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There's a Mouse in the (Green)house!

Insects, diseases and weeds aren't the only pests we encounter in greenhouses. Sometimes the damage we see to seeds, seedlings and overwintering stock is caused by four-footed furry pests - rodents! This article discusses the two most common rodent pests of greenhouses, mice and voles, and how to control them.

Greenhouses provide wonderful habitat for rodents. Mice and voles can find ample supplies of food, water, warmth, and shelter as well as protection from predators inside a greenhouse. Rodent populations can explode under favorable conditions, and become even harder to control. Check early and often for signs of rodent activity in your greenhouses, and be prepared to take quick action.

Mice Eat Seeds

Here in Pennsylvania the predominant mouse species found in greenhouses are the white footed mouse and the closely related deer mouse. Both are in the genus *Peromyscus*, and should not be confused with the house mouse, *Mus musculus*.

White footed and deer mice have white feet, a white underside and brown upper surface. Their eyes and ears are relatively large, and their tails are long. Mice are mostly nocturnal. Adapted to outdoor conditions, these mice feed primarily on seeds, berries and nuts. In

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Exposed, chewed or missing seeds in greenhouse trays are signs of mouse activity.

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fact, research has shown that they consume a significant number of weed seeds in crop fields. However, in greenhouses, they will uncover and feed on seeds and very small seedlings in greenhouse pots and trays.

Voles Chew Leaves, Stems, Roots and Tubers

Voles are the other rodent commonly found in greenhouses. Members of the genus *Microtus*, voles suffer a bit of an identity crisis as they are frequently confused with mice, moles and shrews. In Pennsylvania, the most common are the meadow vole and the woodland or pine vole. Unlike moles and shrews, voles have rounded, blunt snouts and chisel-shaped front teeth, and their eyes and ears are readily apparent, although they are smaller than those on a mouse. Voles have shorter tails than mice, and no white coloring on their undersides.

Voles prefer grassy areas where they construct their extensive tunnels and runs, but they will also thrive among pots and flats in a greenhouse. Voles feed on shoots of young plants as well as on roots, bulbs, tubers and rhizomes. They can be particularly problematic in overwintered perennials and other nursery stock, causing damage by their direct feeding as well as their chewing and tunneling through pots and flats.



Snap traps baited with peanut butter are an effective control measure for mice and voles if populations aren't too large.



Besides harboring insect pests and plant diseases, weeds in the greenhouse can provide cover for rodents.

Controlling Mice and Voles in the Greenhouse

- Monitor for mice and vole activity before populations build to levels difficult to control.
- Tighten up the greenhouse to limit entryways. Note that mice can squeeze through holes as small as 1/4 inch. Small mesh hardware cloth can be placed around the outside of the greenhouse perimeter, with the bottom edge buried in the ground and bent away from the structure. Keep grass and other vegetation away from greenhouse perimeters.
- Snap traps baited with peanut butter (mice and voles), oatmeal (mice) or apple (voles) can control small populations. Repellents have not been shown to be consistently effective.
- Toxic baits can be used for larger infestations, but must be deployed carefully in order to protect other animals and even children. Anticoagulant baits can be purchased off the shelf, but multiple feedings are usually required. Single dose baits made with zinc phosphide are restricted use materials and must be purchased and used by a certified pesticide applicator.

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