

Date: Jan. 23, 2007
Memo To: Industry Cooperators
From: Tim Brenneman
Subject: Field Trial Results

Attached are the results of our 2006 field trials on peanuts and pecans. This year was much drier than our recent growing seasons, but we were able to compensate for the most part with adequate irrigation. While not as conducive for diseases as major rain events, it was adequate to spur disease development on both crops, and produce some very high yields and generally good test data. It could have been a lot worse. The hot weather was very conducive for stem rot development, and significant leaf spot occurred also. The leaf spot epidemics were primarily early leaf spot and developed later in the year than normally occur.

I want to acknowledge the hard work of our crew led by Jimmy Mixon, Lewis Mullis, Pat Hilton, and our newest addition, Mr. Russ Griffin. Student workers included Eric Jackson and Amber Graham, and the cooperation of other scientists including Dr. Albert Culbreath, Dr. Bob Kemerait, Dr. Corley Holbrook, Dr. Patty Timper, Dr. Bill Branch, Dr. John Beasley and Dr. Dan Gorbet is much appreciated.

Once again we are making this available primarily as an online document, and it can be found at www.tifton.uga.edu/tsww/ by clicking on "Publications", and "2006 Field Trial Results on Diseases of Peanuts and Pecans". If you have any problems or any questions feel free to call. We have printed a few bound copies and can send you one upon request, but the entire book is available as a pdf file. Thanks again for your support, and we look forward to cooperating with you again in the future.

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EVALUATION OF EXP-3 FOR FOLIAR AND SOILBORNE DISEASE CONTROL ON GEORGIA GREEN PEANUT

- A. PURPOSE: To evaluate the efficacy of EXP-3 for control of peanut diseases, mainly leafspot and stem rot.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with six replicates.
 2. One two-row bed (25 x 6 ft) per plot, 36-inch row spacing.
 3. Eight foot alleyways between blocks.
 4. Plots were established in an area with a history of continuous peanut production.
 5. Variety: Georgia Green
- C. APPLICATION OF TREATMENTS:
1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI.
 2. Belt-pack spray treatments (1-7) were applied on 13 Jun, 27 Jun, 11 Jul, 25 Jul, 8 Aug, 22 Aug, and 5 Sep. This test was not cover sprayed with chlorothalonil.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, CPES Tifton, GA 31794
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
 3. Land Preparation: Moldboard plowed and marked rows on 6 May
 4. Soil Fertility: pH -5.9 P - 63 K - 72 Ca - 409 Mg - 38
Soil type: Tifton loamy sand, 2 - 5 % slope
 5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST:
 6. Insecticides: Temik 15G, 4 lb/A in furrow on 15 May
 7. Nematicides: Temik 15G, 10 lb/A (12" band) on 15 May
 8. Planting Info: Georgia Green, 7 seed/ft on 15 May
 9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
 10. Harvest Dates: Dug - 25 Sep Picked - 29 Sep

- E. SUMMARY: In this test moderate stem rot occurred, but much of the epidemic was very late in the season. The Bravo plots are considered the standard for comparison for stem rot as the non-treated plots had considerable leaf shed and superficial growth of *Sclerotium rolfsii*. Treatments were not very effective on stem rot, in part due to the very late timing of the epidemic. Severe leaf spot occurred due to frequent irrigation events. Folicur did not provide good control of leaf spot, except when applied as a tank mix with EXP-3. EXP-3 alone gave marginal control of leaf spot, and was not adequate at the 10 fl oz rate. Large yield increases were observed, primarily from control of leaf spot.

EXP-3 FUNGICIDE TEST II, 2006
LANG FARM, SOUTH FIELD

Treatments	App's	Rate/A	Leaf Spot ¹		White Mold ²		Yield (lb/A)
			11/Aug	22/Sep	23/Aug	25/Sep	
1. Bravo W'stik	1 - 7	1.5 pt	2.8	4.5	13.0	39.3	3616
2. Bravo W'stik	1, 2, & 7	1.5 pt					
Folicur 3.6F	3 - 6	7.2 fl oz	3.3	7.1	7.3	32.0	3816
3. Bravo W'stik	1, 2, & 7	1.5 pt					
Folicur 3.6F	3 - 6	7.2 fl oz					
+ EXP-3		15 oz	3.2	4.9	5.0	28.7	4336
4. Bravo W'stik	1, 2, & 7	1.5 pt					
Folicur 3.6F	3 - 6	7.2 fl oz					
+ EXP-3		10 oz	2.9	4.8	7.7	31.7	4535
5. Bravo W'stik	1 - 7	1.0 pt					
+ EXP-3		15 oz	3.1	5.2	10.7	32.7	3942
6. Bravo W'stik	1 - 7	1.0 pt					
+ EXP-3		10 oz	3.2	5.5	9.3	32.3	4431
7. EXP-3	1 - 7	10 fl oz	3.8	7.7	14.3	48.0	3281
8. EXP-3	1 - 7	15 fl oz	3.2	6.1	12.0	46.3	3279
9. EXP-3	1 - 7	20 fl oz	3.1	6.0	12.0	39.0	3299
10 Nontreated			4.9	9.1	14.0	66.7	2013
LSD(P<0.5)			0.5	0.7	4.8	19.7	933

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

²Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

EVALUATION OF BAYER SEED TREATMENTS FOR PEANUT SEEDLING AND SOILBORNE DISEASE CONTROL, TEST 1

- A. PURPOSE: To evaluate the comparative efficacy of fungicide seed treatments provided by Bayer Corporation for control of seedling and soilborne peanut diseases.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with six replicates.
 2. One two- row bed (25 x 6 ft) per plot, 36 inch row spacing
 3. Eight foot alleyways between blocks
 4. Plots were established in an area with a history of continuous peanut production.
 5. Variety: Georgia Green (about 78% germination)
- C. APPLICATION OF TREATMENTS:
1. Equipment: Fungicide treatments were applied to non-treated commercial seed by Bayer Corporation.
 2. Bayer seed treatments were applied prior to planting on 15 May. All plots were traveled by tractor and cover sprayed with Bravo (1.5 pt/A) on 21 Jun, 5 Jul, 19 Jul, 2 Aug, 15 Aug, 29 Aug, and 11 Sep.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, CPES, Tifton, GA 31794
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
 3. Land Preparation: Moldboard plowed and marked rows on 9 May
 4. Soil Fertility: pH - 5.9 P - 63 K - 72 Ca - 409 Mg - 38
Soil type: Tifton loamy sand, 2 - 5 % slope
 5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST:
 6. Insecticides: Temik 15G, 4 lb/A in furrow on 15 May
 7. Nematicides: Temik 15G, 10 lb/A (12" band) on 15 May
 8. Planting Info: Georgia Green, 7 seed/ft on 15 May
 9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
 10. Harvest Dates: Dug - 25 Sep Picked - 29 Sep

- E. **SUMMARY:** Non-treated seed produced very poor stands in this trial which were reflected in low yield of only 2326 lb/A. All registered seed treatments increased yield similarly except for Trilex Optimum which was lower. This treatment produced similar stands as the other treatments and the reason for the lower yields is not known. Severe TSWV occurred at this location. Plots with better stands had less TSWV, but were still greatly affected in terms of yield reduction. There was very little post-emergence damping off in this test, although there were obvious differences in plant vigor and growth as reflected by the vigor ratings. Most treatments gave significant yield differences, but all yields were suppressed by TSWV.

**BAYER SEED TREATMENT TEST, 2006
LANG FARM, SOUTH FIELD**

Treatments	Rate per	Plants/ft¹		Dead plants²		TSWV³	Vigor⁴	White Mold⁵	Yield (lb/A)
	100 lb	1/Jun	15/Jun	1/Jun	15/Jun	11/Aug	28/Jun	25/Sep	
1. Nontreated		1.3	1.4	0.2	0.0	74.3	4.8	1.2	2326
2. Trilex Optimum	4.0 oz	2.8	2.5	0.0	0.0	67.0	7.8	3.7	2679
3. Trilex Star	4.0 oz	2.7	2.6	0.0	0.0	59.7	8.3	4.0	3231
4. Dynasty PD	4.0 oz	2.5	2.4	0.0	0.0	56.0	7.5	5.0	3187
5. Vitavax PC	4.0 oz	2.7	2.4	0.0	0.0	59.3	7.7	4.3	3228
6. L1492-A	4.0 oz	2.4	2.4	0.0	0.0	50.0	7.8	3.7	3098
7. L1494-A	4.0 oz	2.4	2.3	0.0	0.0	64.3	7.2	4.0	2829
8. L1138-A	4.0 oz	2.4	2.3	0.2	0.0	58.3	7.2	3.7	3052
LSD(P<0.05)		0.3	0.3	n.s.	n.s.	11.8	0.8	n.s.	563

NOTE - This test will be coversprayed with chlorothalonil every 2 weeks.

¹Stand count is the number of emerged plants per foot of row on June 1 and June 15.

²The number of dead or dying plants per plot (50 row feet) on June 1 and June 15.

^{3 & 5}Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

⁴Based on a scale of 1 - 10 with 10 being the most vigorous growth on 6/28.

EVALUATION OF EXPERIMENTAL INOCULANTS FOR PEANUT SEEDLING DISEASE CONTROL

- A. PURPOSE: To evaluate the effect of peanut seed inoculants provided by Becker Underwood on seedling diseases and overall plant health.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with four replicates.
 2. One two- row bed (25 x 6 ft) per plot, 36 inch row spacing
 3. Eight foot alleyways between blocks
 4. Plots were established in an area with a history of continuous peanut production.
 5. Variety: Georgia Green, treated with Vitavax PC (4oz/100 lb seed)
- C. APPLICATION OF TREATMENTS:
1. Equipment: Granular inoculant treatments were pre-weighed and applied by hand into the open furrow. Liquid inoculants were applied with a planter-mounted CO₂ pressurized sprayer using one TX-8 nozzle per row delivering 5 GPA at 25 PSI.
 2. Inoculant treatments were applied at planting on 15 May. All plots were traveled by tractor and cover sprayed with Bravo (1.5 pt/A) on 21 Jun, 5 Jul, 19 Jul, 2 Aug, 15 Aug, 29 Aug, and 11 Sep.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, CPES, Tifton, GA 31794
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
 3. Land Preparation: Moldboard plowed and marked rows on 9 May
 4. Soil Fertility: pH - 5.9 P - 63 K - 72 Ca - 409 Mg - 38
Soil type: Tifton loamy sand, 2 - 5 % slope
 5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST:
 6. Insecticides: Temik 15G, 4 lb/A in furrow on 15 May
 7. Nematicides: Temik 15G, 10 lb/A (12" band) on 15 May
 8. Planting Info: Georgia Green, 7 seed/ft on 15 May
 9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
 10. Harvest Dates: Dug - 25 Sep Picked - 29 Sep

- E. **SUMMARY:** Good stands were obtained with all treatments, although there was a small but significant increase in stand with Vault and Histick L in the June 1 evaluation. There was no post-emergence damping off in any of the plots. TSWV was fairly heavy in all plots at this location. Stem rot was low, but the Vault and Histick L did have lower levels. BUESP-PND2 had the highest yields, but there were no significant differences among any treatments ($P < 0.05$).

**BECKER UNDERWOOD INOCULANT TEST, 2006
LANG FARM, SOUTH FIELD**

Treatments	Rate/A (IF)	Plants/ft ¹		Dead Plants ²		TSWV ³ 11/Aug	White Mold ³ 25/Sep	Yield (lb/A)
		1/June	15/June	1/June	15/June			
1. Vault	18.7 fl oz	3.7	3.4	0.0	0.0	44.7	1.3	4216
2. HiStick L + Subtilex	18.7 fl oz	3.8	3.6	0.0	0.0	36.0	2.7	4458
3. BUESP-PND2	18.7 fl oz	3.5	3.2	0.0	0.0	32.0	4.7	4842
4. Nontreated		3.4	3.4	0.0	0.0	38.7	4.7	4341
LSD($P < 0.5$)		0.2	0.3	0.0	0.0	9.3	2.6	n.s.

IF= In furrow sprays applied at 5 GPA

¹Stand count is the number of emerged plants per foot of row on June 1 and June 15.

²The number of dead or dying plants per plot (50 row feet) on June 1 and June 15.

³Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

DAILY RAINFALL AND IRRIGATION, 2006

Lang Farm, South Field
TIFTON, GA

DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
1			0.40				
2			0.50				
5		0.25					
6							
7		0.70		0.70	0.60	0.90	0.70
8	0.75				1.20		
9		0.25					
11		0.90			0.30		
13			2.20				
14		0.10					
15		0.30					
16				0.85			
17				0.55			
18						0.30	
19					0.30		
22	0.10		0.60				
23					0.30		
24					0.20		
25			0.20				
26	1.10		0.60	0.15			
27			0.25				0.40
28		0.10					
29				0.20	1.40		
31					0.50		
TOTAL	1.95	2.60	4.75	2.45	4.80	1.20	1.10

Irrigation

DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
1					0.60		
3				0.65			
4					0.90		
6			0.50				
7						0.70	
9			0.50				
11				0.75			
13				0.50			
20				0.50			
22		0.80					
23					0.70		
24		0.30					
27				0.50			
30		1.10					
TOTAL		2.20	1.00	2.90	2.20	0.70	
Rain & Irr	1.95	4.80	5.75	5.35	7.00	1.90	1.10

EVALUATION OF EXP-3 FOR FOLIAR AND SOILBORNE DISEASE CONTROL ON TIFRUNNER PEANUT

A. PURPOSE: To evaluate the comparative efficacy of EXP-3 for control of peanut diseases, mainly leaf spot and stem rot.

B. EXPERIMENTAL DESIGN:

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

C. APPLICATION OF TREATMENTS:

1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI.
2. Belt-pack spray treatments (1-7) were applied on 20 Jun, 4 Jun, 18 Jul, 1 Aug, 15 Aug, 29 Aug, and 12 Sep. This test was not coversprayed with chlorothalonil.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, Cotton Field, CPES, Tifton, GA 31794
2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
3. Land Preparation: Moldboard plowed and marked rows on 6 May
4. Soil Fertility: pH - 6.0 P - 102 K - 81 Ca - 527 Mg - 34
Soil type: Tifton loamy sand, 2 - 5 % slope
5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST:
6. Insecticides: Temik 15G, 4 lb/A in furrow on 12 May
7. Nematicides: Temik 15G, 10 lb/A (12" band) on 12 May
8. Planting Info: Tifrunner, 7 seed/ft on 12 May
9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
10. Harvest Dates: Dug - 19 Oct Picked - 24 Oct

E: SUMMARY: Moderate stem rot developed, but much of it occurred in September and October after many of the treatments had been applied. The Bravo plots are considered the standard for comparison for stem rot as the non-treated plots had considerable leaf shed and superficial growth of *Sclerotium rolfsii*. Folicur treatments reduced stem rot and controlled leaf spot, resulting in significant yield increases. The EXP-3 treatments did a good job on leaf spot but had no activity on stem rot.

EXP-3 FUNGICIDE TEST, 2006
LANG FARM, COTTON FIELD

Treatments	App's	Rate/A	Leaf Spot ¹		White Mold ²		Yield (lb/A)
			23/Aug	16/Oct	23/Aug	19/Oct	
1. Bravo W'stik	1 - 7	1.5 pt	1.2	2.5	9.5	37.0	4809
2. Bravo W'stik	1, 2, & 7	1.5 pt					
Folicur 3.6F	3 - 6	7.2 fl oz	1.0	2.8	5.0	24.0	5434
3. Bravo W'stik	1, 2, & 7	1.5 pt					
Folicur 3.6F	3 - 6	7.2 fl oz					
+ EXP-3		15 oz	1.0	2.2	5.5	16.0	5489
4. Bravo W'stik	1, 2, & 7	1.5 pt					
Folicur 3.6F	3 - 6	7.2 fl oz					
+ EXP-3		10 oz	1.0	2.5	2.5	20.0	5521
5. Bravo W'stik	1 - 7	1.0 pt					
+ EXP-3		15 oz	1.0	2.3	9.5	28.5	4904
6. Bravo W'stik	1 - 7	1.0 pt					
+ EXP-3		10 oz	1.0	3.0	5.0	28.0	4919
7. EXP-3	1 - 7	10 fl oz	1.0	4.0	11.5	38.0	4701
8. EXP-3	1 - 7	15 fl oz	1.0	3.4	10.5	40.0	4636
9. EXP-3	1 - 7	20 fl oz	1.0	3.5	7.5	34.0	5017
10. Nontreated			2.3	7.1	13.5	54.5	3441
LSD (P<0.05)			n.s.	0.5	4.5	14.0	669

NOTE - This test will be NOT be coversprayed.

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

²Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

EVALUATION OF EXPERIMENTAL FUNGICIDES FOR FOLIAR AND SOILBORNE DISEASE CONTROL ON TIFRUNNER PEANUT

A. PURPOSE: To evaluate the comparative efficacy of experimental and registered products for control of peanut diseases, mainly leafspot and stem rot.

B. EXPERIMENTAL DESIGN:

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

C. APPLICATION OF TREATMENTS:

1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI.
2. Belt-pack spray treatments (1-7) were applied on 20 Jun, 4 Jun, 18 Jul, 1 Aug, 15 Aug, 29 Aug, and 12 Sep. This test was not coversprayed with chlorothalonil.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, Cotton Field, CPES, Tifton, GA 31794
2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
3. Land Preparation: Moldboard plowed and marked rows on 6 May
4. Soil Fertility: pH - 6.0 P - 102 K - 81 Ca - 527 Mg - 34
Soil type: Tifton loamy sand, 2 - 5 % slope
5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST:
6. Insecticides: Temik 15G, 4 lb/A in furrow on 12 May
7. Nematicides: Temik 15G, 10 lb/A (12" band) on 12 May
8. Planting Info: Tifrunner, 7 seed/ft on 12 May
9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
10. Harvest Dates: Dug - 19 Oct Picked - 24 Oct

E: SUMMARY: The peanuts grew very well in this test and produced excellent yields in spite of low rainfall and minimal irrigation. Disease levels were generally low due to the dry weather. This test did not have an untreated control, but an adjacent test in the same field had a non-treated control that yielded 3441 lb/A and had a final leaf spot rating of 7.1, indicating that there was significant leaf spot pressure. There were no differences in stem rot control or yield with any treatments, but the MANA-TEB 3.6F (7.2 fl oz full season) did have a higher leaf spot rating at harvest than the Folicur at the same rate. This was not true when MANA-TEB 3.6F was used as a 4-spray block as is done commercially. It is of interest to note that all tebuconazole treatments gave excellent control of leaf spot on a farm that has been the site of triazole failures in past years.

**MANA FUNGICIDE TEST, 2006
LANG FARM, COTTON FIELD**

Treatments	App's	Rate/A	Leaf Spot ¹		White Mold ²		Yield (lb/A)
			23/Aug	16/Oct	23/Aug	19-Oct	
1. Folicur 3.6F	1 - 7	7.2 fl oz	1.0	2.9	5.2	26.4	4571
2. Folicur 3.6F	1 - 7	14.4 fl oz	1.0	2.4	6.8	19.6	4841
3. MANA-TEB 3.6F	1 - 7	7.2 fl oz	1.0	3.6	4.4	21.6	5152
4. MANA-TEB 3.6F	1 - 7	14.4 fl oz	1.0	2.1	5.2	16.8	4684
5. MANA-TEB 20EW	1 - 7	15.0 fl oz	1.0	2.1	6.0	27.6	4518
6. MANA-TEB 20EW	1 - 7	30.0 fl oz	1.0	2.0	7.6	19.6	4663
7. Equus 720	1, 2 & 7	1.5 pt					
Folicur 3.6F	3 - 6	7.2 fl oz	1.0	2.5	9.6	22.4	4722
8. Equus 720	1, 2 & 7	1.5 pt					
MANA-TEB 20EW	3 - 6	7.2 fl oz	1.0	2.3	4.8	25.2	4673
9. Equus 720	1, 2 & 7	1.5 pt					
MANA-TEB 20EW	3 - 6	15.0 fl oz	1.0	2.3	5.6	22.4	4690
10. Bravo W'stik	1, 2 & 7	1.5 pt					
Folicur 3.6F	3 - 6	7.2 fl oz	1.0	2.4	8.8	26.0	4521
LSD(P<0.5)			n.s.	0.5	n.s.	n.s.	n.s.

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

²Percent of row feet infected based on number of disease loci (up to 12' of linear row) per plot.

EVALUATION OF EXP-2 FOR FOLIAR AND SOILBORNE DISEASE CONTROL ON TIFRUNNER PEANUT

A. PURPOSE: To evaluate the comparative efficacy of experimental fungicide EXP-2 for control of peanut diseases, mainly leafspot and stem rot.

B. EXPERIMENTAL DESIGN:

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

C. APPLICATION OF TREATMENTS:

1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI.
2. Belt-pack spray treatments (1-7) were applied on 21 Jun, 5 Jun, 19 Jul, 2 Aug, 16 Aug, 30 Aug, and 13 Sep. This test was not coversprayed with chlorothalonil.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, Cotton Field, CPES, Tifton, GA 31794
2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
3. Land Preparation: Moldboard plowed and marked rows on 6 May
4. Soil Fertility: pH - 6.0 P - 102 K - 81 Ca - 527 Mg - 34
Soil type: Tifton loamy sand, 2 - 5 % slope
5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST:
6. Insecticides: Temik 15G, 4 lb/A in furrow on 12 May
7. Nematicides: Temik 15G, 10 lb/A (12" band) on 12 May
8. Planting Info: Tifrunner, 7 seed/ft on 12 May
9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
10. Harvest Dates: Dug - 19 Oct Picked - 25 Oct

E: SUMMARY: Moderate stem rot developed, but much of it occurred in September and October after many of the treatments had been applied. The Bravo plots are considered the standard for comparison for stem rot as the non-treated plots had considerable leaf shed and superficial growth of *Sclerotium rolfsii*. In spite of this there were still good reductions in disease and yield increases over 1500 lb/A in some treatments. The EXP-2 200SC looked especially good on stem rot and leaf spot. Overall leaf spot pressure was moderate, and all treatments performed well except the EXP-2 50WDG.

**EXP-2 FUNGICIDE TEST, 2006
LANG FARM, COTTON FIELD**

Treatments	App's	Rate/A	Leaf Spot ¹		White Mold ²		Yield (lb/A)
			27/Sep	16/Oct	1/Sep	19/Oct	
1. EXP-2 200SC	1 - 7	9.6 fl oz	1.0	2.6	4.7	18.3	5162
2. EXP-2 50WDG	1 - 7	4.0 oz	1.0	5.4	4.3	15.3	5346
3. EXP-2 200SC	1 - 7	16.8 fl oz	1.0	1.3	1.0	9.0	5745
4. EXP-2 200SC	1 - 7	24.0 fl oz	1.0	1.3	1.0	7.7	5662
5. Punch 3.3 EC + Bravo W'stik EXP-2 200SC Bravo W'stik	1 & 2 3 & 5 4, 6 & 7	5.0 fl oz 1.5 pt 16.8 fl oz 1.5 pt	1.0	1.7	4.7	23.0	5326
6. Tilt 3.6EC + Bravo W'stik Abound Bravo W'stik	1 & 2 3 & 5 4, 6 & 7	2.0 oz 1.0 pt 18.2 fl oz 1.5 pt	1.0	2.2	6.3	27.0	5169
7. Tilt 3.6EC + Bravo W'stik Folicur 3.6F Bravo W'stik	1 & 2 3 & 5 4, 6 & 7	2.0 oz 1.0 pt 7.2 fl oz 1.5 pt	1.0	2.4	4.3	20.7	5476
8. EXP-2 200SC + Punch 3.3EC	1 - 7	9.6 fl oz 5.0 fl oz	1.0	1.2	2.0	19.3	5341
9. Endura 70WG	1 - 7	8.0 oz	1.0	1.6	5.7	27.7	5154
10. Bravo W'stik	1 - 7	1.5 pt	1.0	2.2	4.3	26.3	5117
11. Nontreated			1.7	7.3	17.0	68.0	4233
LSD(P<0.5)			n.s.	0.5	4.7	8.5	508

NOTE - This test will NOT be coversprayed.

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

²Percent of row feet infected based on number of disease loci (up to 12' of linear row) per plot.

EVALUATION OF VARIOUS FUNGICIDES FOR FOLIAR AND SOILBORNE DISEASE CONTROL ON TIFRUNNER PEANUT

A. PURPOSE: To evaluate the comparative efficacy of experimental and labeled fungicides for control of peanut diseases, mainly leafspot and stem rot.

B. EXPERIMENTAL DESIGN:

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

C. APPLICATION OF TREATMENTS:

1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI.
2. Belt-pack spray treatments (1-7) were applied on 21 Jun, 5 Jun, 19 Jul, 2 Aug, 16 Aug, 30 Aug, and 13 Sep. This test was not coversprayed with chlorothalonil.

D. ADDITIONAL INFORMATION:

1. Location: Lang Farm, Cotton Field, CPES Tifton, GA 31794
2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
3. Land Preparation: Moldboard plowed and marked rows on 6 May
4. Soil Fertility: pH - 6.0 P - 102 K - 81 Ca - 527 Mg - 34
Soil type: Tifton loamy sand, 2 - 5 % slope
5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST:
6. Insecticides: Temik 15G, 4 lb/A in furrow on 12 May
7. Nematicides: Temik 15G, 10 lb/A (12" band) on 12 May
8. Planting Info: Tifrunner, 7 seed/ft on 12 May
9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
10. Harvest Dates: Dug - 19 Oct Picked - 25 Oct

E: SUMMARY: Although no untreated control was included in this test, significant leaf spot occurred in nonsprayed plots of adjacent tests in the same field indicating a moderate level of pressure from that disease. Those nonsprayed plots had a leaf spot rating of 7.1 on the Florida 1-10 scale and yielded 3441 lb/A. All treatments in this trial gave very good control of foliar diseases. Stem rot also developed, although both diseases were later than they normally occur. All treatments except Absolute reduced stem rot incidence. Yields were high in all treatments, and only Abound and the Evito/Folicur combinations gave significant increases.

