

Cucumber Beetle Management in Watermelons, 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. Foliar treatments were applied with a CO₂ 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 Dates	Mean Number Live Cucumber Beetles per 10 Plants ¹				
			Pretrt June1	3 DAT #1 June 7	10 DAT#1 June 14	3 DAT #2 June 21	10 DAT #2 June 28
Baythroid XL	2.8 oz	June 4, 18	1.50a	1.25a	0.75a	0.00a	0.75b
Assail 30SG	5.3 oz	June 4, 18	3.75a	0.00a	1.00a	0.00a	1.00b
Voliam Flexi WDG	7 oz	June 4, 18	7.25a	1.00a	2.75a	0.00a	1.75ab
Belay 2.13SC	4 oz	June 4, 18	8.00a	0.25a	3.50a	0.50a	3.50a
Untreated Check	--		1.75a	10.25a	2.50a	0.25a	0.75b

¹ 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 Dates	Mean Number Dead Cucumber Beetles per 10 Plants ¹			
			3 DAT #1 June 7	10 DAT#1 June 14	3 DAT #2 June 21	10 DAT #2 June 28
Baythroid XL	2.8 oz	June 4, 18	0.50a	0.00a	0.00a	2.00a
Assail 30SG	5.3 oz	June 4, 18	0.75a	0.50a	0.25a	0.00a
Voliam Flexi WDG	7 oz	June 4, 18	2.50a	0.50a	0.75a	0.00a
Belay 2.13SC	4 oz	June 4, 18	0.75a	0.00a	2.00a	0.75a
Untreated Check	--		0.00a	0.00a	0.50a	0.25a

¹ 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 Dates	Mean Percent Cucumber Beetles Infested Plants ¹			
			3 DAT #1 June 7	10 DAT#1 June 14	3 DAT #2 June 21	10 DAT #2 June 28
Baythroid XL	2.8 oz	June 4, 18	10.00a	5.00a	0.00b	17.50a
Assail 30SG	5.3 oz	June 4, 18	7.50a	15.00a	2.50ab	10.00a
Voliam FlexiWDG	7 oz	June 4, 18	17.50a	15.00a	2.50ab	17.50a
Belay 2.13SC	4 oz	June 4, 18	10.00a	22.50a	15.00a	25.00a
Untreated Check	--		47.50a	17.50a	5.00ab	10.00a

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