



# Mouse Management

The house mouse (*Mus musculus*) is one of the most adaptable and successful animals on earth. Mice utilize our food and shelter. Mice are well known for transmitting disease organisms, and they damage and destroy our buildings, electronic communications and utility systems through their burrowing and gnawing activity. They are highly adaptable to any environment, and can go without water for considerable periods if necessary. Mice can survive on nearly any kind of food, and because they often forage at night when humans are less active, they often escape our attention. Mouse infestations are often advanced by the time a problem is suspected. The earliest signs are usually mouse droppings.

Mice may infest buildings year-round, but are more likely to invade structures in the fall when the weather turns cold. Once inside, if food is accessible the mouse becomes a permanent resident.

 **Pest-proofing for mice and limiting the access to food is critical for effective mouse management.** This includes improved sanitation and minimization of clutter. A mouse can get through a hole the same dimension as a pencil. For more information on pest-proofing go to: <http://ag.arizona.edu/pubs/insects/az1320.pdf>.

**Evidence of mice:** droppings are often the first indicators, small tapered fecal droppings left in areas where the mouse feeds or seeks harbor, followed by smudge marks along mouse run-ways (base of walls, entrance holes, etc), which are dark greasy marks made by the grease on their fur. Nests (in wall and ceiling voids, drawers and desks, within furniture upholstery storage boxes, etc.) are occasionally found, damaged and gnawed food containers, food stash piles may also be found. Additionally, mice urinate hundreds of micro droplets each night along their patrol path; using an ultraviolet (“black”) light in a darkened room can reveal mouse urine.

## **KEEP MICE OUT OF SCHOOLS AND HOMES**

### **Sanitation**

- ✓ Outdoor garbage cans should be as mouse-proof as possible. Metal drums, lined with trash-bags, with self-closing lids are idea.
- ✓ Make sure floors are swept or vacuumed regularly, especially areas under furniture on rollers. Corner cleaning is imperative. Mop floors until the mop rinse water is clear.
- ✓ Remove cardboard boxes (replace with plastic bins) and reduce indoor clutter. Remove outdoor debris such as woodpiles and mulch piles (mice harborage).
- ✓ Clear high weeds. During warm weather, weeds serve as shelter and their seeds serve as food.
- ✓ Keep floors and shelves free of food debris. Limit food consumption to designated areas, that are subject to more regular clean-up. Clean up food scraps and store all pet foods, bird seed and human food in air-tight containers (plastic or glass) as mice will chew through softer materials.

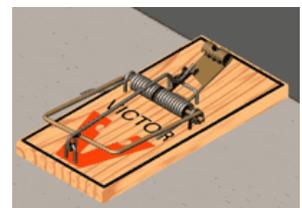
### **Mouse-proof buildings**

- ✓ Be aware of and repair (or seal) all openings dime-sized or larger. If you can stick a pencil under a door it's large enough for a mouse to get under.
- ✓ School staff should be aware of holes and entryways, and report any to maintenance staff. Corners, doors, and around piping are common entry points. Remember to look up at ceilings and down low, too!

## **TRAPPING**

A trapping program *combined with careful waste management, pest-proofing and clutter remediation* are all components necessary to eradicate mice if they are already established.

**Glue boards are considered to be less humane and only catch immature mice, allowing adults to continue breeding.** Mechanical snap-traps along the base of walls and in areas where mice are active are very effective. Traps should be set in the evening and collected the following morning. Cotton wool is an effective lure as well as peanut butter.



Use thick protective wild-life handlers gloves when removing traps, even if you think the mouse is dead.

Always wear rubber or plastic gloves when removing dead rodents. Put the dead rodent in a plastic bag, then place in a second bag and tightly seal. Dispose of rodents in trash containers with tight-fitting lids.

## **BIOLOGICAL CONTROLS**

- ❏ Maintaining a well-balanced ecosystem can help keep mouse numbers in check. Snakes and raptorial birds (owls, hawks, and shrikes) rely on small rodents as part of their diet.

**\*\* AN OPENING 1/4" OR LARGER CAN ACCOMMODATE A MOUSE. IF YOU CAN STICK A PENCIL INTO A HOLE THIS SIZE  THEN A MOUSE CAN ALSO GET THROUGH IT \*\***



### **House mouse (*Mus musculus*):**

**Description:** 5 – 8" long, including tail. Light brown, grey or sometimes black, usually with a lighter belly. Has larger ears than a deer mouse. The tail is naked and as long as the head and body combined.

**HABITS:** Produces 5-10 litters of 5-8 young per year. They live for about a year. Hides during the day, forages and patrols the same route through an established territory repeatedly at night. Territory size varies, but look for mouse droppings (tapered on one end), grease or "smudge" marks along base of walls and around holes 1/4" in diameter or larger.



### **Deer mouse (*Peromyscus maniculatus*):**

The deer mouse has a furry tail, white feet, and a gray to brown body that contrasts sharply with his white belly. Tail is shorter than total length of body.

**Length:** 6" long, including a 2.5" tail

**HABITS:** Deer mice produce 2-4 litters per year. They invade outbuildings in rural areas, and are less common in urban environments. The deer mouse "is the most widely distributed and abundant mammal in North America and currently the primary reservoir host of Hantavirus" (Corrigan, 2001).

The deer mouse prefers rural areas: fields, pastures, and vegetation around buildings. Enters buildings and sheds in cold months. Tends to cache food – insects, berries, fruit, nuts, green vegetation, etc. Like the house mouse, they are most active at night.