

**Cucumber Beetle Management in Watermelons with At-Planting Insecticides, 2010:** ‘Sangria’ watermelon plants were transplanted on May 27 at the University of Delaware’s Research and Education Center located near Georgetown, DE. Plots consisted of two 20 ft-long rows on 7ft centers. Each treatment was replicated four times and arranged in a RCB design. At planting treatments (May 27) were applied as a drench treatment using a CO<sub>2</sub> pressurized back pack sprayer delivering 2 oz of spray solution per plant. The foliar treatment was applied with a CO<sub>2</sub> pressurized back pack sprayer on June 4 (single nozzle broadcast application delivering 30 gpa at 42 psi) and June 18 (four nozzle broadcast application delivering 25 gpa at 32 psi). Cucumber beetle population levels were evaluated by counting the number of live and dead insects per 10 plants and calculating the percentage of infested plants. Data were analyzed using Proc GLM and means were separated by Tukey’s mean separation test (P=0.05).

Table 1. Cucumber Beetle – Live Beetles

Treatment	Rate/ Acre	Trt Timing/ Dates	Mean Number Live Cucumber Beetles per 10 Plants <sup>1</sup>			
			June 1	June 7	June 14	June 21
Belay 2.13 SC	9oz	Drench May 27	0.25a	0.50a	2.00a	0.00a
Belay 2.13 SC	12 oz	Drench May 27	0.25a	1.00a	0.75a	0.25a
Admire Pro	10.5 oz	Drench May 27	0.00a	0.50a	1.75a	0.25a
Assail 30 SG	5.3 oz	Foliar Jun 4,18	4.50a	0.00a	1.25a	0.00a
Untreated Check	--		3.00a	2.75a	3.00a	0.50a

<sup>1</sup>Means in a column followed by the same letter are not significantly different (P= 0.05; Tukey’s Test).

Table2. Cucumber Beetle –Dead Beetles

Treatment	Rate/ Acre	Trt Timing/ Dates	Mean Number Dead Cucumber Beetles per 10 Plants <sup>1</sup>			
			June 1	June 7	June 14	June 21
Belay 2.13 SC	9oz	Drench May 27	0.75a	1.00a	0.50a	0.75a
Belay 2.13 SC	12 oz	Drench May 27	2.25a	7.50a	8.00a	6.00a
Admire Pro	10.5 oz	Drench May 27	0.50a	2.75a	1.25a	0.50a
Assail 30 SG	5.3 oz	Foliar Jun 4,18	0.00a	1.25a	2.25a	0.25a
Untreated Check	--		0.00a	0.00a	0.00a	0.00a

<sup>1</sup>Means in a column followed by the same letter are not significantly different (P= 0.05; Tukey's Test).

Table 3 – Percent Cucumber Beetle Infested Plants

Treatment	Rate/ Acre	Trt Timing/ Dates	Mean Percent Cucumber Beetles Infested Plants <sup>1</sup>			
			June1	June 7	June 14	June 21
Belay 2.13 SC	9oz	Drench May 27	5.00a	5.00a	15.00a	2.50a
Belay 2.13 SC	12 oz	Drench May 27	12.50a	2.50a	30.00a	27.50a
Admire Pro	10.5 oz	Drench May 27	5.00a	10.00a	17.50a	5.00a
Assail 30 SG	5.3 oz	Foliar Jun 4,18	30.00a	2.50a	22.50a	2.50a
Untreated Check	--		17.50a	5.00a	17.50a	5.00a

<sup>1</sup>Means in a column followed by the same letter are not significantly different (P= 0.05; Tukey's Test).