

Insect Management in Bell Peppers, 2007: “Paladin” bell peppers were transplanted on June 20 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. A maintenance spray of Intrepid was applied on July 18 for beet armyworm before flowers were present on the plants. All foliar materials were applied beginning at first flower/small fruit on July 19 and then on a weekly basis on July 26; Aug 2, 10 and 16. 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 57 gpa at 37 psi. Plots were sampled on a weekly basis from June 27 through Aug 9 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 9 and Aug 20 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).

Aphid populations were low throughout the season therefore no differences were detected between the treatments and the untreated check. All treatments provided significantly better ECB control compared to the untreated check on Aug 20. No phytotoxicity was observed.

Table1. European Corn Borer (ECB) Damaged Fruit

Treatment	Rate/Acre	Mean Percent ECB Damaged Fruit ²	
		Aug 9	Aug 20
A15397 1.27SC	4.11 oz	0.00a	0.00b
A15397 1.27SC	5.50 oz	0.00a	0.76b
A15365 2.1SC	1.64 oz	0.00a	0.00b
A15365 2.1SC	2.20 oz	0.00a	0.00b
Warrior 1CS	3.20 oz	0.00a	0.00b
Coragen 1.69SC	5.1 oz/A	0.00a	0.00b
Volium Xpress 150 ZC	6.8 oz	0.00a	1.00b
Alverde 2SC ¹ + LI 700	16 oz + 0.5% V/V	0.00a	1.25b
Synapse 24 WG	3 oz	0.00a	0.00b
Untreated	---	6.34a	7.09a

¹ EC formulation used on the first 3 application dates; SC formulation used on last 2 application dates.

² Means within a column followed by the same letter are not significantly different (Tukey’s, P=0.05).

Table 2. Beet Armyworm (BAW) Damaged Fruit

Treatment	Rate/Acre	Mean Percent BAW Damaged Fruit ²	
		Aug 9	Aug 20
A15397	4.11 oz	0.00a	1.00ab
A15397	5.50 oz	0.00a	3.00ab
A15365	1.64 oz	0.00a	0.63ab
A15365	2.20 oz	0.00a	2.00ab
Warrior	3.20 oz	3.33a	3.33ab
Coragen 200 SC	5.1 oz/A	0.00a	0.83ab
Volium Xpress 150 ZC	6.8 oz	0.00a	0.00b
Alverde + LI 700 ¹	16 oz + 0.5% V/V	0.00a	1.63ab
Synapse 24WG	3 oz	0.00a	3.83ab
Untreated	---	0.96a	7.61a

¹ EC formulation used on the first 3 application dates; SC formulation used on last 2 application dates.

² Means within a column followed by the same letter are not significantly different (Tukey's, P=0.05).