

REPORT OF SOIL FUNGICIDE COMMITTEE-2000
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Alabama

K. S. McLean, and W. S. Gazaway. Auburn University, Auburn, AL Cotton fungicide tests were planted in north, central and southeast Alabama. The tests were conducted in fields with a history of cotton seedling disease. Fungicides were applied as a seed treatment or as an in-furrow spray or granular applications at planting. All in-furrow fungicide sprays were applied with flat tip 8002E nozzles calibrated to deliver 20 GPA at 30 PSI. All in-furrow granular applications were applied with chemical applicator boxes attached to the planter. Plots consisted of 2 rows, 25 to 30 ft long with a 36 to 38 in. wide row spacing and were arranged in a randomized complete block design with six replications. Blocks were separated by a 20 ft alley. Each plot was infested with millet seed inoculated with *Pythium spp.* and *Rhizoctonia solani*. The nematicide Temik 15G (5lb/A) was applied in-furrow at planting. All plots were maintained throughout the season with standard herbicide, insecticide and fertility production practices as recommended by the Alabama Cooperative Extension Service. Stand counts, skip index and vigor ratings were recorded at 2, 4 and 6 weeks after planting to determine the percent seedling loss, stand density and seedling vigor due to cotton seedling disease. Plots were harvested by one row harvesters.

Cotton seedling disease incidence and severity were moderate and severe drought affected yields in Alabama in 2000. Significant differences in seedling stand were observed at 2, 4, and 6 weeks after planting. At 2 weeks after planting, Quardis 2SC and Terraclor 4F, treatments produced significantly greater stand than the untreated control. At 4 and 6 weeks after planting, Quardis 2SC, Terraclor 4F, Terraclor 15G, Terraclor Super X EC and Ridomil Gold PC 11G treatments significantly improved stands compared to the untreated control. These treatments produced a significantly lower skip index indicating a more evenly spaced seedling stand compared to the control at 6 weeks after planting. Seed cotton yields ranged from 2273 lb/A to 1906 lb/A in the Terraclor 4F and the Rovral 4F 6 fl oz/A treatments, respectively. Averaging the yields from the eleven fungicide treatment over the three tests found an increase of 159 lb/A of seed cotton per acre greater than the untreated control (Table 1).

Alabama

K. S. McLean, D. Monks, D. Delanie, and W. S. Gazaway. Auburn University, Auburn, AL A cotton fungicide test was planted 20 April at the Auburn University, E. V. Smith Research Center, in Shorter, Alabama. Fungicides were applied either as seed treatments, in-furrow granules or as a broadcast spray. Fungicides applied as a broadcast spray were applied immediately before planting utilizing a backpack CO₂ charged six foot boom with flat tip 8002E nozzles calibrated to deliver 10 GPA at 30 PSI. In-furrow granular treatments were applied with the seed at planting. DP 458 B/RR was planted in all plots at a rate of 180,000 seed/acre with a cone type drill. Plots consisted of 18 rows, 25 ft long with a 7 in. wide row spacing and were arranged in a randomized complete block design with six replications. Blocks were separated by a 20 ft alley. All plots were maintained throughout the season with standard herbicide, insecticide and fertility production practices as recommended by the Alabama Cooperative Extension Service. Stand counts, skip index and vigor ratings were recorded at 2, 4 and 6 weeks after planting to determine the percent seedling loss, stand density and seedling vigor due to cotton seedling

disease. The number of open and closed bolls were counted 30 August to indicate relative plant maturity. The center 7 ft of each plot was harvested 19 September with a finger stripper.

Cotton seedling disease incidence was moderate. Significant differences in seedling stand were observed. At 2 and 4 weeks after planting, all fungicide treatments increased stand over the control except Ridomil Gold 7 lb/A. TSX EC, Rovral 4 F, Ridomil Gold, and Quadris 2SC produced significantly more uniform stand than the control at 6 weeks after planting. No significant differences were observed in the percent of open bolls. Seed cotton yields varied 214 lb/a for the Delta Coat AD and the TSX EC treatments, respectively with no significant differences between any treatments. Averaging all fungicide treatment yields together did not produced an increase of seed cotton per acre greater than the untreated control (Table 2).

