

# **Rodents**

## **(Norway Rat, Roof Rat, House Mouse)**

Rodents present a unique challenge as their function is to clean up the environment by feeding on all foodstuffs left lying around. This illustrates the importance of hygiene and rubbish removal in the management of rodents. Rodents feed all the time and they have two pairs of incisors; with the working of the upper pair against the lower ones wear away the softer inner surfaces creating a sharp, bevelled edge well suited for gnawing. These incisors grow continuously but the regular chewing and gnawing keeps them worn down.

Rodents are nocturnal, feeding mostly at night. Rodents always live amongst man but are more noticeable during winter months when they come indoors to feed when there is no excess food outside. Rodents have been found to contaminate about 40% of food on the African continent making them a serious pest for man.

Treatment for rodents should concentrate on the following:

The key to control is sanitation and hygiene, removing food and water sources. Eliminate harbourage areas and rodent proofing structures by closing entrance holes with steel wool and cement.

Bottoms of doors must be closed off with stainless steel stripping. Rodents must be targeted outside in their burrows before they enter the structure. Bait stations must be placed along the outside perimeter fence and along the outside of the exterior wall of the structure.

## **Norway Rat** Also Known as the Brown Rat (*Rattus norvegicus*)



### Food/Water

Eats everything including meat, large amounts in one sitting, drinks water or eats foods with high water content. They prefer meat, fish and cereals.

### Agility, Swimming Ability, Size of Territory

Not very agile, climbs if necessary, swims well, territory is very large (up to 100 metres)

### Reproduction

Sexually mature in 2-3 months, 8-12 offspring per litter, up to 7 litters per year, life expectancy 9-12 months

### Signs of Infestation

Gnaw marks, new gnawing marks tend to be rough and old gnawing marks are smooth with grease marks. Droppings are soft and moist when new and hard and brittle when old.

Tracks or footprints, front foot 4-toed and print is in front of usually longer hind print with 5-toes. Rub marks or dark greasy markings on vertical surfaces. Burrows are found in earthen banks, under concrete slabs, against and under walls. If they are active they are free of dust and cobwebs. Runways consistently follow the same paths, usually along walls or against stacked goods.

### Habits

Rats are predominantly nocturnal and are very cautious. They shy away from new objects and changes. Outdoors they burrow in holes in banks with an opening of 12mm. Indoors Norway rats normally infest lower areas of a building. Norway rats normally forage and feed at dusk and again prior to dawn. Once established, Norway rats will use the same routes or runways from their nest to their food and water source.

### Control

The key to control is sanitation and hygiene, removing food and water sources. Eliminate harbourage areas and rodent proofing structures by closing entrance holes with steel wool and cement.

Bottoms of doors must be closed off with stainless steel stripping. Rodents must be targeted outside in their burrows before they enter the structure. Bait stations must be placed along the outside perimeter fence and along the outside of the exterior wall of the structure.

## **Roof Rat** Also Known as the Black Rat (*Rattus rattus*)



### Appearance

Smaller and thinner, weighs up to 200g, pointy nose, large eyes and ears, relatively long tail (longer than its body and head combined), smoother coat, gray to black. Adult is 16-29cm long combined head and body with a tail of 19-25 cm. The fur is soft and smooth; eyes are large with large ears.

### Signs of Infestation

Gnaw marks; new gnawing marks tend to be rough and old gnawing marks are smooth with grease marks. Droppings are soft and moist when new and hard and brittle when old. Tracks or footprints, front foot 4-toed and print is in front of usually longer hind print with 5-toes.

Rub marks or dark greasy markings on vertical surfaces. Burrows are not common, but if present are very shallow. They usually nest in or under vegetation. Their nests are normally found in the roof area of buildings and structures. Active runways have a greasy appearance.

### Food/Water:

Eats mostly vegetable foods, large amounts in one sitting, can go a long time without water. Roof rats eat fruits, vegetables and cereals.

### Agility, Swimming Ability, Size of Territory

Agile and flexible, likes to climb and climbs well, and can swim but avoids water, large territory (15-30 metres)

### Reproduction

Sexually mature in 2-3 months, 6-10 offspring per litter, up to 6 litters per year, life expectancy 9-12 months

### Habits

Roof rats are nocturnal and are very cautious. They constantly forage and like the upper areas in structures and trees. They require an opening of 12mm to gain access to a structure.

They can feed on cockroaches, slugs and snails and the harbourage is always near a water source. They feed at dusk and prior to dawn and can forage in groups. They tend to eat smaller amounts of food in several places.

### Control

The key to control is sanitation and hygiene, removing food and water sources. Eliminate harbourage areas and rodent proofing structures by closing entrance holes with steel wool and cement. Bottoms of doors must be closed off with stainless steel stripping.

Rodents must be targeted outside in their burrows before they enter the structure. Bait stations must be placed along the outside perimeter fence and along the outside of the exterior wall of the structure.

Shrubs and creepers must be trimmed away from the outside of the structure.

# House Mouse

(*Mus musculus*)



## Appearance

Small and thin, weighs up to 15g, pointy nose, large ears and small eyes, longer tail. Head and body length 7-9.5cm with the tail 7-10cm long. Colour is normally dusty gray and light gray or cream on the belly. Pointed muzzle and small eyes with large ears. Droppings are 3-6mm long, rod shaped with pointed ends.

## Food/Water

Prefers grain, eats small amounts at a time, and generally only draws water from food sources. Mice prefer seeds or cereals and sometimes eat insects trapped on glue boards.

## Agility, Swimming Ability, Size of Territory

Agile and a good climber, can swim, small territory (3-6 metres), highly territorial

## Reproduction

Sexually mature in 1.5 months, 5-6 offspring per litter, up to 8 litters per year, life expectancy is 9-12 months

## Signs of Infestation

Gnaw marks; new gnawing marks tend to be rough and old gnawing marks are smooth with grease marks. Droppings are soft and moist when new and hard and brittle when old. Tracks or footprints, front foot 4-toed and print is in front of usually longer hind print with 5-toes.

Rub marks or dark greasy markings on vertical surfaces and are smaller than with rats. Burrows are inside and they often nest in insulation material. Mice use the same runways, usually along walls. Active runways are free from dust and cobwebs with fresh droppings.

## Habits

Mice are very social with other related mice but are very aggressive with others that are not related. One dominant male makes for social hierarchies and will be very territorial. Their territory is normally marked with urine. If food and shelter is plentiful, they will not move more than 1.5 meter from their nest. Mice are very inquisitive. Mice are nibblers and only eat small amounts of food. Moisture is normally obtained from their food. Their preferred nesting sites are dark and secluded areas. Nesting material includes paper products, cotton, insulation, fabrics, etc. And they only need 6mm gaps to gain entry.

## Control

The key to control is sanitation and hygiene, removing food and water sources. Eliminate harbourage areas and rodent proofing structures by closing entrance holes with steel wool and cement. Bottom of doors must be closed off with stainless steel stripping. Rodents must be targeted outside in their burrows before they enter the structure.

Bait stations must be placed along the outside perimeter fence and along the outside of the exterior wall of the structure. House mouse must be treated inside behind cupboards where they nest. Mice do not forage very far for food and water.

Snap traps are very effective for the control of mice, placed against the wall in the active runway.