

Integrated Pest Management for Rodents: Residential

Rats and mice can cause property damage and health problems. The most effective and economical long-term solution to get rid of a rodent problem (and prevent it from happening again) is to use an Integrated Pest Management (IPM) program.

IPM is a decision-making process that includes six elements: Prevention, Identification, Monitoring, Thresholds, Treatment, and Evaluation. This document explains how to use these steps to manage rodent pests around a residence.

PREVENTION

Keep rodents from getting into buildings

- Seal all openings that are bigger than 6 mm (¼ in). Mice can gain access through a dime-sized opening, while rats only need a quarter-sized hole to get in
- Regularly inspect and repair entry points
- Install sheet metal kick plates on door exteriors
- Build outbuildings like sheds on concrete pads, **not** bare ground
- Prune back branches that hang over balconies, eaves and roofs
- Consider hiring a professional to find problem areas and design a long-term IPM strategy

Get rid of food and water sources

- Keep all garbage in containers with tight-fitting lids
- Keep rodents out of your backyard composter: keep it above ground or install mesh between the soil and the composter, use a tight-fitting lid, and avoid putting meat, dairy products or eggs in the bin
- Remove any food outside, such as fallen fruit or nuts, birdseed, or leftover pet food
- Keep food prep and storage areas clean
- Choose hard-walled, sealable food containers and avoid leaving produce out
- Eliminate water sources. Fix leaky taps and cover pools and hot tubs when not in use

Get rid of places where they can hide or live

- Remove unused clutter in and around buildings
- Keep building perimeters clear of vegetation and junk/debris
- Cut tall grass and weeds back from buildings
- Keep bushes and trees around buildings trimmed so that 15 to 20 cm (6 to 8 inches) above ground is clear
- Store firewood and lumber away from buildings and at least 30 cm (1 foot) off the ground

Safely clean up areas where rodents have been

- Wear gloves and a mask to clean up safely
- Rodents are attracted to the smells left behind by other rodents. Prevent rodents from coming by cleaning up areas where they've previously been
- Get rid of droppings, nesting material and damaged food
- Clean urine stains, rub marks, or tracks with a mild bleach solution.

Work with your community to prevent rodent problems

- Share rodent prevention techniques
- Help neighbours who need assistance
- Organize community efforts to prevent rodent problems in public spaces

IDENTIFICATION

Identify the type of rodent

- Of the many kinds of rodents in B.C. only three typically cause problems for people
 - Norway rats usually live at ground level, while roof rats are agile climbers and prefer to live higher up
 - House mice nest in hidden, enclosed spaces using shredded, soft materials
- Different control methods will be required for rats compared to mice

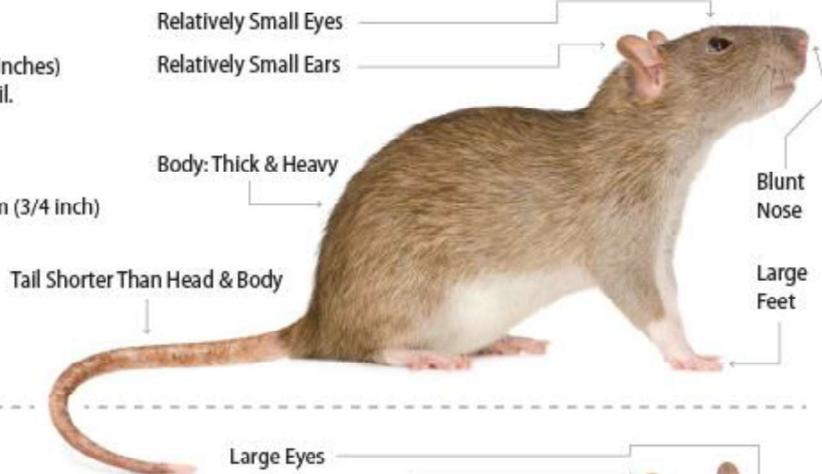
Rat and Mouse: Comparison

Norway Rat

Size: 30-45 cm (12-18 inches)
from nose to end of tail.

