.18 K: 40.64 Ca: 267.7 Mg: 21.52
Soil type: Tifton loamy sand, 2 – 5% slope.
4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 8.
Rototilled to incorporate.
5. Insecticides: Thimet (5 lbs/a) on May 9.
6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 9.
7. Additional Info: An adjusted cultivator was run through the field on July 17 in order to throw soil on the peanut lower limbs and crowns of the plants to increase white mold infection throughout the test.
8. Harvest Dates: Dug – Oct. 2 Picked – Oct. 6

E: SUMMARY:

The mid season “dirt” cultivation clearly impacted white mold and lead to increased levels of disease, which served to separate treatments and impact yields. The Convoy as well as some early season treatments reduced disease levels and increased yields. There were generally good stands, but some delay of emergence with higher rates of at plant treatments. There was lower than expected levels of leaf spot present, primarily early leaf spot, and some treatment differences. As often seen in nematode-resistant lines, there was also significant physiological spotting on foliage that confounded evaluations of leaf spot. There were no differences in incidence of TSWV.

FMC XYWAY TEST I, 2023

BLACKSHANK FARM, IRR/NON FIELD

			Plant/ft ¹	% Dead Plants ²	TSWV ³	LS ⁴	WM ⁵	Yield
Treatment	App's	Rate/A	26-May	26-May	21-Aug	2-Oct	4-Oct	lb/A
1. Untreated	-	-	3.6	0.0	26.3	5.3	61.9	2942
2. Xyway LFR	T Band*	12.7 fl oz	3.6	0.0	26.3	4.2	44.4	3772
Bravo	2 – 7	1.5 pt						
3. Xyway LFR	T Band*	25.4 fl oz	2.9	0.2	30.0	4.1	41.3	3623
Bravo	2 – 7	1.5 pt						
4. Xyway LFR	T Band*	12.7 fl oz	-	-	31.3	4.1	53.8	3492
Bravo	4 – 7	1.5 pt						
5. Xyway LFR	T Band*	25.4 fl oz	-	-	34.2	4.0	36.3	3470
Bravo	4 – 7	1.5 pt						
6. Xyway LFR	Surface Band**	12.7 fl oz	4.1	0.0	29.2	4.1	51.9	3347
Bravo	2 – 7	1.5 pt						
7. Xyway LFR	Surface Band**	25.4 fl oz	4.0	0.0	25.6	4.3	63.8	3069
Bravo	2 – 7	1.5 pt						
8. Xyway LFR	Surface Band**	12.7 fl oz	-	-	30.0	5.5	56.3	3035
Bravo	4 – 7	1.5 pt						
9. Xyway LFR	Surface Band**	25.4 fl oz	-	-	23.1	4.5	54.4	3178
Bravo	4 – 7	1.5 pt						
10. Bravo	1 – 7	1.5 pt	-	-	36.9	4.3	70.0	2817
11. Bravo	1 – 7	1.5 pt		-	35.0	3.8	28.1	4911
Convoy***	3 & 5	32.0 fl oz	-					
12. Velum	In Furrow	6.84 fl oz	3.7	0.0	33.1	4.3	45.6	3743
Bravo	4 – 7	1.5 pt						
LSD(P<0.05)	-	-	0.4	N. S.	N. S.	0.7	19.0	809

* T Band used in furrow nozzle raised to band 4-6 inches over open furrow.

** Surface band was applied over the top of the row in a 4-6 inch band in 20 GPA.

*** Convoy app's were broadcast by backpack.

Plant/ft¹ = Stand count is the number of emerged plants per foot of row.

% Dead Plants²=The % of emerged plants that were dead or dying per plot.

TSWV³=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Leaf Spot⁴ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold⁵=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

IN FURROW MIX TEST I, 2023

- A. PURPOSE: To evaluate the comparative efficacy of labeled in furrow fungicides on untreated seed.
- 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: Untreated compromised GA-06G (lot #6832, 69% germ w/ Rancona) 42% *A. niger* and 54% *Rhizopus* in nontreated seed
- C. APPLICATION OF TREATMENTS:
1. Equipment: In furrow sprays applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO₂ unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Treatment sprays: In furrow sprays applied at planting on May 26.
 3. Cover Sprays: Plots were cover sprayed with Chlorothalonil (1.5 pts/a) on June 27, July 12, July 27, Aug. 8, Aug. 23, Sep. 5, and Sep. 19, and Elatus (9 oz/a) on July 27, Aug. 8, and Aug. 23.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, Irr/Non Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 5.94 P: 28.18 K: 40.64 Ca: 267.7 Mg: 21.52
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 8.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 26.
 6. Planting Info: Untreated GA-06G, 6.6 seed/ft (2" deep) on May 26.

7. Harvest Dates:

Dug – Oct. 6

Picked – Oct. 10

E: SUMMARY:

Following planting, the test site experienced heavy rain/irrigation and cold soil temperatures that were very challenging for plant stand establishment, especially considering the poor quality of seed used. The seed were selected to insure disease pressure and separation of effective and ineffective treatments, but the combination of poor seed and highly stressed environment created a real acid test for seed/seedling diseases. It should be noted that these conditions are very unfavorable for development of *Aspergillus spp.* which have been the primary pathogens in recent years. There was some *Aspergillus* crown rot (*Aspergillus niger*), which was responsible for the “Dead plant” ratings, and the Velum in furrow was highly active as we have seen previously. However, none of the in furrow treatments were able to provide equal plant stands or yields as did the Rancona seed treatment.

IN FURROW MIX TEST I, 2023									
BLACKSHANK FARM, IRR/NON FIELD									
			Plant/ft ¹		% Dead Plants ²			Roots/ft ³	Yield
Seed Treatment	In furow	Rate/A	9-Jun	20-Jun	9-Jun	20-Jun	29-Jun	29-Sep	lb/A
1. None	None	-	0.4	0.4	2.1	9.0	11.6	0.2	375
2. None	Velum	4.3 fl oz	0.4	0.4	0.0	0.0	0.0	0.3	717
3. None	Abound	6.0 fl oz	0.5	0.3	0.0	19.2	23.0	0.2	539
4. None	Kphite	32.0 fl oz	0.5	0.4	3.0	19.3	22.0	0.2	539
5. None	Velum	4.3 fl oz	0.8	0.9	0.0	1.6	2.3	0.7	1341
	+ Abound	6.0 fl oz							
	+ Kphite	32.0 fl oz							
6. Rancona VPD*	None	-	1.9	1.7	0.0	1.0	1.9	1.6	2728
LSD(P<0.05)	-	-	0.4	0.4	N. S.	N. S.	19.0	0.3	590
* Rancona VPD applied at 4 oz/100 lb.									
Seed used was untreated GA-06G from Olam Lot 677.									
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.									
% Dead Plants ² = The % of emerged plants that were dead or dying per plot.									
Roots/ft ³ = Number of tap roots per foot of row after the plots were inverted.									

NICHINO FUNGICIDE TEST, 2023

- A. PURPOSE: To evaluate the comparative efficacy of commercial and experimental applied fungicides for the control of foliar and soil borne diseases.
- 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: TifNV-HiOL
- C. APPLICATION OF TREATMENTS:
1. Equipment: Treatment sprays applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens.
 2. Treatment sprays: Sprays were applied on June 13, June 26, July 10, July 24, Aug. 7, Aug. 22, and Sep. 4.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, Irr/Non Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 5.94 P: 28.18 K: 40.64 Ca: 267.7 Mg: 21.52
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 8.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 9.
 6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 9.
 7. Additional Info: An adjusted cultivator was run through the field on July 17 in order to throw soil on the peanut canopy, which covered lower vines. The purpose was to increase white mold infection throughout the test.
 8. Harvest Dates: Dug – Oct. 2 Picked – Oct. 6

E: SUMMARY:

The mid season “dirting” cultivation clearly impacted white mold and lead to increased levels of disease, which served to separate treatments and impact yields. The Convoy as well as some early season treatments greatly reduced disease levels and increased yields by more than 2000 lb/A. Overall, this was an excellent trial to determine efficacy of fungicides on white mold. There was a moderate level of leaf spot present, primarily early leaf spot, and some treatment differences. As often seen in nematode-resistant lines, there was also significant physiological spotting on foliage that confounded evaluations of leaf spot.

NICHINO FUNGICIDE TEST, 2023					
			LS ¹	WM ²	Yield
Seed Treatment	In furrow	Rate/A	2-Oct	4-Oct	lb/A
1. Nontreated			6.5	42.5	3867.8
2. Bravo	1, 2, & 7	1.5 pt	4.0	21.3	5330.7
Bravo	3 - 6	1.5 pt			
+ Convoy		16.0 fl oz			
3. Priaxor	2	6.0 fl oz	4.4	14.4	5372.4
Bravo	3 & 5	1.0 pt			
+ Alto		5.5 fl oz			
+ Convoy		32.0 fl oz			
Bravo	4 & 6	1.0 pt			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
4. Bravo	1, 4, & 7	1.0 pt	3.8	11.9	6265.4
+ Orius		7.2 fl oz			
Alto	2 & 6	5.5 fl oz			
Elatus 45WG	3 & 5	9.5 oz			
+ Miravis		3.4 fl oz			
5. Bravo	1, 4, & 7	1.5 pt	4.1	7.5	5677.3
Bravo	2	16.0 fl oz			
+ Excalia		2.0 fl oz			
Bravo	3 & 5	16.0 fl oz			
+ Excalia		3.0 fl oz			
Bravo	6	1.0 pt			
+ Orius		7.2 fl oz			
6. Bravo	1, 2, 4, 6 & 7	1.5 pt	3.9	21.9	4784.3
NAI-5333	3 & 5	36.4 fl oz			
7. Bravo	1, 2, 4, 6 & 7	1.5 pt	4.0	21.9	5328.8
NAI-5333	3 & 5	18.3 fl oz			
8. Bravo	1, 2 & 7	1.5 pt	4.1	10.0	5515.8
NAI-5333	3 & 5	36.4 fl oz			
9. Bravo	1, 2 & 7	1.5 pt	3.8	16.3	5535.8
NAI-5333	3 - 6	18.3 fl oz			
10. Bravo	1, 2, 4, 6 & 7	1.5 pt	3.6	10.0	5969.5
NAI-4333	3 & 5	29.5 fl oz			
11. Bravo	1, 2, 4, 6 & 7	1.5 pt	3.8	26.3	5089.3
NAI-4333	3 & 5	14.8 fl oz			
12. Bravo	1, 2 & 7	1.5 pt	4.5	16.3	5410.5
NAI-4333	3 & 5	29.5 fl oz			
13. Bravo	1, 2 & 7	1.5 pt	3.9	12.5	6205.5
NAI-4333	3 - 6	14.8 fl oz			
14. Lucento	2 & 4	5.5 fl oz	3.6	13.1	6016.7
Bravo	3 & 5	1.5 pt			
+ Convoy		32.0 fl oz			
Bravo	6	1.0 pt			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
LSD(P<0.05)			0.7	12.5	898

Leaf Spot¹ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold²=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

<u>DAILY RAINFALL, 2023</u>								
BLACKSHANK FARM, IRRIGATED/NON FIELD								
DATE	Mar	Apr	May	June	July	Aug	Sep	Oct
1	0	0	0	0	0.10	0	0	0
2	0	0	0	0	0	0	0	0
3	0.60	0	0	0	0.25	1.25	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0.75	0	0
7	0	0	0	0	0	0	0	0
8	0	1.50	0	0.05	0	1.50	0	0
9	0	0	0	0.10	1.05	0.25	0	0
10	0	0	0	0	1.00	0	0	0
11	0	0	0.10	0	0	0	0	0
12	0.75	0	1.25	0.20	0	0	0.80	1.25
13	0	0	0	0.30	0	0	0	0
14	0	0	0	0.20	0	0.20	0	0
15	0	0.30	0	0.20	0.80	0.10	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0.25	0	0	0.25	0
18	1.00	0	0	0.90	0	0	0	0
19	0	0	0.50	0	0	0	0	0
20	0	0	0	1.20	0	0	0	0
21	0	0	0.25	0	0	0	0	0
22	0	0	0.50	0.20	2.00	0	0	0
23	0	0	0	0.80	0.50	0	0	0
24	0	0	0.01	0	0	0	0	0
25	0.50	0	0	0	0	0	0	0
26	0	0	0	0	0	0	1.25	0
27	0.25	0	0	0	0	0	0	0
28	0.75	2.25	0	0	0	0	0	0
29	0	0.30	0	0	0.50	0	0	0
30	0	0	0	0	0	2.00	0	0
31	0	0	0.30	0	0	0.75	0	0
TOTAL (inches)	3.85	4.35	2.90	4.35	6.20	6.80	2.30	1.25
*Irrigated as needed.								

MULTI-STATE DISEASE EVALUATION

TEST, 2023

- 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 breeding lines and cultivars.
 6. The nematode evaluation used inoculated plants in the greenhouse.
- C. APPLICATION OF TREATMENTS:
1. Equipment: Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Cover sprays: Chlorothalanil (1.5 pt/a) was applied on June 27, July 12, July 26, Aug. 21, Sep. 5, and Sep. 19.
 3. Inoculated test with white mold on July 26.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, Banana Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11. Field was fumigated with 300 lb/a of Tri-Pic 100 by injecting into soil and covering with plastic on April 14.
 3. Soil Fertility: pH: 6.11 P: 12.52 K: 36.06 Ca: 242.2 Mg: 17.79
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Planting Info: Multiple Varieties, 6 seed/ft (2” deep) on May 19.
 5. Harvest Dates: Dug – Oct. 16 Picked – Oct. 20
- E: SUMMARY:

This trial provided excellent separation of genotypes for susceptibility to white mold, root knot nematodes, and TSWV. Leaf spot pressure was low, but overall some very promising genotypes were identified for several of these diseases.

