

Watermelon Trap Crop Study, 2007

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'Jamboree' watermelons and 'Athena' cantaloupe transplants were planted on May 31 at the University of Delaware Research and Education Center located near Georgetown, Delaware. Plots were 5 rows wide planted on 8ft centers and 20ft long with 40ft borders. Each treatments was replicated four times and included: an untreated watermelon plot (all 5 rows), watermelon treated with Admire 16 oz/Acre (all 5 rows), watermelon plot with an untreated trap crop plot of cantaloupes (3 center rows of watermelons and 2 outer trap crop rows of cantaloupes and end plants), and a watermelon plot with a treated trap crop plot (3 center rows of watermelons and 2 outer trap crop rows of cantaloupes rows and end plants all treated with Admire 16 oz/acre).

Striped cucumber beetle counts were taken once a week from June 12th to July 17th recording the number of alive and dead beetles per 20 total plants. Beetle populations in each of the treatments peaked on June 27th and crashed by July 10th, remaining below an economic threshold in each of the treatments. In the treated and untreated watermelon plots, beetle numbers were recorded on twenty plants in each plot. In the treated and untreated trap crop plots, beetle numbers were recorded on ten cantaloupes and ten watermelons in each plot.

On average, there were more live cucumber beetles in the untreated watermelon and untreated trap crop plots compared to the treated watermelon and treated trap crop plots. There were also more dead beetles in the treated watermelon and treated trap crop compared to the untreated plots suggesting that the Admire at 16 oz/Acre provided early season control.

When comparing the untreated watermelon to the untreated trap crop and the treated watermelon to the treated trap crop, the number of live beetles is greater in both of the trap crop plots compared to the non-trap crop plots. This suggests that the cantaloupes plants in the trap crop plots were more attractive to the striped cucumber beetles compared to the watermelon plants.

