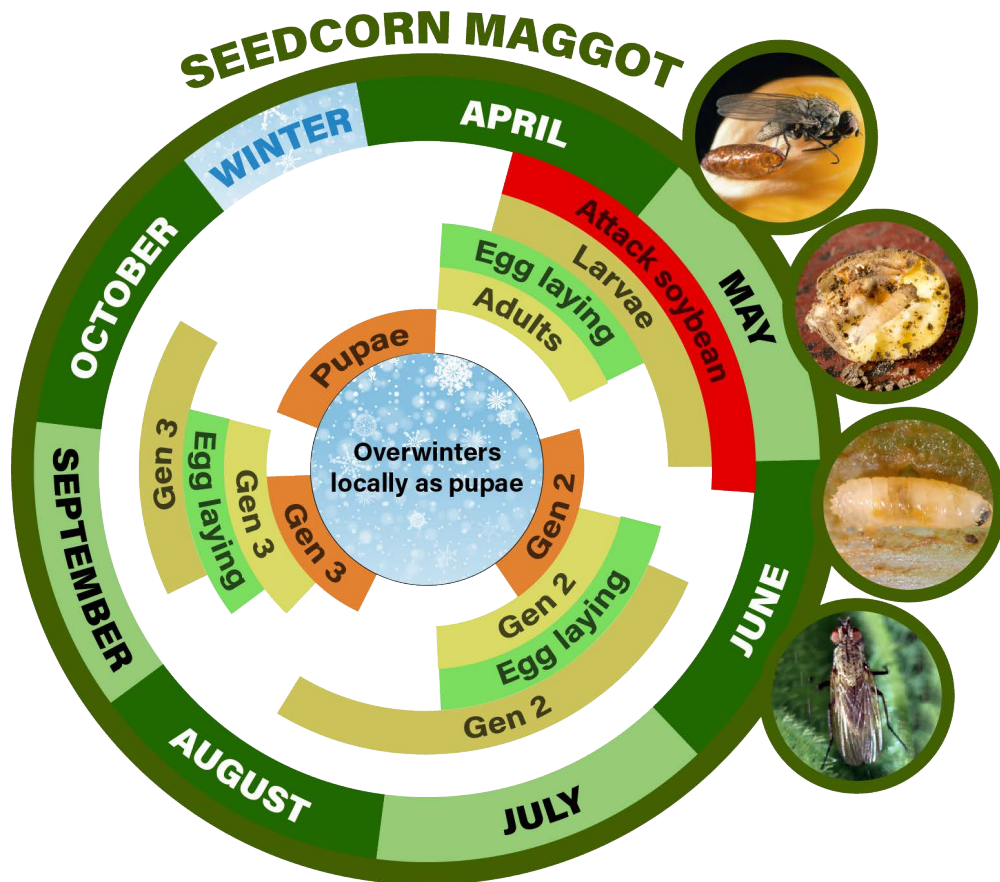


Seedcorn Maggot

Delia platura Meigen



Appearance and Life History

The seedcorn maggot is an early season pest of soybean, causing damage during its larval stage. It is often more of a problem during damp, cool springs and in manured or reduced tillage fields with decaying residue.

The seedcorn maggot is a pale, yellowish-white larva found burrowing into soybean seeds. Full grown maggots are legless, about 1/4 inch (6 mm) long, cylindrical, narrow, and tapered. The maggot lacks a defined head and legs, but has small black mouth hooks at the front of its body.



Larva (maggot)

Photo by J. Obermeyer



Larva (maggot)

Photo by J. Obermeyer

When mature, the maggot pupates inside a dark brown puparium that resembles a wheat seed. The adult resembles a house fly and emerges in the spring. It is gray to brown and about 1/5 inch (5 mm) long. The fly is attracted to manure that has been spread in a field or other decaying organic matter and lays its eggs on moist soil in these attractive areas.

The entire seedcorn maggot life cycle requires no more than 21 days, resulting in 3 or more generations per year.

Damage

Seedcorn maggots burrow into the seed, often destroying the germ. Damaged seeds fail to germinate, leaving large gaps in the stand. Any condition that delays germination may increase damage from this pest. Maggot damage, unlike wireworm damage, usually covers most of a



Adult fly

Photo by J. Obermeyer



Damaged seeds in soil

Photo by J. Obermeyer

Record the number of plants, good ungerminated seeds, and hollowed-out or otherwise damaged seeds in each area sampled.

field. Land that is heavily manured, or where a cover crop is lightly turned under, may be attractive in the spring to egg-laying flies.

Sampling Method

- Examine soil by digging in areas where plants have failed to emerge. Check ungerminated seed for injury and presence of maggots.
- Dig up 2 linear row feet (0.6 m) in each of 5 areas in a field. Examine seeds for damage.

Management Guidelines

Soybean Insect Control Recommendations: [E-series 77-W](#) (PDF)

- Since there are no rescue treatments for control of seedcorn maggots, replanting is the only available option. The decision to replant should be based on the remaining healthy plant population, the date, yield expectations, etc. Where planting in wide rows, it may be feasible to replant down the middle of the rows without destroying the healthy plants in the original planting. The result would be the equivalent to narrow row soybean.
- Seed treatments are labeled for seedcorn maggot control, but may provide inconsistent control, particularly when plants are stressed and not growing due to cool, wet soils



Damaged seedling

Photo by J. Obermeyer



If replanting is necessary due to maggot damage, determine the stage of growth of the maggots before applying a seed-protectant insecticide. The pupa, pictured above on the damaged seedling, indicates that feeding by the maggot is complete. Soon the flies will be emerging from the soil.



Seedcorn maggot pupa on cotyledon

Photo by J. Obermeyer