MULTISTATE/RIL FIELD TEST, 2023

BLACKSHANK FARM, BANANA FIELD

Genotypes	White Mold (4-Oct)			TSWV ³	LS ⁴	Yield	Eggs ⁵	Root Gall ⁵	Root Vigor ⁶
	% Zeroes ¹	No Zeroes ²	All ²	21-Aug	5-Oct	lb/A			
1. CB 1	4.2	50.8	54.1	11.2	2.75	4477	4.6	4.9	4.8
2. CB 2	12.5	39.7	39.8	34.1	2.06	4429	4.8	4.8	4.0
3. CB 7	0.0	60.0	60.0	17.5	2.50	4908	4.0	4.2	3.3
4. CB 19	8.3	39.8	38.1	13.3	2.56	5559	0.6	0.9	4.0
5. CB 20	20.8	33.4	26.5	14.2	2.69	5965	0.0	0.6	4.0
6. CB 24	50.0	53.6	22.6	18.3	2.06	6413	4.7	5.0	3.7
7. 17-223	41.7	23.4	14.4	5.4	2.88	7253	4.8	4.8	3.0
8. 17-1638	0.0	50.0	53.0	5.8	2.88	5660	0.0	0.8	2.7
9. 17-2208	4.2	45.3	43.1	9.2	2.69	6014	4.3	4.5	3.3
10. C2552-5&7-11C	8.3	69.4	57.8	6.7	4.13	4734	1.8	2.1	4.0
11. C2552-5&7-16C	0.0	45.4	45.4	11.7	3.88	5660	0.8	2.3	3.4
12. C2454-2-91	12.5	37.8	35.0	3.3	2.81	6367	5.0	5.0	4.3
13. 14-2464	4.2	37.8	36.0	12.5	3.00	5593	0.0	0.0	4.0
14. 14-2585	0.0	51.5	51.5	25.0	2.63	3949	1.3	1.5	3.5
15. 14-2599	0.0	55.2	55.2	16.7	2.88	4400	1.1	2.5	4.0
16. 17-165	4.2	62.4	58.8	27.1	2.75	4980	4.4	4.8	4.2
17. 16-4534	0.0	57.7	57.7	13.7	2.88	5150	5.0	5.0	3.5
18. 14X054-8-6-1-1	12.5	31.5	28.5	0.0	2.56	7081	5.0	5.0	4.0
19. 14X068-H03-14-1-1	12.5	42.2	39.0	2.9	3.19	6890	5.0	5.0	3.0
20. 14X068-H04-12-1-1	0.0	52.7	52.7	2.1	3.31	5571	5.0	5.0	4.0
21. 14X070-H04-2-1-1	0.0	55.8	60.1	2.5	2.31	4682	5.0	5.0	3.7
22. 15X092-H01-3-1-1	12.5	37.7	33.5	3.7	1.94	6345	4.7	5.0	4.7
23. 15X084-H01-SSD-19	4.2	57.0	54.4	7.5	1.94	5114	5.0	5.0	4.3
24. 15X084-H01-SSD-21	0.0	47.7	47.7	9.2	2.44	4150	4.7	4.7	4.0
25. 15X084-H01-SSD-31	0.0	58.9	55.4	2.5	2.06	4513	4.8	4.8	3.7
26. 15X102-6-1-1-3	0.0	66.9	66.9	16.7	3.38	4719	5.0	5.0	3.8
27. 14X009-1-10-1-1	0.0	58.5	58.5	10.0	4.50	5934	4.8	4.8	4.0
28. 11X23-3-6-H	8.3	51.5	47.9	20.8	2.94	5656	4.2	4.4	4.2
29. 14X075-H05-1-1-1	12.5	46.2	34.8	5.8	2.56	6626	5.0	5.0	4.5
30. ACI-N104	25.0	42.8	32.1	25.0	2.88	5406	1.9	2.4	3.5
31. M14-1453	25.0	34.1	26.0	25.8	2.19	5051	5.0	5.0	3.0
32. ACI-222	33.3	39.2	25.4	10.0	2.06	5810	0.0	0.0	3.0
33. ACI-3321	4.2	49.4	46.9	20.0	2.75	5837	3.0	3.5	3.5
34. M15-0129	4.2	49.7	47.7	13.3	2.81	4888	4.5	4.5	4.0
35. IPG2301	0.0	59.2	60.1	33.3	2.06	3296	5.0	5.0	4.4
36. IPG2302	0.0	60.8	58.1	39.1	2.94	5080	4.7	5.0	4.3
37. IPG2303	4.2	53.5	51.7	25.8	2.44	3988	5.0	5.0	4.0
38. IPG2304	4.2	61.7	59.4	34.1	2.56	3560	5.0	5.0	3.5
39. IPG2305	0.0	60.0	60.0	67.4	3.13	2539	5.0	5.0	4.0
40. TifJumbo	20.8	37.1	29.5	26.6	2.31	5810	1.8	2.1	3.8
41. TifNV-HG	8.3	53.6	50.7	16.7	2.44	5656	1.3	1.9	4.3
42. TifNV-High O/L	16.7	28.0	23.1	16.7	2.56	6065	1.3	2.4	3.6
43. GA-06G	0.0	42.5	42.5	39.1	3.44	4903	4.9	5.0	4.3
44. GA-21GR	0.0	61.9	63.3	11.7	3.31	5145	1.0	4.5	4.0
45. TUFRunner 297	3.25
46. GA-20VHO	0.0	70.8	70.8	11.7	3.00	4184	5.0	5.0	4.3
47. GA-19HP	8.3	59.6	55.0	15.0	2.94	5152	1.6	1.8	4.0
48. GA-18RU	4.2	62.0	59.8	39.1	4.25	3712	4.5	4.8	4.5
49. Florun T61	33.3	32.8	22.7	13.3	3.33	6638	2.8	3.3	4.0
50. GA-22MPR	16.7	49.2	35.3	16.7	2.94	4876	0.0	1.0	4.3
51. GA-09B	0.0	56.3	56.3	40.0	4.50	4448	5.0	5.0	4.0
52. GA-12Y	20.8	33.0	27.8	7.5	3.13	6045	4.3	4.5	3.7
LSD(P<0.05)	12.5	20.9	19.4	17.6	0.74	1310	1.6	1.5	0.9

¹Percent of plants inoculated with *S. rolfisii* that had no disease.

²Average length of the white mold "hits" (cm) calculated with and without "0's".

TSWV³=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Leaf Spot⁴=Florida 1 - 10 scale where 1=no disease and 10=dead plant.

Root-gall and egg-mass⁵=Index on 0 to 5 scale: 0, no galls or no egg-masses; 1, 1-2; 2, 3-10; 4, 31-100; 5, more than 100 galls or egg masses per root system.

Root-Vigor⁶=1 to 5 scale, with 1 being very small, and 5 being very large.

RHIZOCTONIA FUNGICIDE TEST, 2023

- A. PURPOSE: To evaluate the comparative efficacy of registered and experimental fungicides applied for the control of soil borne diseases, particularly *Rhizoctonia* limb rot.
- 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: GA-12Y
- C. APPLICATION OF TREATMENTS:
1. Equipment: Treatment sprays applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens. Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Treatments: Treatment sprays were applied on Aug. 21, Sep. 5, and Sep. 19. Oat grains colonized by *Rhizoctonia solani* (isolate RS13, AG-4) were applied on July 25. 500 ml of oats were applied to each row, for a total of 1 L per plot. Oats were evenly sprinkled over the length of the row, and the canopy was gently brushed afterwards to allow the oats to fall through to the ground.
 3. Cover Sprays: Chlorothalanil (1.5 pt/a) was applied on June 27, July 12, July 26, Aug. 21, Sep. 5, and Sep. 19.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, Banana Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.11 P: 12.52 K: 36.06 Ca: 242.2 Mg: 17.79
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Planting Info: GA-12Y, 6.6 seed/ft (2” deep) on May 26.
 5. Harvest Dates: Dug – Oct. 16 Picked – Oct. 23

E: SUMMARY:

GA-12Y is highly susceptible to limb rot and grows vigorously. Conditions were very favorable for infection, and some disease developed. The inoculation apparently was successful as evidenced by the ratings of the inoculated vs noninoculated control plots. However, the epidemic did not get as severe as anticipated. Some differences in disease development were noted, but none impacted yield as has been seen in the past.

<u>RHIZOCTONIA FUNGICIDE TEST, 2023</u>					
BLACKSHANK FARM, BANANA FIELD					
				RHIZ¹	Yield
Treatments	App's	Inoculated?	Rate/A	16-Oct	lb/A
1. Untreated	-	YES	-	20.0	6512
2. TST98	4 – 6	YES	4.28 fl oz	14.0	7095
3. VFW68	4 – 6	YES	5.80 fl oz	13.3	6611
4. VJR84	4 – 6	YES	7.0 fl oz	11.5	6626
5. Lucento	4 – 6	YES	5.5 fl oz	9.8	6130
6. Lucento + TST98	4 – 6	YES	5.5 fl oz 4.28 fl oz	14.5	6062
7. Adastrio	4 – 6	YES	8.96 fl oz	10.5	5663
8. Muscle	4 – 6	YES	7.2 fl oz	15.5	6774
9. GWN-12047	4 – 6	YES	32.0 oz	11.5	6725
10. GWN-12047	4 – 6	YES	50.0 oz	12.3	7120
11. Excalia 2.84SC	4 – 6	YES	2.5 fl oz	19.3	6660
12. Elatus 45WG	4 – 6	YES	7.14 oz	18.8	6941
13. Priaxor	4 – 6	YES	8.0 fl oz	10.5	6781
14. Untreated	-	NO	-	5.8	6701
LSD(P<0.05)	-	-	-	8.3	1314
RHIZ ¹ =% of limbs affected by <i>Rhizoctonia solani</i> . Inoculated plots with oat grain inoculum on July 25 (500 ml per row).					

<u>DAILY RAINFALL, 2023</u>								
BLACKSHANK FARM, BANANA FIELD								
DATE	Mar	Apr	May	June	July	Aug	Sep	Oct
1	0	0	0	0	0.10	0	0	0
2	0	0	0	0	0	0	0	0
3	0.60	0	0	0	0.25	1.25	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0.75	0	0
7	0	0	0	0	0	0	0	0
8	0	1.50	0	0.05	0	1.50	0	0
9	0	0	0	0.10	1.05	0.25	0	0
10	0	0	0	0	1.00	0	0	0
11	0	0	0.10	0	0	0	0	0
12	0.75	0	1.25	0.20	0	0	0.80	1.25
13	0	0	0	0.30	0	0	0	0
14	0	0	0	0.20	0	0.20	0	0
15	0	0.30	0	0.20	0.80	0.10	0	0
16	0	0	0	0	0	0	0	0
17	0	0	0	0.25	0	0	0.25	0
18	1.00	0	0	0.90	0	0	0	0
19	0	0	0.50	0	0	0	0	0
20	0	0	0	1.20	0	0	0	0
21	0	0	0.25	0	0	0	0	0
22	0	0	0.50	0.20	2.00	0	0	0
23	0	0	0	0.80	0.50	0	0	0
24	0	0	0.01	0	0	0	0	0
25	0.50	0	0	0	0	0	0	0
26	0	0	0	0	0	0	1.25	0
27	0.25	0	0	0	0	0	0	0
28	0.75	2.25	0	0	0	0	0	0
29	0	0.30	0	0	0.50	0	0	0
30	0	0	0	0	0	2.00	0	0
31	0	0	0.30	0	0	0.75	0	0
TOTAL (inches)	3.85	4.35	2.90	4.35	6.20	6.80	2.30	1.25
*Irrigated as needed.								

BASF SEEDLING DISEASE TEST, 2023

- A. PURPOSE: To evaluate the efficacy of various peanut seed treatments on peanut stands.
- 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: Untreated compromised GA-06G (lot #6832, 69% germ w/ Rancona), 42% A. niger and 54% Rhizopus in nontreated seed
- C. APPLICATION OF TREATMENTS:
1. Equipment: Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Cover Sprays: Chlorothalonil (1.5 pts/a) was sprayed on June 27, July 12, July 27, Aug. 8, Aug. 23, Sep. 5, and Sep. 21, and Elatus (9 oz/a) was sprayed on July 27, Aug. 8, and Aug. 23.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, South Field, Tifton, GA, 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.5 P: 29.2 K: 73 Ca: 643 Mg: 60.6
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 25.
 6. Planting Info: GA-06G, 6.6 seed/ft (2” deep) on May 25.
 7. Harvest Dates: Dug – Sep. 29 Picked – Oct. 3

E. SUMMARY:

Following planting, the test site experienced heavy rain/irrigation and cold soil temperatures that were very challenging for plant stand establishment, especially considering the poor quality of seed used. The seed were selected to insure disease pressure and separation of effective and ineffective treatments, but the combination of poor seed and highly stressed environment created a real acid test for seed/seedling diseases. It should be noted that these conditions are very unfavorable for development of *Aspergillus spp.* which have been the primary pathogens in recent years. There was some *Aspergillus* crown rot (*Aspergillus niger*) which was responsible for the “Dead plant” ratings, and all treatments were effective compared to the nontreated seed (entry 1). Large differences in yield resulted from the significantly different plant stands.

<u>BASF SEEDLING DISEASE TEST, 2023</u>								
LANG FARM, SOUTH FIELD								
	Plant/ft ¹		% Dead Plants ²			TSWV ³	Roots/ft ⁴	Yield
Seed Trt	5-Jun	16-Jun	5-Jun	16-Jun	29-Jun	21-Aug	29-Sep	lb/A
1	0.1	0.3	0.0	4.9	7.9	.	0.2	497
2	1.5	1.8	0.0	0.0	0.0	36.5	1.6	2493
3	1.5	1.8	0.0	0.0	0.0	39.0	1.5	2876
4	1.5	1.7	0.0	0.0	0.0	43.5	1.6	2770
5	1.7	1.9	0.0	0.0	0.0	38.0	1.5	2769
LSD(P<0.05)	0.4	0.4	N. S.	N. S.	5.9	N. S.	0.2	816
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.								
% Dead Plants ² = The % of emerged plants that were dead or dying per plot.								
TSWV ³ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.								
Roots/ft ⁴ = Number of tap roots per foot of row after the plots were inverted.								

BAYER IN FURROW RATE TEST, 2023

- A. PURPOSE: To evaluate the efficacy of full and reduced rates of in furrow fungicide treatments to control peanut seedling diseases when applied to compromised seed.
- 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: Untreated compromised GA-06G (lot #677, $\pm 70\%$ germ w/ Rancona), 35% *A. niger*, 15% *A. flavus*, and 63% *Rhizopus* in nontreated seed
- C. APPLICATION OF TREATMENTS:
1. Equipment: Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Cover Sprays: Chlorothalonil (1.5 pts/a) was sprayed on June 27, July 12, July 27, Aug. 8, Aug. 23, Sep. 5, and Sep. 21, and Elatus (9 oz/a) was sprayed on July 27, Aug. 8, and Aug. 23.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, South Field, Tifton, GA, 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.49 P: 27 K: 47.5 Ca: 784 Mg: 71.8
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 24.
 6. Planting Info: GA-06G, 6.6 seed/ft (2" deep) on May 24.
 7. Harvest Dates: Dug – Sep. 29 Picked – Oct. 3

E. SUMMARY:

Following planting, the test site experienced heavy rain/irrigation and cold soil temperatures that were very challenging for plant stand establishment, especially considering the poor quality of seed used. The seed were selected to insure disease pressure and separation of effective and ineffective treatments, but the combination of poor seed and highly stressed environment created a real acid test for seed/seedling diseases. It should be noted that these conditions are very unfavorable for development of *Aspergillus spp.* which have been the primary pathogens in recent years. There was some *Aspergillus* crown rot (*Aspergillus niger*), which was responsible for the “Dead plant” ratings. However, none of the in furrow treatments were able to provide equal plant stands or yields as did the Rancona seed treatment.

