



Slugs and Snails

Injury: Slugs and snails are often present in greenhouses throughout the year and in home vegetable gardens, flower and ornamental borders during most of the summer. Injury to plants consists of chewed holes in leaves (**Fig. 4.**), stems, flowers and fruit. Seedlings may be totally destroyed.



Figure 1. Spotted garden slug (HGIC, University of Maryland)



Figure 2. Brown garden snail (Thomas R. Fasulo, University of Florida)

Description: Slugs and snails are mollusks, a group of invertebrate animals with soft non-segmented bodies. Slugs are often described as snails without a shell (**Fig. 1.**), while snails' bodies are enclosed in calcareous shells (**Fig. 2.**). Slugs and snails move along by secreting a path of mucus.

Life History: Many species overwinter in the egg stage, but eggs may also be found at other times of the year. The eggs resemble little round spheres (**Fig. 3.**), are whitish to clear in color, and are often found in masses just below the soil surface. The young slugs resemble the adults and begin feeding as soon as they hatch. The life span for most species is usually less than one year.

Immature and adult slugs and snails that overwinter become active in the early spring when temperatures are consistently above 40° F (5° C). A wet spring and early summer usually result in a buildup of slug populations. Dry weather is often detrimental to slugs, and they may either die or burrow deeper into the soil to await moist conditions. Cool damp fall weather is conducive to much slug injury.

Slugs and snails are active mostly at night, and the slime trail they leave is an indication of their presence. Early in the morning this trail may appear as silver streaks on the plant surface, but as the day progresses it dries out and becomes less visible. (In contrast, caterpillars, which cause similar feeding injury, do not leave a slime trail.)

Management: Slugs and snails need a certain amount of humidity and moisture to survive. In home gardens, staking

or caging plants (such as tomatoes to get the fruit up off the ground) allows air to circulate and dry the ground around the plant, and allows foliage to dry, thus making them less likely to be attacked by slugs. Hand picking provides limited control and is tedious, but avoids the use of chemicals. Overturned grapefruit skins and old boards are sometimes used as traps. Slugs will tend to accumulate under or in such articles during the hottest, driest part of the day. Hand pick and destroy slugs or snails as found.

Control of slugs and snails outside of the home: If needed, use metaldehyde, iron phosphate bait or iron phosphate + spinosad. Caution: pellets may resemble pet food - be sure to place where pets or children cannot get into them. Metaldehyde should only be applied where pets or wildlife have no access.

Deltamethrin dust may be used as a perimeter treatment for slugs.

Control of slugs and snails in vegetables: Handpick and remove. Iron phosphate baits may be spread on the ground. Metaldehyde or carbaryl plus metaldehyde, may be used where pets or wildlife have no access.

Caution: baits may resemble pet food. Be sure to place baits where children, pets, or wildlife cannot get into them.

Control of slugs and snails in strawberries: Iron phosphate or metaldehyde can be applied to the ground surrounding the plants. Caution: baits may resemble pet food. Be sure to place baits where pets or children cannot get into them. Metaldehyde should only be applied where pets or wildlife have no access.

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Figure 3. A cluster of slug eggs (HGIC, University of Maryland)



Figure 4. A hosta leaf, which has been damaged by slugs (HGIC, University of Maryland)

Pesticide recommendations obtained from *2009-2010 Pest Management Around the Home Part II – Pesticide Guidelines*. Copies are available from Cornell Cooperative Extension – Suffolk County.

The Pesticide Management Education Program (PMEP), in cooperation with the New York State Department of Environmental Conservation (NYSDEC), maintains a web site with a searchable database for pesticide products currently registered in New York State. Individuals who have Internet access can locate currently registered products containing the active ingredients suggested above at <http://pims.psur.cornell.edu/> (NYS PIMS).

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are still possible. Some materials mentioned may no longer be available, and some uses may no longer be legal. All pesticides distributed, sold or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension specialist or your regional DEC office. Read the label before applying any pesticide.

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