

Spinach Leafminer

Scientific Name: *Pegomya hyoscyami*

Hosts: Beets, swiss chard, spinach

Description/Biology: Most of the damage (Fig. 1) is during the cooler season and activity stops about mid-summer.

Life Cycle: The insect overwinters in the pupal stage (stage before adulthood) in the soil underneath infested plants in the leaf litter. The adults emerge in mid-spring and they lay masses of white eggs on the undersides of older leaves. The larvae or immatures hatch from the eggs, feed for about two to three weeks, drop to the ground to pupate, and emerge as adults. There could be several generations throughout the season.

Management:

Non-chemical control: Inspect and remove the infested leaves when you see them. Smash the eggs on the surface before the eggs hatch and begin tunneling. If the larvae have already tunneled, cut them off completely and discard them far from your garden site. You can also use floating row covers, cheesecloth, or other types of screening to prevent the adults from laying eggs on the underside of the leaves. Since there are several generations and the flies pupate in the soil, continually inspect the soil, remove leaf litter below the plants, and look for pupae (should look like little cocoons).

Chemical control: Chemical controls are an option. However, several applications of insecticides would be needed to target the adult flies on the leaves. A product with the active ingredients azadirachtin or spinosad can kill the larvae but usually, after feeding, the damage is done.



Figure 1. Spinach leafminer damage. Photo by L. Kerzicnik