BAYER IN FURROW RATE TEST, 2023								
LANG FARM, SOUTH FIELD								
Seed Trt	In Furrow	Rate/A	Plant/ft ¹		% Dead Plants ²			Yield lb/A
			5-Jun	15-Jun	5-Jun	15-Jun	28-Jun	
1. None	None	-	0.1	0.2	0.0	0.0	4.2	369
2. None	Velum	6.5 fl oz	0.2	0.3	0.0	0.0	0.0	479
3. None	Velum	4.3 fl oz	0.1	0.2	0.0	0.0	0.0	461
4. None	Proline	5.7 fl oz	0.1	0.3	0.0	0.0	0.0	414
5. None	Proline	3.8 fl oz	0.1	0.1	0.0	0.0	0.0	293
6. None	Propulse	13.7 fl oz	0.1	0.2	0.0	0.0	0.0	413
7. None	Propulse	9.0 fl oz	0.1	0.3	0.0	0.0	0.0	565
8. None	Abound	6.0 fl oz	0.3	0.5	0.0	0.0	2.8	524
9. None	Kphite	32.0 fl oz	0.7	1.0	0.0	0.6	9.8	560
10. Rancona VPD*	None	-	1.2	1.5	0.0	0.0	0.0	865
LSD(P<0.05)	-	-	0.2	0.2	N. S.	0.6	3.3	213
*Rancona VPD applied at 4 oz/100 lb.								
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.								
% Dead Plants ² =The % of emerged plants that were dead or dying from <i>Aspergillus</i> crown rot.								
Seed was Olam Lot 677 w/ <i>A. niger</i> 35%, <i>Rhizopus</i> 63% and <i>A. flavus</i> 15%								

FMC XYWAY TEST II, 2023

- A. PURPOSE: To evaluate the comparative efficacy of various Xyway LFR application methods at planting for the control of soil borne and foliar 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: TifNV-HiOL
- C. APPLICATION OF TREATMENTS:
1. Equipment: T band treatment sprays used in furrow nozzle raised to band 4-6 inches over open furrow and were applied at 18 PSI going 3.3 MPH in 3.4 GPA using a CO2 unit with one 80015 flat fan tip per row and 50 mesh ball check screens. Surface band treatments were applied over the top of the row in a 4-6-inch band at 50 PSI going 3.5 MPH in 20 GPA using a CO2 unit with one 8003 flat fan tip per row and 50 mesh ball check screens. Treatment sprays 1-7 were applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens.
 2. Treatment sprays: T band sprays were applied at planting on May 25, and surface band sprays were applied after planting on May 25. Applications 1-7 were applied on June 27, July 12, July 27, Aug. 8, Aug. 23, Sep. 5, and Sep. 21.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, South Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.5 P: 29.2 K: 73 Ca: 643 Mg: 60.6
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 25.
 6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 25.

7. Harvest Dates: Dug – Sep. 29 Picked – Oct. 3

E: SUMMARY:

The mid season “dirtting” cultivation was not done in this trial, and white mold levels were low with few treatment differences. Leaf spot severity was less than anticipated with some differences among treatments, but not impacting yield. Plant stands were moderate, again with some delay of emergence from the higher rates of Xyway applied as a T-band. There were few yield differences, and no differences in incidence of TSWV.

FMC XYWAY TEST II, 2023

LANG FARM, SOUTH FIELD

Treatment	App's	Rate/A	Plant/ft ¹		% Dead Plants ²			TSWV ³	LS ⁴	WM ⁵	Yield
			5-Jun	16-Jun	5-Jun	16-Jun	29-Jun	21-Aug	20-Sep	28-Sep	lb/A
1. Untreated	-	-	3.0	3.2	0.0	0.0	0.0	11.5	4.0	10.0	3359
2. Xyway LFR	T Band*	12.7 fl oz	2.2	3.1	0.0	0.3	0.3	17.5	3.0	10.0	3051
Bravo	2 – 7	1.5 pt									
3. Xyway LFR	T Band*	25.4 fl oz	1.4	2.9	0.0	0.0	0.0	17.0	2.6	7.5	2419
Bravo	2 – 7	1.5 pt									
4. Xyway LFR	T Band*	12.7 fl oz	1.8	3.1	0.0	0.0	0.0	28.5	3.6	7.5	3046
Bravo	4 – 7	1.5 pt									
5. Xyway LFR	T Band*	25.4 fl oz	1.3	2.7	0.0	0.2	0.2	28.5	3.1	11.5	2612
Bravo	4 – 7	1.5 pt									
6. Xyway LFR	Surface Band**	12.7 fl oz	3.3	3.2	0.0	0.0	0.0	19.0	2.4	7.0	3557
Bravo	2 – 7	1.5 pt									
7. Xyway LFR	Surface Band**	25.4 fl oz	2.9	3.6	0.0	0.1	0.1	17.0	2.9	11.0	3665
Bravo	2 – 7	1.5 pt									
8. Xyway LFR	Surface Band**	12.7 fl oz	3.3	3.4	0.0	0.0	0.2	14.0	3.5	8.0	3684
Bravo	4 – 7	1.5 pt									
9. Xyway LFR	Surface Band**	25.4 fl oz	3.0	3.4	0.0	0.0	0.0	18.0	3.0	10.0	3102
Bravo	4 – 7	1.5 pt									
10. Bravo	1 – 7	1.5 pt	3.1	3.3	0.0	0.0	0.0	23.5	2.9	12.5	3544
11. Bravo	1 – 7	1.5 pt	3.0	3.2	0.0	0.0	0.2	16.5	2.9		3393
Convoy***	3 & 5	32.0 fl oz								4.0	
LSD(P<0.05)	-	-	0.6	0.4	N. S.	0.3	N. S.	12.0	0.8	6.7	896

* T Band used in furrow nozzle raised to band 4-6 inches over open furrow.

** Surface band was applied over the top of the row in a 4-6 inch band in 20 GPA.

*** Convoy app's were broadcast by backpack.

Plant/ft¹ = Stand count is the number of emerged plants per foot of row.

% Dead Plants² = The % of emerged plants that were dead or dying per plot.

TSWV³ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Leaf Spot⁴ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold⁵ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

KANNAR SEED TREATMENT

TEST I, 2023

- A. PURPOSE: To evaluate the efficacy of labeled and experimental seed treatments on peanut stands when using compromised seed.
- 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: Untreated compromised GA-06G (lot #677, $\pm 70\%$ germ w/ Rancona), 35% *A. niger*, 15% *A. flavus*, and 63% *Rhizopus* in nontreated seed.
- C. APPLICATION OF TREATMENTS:
1. Equipment: Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Cover Sprays: Chlorothalonil (1.5 pts/a) was sprayed on June 27, July 12, July 27, Aug. 8, Aug. 23, Sep. 5, and Sep. 21, and Elatus (9 oz/a) was sprayed on July 27, Aug. 8, and Aug. 23.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, South Field, Tifton, GA, 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.49 P: 27 K: 47.5 Ca: 784 Mg: 71.8
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 24.
 6. Planting Info: GA-06G, 6.6 seed/ft (2" deep) on May 24.
 7. Harvest Dates: Dug – Sep. 29 Picked – Oct. 3

E. SUMMARY:

Following planting, the test site experienced heavy rain/irrigation and cold soil temperatures that were very challenging for plant stand establishment, especially considering the poor quality of seed used. The seed were selected to insure disease pressure and separation of effective and ineffective treatments, but the combination of poor seed and highly stressed environment created a real acid test for seed/seedling diseases. It should be noted that these conditions are very unfavorable for development of *Aspergillus spp.* which have been the primary pathogens in recent years. There was almost no *Aspergillus* crown rot (*Aspergillus niger*), as indicated by the “Dead plant” ratings. Although all yields were low, there were some interesting increases in plant stand and pod yield with several of the experimental seed treatments compared to the standard Rancona VPL seed treatment.

<u>KANNAR SEED TREATMENT TEST I, 2023</u>								
LANG FARM, SOUTH FIELD								
	Plant/ft ¹		% Dead Plants ²			TSWV ³	Roots/ft ⁴	Yield
Seed Trt	5-Jun	15-Jun	5-Jun	15-Jun	28-Jun	20-Sep	29-Sep	lb/A
1. Rancona VPL	0.7	1.2	0.0	0.0	0.0	56.0	0.9	1173
2. EXP 1	1.0	1.3	0.0	0.0	0.3	60.4	1.1	1336
3. EXP 2	0.9	1.3	0.0	0.0	0.0	58.0	1.1	1540
4. EXP 3	1.0	1.6	0.0	0.0	0.4	60.0	1.2	1213
5. EXP 4	1.0	1.4	0.0	0.0	0.3	59.6	1.3	1465
6. EXP 5	0.9	1.7	0.0	0.0	0.0	62.0	1.4	1400
7. EXP 6	1.0	1.7	0.0	0.0	0.0	63.5	1.4	1625
8. EXP 7	1.2	1.6	0.0	0.0	0.0	58.0	1.5	1315
LSD(P<0.05)	0.2	0.3	N. S.	N. S.	N. S.	8.5	0.2	388
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.								
% Dead Plants ² = The % of emerged plants that were dead or dying per plot.								
TSWV ³ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.								
Roots/ft ⁴ = Number of tap roots per foot of row after the plots were inverted.								

KANNAR SEED TREATMENT

TEST II, 2023

- A. PURPOSE: To evaluate the efficacy of experimental nematocides on peanut stands.
- 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: Untreated compromised GA-06G (lot #677, $\pm 70\%$ germ w/ Rancona), 35% *A. niger*, 15% *A. flavus*, and 63% *Rhizopus* in nontreated seed
- C. APPLICATION OF TREATMENTS:
1. Equipment: Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Cover Sprays: Chlorothalonil (1.5 pts/a) was sprayed on June 27, July 12, July 27, Aug. 8, Aug. 23, Sep. 5, and Sep. 21, and Elatus (9 oz/a) was sprayed on July 27, Aug. 8, and Aug. 23.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, South Field, Tifton, GA, 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.49 P: 27 K: 47.5 Ca: 784 Mg: 71.8
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 24.
 6. Planting Info: GA-06G, 6.6 seed/ft (2" deep) on May 24.
 7. Harvest Dates: Dug – Sep. 29 Picked – Oct. 3

E. SUMMARY:

Following planting, the test site experienced heavy rain/irrigation and cold soil temperatures that were very challenging for plant stand establishment, especially considering the poor quality of seed used. The seed were selected to insure disease pressure and separation of effective and ineffective treatments, but the combination of poor seed and highly stressed environment created a real acid test for seed/seedling diseases. It should be noted that these conditions are very unfavorable for development of *Aspergillus spp.* which have been the primary pathogens in recent years. There was almost no *Aspergillus* crown rot (*Aspergillus niger*), as indicated by the “Dead plant” ratings. Plant stands and pod yields were low in all treatments and were not significantly different.

KANNAR SEED TREATMENT TEST II, 2023

LANG FARM, SOUTH FIELD

Seed Trt	In Furrow	Rate/A	Plant/ft ¹		% Dead Plants ²			TSWV ³	Roots/ft ⁴	Yield
			5-Jun	15-Jun	5-Jun	15-Jun	28-Jun	20-Sep	29-Sep	lb/A
1. Untreated	Untreated		0.7	1.5	0.0	0.0	0.2	65.6	1.2	1598
2. Untreated	Blue Nematacide 2.0	32.0 fl oz	0.7	1.2	0.0	0.0	0.0	63.2	1.0	1292
3. Untreated	K-357	5.0 fl oz	0.7	1.2	0.0	0.3	0.3	56.4	1.1	1575
4. Treatment A	Untreated	0.25 fl oz/CWT	0.9	1.4	0.0	0.0	0.0	66.4	1.2	1199
5. Treatment B	Untreated	4.5 fl oz/CWT	0.9	1.3	0.0	0.0	0.0	64.4	1.2	1996
LSD(P<0.05)			N. S.	N. S.	N. S.	N. S.	N. S.	9.8	N. S.	507
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.										
% Dead Plants ² = The % of emerged plants that were dead or dying per plot.										
TSWV ³ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.										
Roots/ft ⁴ = Number of tap roots per foot of row after the plots were inverted.										

SYNGENTA SEED TREATMENT

TEST I, 2023

- A. PURPOSE: To evaluate the efficacy of various labeled and experimental seed treatments on peanut stands when using compromised seed.
- 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: Untreated compromised GA-06G (lot #6832, 69% germ w/ Rancona) 42% *A. niger* and 54% *Rhizopus* in nontreated seed
- C. APPLICATION OF TREATMENTS:
1. Equipment: Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Cover Sprays: Chlorothalonil (1.5 pts/a) was sprayed on June 27, July 12, July 27, Aug. 8, Aug. 23, Sep. 5, and Sep. 21, and Elatus (9 oz/a) was sprayed on July 27, Aug. 8, and Aug. 23.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, South Field, Tifton, GA, 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.5 P: 29.2 K: 73 Ca: 643 Mg: 60.6
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 25.
 6. Planting Info: GA-06G, 6.6 seed/ft (2" deep) on May 25.
 7. Harvest Dates: Dug – Sep. 29 Picked – Oct. 3

E. SUMMARY:

Following planting, the test site experienced heavy rain/irrigation and cold soil temperatures that were very challenging for plant stand establishment, especially considering the poor quality of seed used. The seed were selected to insure disease pressure and separation of effective and ineffective treatments, but the combination of poor seed and highly stressed environment created a real acid test for seed/seedling diseases. It should be noted that these conditions are very unfavorable for development of *Aspergillus spp.* which have been the primary pathogens in recent years. There was some *Aspergillus* crown rot (*Aspergillus niger*), as indicated by the "Dead plant" ratings for the nontreated seed. There were no differences among treatments in yield, except that all were higher than the nontreated control.

