

TORONTO STAFF REPORT

February 13, 2006

To: Board of Health
From: Dr. David McKeown, Medical Officer of Health
Subject: Rodent Control Program for the City of Toronto

Purpose:

To report to the Board of Health on a city-wide integrated rodent control program, including the interdivisional approaches to be adopted in eradicating rodents, the provision of rodent control fact sheets and the health related risks and benefits of such a program.

Financial Implications and Impact Statement:

There are no financial implications resulting from this report.

Recommendation:

It is recommended that this report be received for information.

Background:

City Council at its meeting of May 17, 2005 resolved that:

- (1) the Medical Officer of Health and the Executive Director of Municipal Licensing and Standards draft and bring forward a “Rat Elimination Strategy” for the City of Toronto to an upcoming meeting of the Board of Health, that includes proactive measures for eliminating rats on both public and private property;
- (2) consideration be given in the report to providing free advice and information to homeowners, rat eradication on a free and/or cost-recovery basis for homeowners, and a Municipal Licensing and Standards enforcement strategy that prioritizes the elimination of rat living and breeding conditions and any other measures staff deem appropriate; and
- (3) this report highlight the health risks associated with rats, rat infestations and the net health benefit of adopting a “Rat Elimination Strategy”.

In addition, City Council at its meeting on October 26, 27, 28 and 31, 2005 resolved that the Medical Officer of Health report to the Board of Health on an integrated strategy that includes non-lethal tools, such as careful inspection, upgraded sanitation and rat proofing structures and, when needed, lethal control with the use of rodenticides with non-toxic control measures.

This report responds to the above City Council motions and provides information about City interdivisional roles and responsibilities for rodent control in Toronto.

Comments:

Rodents and Public Health:

Rats have been implicated in the spread of a wide variety of diseases throughout the world. Foodborne illnesses such as salmonellosis and campylobacteriosis are examples of common diseases that are transmitted when food comes in contact with surfaces that are contaminated by rats. Less commonly, urine and feces of infected rodents spread leptospirosis and hemorrhagic fever. In addition, diseases such as plague and murine typhus can be spread by fleas and ticks carried by rats.

The impact of rodents on human health depends on a variety of factors including the availability of controls, sanitation standards and the quality of local infrastructure. In the City of Toronto, the likelihood of the spread of disease by rats is very low, as the level of rat infestation in the City is comparatively low.

In 1996, the Ministry of Health advised all Ontario Health Units that it would not fund routine investigation of rodent complaints (including rats) on private property on the basis such infestations are more of a nuisance than a public health threat. However, the Ministry did recognize that rodent infestations in food premises and institutional settings (nursing homes, hospitals, etc.) posed a more significant health risk and in these instances, rodent infestations could be dealt with using the provisions of the Health Protection and Promotion Act.

Municipal Rodent Control Services Over the Last 20 Years:

In the 1980s and early 1990s, the former City of Toronto Department of Public Health employed Rodent Control Investigators to undertake all investigations of rodent complaints in the City. Their role was to carry out investigations, locate areas of rat and mice infestation, give rodent control advice, and where necessary, serve work orders on property owners to carry out rodent eradication work. In cases where infestations were found on city-owned land, the City had a contract with a private pest control company to undertake the necessary control work and the Rodent Control Investigator would forward requests for treatment directly to this contractor. The Rodent Control Investigators never provided direct rodent eradication services. In the 1990s, Municipal budget constraints resulted in the Rodent Control Investigator position being gradually eliminated and the bulk of their duties transferred to Public Health Inspectors.

At the time of amalgamation, there were numerous areas of service delivery overlap and duplication. To harmonize service delivery and better utilize the City's limited resources, an agreement was reached between Municipal Licensing and Standards (ML&S) and Toronto Public Health (TPH) on an approach to deal with rodent complaints in Toronto. In brief, all rodent complaints on private property were investigated by ML&S, while all rodent complaints relating to food premises and institutions (nursing homes, hospitals, etc.) remained the responsibility of TPH.

