

INTEGRATED PEST MANAGEMENT: SLUGS AND SNAILS



When are snails and slugs a problem?

Snails and slugs are harmless to humans, but they can be pests in the garden. They feed on plants by making holes in the leaves, devouring seedlings and eating low-growing fruit such as strawberries. In ECE programs, children may find them in the garden or on the sidewalks, pick them up, play with them and even eat them.

Characteristics and habits

Snails have an outside spiral shell that protects their bodies, while slugs don't have a shell. Both can vary in size from a small speck to a few inches long. They move by gliding and leaving a slime trail where they've been.

Snails and slugs hide during the day and come out at night to eat since they don't like heat and bright light. They're also active on cloudy or foggy days. They hide under boards, stones, garden debris, grassy or weedy areas, leafy branches close to the ground or in any other cool, moist area. In cold weather, they hibernate in the soil. During hot, dry periods, snails seal themselves off and attach themselves to fences, tree trunks or walls.

IPM strategies

You may have an abundance of snails and slugs if seedlings suddenly disappear, leaves develop irregular holes, slime trails cover walls and walkways or you see snails or slugs gliding across lawns or sidewalks early in the morning.

1 KEEP SNAILS AND SLUGS OUT OF GARDENS

- ▶ Eliminate daytime hiding places by turning over boards or rocks.
- ▶ Grow vegetables and susceptible plants and flowers in the sunniest place possible to avoid snails and slugs hiding in shady areas.

- ▶ Use copper barriers around planting beds and trees to give snails and slugs an electric shock. They'll stop in their tracks and turn around rather than cross the copper to succulent food.

2 REMOVE SNAILS' AND SLUGS' FOOD, WATER AND SHELTER

- ▶ Choose snail-proof plants such as:
 - ▷ Impatiens, geraniums, begonias, lantana and nasturtiums
 - ▷ Plants with stiff leaves such as sage, rosemary and lavender
- ▶ Use drip irrigation instead of sprinkler irrigation to reduce humidity and moisture. Drip irrigation reduces excess water by bringing water directly to the roots of plants and lawns.

3 REDUCE THE POPULATION

- ▶ Handpicking snails and slugs
 - ▷ Water the infested area in the late afternoon.
 - ▷ Once dark, put on gloves and use a flashlight to find snails or slugs.
 - ▷ Discard snails or slugs
 - Place them in a plastic bag and dispose of them in the trash.
 - Drown them in a bucket with soapy water and dispose of them in your compost pile once dead.
 - Crush them and leave them in the garden.
 - Remove snails from undersides of wooden decks, meter boxes or low ledges on fences.

Take live snails to a duck pond. Snails are much better for ducks than bread. Make sure you haven't baited the snails—you wouldn't want to poison the ducks.



[IPM strategies continued]

4 TRAPS

- ▶ Build wooden traps in landscape areas using 8 inch x 15 inch boards raised off the ground by 1-inch runners. Scrape off and remove snails daily.
- ▶ Sugar water and yeast mixed together in a plastic container will also attract snails and slugs. Make sure to have deep, vertical sides to keep snails and slugs from crawling out. Scrape off and remove them daily.

If you have a lot of snails or slugs, repeat this daily. After a few days, most will be gone, then monitor weekly.

5 BAITS

- ▶ Never use baits that contain metaldehyde—they're extremely poisonous to children, dogs and birds. Instead, use baits that contain iron phosphate, which are relatively safe. Be sure to follow label directions.
- ▶ Water before applying baits and apply in warm evenings when snails and slugs are active.
- ▶ Spread bait in moist areas, like sprinklers, where snails and slugs travel.

ACTION PLAN FOR SLUGS AND SNAILS

WHEN TO TAKE ACTION	NONPESTICIDE PRACTICES	LEAST HARMFUL PESTICIDE	LAST RESORT
<ul style="list-style-type: none"> ▶ When you see snails or slugs, their slime trails, or leaves with a lot of irregular holes. 	<ul style="list-style-type: none"> ▶ Eliminate daytime hiding places. ▶ Grow plants that snails and slugs like to eat in sunny areas where they are less likely to travel. ▶ Use copper barriers. ▶ Eliminate moisture by using drip irrigation. ▶ Grow plants that snails and slugs don't like to eat. ▶ Build wooden traps 	<ul style="list-style-type: none"> ▶ Use iron phosphate baits. 	<ul style="list-style-type: none"> ▶ Consult with a gardener familiar with IPM.

RESOURCES

University of California Statewide IPM—*Snails and Slugs*
www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7427.html

Our Water, Our World—*Controlling Snails and Slugs in Your Garden*
ourwaterourworld.org.dnnmax.com/Portals/o/documents/pdf/Snails%20and%20Slugs%2009.pdf