DROPPINGS:

Long, Rounded Ends
Avg. Length: 15-20 mm (3/4 inch)

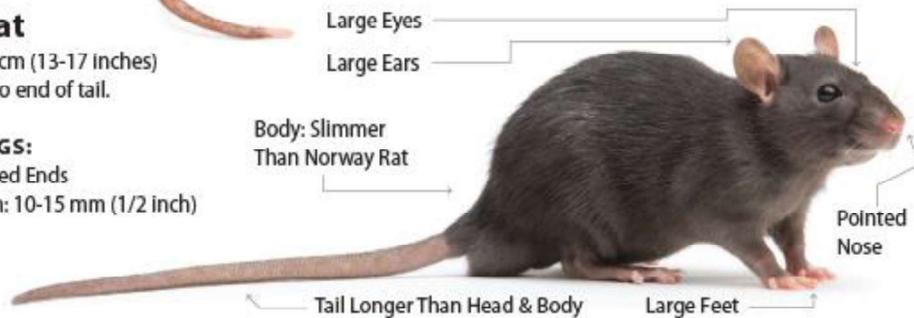


Roof Rat

Size: 33-43 cm (13-17 inches)
from nose to end of tail.

DROPPINGS:

Long, Pointed Ends
Avg. Length: 10-15 mm (1/2 inch)

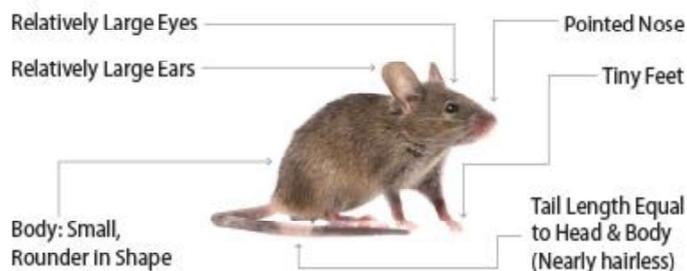


House Mouse

Size: 15-17 cm (6-7 inches)
from nose to end of tail.

DROPPINGS:

Small with Pointed Ends
Avg. Length: 4-7 mm (1/4 inch)



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MONITORING

Check your property for problem areas

- Regularly monitor for entry points, food or water sources that may lead to rodent problems.
- Watch out for signs of rats and mice to figure out where they may be

Look for signs of rodents

- Droppings and urine stains
- Burrows, holes or nests
- Runs, tracks and rub marks
- Chew marks and chewed food packages
- Noises, especially at night when rodents are most active

THRESHOLD

Know when to take action

- It's time to take action **as soon as you notice signs** of rats or mice from your monitoring
- Rats and mice reproduce quickly. Ignoring an occasional invader can result in a much more damaging infestation

Rats and mice can:

- Damage property by chewing on materials like insulation, siding and wallboard
- Start electrical fires by gnawing on wiring
- Eat and contaminate stored food
- Transmit diseases

TREATMENT

Select the best method

- Consider the rodent type, population numbers, and location
- Choose options that will avoid harming people, pets, birds and other wildlife

Traps

- **Snap traps or electronic traps are the best treatment option.** They are effective and kill rodents quickly and humanely
- Choose the right one. Rat traps and mouse traps are different sizes
- Set traps along walls where rodents travel
- Protect children, pets and wildlife from getting injured by traps. Put them in bait stations or in inaccessible areas.
- Place traps about one meter apart
- Use bait like dried fruit, peanut butter (mixed with oats), cheese, or any other food they've already been eating
- Leave the baited traps out for several nights before setting them, so the rodents get used to them
- Check traps daily
- Wear gloves to handle the trap and all dead rodents. Wrap the dead animal in plastic and put it in the garbage
- Re-use traps. They are more attractive to other rodents than new traps
- Reset traps in 2 to 3 weeks to catch maturing rodents. You won't get long-term control if you don't catch them all!

