



Fact sheet

Insect Pests of the Home Garden Series

Cabbage Maggot

Gerald M. Ghidui, Ph.D., Extension Specialist in Vegetable Entomology



Cabbage maggot adult.



Cabbage maggot damage to radish.



Maggots and damage to cabbage roots.

Injury:

Cabbage maggots, *Delia radicum* (Linnaeus), attack and tunnel into the roots and underground portions of stems of plants belonging to the mustard or cabbage family, including early cabbage, cauliflower, kohlrabi and Brussels sprouts, cress, mustard, late spring radish, early turnips, broccoli, and sometimes beets and celery. Tunnels where maggots have fed become brown and slimy, and often bacterial rot organisms enter at these points. Plants appear stunted and yellowish, and may wilt and die in

the heat of the day. Damage is worse in the spring and fall of cool, wet years, especially in northern New Jersey. Often 40–80 percent of young plants are lost, and entire plantings can be killed outright.

Description:

Adults are very similar to houseflies in appearance but are only about half as large, reaching a length of approximately 1/4 inch long. It is ash-gray in color with three distinct black stripes on the thorax, and a



dark stripe along the top of the thorax. There are many black bristles on the legs and back, and the eyes are a reddish-purple. Eggs are only about 1/25 inch long, white, and shaped like a jelly bean slightly pointed on one end. Larvae are shiny-white legless maggots about 1/3 inch long at maturity, and its body tapers from a wide, blunt rear end to a pointed head. The brownish pupae are enclosed within the larval skin (called a puparium) and are about 1/4 inch long.

Life History:

Cabbage maggots overwinter as pupae. Flies emerge over a 2–3 week period in April and May (about the time sweet cherries bloom) feed on nectar, mate, and deposit eggs in the soil at or near the base of host plant stems. Eggs hatch in 3–7 days and maggots bore into the roots, feed for 3–4 weeks, then pupate in roots or the soil. Flies emerge from the pupae 2 or 3 weeks later and work their way to the soil surface. Although any stage of the insect may be present at any time during the season, there are 3 well-defined generations of this pest each year, and occasionally a fourth generation appears in late September and October when weather conditions are favorable.

Management of Cabbage Maggot:

1. Delay planting or transplanting until June 1 to miss the early maggot flight in late April and May.
2. Protect seed beds with a cheesecloth or floating row cover as a barrier to the flies and thus prevent deposition of eggs at the base of the plants.
3. Sprinkle wood ashes around the base of plants and soak in thoroughly.
4. Place a stiff paper collar, or a tar paper square, at least 4” square around the base of plants to discourage or prevent adult flies from depositing eggs.
5. Destroy crop residue immediately after harvest.
6. For home gardeners, there currently are no effective labeled insecticides for control of cabbage maggot on any of the plants they attack. For commercial growers, several insecticide options are available for both direct-seeded and transplanted crops. Read and follow all label directions, restrictions, and precautionary statements. Days to harvest after the last spray varies depending on crop and pesticide—refer to label for appropriate time intervals.

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