FUNGICIDE TEST I, 2006
LANG FARM, COTTON FIELD

Treatments	App's	Rate/A	Leaf Spot ¹		White Mold ²		TSWV ³	Yield (lb/A)
			24-Aug	16-Oct	1-Sep	19-Oct	13-Sep	
1. Bravo W'stik	1 - 7	1.5 pt	1.0	3.4	11.0	45.7	7.7	4610
2. Echo 720	1, 2, & 7	1.5 pt						
Folicur 3.6F	3 - 6	7.2 fl oz	1.0	3.0	5.3	23.7	8.5	5169
3. Absolute 500SC	1, 3, & 5	3.5 fl oz						
+ Induce		0.06% v/v						
Echo 720	2, 4, 6 & 7	1.5 pt	1.0	1.8	9.3	37.7	10.0	4700
4. Echo 720	1, 2, & 7	1.5 pt						
Provost 433SC	3 - 6	8.0 oz	1.0	1.7	2.7	23.0	9.0	5237
5. Echo 720	1, 2, & 7	1.5 pt						
Provost 433SC	3 - 6	10.3 oz	1.0	1.6	4.0	19.0	6.8	5179
6. Bravo W'stik	1, 2, 4, 6 & 7	1.5 pt						
Evito 4FL	3 & 5	5.7 fl oz	1.0	2.4	7.7	23.3	8.8	4997
7. Bravo W'stik	1, 2, 4, 6 & 7	1.5 pt						
Abound	3 & 5	18.3 fl oz	1.0	1.5	5.0	19.0	7.7	5367
8. Bravo W'stik	1, 2, 4, 6 & 7	1.5 pt						
Evito 4FL	3 & 5	3.5 fl oz						
+ Folicur 3.6F		3.6 fl oz	1.0	2.0	7.0	22.7	6.7	5190
9. Bravo W'stik	1, 2, 4, 6 & 7	1.5 pt						
Evito 4FL	3 & 5	5.7 fl oz						
+ Induce		0.25% v/v	1.0	2.2	6.7	20.0	7.8	5167
10. Bravo W'stik	1, 2 & 7	1.5 pt						
Evito 4FL	3 & 5	5.7 fl oz						
Folicur 3.6F	4 & 6	7.2 fl oz	1.0	2.3	2.3	11.7	7.0	5515
11. Bravo W'stik	1, 2, 4, 6 & 7	1.5 pt						
Evito 4FL	3 - 6	3.5 fl oz						
+ Folicur 3.6F		3.6 fl oz	1.0	1.7	7.0	17.0	8.7	5385
LSD(P<0.5)			n.s.	0.5	5.3	10.3	n.s.	635

NOTE - This test will be NOT be coversprayed.

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

^{2 & 3}Percent of row feet infected based on number of disease loci (up to 12' of linear row) per plot.

EVALUATION OF EXPERIMENTAL FUNGICIDES FOR THE CONTROL OF PEANUT SOILBORNE DISEASES

- A. PURPOSE: To evaluate the comparative efficacy of experimental fungicides provided by Valent against peanut soilborne diseases.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with six replicates.
 2. One two-row bed (25 x 6 ft) per plot, 36-inch row spacing.
 3. Eight foot alleyways between blocks.
 4. Plots were established in an area with a history of continuous peanut production.
 5. Variety: Tifrunner
- C. APPLICATION OF TREATMENTS:
1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI.
 2. Belt-pack spray treatments (1-7) were applied on 21 Jun, 5 Jun, 19 Jul, 2 Aug, 16 Aug, 30 Aug, and 13 Sep.
- D. ADDITIONAL INFORMATION:
1. Location: Lang Farm, Cotton Field, CPES, Tifton, GA 31794
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003, Cotton - 2002
 3. Land Preparation: Moldboard plowed and marked rows on 6 May
 4. Soil Fertility: pH - 6.0 P - 102 K - 81 Ca - 527 Mg - 34
Soil type: Tifton loamy sand, 2 - 5 % slope
 5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST:
 6. Insecticides: Temik 15G, 4 lb/A in furrow on 12 May
 7. Nematicides: Temik 15G, 10 lb/A (12" band) on 12 May
 8. Planting Info: Tifrunner, 7 seed/ft on 12 May
 9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
 10. Harvest Dates: Dug - 19 Oct Picked - 25 Oct

E: SUMMARY: Although no untreated control was included in this test, significant leaf spot occurred in nonsprayed plots of adjacent tests in the same field indicating a moderate level of pressure from that disease. Those nonsprayed plots had a leaf spot rating of 7.1 on the Florida 1-10 scale and yielded 3441 lb/A. All treatments in this trial gave very good control of foliar diseases except for V-10135 50WD. Stem rot also developed, but at a moderate level and it was much later than normal. In fact, the low September 1 ratings indicate that the main epidemic occurred after most of the fungicides had been applied. Some trends are apparent in the stem rot data, but they are more variable, and yield reductions from disease were minimal due to the late development of disease.

**VALENT PEANUT FUNGICIDE TEST, 2006
LANG FARM, COTTON FIELD**

Treatments	App's	Rate/A	Leaf Spot ¹		TSWV ²	White Mold ³		Yield (lb/A)
			24/Aug	16/Oct	30/Aug	1/Sep	19/Oct	
1. Bravo W'stik	1 - 7	1.5 pt	1.0	3.9	14.7	6.0	33.3	4813
2. Bravo W'stik Folicur 3.6F + Induce	1, 2, & 7 3 - 6	1.5 pt 7.2 fl oz 0.25% v/v	1.0	2.5	7.3	4.7	19.7	4932
3. Bravo W'stik V-10116 50WD + Induce	1, 2, & 7 3 - 6	1.5 pt 3.0 oz 0.25% v/v	1.0	2.7	5.3	3.7	25.0	4927
4. Bravo W'stik V-10116 50WD + Induce	1, 2, & 7 3 - 6	1.5 pt 4.0 oz 0.25% v/v	1.0	2.2	6.0	3.3	21.0	5191
5. Bravo W'stik Headline Folicur 3.6F + Induce	1 & 7 2 & 4 3, 5 & 6	1.5 pt 9.0 oz 7.2 fl oz 0.25% v/v	1.0	2.4	5.3	3.0	18.3	5029
6. Bravo W'stik Headline V-10116 50WD + Induce	1 & 7 2 & 4 3, 5 & 6	1.5 pt 9.0 oz 4.0 oz 0.25% v/v	1.0	2.2	8.3	5.7	21.0	4772
7. Bravo W'stik Headline	1, 2, 4, 6 & 7 3 & 5	1.5 pt 9.0 oz	1.0	2.1	7.0	8.7	37.7	4746
8. V-10116 50WD + Induce Headline	1, 2, 4, 6 & 7 3 & 5	2.5 oz 0.25% v/v 9.0 oz	1.0	2.2	10.3	6.7	31.0	4785
9. V-10116 50WD + Induce Headline	1, 2, 4, 6 & 7 3 & 5	1.75 oz 0.25% v/v 9.0 oz	1.0	2.2	9.7	6.0	32.3	4695
10. Bravo W'stik V-10135 50WD	1, 2, & 7 3 - 6	1.5 pt 16 oz	1.0	6.5	8.3	15.3	41.0	4477
11. Bravo W'stik V-10116 0.34DC	1, 2, & 7 3 - 6	1.5 pt 20.3 fl oz	1.0	3.9	7.3	6.3	31.7	4867
LSD(P<0.5)			n.s.	0.7	4.7	5.8	13.2	712

NOTE - This test will be NOT be coversprayed.

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

^{2 & 3}Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

DAILY RAINFALL AND IRRIGATION 2006
RIGDON FARM. COTTON FIELD
TIFTON, GA

DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
1			0.40				
2			0.50				
5		0.25					
6							
7		0.70		0.70	0.60	0.90	0.70
8	0.75				1.20		
9		0.25					
11		0.90			0.30		
13			2.20				
14		0.10					
15		0.30					
16				0.85			
17				0.55			
18						0.30	
19					0.30		
22	0.10		0.60				
23					0.30		
24					0.20		
25			0.20				
26	1.10		0.60	0.15			
27			0.25				0.40
28		0.10					
29				0.20	1.40		
31					0.50		
TOTAL	1.95	2.60	4.75	2.45	4.80	1.20	1.10

Irrigation

DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
19					1.10		
28					1.10		
9							0.70
TOTAL		0.00	0.00	0.00	2.20	0.00	0.70
Rain & Irr	1.95	2.60	4.75	2.45	7.00	1.20	1.80

EVALUATION OF SPRAY TIMINGS ON TWO LATE MATURING CULTIVARS FOR THE CONTROL OF PEANUT SOILBORNE DISEASES

A. PURPOSE: To evaluate the effect of spray timings on control of stem rot on two late maturity cultivars, Georgia 02-C and Tifrunner.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with seven replicates.
2. One two-row bed (25 x 6 ft) per plot, 36-inch row spacing.
3. Eight foot alleyways between blocks.
4. Plots were established in an area with a history of continuous peanut production.
5. Varieties: Tifrunner and Georgia 02-C

C. APPLICATION OF TREATMENTS:

1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI.
2. Belt-pack spray treatments (1-7) were applied on 14 Jun, 28 Jun, 12 Jul, 26 Jul, 9 Aug, 23 Aug, and 6 Sep. This test was coversprayed with chlorothalonil 21 Jun, 5 Jul, 19 Jul, 2 Aug, 15 Aug, 29 Aug, and 11 Sep.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, CPES, Tifton, GA 31794
2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
3. Land Preparation: Moldboard plowed and marked rows on 2 May
4. Soil Fertility: pH - 5.9 P - 95 K - 52 Ca - 461 Mg - 34
Soil type: Tifton loamy sand, 2 - 5 % slope
5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST:
6. Insecticides: Temik 15G, 4 lb/A in furrow on 18 May
7. Nematicides: Temik 15G, 10 lb/A (12" band) on 18 May
8. Planting Info: Tifrunner and Georgia 02-C, 7 seed/ft on 18 May
9. Additional Crop Practices:

A. Gypsum broadcast (1000 lb/A) on 23 Jun

10. Harvest Dates: Dug - 2 Oct Picked - 6 Oct

E: SUMMARY: This test had heavy stem rot pressure (51% incidence with chlorothalonil only) with all treatments providing good levels of control. The main objective of this test was to determine the degree of flexibility in timing fungicide sprays for control of stem rot on late maturing cultivars. These varieties are in the field longer and thus have greater exposure to potential infection periods. In this test all treatment timings gave similar results, including yield increases of about 1300-1500 lb/A. Tifrunner is thought to be more susceptible than GA-02C, and it did have slightly more disease, but it also yielded considerably higher than GA-02C.

LATE MATURITY CULTIVAR SPRAY TEST, 2006
BLACKSHANK FARM
(No cultivar X Timing Interactions)

Fungicide Timing (Mean of cultivars)

Treatments	App's	Rate/A	White Mold ¹		TSWV ²	Yield (lb/A)
			14-Aug	9-Oct	30-Aug	
1. Abound 2.08F	3 & 5	18.3 fl oz	3.8	24.4	5.9	4483
2. Abound 2.08F	4 & 6	18.3 fl oz	5.4	27.3	7.7	4496
3. Abound 2.08F	3 & 6	18.3 fl oz	5.0	27.0	7.0	4297
4. Nontreated			14.6	51.1	7.0	3046
LSD (P<0.05)			2.7	7.6	n.s.	578

Cultivar Comparison (Mean of treatments)

Treatments	App's	Rate/A	White Mold ¹		TSWV ²	Yield (lb/A)
			14-Aug	9-Oct	30-Aug	
1. Tifrunner	3 & 5	18.3 fl oz	8.2	35.9	7.6	4376
2. GA-02C	4 & 6	18.3 fl oz	6.2	29.0	6.1	3786
LSD(P<0.05)			1.9	5.4	n.s.	409

NOTE - This test will be coversprayed with chlorothalonil.

¹ & ²Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

EVALUATION OF CHLORPYRIFOS FOR THE CONTROL OF PEANUT SOILBORNE DISEASES

- A. PURPOSE: To evaluate the comparative efficacy of two formulations of chlorpyrifos for control of peanut soilborne diseases and any secondary effect on insects, plant health, etc.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with seven replicates.
 2. One two-row bed (25 x 6 ft) per plot, 36-inch row spacing.
 3. Eight foot alleyways between blocks.
 4. Plots were established in an area with a history of continuous peanut production.
 5. Variety: Georgia Green
- C. APPLICATION OF TREATMENTS:
1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI. Granular treatments were banded over the row with a bicycle-type pushcart applicator.
 2. Belt-pack spray treatments (3 & 5) were applied on 12 Jul and 9 Aug. Granular treatments (40 DAP) were applied on 26 Jun. This test was coversprayed with chlorothalonil 21 Jun, 5 Jul, 19 Jul, 2 Aug, 15 Aug, 29 Aug, and 11 Sep.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, CPES, Tifton, GA 31794
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
 3. Land Preparation: Moldboard plowed and marked rows on 2 May
 4. Soil Fertility: pH - 5.8 P - 89 K - 48 Ca - 450 Mg - 30
Soil type: Tifton loamy sand, 2 - 5 % slope
 5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST: Cadre 70 DG (1.44 oz/A) on 30 Jun
 6. Insecticides: Temik 15G, 4 lb/A in furrow on 18 May
 7. Nematicides: Temik 15G, 10 lb/A (12" band) on 18 May
 8. Planting Info: Georgia Green 7 seed/ft on 18 May
 9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun

10. Harvest Dates: Dug - 2 Oct Picked - 6 Oct

E: SUMMARY: In this test severe stem rot occurred and only treatments with Abound had lower disease levels. Neither formulation of chlorpyrifos reduced disease levels or increased yield, unlike results of previous years. The Abound treatments resulted in large yield increases as well. Levels of three corner alfalfa hopper were too low to evaluate, and there were no other observed effect on insects or plant health.

