

Managing Slugs in Your Garden

Slugs on Vancouver Island

Slugs are part of a class of molluscs called gastropods from the Greek for “stomach foot’. While their main habitat includes the terrestrial coastal forests from Alaska to California they are often the highest ranked garden pest for damaging food crops and plants. They are an integral part of our ecosystem providing a food source for many mammals, reptiles, amphibians and birds and play a huge role in the decomposition of plants. They spread seeds and fungal spores and their droppings fertilize the soil. Therefore the following hints are more in line with managing these pests and their habitat rather than eradicating them with chemicals.

The main slugs found in our gardens are the Pacific Banana Slug, second largest slug in the world, Leopard Slugs, European Black Slugs and various other rarer species such as the jumping slugs and tail dropping ones.

Slugs are hermaphroditic, having both female and male reproductive organs and can produce 30 or more eggs numerous times through the growing season. Eggs can hatch in ten to fifteen days when conditions are optimum or can stay dormant for up to 5 months when it is cold. The eggs are oval, whitish and are laid in the soil or in crevices in rockeries or other cool, moist places.

That they are covered in mucus is an important fact in managing them. Travelling on slime protects their bodies from desiccation and sharp objects, alerts other slugs to their location for mating and helps them find their way back to good feeding grounds. It also alerts gardeners to their whereabouts and to the best strategies to manage them to protect plants.

Conditions Conducive to Slugs

Slugs like cool, moist, dark or shady environments. They are usually nocturnal to early morning feeders and head for cover before it heats up.

How can we use what we know about slugs to help us manage them in our gardens?

1. Identify hot spots in your garden and reduce areas where slugs can hide. Slug hot spots in your garden might include beds where you plant lettuce, new dahlias, hostas, brassicas – broccoli, cauliflower cabbage, kale.
2. Keep grass around gardens beds short. Surround raised beds with a trench of crushed gravel.

3. Keep containers away from garden beds, raise them up on bricks or place containers on a bed of sawdust/wood chips. Slugs like to hide under them during the hottest part of the day.
4. Water in the morning so there is less moisture around the plants when the slugs come out at night. Use drip lines where possible so there is a dry space between plants.
5. Plant large seedlings so that if part of the plant is chewed it won't kill it. A large slug can have up to 27 000 microscopic teeth on their long tongue and can do a great deal of damage overnight.

Strategies to Protect Your Plants from Slugs

1. Use your eyes. For the first few days after planting go out and manually remove slugs from your plants at night or early in the morning and dump them into soapy water to reduce the population. Follow their slime trails and look under leaves.
2. There are a multitude of homemade and purchased overnight traps that can be used to trap slugs depending on the size of your garden.
 - Use citrus rinds to create an igloo near plants leaving a v-shaped cut to allow the slugs in. Dispose of them in the morning.
 - Beer traps are popular as well. Submerge a watertight container in the soil leaving a 1 to 3 cm lip and half fill with beer. The smell attracts the slugs and they climb in and drown. ** A mixture of water, sugar and yeast will also work.
 - Sheets of cardboard held down with rocks on damp soil will also work. Lift in the morning and dispose of slugs. Wooden boards also work.
3. Be proactive. Several days before planting, go out and lay down pieces of cardboard or some of the other suggestions mentioned to collect as many slugs as possible before you plant. You may want to bait the area with compost waste to lure slugs in the area to the site.
4. Slippery surfaces are a challenge for slugs to scale. WD40 or Vaseline can be sprayed or rubbed around containers. Plastic collars made out of used food containers can be placed around delicate plants in small gardens.
5. Use copper tape or wire mesh. Mollusks have blue blood because their respiratory molecule is hemocyanin, a type 3 copper binding protein that turns blue upon oxygen binding. Copper tape with +2 ions carries a charge that interferes with a mollusc's slime, which they don't like and thus avoid. Copper tape is expensive and apparently needs to be at least 4cm in order to be effective. Check YouTube sites for research in this area.
6. Companion planting – rosemary, anise, astrantia and fennel - is an ecofriendly way to deter slugs.
7. Gritty substances such as sand, ash, gravel, coffee grounds, diatomaceous earth and egg shells have been recommended with varying degrees of success.
8. Nematodes – environmentally friendly micro-organisms can be bought and watered into your garden to control slug populations.
9. Rhubarb leaves are toxic for molluscs and people. Arrange cut leaves around plants you want to protect.
10. Spread seaweed around plants. Works because of the salt.

11. Wood pellets or recycled wool waste pellets are also deterrents.
12. Fur, fleece or hair spread around plants make it difficult for slugs to slide over.
13. Spread oats around the base of plants. Slugs will gorge on the oats and leave your plants alone.

Sources:

Biodiversity of the Central Coast – Pacific Banana Slug
Green Timbers Heritage Society – Banana Slugs
Mayne Island Conservatory – Land Slugs and Your Garden
Sierraclub.bc.ca/banana-slug
Urban Undergrowth – How to get rid of Slugs Naturally: 36 methods including copper
Urban Undergrowth – Video Series – Does Copper Repel Slugs and Snails, Slugs,
Snails and Copper in Different Widths, Tarnished Copper vs Fresh Copper
YouTube Videos - Slugs in your Garden – Huw Richards

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