

# Snails and Slugs

by

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Many gardens in Contra Costa County show evidence of the destructive, nocturnal activity of snails and slugs on young, tender garden plants. Clipped succulent plant parts or leaves with smooth-edged holes, chewed fruit and bark are linked to dry, silvery trails made by these mollusks sliding along on slime secreted by their single foot. Now is a good time for gardeners to start a campaign of effective management and control of these garden pests.

Observant gardeners know that brown garden snails (*Helix aspersa*) and gray garden slugs (*Agriolimax reticulatus*) are active at night, in the early morning and on cloudy days. By day, they seek refuge from the heat and sun. Snail and slug sheltering spots include the underside of boards and stones, debris, weedy areas around trunks, leafy branches growing close to the ground, or dense cover such as ivy. Control begins with the elimination of their hiding places. The next step is regular handpicking and destruction by crushing or drowning in soapy water. Beer traps are not very effective for the labor involved.

Snails and slugs will leave their hiding places at night to visit a well-watered garden and can be collected by flashlight at that time. Trapping them under designated boards or flowerpots positioned throughout the garden will yield excellent results.

Snails and slugs are hermaphroditic and produce eggs up to 6 times per year. They find damp places such as along drip irrigation hoses to lay their eggs. These eggs are about 1/5" long, pale white to dark orange or brown and round or teardrop-shaped. Remove them and dispose of them in soapy water.

An effective method of exclusion around vegetable gardens is the use of copper barriers such as Snail-Barr. These must be at least 6" high and buried several inches deep. Copper banding around citrus trees offers good protection. However, low-lying branches that touch the ground or other infested areas must be pruned. Copper deters snails and slugs because it interacts with their slime to produce an electric shock. Bordeaux mixture, a copper sulphate slurry painted around a tree trunk will also deter these pests. Also effective is a barrier of sand, wood ash, or diatomaceous earth heaped in a 1" high by 3" wide band around the vegetable garden or selected plantings. These barriers are only effective when dry. Mollusks quickly dehydrate when their outer skin is scratched and punctured by these abrasive materials.

Groundbeetles, snakes, turtles and birds are natural enemies of snails and slugs and act as biological controls. These garden helpers require a snail bait-free environment and will assist persistent gardeners who combine handpicking with exclusion and trapping tactics.

As a recap of steps to take, it's best to: 1) avoid frequent watering, 2) irrigate early in the day, 3) reduce snail hiding places during the day and 4) regularly check for snails and slugs under low ledges and under fences.