Northeast Louisiana

Boyd Padgett and Jason Price, Louisiana State University Agricultural Center, Northeast Research Station, Macon Ridge Branch. Seedling disease pressure was light to moderate during 2000. Three fungicide tests were conducted to evaluate the efficacy of fungicide seed treatments and in-furrow fungicides for the management of seedling diseases. The results are presented below.

Test 1

Cotton (*Gossypium hirsutum* L.) was planted (5 seed/ft) 17 Apr at the Northeast Research Station, Macon Ridge Branch location in a Gigger silt loam soil. Sweet potato was the previous crop. The objective of this study was to evaluate fungicide seed treatments for efficacy against seedling disease. The four-in. soil temperature at-planting was 64°F, and ranged from 57°F to 80°F the following week. Rainfall totals for Apr, May, and Jun were 8.97, 4.76, and 5.85 in., respectively. Standard chemical and cultural practices for cotton were implemented according to Louisiana Cooperative Extension Service recommendations. All plots received an in-furrow application of Temik 15G (3.3 lb/A) at planting. Treatments were replicated three times in a randomized complete block design. Plots were four rows spaced 40 in. apart by 45 ft. Plant densities (plants/45 row feet) were recorded from the two center rows of each plot 8, 22, and 42 days after planting. Nodes above white flower was recorded 27 Jun as an estimate of crop maturity. The center two rows of each plot were harvested 6 Sep. Data were subjected to analysis of variance and treatment means were compared using Fisher's protected least significant difference test.

Cool, wet weather during Apr provided optimum conditions for moderate seedling disease pressure; however, by mid-May had changed to drier and warmer conditions. Plant densities in plots planted with treated seed were greater at each rating date than densities observed in black-seed (no fungicide treatment) plots. Forty-three days after planting, densities in plots planted with treated seed were 97 to 130% more than densities in black-seed plots. All seed treatments produced agronomically acceptable stands. Plant populations for treated seed were more uniform than black-seed populations. This uniformity could prevent rank growth associated with intra-row skips and possibly aid in weed control from quick canopy closure and shading. Nodes above white flower measurements did not differ among treatments, indicating no fungicide effect on maturity. Fungicide seed treatments did not increase lint yield compared to black-seed (Table 3).

Test 2

Cotton was planted (4.5 seed/ft) 26 Apr at the Northeast Research Station, Macon Ridge, location in a Gigger silt loam soil. Sweet potato was the previous crop. The objective of this study was to evaluate in-furrow fungicides for the management of seedling disease. The four-in. soil temperature at-planting was 60°F, and ranged from 58°F to 80°F the following wk. Rainfall totals for Apr, May, and Jun were 8.97, 4.76, and

5.85 in., respectively. Standard chemical and cultural practices for cotton were implemented according to Louisiana Cooperative Extension Service recommendations. All plots received an in-furrow application of Temik 15G (3.3 lb/A) at planting. To enhance disease, plots were infested with 20 ml of *Rhizoctonia solani* and 20 ml of *Pythium* spp. colonized millet. The millet was delivered in-furrow through the seed tube at-planting. Treatments were replicated three times in a randomized complete block design. Plots were four rows spaced 40 in. apart by 45 ft in length. In-furrow fungicides were applied at-planting using a planter mounted sprayer equipped with one 8002 nozzle per row calibrated to deliver 5 GPA at 38 psi. Broadcast foliar applications of Quadris were made to cotton at the cotyledon growth stage using a hand-held boom equipped with two 8002 nozzles per row delivering 10.4 GPA at 15 psi. Plant densities (number of plants/45 row ft) were recorded from the two center rows of each plot 14, 20, and 41 days after planting. Nodes above white flower was recorded 27 Jun as an estimate of crop maturity. The center two rows of each plot were machine harvested on 6 Sep. Data were subjected to analysis of variance and treatment means were compared using Fisher's protected least significant difference test.

