

Managing Slugs and Snails

Some Basic Facts

Slugs and snails are soft-bodied, land-dwelling mollusks living up to six years. As they glide along on a muscular “foot” which constantly secretes mucus, they leave behind a signature slime trail. Adults are active at night and on cloudy or foggy days while seeking hiding places on sunny days.

Slugs prefer to burrow into the soil, up to six feet deep, for the cool and moist environment. Only 5% of slugs are above ground at any one time. Snails seal themselves off with a parchment-like membrane for protection during hot, dry periods or when it is cold. During cold weather, snails and slugs hibernate in the topsoil. In areas with mild winters, snails and slugs can be active throughout the year.

All land slugs and snails are hermaphrodites with each adult having both male and female reproductive organs. Adult brown garden snails mature in two years and begin to lay an average of 80 spherical, pearly white eggs at a time, up to six times a year. Slugs reach maturity in three to six months and lay clear, oval to round eggs in batches of 3 to 40.

Damage

Both snails and slugs feed on living plants and decaying plant matter, causing damages to leaves, flowers, fruits, and other succulent plant parts. Look for the silvery mucous trails to confirm their presence. Their damage normally is shaped like irregular holes with smooth edges.

How to Control Slugs and Snails

A combination of techniques listed below will be most effective at reducing slug and snail populations and minimizing damage to your garden. The best time for long-term control is to treat the whole garden in the autumn. This way, there will be fewer adult slugs and snails to lay their eggs. A second application in late winter or early spring will keep the adult population down. A third application one month later should keep your garden in good shape for the growing season.

- **Choose Your Plants with Care**

Resistant Plants: Agapanthus, Anemone, Astilbe, Bamboo, Bleeding Hearts, Candytuft, Coral Bells, Ferns, Foxglove, Hens and chicks, Impatiens, Ivy, Juniper, Nandina, Sedum, Solomon’s Seal, Sweet Woodruff, Wintergreen, Yew

Slugs love to eat: Basil, Broccoli family, Lettuce, Strawberries, Campanula, Daffodils, Gentian, Hosta, Impatiens, Japanese Painted Fern, Leopard’s bane, Lilies, Lobelia (perennial), Marigold, Narcissus, Primrose, Star of Bethlehem, Trillium, Tuberose Begonia, Viola, Wild Ginger

- **Remove Damp, Dark Hiding Places**

Time irrigation – Avoid watering your garden in the evening when slugs and snails come out to feast. Water in the morning instead.

Till in the spring to minimize leaf debris to feed baby slugs and snails as they hatch.

Turn over winter mulch – While mulch is beneficial to plants and the soil, it is also a good hiding place. Turn over mulch and other garden debris to expose these pests and their eggs to predators.

- **Erect Barriers**

Copper strips - Tests show that slugs may receive an electric shock when they crawl over copper. This works if the copper strip or mesh is wide enough to prevent slugs from raising their bodies over it. Please note: The majority of copper stripping sold in garden shops for this purpose is not wide enough to create an effective barrier.

Lime, ashes, diatomaceous earth (in dry form) slow the slugs down, but do not kill them.

- **Encourage Predators**

Many animals prey on slugs and snails, including: toads, snakes, beetles, marsh flies, birds, frogs, salamanders, newts, ducks, millipedes, porcupines and raccoons. Encourage those that fit with your gardening approach.

- **Set Traps**

Homemade traps such as a flat board or inverted flower pot with one edge propped up are attractive places for these pests to hide. Likewise, inverted cabbage leaves, orange/grapefruit rinds also work well. Place them out in the evening and check daily. Check traps and destroy pests every morning until numbers drop, then check weekly.

Hand pick – Twice weekly during early spring and fall, look in typical hiding places under rocks and under foliage. Do this night (more productive) or day; drop the slugs and snails in a bucket of soapy water. Wear gloves or use tweezers. If you get slime on your skin, wash with white vinegar and warm water.

- **Bait**

Beer or yeast and honey mixture - Set a deep trap, like a deep yogurt container, with the rim at ground level. This ensures pests cannot crawl back out. Prepare the honey and yeast mixture by boiling water with some honey and yeast; the proportions are not critical. Beer may be used as is. Check the container daily to make sure a frog or something else hasn't accidentally fallen in. Empty and refill every couple of days.

Iron Phosphate (Sluggo, Escar-Go) interferes with calcium metabolism in the gut, causing snails and slugs to stop feeding and die 3 to 6 days later. Iron phosphate is safe to use around pets, humans, fish, birds, beneficial insects, and mammals. It may be used around food crops, ornamentals, lawns, gardens, greenhouses, and berry gardens up to harvest. Iron phosphate remains active for up to 2 weeks, even with repeat wettings.

Metaldehyde (Deadline) dehydrates the snail or slug rapidly if ingested. However, if there is water nearby or if it rains soon after application, it may not work. A slug can lose half its body weight and shrink to one-third its size from Metaldehyde or salt and recover, if it can get to wet soil fast enough, or if it rains. Metaldehyde products do not work if wet; you need to re-apply as needed. These products are not recommended for use around edible vegetables, and can be harmful to dogs, cats, and fish. Follow the label carefully.

Resources

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Visit OSU Extension Service website at <http://extension.oregonstate.edu/catalog> for publications

Master Gardener™ Advice

- Call the Home Horticulture Helpline: 503-655-8631 (Clackamas County), 503-821-1150 (Washington County), 503-445-4608 (Multnomah County).
- For 10-Minute University™ handouts and class schedule, visit www.cmastergardeners.org or metromastergardeners.org.

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