The agreement between ML&S and TPH has remained silent on the issue of rodents on city-owned lands and this has led to confusion and at times, significant delays in service. To address this issue, two initiatives began in late 2004. TPH and ML&S worked with representatives from other City Divisions to address gaps in service delivery. City Council then directed that a single call centre (338-RATS) be set up to deal with rat complaints.

These initiatives have been implemented and today the City of Toronto now has an accessible rodent investigation and control program in place that is designed to meet the rodent control needs of the City.

Rodent Infestation Trends in Toronto:

Toronto Public Health does not have detailed year to year base line data on the number of rat infestations in the City and there is no organization or agency tracking this information.

In an attempt to determine trends in infestation rates, a number of private pest control companies were asked to provide information on the number of service calls they received each year for rat eradication work. Unfortunately most companies were unable to provide this information either because it was not readily accessible, or it was considered to be confidential in a competitive industry.

Interviews with pest control technicians and anecdotal evidence from the public suggest an increase in rat infestation rates. However, reports of increased rat activity in Toronto have been around for many years and without meaningful data, Toronto Public Health is unable to substantiate these claims.

Based on information collected from the 338-RATS call centre, it appears that rat infestations are at a relatively low level and monthly statistics indicate seasonal fluctuations. In 2005, a total number of 1207 calls were received at the Rat Hotline. In the months of June, July and August (peak period of rat activity), a total of 323 calls were received, of which approximately 200 required field investigations. In November 2005, the call volume had decreased to 24 and in December only 12 requests for service were received.

Municipal Licensing and Standards undertake the majority of rat infestation investigations in private commercial and residential properties. For 2005, ML&S reported that 768 inspections relating to rat infestations were carried out. It was reported that a similar workload was dealt with in 2004.

Rodent Control Programs in Other Canadian Cities:

In Vancouver, Public Health Inspectors respond to complaints from the public in food establishments and residential settings (apartments, rental units, etc.). Rats on City lands are dealt with by the appropriate City Departments. For example, rat infestations in the sewers are dealt with by the City Waste Water Department.

In Ottawa, the rodent control program is a complaint driven process. Public Health Inspectors respond to complaints both in food service premises and on residential and other commercial properties. They too work with other City departments in dealing with rats on City property.

In Montreal, the rodent control program is also a complaint driven process with Public Health Inspectors responding to complaints in food premises. All outdoor rodent infestations are dealt with by Public Works. In rental properties, complaints are responded to by Urban Economic Development Services.

Accessibility and Costs of Rat Eradication Services:

Toronto is currently serviced by approximately 50 private pest control operators, most of whom provide rat eradication services. While some smaller companies offer services on a “per treatment basis” ranging from \$35 to \$65, most of the well established contractors offer services on a “per premise” or “per program” basis. For the latter, costs can vary from \$175 for a single family home to \$350 for a comprehensive rat abatement program. Most contractors offer a 10% discount for seniors.

In cases where a resident cannot afford the cost of full rat eradication services, most companies will sell rat traps and poisons to the public and provide limited advice on the use of these products. Rat traps are in the \$4 range while rat bait can be purchased at \$16 to \$18.

The Current City of Toronto Rat Investigation and Control Program:

All rat complaints or requests for service can be phoned in to the “Rat Hotline” at 338-RATS (416-338-7287). Complaints are screened by Customer Service Agents who then redirect calls based on the location of the infestation. In cases where requests for information are received, appropriate rodent fact sheets are mailed out directly to the caller. In cases where more detailed information is required, Public Health Inspectors will provide advice at no charge to the public. There are a number of comprehensive rodent control fact sheets in circulation in Canada that have been developed to provide information appropriate for residential and commercial use. The City of Toronto has obtained permission to use and distribute one such fact sheet developed by Health Canada (Appendix 1). In addition, TPH has produced a one page fact sheet on rodent control that specifically refers to the appropriate inspection of a property and the use of lethal and non-lethal control measures (Appendix 2).