Striped Cucumber Beetle Counts

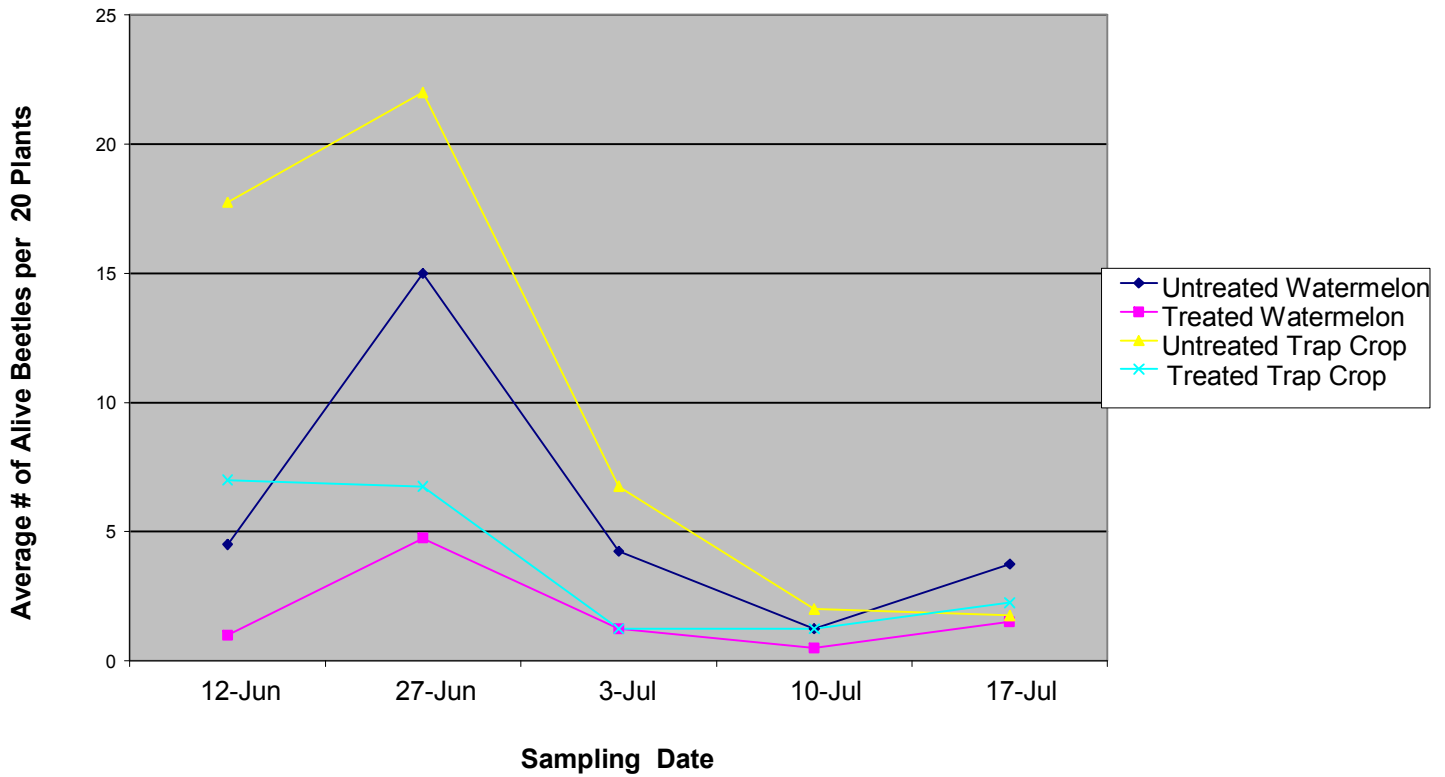


Table 1. Average Number of Live Striped Cucumber Beetles per 20 plants

Treatment	12-Jun	27-Jun	3-Jul	10-Jul
untreated watermelon	4.5	15	4.25	1.25
treated watermelon*	1	4.75	1.25	0.5
untreated trap crop	17.75	22	6.75	2
treated trap crop*	7	6.75	1.25	1.25

-*Treated plots - at planting application of Admire 16 oz/A.

-The watermelon beetle counts were taken on 20 plants in each of the treatments.

-The trap crop counts represent the number of beetles on 10 watermelon plants and 10 cantaloupe plants.