Cool, wet weather during Apr provided optimum conditions for moderate seedling disease pressure; however, by mid-May the weather had changed to drier and warmer conditions. Compared to treatment 1, plant densities 14, 20, and 41 days after planting were more in all plots receiving an in-furrow fungicide except in treatment 2 and 9. The highest plant densities were observed in treatment 11. Nodes above white flower measurements did not differ from treatment 1. In-furrow fungicides improved yield over treatment 1, except in treatments 2 and 9 (Table 4).

Test 3

Cotton (cv. 'Stoneville 474') was planted on 14 Apr in a field with a Gigger silt loam soil. Fifty seed/ft² were planted 0.75 in. deep using a template. Sweet potato was the crop planted the previous year. The four-in. soil temperature at planting was 64°F and ranged from 59°F to 79°F the week following planting. Rainfall totals for Apr, May, and Jun were 8.97, 4.76, and 5.85 in., respectively. Treatments evaluated were commercially double-treated seed (2X) (Allegiance FL, 42-S Thiram, Vitavax PCNB), Delta Coat AD (12 fl oz/cwt seed) applied to black seed (acid delinted seed with no fungicide seed treatment), and Delta Coat AD (12 fl oz/cwt seed) applied to commercially double-treated seed. Delta Coat AD was applied to seed just prior to planting. Experimental units consisted of fifty seed planted in one ft². Treatments were arranged as a randomized complete block design with five replicates. Percent emergence was recorded on 20 Apr and 24 Apr.

Weather was moderately conducive for seedling disease the week following planting. Percent emergence did not differ from the double-treated seed at any rating period. Treatment differences were not observed among treatments on 20 Apr, but differences among Delta Coat AD applied to black seed (69.2%), and Delta Coat AD applied to double-treated seed (55.6%). Delta Coat AD applied to black seed proved to be as good as the commercial seed treatment, but offered no advantage over double treated seed (Table 5).

Louisiana

P. D. Colyer and P. R. Vernon, Louisiana State University Agricultural Center. Five cotton in-furrow fungicide trials were conducted at the Red River Research Station in Bossier City, LA, to evaluate the efficacy of soil-applied fungicides for the control of cotton seedling diseases. In several of these trials, there were no significant differences in plant populations among the treatments due to low seedling disease pressure. The results of these trials will not be presented. The results of two trials are presented in Tables 6 and 7. Experimental design in both tests was a randomized complete block with four replications. Plots were four rows by 100 feet on

40-inch centers. Liquid formulations were applied with a single 2503 flat-fan spray tip over the open furrow using a pressurized CO₂ applicator calibrated to deliver 8.0 gpa. All plant populations and yield data were collected from the two center rows.

Results of the first trial planted on April 10 are presented in Table 6. Minimum soil temperatures at four inches ranged from the mid 60s to the low 70s and 4.46 inches of rainfall were recorded during the three weeks after planting. All of the fungicide treatments, except Ridomil Gold (1.25 oz/a), had higher plant populations 14 days after planting than the untreated control. At 42 days after planting, all of the fungicides, except Ridomil Gold (1.25 oz/a), Rovral (5.0 oz/a) and Rovral plus Ridomil Gold (5.0 oz/a plus 1.25 oz/a), had significantly higher plant populations than the untreated control. There were some significant differences in seed cotton yield among treatments.

In the second trial planted on April 18, minimum soil temperatures at four inches ranged from the mid 60s to the low 70s and 4.24 inches of rainfall were recorded during the three weeks after planting. Results of this trial are presented in Table 7. All of the treatments receiving an in-furrow fungicide had higher plant populations at 14 and 42 days after planting than the untreated control and plots receiving Protege/Allegiance as a seed treatment. There were no significant differences in seed cotton yield among treatments.