SYNGENTA SEED TREATMENT TEST I, 2023

LANG FARM, SOUTH FIELD

	Plant/ft ¹			% Dead Plants ²				TSWV ³	Roots/ft ⁴	Yield
Seed Trt	5-Jun	8-Jun	16-Jun	5-Jun	8-Jun	16-Jun	29-Jun	21-Aug	29-Sep	lb/A
1. Dynasty PD	1.5	2.0	2.1	0.0	0.0	0.0	0.7	40.4	1.9	2614
2. Trebuset	1.2	1.9	1.7	0.0	0.0	0.0	0.0	48.4	1.6	2050
3. Syngenta EXP	1.3	1.9	1.8	0.0	0.0	0.0	0.3	45.6	1.5	2074
4. Rancona VPD	1.7	2.1	2.1	0.0	0.0	0.0	1.4	52.0	1.8	2439
5. Rancona VPL	1.3	2.0	1.9	0.0	0.0	0.0	0.2	48.0	1.7	2387
6. Untreated	0.3	0.7	0.7	0.0	2.5	3.0	10.5	.	0.3	633
LSD(P<0.05)	0.3	0.3	0.4	N. S.	1.9	1.6	3.1	N. S.	0.2	647

Note: This test used "bad" seed (GA-06G lot 6832) and was treated by Syngenta.

Plant/ft¹ = Stand count is the number of emerged plants per foot of row.

% Dead Plants² = The % of emerged plants that were dead or dying (*Aspergillus* crown rot).

TSWV³ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

Roots/ft⁴ = Number of tap roots per foot of row after the plots were inverted.

SYNGENTA SEED TREATMENT

TEST II, 2023

- A. PURPOSE: To evaluate the efficacy of various labeled and experimental seed treatments on peanut stands when using good seed.
- 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. GA-06G (High germination commercial seed)
- C. APPLICATION OF TREATMENTS:
1. Equipment: Cover sprays applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Cover Sprays: Chlorothalonil (1.5 pts/a) was sprayed on June 27, July 12, July 27, Aug. 8, Aug. 23, Sep. 5, and Sep. 21, and Elatus (9 oz/a) was sprayed on July 27, Aug. 8, and Aug. 23.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, South Field, Tifton, GA, 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.5 P: 29.2 K: 73 Ca: 643 Mg: 60.6
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 25.
 6. Planting Info: GA-06G, 6.6 seed/ft (2" deep) on May 25.
 7. Harvest Dates: Dug – Sep. 29 Picked – Oct. 3

E. SUMMARY:

Following planting, the test site experienced heavy rain/irrigation and cold soil temperatures that were very challenging for plant stand establishment. High quality commercial seed was used in this trial, and all treatments greatly increased plant stands and pod yields. Even with the good seed employed, yields were increased by almost 200 lb/A in some cases. It should be noted that these conditions were very unfavorable for development of *Aspergillus spp.* which have been the primary pathogens in recent years. There was some *Aspergillus* crown rot (*Aspergillus niger*), as indicated by the “Dead plant” ratings in the nontreated control, but all treatments were very effective against it.

<u>SYNGENTA SEED TREATMENT TEST II, 2023</u>										
LANG FARM, SOUTH FIELD										
	Plant/ft¹			% Dead Plants²				TSWV³	Roots/ft⁴	Yield
Seed Trt	5-Jun	8-Jun	15-Jun	5-Jun	8-Jun	15-Jun	29-Jun	21-Aug	29-Sep	lb/A
1. Dynasty PD	4.2	4.5	4.2	0.0	0.0	0.0	0.1	46.0	4.4	3859
2. Trebuset	3.6	4.0	3.9	0.0	0.0	0.0	0.1	36.4	4.2	4264
3. Syngenta EXP	3.6	4.0	3.8	0.0	0.0	0.0	0.0	45.2	4.0	3749
4. Rancona VPD	4.0	4.3	4.0	0.0	0.0	0.0	0.0	48.0	4.5	3983
5. Rancona VPL	3.1	3.4	3.4	0.0	0.0	0.0	0.1	44.0	3.7	3893
6. Untreated	1.5	1.8	1.5	0.0	0.2	0.5	9.8	61.2	1.3	2393
LSD(P<0.05)	0.4	0.4	0.3	N. S.	N. S.	0.4	2.7	16.2	0.4	487.6
Note: This test used "good" seed and was treated by Syngenta.										
Plant/ft ¹ = Stand count is the number of emerged plants per foot of row.										
% Dead Plants ² = The % of emerged plants that were dead or dying (<i>Aspergillus</i> crown rot).										
TSWV ³ = Percent of row feet infected based on disease loci (up to 12" linear row) per plot.										
Roots/ft ⁴ = Number of tap roots per foot of row after the plots were inverted.										

DAILY RAINFALL + IRRIGATION, 2023

LANG FARM, SOUTH FIELD

DATE	Mar	Apr	May	June	July	Aug	Sep	Oct
1	0	0	0	0	0.25	0	0.90	0
2	0	0	0	0	0	0	0	0
3	0	0.80	0	0	0.30	0.50	0	0
4	0	0	0	0	0	2.50	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0.30	0.40	0	0
7	0	0	0	0	0.20	0	0.40	0
8	0	1.00	0.50	0.40	0	1.20	0	0
9	0	0	0	0	0.50	0	0	0
10	0.30	0	0.30	0	1.00	0.15	0	0
11	0	0	0	0	0	0	0.40	0
12	0.40	0	0	0.45	0	0.10	1.40	1.20
13	0	0	0	0.40	0	0	0.50	0
14	0	0	0	2.30	0	0.45	0	0
15	0	0.20	0.35	2.10	0.60	0	0	0
16	0	0	0	0	0	0	0	0
17	1.00	0	0	0	0	0	0.30	0
18	0	0	0	0	0	0	0	0
19	0	0	0	1.00	0	0	0	0
20	0	0	0	0	0.50	0	0	0
21	0	0	0	1.50	0.60	0.50	0	0
22	0	0	0.60	0.10	2.30	0	0	0
23	0	0	0.10	0.60	0.90	0	0	0
24	0	0	0	0	0	0.60	0	0
25	0.60	0	0	0	0	0	0	0
26	0	0	0.50	0	0	0	1.30	0
27	0.40	2.60	0	0	0.50	0	0	0
28	0.70	0	0	0	0	0.60	0	0
29	0	0.50	0.30	0	0.60	0	0	0
30	0	0	0	0	0	2.60	0	0
31	0	0	0.50	0	0	0	0	0
TOTAL (inches)	3.40	5.10	3.15	8.85	8.55	9.60	5.20	1.20

SYNGENTA FUNGICIDE TEST, 2023

A. PURPOSE: To evaluate the comparative efficacy of commercial and experimental applied fungicides for the control of 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: TifNV-HiOL

C. APPLICATION OF TREATMENTS:

1. Equipment: Treatment sprays applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens.
2. Treatment sprays: Sprays were applied on June 7 (app. 1), June 14 (app. 1.5), June 20 (app. 2), June 26 (app. 2.5), July 4 (app. 3), July 12 (app. 3.5), July 19 (app. 4), July 24 (app. 4.5), Aug. 1 (app. 5), Aug. 8 (app. 5.5), Aug. 15 (app. 6), and Aug. 29 (app. 7). No cover sprays were applied.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, New Field, Tifton, GA, 31794
2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
3. Soil Fertility: pH: 6.37 P: 21.1 K: 36.2 Ca: 588 Mg: 33.7
Soil type: Tifton loamy sand, 2 – 5% slope.
4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
5. Insecticides: Thimet (5 lbs/a) on May 3.
6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 3.
7. Additional Info: An adjusted cultivator was run through the field on July 17 in order to throw soil on the peanut canopy, which covered lower vines. The purpose was to increase white mold infection throughout the test.

8. Harvest Dates: Dug – Sep. 21 Picked – Sep. 25

E: SUMMARY:

The mid-season “dirt” cultivation clearly impacted white mold and lead to increased levels of disease, which served to separate treatments and impact yields. Many of the treatments greatly reduced disease levels and increased yields. Overall, this was an excellent trial to determine efficacy of fungicides on white mold. There was only a low level of leaf spot present, primarily early leaf spot, with all treatments being better than the check, but few differences among treatments.

SYNGENTA FUNGICIDE TEST, 2023

LANG FARM, NEW FIELD

			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	18-Sep	22-Sep	lb/A
1. Untreated			4.1	50.4	3000
2. Bravo W'stik	1 & 7	1.5 pt	2.4	5.6	3846
Absolute Maxx 4.36	2	3.5 fl oz			
Elatus 45WG	3 & 5	7.3 oz			
Provost Silver	4 & 6	13.0 fl oz			
3. Priaxor	1.5	6.0 fl oz	2.6	6.0	3594
Provysol	3 & 5	5.0 fl oz			
+ Excalia		3.0 fl oz			
Priaxor	4	8.0 fl oz			
Bravo	6	1.5 pt			
+ Orius 3.6		7.2 fl oz			
Bravo	7	1.5 pt			
4. Bravo	1, 2, 4 & 7	1.0 pt	2.2	17.2	3708
Excalia	3 & 5	4.0 fl oz			
+ Bravo		1.5 pt			
Bravo	6	1.5 pt			
+ Orius 3.6		7.2 fl oz			
5. Bravo	1	1.5 pt	2.7	6.8	3919
+ Orius 3.6		7.2 fl oz			
Alto	2	5.5 fl oz			
+ Bravo		1.5 pt			
Elatus 45WG	3 & 5	9.5 oz			
+ Miravis		3.4 fl oz			
Orius 3.6	7	7.2 fl oz			
+ Bravo		1.5 pt			
+ Alto		5.5 fl oz			
6. Bravo W'stik	1	1.5 pt	2.5	4.4	3672
Elatus 45WG	2.5, 4 & 5.5	7.3 oz			
+ Miravis		3.4 fl oz			
Bravo	7	1.5 pt			
+ Alto		5.5 fl oz			
7. Bravo	1	1.5 pt	2.3	9.2	3739
Elatus 45WG	2.5 & 4.5	9.5 oz			
+ Miravis		3.4 fl oz			
Alto	3.5 & 5.5	5.5 fl oz			
+ Bravo		1.5 pt			
Bravo	7	1.5 pt			
+ Orius		7.2 fl oz			
8. Bravo	1	1.5 pt	2.1	6.0	3776
Bravo	2	1.0 pt			
+ Orius		7.2 fl oz			
Elatus 45WG	3 & 5	9.5 oz			
+ Miravis		3.4 fl oz			
Alto	4 & 6	5.5 fl oz			
+ Bravo		1.5 pt			
Bravo	7	1.5 pt			
+ Orius		7.2 fl oz			

SYNGENTA FUNGICIDE TEST, 2023

LANG FARM, NEW FIELD

			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	18-Sep	22-Sep	lb/A
9. Bravo W'stik	1	1.5 pt	2.0	14.4	3817
Alto	2	5.5 fl oz			
+ Bravo		1.5 pt			
A24733A WG	3 & 5	9.0 oz			
Alto	7	5.5 fl oz			
+ Bravo		1.5 pt			
+ Orius		7.2 fl oz			
10. Bravo W'stik	1	1.5 pt	2.6	6.4	3992
A24733A WG	2.5, 4, 5.5	6.9 oz			
Alto	7	5.5 fl oz			
+ Bravo		1.5 pt			
11. Bravo W'stik	1	1.0 pt	2.2	6.8	3521
A24733A WG	2.5 & 4.5	9.0 oz			
Bravo	3.5	1.5 pt			
Alto	5.5	5.5 fl oz			
+ Bravo		1.0 pt			
Bravo	7	1.5 pt			
+ Orius		7.2 fl oz			
12. Bravo W'stik	1	1.5 pt	2.2	11.6	3939
Orius	2	7.2 fl oz			
+ Bravo		1.5 pt			
A24733A WG	3 & 5	9.0 oz			
Bravo	4	1.5 pt			
Alto	6	5.5 fl oz			
+ Bravo		1.5 pt			
Bravo	7	1.5 pt			
+ Orius		7.2 fl oz			
13. Bravo W'stik	1	1.5 pt	2.5	10.0	3508
Alto	2	5.5 fl oz			
+ Bravo		1.5 pt			
A20259G**	3 & 5	13.7 fl oz			
+ Elatus 45WG		9.5 oz			
Alto	7	5.5 fl oz			
+ Bravo		1.5 pt			
+ Orius		7.2 fl oz			
14. Bravo W'stik	1	1.5 pt	2.6	4.4	3800
Elatus 45WG	2.5, 4 & 5.5	7.3 oz			
+ A20259G**		13.7 fl oz			
Bravo	7	1.5 pt			
+ Alto		5.5 fl oz			
15. Bravo W'stik	1	1.5 pt	2.7	5.2	3663
Elatus 45WG	2.5, 4 & 5.5	7.3 oz			
+ Microthiol S		5.0 lb			
Bravo	7	1.5 pt			
+ Alto		5.5 fl oz			
LSD(P<0.05)	-	-	0.6	7.0	519

Leaf Spot¹ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold²=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

BASF FUNGICIDE TEST, 2023

- A. PURPOSE: To evaluate the comparative efficacy of commercial applied fungicides 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: TifNV-HiOL
- C. APPLICATION OF TREATMENTS:
1. Equipment: Treatment sprays applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens.
 2. Treatment sprays: Sprays 1-7 were applied on June 7, June 20, July 4, July 19, Aug. 1, Aug. 15, and Aug. 29.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, New Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 6.37 P: 21.1 K: 36.2 Ca: 588 Mg: 33.7
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 3.
 6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 3.
 7. Additional Info: An adjusted cultivator was run through the field on July 17 in order to throw soil on the peanut canopy, which covered lower vines. The purpose was to increase white mold infection throughout the test.
 8. Harvest Dates: Dug – Sep. 21 Picked – Sep. 25

E: SUMMARY:

The mid season “dirt” cultivation clearly impacted white mold and lead to increased levels of disease, which served to separate treatments and impact yields. Many of the treatments greatly reduced disease levels and increased yields. Overall, this was an excellent trial to determine efficacy of fungicides on white mold. There was only a low level of leaf spot present, primarily early leaf spot, with all treatments being better than the check, but no differences among treatments.