The calls received at the call centre are dealt with by ML&S or TPH depending on the nature of the call. ML&S deals with rodents on private property while TPH deals with rodent issues in institutions or food premises. With regard to rodents on City owned lands or on lands owned by

other agencies, single points of contact have been identified in those City Divisions or Agencies and calls are forwarded to them for action. Where the area of responsibility is unclear, Toronto Public Health will undertake an initial investigation and then make the appropriate referrals.

Municipal Rodent Eradication Services:

Over the past five years, a number of requests have been received from City Councillors to establish a rodent control team that would carry out rodent investigation and eradication work on a free or cost recovery basis. The factors that have prevented the City from adopting such proposals in the past are still relevant today and include the following:

- (1) There is currently no conclusive data available to indicate that Toronto is experiencing an increase in the number of rat infestations which would justify an enhanced service.
- (2) Any proposal for the establishment of a publicly funded or subsidized rodent eradication service control team would have to be accompanied by additional funding for infrastructure and staffing. Such a service would not be eligible for provincial public health funding and would add to municipal financial pressures.
- (3) In the majority of cases it is the responsibility of private property owners and/or occupants to maintain their premises free of rodent infestations regardless of the original source of the infestation. Most of the rat infestations on private property are a result of poor garbage handling and storage, the provision of rodent harbourage sites such as wood piles and piles of debris, inappropriate composting and feeding of pets and wild animals. It should not be the responsibility of the City to fund the eradication of rodent infestations in such cases.
- (4) The City is well serviced by some 50 licensed pest control contractors who can provide effective service at relatively low cost; and
- (5) The City currently has an interdivisional rodent control program and legislation that is adequate to meet the current needs.

Conclusions:

Current rodent control needs in the City of Toronto can be addressed adequately through the existing interdivisional rodent control program and private sector rodent eradication services.

Contacts:

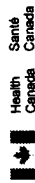
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List of Attachments:

- Appendix 1: Effective Control of Rats & Mice from Health Canada
- Appendix 2: Toronto Rodent Control Fact Sheet



Health
Canada

Santé
Canada



Do you hear scampering and scratching sounds in the walls of your home at night? Is there evidence of gnawing or chewing on your property? Are food packages damaged? You may have an infestation of mice or rats.

Effective Control

of



Rats &

Mice



May 2001

The Norway rat (*Rattus norvegicus*) has coarse, brownish fur, small ears, a blunt nose and a stocky body that may weigh up to 0.5 kilograms (1 pound). The tail is shorter than its overall body length. It builds elaborate systems of tunnels and burrows at ground level. It prefers damp areas such as crawl spaces or building perimeters.



The roof rat (*Rattus rattus*) is more slender than the Norway rat. It is usually black with a pointed muzzle and large ears. Its tail is longer than its overall body length. An agile climber, it prefers to live in trees, vines and other dense vegetation. It will infest attics, rafters or roofs, and the upper stories of buildings.

Mice and rats are prolific breeders. You must tackle the problem of occasional invaders immediately, or you will eventually have a severe infestation.

Health Concerns

Mice and rats are carriers of disease. Some diseases are spread by contact with the urine and droppings. Breathing dust raised during the cleanup of droppings can cause illness, therefore it is important to practise safe cleanup procedures.

Safe Cleanup

- Never sweep or vacuum dry droppings.
- Dampen droppings and debris with a bleach and water solution before wiping up.
- Rubber gloves and a dust mask should be worn during cleanup.
- Wash hands and exposed clothing thoroughly after cleanup.
- Wear gloves to dispose of dead rodents.

➤ Wrap dead rodents in a plastic bag and put in the garbage, or hazardous waste disposal site.

Control

Prevention: Rodent-Proofing Homes

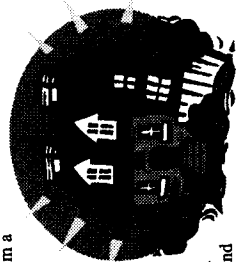
The first line of defence is to eliminate easy entry points. Mice can squeeze through cracks as small as a dime, while rats can enter through a quarter-sized hole. Even the small gaps created by worn thresholds under doors will allow mice access to your home.

