

Control of Seed Corn Maggot in Processing Peas, 2007

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‘Bolero’ peas were planted on March 28th at the University of Delaware’s Research and Education Center located near Georgetown, DE. Plots consisted of nine 25 ft-long rows on 7.5 inch centers. Each treatment was replicated four times and arranged in a RCB design. A 2-inch band of bone and meat meal was placed over each row at planting to increase the seed corn maggot (SCM) oviposition at a rate of 320 grams per 20 foot of row. In addition to the insecticide seed treatments, all plots were treated with Captan 400 2.5 fl oz/cwt + Allegiance 0.75 fl oz/cwt. Stand counts were evaluated by counting the number of healthy plants in 3 ft of row in 3 locations per plot. Seed corn maggot (SCM) infestation levels were evaluated by digging up five consecutive plants in 3 locations per plot to determine the % damaged seeds and number of larva per seed. In addition, plant damage was evaluated by examining five consecutive plants in 3 locations per plot to determine the percent infested stems.

Seed corn maggot populations were extremely heavy. A combination of extremely cool, wet weather immediately after planting and heavy seed corn maggot pressure resulted in stand counts that were below commercially acceptable levels in all treatments. As a result, no yield data was taken. The Lorsban seed treatment provided significantly better early stand counts (April 13) compared to the untreated check. At the final stand count, all treatments provided significantly better control compared to the untreated check. All treatments resulted in a significantly lower percentage of damaged seeds and stems compared to the untreated check. However, under these extremely adverse conditions, none of the treatments provided commercially acceptable levels of control.

Table 1. Stand Counts

Treatment	Rate	Mean Stand Count per 3 ft of row ¹		
		April 13	April 18	May 12
Untreated	----	3.25b	3.92a	2.15b
Diazinon 50W	0.5 oz/Bu seed	8.00ab	10.08a	11.75a
Lorsban- SL	62.5 mg ai/100 g seed	10.09a	10.08a	13.75a
Cruiser 5FS	50 mg ai/100 g seed	8.84ab	10.58a	9.50a
Entrust	50 mg ai/ 100 g seed	8.17ab	9.83a	11.25a

¹ Means within a column followed by the same letter are not significantly different (P=0.05; Tukey’s Mean Separation Test).

Table 2. Seed Corn Maggot Damage Evaluations

Treatment	April 18 ¹		% Damaged Stems April 24 ¹
	% damaged seed	% dead larvae	
Untreated	87.50a	0.00b	82.50a
Diazinon 50W	27.50b	12.50ab	27.50c
Lorsban	7.50b	40.00a	30.00c
Cruiser 5FS	22.50b	17.50ab	60.00b
Entrust	40.00b	22.50ab	32.50c

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