Mississippi

G. L. Sciumbato - (Evaluation of In-Furrow Fungicides). A trial to evaluate in-furrow applied fungicides was conducted at the Delta Research and Extension Center, Stoneville, MS. Experimental design was a randomized complete block with four replications. Seeding rate was 5 seed per row ft. Stoneville 474, fungicide treated seed were planted on May 8. Plots were 2 rows, 40 feet long. Sixty milliliters per 40 row ft of a 1:1 mixture of *Rhizoctonia solani* and *Pythium* Sp. infested oats were applied in-furrow by means of belt cones for the low inoculum level trial. Thirty per 40 row ft of a 1:1 mixture of *Rhizoctonia solani* and *Pythium* Sp. infested panicum were applied in-furrow by means of belt cones for the high inoculum level trial. In-furrow granule treatments were applied through cone planters on a John Deere 7100 planter. Liquid treatments were applied in-furrow at planting with TX4 nozzle tips using 45 psi of compressed CO₂ at the rate of 5 gpa. Stand counts were made on May 24 and June 6. The trial was harvested on October 2 with a two row commercial picker adapted for plot harvesting. None of the treatments (Table 8) significantly increased seedling stands in the low inoculum pressure trial on the first counting date. Several of the treatments significantly increased seedling stand on the second counting date in the low inoculum pressure trial. TSX 18.8 G applied at 8 LB/A was the only treatment to significantly increase seedling stands in the high disease pressure trial. None of the treatments significantly increased seed cotton yield in the low or high inoculum level trial (Table 9).

Table 1. Evaluation of selected fungicides for seedling disease in Alabama, 2000: K. S. McLean and W. S. Gazaway. Department of Entomology and Plant Pathology, Auburn University , Auburn, AL

Treatment and Rate	Application Treatment	Cotton Stand*			Skip Index ** 24 May	Seed Cotton Yield lb/a 30 August
		25 April	10 May	24 May		
Untreated Control		47.60	57.50	56.60	20.67	1917
TSX 18.8G 5.5 lb/A	In furrow	51.30	65.30	65.70	16.00	2192
TSX EC 48 fl oz/A.	In furrow	51.60	67.20	67.40	11.67	2181
Terraclor 2E 48 fl oz/A.	In furrow	50.60	67.30	65.00	13.00	2020
Terraclor 15G5 lb/A	In furrow	50.50	69.30	66.70	16.67	2104
Terraclor 4F 24 fl oz/A	In furrow	57.10	71.80	70.30	10.33	2273
Rovral 4CF 5.2 fl oz/A	In furrow	54.30	65.80	66.50	11.00	2087
Rovral 4CF 6 fl oz/A	In furrow	54.20	61.80	62.90	12.00	1906
Ridomil Gold PC 11G 7 lb/A	In furrow	53.10	70.70	69.70	14.67	2010
Quadris 2SC 5.56 fl oz/A	In furrow	59.10	71.20	67.60	7.33	1969
Delta Coat AD 11.75 fl oz/cwt	Seed	48.50	63.30	61.90	9.33	2067
Ridomil Gold 4EC 0.075 fl oz/1000 ft	In furrow	51.30	62.90	58.20	19.33	2023
LSD (0.05)		7.52	10.57	10.87	7.71	294.8

*Number of live seedlings per 30 ft of row; all rows received 150 seed.

** Skip index ratings on 30 ft of row. Rating scale: 1 = 1 ft gap; 2 = 2 ft gap; 3 = 3ft gap;... 25 = no plants.

Means compared using Fisher's protected least significant difference test (P=0.05).

Table 2. Evaluation of selected fungicides for seedling disease in Alabama, 2000: K. S. McLean and W. S. Gazaway Department of Entomology and Plant Pathology, Auburn University , Auburn, AL