**CHLORPYRIFOS TEST, 2006
BLACKSHANK FARM**

Treatments	App's	Rate/A	White Mold ¹		Yield (lb/A)
			15-Aug	2-Oct	
1. Abound 2.08F	3 & 5	18.3 fl oz	4.3	28.6	2871
2. Abound 2.08F Lorsban 15G	3 & 5 40 DAP	18.3 fl oz 13 lb	4.3	22.3	3318
3. Abound 2.08F Chlorpyrifos 75WDG	3 & 5 40 DAP	18.3 fl oz ** 2.6 lb **	3.4	23.1	3348
4. Lorsban 15G	40 DAP	13 lb	12.0	59.4	2174
5. Chlorpyrifos 75WDG	40 DAP	** 2.6 lb **	11.1	55.7	2155
6. Nontreated			13.1	56.3	1981
LSD(P<0.5)			3.8	10.6	622

** Apply the Chlorpyrifos with a single 8004 nozzle per row in 40 GPA and approximately an 18 inch band. The Abound is applied as a standard broadcast spray at 20 GPA.

¹Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

EVALUATION OF NIGHT SPRAYS FOR THE CONTROL OF PEANUT SOILBORNE DISEASES

A. PURPOSE: To evaluate night versus day applications of Folicur and Abound for the control of peanut soilborne and foliar diseases.

B. EXPERIMENTAL DESIGN:

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

C. APPLICATION OF TREATMENTS:

1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI. Night sprays were applied before daylight while the leaves were still folded. The daytime sprays were applied on the same date after daybreak as usual.
2. Belt-pack spray treatments (1 - 7) were applied on 14 Jun, 28 Jun, 12 Jul, 26 Jul, 9 Aug, 23 Aug, and 6 Sep. Night sprays (3 - 6) were applied on 12 Jul, 26 Jul, 8 Aug, and 23 Aug. This test was NOT coversprayed with chlorothalonil.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, CPES, Tifton, GA 31794
2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
3. Land Preparation: Moldboard plowed and marked rows on 2 May
4. Soil Fertility: pH - 6.0 P - 96 K - 51 Ca - 488 Mg - 34
Soil type: Tifton loamy sand, 2 - 5 % slope
5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST: Cadre 70 DG (1.44 oz/A) on 30 Jun
6. Insecticides: Temik 15G, 4 lb/A in furrow on 18 May
7. Nematicides: Temik 15G, 10 lb/A (12" band) on 18 May
8. Planting Info: Georgia Green 7 seed/ft on 18 May
9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
10. Harvest Dates: Dug - 2 Oct Picked - 6 Oct

E: SUMMARY: In this test severe stem rot occurred and all treatments provided a good level of control. There was no difference in disease levels with Abound for night versus day sprays, but the night sprays of Folicur had less stem rot than did the sprays applied during the day. Pod yields for those plots were numerically but not significantly higher ($P < 0.05$). Leaf spot pressure was significant also, and Abound sprayed at night gave less control than when applied during the day. Leaf spot control with Folicur was less than with Abound, and was similar regardless of application timing.

**NIGHT SPRAY TEST, 2006
BLACKSHANK FARM**

Treatments	App's	Rate/A	White Mold ¹		Leaf Spot ²		Yield (lb/A)
			14/Aug	2/Oct	16/Aug	26/Sep	
1. Bravo W'stik Abound 2.08F	1, 2, 4, 6 & 7 3 & 5	1.5 pt 18.3 fl oz	10.0	24.0	2.5	3.9	3221
2. Bravo W'stik Abound 2.08F	1, 2, 4, 6 & 7 ** 3 & 5 **	1.5 pt 18.3 fl oz	8.3	17.7	2.4	4.5	3173
3. Bravo W'stik Abound 2.08F	1 - 7 ** 3 & 5 **	1.5 pt 18.3 fl oz	7.1	22.6	2.4	4.8	3082
4. Bravo W'stik Folicur 3.6F	1, 2, & 7 3 - 6	1.5 pt 7.2 fl oz	8.0	48.9	2.5	5.6	2578
5. Bravo W'stik Folicur 3.6F	1, 2, & 7 ** 3 - 6 **	1.5 pt 7.2 fl oz	9.7	31.4	2.3	5.4	2841
6. Bravo W'stik Folicur 3.6F	1 - 7 ** 3 - 6 **	1.5 pt 7.2 fl oz	8.0	34.6	2.1	4.8	2802
7. Bravo W'stik	1 - 7	1.5 pt	21.7	65.1	2.6	5.4	1829
LSD($P < 0.5$)			4.4	11.0	0.4	0.5	460

** indicates that treatments will be sprayed at night, or at least after the leaves have folded up in the evening. All other treatments including Bravo sprays applied on the same date will be sprayed during the day as usual.

¹Percent of row feet infected based on number of disease loci (up to 12' of linear row) per plot.

²Florida 1 - 10 scale where 1=no disease and 10=dead plant.

EVALUATION OF TRIAZOLE FUNGICIDES FOR THE CONTROL OF PEANUT FOLIAR AND SOILBORNE DISEASES

A. PURPOSE: To evaluate the comparative efficacy of fungicides, primarily triazoles for the control of leafspot and southern stem rot in Tifrunner peanut.

B. EXPERIMENTAL DESIGN:

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

C. APPLICATION OF TREATMENTS:

1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI.
2. Belt-pack spray treatments (1 - 7) were applied on 19 Jun, 3 Jul, 17 Jul, 31 Jul, 14 Aug, 28 Aug, and 11 Sep. This test was coversprayed with chlorothalonil (1.5 pt/A) by tractor on applications 1, 2, and 7 only.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, CPES Tifton, GA 31794
2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
3. Land Preparation: Moldboard plowed and marked rows on 2 May
4. Soil Fertility: pH - 6.2 P - 81 K - 62 Ca - 542 Mg - 40
Soil type: Tifton loamy sand, 2 - 5 % slope
5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST: Cadre 70 DG (1.44 oz/A) on 3 Jul
6. Insecticides: Temik 15G, 4 lb/A in furrow on 18 May
7. Nematicides: Temik 15G, 10 lb/A (12" band) on 18 May
8. Planting Info: Tifrunner, 7 seed/ft on 18 May
9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
10. Harvest Dates: Dug - 2 Oct Picked - 6 Oct

E: SUMMARY: This test had heavy stem rot pressure (50% incidence with chlorothalonil only) with most treatments providing significant control. Higher degrees of control are often observed with these fungicides, however. Reduced efficacy may be due to the very dry year which made it more difficult to redistribute fungicides to the soil. Another contributing factor may have been the very light soil texture in this field which is conducive to underground stem rot development. This phase of stem rot is more difficult to control with fungicides than when it occurs at the soil surface. Significant leaf spot occurred in spite of the dry year, with much of the increase occurring very late. The Echo plots had more disease than expected. Although we have had complete failures from triazole fungicides in some tests in recent years, they provided marginal but adequate control in this trial. There were some differences in tebuconazole formulations, and the addition of Topsin to tebuconazole greatly increased its activity on leaf spot. Eminent also gave excellent control of leaf spot.

TRIAZOLE FUNGICIDE TEST, 2006

BLACKSHANK FARM

Treatments	App's	Rate/A	Leaf Spot ¹		White Mold ²		Yield (lb/A)
			8/14	10/6	8/14	10/9	
1. Echo 720	1 - 7	1.5 pt	2.3	7.0	20.3	49.7	3439
2. Echo 720 Folicur 3.6F	1, 2 & 7 3 - 6	1.5 pt 7.2 fl oz	2.5	5.6	16.7	37.0	4199
3. Echo 720 Tebustar 3.6L	1, 2, & 7 3 - 6	1.5 pt 7.2 fl oz	2.9	6.4	13.3	31.7	4157
4. Echo 720 Enable 2F + Induce	1, 2 & 7 3 - 6	1.5 pt 6.0 fl oz 8 oz/100 gal	2.7	5.4	10.0	38.0	3959
5. Echo 720 Enable 2F + Induce	1, 2 & 7 3 - 6	1.5 pt 8.0 fl oz 8 oz/100 gal	2.4	4.8	12.0	42.3	3792
6. Echo 720 Muscle 3.6F + Induce	1, 2 & 7 3 - 6	1.5 pt 7.2 fl oz 1.0 pt	2.6	5.9	10.3	31.0	4230
7. Echo 720 Muscle 3.6F + Echo 720	1, 2 & 7 3 - 6	1.5 pt 7.2 fl oz 1.0 pt	2.3	5.1	24.0	38.7	4083
8. Echo 720 Muscle 3.6F + Echo 720	1, 2 & 7 3 - 6	1.5 pt 7.2 fl oz 1.0 pt	2.4	5.3	16.0	36.7	4182
9. Echo 720 Muscle 3.6F	1, 2 & 7 3 - 6	1.5 pt 7.2 fl oz	2.9	5.4	18.0	43.0	4146
10. Echo 720 Eminent 125SL + Echo 720	1, 2 & 7 3 - 6	1.5 pt 26 fl oz 1.0 pt	2.4	3.9	13.0	37.0	4070
11. Echo 720 Folicur 3.6F + Nickel Plus	1, 2 & 7 3 - 6	1.5 pt 7.2 fl oz 4.0 fl oz	2.3	5.2	15.7	32.3	3995
12. Echo 720 Folicur 3.6F + Topsin	1, 2 & 7 3 - 6	1.5 pt 7.2 fl oz 5.0 fl oz	2.7	3.3	13.0	35.3	4189
LSD(P<0.5)			0.6	0.6	7.7	9.3	416

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

²Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

EVALUATION OF VARIOUS FUNGICIDES FOR THE CONTROL OF PEANUT SOILBORNE DISEASES

A. PURPOSE: To evaluate the comparative efficacy of experimental and labeled fungicides for the control of southern stem rot on Tifrunner peanut.

B. EXPERIMENTAL DESIGN:

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

C. APPLICATION OF TREATMENTS:

1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI. The 40 GPA applications consisted of 3 liter bottles and spray boom with one 8015 flat fan nozzle per row. The Aflaguard was preweighed in the lab and applied by hand over the row.
2. Belt-pack spray treatments (2-6) were applied on 3 Jul, 17 Jul, 31 Jul, 14 Aug, and 28 Aug. The Headline treatment (1.5) was applied on 26 Jun. The Aflaguard treatment (#2) was applied on 3 Jul. This test was coversprayed with chlorothalonil (1.5 pt/A) by tractor on 21 Jun, 5 Jul, 19 Jul, 2 Aug, 15 Aug, 29 Aug, and 11 Sep.

D. ADDITIONAL INFORMATION:

1. Location: Blackshank Farm, CPES, Tifton, GA 31794
2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
3. Land Preparation: Moldboard plowed and marked rows on 2 May
4. Soil Fertility: pH - 6.2 P - 81 K - 62 Ca - 542 Mg - 40
Soil type: Tifton loamy sand, 2 - 5 % slope
5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST: Cadre 70 DG (1.44 oz/A) on 3 Jul
6. Insecticides: Temik 15G, 4 lb/A in furrow on 18 May
7. Nematicides: Temik 15G, 10 lb/A (12" band) on 18 May
8. Planting Info: Tifrunner, 7 seed/ft on 18 May
9. Additional Crop Practices:

10. Harvest Dates: A. Gypsum broadcast (1000 lb/A) on 23 Jun
Dug - 2 Oct Picked - 6 Oct

E: SUMMARY: This is a stem rot test and severe stem rot occurred, resulting in major yield losses. The best treatments were those containing flutolanil, and Moncut was particularly strong. It performed well when applied in various spray volumes and band widths, resulting in yield increases in excess of 1400 lb/A.

MISCELLANEOUS FUNGICIDE TEST, 2006
BLACKSHANK FARM

Treatments	App's	Rate/A	White Mold ¹		TSWV ²	Yield (lb/A)
			8/14	10/8	8/30	
1. Nontreated			17.2	49.6	7.2	3119
2. Chlorpyrifos 75WDG	3	2.6 lb	8.0	36.8	5.2	3668
3. Abound 2.08SC	3 & 5	18.3 fl oz	11.2	37.2	6.4	3874
4. Headline	1.5	9.0 fl oz				
Artisan	3 - 6	13.0 fl oz				
+ Echo 720		1.0 pt	7.2	23.2	7.6	3949
5. Artisan	3 & 4	32.0 fl oz	6.0	36.0	7.6	3845
6. Artisan	3, 4 & 5	26 fl oz	2.4	20.8	4.4	3961
7. Abound	2	12 fl oz				
Artisan	3 - 6	13.0 fl oz				
+ Echo 720		1.0 pt	5.6	21.2	4.8	4179
8. Aflaguard	2	20 lb	9.6	43.6	6.0	3494
9. Moncut 70DF	3 & 5	1.07 lb	3.6	15.2	5.2	4423
10. Moncut 70DF	3 & 5	1.07 lb	2.8	22.0	8.8	4577
(Apply Moncut in about a 4 inch band over the row in 40 GPA; nozzles Are turned almost parallel to row to achieve band width)						
11. Moncut 70DF	3 & 5	1.07 lb	1.2	14.0	6.4	4252
(Apply Moncut broadcast over the row in 40 GPA)						
12. Moncut 70DF	3 & 5	1.07 lb				
+ Headline		6.0 fl oz	1.6	11.6	4.4	4551
13. Headline	1.5	9.0 fl oz				
Moncut 70DF	3 & 5	1.07 lb				
+ Headline		6.0 fl oz	2.0	12.4	6.8	4478
LSD(P<0.5)			5.8	15.2	5.1	769

¹ & ² Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

EVALUATION OF FUNGICIDE TIMING SPRAYS IN CONJUNCTION WITH IRRIGATION FOR THE CONTROL OF PEANUT SOILBORNE DISEASES

- A. PURPOSE: To evaluate the comparative efficacy of Abound and Headline, applied at various times prior to, or immediately following, irrigation for the control of southern stem rot on Tifrunner peanut.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with ten replicates.
 2. One two-row bed (20 x 6 ft) per plot, 36-inch row spacing.
 3. Fifteen foot alleyways between blocks.
 4. Plots were established in an area with a history of continuous peanut production.
 5. Variety: Tifrunner
- C. APPLICATION OF TREATMENTS:
1. Equipment: Midseason spray treatments were applied with a CO₂ pressurized belt-pack sprayer using 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 nozzles per row at 40 PSI.
 2. Belt-pack spray treatments (70 & 100 DAP) were applied the weeks of 24 Jul and 21 Aug. This test was coversprayed with chlorothalonil (1.5 pt/A) by tractor on 21 Jun, 5 Jul, 19 Jul, 2 Aug, 15 Aug, 29 Aug, and 11 Sep.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, CPES, Tifton, GA 31794
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
 3. Land Preparation: Moldboard plowed and marked rows on 2 May
 4. Soil Fertility: pH - 6.1 P - 98 K - 55 Ca - 587 Mg - 35
Soil type: Tifton loamy sand, 2 - 5 % slope
 5. Herbicides: PPI: Sonalan (2 pt/A) + Dual Magnum (1.5 pt/A) on 9 May
POST: Cadre 70 DG (1.44 oz/A) on 30 Jun
 6. Insecticides: Temik 15G, 4 lb/A in furrow on 16 May
 7. Nematicides: Temik 15G, 10 lb/A (12" band) on 16 May
 8. Planting Info: Tifrunner, 7 seed/ft on 16 May
 9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun

10. Harvest Dates: Dug - 9 Oct Picked - 13 Oct

E: SUMMARY: Severe stem rot occurred and resulted in major yield losses. The Abound treatments generally suppressed stem rot and resulted in large yield increases, regardless of irrigation timing relative to the sprays. The Headline applications did not reduce stem rot or increase yields at any of the irrigation timings, and overall pod yields with Headline were 852 lb/A less than the Abound treatments.