- Use metal weatherstripping under doors; weatherstrip windows.
- Patch cracks in foundations.
- Stuff steel wool around pipes etc. before caulking or plastering.
- Cover dryer vents, attic vents or soffits with fine mesh metal screening.

Make Your Home Less Appealing

➤ Remove cosy nesting sites in unused clutter around the house and garage.

- Cut tall grass and weeds back from the house.
- Secure garbage in containers with tightly fitting lids.
- Raise woodpiles about 30 centimetres (1 foot). Place them a distance from the house.



➤ Never place fatty or oily food waste, eggs or milk products in the compost.

- Use a layer of heavy metal mesh between the soil and the bottom of the composter.

➤ Eliminate water sources such as leaky taps, sweating pipes and open drains. Rats need, and are attracted by, water sources.

- Cleanliness in the kitchen is essential; dry goods, including grains and dry pet foods, should be stored in metal or glass containers.

Physical Control: Traps

Metal snap traps are easy to use and very effective if well positioned and set properly. Live traps have trapdoors that are triggered when rats or mice walk over them. Follow these guidelines for both types:

- Set the traps at right angles to the wall, with the baited end of the trap closest to the wall.
- Set a large number of traps, i.e. 1 trap per metre (yard) along walls, or 5 to 10 traps per visible mouse hole.
- Allow a warm-up period of 3 to 4 days (set the traps but do not bait them) so that the rodents become comfortable taking the bait.
- Try using baits of strong-smelling, sticky foods (like peanut butter or bacon grease) mixed with oats, raisins or gumdrops.
- Reuse the traps - they are more attractive to the rodents.
- Move traps to different locations if the bait does not start to disappear regularly.
- Reset the traps in 2 to 3 weeks to catch maturing young rodents.

Glue traps, sticky boxes or tube traps catch both large and small rodents and may be an effective choice if snap traps fail, or for use in hard-to-reach places. They can be used with or without bait.

If you decide to use live traps or glue traps because they appear to be more humane, consider what you will do with the trapped animal:

- If you intend to release the rodents, check the traps daily. Mice quickly die of stress and exposure if they are held without food and water.

- Mice caught in glue traps do not die immediately; use an oil (e.g. mineral oil) and apply pressure with a small stick to 'un glue' live animals. Wear heavy gloves. Or, live trapped rodents may be disposed of by drowning them in a bucket of soapy water.
- Note that snap traps generally kill the rodents instantly.

Ultrasonic devices emit sound waves or vibrations that rodents dislike. The devices may drive rodents out of certain areas and into areas where baits or traps have been set. This may help increase the effectiveness of control methods. Rodents may adapt to the devices over time and return to areas within the device range.

Chemical Control

Poisoned baits are a common method of rodent control. The bait must be used in areas out of the reach of children, pets or non-target animals.

- Never scatter poison bait over the ground or inside a building.
- Bait stations (e.g. those used by professional pest control operators) must be tamper-resistant.
- Read and follow all label directions and precautions.

Use of baits or poisons cannot replace the need to rodent-proof homes or properties.

Anticoagulant rodenticides

These products are sold as liquids or powders to mix with seed, paraffin blocks, bait packages or loose pre-mixed bait. Domestic class products may contain the following active ingredients: warfarin, diphacinone, chlorophacinone or bromadiolone.

Note: anticoagulants are usually highly toxic. See Precautions re: accidental poisonings.

Non-anticoagulant poisons may include ergocalciferol or cholecalciferol in domestic class products.

Repellents containing thiram can be used to discourage mice from damaging young trees and other ornamentals.

Remember



Before Purchasing a Pesticide Product

- Identify the pest correctly.
- Use physical control methods and alternatives to pesticides.
- Read the label directions and safety precautions before buying the product. The label must include the name of the pest to be controlled and the treatment location (e.g., indoor, outdoor, garden uses, pet treatment).
- Purchase only the quantity of product needed for the treatment.
- Alternatively, you may choose to hire a licensed pest control operator.