Treatment and Rate	Application Method	Stand per 25 ft of Row			Skip Index 23 May	% Open Bolls 9 August	Seed cotton lb/a 24 August
		25 April	10 May	23 May			
Untreated Control		33.50	36.00	41.50	17.17	21.36	5317
TSX 18.8G 5.5 lb/A	In-furrow	45.10	45.33	42.50	16.67	28.07	6986
TSX EC 48 fl oz/	Broadcast	42.66	41.83	40.08	14.83	31.23	7774
Rovral 4CF 5.2 fl oz/A	Broadcast	43.17	45.67	42.92	12.17	24.66	6137
Ridomil Gold 7 lb/A	In-furrow	34.33	36.00	41.58	16.00	22.49	206
Ridomil Gold 0.1 fl oz/1000 row ft	Broadcast	46.00	45.50	43.33	14.67	24.93	6206
Quadris 2.08 SC 6.0 fl oz/A	Broadcast	43.00	43.83	41.50	15.83	24.37	6067
Delta Coat AD 11.75 fl oz/cwt	Seed treatment	44.83	44.17	40.50	17.17	54.87	1875
LSD (0.05)		6.90	8.29	6.47	4.18	15.45	286.17

*Number of live seedlings per 25 ft of row; all rows received 125 seed.

**Skip index ratings on 25 ft of row. Rating scale: 1 = 1 ft gap; 2 = 2 ft gap; 3 = 3ft gap;... 25 = no plants.

Means compared using Fisher's protected least significant difference test (P=0.05).

Table 3. Plant densities, nodes above white flower and yield of fungicide seed treatments in cotton, Northeast Research Station, Macon Ridge Location, 2000.

Treatment (rate/cwt seed)	Plants per foot of Row				
	8 DAP ¹	22 DAP	43 DAP	NAWF ²	Lint (lb/A)
Black Seed ³	1.59	1.22	1.21	5.6	739.8
RTU Baytan-Thiram (0.2329 oz) + Apron TL (0.75 fl oz)	2.93	2.92	2.79	5.1	722.5
Delta Coat AD (11.75 fl oz) + Nu-Flow M (1.25 fl oz)	2.77	2.63	2.39	5.4	744.0
Delta Coat AD (11.75 fl oz) + Nu-Flow M (1.25 fl oz) + PEG 143 (0.5 fl oz) + PEG 144 (0.035 oz)	2.74	3.04	2.76	5.3	699.8
Delta Coat AD (11.75 fl oz) + Nu-Flow M (1.25 fl oz) + PEG 143 (0.5 fl oz) + PEG 146 (0.035 oz)	2.55	2.91	2.67	5.5	767.5
Apron TL (2.0 oz) + Nu- Flow T (2.25 oz) + Nu- Flow M (1.25 fl oz)	2.67	2.79	2.60	5.4	738.5
Apron TL (2.0 oz) +Nu- Flow T (2.25 oz) + Nu- Flow M (1.25 fl oz) + PEG 143 (0.035 oz) + PEG 144 (0.035 oz)	2.67	2.63	2.49	5.7	783.5
Apron TL (2.0 oz) + Nu- Flow T (2.25 oz) + Nu- Flow M (1.25 fl oz) + PEG 143 (0.035 oz) + PEG 146 (0.035 oz)	2.58	3.01	2.47	5.4	793.0
LSD (P = 0.05)	0.37	0.32	0.38	0.6	144.5

¹DAP=Days after planting.

²NAWF=Nodes above white flower. Recorded from ten plants per plot 27 Jun.

³Black seed: Seed that has not received any fungicide seed treatment.

Table 4. Plant densities, nodes above white flower, and yield of cotton treated with selected in-furrow fungicides, Northeast Research Station, Macon Ridge location, 2000.