**IRRIGATION TIMING TEST, 2006
BLACKSHANK FARM**

Treatments	App's	White Mold ¹		Yield (lb/A)
		15/Aug	9/Oct	
A=ABOUND, 18 fl oz		70 & 100 DAP		
B1. No spray		22.0	66.3	2347
B2. 0 hours after irrigation		10.0	40.0	4265
B3. 0 hours before irrigation		10.3	47.3	3841
B4. 6 hours before irrigation		15.5	49.0	3918
B5. 24 hours before irrigation		11.0	47.0	3859
B6. 48 hours before irrigation		15.0	40.8	4083
B7. 72 hours before irrigation		15.0	52.5	3458
LSD(P<0.5)		6.9	10.2	564
H=HEADLINE, 15 fl oz		70 & 100 DAP		
B1. No spray		15.5	67.8	2764
B2. 0 hours after irrigation		17.0	61.0	2732
B3. 0 hours before irrigation		12.0	55.8	3149
B4. 6 hours before irrigation		16.0	61.5	2563
B5. 24 hours before irrigation		16.3	57.8	2755
B6. 48 hours before irrigation		13.8	62.5	2810
B7. 72 hours before irrigation		10.2	58.5	3035
LSD(P<0.5)		n.s.	n.s.	n.s.

Means By Fungicide

A=ABOUND, 18 fl oz	70 & 100 DAP	14.1	49.0	3682
H=HEADLINE, 15 fl oz	70 & 100 DAP	14.4	60.7	2830
LSD(P<0.5)		n.s.	3.6	219

NOTE: Irrigation (0.3 inches) will be applied immediately after the '0 hour before' spray at about 2 PM, and the '0 hour after' spray applied immediately after the irrigation. The '6 hour before' spray will be that morning at about 8 AM, the '24 hour before' spray will be the day before at 2 PM, the '48 hour before' spray at 2 PM two days before the irrigation, and the '72 hour before' spray at 2 PM three days before the irrigation.

¹Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

EVALUATION OF BAYER SEED TREATMENTS FOR PEANUT SEEDLING AND SOILBORNE DISEASE CONTROL, TEST II

- A. PURPOSE: To evaluate the comparative efficacy of fungicide seed treatments provided by Bayer Corporation for control of seedling and soilborne peanut diseases.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with four replicates.
 2. One two- row bed (25 x 6 ft) per plot, 36 inch row spacing
 3. Eight foot alleyways between blocks
 4. Plots were established in an area with a history of continuous peanut production.
 5. Variety: Georgia Green (about 78% germination)
- C. APPLICATION OF TREATMENTS:
1. Equipment: Fungicide treatments were applied to non-treated commercial seed by Bayer Corporation.
 2. Bayer seed treatments were applied prior to planting on 16 May. All plots were traveled by tractor and cover sprayed with Bravo (1.5 pt/A) on 21 Jun, 5 Jul, 19 Jul, 2 Aug, 15 Aug, 29 Aug, and 11 Sep.
- D. ADDITIONAL INFORMATION:
1. Location: Blackshank Farm, CPES, Tifton, GA 31794
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
 3. Land Preparation: Moldboard plowed and marked rows on 2 May
 4. Soil Fertility: pH - 6.1 P - 98 K - 55 Ca - 587 Mg - 35
Soil type: Tifton loamy sand, 2 - 5 % slope
 5. Herbicides: PPI: Sonalan (4 pt/A) + Dual Magnum (3 pt/A) on 9 May (NOTE - intentionally applied 2x rate to induce stress in seedlings)
POST: Cadre 70 DG (1.44 oz/A) on 30 Jun
 6. Insecticides: Temik 15G, 4 lb/A in furrow on 16 May
 7. Nematicides: Temik 15G, 10 lb/A (12" band) on 16 May
 8. Planting Info: Tifrunner, 7 seed/ft on 16 May
 9. Additional Crop Practices:
 - A. Gypsum broadcast (1000 lb/A) on 23 Jun
 10. Harvest Dates: Dug - 9 Oct Picked - 13 Oct

E: SUMMARY: Non-treated seed produced very poor stands in this trial which were reflected in low yield of only 2203 lb/A. All registered seed treatments increased yield similarly, although L1494-A was lower. As seen previously, spotty stands resulted in higher TSWV incidence. There was very little post-emergence damping off in this test, although there were obvious differences in plant vigor and growth as reflected by the vigor ratings. The additional stress of higher rates of pre-plant herbicides no doubt contributed to greater separation of treatments.

**BAYER SEED TREATMENT TEST II, 2006
BLACKSHANK FARM, IRRIGATED/NON FIELD**

Treatments	App's	Rate	Plants/ft ¹		Dead Plants/Plot ²		TSWV ³	Vigor ⁴	Yield
			1/Jun	15/Jun	1/Jun	15/Jun	11/Aug	28/Jun	(lb/A)
1. Nontreated			0.9	0.8	0.0	0.4	44.0	3.0	2203
2. Trilex Optimum	Seed Trt	4.0 oz/100 lb	2.2	2.2	0.0	0.0	22.0	7.6	3971
3. Trilex Star	Seed Trt	4.0 oz/100 lb	2.4	2.3	0.0	0.0	23.0	8.0	4116
4. Dynasty PD	Seed Trt	4.0 oz/100 lb	2.3	2.2	0.2	0.0	29.0	8.0	4189
5. Vitavax PC	Seed Trt	4.0 oz/100 lb	2.0	2.0	0.2	0.6	29.0	7.2	3801
6. L1494-A	Seed Trt	4.0 oz/100 lb	1.4	1.6	0.0	0.2	46.0	5.4	2850
		LSD(P<0.5)	0.4	0.2	n.s.	n.s.	14.0	1.3	716

¹Stand count is the number of emerged plants per foot of row on June 1 and June 15.

²The number of dead or dying plants per plot (50 row feet) on June 1 and June 15.

³Percent of row feet infected based on number of disease loci (up to 12" of linear row) per plot.

⁴Based on a scale of 1 - 10 with 10 being the most vigorous growth.

DAILY RAINFALL AND IRRIGATION, 2006
BLACKSHANK FARM
TIFTON, GA

DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
1			0.14				
2			0.42				
4					0.73		
6				0.22			
7		1.44			0.56	0.66	
8	0.66				1.07		
9		0.18					
10		0.93		0.90			
11					0.66		
13			2.10			0.26	
14		0.12					
15		0.21					
16				0.82	0.20		
17				1.28			0.21
18						0.29	
19	0.04					0.86	
20					0.10		0.20
22	0.17		0.54				0.57
23				0.33			
24					0.35		
25		0.60	0.36				
26	1.07		0.61				
27							0.35
28		0.06	0.36				
29				0.50	1.31		
TOTAL	1.94	3.54	4.53	4.05	4.98	2.07	1.33

Irrigation							
DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
3					1.00		
6				1.00			
7						1.00	
8			1.00				
10				1.00			
14						1.00	
16					1.00		
22			1.00				
24		1.00			1.00		
27				1.00			
28						1.00	
29			1.00				
31		1.00					
TOTAL		2.00	3.00	3.00	3.00	3.00	
Rain & Irr	1.94	5.54	7.53	7.05	7.98	5.07	1.33

EVALUATION OF PROLINE AND PROVOST ON MEDIUM AND LATE MATURING PEANUT CULTIVARS FOR CONTROL OF CYLINDROCLADIUM BLACK ROT (ATTAPULGUS)

- A. PURPOSE: To evaluate the singular and combined effects of in furrow (Provost) and midseason applications (Provost) on CBR-susceptible and resistant (Georgia Green, Carver, Georgia 03-L, Tifrunner, Georgia-02C, and Georgia-01R) peanut for control of CBR.
- B. EXPERIMENTAL DESIGN:
1. Two separate tests, one for mid maturity and one for late maturity cultivars, each being a split plot design with randomized complete blocks and six replicates. Whole plots were fungicide treatments and subplots were cultivars.
 2. One two- row bed (25 x 6 ft) per plot, 36 inch row spacing
 3. Eight foot alleyways between blocks
 4. Plots were established in an area with a history of a high population of *Cylindrocladium parasiticum*.
 5. Varieties: Georgia Green GA-01R
Carver GA-02C
Georgia 03L Tifrunner
- C. APPLICATION OF TREATMENTS:
1. Equipment: In furrow treatments (Proline) were applied with a planter-mounted CO₂ pressurized sprayer using a single TX-8 nozzle per row delivering 7 gallons per acre at 25 PSI. Midseason treatments were applied with a CO₂ pressurized belt-pack sprayer consisting of 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 hollow cone nozzles per row at 40 PSI.
 2. In furrow Proline treatments were applied at planting on 24 May. Belt-pack sprays (3-6) were applied on 20 Jul, 3 Aug, 17 Aug, and 31 Aug. All plots were traveled by tractor and coversprayed with Bravo (1.5 pt/A) on 15 Jun, 3 Jul, 17 Jul, 31 Jul, 10 Aug, 25 Aug, and 5 Sep. Moncut 70W (1.4 lb/A) was tank-mixed with the 17 Jul and 10 Aug Bravo coverspray for stem rot control.
- D. ADDITIONAL INFORMATION:
1. Location: Attapulugus Research and Education Center, Attapulugus, GA 31715
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
 3. Land Preparation: Moldboard plowed and marked rows on 10 May
 4. Soil Fertility: pH - 6.1 P - 86 K - 61 Ca - 530 Mg - 54
Soil type: Norfolk loamy sand
 5. Herbicides: PPI: Prowl (2 pt/A) on 22 May
PRE: Dual (1.5 pt/A) + Valor (3 oz/A) on 24 May

POST: Cadre (1.44 oz/A) on 13 Jul

6. Insecticides: Temik 15G, 4 lb/A in furrow on 24 May
7. Nematicides: none
8. Planting Info: (See varieties) 7 seed/ft on 24 May
9. Harvest Dates:

Mid	Dug - 20 Sep	Picked - 4 Oct
Late	Dug - 28 Sep	Picked - 12 Oct

E: SUMMARY: Moderate levels of CBR developed at this site and fortunately only low levels of TSWV were observed. As has been seen in other trials, the greatest suppression of CBR was obtained with a combination of Proline (prothioconazole) in furrow plus foliar applications of Provost (prothioconazole + tebuconazole). On the more susceptible mid-maturity cultivars this treatment also increased yields, but it did not on the more resistant late-maturity cultivars. In furrow applications of prothioconazole had little effect on plant stands or TSWV incidence. Differences in CBR and yield were observed among cultivars, and Tifrunner did exceptionally well in this trial. Isolation frequencies of *C. parasiticum* from discolored roots were similar among cultivars and among treatments.

**IN FURROW FUNGICIDE X CULTIVAR CBR TEST, 2006
ATTAPULGUS**

Medium Maturity Cultivars

(NOTE - No Cultivar X Treatment interactions so data was pooled)

Cultivar	Plants/ft	CBR	TSWV	Yield	Grade	\$/A	\$/ton
G. Green	2.9	33.0	8.3	3242	73.9	598	369
Carver	2.8	27.8	8.1	3593	70.4	633	352
GA-03L	2.6	28.8	6.1	3033	68.3	519	340
LSD P<0.05	0.3	n.s.	n.s.	276	3.7	76	18

Treatment	Plants/ft	CBR	TSWV	Yield	Grade	\$/A	\$/ton
Nontrt*	2.8	38.0	7.0	3151	71.7	564	358
Provost, 8 oz (3 - 6)	n.d.	29.3	9.4	3096	71.2	551	355
Proline 5.7 oz IF + Provost 8 oz (3 - 6)	2.8	22.2	6.1	3622	69.8	635	348
LSD P<0.05	n.s.	7.3	2.1	376	n.s.	76	n.s.

