A Practical Guide to Rodent Control

The Norway rat, roof rat, and house mouse often live in close association with humans and can be serious pests under certain conditions. They can carry and transmit organisms that can cause disease, damage or destroy buildings and electronic equipment by their gnawing behavior, and contaminate surfaces with their waste products.

An effective rodent control program must employ methods that are relatively easy, inexpensive, and effective under most conditions. The successful elimination of a rodent infestation in or around a dwelling usually depends on three separate procedures: sanitation, rodent proofing, and the eventual elimination of the rats or mice. Although sanitation of the infested area and the rodent proofing of all structures can be time consuming, they are extremely important aspects of an effective rodent control program. Conditions that foster an infestation of rodents must be identified and eliminated before control can be successful.

Sanitation conducted for the control of rodents involves both the eradication of any food source for the rodents as well as the elimination of all harborage areas. One of the most prominent food sources for rodents is garbage. The routine storage of all garbage and rubbish in rodent-proof containers is a vital aspect of any rodent control program. A sufficient number of receptacles must be provided to hold all garbage and rubbish that normally accumulates between collection days. The receptacles should be rust resistant, water tight, and have tight-fitting lids. The interior of receptacles can be kept free of organic buildup by placing all garbage in plastic bags and tightly sealing them before placing them in the rubbish receptacles. This practice also effectively reduces fly breeding and odors.

Other food sources in and around the home include fruits and nuts which have not been harvested or that have fallen from trees, garden vegetables and berries left to rot on plants, bird seed which falls from feeders and accumulates on the ground, snails, and dog droppings not properly disposed of in the trash.

A frequent source of food for rodents is pet food which is not completely consumed or left out overnight. Outdoor pets should be fed only what they can readily consume at each feeding. Food dishes should be placed away from vegetation in clear areas which can be kept clean. Pet food and wild bird seed stored outdoors or in garages should be kept in metal containers with tight-fitting lids.

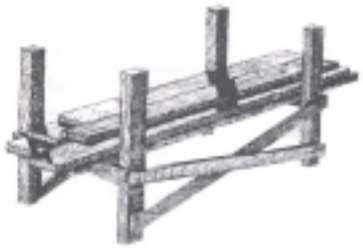
Trash receptacles should be rust resistant, water tight, and have tight-gitting lids.

Elimination of harborage where rodents hide or nest is a critical step in any successful rodent control program. Abandoned vehicles and other cast off items such as old furniture or unused appliances and equipment should be removed from the property.

Tall grass, mature brush, ivy and other dense ground plants, and untrimmed shrubbery provide excellent harborage for rodents. Residents should sufficiently thin ground plants, trim shrubbery to allow at least 12 inches of open area beneath plants, and remove dead fronds from the trunks of palm trees. Trees in contact with structures should have limbs trimmed a minimum of 6 feet from roofs, attic vents, eaves, and utility wires.

The dead space between double fencing at property lines not only provides excellent harborage for rodents but makes maintenance of fences difficult. This practice is unadvisable and should be corrected. Broken and fallen board fences and crumbling brick walls provide harborage and should be repaired. Fire wood and stored salvageable articles must be elevated a minimum of 18 inches above ground and stored 12 inches from walls and fences. Garages should be cleaned out and stored items organized and elevated.

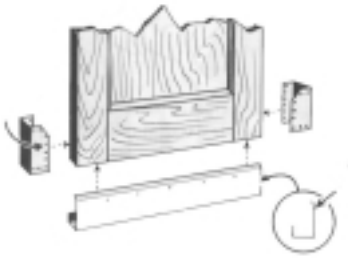
Rodent proofing a building consists of changing structural details to deny rodents access to the interior of the building. Openings as small as 1/4 inch can admit mice, and a gap of 1/2 inch will permit young rats to enter a structure. Windows should be in good repair, and doors should fit snugly in frames or be fitted with sweeps or channels to eliminate openings at thresholds. Garage doors should also fit properly within the frame and be fitted with a channel if the base does not fit tightly with the floor.



Items stored outdoors must be a miniumum of 18 inches off the ground.

