

Insect Management in Bell Peppers, 2008

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“Paladin” bell peppers were transplanted on June 18 at the University of Delaware Research and Education center located near Georgetown, DE. Two row plots 20 ft long on 8 ft centers were replicated 4 times in a RCB design. All foliar materials were applied beginning at first flower/small fruit on July 18 and then on a weekly basis on July 25; Aug 1, 7, 14 and 21. Applications were made with a CO₂ backpack sprayer with a one-row boom, having 3 hollow-cone nozzles per row (one over the top and one drop nozzle on each side) delivering 62.5 gpa at 40 psi. Plots were sampled on a weekly basis from June 25 through Aug 18 for green peach aphid (GPA) aphids, European corn borer (ECB) egg masses, beet armyworm (BAW) egg masses, and corn earworm(CEW) and fall armyworm(FAW) damaged fruit. All commercial size peppers were harvested on Aug 12 and Aug 25 and evaluated for ECB, BAW, CEW and FAW damage. Data were analyzed using Proc GLM and means were separated by Tukey’s mean separation test (P=0.05).

Corn borer pressure was moderate. Beet armyworm pressure was light. All treatments provided significantly better ECB control compared to the untreated check on Aug 25. Tesoro provided the lowest level of ECB control compared to the other treatments on Aug 25. No phytotoxicity was observed.

Table1.) European Corn Borer (ECB) Damaged Fruit

Treatment	Rate/Acre	# appl	Mean No. Green Peach Aphids/50 lvs	Mean Percent ECB Damaged Fruit ¹	
				Aug 12	Aug 25
Synapse 24 WG + NIS	3 oz + 0.25% v/v	6	4.50b	0.00b	0.22c
Synapse 24 WG + MSO	3 oz+ 0.25% v/v	6	1.00b	0.00b	0.00c
Coragen 1.67SC	3.38 oz	4	1.75B	0.52b	0.00c
Avaunt 30WDG	3.5 oz	2			
Coragen 1.67 SC	5.07 oz/a	3	4.00b	0.00b	0.00c
Avaunt 30WDG	3.5 oz	3			
Radiant 1SC	5 oz	6	8.75ab	0.31b	0.00c
Tesoro 4EC	6.4 oz	6	1.00b	7.27ab	9.1b
Orthene 97	1 lb	2	2.00a	0.26b	0.97c
Warrior	3.84 oz	4			
Avaunt 30WDG	3.5 oz	4	7.50ab	0.00b	0.00c
Coragen 1.67SC	5.07 oz	2			
Warrior	3.84 oz	6	20.50a	0.41b	0.39c
Untreated	----		2.50b	13.38a	20.66a

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