COTTON SEED TREATMENTS
INSECTICIDE SCREENING

Milo Genetics, Cooperator (2007)
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SUMMARY:

A trial was planted on 15 April 2007 with the purpose of evaluating the efficacy of seed treatments for thrips control in cotton. Thrips control was achieved by all three of the cotton seed treatments. No differences were found in lint yield.

OBJECTIVE:

The objective of this project was to evaluate evaluating the efficacy of seed treatments for thrips control in cotton.

MATERIALS and METHODS:

A trial was planted on 15 April 2007 with the purpose of evaluating the evaluating the efficacy of seed treatments for thrips control in cotton. The cotton was planted at a rate of 3 seed per foot on 38 inch rows. Plots were 4 rows, 22 feet long

Treatments were as follows:

1) Untreated
2) Avicta
3) Cruiser
4) Gaucho Grande

RESULTS and DISCUSSIONS:

Thrips control was achieved by all three of the cotton seed treatments evaluated at 19 DAP (Table 1). While no differences were detected at 27 DAP, the thrips levels were below economic thresholds. Damage ratings indicated that thrips control by the seed treatments reduced the amount of damage to the seedling cotton.

No differences were detected for lint yield or fiber quality except for uniformity (Table 2). I have no explanation for the untreated cotton having a higher uniformity than the Avicta treatment.

ACKNOWLEDGMENTS:

Appreciation is expressed to Leon Clements of Milo Genetics for the use of their land and Delta Pine & Land and Syngenta companies for providing the seed treatments used in this demonstration.

Table 1. Thrips counts (#/5 plants) at 1-2 and 5-6 true leaves and damage ratings (1-5) 29 DAP for various seed treatments and untreated cotton (Victoria County, TX, 2007).

	Thrips #/5 plts May-07-07 1-2 TL 19 DAP	Thrips #/5 plts May-15-07 5-6 leaf 27 DAP	Damage Rating May-17-07 5-6 TL 29 DAP
1 Untreated	76.8 a	28.3 a	3.5 a
2 Avicta	6.8 b	18.0 a	1.5 b
3 Cruiser	10.8 b	17.5 a	1.7 b
4 Gaucho Grande	3.0 b	11.0 a	1.7 B
Tukey's HSD (P=.05)	57.90	36.05	0.79
Standard Deviation	26.26	16.35	0.36
CV	108.0	87.48	17.1
Replicate F	0.919	0.275	0.530
Replicate Prob(F)	0.4701	0.8419	0.6728
Treatment F	7.149	0.761	29.314
Treatment Prob(F)	0.0093	0.5440	0.0001

Means followed by same letter do not significantly differ (P=.05, Tukey's HSD).

Table 2. Lint yield and fiber quality for various seed treatments and untreated cotton (Victoria County, TX, 2007).

	Lint Yield lb/ac	Mic	Length	Uniformity	Strength
1 Untreated	601.2 a	4.25 a	1.148 a	82.98 a	28.38 a
2 Avicta	745.0 a	4.03 a	1.100 a	79.90 b	26.95 a
3 Cruiser	802.4 a	4.25 a	1.135 a	81.90 ab	28.30 a
4 Gaucho Grande	733.9 a	4.22 a	1.120 a	81.73 ab	25.63 a
Tukey's HSD (P=.05)	344.31	0.478	0.0799	2.307	4.777
Standard Deviation	156.15	0.217	0.0362	1.046	2.166
CV	21.67	5.17	3.22	1.28	7.93
Bartlett's X2	0.197	2.456	7.005	0.038	5.18
P(Bartlett's X2)	0.978	0.483	0.072	0.998	0.159
Replicate F	0.532	0.373	0.551	1.351	0.367
Replicate Prob(F)	0.6718	0.7748	0.6600	0.3185	0.7785
Treatment F	1.187	1.012	1.275	5.946	1.444
Treatment Prob(F)	0.3684	0.4316	0.3404	0.0161	0.2935

Means followed by same letter do not significantly differ (P=.05, Tukey's HSD).

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