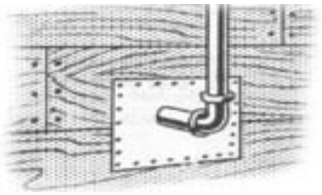
Foundation and attic vents must be screened with heavy mesh or 16 to 20 gauge galvanized hardware cloth, preferably with a sheet metal frame. Any access to crawl spaces beneath structures should be properly screened or securely covered, permitting no gaps at the edges of the frame. Openings around pipes or conduits must be covered with sheet metal patches or filled with concrete or brick and mortar. Gaps at intersecting roof eaves or where the chimney intersects the roof must be repaired or screened.

Evidence of rodents can be determined by one or a combination of specific signs. When in the home, rodents can frequently be heard gnawing on wood or climbing between the walls. They also emit squeaks and can sometimes be heard fighting over food or mates. Droppings can be found along frequently traveled paths, near nesting sites, among food caches, or other areas the rodents frequent. The odor of wet or dry urine may also be present in these areas. Footprints or tail marks may be observed on dusty surfaces.

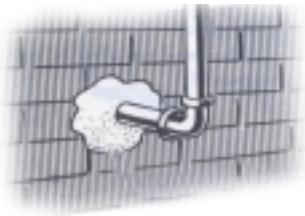


Doors should fit snugly in frames or be fitted with sweeps or channels to eliminate openings.

Dogs or cats may excitedly probe an area of floor or wall, or any other harborage site, especially if the rodents have recently invaded the area. Rub marks may be found on vertical surfaces such as walls or entrance and exit sites, where dirt and oil from rodent fur leave darkened patches or streaks.



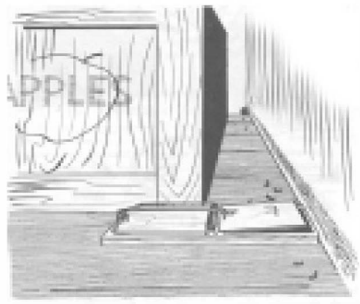
Openings around pipes must be covered with sheet metal or filled with concrete or mortar.



Rodents gnaw on a variety of materials such as aluminum, mortar, plastic, and lead. Tooth marks or chips of gnawed material may be found around baseboards, doors and windows, cabinets, furniture, or stored materials. Rodents also gnaw at cracks or small openings in an attempt to enlarge openings and gain access to structures. Nests composed of furniture stuffing, shredded paper or other soft materials, and food caches of nuts, pet food, snail shells or empty fruit rinds will sometimes be discovered when residents clean out garages, tool sheds, attics, closets, or other storage areas. Roof rat nests may sometimes be found when dense vegetation is trimmed or thinned.

When rats occur within the home, use snap traps or glue boards; avoid using poison baits. If rats succumb to poison baits and die in inaccessible areas, the odor of decay can last for several days. When trapping rats with snap traps, the best success is obtained by continuing to place baited but unset traps out for several nights until the rats have become accustomed to the presence of the traps. When the bait has been readily accepted, rebait and set the traps. Use a bait that can be secured to the trigger. Fasten bait such as peanut butter on cotton or

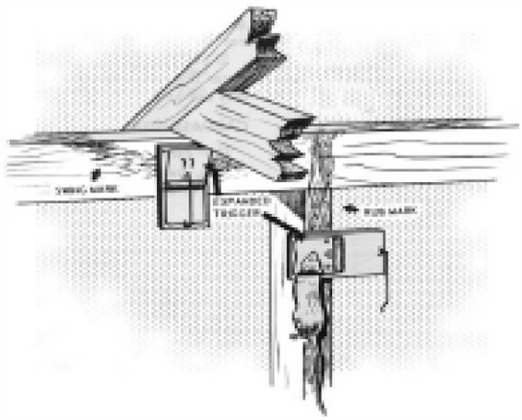
raw bacon to the trigger with light string or fine wire so that when attempting to remove the bait, the rodent will be sure to spring the trap. Mice will readily investigate snap traps and no pre-baiting activities are necessary.