When Using a Pesticide

- Carefully read all label instructions and precautions before using pesticides.
- Do not drink, eat or smoke while applying pesticides.
- Persons and pets should vacate the area during treatment. Cover or remove aquaria.
- If kitchen area is to be treated, cover or remove food, dishes and utensils.

After Handling a Pesticide

- Always wash your hands thoroughly after handling any pesticide product.
- Do not permit persons or pets to contact treated surfaces until residue has dried completely.
- Provide adequate ventilation of treated areas after use.
- Wipe clean all surfaces that comes in direct contact with food, such as counters, tables and stovetops, including indoor and outdoor surfaces.
- Always store pesticides out of reach of children and pets and away from food and beverages.

In Case of Accidental Poisoning

- Call a poison control centre immediately and seek medical attention.
- Take the pesticide container or label with you to the emergency facility or physician.
- Follow first aid statements on the label.
- In case of accidental poisoning of pets seek veterinary attention immediately.



When Disposing of Pesticides

Do not reuse empty pesticide containers. Wrap and dispose of in household garbage.

Unused or partially used pesticide products should be disposed of at provincially or municipally designated household hazardous waste disposal sites.

Use Common Sense

- These are general recommendations.
- Consult the label for specific instructions.
- When in doubt, contact a professional.

Pest Management Regulatory Agency
2720 Riverside Drive
Ottawa ON K1A 0K9

Pest Management Information Service

Telephone: 1-800-267-6315

From outside Canada: (613) 736-3799*

*Long distance charges apply.

Fax: (613) 736-3798

Internet: www.hc-sc.gc.ca/pmr/aria

"The first line of defence is to eliminate easy entry points."

Rodent Control

Large urban environments provide excellent habitats for rats to survive and thrive. Rats are active at night and generally avoid contact with people. The following tips should help residents maintain a healthy environment and reduce contact with rodents.

Monitor your property to determine where rats live, travel and feed.

- Monitor your property for evidence of rats (capsule-shaped droppings, burrows, chewed food, gnaw marks on walls and surfaces).

Improve sanitation, and eliminate nesting sites.

- Store garbage in rodent-proof containers with tight-fitting lids.
- Reduce clutter to prevent hiding spots (wood piles, old tires, etc.).
- Eliminate sources of food (fallen fruit, pet food left outdoors, grass seed, etc.).
- Secure composters to prevent rodents from entering.
- Keep areas around bird feeders and bird baths cleaned.

Prevent rodents from entering your home.

- Inspect the outside of your home to identify rodent entry points (any opening larger than ½ inch in diameter).
- Use heavy gauge wire mesh to cover vents.
- Use metal sheeting to cover holes.

Use traps to reduce an existing rat population.

- Snap traps are preferable to poisonous bait, as they are non toxic and prevent exposure of children and pets to potentially harmful bait.
- Baited traps (peanut butter, chocolate, hot dog, etc.) should be placed in areas with rat activity, but do not set the trap until the bait has been taken at least once (pre-baiting).
- Use care when handling a set rat trap. Hold the trap by the edges away from the trigger.
- Place traps along walls in areas where rats are active. Place the trigger side against the wall.
- Keep children and pets away from traps.
- Use gloves when disposing of dead rats.

If you have an infestation, hire a professional to set out bait and follow these precautions:

- Ensure the bait station is enclosed to provide a shelter area for the rats to feed.
- Ensure children and pets do not have access to bait stations.
- Lock and secure the bait stations to prevent access to the bait.
- Use blocks of bait (anticoagulant) and secure the bait with wire.
- Be aware that bait can lead to secondary poisoning (for example, cats may become ill after eating rodents poisoned by bait).

Continue to monitor the effectiveness of your control measures.

- Clean up droppings as soon as they are observed, so that any new activity is apparent.
- Maintain sanitation and rodent proofing as preventive strategies.

For more information call 416-338-7600.
