



SNAILS AND SLUGS IN YOUR GARDEN

SNAIL CONTROL IS AS EASY AS 1-2-3!

1. Prevent

- Remove debris
- Avoid overwatering
- Consider replacing ivy and other snail-attracting plants

2. Remove or block

- Hand-pick snails and slugs at night
- Protect plants with barriers such as:
 - Copper tape
 - Small plant cages
 - Fabric row covers

3. Avoid toxic pesticides

- Iron phosphate bait is a less-toxic alternative
- Avoid metaldehyde (highly toxic to dogs)
- Avoid methiocarb (kills earthworms and beneficial insects)

WHAT'S EATING YOUR PLANTS?

Are your vegetable and flower seedlings being devoured overnight? Are you finding large, ragged holes in your prized ornamentals? Do slime trails cross your walkways? If so, your garden is probably harboring snails and/or slugs.

Snails and slugs are mostly active at night and on dark, cloudy days. On sunny days they can be found in moist, shady spots. If snails and slugs are eating your potted plants, check around the inside edges of the pots for snail eggs and young snails. Check under pots for slugs. Snail and slug eggs look like small pearls and are laid in masses of up to 100. When you find eggs, crush them or place the eggs in a sealed container in the garbage.



While Californians treat snails as pests, our pesky garden mollusks were actually imported from France during the Gold Rush for San Francisco's French restaurants. Unfortunately, a few escaped... and the rest is horticultural and agricultural history. Snails and slugs are closely related. They both have soft, oblong bodies and produce slime to help them move around. The most obvious difference is that snails have shells.

LESS-TOXIC CONTROLS

Once snails or slugs invade your garden, it may take time to reduce their numbers because they reproduce rapidly. Try two or more of the following control strategies.

Remove snails and slugs by hand in the evening

- Using a flashlight and gloves or tongs, collect snails and slugs nightly until they're hard to find, then check once a week. To be effective, removing snails and slugs by hand must be done thoroughly and regularly.
- During dry weather, the best time for hand-picking is before dawn or after 10 or 11pm when snails and slugs come out to feed. Use a flashlight and gloves or tongs. On damp days they may be out earlier.
- Crush snails and slugs completely or drown them in a pail of soapy water — they survive in plain water.



Trap slugs and snails

Attract snails and slugs by creating dark, moist places for them.

- Turn empty flower pots upside down, or lay dark-colored plastic sheeting or wooden boards to attract snails and slugs. Place these traps around the garden and collect snails and slugs in early morning.
- Some homemade or commercial traps use beer or yeast mixtures to lure and drown snails and slugs. They may be helpful, but they don't attract snails or slugs more than a few feet from the trap.

Encourage natural predators

Many species of ground beetles kill snails and slugs. Most of these beetles are large (1 to 2 inches), black, tank-like creatures. They are found in the same moist habitats as their prey: under rocks, boards, leaves, etc. Avoid pesticides that might harm these helpful bugs.

Use iron phosphate baits

Iron phosphate baits are less toxic than other products. After eating iron phosphate, snails and slugs stop feeding and die within three to six days. They often crawl into secluded places, so you may not see dead snails or slugs.

- Scatter bait on the soil near plants you want to protect and reapply every two weeks if needed.
- Keep iron phosphate baits and all other pesticides out of the reach of children and pets.
- **Read the label before you buy a snail bait product. Avoid baits containing methiocarb, which kills earthworms and beneficial insects. Also avoid baits containing metaldehyde, which are more toxic than iron phosphate baits and very toxic to dogs.**

Protect plants with barriers

After reducing their numbers, use barriers to keep any remaining snails and slugs away from your plants.

- Wrap copper tape around tree trunks and flower pots, and across the sides of raised beds or along the bottom of fences. Snails and slugs are repelled by the unpleasant reaction between their body and the copper.

HOW DO I DISPOSE OF CRUSHED, DEAD SNAILS?

Leaving a few dead snail and slug bodies on the soil surface will attract more snails and slugs, and make your collecting easier. For large numbers of dead snails and slugs, bury crushed mollusks three or four inches underground to add nutrients to the soil and avoid fly problems.

- Cover seedlings with small cages made from plastic or galvanized metal window screen. Push the cages into the soil so snails and slugs can't squeeze under. Check after the first night to



Row covers keep snails out.

- make sure no snails or slugs are caught inside the cage.
- Cover rows of vegetables with special horticultural fabric that lets in light and water but excludes snails and slugs.

PREVENTION

- Snails and slugs are attracted to ivy, nasturtiums, and succulent ground covers. They also hide in clumps of agapanthus, lilies, daffodils, alstromeria, and iris. Regularly search these preferred plants for snails and slugs and consider replacing them with plants they're less attracted to — those with hard, dry leaves, like rhododendrons, junipers, and bamboo.
- Moisture makes any area much more attractive to snails and slugs. Avoid overwatering and install a drip system to deliver water only where it is needed. Water early in the day to allow the area to dry out before nightfall. You may need to remove mulch from areas with severe slug or snail problems.
- Remove any boards and flower pots that you aren't using as traps.

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Our Water Our World® (OWOW) is an award-winning partnership between municipal agencies and garden centers and hardware stores that sell pest control products. Initiated in 1998, the program focuses on less-toxic, eco-friendly products and techniques as many common pesticides are harmful to sensitive species and ecosystems when they reach California surface waters.

Our Water Our World® fact sheets and store displays educate residents about less-toxic pest management. Look for the **Eco-friendly** tag next to less-toxic products in participating stores and nurseries.



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Pest control strategies and methods described in this publication are consistent with integrated pest management (IPM) concepts, and are based on scientific studies and tests in actual home and garden settings. Use suggested products according to label directions and dispose of unwanted or leftover pesticides at a household hazardous waste collection facility or event. For more information on pesticide disposal, visit earth911.com.

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