<u>BASF FUNGICIDE TEST, 2023</u>					
LANG FARM, NEW FIELD					
			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	18-Sep	22-Sep	lb/A
1. Nontreated			4.0	43.5	2791
2. Bravo	2 & 7	1.5 pt	2.1	39.5	3422
Bravo	3 – 6	1.5 pt			
+ Orius		7.2 fl oz			
3. Priaxor	2	6.0 fl oz	2.1	35.5	3213
Bravo	3 – 6	1.5 pt			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
4. Priaxor	2	6.0 fl oz	2.3	27.5	3546
Provysol	3 & 5	3.0 fl oz			
+ Orius		7.2 fl oz			
Bravo	4, 6 & 7	1.5 pt			
+ Orius		7.2 fl oz			
5. Priaxor	2	6.0 fl oz	2.4	10.0	3897
Provysol	3 & 5	5.0 fl oz			
+ Orius		7.2 fl oz			
Bravo	4, 6 & 7	1.5 pt			
+ Orius		7.2 fl oz			
6. Priaxor	2	6.0 fl oz	2.2	19.0	3769
Provost Silver	3 & 5	13.0 fl oz			
Bravo	4 & 6	1.5 pt			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
7. Priaxor	2	6.0 fl oz	2.3	26.5	3767
Exp 1	3 & 5	6.5 fl oz			
Bravo	4 & 6	1.5 pt			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
8. Priaxor	2	6.0 fl oz	1.9	4.5	4185
Elatus 45WG	3 & 5	9.5 oz			
+ Bravo		1.5 pt			
Bravo	4 & 6	1.5 pt			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
+ Topsin		5.0 fl oz			

BASF FUNGICIDE TEST, 2023

LANG FARM, NEW FIELD

			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	18-Sep	22-Sep	lb/A
9. Priaxor	2	6.0 fl oz	2.4	5.5	3892
Elatus 45WG	3 & 5	9.5 oz			
+ Bravo		1.5 pt			
Provysol	4 & 6	3.0 fl oz			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
+ Topsin		5.0 fl oz			
10. Exp 2	2	5.5 fl oz	2.2	5.5	4016
Elatus 45WG	3 & 5	9.5 oz			
+ Bravo		1.5 pt			
Provysol	4 & 6	3.0 fl oz			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
+ Topsin		5.0 fl oz			
11. Exp 3	2	6.5 fl oz	2.2	6.5	4234
Elatus 45WG	3 & 5	9.5 oz			
+ Bravo		1.5 pt			
Provysol	4 & 6	3.0 fl oz			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
+ Topsin		5.0 fl oz			
12. Priaxor	2	6.0 fl oz	2.0	4.5	4141
Elatus 45WG	3 & 5	9.5 oz			
+ Bravo		1.5 pt			
Provysol	4 & 6	3.0 fl oz			
+ Orius		7.2 fl oz			
Bravo	7	1.5 pt			
+ Topsin		5.0 fl oz			
13. Bravo	1 – 7	1.5 pt	2.1	40.5	3305
14. Bravo	1, 2, 4, 6 & 7	1.5 pt	1.9	20.0	3643
Abound	3 & 5	18.0 fl oz			
15. Bravo	1, 2, 4, 6 & 7	1.5 pt	2.3	21.0	3409
Abound	3 & 5	18.0 fl oz			
+ Microthiol S		5.0 lb			
LSD(P<0.05)	-	-	0.7	16.3	670

Leaf Spot¹ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold²=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

DAILY RAINFALL + IRRIGATION, 2023

LANG FARM, NEW FIELD

DATE	Mar	Apr	May	June	July	Aug	Sep	Oct
1	0	0	0	0	0.25	0	0.90	0
2	0	0	0	0	0	0	0	0
3	0	0.80	0	0	0	0	0	0
4	0	0	0	0	0	2.50	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0.40	0	0
7	0	0	0	0	0.20	0	0.40	0
8	0	1.00	0	0	0	1.20	0	0
9	0	0	0	0	0.50	0	0	0
10	0.30	0	0	0	1.00	0.15	0	0
11	0	0	0	0	0	0	0	0
12	0.40	0	0	0.45	0	0.10	1.40	1.20
13	0	0	0	0.40	0	0	0.50	0
14	0	0	0	2.30	0	0.45	0	0
15	0	0.20	0.35	2.10	0.60	0	0	0
16	0	0	0	0	0	0	0	0
17	1.00	0	0	0	0	0	0.30	0
18	0	0	0	0	0	0	0	0
19	0	0	0	1.0	0	0	0	0
20	0	0	0	0	0	0	0	0
21	0	0	0	1.50	0.60	0	0	0
22	0	0	0.60	0.10	2.30	0	0	0
23	0	0	0.10	0.60	0.90	0	0	0
24	0	0	0	0	0	0.60	0	0
25	0.60	0	0	0	0	0	0	0
26	0	0	0	0	0	0	1.30	0
27	0.40	2.60	0	0	0	0	0	0
28	0.70	0	0	0	0	0	0	0
29	0	0.50	0	0	0.60	0	0	0
30	0	0	0	0	0	2.60	0	0
31	0	0	0.5	0	0	0	0	0
TOTAL (inches)	3.40	5.10	1.55	8.45	6.95	8.00	4.80	1.20

ADAMA FUNGICIDE TEST I , 2023

A. PURPOSE: To evaluate the comparative efficacy of commercial and experimental applied fungicides for the control of 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: TifNV-HiOL

C. APPLICATION OF TREATMENTS:

1. Equipment: Treatment sprays 3-6 were applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens. Treatment sprays 1, 2, and 7 were applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
2. Treatment sprays: Sprays 1-7 were applied on June 7, June 20, July 3, July 18, Aug. 1, Aug. 15, and Aug. 29.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, Cotton Field, Tifton, GA 31794
2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
3. Soil Fertility: pH: 5.73 P: 46.1 K: 37.5 Ca: 346 Mg: 25.7
Soil type: Tifton loamy sand, 2 – 5% slope.
4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
5. Insecticides: Thimet (5 lbs/a) on May 3.
6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 3.
7. Additional Info: An adjusted cultivator was run through the field on July 5 in order to throw soil on the peanut canopy, which covered lower vines. The purpose was to increase white mold infection throughout the test.

8. Harvest Dates: Dug – Sep. 18 Picked – Sep. 22

E: SUMMARY:

The mid season “dirt” cultivation clearly impacted white mold and lead to increased levels of disease, which served to separate treatments and impact yields. Some of the treatments reduced disease levels and increased yields. Overall, this was a good trial to determine efficacy of fungicides on white mold, but there was more variability across the trial and overall levels of control were not as high as some other trials. There was only a low level of leaf spot present, primarily early leaf spot.

ADAMA FUNGICIDE TEST I, 2023

LANG FARM, COTTON FIELD

			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	14-Sep	18-Sep	lb/A
1. Nontreated	-	-	3.2	70.8	2276
2. Bravo	1, 2, 7	1.5 pt	2.9	58.4	2733
ADM.00050.F.4.D	3-6	3.4 fl oz			
3. Bravo	1, 2, 7	1.5 pt	2.6	60.4	2412
ADM.00050.F.4.D	3-6	5.1 fl oz			
4. Bravo	1, 2, 7	1.5 pt	2.8	50.8	3254
Quadris	3-6	5.5 fl oz			
5. Bravo	1, 2, 7	1.5 pt	3.0	58.0	3249
Quadris	3-6	8.2 fl oz			
6. Bravo	1, 2, 7	1.5 pt	2.7	41.2	3636
ADM.00162.F.3.C	3-6	6.5 fl oz			
7. Bravo	1, 2, 7	1.5 pt	2.6	54.0	3520
ADM.00162.F.3.C	3-6	8.5 fl oz			
8. Bravo	1, 2, 7	1.5 pt	2.6	53.2	3138
Top MP	3-6	7.0 fl oz			
9. Bravo	1, 2, 7	1.5 pt	2.4	56.0	3323
Top MP	3-6	7.0 fl oz			
ADM.00050.F.4.D	3-6	3.4 fl oz			
10. Bravo	1, 2, 7	1.5 pt	2.7	61.6	2729
Top MP	3-6	7.0 fl oz			
ADM.00050.F.4.D	3-6	5.1 fl oz			
11. Bravo	1, 2, 7	1.5 pt	2.5	42.8	3527
Muscle Advance	3-6	32 fl oz			
12. Bravo	1, 2, 7	1.5 pt	2.6	39.6	3766
Provost Silver	3-6	12.5 fl oz			
LSD(P<0.05)	-	-	0.3	18.3	972

Leaf Spot¹ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold²=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

ADAMA FUNGICIDE TEST II , 2023

- A. PURPOSE: To evaluate the comparative efficacy of commercial applied fungicides for the control of 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: TifNV-HiOL
- C. APPLICATION OF TREATMENTS:
1. Equipment: Treatment sprays 3-6 were applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens. Treatment sprays 1, 2, and 7 were applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
 2. Treatment sprays: Sprays 1-7 were applied on June 7, June 20, July 3, July 18, Aug. 1, Aug. 15, and Aug. 29.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, Cotton Field, Tifton, GA 31794
 2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
 3. Soil Fertility: pH: 5.73 P: 46.1 K: 37.5 Ca: 346 Mg: 25.7
Soil type: Tifton loamy sand, 2 – 5% slope.
 4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13. Rototilled to incorporate.
 5. Insecticides: Thimet (5 lbs/a) on May 3.
 6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 3.
 7. Additional Info: An adjusted cultivator was run through the field on July 5 in order to throw soil on the peanut canopy, which covered lower vines. The purpose was to increase white mold infection throughout the test.

8. Harvest Dates: Dug – Sep. 18 Picked – Sep. 22

E: SUMMARY:

The mid season “dirt” cultivation clearly impacted white mold and lead to increased levels of disease. Disease levels in this test were severe, and only Provost Silver had significantly less white mold than the nontreated. Yields were generally low, and only a couple treatments were higher than the nontreated control. There was also more variability across the trial and overall levels of control were not as high as some other trials. There was only a low level of leaf spot present, primarily early leaf spot.

ADAMA FUNGICIDE TEST II, 2023					
LANG FARM, COTTON FIELD					
			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	14-Sep	18-Sep	lb/A
1. Untreated			2.9	72.8	1735
2. Bravo W'stik	1, 2 & 7	1.5 pt	2.5	71.6	2226
Soratel 250EC	3 - 6	3.3 fl oz			
+ Vantana 500		5.2 fl oz			
3. Bravo W'stik	1, 2 & 7	1.5 pt	2.7	75.6	2062
Soratel 250EC	3 - 6	4.4 fl oz			
+ Vantana 500		6.8 fl oz			
4. Bravo W'stik	1, 2 & 7	1.5 pt	2.5	68.4	2349
Soratel 250EC	3 - 6	5.5 fl oz			
+ Vantana 500		8.3 fl oz			
5. Bravo W'stik	1, 2 & 7	1.5 pt	2.6	72.0	1790
Soratel 250EC	3 - 6	4.4 fl oz			
6. Bravo W'stik	1, 2 & 7	1.5 pt	2.6	72.4	2317
Vantana 500	3 - 6	13.8 fl oz			
7. Bravo W'stik	1, 2 & 7	1.5 pt	2.7	76.4	1607
Vantana 500	3 - 6	6.8 fl oz			
8. Bravo W'stik	1, 2 & 7	1.5 pt	2.6	54.4	2964
Provost Silver	3 - 6	12.5 fl oz			
9. Bravo	1, 2 & 7	1.5 pt	2.6	56.4	3025
Muscle Advance	3 - 6	32.0 fl oz			
LSD(P<0.05)	-	-	0.3	17.4	943
Leaf Spot ¹ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.					
White Mold ² =Percent of row feet infected based on disease loci (up to 12" linear row) per plot.					

FMC EXPERIMENTAL PROGRAMS

TEST, 2023

A. PURPOSE: To evaluate the comparative efficacy of commercial and experimental applied fungicides for the control of foliar and soil borne 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: TifNV-HiOL

C. APPLICATION OF TREATMENTS:

1. Equipment: Treatment sprays applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens.
2. Sprays: Sprays were applied on June 7, June 21, July 3, July 18, Aug. 1, Aug. 15, and Aug. 29. No cover sprays were applied.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, Cotton Field, Tifton, GA, 31794
2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
3. Soil Fertility: pH: 5.73 P: 46.1 K: 37.5 Ca: 346 Mg: 25.7
Soil type: Tifton loamy sand, 2 – 5% slope.
4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
5. Insecticides: Thimet (5 lbs/a) on May 3.
6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 3.
7. Additional Info: An adjusted cultivator was run through the field on July 5 in order to throw soil on the peanut canopy, which covered lower vines. The purpose was to increase white mold infection throughout the test.

8. Harvest Dates: Dug – Sep. 18 Picked – Sep. 22

E: SUMMARY:

The mid season “dirt” cultivation clearly impacted white mold and lead to increased levels of disease, which served to separate treatments and impact yields. Many of the treatments reduced disease levels and increased yields, and Trt 6 was outstanding. Overall this was an excellent trial to determine efficacy of fungicides on white mold. There was only a low level of leaf spot present, primarily early leaf spot, and there were some differences among treatments.

<u>FMC EXPERIMENTAL PROGRAMS TEST, 2023</u>					
LANG FARM, COTTON FIELD					
			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	12-Sep	18-Sep	lb/A
1. Untreated			4.3	71.0	2154
2. TST98	1-7	4.28 fl oz	3.6	43.7	3894
3. VFW68	1-7	5.80 fl oz	2.5	31.3	4596
4. VJR84	1-7	7.00 fl oz	3.0	31.0	4178
5. Lucento	1-7	5.5 fl oz	2.5	39.0	4075
6. Lucento	1-7	5.5 fl oz	2.4	9.0	5617
+ TST98		4.28 fl oz			
7. Adastrio	1-7	8.96 fl oz	2.1	23.7	4652
8. Bravo	1-7	1.5 pt			
+ Muscle		7.2 fl oz	1.7	53.0	3188
LSD(P<0.05)	-	-	0.7	13.5	624
Leaf Spot ¹ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.					
White Mold ² =Percent of row feet infected based on disease loci (up to 12" linear row) per plot.					

FMC FUNGICIDE PROGRAMS **TEST, 2023**

- A. PURPOSE: To evaluate the comparative efficacy of commercial and experimental applied fungicides for the control of 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: TifNV-HiOL

C. APPLICATION OF TREATMENTS:

1. Equipment: Treatment sprays applied at 45 PSI at 2.5 MPH in 20 GPA using a CO₂ unit with six SX-6 tips and 50 mesh ball check screens.
2. Sprays: Sprays were applied on June 7, June 21, July 3, July 18, Aug. 1, Aug. 15, and Aug. 29. No cover sprays were applied.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, Cotton Field, Tifton, GA, 31794
2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
3. Soil Fertility: pH: 5.73 P: 46.1 K: 37.5 Ca: 346 Mg: 25.7
Soil type: Tifton loamy sand, 2 – 5% slope.
4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13. Rototilled to incorporate.
5. Insecticides: Thimet (5 lbs/a) on May 3.
6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 3.
7. Additional Info: An adjusted cultivator was run through the field on July 5 in order to throw soil on the peanut canopy, which covered lower vines. The purpose was to increase white mold infection throughout the test.
8. Harvest Dates: Dug – Sep. 18 Picked – Sep. 22

E: SUMMARY:

The mid season “dirt” cultivation clearly impacted white mold and lead to increased levels of disease, which served to separate treatments and impact yields. All of the treatments reduced disease levels and increased yields, most at a very high level. Overall, this was an excellent trial to determine efficacy of fungicides on white mold. There was only a low level of leaf spot present, primarily early leaf spot, and there were some differences among treatments.

