

# Slugs and Snails

By Gloria Williams

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## Slippery tactics abound for battling slugs and snails in your garden.

If you garden in western Washington, chances are good that you've awakened some morning and discovered some of your favorite plants reduced to skeletons. Most of the time, this kind of damage is the calling card of slugs, but now we have to contend with snails, too. Maybe the snails haven't reached your part of the county yet, but at the rate they are spreading it won't be long.

The brown garden snail, *Helix aspersa*, first began to appear in Skagit County about ten years ago. It seems they were brought into Washington with shipments of plants and garden ornaments from places with warmer climates. We all thought they would not survive one of our really cold "Arctic blast" winters, but they are still with us—and multiplying nicely.

Slugs and snails are close kin. They are the only land-bound members of a group of animals called mollusks. They are related to sea creatures such as clams, mussels, oysters, and octopi. Both snails and slugs move about on a large muscled foot that glides on a trail of slime that they produce from a gland under their heads. They are nocturnal feeders and hide in moist crevices or under garden debris during the heat of the day, because their bodies are in danger of drying out during the daylight hours. During droughts, slugs can dig into moist soil or flatten themselves to squirm under rocks, where they cover themselves with slime to stay hydrated and wait for the rains to come. With the shell on its back, a snail simply retreats inside and slimes over the opening to wait out the dry weather.



Concrete gardener Bob DiLeo uses an organic, iron phosphate-based bait to lure and kill slugs and these brown-lipped garden snails. Photo by Jason Miller.



The large red slug (*Arion rufus*) is one of the larger slug varieties, with an appetite to match. This photo shows the slug's round pneumostome (nose and breathing hole) and the black optical tentacles protruding from its head. Photo by Jason Miller.

Both creatures feed on green shoots in the garden and are considered major pests in the Pacific Northwest. Some of their favorites plant snacks are hostas, French marigolds, dahlias, violets, strawberries, lettuce and cabbage.

Getting rid of these pests or even reducing their numbers is not an easy task. There are commercial baits that are usually effective but many of them have unpleasant side effects. The baits that contain Metaldehyde can be attractive to birds and pets and are toxic if eaten. Baits with iron phosphate as their active ingredient are effective and are not so toxic to other animals. One drawback to any bait is that the young slugs and snails do not eat them, so early in the season, damage to plants may continue even after bait has been put down.



**Large red slugs descend on a pile of discarded raspberry canes. With voracious appetites, these slugs can devastate many small plants overnight, skeletonizing the leaves and diminishing the plants' chances at survival.** Photo by Jason Miller.

If you are reluctant to spread any kind of chemicals or baits in your garden, there are alternative methods that can be tried. An online search reveals hundreds of home remedies for deterring slugs and snails. Some are very complicated and time-consuming to prepare, but a few may be worth trying.



**This dahlia plant lost almost all its foliage to slugs and is on the road to recovery.** Photo by Jason Miller.



**Concrete Master Gardener Jason Miller uses a two-pronged line of defense to keep slugs and snails away from his dahlias: a slug bait with iron phosphate as its active ingredient, coupled with a layer of crushed eggshells around each plant.** Photo by Joseph DiLeo.

For example, placing barriers around target plants has been shown to be effective. These barriers should be made of rough or sharp material that will cut or abrade the culprit's body as it tries to cross it. Slugs and snails also will shun barriers of crushed eggshells or seashells, cracked nutshells, sand paper collars, diatomaceous earth, dry evergreen needles, dry holly leaves, coffee grounds, and many other sharp or sticky materials. The important thing to remember about barriers is that all slugs and snail should be removed from around the plants to be protected before the barrier is put in place. Also, barriers need to be replaced or renewed regularly and the width of the barrier should be at least one to one-and-a-half inches wide.

Trapping is another method for controlling these unwanted pests. Overturned flower pots, boards or cardboard laid down on the ground, and commercial traps will provide a daytime shelter; you can go out daily and "pick" slugs and snails and dispatch them with a sharp tool or by dropping them into a bucket of hot soapy water. It depends on your level of tolerance for the disgusting as to whether this method will work for you.

Slugs and snails do have some natural enemies. Predacious ground beetles and their larva, as well as toads, frogs, salamanders and garter snakes consider slugs and snails a taste treat. Birds such as blackbirds, crows, ducks, jays, seagulls, starlings and some thrushes consider them pure protein treats. Rhode Island-red chickens are purported to be great slug and snail hunters.

As a last resort to control these slippery customers, modify their habitat. Remove debris that can act as shelter, do not mulch too heavily, and reduce ground cover plantings around targeted plants. These steps reduce hiding places and increase air circulation and sun penetration, which will dry out formerly moist areas and create an unfriendly environment for slugs and snails. All of these methods will net some reduction to this pest population, but in this neck of the woods, the battle will continue.

### **Worst. Meal. Ever.**

Dedicated gardeners probably will use most of the methods described in this article to ward off attacks from slugs and snails. But yet another way to discourage the slimy munchers is to downgrade the menu; that is, to use plants that slugs and snails do not like to eat.

The list of slug-unfriendly plants is long; here are a few possibilities:

- Alyssum
- Azaleas
- Daylilies
- Daffodils
- Foxglove
- Peruvian lily
- Mint
- Red cabbage
- Red oak leaf lettuce
- Parsley

In the end, however, vigilance is the key word for keeping one step ahead of the little critters.