Late Maturity Cultivars

(NOTE - No Cultivar X Treatment interactions so data was pooled)

Cultivar	Plants/ft	CBR	TSWV	Yield	Grade	\$/A	\$/ton
GA-01R	1.2 ¹	16.2	n.d.	3495	67.2	584	334
GA-02C	2.6	20.1	7.4	3827	73.8	699	365
Tifrunner	2.6	22.7	9.2	4560	66.8	757	332
LSD P<0.05	0.3	5.1	n.s.	346	0.9	61	4

Treatment	Plants/ft	CBR	TSWV	Yield	Grade	\$/A	\$/ton
Nontrt*	2.3	21.4	8.3	3841	69.5	662	345
Provost, 8 oz (3 - 6)	n.d.	22.5	8.5	4013	69.0	686	343
Proline 5.7 oz IF + Provost 8 oz (3 - 6)	2.0	15.0	8.2	4027	69.3	692	343
LSD P<0.05	n.s.	5.1	n.s.	n.s.	n.s.	n.s.	n.s.

*All plots were coversprayed with Bravo (1.5 pt/A, 7X) and Moncut 70W (1.4 lb/A, 2X)

¹Very poor stands with this cultivar confounded disease evaluations.

EVALUATION OF VARIOUS FUNGICIDES FOR THE CONTROL OF CYINDROCLADIUM BLACK ROT ON AP-3 PEANUT

- A. PURPOSE: To evaluate the comparative efficacy of various fungicides against peanut soilborne diseases, mainly *Cylindrocladium* black rot.
- B. EXPERIMENTAL DESIGN:
1. Randomized complete blocks with six replicates.
 2. One two- row bed (25 x 6 ft) per plot, 36 inch row spacing
 3. Eight foot alleyways between blocks
 4. Plots were established in an area with a history of a high population of *Cylindrocladium parasiticum*.
 5. Variety: AP-3
- C. APPLICATION OF TREATMENTS:
1. Equipment: Midseason treatments were applied with a CO₂ pressurized belt-pack sprayer consisting of 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 hollow cone nozzles per row at 40 PSI. The early emergence treatments were applied with a 40 GPA spray boom using a single 80-10 flat fan nozzle set at an angle to achieve a 4 inch band over the row.
 2. Early emergence treatments were applied on 7 Jun. Belt-pack sprays (3-6) were applied on 20 Jul, 3 Aug, 17 Aug, and 31 Aug. All plots were traveled by tractor and coversprayed with Bravo (1.5 pt/A) on 15 Jun, 3 Jul, 17 Jul, 31 Jul, 10 Aug, 25 Aug, and 5 Sep. Moncut 70W (1.4 lb/A) was tank-mixed with the 17 Jul and 10 Aug Bravo coverspray for stem rot control.
- D. ADDITIONAL INFORMATION:
1. Location: Attapulcus Research and Education Center, Attapulcus, GA 31715
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
 3. Land Preparation: Moldboard plowed and marked rows on 2 May
 4. Soil Fertility: pH - 6.1 P - 86 K - 61 Ca - 530 Mg - 54
Soil type: Norfolk loamy sand
 5. Herbicides: PPI: Prowl (2 pt/A) on 22 May
PRE: Dual (1.5 pt/A) + Valor (3 oz/A) on 24 May
POST: Cadre (1.44 oz/A) on 13 Jul
 6. Insecticides: Temik 15G, 4 lb/A in furrow on 24 May
 7. Nematicides: none

8. Planting Info: AP-3, 7 seed/ft on 24 May
9. Harvest Dates: Dug - 20 Sep Picked - 4 Oct

E: SUMMARY: Severe CBR occurred in this trial resulting in very low yields. The only fungicide providing significant control of CBR was Proline (prothioconazole). The greatest suppression of disease and increase in yield occurred when the prothioconazole was applied over the top of emerging plants, and again as a foliar spray (Provost) during the middle part of the season. These applications also resulted in a reduction of tap root infections by *C. parasiticum*, although a similar reduction was observed from the Provost applied only as a foliar spray. Previous tests have suggested the importance of in furrow sprays in addition to foliar applications to suppress CBR. This trial indicates that sprays at early emergence may also be effective in managing this disease.

FUNGICIDE CBR TEST, 2006 ATTAPULGUS

Treatments	App's	Rate/A	CBR Incidence		Yield (lb/A)	% CBR in Taproots
			20/Sep	28/Sep		
1. Untreated			57.6	54.0	2044	52.0
2. Provost 433SC	3 - 6	8.0 fl oz	50.8	50.0	2137	35.0
3. Provost 433SC	3 - 6	10.3 fl oz	53.6	42.4	2027	.
4. JAU6476 480SC	3 - 6	5.7 fl oz	41.6	48.8	2579	.
5. JAU6476 480SC	Early emergence**	5.7 fl oz	36.0	32.4	3067	3.3
Provost 433SC	3 - 6	8.0 fl oz				
6. Folicur 3.6F	3 - 6	7.2 fl oz	48.8	57.6	2527	.
7. Evito 4FL	3 & 5	5.7 fl oz	49.2	46.8	2044	.
8. Evito 4FL	3 & 5	5.7 fl oz	51.2	52.8	2323	.
Folicur 3.6F	4 & 6	7.2 fl oz				
9. Eminent 125SL	Early emergence**	26 fl oz	45.6	51.2	2434	.
Eminent 125SL	4 - 6	26 fl oz				
10. Eminent 125SL	3 - 6	26 fl oz	54.0	57.6	1859	.
LSD (P < 0.05)			14.4	12.9	603	17.0

NOTE - This test WILL be coversprayed with Bravo every 10 -14 days and Moncut 70W (2.0 lb/A)
Tank mixed at about 60 DAP

**Apply the early emergence spray with a single 80 -10 nozzle per row in a narrow band
(about 4 inches) for a total spray volume of 40 GPA.

DAILY RAINFALL AN IRRIGATION, 2006
ATTAPULGUS RESEARCH & EDUCATION CENTER
ATTAPULGUS, GA

DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
1			0.69				
2			0.01				
4					1.82		
5		0.50				0.04	
6		0.01		0.29			
7		0.93		0.07	0.65	1.02	
8	0.07	0.70			0.22		
9	0.01	0.46			0.01	0.19	
10		0.69				1.83	
11		0.26					
12			0.11				
13			0.86		0.37	1.37	0.04
14					0.01	0.01	
15		0.59					
16				0.01	0.41		
17				0.15			0.70
18				0.60		0.60	
19	0.06			1.14		0.58	
20				0.01			
21					1.03		
22	0.61		0.07	0.17	0.01		0.42
23				0.10			
24				0.25	0.04	1.10	
25			1.93		0.08		
26	1.14		0.03		0.01		0.05
27			1.86				1.11
28		0.11					
29		0.01		1.18	0.01		
30				0.25	0.01		
TOTAL	1.89	4.26	5.56	4.22	4.68	6.74	2.32

Irrigation							
DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
2							0.50
5			0.50	0.50			
8			0.50				
9							0.50
11				0.50			
16					0.50		
19			0.50				
22			0.50				
24		0.50					
29					0.50		
31		0.50					
TOTAL	0.00	1.00	2.00	1.00	1.00	0.00	1.00

Rain & Irr	1.89	5.26	7.56	5.22	5.68	6.74	3.32
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EVALUATION OF PROLINE AND PROVOST ON MEDIUM AND LATE MATURING PEANUT CULTIVARS FOR CONTROL OF CYLINDROCLADIUM BLACK ROT (PLAINS)

- A. PURPOSE: To evaluate the singular and combined effects of in furrow (Proline) and midseason applications of (Provost) on CBR-susceptible and resistant (Georgia Green, Carver, Georgia 03-L, Tifrunner, Georgia-02C, and Georgia-01R) peanut for control of CBR.
- B. EXPERIMENTAL DESIGN:
1. Two separate tests, one for mid maturity and one for late maturity cultivars each being a split plot design with randomized complete blocks and six replicates. Whole plots were fungicide treatments and subplots were cultivars.
 2. One two- row bed (25 x 6 ft) per plot, 36 inch row spacing
 3. Eight foot alleyways between blocks
 4. Plots were established in an area with a history of a high population of *Cylindrocladium parasiticum*.
 5. Varieties: Georgia Green GA-01R
Carver GA-02C
Georgia 03L Tifrunner
- C. APPLICATION OF TREATMENTS:
1. Equipment: In furrow treatments (Proline) were applied with a planter-mounted CO₂ pressurized sprayer using a single TX-8 nozzle per row delivering 7 gallons per acre at 25 PSI. Midseason treatments were applied with a CO₂ pressurized belt-pack sprayer consisting of 2 liter bottles and a 20 GPA broadcast boom with three Conejet TX-SS6 hollow cone nozzles per row at 40 PSI.
 2. In furrow Proline treatments were applied at planting on 17 May. Belt-pack sprays (3-6) were applied on 13 Jul, 27 Jul, 10 Aug, and 24 Aug. All plots were traveled by tractor and coversprayed with Bravo (1.5 pt/A) on 5 Jul, 17 Jul, 16 Aug, 28 Aug, and 12 Sep. Moncut 70W (2 lb/A) was tank-mixed with the 17 Jul Bravo coverspray for stem rot control.
- D. ADDITIONAL INFORMATION:
1. Location: Southwest Georgia Branch Station,
Plains, GA 31780
 2. Crop History: Peanut - 2005, Peanut - 2004, Peanut - 2003
 3. Land Preparation: Moldboard plowed and marked rows on 9 Mar
 4. Soil Fertility: pH - 6.1 P - 68 K - 171 Ca - 848 Mg - 112
Soil type: Greenville sandy clay
 5. Herbicides: PPI: Sonolan (1 qt/A) + Dual (1 pt/A) +
Strongarm (0.45 oz/A) on 16 May
POST: Select (8 oz/A) spot sprayed on 3 Jul

6. Insecticides: Temik 15G, 4 lb/A in furrow on 17 May
7. Nematicides: none
8. Planting Info: (See varieties) 7 seed/ft on 17 May
9. Harvest Dates:
Mid Dug - 4 Oct Picked - 11 Oct
Late Dug - 27 Oct Picked - 1 Nov

E: SUMMARY: TSWV incidence was very low (less than 5%) and diseases, including CBR, were only a minor factor in this test.

**IN FURROW FUNGICIDE X CULTIVAR CBR TEST, 2006
PLAINS**

Medium Maturity Cultivars

(NOTE - No Cultivar X Treatment interactions so data were pooled)

Cultivar	Plants/ft	CBR (Harvest)	Yield	Grade	\$/A	\$/ton	% roots w/ CBR
G. Green	3.6	14.3	5325	67.8	894	336	30
Carver	3.2	7.9	5403	64.5	868	322	24
GA-03L	3.4	13.9	5405	67.5	906	335	9
LSD P<0.05	0.2	4.5	n.s.	1.0	n.s.	5	11

Treatment	Plants/ft	CBR (Harvest)	Yield	Grade	\$/A	\$/ton	% roots w/ CBR
Nontrt*	3.5	12.7	5471	65.9	897	328	29
Provost, 8 oz (3 - 6)	n.d.	12.6	5614	67.0	935	332	33
Proline 5.7 oz IF + Provost 8 oz (3 - 6)	3.3	10.9	5048	66.9	836	332	0
LSD P<0.05	n.s.	n.s.	n.s.	1.0	n.s.	n.s.	10

Late Maturity Cultivars

(NOTE - No Cultivar X Treatment interactions so data were pooled)

Cultivar	Plants/ft	CBR (Harvest)	Yield	Grade	\$/A	\$/ton	% roots w/ CBR
GA-01R	2.7	8.8	5868	66.7	962	328	6
GA-02C	3.5	7.6	6273	67.6	1038	331	10
Tifrunner	3.1	7.6	5539	64.9	890	321	1
LSD P<0.05	0.3	n.s.	422	1.9	78	n.s.	8

Treatment	Plants/ft	CBR (Harvest)	Yield	Grade	\$/A	\$/ton	% roots w/ CBR
Nontrt*	3.2	9.7	5873	66.0	952	325	6
Provost, 8 oz (3 - 6)	n.d.	8.0	5938	66.7	973	327	6
Proline 5.7 oz IF + Provost 8 oz (3 - 6)	2.9	6.2	5870	66.5	966	329	4
LSD P<0.05	0.2	2.6	n.s.	n.s.	n.s.	n.s.	n.s.

*All plots were coversprayed with Bravo (1.5 pt/A, 7X) and Moncut 70W (1.4 lb/A, 2X)

DAILY RAINFALL AND IRRIGATION, 2006
Southwest Georgia Branch Experiment Station
Plains, Georgia

DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
1		0.03					
2							
3			0.35				
4							
5					2.60		
6		0.28				0.35	
7						0.03	
8		0.28			0.20	0.12	
9	1.95				0.10		
10		0.67				0.60	
11		1.30					
12					0.65		
13		0.07					
14			0.01			0.65	
15		0.27					
16							0.05
17					3.05		
18				0.10			1.90
19				0.60		0.08	
20				0.25		0.15	
21			0.13				
22	0.12		0.60				
23				2.85	0.07		2.01
24			0.40		0.95		
25				0.05	0.55		
26						0.42	
27	0.77						0.14
28		0.50		1.05			0.48
29					1.71		
30				0.30	0.07		
31							
TOTAL	2.84	3.40	1.49	5.20	9.95	2.40	4.58

Irrigation DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
1			1.00				
5				1.00			
6			0.70				
7			0.70				
13			1.00	1.00			
22		0.70					
27			1.00				
TOTAL	0.00	0.70	4.40	2.00	0.00	0.00	0.00

Rain & Irr	2.84	4.10	5.89	7.20	9.95	2.40	4.58
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EVALUATION OF VARIOUS FUNGICIDES FOR SCAB CONTROL ON DESIRABLE PECAN

A. PURPOSE: To evaluate the comparative efficacy of registered and experimental fungicides against pecan foliar and nut diseases, mainly scab, on a standard commercial cultivar.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with four replicates.
2. Each replication consisted of single-tree treatments.
3. The orchard was established in 1988 with alternating rows of Wichita and Desirable trees planted on a 40 x 40 ft spacing running north and south. This test consisted of Desirable trees only.

