



Brown garden snail (syn European Garden Snail; *Cornu aspersum*)



Slug damage to plants is usually viewed as irregular holes of leaves. Hostas are a favorite host.



Gray garden slug (*Derocerus reticulatum*)

Slugs and Snails

Managing the slimy and super destructive **By Douglas A. Spilker, Ph.D.**

Home landscapes and vegetable gardens have a lot of enemies, but few are as destructive as slugs and snails. These pests are not very selective, having a very diverse diet from vegetable seedlings to hosta plants. Although land snails are common decomposers in naturalized areas, they are of little concern as pests in our area. However, the gray garden slug is a very common species found in Midwestern gardens. Gray garden slugs are typically less than 1 inch long and their plump, slimy bodies range in color from light gray to brownish black. Slugs are basically snails without their protective shells.

SLUGFESTS

Slugs overwinter as adults, and therefore recur in the same garden area year after year unless controlled. In the spring or early summer, eggs are laid in moist areas, such as under dead leaves, rocks, and mulch. Eggs hatch when there is plenty of moisture present and the baby slugs begin feeding immediately. Baby slugs resemble adults, but they are smaller and lighter gray in color. Slugs grow slowly, and gen-

erally have a life span of 1 to 5 years.

Slugs are not always easy to find since they are most active at night or in the early morning. They leave a characteristic slimy trail. This prevents them from drying out, and helps them move over rough surfaces. Both slugs and snails feed mostly on decaying plant material, but will feed on foliage, stems, fruit, and even bulbs. They are serious pests of fruit (such as strawberries) and vegetables (for example, green beans) that ripen close to the ground. Higher numbers and the most damage are seen in wet years. Slugs eat by scraping plant surfaces using a long strip of tissue with hundreds of tiny teeth. Because slugs are soft-bodied and require cool, moist conditions to survive, they avoid the heat of the day and hide under leaves, rocks, boards, and overturned pots in the garden.

CULTURAL PREVENTION

One deterrent tactic is to reduce the favorable habitats where slugs live and reproduce. Since they require sheltered sites to hide and lay eggs, open up the landscape by practicing good plant spac-

ing both between plants and away from home foundations. This allows more sun penetration and air circulation so that the soil does not remain damp for extended periods of time. Furthermore, refrain from creating excessive mulch layers that prevent periodic drying around the plants. Since slugs also feed on decaying plant material, do not mulch with grass clippings where slugs are a problem, and practice good fall cleanup in flowerbeds to discourage slug populations. Fall tillage of vegetable gardens will reduce debris that can harbor overwintering slugs.

MECHANICAL CONTROLS

Trapping coaxes snails and slugs out of their hiding places into what they think is a safe shelter. In places where slugs have been feeding, create shelters using boards, carpet pieces, or overturned flowerpots. Commercial versions of these traps are also available. Check often and discard collected slugs in the trash. Using your hands can be very "slimy," so use a trowel or chopsticks to help pick up the slugs.

It is no secret that slugs are attracted to beer, so it is often used in traps. A beer

Having the slime of your life

If you get slug slime on your hands, your first instinct is to wash it off. Resist this urge. Slugs use their mucus to prevent dehydration. As such, slug mucus absorbs water, so washing can make it worse. If you've been handling slugs, ignore the "ick factor" and wait for the mucus to dry. Then rub your fingers together and the dried mucus rubs off. Now you can wash your hands. Powdered borax hand cleaner works, too. Or you can see if it improves the smoothness of your skin. Snail slime is in several cosmetics as a skin conditioner. However, the novelty of being slimed also comes with the psychological baggage of knowing you are applying snail juice to your face.

Fruits and vegetables in close contact with the ground, like this fallen pear, are prime targets for the gray garden slug.



trap consists of a shallow container, such as a can or a cottage cheese container, buried to within a ½ inch of the rim and filled with beer. The slugs will only drown if the trap is deep enough so that they cannot climb out. Beer should be changed every few days to remain effective.

Abrasive materials such as coffee grounds, crushed eggshells, sand, and diatomaceous earth are reported to work as barriers in protecting especially small seedlings. Note these are just barriers and will not eliminate slugs, but rather just be a temporary deterrent. If using diatomaceous earth, it will need to be replaced if it gets wet.

CHEMICAL SLUG BAITS

The use of slug baits is probably the most consistent and effective method of slug control, but baits need to be used with caution. Baits work by attracting and killing slugs. Several commercially pelleted baits are available that

contain a lure and either metaldehyde or iron phosphate. Apply slug baits in the spring or fall when slugs are active, and irrigate before applying to promote slug activity. Iron phosphate baits are reported to be slightly less effective and slower acting than baits containing metaldehyde. However, iron phosphate can be used around edible crops and does not pose a threat to pets, birds, and other non-target species. Always read and follow labeled directions and precautions.

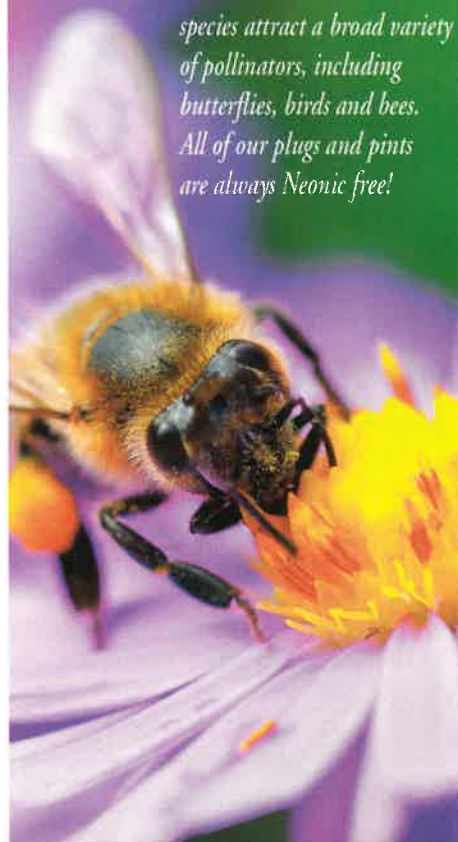
A good slug management program likely needs to be a combination of strategies, which may include avoiding the use of thick layers of mulch, the sacrificing of good beer, the spreading of coffee grounds, and the use of commercial baits. The control of slugs is a challenge, and all tactics need to be considered. ♪

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