FMC FUNGICIDE PROGRAMS TEST, 2023

LANG FARM, COTTON FIELD

			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	12-Sep	14-Sep	lb/A
1. Untreated			3.9	44.8	3300
2. Bravo W'stik	1	1.5 pt	2.1	10.0	4926
Lucento	2 & 4	5.5 fl oz			
Convoy	3	32.0 fl oz			
+ Bravo		1.5 pt			
Elatus 45WG	5	9.5 oz			
Provost Silver	6	13.0 fl oz			
Bravo W'stik	7	1.5 pt			
+ Muscle		7.2 fl oz			
3. Bravo W'stik	1	1.5 pt	2.4	10.8	5173
Provysol	2	5.0 fl oz			
+ Muscle		7.2 fl oz			
Lucento	3 & 5	5.5 fl oz			
Convoy	4	32.0 fl oz			
+ Bravo		1.5 pt			
Elatus 45WG	6	9.5 oz			
Provost Silver	7	13.0 fl oz			
4. Bravo W'stik	1	1.5 pt	2.9	6.4	5187
Provysol	2	5.0 fl oz			
+ Muscle		7.2 fl oz			
Convoy	3	32.0 fl oz			
+ Bravo		1.5 pt			
Lucento	4 & 6	5.5 fl oz			
Elatus 45WG	5	9.5 oz			
Provost Silver	7	13.0 fl oz			
5. Bravo W'stik	1	1.5 pt	2.3	4.4	4900
Lucento	2 & 4	5.5 fl oz			
Convoy	3	32.0 fl oz			
+ Bravo		1.5 pt			
Elatus 45WG	5	9.5 oz			
VJR90-R002	6	9.0 fl oz			
+ Bravo		1.5 pt			
Bravo W'stik	7	1.5 pt			
+ Muscle		7.2 fl oz			
6. Bravo W'stik	1 & 2	1.5 pt	2.4	18.0	4927
VJR90-R002	3 - 6	9.0 fl oz			
Bravo W'stik	7	1.5 pt			
7. Bravo W'stik	1	1.5 pt	2.0	20.0	4602
VJR90-R002	3 - 6	9.0 fl oz			
+ Bravo		1.5 pt			
Bravo W'stik	7	1.5 pt			

FMC FUNGICIDE PROGRAMS TEST, 2023

LANG FARM, COTTON FIELD

			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	12-Sep	14-Sep	lb/A
8. Bravo W'stik	1	1.5 pt	2.7	5.6	5628
Lucento	2 & 4	5.5 fl oz			
Convoy	3 & 5	32.0 fl oz			
+ Bravo		1.5 pt			
Provost Silver	6	13.0 fl oz			
Bravo	7	1.5 pt			
+ Muscle		7.2 fl oz			
9. Bravo W'stik	1	1.5 pt	2.7	12.8	4702
Lucento	2 & 4	5.5 fl oz			
Excalia	3 & 5	4.0 fl oz			
+ Bravo		1.5 pt			
Provost Silver	6	13.0 fl oz			
Bravo	7	1.5 pt			
+ Muscle		7.2 fl oz			
10. Bravo W'stik	1	1.5 pt	2.3	5.6	5152
Lucento	2 & 4	5.5 fl oz			
Elatus 45WG	3 & 5	9.5 oz			
Provost Silver	6	13.0 fl oz			
Bravo	7	1.5 pt			
+ Muscle		7.2 fl oz			
11. Bravo	1	1.5 pt	2.6	7.6	5206
Priaxor	2	6.0 fl oz			
Convoy	3 & 5	32.0 fl oz			
+ Provysol		5.0 fl oz			
Priaxor	4	8.0 fl oz			
Bravo	6	1.5 pt			
+ Muscle		7.2 fl oz			
Bravo	7	1.5 pt			
12. Alto	1	5.5 fl oz	2.4	5.6	5347
+ Bravo		1.5 pt			
Bravo	2	1.5 pt			
Elatus 45WG	3 & 5	9.5 oz			
+ Miravis		3.4 fl oz			
Bravo	7	1.5 pt			
LSD(P<0.05)	-	-	0.6	10.3	698

Leaf Spot¹ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.

White Mold²=Percent of row feet infected based on disease loci (up to 12" linear row) per plot.

ISK TEST, 2023

A. PURPOSE: To evaluate the comparative efficacy of commercial and experimental applied fungicides for the control of foliar and soil borne 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: TifNV-HiOL

C. APPLICATION OF TREATMENTS:

1. Equipment: Treatment sprays 3-6 (only non-Bravo apps) were applied at 45 PSI at 2.5 MPH in 20 GPA using a CO2 unit with six SX-6 tips and 50 mesh ball check screens. Bravo treatment sprays were applied at 32 PSI going 4.3 MPH in 19.7 GPA using six TX-12 tips and 50 mesh ball check screens.
2. Treatment sprays: Sprays 1-7 were applied on June 7, June 20, July 13, July 18, Aug. 1, Aug. 15, and Aug. 29.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, Cotton Field, Tifton, GA 31794
2. Land Preparation: Fertilizer (5-15-30) was broadcast at 600 lb/a, field was deep turned, beds marked 6 ft, and fertilizer turned under on Apr. 11.
3. Soil Fertility: pH: 5.73 P: 46.1 K: 37.5 Ca: 346 Mg: 25.7
Soil type: Tifton loamy sand, 2 – 5% slope.
4. Herbicides: PPI: Tank mix of Sonalan (1 qt/a) + Dual Magnum (1.3 pt/a) + Strongarm (0.45 oz/a) on Apr. 13.
Rototilled to incorporate.
5. Insecticides: Thimet (5 lbs/a) on May 3.
6. Planting Info: TifNV-HiOL, 6.6 seed/ft (2” deep) on May 3.
7. Additional Info: An adjusted cultivator was run through the field on July 5 in order to throw soil on the peanut canopy, which covered lower vines. The purpose was to increase white mold infection throughout the test.

8. Harvest Dates: Dug – Sep. 18 Picked – Sep. 22

E: SUMMARY:

The mid season “dirting” cultivation clearly impacted white mold and lead to increased levels of disease. Disease levels in this test were severe, and most treatments did not have significantly less white mold than the nontreated. Yields were generally moderate, and only a couple of the better white mold treatments had higher yields than the nontreated control. There was only a low level of leaf spot present, primarily early leaf spot, and it was reduced by all treatments.

<u>ISK TEST, 2023</u>					
LANG FARM, COTTON FIELD					
			LS ¹	WM ²	Yield
Treatment	App's	Rate/A	14-Sep	14-Sep	lb/A
1. Untreated			3.6	46.7	3009
2. Bravo	1, 2 & 7	1.5 pt	2.7	45.0	3249
Tebustar	3 – 6	7.2 fl oz			
3. Bravo	1, 2 & 7	1.5 pt	2.8	62.0	2339
IKF-5411	3 – 6	8.0 fl oz			
4. Bravo	1, 2 & 7	1.5 pt	2.8	52.3	2482
IKF-1216	3 – 6	10.0 fl oz			
5. Bravo	1, 2 & 7	1.5 pt	2.5	51.7	3285
IKF-1216	3 – 6	8.0 fl oz			
+ IKF-5411		7.0 fl oz			
6. Bravo	1, 2 & 7	1.5 pt	2.9	35.0	3766
IKF-1216	3 – 6	10.0 fl oz			
+ IKF-5411		8.0 fl oz			
7. Bravo	1, 2 & 7	1.5 pt	2.6	26.0	4112
IKF-1216	3 – 6	10.0 fl oz			
+ Tebustar		7.2 fl oz			
8. Bravo	1, 2 & 7	1.5 pt	2.7	9.7	4736
IKF-1216	3 – 6	10.0 fl oz			
+ Abound		18.5 fl oz			
9. Bravo	1 - 7	1.5 pt	2.6	49.3	3669
LSD(P<0.05)	-	-	0.3	20.9	834
Leaf Spot ¹ = Florida 1 - 10 scale, where 1=no disease and 10=dead plant.					
White Mold ² =Percent of row feet infected based on disease loci (up to 12" linear row) per plot.					

DAILY RAINFALL + IRRIGATION, 2023

LANG FARM, COTTON FIELD

DATE	Mar	Apr	May	June	July	Aug	Sep	Oct
1	0	0	0	0	0.25	0	0.90	0
2	0	0	0	0	0	0	0	0
3	0	0.80	0	0	0	0	0	0
4	0	0	0	0	0	2.50	0	0
5	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0.40	0	0
7	0	0	0	0	0.20	0	0.40	0
8	0	1.00	0	0	0	1.20	0	0
9	0	0	0	0	0.50	0	0	0
10	0.30	0	0	0	1.00	0.15	0	0
11	0	0	0	0	0	0	0	0
12	0.40	0	0	0.45	0	0.10	1.40	1.20
13	0	0	0	0.40	0	0	0.50	0
14	0	0	0	2.30	0	0.45	0	0
15	0	0.20	0.35	2.10	0.60	0	0	0
16	0	0	0	0	0	0	0	0
17	1.00	0	0	0	0	0	0.30	0
18	0	0	0	0	0	0	0	0
19	0	0	0	1.00	0	0	0	0
20	0	0	0	0	0	0	0	0
21	0	0	0	1.50	0.60	0	0	0
22	0	0	0.60	0.10	2.30	0.50	0	0
23	0	0	0.10	0.60	0.90	0	0	0
24	0	0	0	0	0	0.60	0	0
25	0.60	0	0	0	0	0	0	0
26	0	0	0	0	0	0	1.30	0
27	0.40	2.60	0	0	0	0	0	0
28	0.70	0	0	0	0	0.60	0	0
29	0	0.50	0	0	0.60	0	0	0
30	0	0	0	0	0	2.60	0	0
31	0	0	0.50	0	0	0	0	0
TOTAL (inches)	3.40	5.10	1.55	8.45	6.95	9.10	4.80	1.20

PECAN FUNGICIDE TEST I,

WICHITA, 2023

- A. PURPOSE: To evaluate the comparative efficacy of registered and experimental fungicides against pecan foliar and nut diseases (primarily 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 were applied on Apr. 6 (app. 1), Apr. 20 (app. 2), Apr. 27 (app. 2.5), May 8 (app. 3), May 18 (app. 4), June 1 (app. 5), June 8 (app. 5.5), June 16 (app. 6), June 29 (app. 7), July 13 (app. 8), July 21 (app. 8.5), July 27 (app. 9), and Aug. 10 (app. 10).
- D. ADDITIONAL INFORMATION:
1. Location: Ponder Farm, North Orchard, Tifton, GA, 31794
 2. Soil Fertility: pH – 6.8 P – 75 K – 90 Ca – 1359 Mg – 101
Soil type: Tifton loamy sand, 2 – 5 % slope.
 3. Herbicides: Roundup (3 qt/a) + Interline (20 oz/a) on March 21.
Valor (6 oz/a) + Gramoxone (22 oz/a) on June 6.
- E. SUMMARY:

These trees were much shorter than in previous years as we hedged both sides of them with a commercial hedger in the previous winter. Frequent rains resulted in heavy scab pressure, especially in this very susceptible cultivar. Leaf scab ratings in May showed some scab following essentially all of our treatments. A follow up rating of only new leaves formed from growth flushes (essentially due to tree hedging that spring) showed an even higher level of scab, illustrating how

difficult it can be to control. Nut scab ratings were taken in mid-July and the epidemic was already severe. Several treatments provided a very good level of nut scab control if a 14-day schedule was maintained. Stretching this interval to 21 days in a rainy season such as this was too much for even our best fungicides. All treatments had a good level of control of *Neofusicoccum* leaf dieback.

PECAN FUNGICIDE TEST I, WICHITA, NORTH ORCHARD, 2023

			Leaf Inc ¹	Leaf Sev ²	Neo ⁵	Nut Inc ³	Nut Sev ⁴	Leaf Inc ⁶	% Def. ⁷
Treatments	Rate/A	App's	24-May	24-May	18-Jul	24-Jul	24-Jul	24-Jul	20-Nov
1. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	23.6	2.2	6.3	96.9	29.6	46.8	28.8
+ Elast 400F	25.0 fl oz								
Cevya	3.0 fl oz	2, 4, 6, 8, 10							
+ Elast	25.0 fl oz								
2. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	30.7	3.2	7.8	100.0	51.3	58.7	18.8
+ Elast 400F	25.0 fl oz								
Cevya	5.0 fl oz	2, 4, 6, 8, 10							
3. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	34.3	3.4	6.8	100.0	83.7	82.4	37.5
+ Elast 400F	25.0 fl oz								
BAS700	5.7 fl oz	2, 4, 6, 8, 10							
4. Super Tin 4L	6.0 fl oz	1, 4, 7, 10	21.1	1.9	2.5	100.0	39.2	63.4	21.3
+ Elast 400F	25.0 fl oz								
BAS752	8.5 fl oz	2, 4, 6, 8, 10							
5. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	15.5	1.3	1.5	95.8	15.1	47.1	22.5
+ Elast 400F	25.0 fl oz								
Miravis Prime	6.84 fl oz	2, 4, 6, 8, 10							
+ Remain	8.0 fl oz								
6. Super Tin 4L	6.0 fl oz	1, 4, 7, 10	38.2	3.9	4.3	100.0	60.3	79.0	32.5
+ Elast 400F	25.0 fl oz								
Miravis Prime	6.84 fl oz	2.5, 5.5, 8.5							
+ Remain	8.0 fl oz								
7. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	19.1	1.7	3.0	95.8	16.3	51.4	13.8
+ Elast 400F	25.0 fl oz								
Miravis Top	13.6 fl oz	2, 4, 6, 8, 10							
+ Remain	8.0 fl oz								
8. Super Tin 4L	6.0 fl oz	1, 4, 7, 10	34.9	3.3	4.8	100.0	52.0	70.7	25.0
+ Elast 400F	25.0 fl oz								
Miravis Top	13.6 oz	2.5, 5.5, 8.5							
+ Remain	8.0 fl oz								
9. Super Tin 4L	9.0 fl oz	1, 2.5, 4, 5.5, 7, 8.5, 10	39.5	4.0	6.5	100.0	69.7	72.0	25.0
+ Elast 400F	36.0 fl oz								
10. Kphite	2.0 qt	1 - 4	20.1	1.9	5.5	100.0	62.8	78.2	25.0
Super Tin 4L	9.0 fl oz	5 - 10							
+ Elast 400F	36.0 fl oz								
11. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	39.0	3.4	9.0	100.0	76.4	83.7	22.5
+ Elast 400F	25.0 fl oz								
LBG-42FFM	47.9 fl oz	4, 6, 8, 10							
12. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	21.0	1.9	5.3	100.0	47.8	57.5	20.0
+ Elast 400F	25.0 fl oz								
Regev HBX	8.5 fl oz	2, 4, 6, 8, 10							
13. Super Tin 4L	6.0 fl oz	1 - 10	26.2	2.5	3.8	100.0	35.2	72.0	20.0
+ Elast 400F	25.0 fl oz								
14. Nontreated	-	-	50.9	4.9	17.5	100.0	97.2	91.7	77.5
LSD(P<0.05)			9.2	1.0	4.5	3.8	12.0	13.2	12.7

Leaf Inc¹=Leaf scab incidence, based on 8 terminals per tree (% of leaflets on middle of leaf with scab).

