

Control of Lepidopteran Larvae in Fall Spinach, 2010: Promising new chemistry and labeled insecticides were evaluated for control of webworms and beet armyworms. The spinach variety, 'Vancouver', was planted on September 1 at the University of Delaware Research and Education Center located near Georgetown, DE. Plots were six rows wide and 20-ft-long planted on 12-inch centers. Each treatment was replicated four times and arranged in a RCB design. The evaluated materials are listed in the tables. In-furrow materials were applied soon after plant emergence on September 3 by drenching materials over the row before plant emergence using a CO₂ backpack sprayer with a one-nozzle boom delivering 64 gpa at 42 psi. Foliar materials were applied on September 22 using a 4 nozzle boom delivering 30 gpa at 32 psi. The number of larvae on each of 10 randomly selected plants per plot was recorded on a weekly basis. Data were analyzed using Proc GLM and means were separated by Tukey's mean separation test (P=0.05).

Webworm and beet armyworm population pressure was moderate. No phytotoxicity was observed.

Treatment ¹	Rate/A	Treatment Dates/Method	Mean Number Beet Armyworm per 10 plants ¹		Mean Number Garden Webworms per 10 plants ¹	
			Sept 20	Sept 29	Sept 20	Sept 29
Coragen 1.67 SC	5.0 oz/a	Sept 3-IF	0.00a	0.50a	0.00b	0.00a
Coragen 1.67 SC	5.0 oz/a	Sept 22-Foliar	1.50a	0.25a	0.50ab	0.00a
Synapse 24WG+ LI-700	3 oz/A + 0.25 v/v	Sept 22-Foliar	2.00a	0.00a	2.00a	0.25a
Radiant 1 SC	10 oz/A	Sept 22-Foliar	2.25a	0.00a	1.75ab	0.00a
Intrepid 2 F	10 oz/A	Sept 22-Foliar	1.00a	0.50a	1.50ab	0.00a
Untreated	---	---	1.75a	0.75a	1.75ab	0.75a

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

Treatment ¹	Rate/A	Treatment Dates/Method	Mean Number Worms per 10 plants ¹	
			Sept 20	Sept 29
Coragen 1.67 SC	5.0 oz/a	Sept 3-IF	0.00b	0.50a
Coragen 1.67 SC	5.0 oz/a	Sept 22-Foliar	2.00ab	0.25a
Synapse 24WG+ LI-700	3 oz/A + 0.25 v/v	Sept 22-Foliar	4.00a	0.25a
Radiant 1 SC	10 oz/A	Sept 22-Foliar	4.00a	0.00a
Intrepid 2 F	10 oz/A	Sept 22-Foliar	2.50ab	0.50a
Untreated	---	---	3.50ab	1.50a

¹ Means within a column followed by the same letter are not significantly different (Tukey's, P=0.05).
Mixture of worm species – beet armyworm (50%) and garden webworms (50%)