

PEST CONTROL BULLETIN NO. 37

SNAILS AND SLUGS

DESCRIPTION AND HABITS

Snails and slugs belong to the group of animals known as the *Mollusca* or mollusks. This group includes many of the familiar shellfish, such as mussels, clams, and oysters.

Snails and slugs are quite similar in structure and biology except that snails have a conspicuous spiral shell, while slugs have a vestigial shell concealed by a fleshy mantle on the back. They glide along by means of a long, flat, muscular organ known as the foot.

Mucus, or "slime," which is constantly secreted by glands in the foot, aids in locomotion and later dries to form the shiny white or silvery "slime trails" that are often a clue to the presence of these pests.

These pests have rasping mouthparts and feed upon a wide variety of garden plants, including vegetables, flowers, ground covers, lawn grasses, and dichondra. They will also feed on the foliage of certain shrubs and trees. Citrus and avocado foliage and fruits are also frequently damaged. In California, most of the injury from snails and slugs occurs in coastal or semi-coastal areas where cool, humid conditions exist.



Helix aspersa

SNAILS

The brown garden snail, *Helix aspersa*, is the most common snail pest in California. It was introduced

from France during the 1850's for use as food. It lays its eggs within three to six days after fertilization in a nest in damp soil. The eggs are white, spherical, and about 1/8 inch in diameter. The egg mass contains an average of 86 eggs. The young snails remain in the nest from two to four days and then work their way to the surface. It takes two to three years for the snails to mature.

The snails are active at night or on dark, cloudy, or foggy days. Under dry conditions they either seal themselves to various surfaces, such as walls, curbs, or tree trunks or close the opening of their shell with a white, mucus-like substance. They resume activity when conditions become moist.



Agriolimax reticulatum

SLUGS

The most common species of slugs in California is the gray garden slug, *Agriolimax reticulatum*.

The gray garden slug is one of the worst pests of garden plants. It is about 2 inches long, ranges in color from buff to brown or gray, and exudes a milky slime when touched.

Slugs, like snails, are also active only at night or can be active during dark, cloudy days. They may be found during the day under dead leaves and litter, beneath low-growing plants, or burrowed a short distance beneath the soil surface. They lay their eggs in the soil, or under rocks or plant debris, in groups of two or three to as many as 40. Under dry conditions, the eggs may remain unhatched for prolonged periods of time, and hatch only upon

contact with moisture. Slugs require about a year to attain full growth.

CONTROL

Sanitation helps control slugs and snails. Boards, stones, trash, and compost piles all serve as shelters and their removal will reduce the number of snails in an area. Handpicking is also a practical means of reducing populations, particularly with the brown garden snail. The snails may be placed in a paper bag and disposed of in the trash or by burning or burial.

This information is to help persons involved with their pest problems. If additional help is needed, contact with a registered pest control operator is suggested.

PRECAUTIONS

Snail and slug baits are poisonous and must be used with caution. They must be stored and used so that they are not eaten by children, irresponsible persons,

and pets.

When applying baits, carefully follow all directions given on the manufacturer's label.

Do not apply baits in mounds or clumps - as pets may be attracted and eat the bait. Always scatter the bait lightly over the infested area.

*** SNAILS PROVIDE FOOD FOR RATS ***

In addition to snails being serious garden pests, they are also known for providing a common food source for roof rats (*Rattus rattus*). Snails are often found in lush ground covers, under rocks and boards, in fruits and vegetable gardens, and attached to citrus and avocado tree leaves and fruit. Evidence left behind by the roof rat usually includes a pile of broken or empty snail shells.



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