

Insecticide Efficacy Trials on Stink Bug in Georgia Cotton

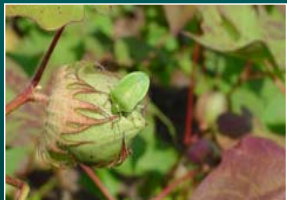
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ABSTRACT

Efficacy trials were conducted from 2005 to 2007 utilizing various insecticides and rates to determine their impact on stink bug infestations in cotton. Stink bug populations vary by year, but since the transition to transgenic Bt cotton their presence has negatively impacted cotton yield and grade. Efficacy trials were conducted in commercial cotton fields planted adjacent to peanuts. Stink bug populations are traditionally higher in cotton nearest the peanut planting compared with more interior areas of fields. A high clearance plot sprayer was used to apply various insecticides on the four rows adjacent to the peanut planting. Stink bugs were counted by life stage and species 3 days after treatment. Pyrethroids and OPs provided good to excellent control of southern green stink bugs. However, organophosphates such as Bidrin tended to provide improved control of brown stink bug species.



STINK BUG EFFICACY TRIAL DATA

		Stink Bugs per 12 Row Feet			
	Treatment	Rate	Southern Green	Brown spp.	
2005					
1	Untreated		0.67 ab	8.33	ab
2	Baythroid	2.1 fl oz/a	0 b	3	e
3	Baythroid XL	1.05 fl oz/a	0.67 ab	5.33	b-e
7	Bidrin	6 fl oz/a	0 b	2	e
9	Mustang Max	2.64 fl oz/a	0.33 b	4.67	b-e
10	Mustang Max	3.2 fl oz/a	0.33 b	2.33	e
11	Mustang Max	3.6 fl oz/a	0 b	3.67	de
12	Untreated		2.67 a	7.33	a-d
2006					
1	Untreated		11 a	1.5	a
4	Baythroid XL	2.8 fl oz/a	0 b	0.5	a
6	Baythroid XL	2 fl oz/a	1.5 b	1.25	a
9	Bidrin	6 fl oz/a	0.25 b	0.25	a
2007A					
5	Prolex	1.75 fl oz/a	1.25 b	0.75	b
6	Bidrin	6 fl oz/a	0 b	0.75	b
8	Untreated		5.5 a	1.5	ab
2007B					
2	Untreated		3.25 a	2.5	ab
3	Lambda-Cy	0.025 lb ai/a	0 b	3	a
4	Lambda-Cy	0.04 lb ai/a	0 b	1.25	bc
5	Karate Z	0.025 lb ai/a	1.5 ab	1.5	abc
6	Karate Z	0.04 lb ai/a	0.5 b	1.75	abc
7	Bidrin	6 fl oz/a	0.25 b	0.75	c

METHODS

- Randomized Complete Block with 4 Reps
- Treatments applied with a high clearance sprayer calibrated to deliver 10 gpa
- Treatments evaluated with a black drop cloth, 12 row feet was sampled 3 DAT
- Low-medium rates or pyrethroids, high rates of pyrethroids, and Bidrin were summarized for all locations



DATA SUMMARY	% Control of Stink Bugs	
	Southern Green	Brown spp.
Pyr (low-med rates)	80	39
Pyr (high rate)	96	50
Bidrin 6 ozs/acre	98	69

RESULTS

The data confirms that Bidrin provided the best control of mixed populations of southern green and brown stink bugs. Pyrethroids provided acceptable control of southern green but not brown stink bugs. However, increasing the rate of pyrethroids improved control of brown stink bug.