

**Control of Seed Corn Maggot in Processing Peas, 2008:**

*Investigators:* Joanne Whalen and William Cissel, University of Delaware, Department of Entomology and Wildlife Ecology; Alan Taylor, Cornell University, Department of Horticulture Science

'Durango' peas were planted on April 2 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. In addition to plowing under manure before planting, 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. 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 larvae per seed. In addition, stem damage was evaluated by examining five consecutive plants in 3 locations per plot to determine the percent infested stems.

Seed corn maggot populations were heavy. All treatments provided significantly better stand counts compared to the untreated check. All treatments resulted in a significantly lower percentage of damaged seeds on April 22 and damaged stems on April 30 compared to the untreated check. The Entrust seed treatments provided a significantly lower percentage of infested seeds and stems on the final evaluation date compared to the untreated control.

Table 1. Stand Counts

Treatment	Rate mg ai/seed	Mean Stand Count per 3 ft of row <sup>1</sup>	
		April 22	April 30
Untreated	----	5.25c	5.25c
Lorsban (chlorpyrifos)	0.117	9.08ab	9.08b
Entrust (spinosad)	0.100	8.25b	11.67ab
Entrust (spinosad)	0.150	9.58ab	10.50ab
Entrust (spinosad)	0.200	10.58a	12.42a

<sup>1</sup> 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 - Seed Evaluations

Treatment	Rate mg ai/seed	% Infested Seeds <sup>1</sup>	
		April 22	May 8
Untreated	----	95.00a	73.33a
Lorsban (chlorpyrifos)	0.117	56.67b	50.00ab
Entrust (spinosad)	0.100	18.33c	23.33b
Entrust (spinosad)	0.150	23.33bc	15.00b
Entrust (spinosad)	0.200	23.33bc	23.33b

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

Table 3. Seed Corn Maggot - Stem Evaluations

Treatment	Rate mg ai/seed	% Infested Stems <sup>1</sup>	
		April 30	May 8
Untreated	----	73.33a	73.33a
Lorsban (chlorpyrifos)	0.117	31.67b	50.00ab
Entrust (spinosad)	0.100	11.67c	23.33b
Entrust (spinosad)	0.150	10.00c	15.00b
Entrust (spinosad)	0.200	0.00c	23.33b

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