

# Monmouth County Regional Health Commission



## Rats and Mice

Worldwide, rats and mice are the most notorious of all the vertebrate pests that plague humankind. Of these, the **Norway Rat**, (*Rattus norvegicus*) and the **House Mouse**, (*Mus musculus*) are the most common.

Adult **Norway Rats** are robust, weighing 10-17 ounces and are 13-18 inches total length. The tail is usually shorter than the head and body. Colors range from gray to brown to almost black.

The **Roof Rat**, (*Rattus rattus*), is the same length but lighter in build and not as widespread as the Norway rat. The tail is LONGER than combined head and body length and the belly is often white.

The common **House Mouse** is another Asian Murine rodent, second only to the rats as a destructive pest. House mice can be distinguished from young rats by their proportionally smaller heads and feet.

Outlying areas are likely to have native **Deer Mice** (*Peromyscus maniculatus*) rather than the imported House Mice. Deer mice have white underparts of the body and tail.

Rats and mice are mostly nocturnal in their habits so an infestation often goes undetected until the rodents become very numerous. By knowing what signs to look for, a rodent problem can usually be caught before it gets out of hand.

Rats and mice tend to move over regular routes and usually produce defined runways. These show up particularly well in dusty areas, especially if flour or other tracking powder is sprinkled around likely spots.

Outdoors, rats will leave trails through vegetation and dig or gnaw holes around buildings and foundations.

Another tell-tail is that rats leave grease smudges when traveling close to a wall, around a beam or through a hole.

Finally, fresh rat and mouse droppings which are moist and soft, are a very reliable sign of infestation.

## CONTROL

There are four important steps to effective rat and mouse control.

- 1. **Elimination of shelter or harborage**
- 2. **Rodent-proofing structures**
  
- 3. **Elimination of food and water**
  
- 4. **Killing rodents**

## ELIMINATION OF HARBORAGE

Elimination of harborage is often overlooked in a rodent control program. Rats in particular like to inhabit woodpiles and stacks of stored material.

Materials that are stored in stacks or piles should be on pallets at least **8 inches** off the ground -- 18 inches is even better. If possible, they should also be 18 inches from adjacent walls and stacked no more than six feet wide, leaving at least a 12 inch aisle between stacks.

Dense **vegetation** and **rubbish piles** around structures should be reduced as much possible and ornamental shrubs should be pruned away from the ground.

Also, avoid planting ground cover such as ivy, that can offer harborage to rats.

Finally, spaces under buildings should be **blocked off** and old burrows filled in.

## RODENT-PROOFING STRUCTURES

Complete rodent-proofing is usually not possible, especially in barns and older buildings, but if approached properly will go a long way towards reducing an infestation.

To keep rats out of buildings, any opening they can get their teeth into (that is over **1/2 inch** in diameter) must be closed up. Mice can often squeeze through openings as small as **3/8 inch**.

Be sure to **seal up openings** around pipes and floor drains and keep the drains tightly covered.

**Edges subject to gnawing** such as door bottoms, should be covered with heavy sheet metal or wire mesh.

Place metal **rat guards** on pipes, wires and other places rats climb.

Other openings can be covered with **19 gauge** or heavier hardware cloth no larger than **1/4 inch**.

In severe cases, burrowing under foundations by rats can be eliminated by building an **off-set curtain wall** of concrete or sheet metal.

## ELIMINATION OF FOOD AND WATER

Elimination of food and water is the third step for effective rat and mouse control. Strict control of food materials is essential in any rodent control program.

- Be sure all human and animal foods are stored in **rodent-proof** buildings, rooms or containers.
- Dispose of garbage and other waste in tightly covered metal cans
- It's very important not to feed outside pets more than they can eat at one sitting.
- Be sure to clean up pet droppings -- rats can do very well on a straight diet of feces.
- Clean up windfall fruits, nuts and ornamental seed pods.
- Finally, don't scatter food for birds and squirrels. Even if you have a rodent-proof feeding station, birds will often throw seed onto the ground.

## **KILLING EXISTING RODENTS**

Along with general clean-up and controlling food sources, direct reduction of the infestation is obtained by careful use of **rodenticides** and **traps**.

### **Rodenticides**

There are several effective rodenticides on the market. These are available as **concentrates**, **mixed baits**, **weather-proof blocks** and **pre-measured packets**.

They are all effective and safe to use as long as the label directions are followed. **Always read the label before using any pesticide** (a pesticide is any insecticide, herbicide, fungicide OR rodenticide).