C. APPLICATION OF TREATMENTS:

1. Equipment: All spray treatments were applied with a Durand Wayland PTO-driven air-blast sprayer (AF-100-32) delivering 95 gallon per acre at 125 PSI traveling 2 MPH.
2. Calendar-based spray treatments (1 - 8) were applied on 13 Apr, 27 Apr, 11 May, 1 Jun, 22 Jun, 13 Jul, 3 Aug, and 24 Aug.

D. ADDITIONAL INFORMATION:

- 1: Location: Ponder Farm, CPES, Tifton, GA 31794
2. Spring fertilization: Applied lime (1 ton/A) on 7 March
3. Soil Fertility: pH - 6.0 P - 65 K - 71 Ca - 810 Mg - 44
Soil type: Tifton loamy sand, 2 - 5 % slope
4. Herbicide strips:
Surflan (4 qt/A) + Roundup (3 qt/A) on 25 April
Buccaneer Plus (4 qt/A) on 31 May
Touchdown (4 qt/A) on 14 July
Buccaneer Plus (3 qt/A) on 29 Aug
Buccaneer Plus (4 qt/A) on 5 Oct
5. Harvest Information:

Desirable trees were shaken with a Savage Model 2138 PTO-driven trunk shaker on 7 Nov. Nuts were weighed and sampled from individual trees on 9 Nov to determine yield and quality.

E: SUMMARY: The dry weather resulted in a late scab epidemic that was less severe than in recent years, but by October nearly 70% of the shuck surfaces were covered with lesions on nonsprayed trees. In years such as this the incidence of nut scab is often a more sensitive indicator of efficacy than is severity, and treatment differences in incidence were evident, especially by the 10/16 rating. There were differences in leaf scab control also. Anthracnose leaf lesions were also evaluated and minor differences were found, but these symptoms were also confounded by significant injury from black aphids. Some trees exhibited bronzing on the leaves from apparent phytotoxicity, and this was rated as to the percent of the leaf surfaces was affected. As is often the case it was hard to determine differences among treatments with regard to total yield, and only minor differences were found with regard to nuts per pound, percent kernel, and kernel color grades.

PECAN FUNGICIDE TEST, 2006
PONDER FARM, DESIRABLE (NORTH ORCHARD)

Treatments	App's ¹	Rate	NIN ²			LIN ³	NSEV ⁴			Anthracnose ⁵	Bronzing ⁶
			6/20	8/8	10/16	5/19	6/20	8/8	10/16	10/25	10/25
1. Orbit 45WP + Super Tin 80WP	1 - 8	4.0 oz 3.75 oz	0.0	0.0	9.4	0.6	0.0	0.0	1.9	8.2	0.0
2. Super Tin 80WP	1 - 8	7.5 oz	1.6	0.0	38.8	3.2	0.0	0.0	2.8	9.0	3.1
3. Orbit 45WP + Super Tin 80WP Orbit 45WP + Super Tin 80WP + Nickel Plus	1, 3, 5, 7, 8 2, 4, & 6	4.0 oz 3.75 oz 4.0 oz 3.75 oz 1.5 pt	0.0	5.2	28.1	2.6	0.0	0.4	4.8	9.7	0.2
4. EXP 1	1 - 8	15.4 fl oz	0.0	0.0	0.0	4.1	0.0	0.0	0.0	8.8	0.9
5. EXP 2	1 - 8	9.2 fl oz	0.0	14.1	21.9	1.3	0.0	1.7	3.8	n.d.	n.d.
6. EXP 2	1 - 8	15.4 fl oz	0.0	3.1	18.8	6.9	0.0	0.1	3.1	n.d.	n.d.
7. EXP 2	1 - 8	21.5 fl oz	0.0	0.0	9.4	3.1	0.0	0.0	0.8	10.5	0.4
8. Pristine 38WG	1 - 8	10.5 oz	0.0	4.7	42.2	2.4	0.0	0.5	6.7	n.d.	n.d.
9. V10116 50WD + Elast 400F	1 - 8	2.5 oz 25.0 fl oz	0.0	1.6	12.5	0.0	0.0	0.2	1.3	n.d.	n.d.
10. V10116 50WD + Elast 400F	1 - 8	4.0 oz 25.0 fl oz	0.0	0.0	12.5	0.0	0.0	0.0	1.7	9.5	2.5
11. V10135 50WD + Elast 400F	1 - 8	6.0 oz 25.0 fl oz	0.0	1.0	0.0	1.7	0.0	0.1	0.0	10.6	3.2
12. Enable 2F + Elast 400F	1 - 8	4.0 fl oz 25.0 fl oz	0.0	0.0	15.6	1.1	0.0	0.0	2.0	7.0	3.4
13. Enable 2F + Elast 400F Sovran	1, 2, 4, 6, 8 3, 5, & 7	4.0 fl oz 25.0 fl oz 3.2 oz	0.0	0.0	15.6	1.5	0.0	0.0	4.2	8.4	1.8
14. Nontreated			0.0	52.1	100.0	5.6	0.0	7.6	68.0	10.2	0.7
LSD (P<0.5)			1.2	31.9	16.9	3.1	n.s.	1.8	5.5	2.1	2.0

¹Based on a calendar schedule (1 - 10) at 2-week intervals for the entire spray season.

²NIN=nut scab incidence, based on ratings of eight nut clusters per tree. Incidence is the percentage of nuts with any scab.

³LIN=leaf scab incidence, based on ratings of eight terminals per tree. Incidence is the percentage of middle leaflets with any scab.

⁴NSEV=nut scab severity, based on ratings of eight nut clusters per tree. Severity is the percentage of shuck area covered with scab.

⁵Anthracnose is a visual estimate of the percentage of leaf area covered with lesions (mean of 6 terminals per tree).

⁶Bronzing a visual estimate of the percentage of leaf area covered with bronzing due to chemical injury (mean of 6 terminals per tree).

PECAN FUNGICIDE TEST, 2006
PONDER FARM, DESIRABLE (NORTH ORCHARD)

Treatments	App's ¹	Rate	Leaf Ret ² 11/20	Yield (lb/A)	Nut Evaluations					
					Size and Fill		Kernel Color			
					nuts/ lb	% fill	Dark	Med	Light	Gold
1. Orbit 45WP + Super Tin 80WP	1 - 8	4.0 oz 3.75 oz	6.0	1021	50.3	50.2	1.3	2.3	2.1	95.1
2. Super Tin 80WP	1 - 8	7.5 oz	6.0	1313	54.1	49.0	0.0	4.0	2.0	94.3
3. Orbit 45WP + Super Tin 80WP Orbit 45WP + Super Tin 80WP + Nickel Plus	1, 3, 5, + 7 & 8 2, 4, & 6	4.0 oz 3.75 oz 4.0 oz 3.75 oz 1.5 pt	3.3	1109	53.1	50.0	1.0	3.0	0.0	96.0
4. EXP 1	1 - 8	15.4 fl oz	4.8	993	50.0	50.3	0.5	2.5	0.5	97.0
5. EXP 2	1 - 8	9.2 fl oz	3.8	805	52.0	48.1	0.5	4.8	2.0	93.1
6. EXP 2	1 - 8	15.4 fl oz	6.8	897	54.4	50.1	0.0	5.3	1.5	93.3
7. EXP 2	1 - 8	21.5 fl oz	3.0	766	52.2	49.0	0.5	2.0	1.0	97.0
8. Pristine 38WG	1 - 8	10.5 oz	5.8	853	52.3	50.1	0.3	4.0	1.0	95.1
9. V10116 50WD + Elast 400F	1 - 8	2.5 oz 25.0 fl oz	5.3	871	50.3	50.0	1.0	1.5	1.0	97.0
10. V10116 50WD + Elast 400F	1 - 8	4.0 oz 25.0 fl oz	3.5	1028	52.1	51.1	0.3	1.5	2.3	96.0
11. V10135 50WD + Elast 400F	1 - 8	6.0 oz 25.0 fl oz	6.3	1164	53.1	50.1	0.0	3.8	1.3	95.0
12. Enable 2F + Elast 400F	1 - 8	4.0 fl oz 25.0 fl oz	5.5	788	54.0	50.0	1.2	3.6	1.7	93.4
13. Enable 2F + Elast 400F Sovran	1, 2, 4, + 6 & 8 3, 5, & 7	4.0 fl oz 25.0 fl oz 3.2 oz	4.0	907	54.3	50.3	0.0	1.8	1.5	97.1
14. Nontreated			3.8	735	55.3	49.1	1.0	3.0	2.5	94.0
LSD (P<0.5)			n.s.	519	4.5	2.0	1.6.	3.6	2.4	5.2

¹Based on a calendar schedule (1-10) at 2-week interval pre-pollination, 3-week interval post-pollination.

²Based on a visual assessment of the percent retention (0-100) of foliage on whole trees.

EVALUATION OF VARIOUS FUNGICIDES FOR SCAB CONTROL ON WICHITA PECAN

- A. **PURPOSE:** To evaluate the comparative efficacy of registered and experimental fungicides against pecan foliar and nut diseases, mainly scab, on a highly susceptible "worst case" 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 x 40 ft spacing running north and south. This test consisted of Wichita trees only.
- C. **APPLICATION OF TREATMENTS:**
1. **Equipment:** All spray treatments were applied with a Durand Wayland PTO-driven air-blast sprayer (AF-100-32) delivering 95 gallon per acre at 125 PSI traveling 2 MPH.
 2. **Calendar-based spray treatments (1 - 10)** were applied on 12 Apr, 26 Apr, 10 May, 24 May, 7 Jun, 21 Jun, 5 Jul, 19 Jul, 2 Aug, and 16 Aug.
- D. **ADDITIONAL INFORMATION:**
- 1: **Location:** Ponder Farm, CPES, Tifton, GA 31794
 2. **Spring fertilization:** Applied lime (1 ton/A) on 7 March
 3. **Soil Fertility:** pH - 6.0 P - 65 K - 71 Ca - 810 Mg - 44
Soil type: Tifton loamy sand, 2 - 5 % slope
 4. **Herbicide strips:**
Surflan (4 qt/A) + Roundup (3 qt/A) on 25 April
Buccaneer Plus (4 qt/A) on 31 May
Touchdown (4 qt/A) on 14 July
Buccaneer Plus (3 qt/A) on 29 Aug
Buccaneer Plus (4 qt/A) on 5 Oct
 5. **Harvest Information:**

Wichita trees were shaken with a Savage Model 2138 PTO-driven trunk shaker on 24 Oct. Nuts were weighed and sampled from individual trees on 27 Oct to determine yield and quality.

E: SUMMARY: The dry weather resulted in a late scab epidemic that was less severe than in recent years, but Wichita is very susceptible to scab, and by early August 46% of the shuck surfaces were covered with lesions on nonsprayed trees and scab incidence was 100%. In years such as this the incidence of nut scab is often a more sensitive indicator of efficacy than is severity, but some treatments clearly had more severe nut scab as well. Notably the Orbit/Super Tin co-pack had relatively more disease than other commercial treatments by the September rating. High rates of Elast and/or Super Tin in tank mixes did an excellent job, and were superior to standard half rate mixes. Differences were also found in total yield, but larger differences were noted between treatments with regard to nuts per pound, percent kernel, and kernel color grades. Treatments with more scab also had a higher percentage of darker kernels.

**PECAN FUNGICIDE TEST, 2006
PONDER FARM, WICHITA (NORTH ORCHARD)**

Treatments	App's ¹	Rate	NIN ²			LIN ³	LSEV ⁴	NSEV ⁵		
			6/21	8/9	9/20	5/22	5/22	6/21	8/9	9/20
1. Orbit 45WP + Super Tin 80WP	1 - 10	4.0 oz 3.75 oz	0.0	51.9	100.0	2.1	0.2	0.0	6.3	30.5
2. Super Tin 80WP	1 - 10	7.5 oz	2.9	12.3	95.0	5.5	0.1	0.1	1.0	18.3
3. Enable 2F + Elast 400F + Nickel Plus	1 - 10	4.0 fl oz 25.0 fl oz 1.5 pt	3.1	4.3	31.3	3.8	0.0	0.2	0.3	3.4
4. Enable 2F + Elast 400F	1 - 10	4.0 fl oz 25.0 fl oz	0.0	4.4	35.9	3.9	0.0	0.0	0.2	2.7
5. Enable 2F + Elast 400F	1 - 10	8.0 fl oz 25.0 fl oz	0.0	0.0	23.7	3.3	0.0	0.0	0.0	0.9
6. Enable 2F + Elast 400F	1 - 10	4.0 fl oz 50.0 fl oz	0.0	0.0	2.1	3.5	0.0	0.0	0.0	0.0
7. Super Tin 80WP + Elast 400F	1 - 10	7.5 oz 25.0 fl oz	0.0	0.0	4.7	6.7	0.1	0.0	0.0	0.1
8. Super Tin 80WP + Elast 400F	1 - 10	3.75 oz 25.0 fl oz	0.0	3.1	19.7	4.1	0.0	0.0	0.1	1.8
9. Super Tin 80WP + Elast 400F	1 - 10	3.75 oz 50.0 fl oz	0.0	0.0	0.8	3.6	0.0	0.0	0.0	0.1
10. Enable 2F Elast 400F	1,3,5,7,9 2,4,6,8,10	8.0 fl oz 50.0 fl oz	0.0	0.0	24.2	3.4	0.0	0.0	0.0	1.6
11. Super Tin 80WP Elast 400F	1,3,5,7,9 2,4,6,8,10	7.5 oz 50.0 fl oz	0.6	0.0	11.5	7.8	0.1	0.1	0.0	0.3
12. BmJ WP	1 - 10	4.2 oz	6.3	54.1	98.4	5.3	0.1	0.3	7.7	36.9
13. BmJ WP + Super Tin 80WP + Orbit 45WP	1 - 10	4.2 oz 3.75 oz 4.0 oz	3.6	46.9	100.0	5.6	0.1	0.5	7.9	20.8
14. Nontreated			75.5	100.0	100.0	4.7	0.1	3.4	45.9	97.5
LSD (P<0.5)			31.4	31.3	13.5	4.2	n.s.	0.5	3.7	8.2

¹Based on a calendar schedule (1 - 10) at 2-week intervals for the entire spray season.