Place traps in areas where rodent activity has been noted.

Glue boards should be secured to a stationary object with a nail or wire. They can be placed in well established runways, but not in corners. Placing bits of apple, nuts, or dry dog food in the center can be effective.

Snap traps should be placed in areas where rodent activity has been noted, such as across obvious runways, or where runs are confirmed by the presence of droppings or rub marks. When trapping for mice, the trap should extend from the wall at right angles, with the trigger end nearly touching the wall. When trapping for rats, set the traps parallel to the wall, back to back, with the triggers situated to intercept rats coming from either direction. Boxes or boards can be positioned in such a manner as to guide the rodent into the trap. When trapping for mice, the best success is often obtained the first night of trapping. For this reason, it is important to set out more traps than the estimated number of rodents. Always continue with control efforts until no new signs of rodents are visible.



When expanded trigger traps are secured across roof rat runs, position the trigger end over the visible run so the rat will pass directly over the trigger.

Outdoors, rodent runs may be found next to walls, along fences, under bushes or buildings, or anywhere their feet make beaten paths on the ground. Roof rat runs along beams in garages or other buildings are often encrusted with urine and fecal material. Expanded trigger traps provide a larger contact area and are often very successful in highly traveled areas . When secured across such runs, position the trigger end over the visible run so the rat will pass directly over the trigger. Do not use bait when placing expanded trigger traps over visible rodent runs.

When using poison baits, read and follow all label directions. Place poison in properly secured bait stations out of the reach of children, pets, and non-target animals. Never place poison bait in any type of food container and keep one empty bait package for emergency treatment information.

Do not expect rodents to go out of their way to locate the poison bait. Bait stations placed in protected areas or under cover adjacent to travel ways or suspected harborage sites are more successful than those located in open areas. The number of bait stations placed will depend on the suspected number of rodents within the area. Monitor bait stations regularly. If bait in available stations disappears rapidly, place additional stations. Multiple dose rodenticides must be consumed over a number of days to produce death, and the interval between feedings should not exceed 2 days. It is important to the success of the control program that stations provide bait continuously during the duration of the program and until no new signs of rodents are observed.

Always use safety precautions when cleaning rodent infested areas and discarding dead rodents or traps. Disinfect trapped rodents and contaminated materials and surfaces by thoroughly wetting them down with any general household disinfectant. Wear rubber gloves. Remove disinfected materials with dampened paper towels or cloth, place in a plastic bag, tightly seal it, place in a second plastic bag, seal it, and dispose of it in the trash. Disinfect the rubber gloves prior to removing them, and dispose of in the trash. Wash hands thoroughly with soap and water.

