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## Seedcorn maggots love manured fields

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# Seedcorn maggots love manured fields

## **Abstract**

Seedcorn maggots are occasional pests of both corn and soybean seeds prior to germination and can cause stand loss. Because this damage occurs below the soil surface, it may be difficult to determine the need for an insecticide. There are no rescue treatments for this insect, so you must apply an insecticide at planting time if economic damage is anticipated. When making your decision, consider field history, previous crop or cover, heavy manuring during the winter or spring, and possible delays in germination due to cool and wet soil conditions.

## **Keywords**

Entomology

## **Disciplines**

Agricultural Science | Agriculture | Entomology

# INTEGRATED CROP MANAGEMENT

## Seedcorn maggots love manured fields

Seedcorn maggots are occasional pests of both corn and soybean seeds prior to germination and can cause stand loss. Because this damage occurs below the soil surface, it may be difficult to determine the need for an insecticide. There are no rescue treatments for this insect, so you must apply an insecticide at planting time if economic damage is anticipated. When making your decision, consider field history, previous crop or cover, heavy manuring during the winter or spring, and possible delays in germination due to cool and wet soil conditions.



**Seedcorn maggot.**

[Enlarge](#) [1]

Seeds are at greatest risk for injury when animal manure is spread on the soil or when plants are killed in the spring and incorporated into the soil prior to planting. The adult female seedcorn maggot (fly) lays her eggs in decaying organic matter. Damage is more likely in cool, wet soils when the seeds are slow to germinate but the insects are actively feeding. Fields that have last year's crop residue on the soil surface or that are no-till should not have a problem with seedcorn maggots unless an unusually cool and wet spring greatly delays plant emergence. Germinating seeds alone are not sufficient to attract seedcorn maggots to the field.

If manure has been spread on the field or a green cover crop was disked or plowed this spring, consider protecting the seed with an insecticide. Not all products labeled for corn can be used in soybean so read and follow label directions. In corn, if large populations of wireworms are present (based on problems during previous years or corn following pasture), or if corn rootworm or white grub damage is expected, then a seed treatment will not provide adequate protection against all of these pests.

Table 1 presents the results of a seedcorn maggot test conducted last year in Ames. All plots, except the unbaited check, were baited with powdered meat and bone meal to attract female flies to the plots to lay their eggs. The percentage of damaged plants ranged from 0 to 80, indicating that not all products provided the same level of protection against seedcorn maggots.

**Table 1. Average percentage of damaged seeds or seedlings for planting-time insecticide treatments. Seedcorn maggot test, Ames, IA, 2000.**

Insecticide	Formulation	Rate <sup>a</sup>	Placement <sup>b</sup>	% Damage <sup>c</sup>		Plant Stand <sup>d</sup>
ProShield	ST	0.075	ST	0	a	18.25
Isotox	ST	4.0 oz mat/cwt	ST	3	a	18.25
Fortress	5G	0.15	Furrow	3	a	20.25
Aztec	2.1G	0.14	Furrow	3	a	21.25
Agrox Premiere	ST	3.6 oz mat/cwt	ST	5	a	19.25
Raze	ST	3.0 fl oz mat/cwt	ST	5	a	19.50
Adage	600FS	50 g a.i./100 kg	ST	5	a	20.25
Lorsban	15G	1.2	Furrow	5	a	19.25
Counter	20CR	1.2	Furrow	7	a	20.00
Lindane	50SC	40 g a.i./100 kg	ST	8	a	18.75
Aztec	2.1G	0.07	Furrow	10	a	19.75
Counter	20CR	0.6	Furrow	15	a	19.50
Unbaited check	--	--	--	15	a	21.75
Regent (4GPA) <sup>e</sup>	4SC	0.12	Furrow-M	28	ab	19.25
Capture	2EC	0.074	Furrow	46	abc	19.00
Capture	2EC	0.037	Furrow	68	bc	17.75
Force	3G	0.15	Furrow	70	bc	16.75
Baited check	--	--	--	80	c	13.75

<sup>a</sup>Granular and liquid formulations plus ProShield ST are expressed as ounces of active ingredient (a.i.) per 1,000 row-ft. mat/cwt, material/hundredweight.

<sup>b</sup>ST, seed treatment; M, microtube.

<sup>c</sup>Means sharing a common letter do not differ significantly ( $P \leq 0.05$ ).

<sup>d</sup>Means based on four observations (plants in 15 ft/treatment x four replications).

<sup>e</sup>Amount of water carrier per 17,424 row-ft.

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[1] <http://www.ent.iastate.edu/imagegal/diptera/anthomyiidae/0156.8seedcornmag.html>

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