Insect Management in Snap Beans with Seed Treatments, 2004: 'Slenderette' snap beans were planted on May 5(first planting) and June 2 (second planting) 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. Seed-applied treatments were applied commercially by Syngenta Seeds. In the first planting, a 2-4 inch band of meat and bone meal was placed over each row to increase seed corn maggot (SCM) oviposition at a rate of 320 grams per 20 ft of row. Dimethoate was applied on June 23 in the second study with a CO_2 pressurized backpack sprayer delivering delivering 21 gpa @ 40 psi. Stand counts were evaluated on the first planting on May 13 and 17. The number of thrips and leafhoppers per 20 leaflets were counted on 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).

In the first planting, seed corn maggot pressure was heavy. All the Cruiser treatments and the Lorsban treatment provided significantly better stand counts and seed corn maggot control compared to the untreated check and Poncho 600 on May 17. On May 14, the Cruiser and Lorsban treatments had a significantly lower percentage of SCM damaged plants. Thrips pressure was moderate and leafhopper pressure was low. The Cruiser and Poncho treatments provided significantly better thrips control compared to Lorsban through June 8. No phytotoxicity was observed.

In the second planting, thrips pressure was moderate and PLH pressure was low. Overall, the Cruiser provided the best thrips control through July 7 (bloom-pin pod stage). No phytoxicity was observed.

(A) Planting # 1: May 5

I. Stand Count and Seed Corn Maggot Data

Treatments	Insecticide Rate	Stand Count – 20 ft of row		% SCM Damaged May 14	% SCM Infested May 14
		May 13	May 17		
Untreated	-----	46.75bc	0.25b	98.00a	98.00a
Maxium,Apron, Strep	-----	42.75c	1.00b	96.00a	95.00a
Maxium, Apron, Strep, Cruiser	30 g ai/100 kg seed	68.00a	50.25a	22.00c	6.00b
Max, Apron, Strep, Cruiser	50 g ai/100 kg seed	65.50a	64.25a	10.00c	2.00b
Max, Apron, Strep, Cruiser	75 g ai/100 kg seed	67.75a	67.75a	11.00c	3.00b
Max, Apron, Strep, Lorsban	62 g ai/100 kg seed	59.50a	61.00a	21.00c	9.00b
Maxium, Apron, Strep, Dimethoate	--- never applied	43.75c	0.75b	96.00a	94.00a
Captan, Allegiance, Strep Poncho 600	62.5 ga ai/HA	56.25ab	15.25b	74.00b	16.00b

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

II. Potato Leafhoppers per 10 leaflets

Treatment	Insecticide Rate	PLH per 20 leaflets		
		May 24	June 2	June 22
Cruiser	30 g ai/100 kg seed	0.00a	0.50a	33.50a
Cruiser	50 g ai/100 kg seed	0.00a	1.00a	42.50a
Cruiser	75 g ai/100 kg seed	0.00a	0.25a	26.50a
Lorsban	62 g ai/100 kg seed	0.00a	0.50a	46.50a
Poncho 600	62.5 ga ai/HA	0.00a	2.50a	28.25a

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

II. Thrips per 10 leaflets and Yield

Treatment	Yield Tons/A	Thrips per 20 leaflets			
		May 24	June 2	June 8	June 22
Cruiser	30 g ai/100 kg seed	0.00b	2.00b	10.25bc	19.75a
Cruiser	50 g ai/100 kg seed	0.00b	2.00b	10.25bc	6.50a
Cruiser	75 g ai/100 kg seed	0.00b	2.25b	3.00c	22.00a
Lorsban	62 g ai/100 kg seed	32.0a	108.00a	50.75a	21.50a
Poncho 600	62.5 ga ai/HA	5.50b	12.00b	24.50b	27.00a

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

(B) Planting Date #2: June 2

Table 1 – Thrips

Treatment	Rate	Thrips per 20 leaflets					
		June 21	June 29	July 7 (Bloom-Pin Pods)	July 14	July20 (Mature Beans)	July 26
Untreated	-----	18.75a	42.50a	47.50b	43.75a	46.75ab	21.50a
Maxium,Apron, Strep, Dimethoate	16 oz/acre June 23	17.25a	13.50bc	29.25bc	31.25a	80.00ab	19.25a
Maxium, Apron, Strep, Cruiser	30 g ai/100 kg seed	2.25b	6.75c	6.00c	40.00a	42.75ab	25.00a
Max, Apron, Strep, Cruiser	50 g ai/100 kg seed	1.00b	5.75c	6.25c	26.25a	16.75b	18.50a
Max, Apron, Strep, Cruiser	75 g ai/100 kg seed	0.75b	3.25c	4.25c	24.75a	23.25b	18.00a
Max, Apron, Strep, Lorsban	62 g ai/100 kg seed	19.75a	36.50ab	63.5ab	52.75a	55.75ab	18.00a
Maxium, Apron, Strep	-----	15.25a	27.75abc	45.25b	46.00a	43.50ab	21.75a
Captan, Allegiance, Strep Poncho 600	62.5 ga ai/HA	20.00a	39.75ab	82.75a	37.00a	92.50a	29.50a

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

Table II – Potato Leafhopper Nymphs

Treatment	Rate	PLH Nymphs per 20 leaflets					
		June 21	June 29	July 7 (Bloom-Pin Pod)	July 14	July 20 (Mature Beans)	July 26
Untreated	-----	1.00a	5.75a	3.25a	3.25a	18.00a	18.50ab
Maxium,Apron, Strep, Dimethoate	16 oz/acre June 23	1.75a	0.00b	0.75a	3.00a	64.50a	22.75ab
Maxium, Apron, Strep, Cruiser	30 g ai/100 kg seed	0.50a	0.00b	1.50a	3.50a	13.25a	27.50a
Max, Apron, Strep, Cruiser	50 g ai/100 kg seed	0.00a	0.25b	0.50a	2.25a	36.00a	20.50ab
Max, Apron, Strep, Cruiser	75 g ai/100 kg seed	1.00a	0.00b	0.00a	0.50a	3.25a	10.75b
Max, Apron, Strep, Lorsban	62 g ai/100 kg seed	1.50a	1.75ab	3.25a	5.50a	13.50a	17.25ab
Maxium, Apron, Strep	-----	0.25a	1.75ab	3.25a	4.00a	17.00a	21.25ab
Captan, Allegiance, Strep Poncho 600	62.5 ga ai/HA	1.75a	2.00ab	2.75a	6.00a	31.75a	17.75ab

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

Table III. Potato Leafhopper Adults

Treatment	Rate	PLH/10 Sweeps			
		June 29	July 7 (Bloom-Pin Pods)	July 14	July 20 (Mature Beans)
Untreated	-----	1.25ab	6.25ab	3.00a	7.50a
Maxium,Apron, Strep, Dimethoate	16 oz/acre June 23	0.75ab	4.75ab	4.00a	7.25a
Maxium, Apron, Strep, Cruiser	30 g ai/100 kg seed	0.50ab	2.50b	2.25a	9.75a
Max, Apron, Strep, Cruiser	50 g ai/100 kg seed	1.25ab	3.75ab	5.00a	8.75a
Max, Apron, Strep, Cruiser	75 g ai/100 kg seed	0.00b	3.00ab	4.00a	5.25a
Max, Apron, Strep, Lorsban	62 g ai/100 kg seed	1.75ab	4.50ab	3.25a	7.50a
Maxium, Apron, Strep	-----	1.75ab	2.50b	5.00a	11.00a
Captan, Allegiance, Strep Poncho 600	62.5 ga ai/HA	2.50a	7.00a	5.25a	12.25a

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