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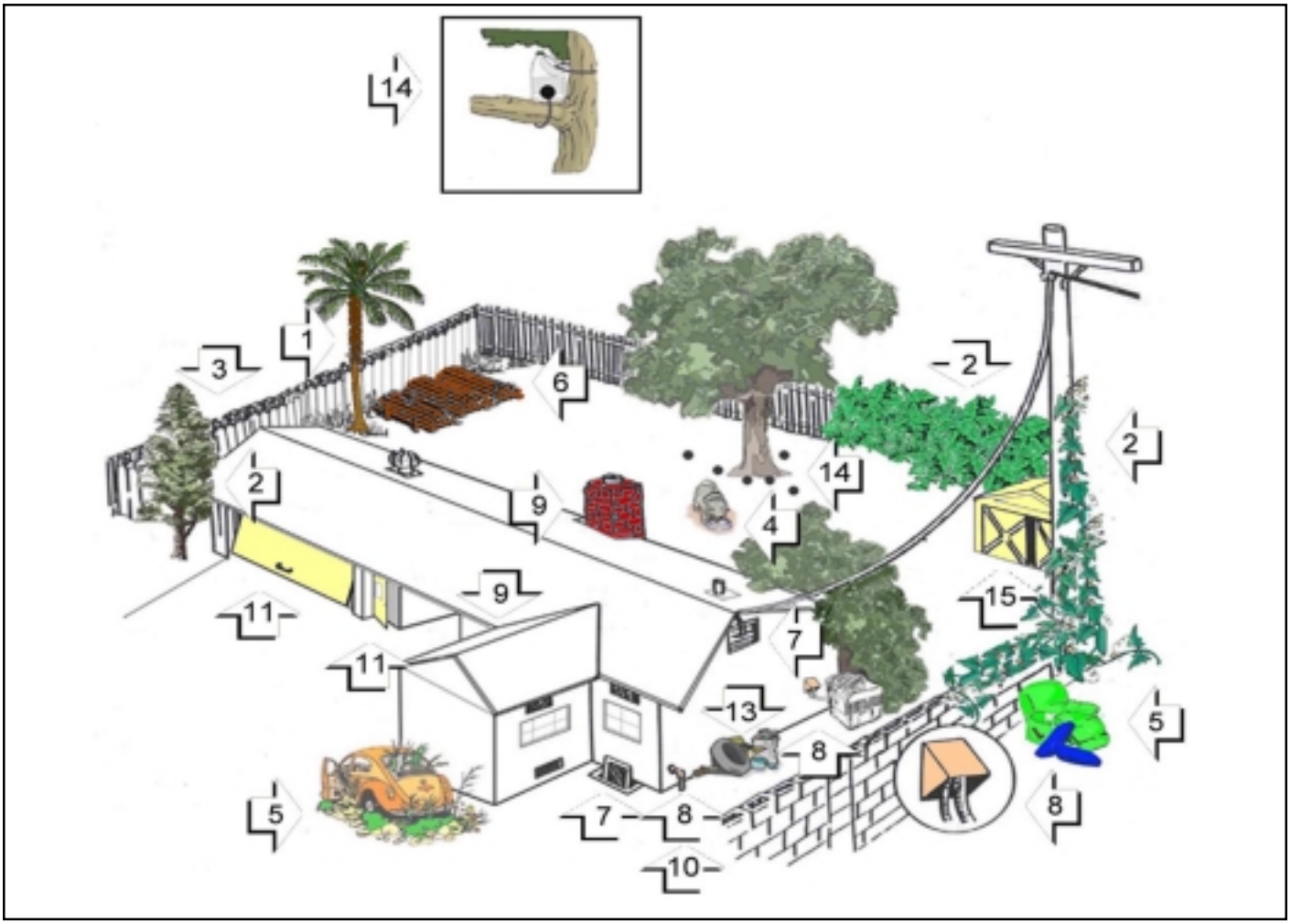

1. Remove all dead palm fronds.

2. Trim tree limbs and high plants six feet away from roof, attic vents, eaves, and utility lines. Thin ivy and other thick vegetation, and leave clearance beneath bushes to prevent harborage for rodents.

3. Avoid double fencing. It provides space for rodent harborage.

4. Remove dog droppings daily and feed pets away from vegetation and harborage areas. Do not leave pet food out over night.

5. Remove old vehicles and non-salvageable items from property.

6. Elevate stored items at least 18 inches above ground and 12 inches from walls and fences.

7. Use 1/4 inch galvanized hardware cloth for vent and crawl space screens. Frames should fit properly with no gaps at the edges.

8. Seal gaps around pipes entering walls with 1/4 inch hardware cloth, sheet metal, concrete, or mortar.

9. Screen openings at intersecting roof eaves and where chimney intersects roof.

10. Repair all plumbing leaks.

11. Install door sweeps or weather stripping on all exterior doors. Close all openings greater than 1/4 inch to exclude rodents.

12. Bait stations can be made out of 1/2 gallon or 1 gallon plastic containers, such as bleach bottles, and placed in trees for roof rats. Cut two holes in container on opposite sides, about 1 1/2 to 2 inches in diameter. Secure in place with wire to avoid spillage. Place bait in container and replenish for 10 to 14 days or until no new signs of rats are observed. The label from the pesticide package should be attached to the plastic container.

13. Dispose of trash properly.

14. Remove and properly discard ripe and fallen fruits and vegetables.

15. Clean and organize garage and storage buildings. Make certain doors close properly.