Treatment (Rate /A)	Appl Timing ¹	Plants per foot of Row				Yield (lb lint /A)
		14 DAP ²	20 DAP	41 DAP	NAWF ³	
Double Treated Seed ⁴		1.26	1.09	0.98	5.2	477
Ridomil Gold 4E (1.25 fl oz)	IFSAP	1.48	1.25	1.15	5.3	516
PCNB 2E (64 fl oz)	IFSAP	1.88	1.82	1.92	5.4	691
Quadris 2.08 SC (7.5 fl oz)	IFSAP	2.27	2.27	2.01	5.0	695
Ridomil Gold 4E (1.25 fl oz) + PCNB 2E (64 fl oz)	IFSAP	2.21	2.10	2.16	5.0	688
Ridomil Gold 4E (1.25 fl oz) +CGA 279202 (14 fl oz)	IFSAP	2.06	2.06	1.77	4.8	658
Ridomil Gold 4E (1.25 fl oz) +CGA 279202 (16 fl oz)	IFSAP	2.09	2.13	2.04	4.8	705
Ridomil Gold 4E (1.25 fl oz) +CGA 279202 (18 fl oz)	IFSA	1.94	1.93	1.89	4.8	664
Double Treated Seed + Quadris 2.08 SC (6.4 fl oz)	Coty	1.19	0.98	1.00	5.7	546
Ridomil Gold 4E (1.25 fl oz) + Rovral 4F	IFSAP	1.98	1.89	1.80	4.9	623
Ridomil Glod 4E (1.25 fl oz) +Quadris 2.08 SC (7.5 fl oz)	IFSAP	2.28	2.29	2.27	4.9	684
CGA 279202 (16 fl oz)	IFSAP	2.07	2.03	1.87	4.8	669
LSD (P = 0.05)		0.37	0.28	0.34	0.7	122

¹Appl Timing=Application Timing, IFSAP=In-furrow spray at-planting, Coty=Broadcast foliar spray to cotton at the cotyledon growth stage.

²DAP=Days after planting.

³NAWF=Nodes above white flower. Recorded from ten plants per plot 27 Jun.

⁴Allegiance FL, 42-S Thiram, Vitavax PCNB.

Table 5. Percent emergence for double treated seed, black seed (acid delinted, no seed fungicide seed treatment) plus Delta Coat AD, and double treated seed plus with Delta Coat AD.

Treatment (Rate / cwt seed)	Percent Emergence	
	20 Apr	24 Apr
Double Treated Seed (2X) ¹	28.8	60.8
2X + Delta Coat AD (12 fl oz)	27.6	55.6
Black seed + Delta Coat (12 fl oz)	40.0	69.2

¹Allegiance FL, 42-S Thiram, Vitavax PCNB.

Table 6. Effect of in-furrow fungicide treatments on plant populations and seed cotton yield, Red River Research Station, Bossier City, LA, 2000.

Treatment	Rate (prod/a)	Plant Population ¹		Seed Cotton (lb/a)
		14 DAP	42 DAP	
Untreated	---	210	137	1459
Ridomil Gold 4EC	1.25oz	210	136	1019
Terraclor 2E	32 oz	250	211	1401
Quadris 2.08SC	7.5 oz	253	234	1232
Flint 125EC	15 oz	261	202	1465
Rovral 4CF	5.0 oz	249	167	1442
Ridomil Gold 4EC + Terraclor 2E	1.25 oz + 32 oz	244	212	1326
Ridomil Gold 4EC + Flint 125EC	1.25 oz + 13 oz	252	195	1336
Ridomil Gold 4EC + Flint 125EC	1.25 oz + 15 oz	269	239	1498
Ridomil Gold 4EC + Flint 125EC	1.25 oz + 17 oz	270	234	1318
Ridomil Gold 4EC + Rovral 4CF	1.25 oz + 5.0 oz	252	164	1340
Ridomil Gold 4EC + Quadris 2.08SC	1.25 oz + 7.5 oz	257	253	1563
LSD (P≤0.05)		24	41	268

¹Plants per 100 row feet; DAP=days after planting.

Table 7. Effect of in-furrow and seed treatment fungicides on plant populations and seed cotton yield, Red River Research Station, Bossier City, LA, 2000.

Treatment	Rate (prod/a)	Plant Population ¹		Seed Cotton (lb/a)
		14 DAP	42 DAP	
Untreated	---	240	239	1204
Quadris 2.08SC	5.0 oz	303	301	1305
Quadris 2.08SC	7.5 oz	298	300	1224
Terraclor 2E	96 oz	284	285	1202
Ridomil Gold 4E + Terraclor 2E	1 oz + 96 oz	279	289	1201
Protege/Allegiance	ST ²	238	245	1242
Protege/Allegiance + Quadris 2.08SC	ST + 7.5 oz	282	283	1358
LSD (P≤0.05)		13	18	NS

¹Plants per 100 row feet; DAP=days after planting.