Dead Striped Cucumber Beetles

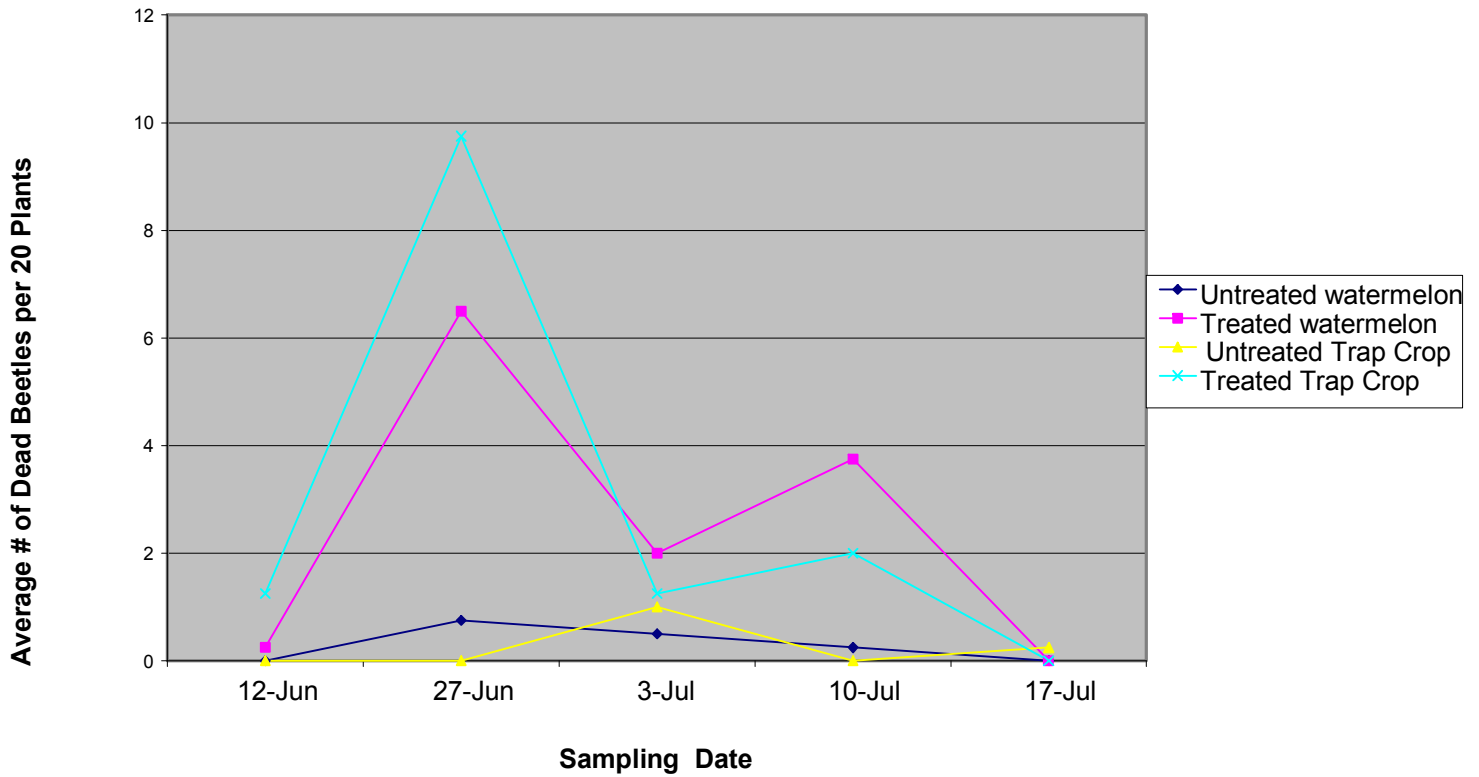


Table 2. Average Number of Dead Striped Cucumber Beetles per 20 plants

Treatment	12-Jun	27-Jun	3-Jul	10-Jul
untreated watermelon	0	0.75	0.5	0.25
treated watermelon *	0.25	6.5	2	3.75
untreated trap crop	0	0	1	0
treated trap crop*	1.25	9.75	1.25	2

-*Treated plots - at planting application of Admire 16 oz/A.

-The watermelon beetle counts were taken on 20 plants in each of the treatments.

-The trap crop counts represent the number of beetles found on 10 watermelon plants and 10 cantaloupe plants.

Alive Striped Cucumber Beetles Trap Crop Counts

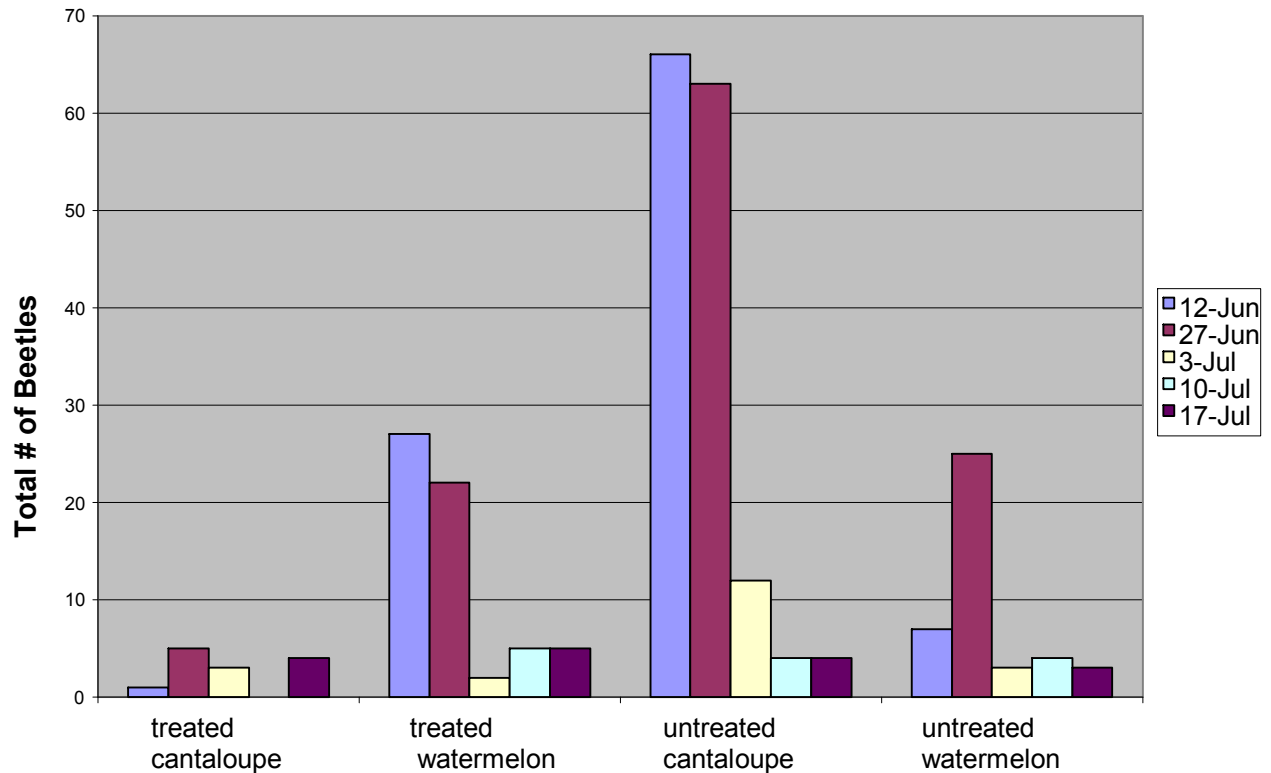


Table 3. Total Number of live Striped Cucumber Beetles Found in the Trap Crop

Scouting Date	12-Jun	27-Jun	3-Jul	10-Jul
treated cantaloupe *	1	5	3	0
treated watermelon *	27	22	2	5
untreated cantaloupe	66	63	12	4
untreated watermelon	7	25	3	4

-*Treated plots - at planting application of Admire 16 oz/A.

-Beetle numbers represents the total number of striped cucumber beetles from 10 plants in each of the 4 reps.