



# Effective Control of Carpenter Ants



**Carpenter ants belong to a particular genus of ant that are well known for their ability to damage wooden structures. The red and black carpenter ant, (*Camponotus herculeanus*) along with the black carpenter ant (*Camponotus pennsylvanicus*), are two of the most common types found in Canada. In addition to being a nuisance in homes in their search for food, carpenter ants can also cause structural damage to woodwork as they tunnel through timbers.**

## Biology and Life Cycle

Like all ants, carpenter ants are social insects, living in large colonies consisting of hundreds of workers, several reproductive males and females, and one or more queens. The male members exist in the colony only briefly. They die soon after mating, and the fertilized females fly on to new sites where they establish new colonies. During warm weather, eggs are laid that develop into a larval, then a pupal stage over the course of 66 days (under optimum conditions). The workers are responsible for caring for the young and foraging for food to feed the rest of the colony.

Carpenter ants vary in length from 6 to 25 mm. Workers are generally 6 to 13 mm long; males

range from 9 to 10 mm; females are the largest, varying in length from 12 to 25 mm. The body is divided into three segments, with very slim waists and segmented antennae. Male and female adults have wings at mating time, and the front wings, if present, are much longer than the hind ones. The red and black carpenter ant has a dark brownish black body, with a reddish brown thorax. The black carpenter ant is uniformly dark brownish black.

## Habitat

Carpenter ants construct nests by burrowing into wood. Outdoors, they are found in dead trunks of standing trees, stumps, or logs, or under fallen logs and stones. They prefer moist, decaying wood, and their presence in a home can be a sign of a moisture problem, or of wooden structures suffering from decay. Carpenter ants can, on occasion, mine sound wood, but it is usually a soft wood, such as pine or more commonly rotten and soft wood that they choose. They excavate galleries much longer than those produced by termites. The wood is not eaten but ejected from the nest as sawdust-like shavings.

These have a shredded texture, somewhat like the shavings found in pencil sharpeners. Indeed, heaps of these wood fragments, which the ants have expelled through slits in the infested woodwork, may be one of the signs of infestation.

In addition to tunneling in outside woodwork of buildings, wooden steps and sills, they also infest hollow spaces such as wall voids, attic spaces, hollow doors, cracks, crevices, furniture and existing termite galleries. Nests have also been found behind books in libraries, behind drawers

in dressers and cabinets, and in styrofoam insulation.

## Food

Carpenter ants are omnivorous insects, eating both plant and animal matter. Insects and small invertebrates (both live and dead), meat products, grease and fat, grains and cereals, as well as a variety of sweets such as syrup, honey, sugar, jelly and fruits provide sustenance for foraging workers. Food is seldom carried back to the nest. Workers usually consume it on the spot, and regurgitate it back at the nest to nourish developing larvae, non-foraging workers and the queen.

## Entrance

Carpenter ants get into houses in several ways: through windows, holes in foundations, heating ducts and air-conditioners, along power or telephone cables, points where tree branches contact the house, or via wooden structures attached to houses, such as porches and sheds. Firewood brought into the house can also be a source of carpenter ants.

## Signs of Infestation

There are several obvious signs of infestation such as ants travelling about in search of food, or swarms of winged reproductive ants trying to escape to the outdoors, usually in the spring. Piles of sawdustlike borings expelled from their galleries, slitlike openings in woodwork, faint rustling in walls, floors and woodwork are other common signs.

## Detection of Nest

A thorough inspection of areas of high moisture, wood in contact with the soil, areas of improper ventilation, and exposed structural lumber is the first step. A good indicator of the presence of a colony is a high concentration of ants in a particular area, e.g., under the kitchen sink.

Carpenter ant colonies can sometimes be located by sound. An active colony produces a dry rustling noise that can be quite loud. In some instances, when other noises in the house are at a minimum, this rustling can be heard simply by standing in the middle of the room. In other cases, use of a wine glass or stethoscope to listen to the walls will aid in detecting the nest. Most activity occurs at night, as they are night foragers. Following foraging ants to detect patterns in their movement can also help isolate the source of infestation.

## Control Measures

Correction of conditions conducive to carpenter ant infestation should be the first step. This includes clearing away any decaying or infested wood from around buildings and removing firewood from inside the premises and away from the sides of buildings. If possible, decaying or infested structural wood should be replaced with sound material. Humidity problems in the home should be investigated and corrected. Removal of potential food sources will discourage ants from entering buildings. This can be accomplished by keeping food in sealed containers and by implementing good sanitary practices such as regularly sweeping up all crumbs and other food fragments.

Chemical control methods have two major goals: elimination of existing nests and prevention of further pest entrance. Chemical control is most effective when used in conjunction with the above methods of physical control. It should be noted, however, that once a colony is well established, it is usually necessary to locate and treat the actual nest site to achieve permanent or long-term control. In difficult instances, this job may best be left to a professional exterminator.

## Pesticide Application

Domestic class products for ant control available to homeowners will generally contain the active ingredient carbaryl or propoxur. The application of such products as boric acid or diatomaceous earth can be effective in reducing the number of ants infesting a household. There are also several other commercial products available to professional Pest Control Operators.

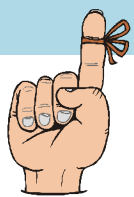
Pest control products should be applied to areas around doors, windows and other places where ants may enter the premises. Dust or spray ant runways and hills found in lawns and gardens. Effective control may necessitate locating and destroying colonies found within 90 metres or so of the house.

Inside the house, force the pesticide product into infested wood through existing openings or newly drilled small holes. Where possible, locate and treat nests and surrounding areas. Spray or dust the product into areas where the ants may hide, including cracks and crevices, along baseboards, behind and beneath sinks, stoves, refrigerators, cabinets and around garbage cans, plumbing and other utility installations. Repeat treatment if reinfestation occurs. Good sanitary practices should be maintained to prevent reinfestation.

For commercial food processing or preparation areas, use products specifically labelled for such sites. Carefully follow all label directions and precautions. Remove or cover all food, packaging material, and utensils before treatment. Afterwards, wash all surfaces that may be in contact with food and rinse thoroughly with potable water before re-use.

If treatment is being done professionally, occupants and pets should not be present during application and for sufficient time afterwards to allow thorough drying of the product and ventilation of the premises.

**Note:** When applying pesticides, it is advisable to leave any dead ant carcasses on the floor. Other scavenging ants will either ingest or bring the dead ant back to the nest to feed the rest of the colony. In this way, the pesticide's effect is passed on.



### 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 come 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/pmra-arla](http://www.hc-sc.gc.ca/pmra-arla)