²Applied as a seed treatment on black seed. Seed for the other treatments was treated with Allegiance/Dividend.

Table 8. Evaluation of cotton in-furrow treatments. Oat inoculum (low disease pressure). G. L. Sciumbato, MAFES, Delta Research and Extension Center, Stoneville, MS¹.

Treatment, Formulation, and Rate per Acre	% Seedling Survival		Yield in lb Seed
	(5/24)	(6/07)	Cotton/A
No In-furrow treatment	55.1 a-c ²	48.7 bc	1902.9 a
Quadris 2.08 SC 7.7 OZ/A	50.1 bc	44.1 c	1724.2 a
Ridomil Gold 4 EC 1.25 OZ/A + CGA 27902 EC 13.4 OZ/A	65.7 ab	65.2 a	1750.9 a
Ridomil Gold 4 EC 1.25 OZ/A + CGA 27902 EC 17.25 Fl OZ/A	50.6 bc	44.8 c	1644.0 a
Ridomil Gold 4 EC 1.25 OZ/A	67.9 a	63.3 a	1327.5 a
Ridomil Gold 4 EC 1.25 OZ/A + Quadris 2.08 SC 7.7 OZ/A	66.8 a	59.9 a	1697.4 a
Ridomil PC 10.5 G 7 LB/A	47.7 c	40.8 c	1709.8 a
Terraclor 2 EC 48 OZ/A	60.1 a-c	58.2 ab	1664.6 a
TSX 18.8 G 8 LB/A	61.1 a-c	56.5 ab	1434.4 a
Rovral 4 F 4.2 OZ/A	62.4 a-c	60.8 a	1907.0 a
M.S.D	15.73	10.95	638.1
C. V.	15.64	13.86	18.37
F Value	2.60	5.51	1.38

¹Plots were 13.3 ft. wide x 40 ft. long. Seeding rate was 5 seed per row ft.

²Percent stand of two rows. Mean of four replications. Means in the same column followed by the same letter are not significantly different according to the Waller-Duncan t test (D ratio = 100).

Table 9. Evaluation of in-furrow fungicides, Panicum inoculum (high disease pressure), G. L. Sciumbato, Delta Research and Extension Center, Stoneville, MS¹.

Treatment, Formulation, and Rate per Acre	% Seedling Survival		Yield lb Seed
	(5/24)	(6/07)	Cotton/A
No In-furrow treatment	45.2 bc ²	45.2 bc	1389.2 a
Quadris 2.08 SC 7.7 OZ/A	33.8 c	33.8 c	1311.1 a
Ridomil Gold 4 EC 1.25OZ/A + CGA 27902 EC 13.4 OZ/A	61.6 ab	61.6 ab	1528.9 a
Ridomil Gold 4 EC 1.25 OZ/A + CGA 27902 EC 17.25 OZ/A	44.6 bc	44.6 bc	1348.1 a
Ridomil Gold 4 EC 1.25 OZ/A	50.7 a-c	50.7 a-c	1508.4 a
Ridomil Gold 4 EC 1.25 OZ/A + Quadris 2.08 SC 7.7 OZ/A	55.5 ab	55.5 ab	1479.6 a
Ridomil PC 10.5 G 7 LB/A	33.5 c	33.5 c	1257.7 a
Terraclor 2 EC 48 Fl OZ/A	51.3 a-c	51.3 a-c	1348.1 a
TSX 18.8 G 8 LB/A	70.1 a	70.1 a	1533.0 a
Rovral 4 F 4.2 Fl OZ/A	61.3 ab	61.3 ab	1701.5 a
M.S.D	20.86	20.86	777.7
C. V.	25.69	25.69	22.18
F Value	3.35	3.35	0.70

¹Plots were 13.3 ft. wide x 40 ft. long. Seeding rate was 5 seed per row ft.

²Percent stand of two rows. Mean of four replications. Means in the same column followed by the same letter are not significantly different according to the Waller-Duncan t test (D ratio = 100).