Leaf Sev²=Leaf scab severity, based on middle leaf of 8 terminals per tree.

Nut Inc³=Nut scab incidence, based on ratings of 8 nut clusters per tree (% of nuts with any scab).

Nut Sev⁴=Nut scab severity, based on 8 nuts clusters per tree (% of shuck covered with scab).

Neo⁵=Percent neofusicoccum.

Leaf Inc⁶=Leaf scab incidence on new midseason growth flushes

Def.⁷=Percent defoliation.

PECAN FUNGICIDE TEST I,

DESIRABLE, 2023

- A. PURPOSE: To evaluate the comparative efficacy of registered and experimental fungicides against pecan foliar and nut diseases (primarily 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 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 were applied on Apr. 6 (app. 1), Apr. 20 (app. 2), Apr. 27 (app. 2.5), May 8 (app. 3), May 18 (app. 4), June 1 (app. 5), June 8 (app. 5.5), June 16 (app. 6), June 29 (app. 7), July 13 (app. 8), July 21 (app. 8.5), July 27 (app. 9), and Aug. 10 (app. 10).
- D. ADDITIONAL INFORMATION:
1. Location: Ponder Farm, North Orchard, Tifton, GA, 31794
 2. Soil Fertility: pH – 6.8 P – 75 K – 90 Ca – 1359 Mg – 101
Soil type: Tifton loamy sand, 2 – 5 % slope.
 3. Herbicides: Roundup (3 qt/a) + Interline (20 oz/a) on March 21.
Valor (6 oz/a) + Gramoxone (22 oz/a) on June 6.
- E. SUMMARY:

These trees were much shorter than in previous years as we hedged both sides of them with a commercial hedger in the previous winter. Frequent rains resulted in heavy scab pressure, especially in this susceptible cultivar. Leaf scab ratings in May showed some scab following essentially all of our treatments. A follow up rating of only new leaves formed from growth flushes (essentially due to tree hedging) showed an even higher level of scab, illustrating how difficult it can be

to control, although some chemistries were clearly better than others. Nut scab ratings were taken in mid-July and the epidemic was already severe. Several treatments provided an excellent level of nut scab control if a 14-day schedule was maintained. Stretching this interval to 21-days in a rainy season such as this was too much for even our best fungicides.

PECAN FUNGICIDE TEST I, DESIRABLE, NORTH ORCHARD, 2023

			Leaf Inc ¹	Leaf Sev ²	Nut Inc ³	Nut Sev ⁴	Leaf Inc ⁵	% Def. ⁶
Treatments	Rate/A	App's	24-May	24-May	24-Jul	24-Jul	24-Jul	20-Nov
1. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	15.0	1.5	98.4	21.8	14.2	31.3
+ Elast 400F	25.0 fl oz							
Cevya	3.0 fl oz	2, 4, 6, 8, 10						
+ Elast	25.0 fl oz							
2. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	34.1	3.2	100.0	33.0	27.5	37.5
+ Elast 400F	25.0 fl oz							
Cevya	5.0 fl oz	2, 4, 6, 8, 10						
3. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	27.0	2.7	100.0	33.3	42.1	48.8
+ Elast 400F	25.0 fl oz							
BAS700	5.7 fl oz	2, 4, 6, 8, 10						
4. Super Tin 4L	6.0 fl oz	1, 4, 7, 10	21.1	1.8	96.9	19.2	28.4	48.8
+ Elast 400F	25.0 fl oz							
BAS752	8.5 fl oz	2, 4, 6, 8, 10						
5. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	11.0	1.1	59.4	3.4	11.8	37.5
+ Elast 400F	25.0 fl oz							
Miravis Prime	6.84 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							
6. Super Tin 4L	6.0 fl oz	1, 4, 7, 10	34.2	3.4	100.0	24.4	43.2	58.8
+ Elast 400F	25.0 fl oz							
Miravis Prime	6.84 fl oz	2.5, 5.5, 8.5						
+ Remain	8.0 fl oz							
7. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	17.4	1.6	65.6	6.1	19.0	41.3
+ Elast 400F	25.0 fl oz							
Miravis Top	13.6 fl oz	2, 4, 6, 8, 10						
+ Remain	8.0 fl oz							
8. Super Tin 4L	6.0 fl oz	1, 4, 7, 10	28.4	2.6	90.6	19.5	42.6	62.5
+ Elast 400F	25.0 fl oz							
Miravis Top	13.6 oz	2.5, 5.5, 8.5						
+ Remain	8.0 fl oz							
9. Super Tin 4L	9.0 fl oz	1, 2.5, 4, 5.5, 7, 8.5, 10	29.8	3.0	100.0	30.7	56.3	62.5
+ Elast 400F	36.0 fl oz							
10. Kphite	2.0 qt	1 - 4	15.7	1.6	96.9	22.2	42.9	23.8
Super Tin 4L	9.0 fl oz	5 - 10						
+ Elast 400F	36.0 fl oz							
11. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	33.9	3.4	100.0	41.7	49.9	50.0
+ Elast 400F	25.0 fl oz							
LBG-42FFM	47.9 fl oz	4, 6, 8, 10						
12. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	22.5	2.2	100.0	32.4	47.4	36.3
+ Elast 400F	25.0 fl oz							
Regev HBX	8.5 fl oz	2, 4, 6, 8, 10						
13. Super Tin 4L	6.0 fl oz	1 - 10	18.9	1.9	93.8	19.3	42.4	41.3
+ Elast 400F	25.0 fl oz							
14. Nontreated	-	-	43.8	4.7	100.0	69.5	79.7	75.0
LSD(P<0.05)			8.6	0.8	10.7	8.9	13.5	23.9

Leaf Inc¹=Leaf scab incidence, based on 8 terminals per tree (% of leaflets on middle of leaf with scab).

Leaf Sev²=Leaf scab severity, based on middle leaf of 8 terminals per tree.

Nut Inc³=Nut scab incidence, based on ratings of 8 nut clusters per tree (% of nuts with any scab).

Nut Sev⁴=Nut scab severity, based on 8 nuts clusters per tree (% of shuck covered with scab).

Leaf Inc⁵=Leaf scab incidence on new midseason growth flushes

Def.⁶=Percent defoliation.

MISCELLANEOUS FUNGICIDE

TEST I, 2023

- A. PURPOSE: To evaluate the efficacy of registered fungicides against pecan scab on highly susceptible cultivars.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete block design with eight replicates for Desirable and Wichita, each rep being a single tree that receives no other fungicide applications.
- C. APPLICATION OF TREATMENTS:
1. Equipment: All spray treatments were applied with a hand-held 2 L sprayer. Treatments were sprayed until full coverage and runoff was achieved. Based on a dilution of 100 GPA spray volume.
 2. Calendar-based spray treatments were applied on Apr. 5, Apr. 20, May 4, May 19, June 1, June 16, June 29, July 11, July 27, and Aug. 9.
- D. ADDITIONAL INFORMATION:
1. Location: Ponder Farm, North Orchard, Tifton, GA, 31794
 2. Soil Fertility: pH – 6.8 P – 75 K – 90 Ca – 1359 Mg – 101
Soil type: Tifton loamy sand, 2 – 5 % slope.
 3. Herbicides: Roundup (3 qt/a) + Interline (20 oz/a) on March 21.
Valor (6 oz/a) + Gramoxone (22 oz/a) on June 6.
- E. SUMMARY:
- As shown previously, the single terminal tests are an excellent way to demonstrate the inherent activity of a fungicide on pecan scab. This was clearly the case here as control with these treatments ranged from excellent to poor, and the nontreated checks were destroyed by scab.

MISCELLANEOUS TERMINAL TEST I, 2023												
PONDER FARM, NORTH ORCHARD												
			WICHITA					DESIRABLE				
			JULY 6			SEP. 1		JULY 6			SEP. 1	
Treatments	Rate/A	Timing	Leaf Inc ¹	Nut Inc ²	Nut Sev ³	Nut Inc ²	Nut Sev ³	Leaf Inc ¹	Nut Inc ²	Nut Sev ³	Nut Inc ²	Nut Sev ³
1. Badge	1.5 pt	1 - 10	34.8	100.0	59.8	100.0	98.5	24.4	100.0	23.1	100.0	58.8
2. Kphite	1.0 qt	1 - 10	28.0	100.0	23.3	100.0	81.3	6.0	64.3	2.1	100.0	25.0
+ Badge	1.5 pt											
3. Kphite	1.0 qt	1 - 10	29.8	87.5	8.9	100.0	74.3	13.2	16.7	0.5	100.0	34.5
4. Ziram	4.0 lb	1 - 10	21.3	29.2	0.9	95.2	3.6	16.3	0.0	0.0	100.0	3.3
+ Elast	24 fl oz											
+ Badge	1.5 pt											
5. Ziram	4.0 lb	1 - 10	17.0	29.5	1.0	100.0	10.9	26.4	56.0	2.2	100.0	19.8
+ Elast	24 fl oz											
6. Nordox 75WDG	1.0 lb	1 - 10	33.0	90.5	28.7	100.0	75.7	19.1	100.0	11.2	100.0	55.0
7. Nordox 75WDG	2.0 lb	1 - 10	38.0	100.0	35.4	100.0	77.9	22.3	100.0	11.9	100.0	27.0
8. Nordox 30-30 WDG	1.0 lb	1 - 10	53.3	100.0	56.9	100.0	92.3	17.8	100.0	11.4	100.0	50.0
9. Nordox 30-30 WDG	2.0 lb	1 - 10	55.8	100.0	31.0	100.0	90.6	30.7	85.7	10.7	100.0	48.3
10. Miravis Top	13.7 oz	1 - 10	5.3	2.4	0.1	62.5	1.8	5.4	0.0	0.0	40.0	0.8
11. Nontreated	-	1 - 10	72.3	100.0	88.8	100.0	100.0	20.6	85.7	29.6	100.0	87.3
LSD(P<0.05)	-	-	20.8	20.1	14.1	12.1	17.8	12.6	31.2	11.8	18.1	19.4
Leaf Inc ¹ =Leaf scab incidence per terminal (% of leaflets on end leaf with scab).												
Nut Inc ² =Nut scab incidence per terminal (% of nuts with any scab).												
Nut Sev ³ =Nut scab severity per terminal (% of shuck area covered with scab).												

MISCELLANEOUS FUNGICIDE

TEST II, 2023

- A. PURPOSE: To evaluate the efficacy of registered and experimental fungicides against pecan scab on highly susceptible cultivars.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete block design with eight replicates for Desirable and Wichita, each rep being a single tree that receives no other fungicide applications.
- C. APPLICATION OF TREATMENTS:
1. Equipment: All spray treatments were applied with a hand-held 2 L sprayer. Treatments were sprayed until full coverage and runoff was achieved. Based on a dilution of 100 GPA spray volume.
 2. Calendar-based spray treatments were applied on Apr. 6, Apr. 20, May 4, May 19, June 1, June 16, June 29, July 11, July 27, and Aug. 9.
- D. ADDITIONAL INFORMATION:
1. Location: Ponder Farm, North Orchard, Tifton, GA, 31794
 2. Soil Fertility: pH – 6.8 P – 75 K – 90 Ca – 1359 Mg – 101
Soil type: Tifton loamy sand, 2 – 5 % slope.
 3. Herbicides: Roundup (3 qt/a) + Interline (20 oz/a) on March 21.
Valor (6 oz/a) + Gramoxone (22 oz/a) on June 6.
- E. SUMMARY:

As shown previously, the single terminal tests are an excellent way to demonstrate the inherent activity of a fungicide on pecan scab. This was clearly the case here as control with these treatments ranged from excellent to poor, and the nontreated checks were destroyed by scab.

MISCELLANEOUS TERMINAL TEST II, 2023

PONDER FARM, NORTH ORCHARD

			WICHITA					DESIRABLE				
			JULY 6		SEP. 1			JULY 6		SEP. 1		
Treatments	Rate/A	Timing	Leaf Inc ¹	Nut Inc ²	Nut Sev ³	Nut Inc ²	Nut Sev ³	Leaf Inc ¹	Nut Inc ²	Nut Sev ³	Nut Inc ²	Nut Sev ³
1. BAS700	5.7 fl oz	1 - 10	22.4	84.4	9.9	100.0	67.5	24.5	50.0	4.6	100.0	19.5
2. BAS 752	8.5 fl oz	1 - 10	18.7	40.4	1.5	100.0	12.1	34.7	14.3	0.3	100.0	8.0
3. Cevya	5.0 fl oz	1 - 10	15.6	54.4	1.8	100.0	16.9	28.5	57.1	1.4	100.0	8.9
4. Cevya + Elast	3.0 fl oz 24 fl oz	1 - 10	5.8	24.8	0.8	100.0	7.9	15.4	28.6	0.4	100.0	14.4
5. CS2005 + Kphite	32.0 fl oz 32.0 fl oz	1 - 10	28.2	100.0	18.5	100.0	94.1	24.5	71.4	5.0	100.0	32.7
6. CS2005	32.0 fl oz	1 - 10	40.6	100.0	62.5	100.0	100.0	43.8	100.0	33.0	100.0	80.0
7. CS2005 + Elast	32.0 fl oz 24 fl oz	1 - 10	30.3	70.8	3.1	100.0	31.0	37.2	60.0	1.0	100.0	23.4
8. Super Tin + Elast	6.0 fl oz 24 fl oz	1 - 10	24.6	28.1	0.8	100.0	11.4	20.2	42.9	1.1	85.7	11.3
9. Cevya + Dodine	3.0 fl oz 24 fl oz	1 - 10	11.8	19.2	0.8	83.3	6.1	36.2	16.7	0.2	90.0	14.4
10. Miravis Top	13.7 oz	1 - 10	1.1	0.0	0.0	57.1	1.9	6.6	0.0	0.0	71.4	1.4
11. Nontreated	-	1 - 10	49.7	100.0	73.8	100.0	99.4	54.5	100.0	26.9	100.0	85.6
LSD(P<0.05)	-	-	15.0	27.3	11.0	15.2	10.7	19.0	46.2	11.3	27.0	16.0
Leaf Inc ¹ =Leaf scab incidence per terminal (% of leaflets on end leaf with scab).												
Nut Inc ² =Nut scab incidence per terminal (% of nuts with any scab).												
Nut Sev ³ =Nut scab severity per terminal (% of shuck area covered with scab).												

