

Insect Management in Snap Beans with Seed Treatments, 2005: 'Slenderette' snap beans were planted on April 27 at the University of Delaware's Research and Education Center located near Georgetown, DE. Plots consisted of four 20 ft-long plots on 30-inch centers. Treatments were replicated four times in a RCB design. Seed-applied treatments were applied commercially by Syngenta Seeds. A 2- inch band of meat and bone meal was placed over each row at planting to increase seed corn maggot (SCM) oviposition at a rate of 320 grams per 20 ft of row. Stand counts and SCM damage were evaluated on May 13 and 17. The number of thrips and leafhoppers per 20 leaflets were counted on a weekly basis in each planting from the first true-leaf stage through mature pods. Data were analyzed using ANOVA and means were separated by Ryan's q-test (P=0.05).

Seed corn maggot pressure was moderate. The Cruiser, Lorsban, Cruiser + Lorsban and Poncho treatments provided significantly better stand counts and % SCM damaged plants compared to the untreated check. The Lorsban plus Cruiser treatment provided the best season-long SCM control. Thrips and potato leafhopper pressure was low. Bean leaf beetle (BLB) pressure was moderate. All treatments provided significantly better BLB control compared to the untreated checks on May 31. The Cruiser treatments provided the best season-long thrips control. No phytotoxicity was observed.

Table 1. Stand Count

Treatments	Rate g ai/100 kg seed	Stand Count – 40 ft of row		
		May 13	May 17	May 31
Untreated	---	63.33a	45.75b	38.25b
Maxim Apron XL Streptomycin	2.5 7.5 2.0% v/v	51.67a	46.00b	36.25b
Maxim Apron XL Streptomycin Lorsban –SL	2.5 7.5 2.0% v/v 62	51.00a	102.50a	99.00a
Maxim Apron XL Streptomycin Cruiser 5FS	2.5 7.5 2.0% v/v 50	71.00a	116.75a	110.50a
Maxim Apron XL Streptomycin Lorsban –SL Cruiser 5FS	2.5 7.5 2.0% v/v 62 50	48.00a	111.50a	105.00a
Maxim Apron XL Streptomycin Poncho 600	2.5 7.5 2.0% v/v 60	72.67a	123.00a	119.00a

Means within a column followed by the same letter are not significantly different (Ryan's q-test; P=0.05).

Table 2. Seed Corn Maggot Data

Treatments	Rate g ai/100 kg seed	Total SCM/5 seeds		% SCM Damaged	
		May 13	May 17	May 13	May 17
Untreated	---	2.84a	1.00a	81.60a	91.60a
Maxim Apron XL Streptomycin	2.5 7.5 2.0% v/v	3.49a	1.00a	86.80a	86.80a
Maxim Apron XL Streptomycin Lorsban –SL	2.5 7.5 2.0% v/v 62	0.083b	0.00a	30.00b	36.80b
Maxim Apron XL Streptomycin Cruiser 5FS	2.5 7.5 2.0% v/v 50	0.42b	0.00a	28.40b	33.40b
Maxim Apron XL Streptomycin Lorsban –SL Cruiser 5FS	2.5 7.5 2.0% v/v 62 50	0.00b	0.00a	3.40c	8.40c
Maxim Apron XL Streptomycin Poncho 600	2.5 7.5 2.0% v/v 60	0.08b	0.17a	18.40bc	31.60b

Means within a column followed by the same letter are not significantly different (Ryan's q-test; P=0.05).

Table 3. Bean Leaf Beetle Damage

Treatments	Rate g ai/100 kg seed	% Bean Leaf Beetle Infested Plants – May 31
Untreated	---	55.54a
Maxim Apron XL Streptomycin	2.5 7.5 2.0% v/v	56.91a
Maxim Apron XL Streptomycin Lorsban –SL	2.5 7.5 2.0% v/v 62	22.63b
Maxim Apron XL Streptomycin Cruiser 5FS	2.5 7.5 2.0% v/v 50	24.16b
Maxim Apron XL Streptomycin Lorsban –SL Cruiser 5FS	2.5 7.5 2.0% v/v 62 50	11.81b
Maxim Apron XL Streptomycin Poncho 600	2.5 7.5 2.0% v/v 60	15.31b

Means within a column followed by the same letter are not significantly different (Ryan's q-test; P=0.05).

Table 4. Thrips Counts and Yield

Treatments	Rate g ai/100 kg seed	Thrips per 20 leaflets			
		May 31	June 7	June 14	June 22
Untreated	---	0.50a	4.75a	10.75a	127.75ab
Maxim	2.5				
Apron XL	7.5				
Streptomycin	2.0% v/v	0.25a	5.50a	13.75a	170.00a
Maxim	2.5				
Apron XL	7.5				
Streptomycin	2.0% v/v				
Lorsban –SL	62	0.25a	11.50a	6.50a	211.00a
Maxim	2.5				
Apron XL	7.5				
Streptomycin	2.0% v/v				
Cruiser 5FS	50	0.00a	0.50a	1.00a	10.50b
Maxim	2.5				
Apron XL	7.5				
Streptomycin	2.0% v/v				
Lorsban –SL	62				
Cruiser 5FS	50	0.00a	0.25a	0.00a	9.75b
Maxim	2.5				
Apron XL	7.5				
Streptomycin	2.0% v/v				
Poncho 600	60	0.50a	1.25a	6.50a	75.25ab

Means within a column followed by the same letter are not significantly different (Ryan's q-test).