

Insect Management in Non- Bell Peppers, 2007: “Cherry Bomb” hot cherry 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 treatments receiving a weekly application of Warrior or Spintor/Intrepid were applied beginning at first flower/small fruit on July 26 and then on a weekly basis on Aug 2, 10 and 16. No treatments were applied to the “threshold” plots due to low moth counts. 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 56 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 15 and Aug 24 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).

Foliar insect populations were low throughout the season with the exception of an early beet armyworm infestation. Although aphid populations were generally low, we did see a significant increase late in the season in the plots receiving weekly Warrior applications. All treatments provided significantly better ECB control compared to the untreated check on Aug 20. No phytotoxicity was observed.

Treatment	Timing	Treatment Dates	Rate/A	Aphid per 100 leaves Aug 9	% ECB Damaged Fruit	
					Aug 15	Aug 24
Warrior	Weekly starting at ¼ inch fruit	July 26; Aug 2, 10 and 16	3.2 oz	32.00a	0.50a	0.38a
Warrior	Threshold	None	---	9.00b	0.00a	0.25a
Spintor then switch to	2 app – start at ¼ inch fruit	July 26; Aug 2	6 oz			
Intrepid	2 appl		8 oz	10.50a	0.00a	0.00a
Spintor then switch to	Threshold – 2 appl max	None	---			
Intrepid	Threshold			4.25a	0.25a	0.00a
Untreated	---		---	6.50a	1.50a	0.00a

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