²NIN=nut scab incidence, based on ratings of eight nut clusters per tree. Incidence is the percentage of nuts with any scab.

³LIN=leaf scab incidence, based on ratings of eight terminals per tree. Incidence is the percentage of middle leaflets with any scab.

⁴Based on ratings of eight terminals per tree. LSEV is the percentage of middle leaf covered with lesions.

⁵NSEV=nut scab severity, based on ratings of eight nut clusters per tree. Severity is the percentage of shuck area covered with scab.

**PECAN FUNGICIDE TEST, 2006
PONDER FARM, WICHITA (NORTH ORCHARD)**

Treatments	App's ¹	Rate	Leaf Ret ² 11/20	Yield (lb/A)	Nut Evaluations					
					Size and Fill		Kernel Color			
					nuts/lb	% fill	Dark	Med	Light	Gold
1. Orbit 45WP + Super Tin 80WP	1 - 10	4.0 oz 3.75 oz	8.3	201	74.6	54.4	1.4	5.8	3.8	89.0
2. Super Tin 80WP	1 - 10	7.5 oz	8.5	385	76.0	56.5	1.0	3.5	6.3	89.0
3. Enable 2F + Elast 400F + Nickel Plus	1 - 10	4.0 fl oz 25.0 fl oz 1.5 pt	8.8	429	60.3	57.6	1.5	3.3	6.3	89.0
4. Enable 2F + Elast 400F	1 - 10	4.0 fl oz 25.0 fl oz	8.8	478	64.7	55.3	0.7	1.7	6.7	90.9
5. Enable 2F + Elast 400F	1 - 10	8.0 fl oz 25.0 fl oz	10.0	739	65.7	57.2	0.0	1.0	5.8	93.3
6. Enable 2F + Elast 400F	1 - 10	4.0 fl oz 50.0 fl oz	9.3	884	57.4	57.2	1.8	6.3	4.8	87.1
7. Super Tin 80WP + Elast 400F	1 - 10	7.5 oz 25.0 fl oz	8.0	766	69.0	56.0	0.0	3.0	3.3	93.8
8. Super Tin 80WP + Elast 400F	1 - 10	3.75 oz 25.0 fl oz	9.0	542	64.8	57.4	0.0	0.5	5.3	94.2
9. Super Tin 80WP + Elast 400F	1 - 10	3.75 oz 50.0 fl oz	9.0	554	66.7	53.3	1.0	3.0	5.8	90.2
10. Enable 2F Elast 400F	1,3,5,7,9 2,4,6,8,10	8.0 fl oz 50.0 fl oz	9.0	776	63.0	57.6	0.0	2.5	5.1	92.4
11. Super Tin 80WP Elast 400F	1,3,5,7,9 2,4,6,8,10	7.5 oz 50.0 fl oz	8.8	455	67.0	59.5	1.0	5.8	6.0	89.0
12. BmJ WP	1 - 10	4.2 oz	8.3	0	82.5	50.3	5.9	9.8	2.0	82.8
13. BmJ WP + Super Tin 80WP + Orbit 45WP	1 - 10	4.2 oz 3.75 oz 4.0 oz	8.3	315	74.4	54.2	3.8	3.8	5.3	87.3
14. Nontreated			4.5	140	88.3	48.6	7.1	9.2	3.5	80.2
LSD (P<0.5)			1.9	556	3.9	3.9	3.7	6.1	4.7	12.3

¹Based on a calendar schedule (1-10) at 2-week intervals for the entire spray season.

²Based on a visual assessment of the percent retention (0-100) of foliage on whole trees.

EVALUATION OF VARIOUS FUNGICIDES FOR SCAB CONTROL ON DESIRABLE PECAN (SOUTH BLOCK)

A. PURPOSE: To evaluate the comparative efficacy of registered and experimental fungicides against pecan foliar and nut diseases, mainly scab, on a standard commercial cultivar.

B. EXPERIMENTAL DESIGN:

1. Randomized complete blocks with five replicates.
2. Each replication consisted of single-tree treatments.
3. The orchard was established in 1988 with Desirable trees planted on a 40 x 40 ft spacing with rows running north and south. Alternating rows of young Desirable trees (replanted in 1999) complete this block, but they were not used in this test.

C. APPLICATION OF TREATMENTS:

1. Equipment: All spray treatments were applied with a Durand Wayland PTO-driven air-blast sprayer (AF-100-32) delivering 95 gallon per acre at 125 PSI traveling 2 MPH.
2. Calendar-based spray treatments (1 - 8) were applied on 17 Apr, 1 May, 15 May, 5 Jun, 26 Jun, 17 Jul, 7 Aug, and 28 Aug.

D. ADDITIONAL INFORMATION:

1. Location: Ponder Farm, CPES, Tifton, GA 31794
2. Spring fertilization: Applied lime (1 ton/A) on 7 March
3. Soil Fertility: pH - 5.9 P - 61 K - 73 Ca - 755 Mg - 41
Soil type: Tifton loamy sand, 2 - 5 % slope
4. Herbicide strips:
Surflan (4 qt/A) + Roundup (3 qt/A) on 25 April
Buccaneer Plus (4 qt/A) on 31 May
Touchdown (4 qt/A) on 14 July
Buccaneer Plus (3 qt/A) on 29 Aug
Buccaneer Plus (4 qt/A) on 5 Oct
5. Harvest Information:

Desirable trees were shaken with a Savage Model 2138 PTO-driven trunk shaker on 7 Nov. Nuts were weighed and sampled from individual trees on 9 Nov to determine yield and quality.

E: **SUMMARY:** The dry weather resulted in a late scab epidemic that was less severe than in recent years, but by October nearly 50% of the shuck surfaces were covered with lesions on nonsprayed trees. In years such as this the incidence of nut scab is often a more sensitive indicator of efficacy than is severity, and some treatment differences in incidence were evident by the 10/16 rating. There were differences in leaf scab control also, with Super Tin being weak as has been seen previously. All treatments did a good job of scab control under the lighter disease pressure present. As is often the case it was hard to determine differences among treatments with regard to total yield, but larger differences were noted between treatments with regard to nuts per pound, percent kernel, and kernel color grades.

PECAN FUNGICIDE TEST II, 2006
PONDER FARM, DESIRABLE (SOUTH ORCHARD)

Treatments	App's ¹	Rate/A	LIN ²		NIN ⁴			NSEV ⁵		
			5/23	5/23	(6/21/2)	8/15	10/16)	(6/21	8/15	10/16)
1. Enable 2F + Elast 400F	1 - 8	4.0 fl oz 25.0 fl oz	3.6	0.0	0.0	2.5	2.5	0.0	0.3	0.1
2. Enable 2F Elast 400F	1, 3, 5, & 7 2, 4, 6, & 8	8.0 fl oz 50.0 fl oz	3.8	0.0	0.0	0.0	2.5	0.0	0.0	0.1
3. Stratego	1 - 8	10.0 fl oz	0.9	0.0	0.0	6.3	15.0	0.0	0.4	1.7
4. Absolute 500SC + Induce	1 - 8	5.0 fl oz 0.06% v/v	2.3	0.0	0.0	2.5	0.0	0.0	0.1	0.0
5. Folicur Super Tin 80WP	1 - 4 5 - 8	5.0 fl oz 7.5 oz	1.3	0.0	0.0	21.7	25.0	0.0	2.0	2.6
6. Super Tin 80WP	1 - 8	7.5 oz	9.2	0.1	0.0	8.8	12.5	0.0	0.6	1.0
7. Quilt	1 - 8	14.0 fl oz	1.4	0.0	0.0	5.0	7.5	0.0	0.2	1.0
8. Quilt	1 - 8	21.0 fl oz	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. Topsin M 4.5F + Elast	1 - 8	10 fl oz 25 fl oz	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10. Topsin M 4.5F + Elast 400F	1 - 8	16 fl oz 25 fl oz	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11. KFD-09-01 3.6F + Elast 400F	1 - 8	4.0 fl oz 25 fl oz	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0
12. Non-treated			16.4	0.2	2.5	88.8	87.5	0.1	22.7	46.9
LSD(P<0.5)			3.6	n.s.	1.4	8.6	10.1	n.s.	2.6	4.6

¹Based on calendar schedule (1-10) at 2-week intervals for the entire spray season.

²LIN=leaf scab incidence, based on ratings of eight terminals per tree. Incidence is the percentage of middle leaflets with any scab.

³Based on ratings of eight terminals per tree. LSEV is the percentage of middle leaf covered with lesions.

⁴NIN=nut scab incidence, based on ratings of eight nut clusters per tree. Incidence is the percentage of nuts with any scab.

⁵NSEV=nut scab severity, based on ratings of eight nut clusters per tree. Severity is the percentage of shuck area covered with scab.

PECAN FUNGICIDE TEST II, 2006
PONDER FARM, DESIRABLE (SOUTH ORCHARD)

Treatments	App's ¹	Rate	Leaf Ret ² 11/20	Yield (lb/A)	Nut Evaluations					
					Size and Fill		Kernel Color			
					nuts/lb	% fill	Dark	Med	Light	Gold
1. Enable 2F + Elast 400F	1 - 8	4.0 fl oz 25.0 fl oz	4.4	718.0	51.3	51.5	0.6	2.2	1.6	96.0
2. Enable 2F Elast 400F	1, 3, 5, & 7 2, 4, 6, & 8	8.0 fl oz 50.0 fl oz	4.0	627.0	47.0	51.0	0.0	4.4	0.0	96.1
3. Stratego	1 - 8	10.0 fl oz	3.2	326.0	46.0	50.1	1.0	5.0	0.0	94.0
4. Absolute 500SC + Induce	1 - 8	5.0 fl oz 0.06% v/v	4.0	538.0	49.1	51.3	0.4	2.2	1.2	96.1
5. Folicur Super Tin 80WP	1 - 4 5 - 8	5.0 fl oz 7.5 oz	2.0	534.0	52.3	50.1	1.4	3.8	0.0	95.0
6. Super Tin 80WP	1 - 8	7.5 oz	1.2	538.0	52.2	50.0	1.4	5.3	0.0	93.3
7. Quilt	1 - 8	14.0 fl oz	4.2	661.0	48.1	51.4	0.5	1.2	0.4	98.0
8. Quilt	1 - 8	21.0 fl oz	4.0	626.0	53.0	51.0	0.0	4.5	0.0	96.0
9. Topsin M 4.5F + Elast	1 - 8	10 fl oz 25 fl oz	4.0	604.0	50.1	51.0	0.0	3.8	0.0	97.0
10. Topsin M 4.5F + Elast 400F	1 - 8	16 fl oz 25 fl oz	2.0	459.0	49.1	52.1	0.5	2.0	0.0	98.1
11. KFD-09-01 3.6F + Elast 400F	1 - 8	4.0 fl oz 25 fl oz	4.2	602.0	52.0	51.5	0.4	2.2	0.6	97.1
12. Nontreated			2.2	591.0	53.4	47.4	2.0	5.2	0.0	93.0
LSD(P<0.5)			4.1	262.1	4.1	2.1	1.4	3.4	1.1	4.1

¹Based on a calendar schedule (1-10) at 2-week intervals for the entire spray season.

²Based on a visual assessment of the percent retention (0-100) of foliage on whole trees.

OFFICIAL DAILY RAINFALL 2006

PONDER FARM

TY TY, GA

DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
1			0.48				
2			0.54				
3							
4					0.16		
5							
6				0.30	0.08		
7				0.01		1.36	
8					0.63		
9							
10						0.04	
11					1.15		
12					0.06	0.11	
13			2.31			0.21	
14							
15		0.23			0.01		
16				1.50			
17				0.12	0.03		0.14
18				0.01		0.77	
19				0.17		0.23	
20				0.01			
21					0.49		
22			0.06				0.62
23				0.08			
24				0.01	1.03	0.01	
25			0.15		0.01	0.01	
26			0.33				0.01
27							0.45
28		0.46	0.11	0.96			
29		0.01		0.69	0.07		
30					0.16		
31					0.39		
TOTAL	0.00	0.70	3.98	3.86	4.27	2.74	1.22

Irrigation							
DATE	APR	MAY	JUN	JUL	AUG	SEP	OCT
6						1.00	
9					1.00		
12				1.00			
20						1.00	
23					1.00		
TOTAL	0.00	0.00	0.00	1.00	2.00	2.00	0.00

Rain & Irr	0.00	0.70	3.98	4.86	6.27	4.74	1.22
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