

Rats & Mice

Management & IPM Actions

Rats and mice are rodents which damage buildings, food, clothing, and documents through gnawing, urination, defecation and nesting activities. They have been implicated in the spread of numerous diseases and can cause fires by damaging electrical equipment. The most serious rodent pests are mice and rats.

The most common mouse species to invade buildings is the house mouse, (*Mus musculus*), which has a pointed nose, large ears, brown to gray fur and weighs about ½ ounce. Other common mouse species which may also move into buildings as temperature drops include:

- § Meadow voles, (*Microtus pennsylvanicus*), which have furry ears, and a short tail and weigh about 1 ounce.
- § Deer mice, (*Peromyscus maniculatus*), which have white fur on the belly,
- § White-footed mice, *Peromyscus leucopus*, can be found year round in human-occupied buildings.

All of these mice species are easily trapped.

The most important rat species in the northeast is the Norway rat. It has a blunt nose, small ears, shaggy black/brown fur and is 3 to 21 ounces in weight.

IPM ACTIONS FOR RODENTS

FIRST ACTIONS

- § Complete a thorough inspection. Focus quarantining areas where food is handled or stored.
- § Check out the IPM Picture Tour on the Safer Pest Control Project website – for a visual tour of IPM problems and solutions.

KEEP PESTS OUT

The simplest approach to mouse control is to deny rodents access to buildings. Rodents often gain access into buildings by crawling under door gaps or squeezing through poorly sealed pipe chases and other voids or through gaps in doors.

In using doorsweeps, remember mice can fit through a hole as small as ¼ inch. Rats fits through a hole as small as ½ inch. Brush type door sweeps are recommended over plastic or rubber door sweeps since they much more resistant to wear and tear.

- § Seal all exterior holes (cracks, missing bricks, exhaust ducts, etc.). Stuff the hole with steel wool then seal it with caulk. Use silicon caulk outside, latex caulk should work for most indoor applications.
- § Install doorsweeps
- § Place dumpster as far from back door as possible
- § Place dumpster on a concrete pad.
- § Keep dumpsters closed at all times
- § Avoid propping doors open – especially doors leading to kitchens and food storage areas.
- § Trim trees and landscaping at least 2-3 feet from the side of the building.
- § Install 'rat mess' under soil or mulch so rats can not burrow near building.
- § It is also possible to install doorsweeps on kitchen or pantry doors to keep pests out of these sensitive environments.

REMOVE PESTS' FOOD & WATER

Rodents can be denied access to water by

- § Fix leaking pipes, faucets and irrigation systems
- § Eliminating freestanding water (such as evaporation trays), especially during rodent episodes.
- § Eliminate condensation where possible as well.

Potential sources of food for rodents can be eliminated by:

- § Limit eating to one easily-cleaned part of the facility and clean it regularly.
- § Store food in rodent-proof containers – including human food, pet food and food used for art projects.
- § Clean up all food spills promptly,
- § Rinsing recycled cans and bottles,
- § Keeping garbage containers tightly sealed, and cleaning them frequently to prevent the build-up of food waste.
- § Take out garbage at the end of the night.
- § Do not allow teachers to store food in their desks.
- § Require a teacher-lounge clean out every month
- § Do a locker clean out.
- § Remove microwave or refrigerator from the teachers lounge.

REDUCE PESTS' SHELTER

Eliminating sources of shelter for rodents involves the careful inspection of the exterior and interior areas of your building. For the buildings exterior eliminate or reduce environments which could provide shelter to rodents and other pests. Inside, look for evidence of nesting materials. Look above drop ceilings and seal or repair any holes in walls.

- § To reduce the likelihood of rodent burrowing, avoid placing wood mulch chips along the building. Crushed stone is a better alternative since it discourages borrowing.
- § Low growing shrubbery and other vegetation should not be planted against the building. Ivies, yews and other low growing vegetation provides excellent shelter for rodents and other pests.
- § Avoid clutter filled storage, maintenance & other rooms within your facility. Rodents (like most pests) are shy and prefer cluttered environments to hide.
- § Plan a full school clean out – and get clutter under control.
- § Remove or trim back landscaping to 2-3 feet from the building.
- § Thinning out dense shrubbery.
- § Use shelving with at least 3 inches of clearance underneath – so you can see to the wall underneath.

MONITOR FOR PESTS

A thorough inspection is critical for management of rodent pests. An inspection should locate active infestations and signs of rodent activity, identify harborage sites and sources of food and water, and identify openings in the exterior of the building that provide access. Inspections should include basements, attics, roofs, outbuildings, garbage storage, electrical boxes, waste piles, doors and windows, as well as vegetation and all water sources.

Signs of an active rodent population include: droppings, marks from gnawing or rubbing, and burrows. A dusting of talcum powder can be used to track rodent activity and an ultra-violet light will cause rodent urine to fluoresce. Rodent activity can also be monitored using sticky cardboard traps or glue boards in areas where rodents have been found in the past. Glue boards should be dated and inspected frequently.

A pest report logbook can also be used as a part of your monitoring strategy. To be effective, however, staff and others should be periodically reminded of the logbooks existence and location.

- § Complete a thorough inspection
- § Use talcum powder (not tracking powder) to identify routes and runways
- § Use an ultra-violet light (a.k.a. black light) to locate mouse urine
- § Look for signs of infestation – including droppings, rub marks and gnawing.
- § Place mouse glueboards and check them regularly.

TREAT EXISTING PROBLEMS

NON-CHEMICAL CONTROL OPTIONS:

Trapping rodents using snap traps, glue boards and live traps is an effective non-chemical option.

- § Use traps that will not cause a hazard to staff or students by placing them in a commercial rodent bait station or PVC (polyvinyl chloride plastic) pipe.
- § Secure traps so that they will not be dragged away.
- § Check traps daily until captures stop and immediately dispose of any captured rodents.
- § Mice captured by glue boards must be killed humanely; discretion is advised when using such traps in public areas. Map locations of traps and use catch information to determine the source of the rodent problem.

CHEMICAL CONTROL OPTIONS:

When rodent problems persist despite preventative and non-chemical control methods, chemical controls may be necessary. Although use of rodenticides is recommended only as a last resort, since the baits may pose an unacceptable hazard and the rodent may die in an undesirable location.

Rodenticides placed in tamper resistant bait stations by a licensed pest control professional can be used in areas which are inaccessible to children and the general public.

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