KPHITE TIMING TEST, 2023

A. PURPOSE: To evaluate spray timings of Kphite 7LP at various rates and residual of phosphite sprays for scab control on highly susceptible cultivars.

B. EXPERIMENTAL DESIGN:

1. Randomized complete block design with eight replicates for Wichitas and Desirables, each rep being a single tree that receives no other fungicide applications.

C. APPLICATION OF TREATMENTS:

1. Equipment: All spray treatments were applied with a hand-held 2 L sprayer. Treatments were sprayed until full coverage and runoff was achieved. Based on a dilution of 100 GPA spray volume.
2. Calendar-based spray treatments 1-5 were applied on March 16, March 23, March 30, Apr. 6, and Apr. 12.

D. ADDITIONAL INFORMATION:

1. Location: Ponder Farm, North Orchard, Tifton, GA, 31794
2. Soil Fertility: pH – 6.8 P – 75 K – 90 Ca – 1359 Mg – 101
Soil type: Tifton loamy sand, 2 – 5 % slope.
3. Herbicides: Roundup (3 qt/a) + Interline (20 oz/a) on March 21.
Valor (6 oz/a) + Gramoxone (22 oz/a) on June 6.

E: SUMMARY:

These dormant/early season sprays of phosphites were tested to determine their ability to move into new foliage systemically from single applications early in the season. There is some evidence of this occurring, although not as strong as in a previous trial. The results of this trial were also more variable than previously seen, perhaps in part by the staggered development of buds resulting from the winter hedging.

KPHITE TIMING TEST, 2023

PONDER FARM, NORTH ORCHARD

			DESIRABLE				WICHITA			
			Leaf Inc ¹	Leaf Sev ²	Nut Inc ³	Nut Sev ⁴	Leaf Inc ¹	Leaf Sev ²	Nut Inc ³	Nut Sev ⁴
Treatments	Spray Week	Rate/A	23-May	23-May	25-Jul	25-Jul	23-May	23-May	25-Jul	25-Jul
1. Kphite 7LP	1	2 pt	29.0	2.4	100.0	56.7	36.2	4.1	100.0	88.8
2. Kphite 7LP	1	6 pt	26.2	1.3	100.0	49.2	48.3	4.1	100.0	97.6
3. Kphite 7LP	2	2 pt	32.1	2.6	100.0	76.3	39.7	5.9	100.0	93.5
4. Kphite 7LP	2	6 pt	42.0	4.9	100.0	65.0	54.1	6.6	100.0	94.4
5. Kphite 7LP	3	2 pt	16.3	1.5	100.0	45.0	35.8	3.1	100.0	96.8
6. Kphite 7LP	3	6 pt	6.5	0.8	100.0	65.0	22.5	1.9	100.0	81.1
7. Kphite 7LP	4	2 pt	26.8	3.1	100.0	62.5	33.8	2.8	100.0	87.6
8. Kphite 7LP	4	6 pt	16.8	1.8	100.0	52.8	37.5	2.9	100.0	93.5
9. Kphite 7LP	5	2 pt	24.2	2.8	100.0	50.8	33.0	3.4	100.0	94.4
10. Kphite 7LP	5	6 pt	19.4	2.8	100.0	45.8	23.2	1.4	100.0	78.3
11. Nontreated	-	-	30.4	3.1	100.0	71.9	43.2	4.0	100.0	97.3
LSD(P<0.05)			18.6	2.3	N. S.	22.5	18.7	2.7	N. S.	11.6

Spray weeks 1-5 corresponded to the spray dates 3/16, 3/23, 3/30, 4/6, and 4/13. All were at least a month ahead of disease ratings.

Leaf Inc¹=Leaf scab incidence per terminal (% of leaflets on middle leaf with scab).

Leaf Sev²=Leaf scab severity per terminal (% of middle leaflet covered with scab).

Nut Inc³=Nut scab incidence per terminal (% of nuts with any scab).

Nut Sev⁴=Nut scab severity per terminal (% of nut shucks covered with scab).

<u>DAILY RAINFALL, 2023</u>								
PONDER FARM, NORTH ORCHARD								
DATE	Mar	Apr	May	June	July	Aug	Sep	Oct
1	0	0	0	0	0.8	0	0.04	0
2	0.2	0	0	0	0	0	0	0
3	0.05	0.83	0	0	0	0	0	0
4	0.01	0	0	0	0	0.35	0	0.01
5	0	0	0	0	0.01	0	0	0
6	0	0	0	0	0	0.09	0	0.01
7	0	0	0	0.43	0.26	0.01	0	0
8	0	0.51	0	0.12	0.01	0.39	0	0
9	0	0.02	0	0	0.41	0.07	0	0
10	0.32	0	0	0	1.25	0.02	0	0
11	0	0	0	0	0	0	0	0.25
12	0.24	0	3.14	0.61	0	0.22	1.18	1.03
13	0	0.1	0	0.59	0	0	0.09	0.07
14	0	0.11	0	1.94	0.07	0.12	0	0
15	0	0.03	0.04	1.92	0.54	0	0	0
16	0	0.01	0.02	0	0	0.04	0	0
17	0.81	0	0	0.23	0	0	0.27	0
18	0.04	0	0	0	0	0	0	0
19	0	0	0	0.55	0	0	0	0
20	0	0	0	0.03	0	0	0	0.01
21	0	0	0.13	0.57	0.5	0	0	0
22	0	0	0.85	0.16	1.53	0	0	0
23	0	0	0.18	0.6	0.4	0	0	0
24	0	0	0.01	0	0	0	0	0
25	0.45	0	0	0.02	0	0	0	0
26	0	0	0	0	0	0	1.47	0
27	0.17	0.94	0	0	0	0	0	0
28	0.69	0	0	0	0	0	0	0.01
29	0.01	0.52	0	0	0.28	0.05	0	0
30	0	0.08	0	0	0.06	2.6	0	0
31	0	-	0	-	0	2.33	-	0
TOTAL (inches)	2.94	3.15	4.37	7.77	6.12	6.29	3.05	1.39
*Irrigated as needed.								

PECAN FUNGICIDE TEST II, 2023

- A. PURPOSE: To evaluate the efficacy of registered 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. The original trees served as unsprayed borders, and all treatments were applied to the younger trees.
- C. APPLICATION OF TREATMENTS:
1. Equipment: Drip treatments were applied by placing two buckets opposite sides of each tree, each containing 2 gallons of water. Small holes were drilled into buckets to allow for slow seepage. Soil was irrigated prior to and during applications. All remaining 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 were applied on Apr. 7, Apr. 21, May 8, May 19, June 1, June 20, June 30, July 14, July 27, and Aug. 11. Drip applications were applied on Apr. 7, Apr. 21, May 8, and May 19.
- D. ADDITIONAL INFORMATION:
1. Location: Ponder Farm, South Orchard, Tifton, GA, 31794
 2. Soil Fertility: pH – 6.1 P – 98 K – 94 Ca – 961 Mg – 109
Soil type: Tifton loamy sand, 2 – 5 % slope.
 3. Herbicides: Roundup (3 qt/a) + Interline (20 oz/a) on March 21.
Valor (6 oz/a) + Gramoxone (22 oz/a) on June 6.
- E. SUMMARY:

These trees were much shorter than in previous years as we hedged both sides of them with a commercial hedger in the winter. In this block, every other tree was removed also, resulting in much more air flow and a delay in the scab initiation. However, frequent rains resulted in a delayed, but significant scab epidemic. Due to this delay, only one rating was taken later in the season. Leaf scab ratings were taken separately on the original leaves formed after bud break, and also on the later season growth flushes formed in mid-summer (essentially due to tree

hedging). The continuous flush of these leaves through wetter summer months with higher inoculum levels made it more difficult to control scab, as is reflected by the ratings. Treatments provided a range of control of both leaf and nut scab. Overall it was a very good trial to determine the relative strengths and weaknesses of each program.

PECAN FUNGICIDE TEST II, SOUTH ORCHARD, 2023

			Leaf Inc ¹ (Old leaf)	Leaf Inc ¹ (New leaf)	Nut Inc ²	Nut Sev ³	% Def. ²
Treatments	Rate/A	App's	8-Aug	8-Aug	8-Aug	8-Aug	20-Nov
1. Super Tin 4L	6.0 fl oz	1 – 10	11.7	53.0	97.5	24.8	47.0
+ Elast 400F	25.0 fl oz						
2. Super Tin 4L	9.0 fl oz	1, 3, 5, 7, 9	21.9	51.1	100.0	33.4	59.0
+ Elast 400F	25.0 fl oz						
Regev HBX	8.5 fl oz	2, 4, 6, 8, 10					
3. Kphite	2.0 qt	1 – 4	7.1	56.1	88.8	14.5	58.0
Super Tin 4L	9.0 fl oz	5 – 10					
+ Elast 400F	36.0 fl oz						
4. Rhyme*	7.0 fl oz	1 – 4*	21.6	68.1	100.0	65.5	77.6
5. Prophyt*	48 fl oz	1 – 4*	20.2	81.4	100.0	77.9	72.0
6. Rhyme*	7.0 fl oz	1 – 4*	15.4	72.7	100.0	71.1	79.0
+ Prophyt	48 fl oz						
7. Rhyme*	7.0 fl oz	1 – 4*	24.6	53.9	100.0	59.7	48.0
Super Tin 4L	6.0 fl oz	5 – 10					
+ Elast 400F	25.0 fl oz						
8. Topguard EQ	8.0 fl oz	1 – 4	7.4	55.6	100.0	26.8	55.0
Super Tin 4L	6.0 fl oz	5 – 10					
+ Elast 400F	25.0 fl oz						
9. Rhyme	7.0 fl oz	1 – 4	12.1	79.7	97.5	54.2	78.6
10. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	8.4	21.8	81.3	5.4	57.0
+ Elast 400F	25.0 fl oz						
+ Goodspray	16.0 fl oz						
Miravis Top	13.7 fl oz	2, 4, 6, 8, 10					
+ Goodspray	16.0 fl oz						
11. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	10.7	29.6	80.0	9.6	62.0
+ Elast 400F	25.0 fl oz						
+ Humispread	16.0 fl oz						
Miravis Top	13.7 fl oz	2, 4, 6, 8, 10					
+ Humispread	16.0 fl oz						
12. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	9.8	30.6	85.4	12.0	59.0
+ Elast 400F	25.0 fl oz						
+ Wetable	16.0 fl oz						
Miravis Top	13.7 fl oz	2, 4, 6, 8, 10					
+ Wetable	16.0 fl oz						
13. Super Tin 4L	6.0 fl oz	1, 3, 5, 7, 9	11.8	36.5	80.3	13.1	53.0
+ Elast 400F	25.0 fl oz						
Miravis Top	13.7 fl oz	2, 4, 6, 8, 10					
14. Nontreated	-	-	27.5	81.2	100.0	81.4	82.0
LSD(P<0.05)			7.0	12.0	9.9	9.3	25.3

*Astrisks denote drip treatments, where 2 buckets per tree, each containing 2 gallons of water, were placed near an emitter on opposite sides of the tree. Irrigation was run prior to and during application.

Leaf Inc¹=Leaf scab incidence, based on 8 terminals per tree (% of leaflets on leaf with scab). The "Old leaf" was the original leaves from spring growth, and "New leaf" was midsummer growth flushes.

Nut Inc²=Nut scab incidence, based on ratings of 8 nut clusters per tree (% of nuts with any scab).

Nut Sev³=Nut scab severity, based on 8 nuts clusters per tree (% of shuck covered with scab).

<u>DAILY RAINFALL, 2023</u>								
PONDER FARM, SOUTH ORCHARD								
DATE	Mar	Apr	May	June	July	Aug	Sep	Oct
1	0	0	0	0	0.8	0	0.04	0
2	0.2	0	0	0	0	0	0	0
3	0.05	0.83	0	0	0	0	0	0
4	0.01	0	0	0	0	0.35	0	0.01
5	0	0	0	0	0.01	0	0	0
6	0	0	0	0	0	0.09	0	0.01
7	0	0	0	0.43	0.26	0.01	0	0
8	0	0.51	0	0.12	0.01	0.39	0	0
9	0	0.02	0	0	0.41	0.07	0	0
10	0.32	0	0	0	1.25	0.02	0	0
11	0	0	0	0	0	0	0	0.25
12	0.24	0	3.14	0.61	0	0.22	1.18	1.03
13	0	0.1	0	0.59	0	0	0.09	0.07
14	0	0.11	0	1.94	0.07	0.12	0	0
15	0	0.03	0.04	1.92	0.54	0	0	0
16	0	0.01	0.02	0	0	0.04	0	0
17	0.81	0	0	0.23	0	0	0.27	0
18	0.04	0	0	0	0	0	0	0
19	0	0	0	0.55	0	0	0	0
20	0	0	0	0.03	0	0	0	0.01
21	0	0	0.13	0.57	0.5	0	0	0
22	0	0	0.85	0.16	1.53	0	0	0
23	0	0	0.18	0.6	0.4	0	0	0
24	0	0	0.01	0	0	0	0	0
25	0.45	0	0	0.02	0	0	0	0
26	0	0	0	0	0	0	1.47	0
27	0.17	0.94	0	0	0	0	0	0
28	0.69	0	0	0	0	0	0	0.01
29	0.01	0.52	0	0	0.28	0.05	0	0
30	0	0.08	0	0	0.06	2.6	0	0
31	0	-	0	-	0	2.33	-	0
TOTAL (inches)	2.94	3.15	4.37	7.77	6.12	6.29	3.05	1.39
*Irrigated as needed.								