This summary provides guidance and is not a legal document. In all cases the *Integrated Pest Management Act* and Regulation will prevail.

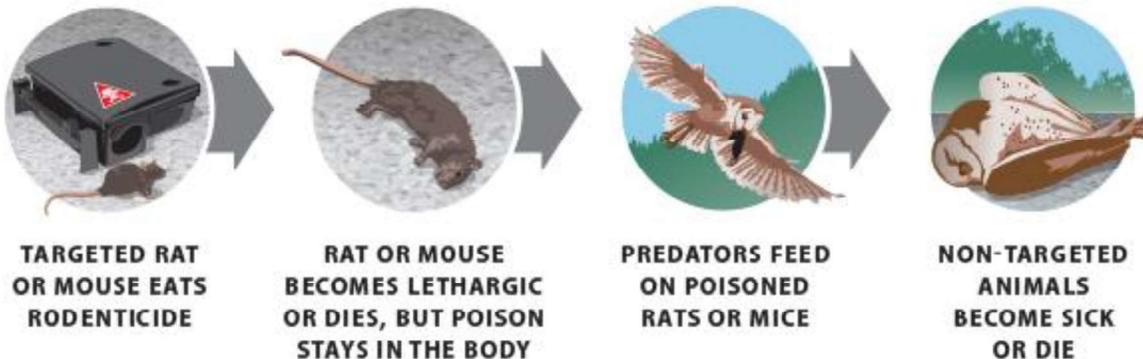
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Rodenticides (rodent poisons)

- **Rodenticides are highly toxic and can pose a risk to people, pets and wildlife. Only consider using as a last resort**
- **Many rodenticides have restricted uses in B.C.** Visit www.gov.bc.ca/RodentIPM to learn more
- Use only Domestic class rodenticides for personal use in and around the home
- Only use rodenticides as a targeted short-term treatment. Never use as a permanent or preventative control method
- Choose least-toxic formulations first, like corn cellulose
- Always read and follow the label directions. Talk to the pesticide vendor if you have questions
- Use tamper-proof bait stations
- Never place poison bait in areas where children, pets or other animals can access the bait
- Never scatter poison baits over the ground or inside a building
- Wear gloves when handling rodenticides
- Properly dispose of any leftover bait and dead rodents. Be aware rodenticides can cause rodents to die and decompose in hard-to-reach places which leads to a terrible smell and insect infestations
- If hiring a professional, discuss non-poison options

Know the risks of rodenticides

- **Direct poisoning:** pets, children and wildlife can die or be seriously hurt if they eat the poison bait
- **Secondary wildlife poisoning:** natural predators like hawks and owls can die or suffer long-term effects from eating poisoned rodents. Losing these natural rodent predators can make the pest problem even worse



Other treatment methods

- **Birds of prey (raptors), like owls and hawks, are natural predators of rats and mice.** Encourage raptors in your area by protecting natural habitat and avoiding the use of rodenticides
- Live traps and glue traps are available, but may cause significant stress and suffering for caught animals
- Ultrasonic repellents may initially work, but eventually rodents get used to them
- Some cats will kill mice or rats, but are typically not an effective way of controlling an infestation. Cats will also catch birds and other wildlife

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EVALUATE

How well is your rodent IPM program going?

- Consider if any improvements can be made, such as different trap baits, moving trap placements, or using more preventative measures
- Make sure you get them all – rodents take 2 to 3 weeks to mature, so put traps out every 2 to 3 weeks until you don't catch any more
- Once your rodent problem is under control, re-visit prevention tips to stop it from happening again
- Consider hiring a professional if your program isn't working

For More Information

For more information about the regulation and appropriate use of pesticides in British Columbia, please visit www.gov.bc.ca/PestManagement or email BC.IPM@gov.bc.ca.