

SEED CORN MAGGOT MAY DAMAGE CUCURBIT CROPS

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Seed corn maggots can attack beans, peas, cucumbers, pickles, squash, melons, and sweet corn. A cool wet spring may promote seed corn maggot survival and activity. Maggots can be found inside seeds that have not germinated and in stems of young transplants. Maggots will bore into stems and make them hollow. The plant will wilt and eventually die. In seeds, the maggots eat the endosperm, or thick fleshy portion of the seed. Some observations in the field found that planting multiple seeds in the planting hole may help. In some cases, the maggots only attacked on seed in the hole and the other was able to germinate. However, it is still important to protect the seeds by coating them with insecticide.

Seed corn maggots survive through winter in dark brown capsules underground. A fly emerges in March or April in New Jersey. Flies are most abundant in fields with cover crops, fields that have just been tilled, or in fields that have just had manure applied to them. Flies lay eggs where the soil has been disturbed, where a seed is sprouting, or where a fresh transplant has been set out. Maggots hatch quickly and feed on the seed or seedling. From the time of hatching to the time the maggot turns into an egg-laying adult is approximately 3 weeks. There can be many generations per year, depending on weather conditions, however, once the weather becomes hot and drier populations decrease.

Seed corn maggots are usually not affected by the use of soil insecticides applied in-furrow at planting. This is due to the fact that the insecticide must be in contact with the seed or transplant. For spring plantings growers should treat seed with Diazinon by coating seed with a slurry mixture. This needs to be done just before planting. Seed can be coated and spread out to dry on screens. If planted by hand, gloves should be worn for personal protection.

Some other considerations that deal with this pest include: choosing fields that do not stay wet in spring, choose fields that warm up quickly in spring, make sure not to plant seed too deeply to allow for quicker germination, delay planting until soil temperatures reach 55 degrees or higher, used insecticide treated seed, broadcast and incorporate Diazinon before planting to help reduce populations, and replant entire field if damage reaches 35% or more plants.