



CARPENTER ANTS

Insect and Disease Laboratory • 168 State House Station • 50 Hospital Street • Augusta, Maine • 04333-0168

Homeowners are frequently startled to find that they are sharing their home with a "family" of large ants known as carpenter ants. These, the largest of our Maine ants, come in two varieties; the black carpenter ant, *Componotus pennsylvanicus* (DeGeer) and the red carpenter ant, *C. ferrugineus* (Fab.). Both are regular inhabitants of wooded areas where they play a very important role in returning dead wood to the soil. The black carpenter ant is the most common in Maine. Unfortunately, our wood homes (and occasionally mobile homes) are not exempt from attack and it is by infesting man-made structures that carpenter ants become pests. In most cases, however, an infestation indicates a problem of construction. Moisture and unsound (decayed or decaying) wood are necessary requirements for a successful colony. In spite of the ferocious appearance of the large females, they do not sting. They bite only mildly and that's in self-defense.

Carpenter ants are social in habit like all other ants and their colonies consist of hundreds and occasionally a thousand or more individuals of several types and sizes. The larger individuals may either be major workers or females and range in size up to 3/4" in length. Smaller ones may be no more than 1/4" long and are either minor workers or males. Both the males and females may have winged forms at certain times of the year (especially in the spring) which often make large and startling exodus flights in order to mate and establish new colonies. Within each colony at any time you would also find the whitish eggs (very small), larvae (like short, stubby worms) and cocoons (larger-1/4"-oval structures containing pupae and often mistakenly called eggs).

Contrary to popular belief, carpenter ants do not feed on sound wood. First they do not actually feed on wood at all but simply chew out coarse sawdust size pieces to make galleries in which to live and raise their young. This "sawdust" is then pushed out of the nest area and is one characteristic sign of an infestation. If between the walls, this may not be visible. Carpenter ants actually leave the galleries in the wood to feed and in the home may frequently make forays to the kitchen in search of crumbs, particularly sweets. They may also go outside the home to feed on various plant and animal matter, plant and insect secretions or other insect larvae. Second is that carpenter ants do not attack sound wood. Once infested the galleries honeycomb the wood and may ruin its structural strength. Wood that is infested is frequently, however, weak to begin with.

The following steps should aid you in dealing with a suspected carpenter ant problem:

IN THE HOME - old (50 year +) or poorly maintained homes are most suspect.

1. Determination as to whether or not a problem exists.

- a. Are ants present? A few ants may be present in any home in a wooded area but may not constitute a problem. These ants wander in and die or they may be coming from firewood stored inside. Only large or frequent numbers should cause concern.
- b. Do you find the galleries or the sawdust-like workings?

2. Location of the infestation (nest).

- a. Look for the sawdust-like material pushed from the galleries through cracks in the wood or through relatively large (1/8") oval holes. The presence of a flour-like wood powder and "pinholes" in the wood indicate the presence of powder post beetles which require different control techniques.
- b. Follow the route the ants take to their colony. If ants are found in the living area, they may be coming from the basement or wall areas through available openings such as around pipes, vents, etc. Ants may also come in from outside the home along wires through soffit or attic vents or through cracks in the foundation. The source may be piled wood or lumber, infested trees or poles, or wood fill. Removal or treatment of infested material should solve the problem. Dealing with infested wood fill is very difficult to remedy short of treating or plugging the runways.

3. Treatment of the Problem.

- a. Reduce or eliminate the moisture in the infested area. This can be done by repairing leaks (walls and roof), correcting drainage (cellar and sills) or poor ventilation (cellars, beneath porches, under eaves, within walls, etc.).
- b. Replace infested and decayed wood if possible especially if there is some question as to any structural weakness. Do not put sound timbers next to infested ones if possible unless they are treated with a wood preservative.
- c. Avoid storing firewood in the home. If necessary to do so, all wood should be used up each season and not carried over inside.
- d. Treat with chemicals if necessary but use extreme caution in doing so to minimize hazards. Areas to be treated include the nest and runways. The chemical should be forced into the galleries as much as possible and applied at entry ways. If runways are treated, this should not be done where food is stored or prepared but should be restricted to cracks around sink pipes and furnace vents and around sills and cellar windows. You do not need a visible residue to be effective. A number of household insecticides in the "ant" and "ant-roach" categories are available which provide effective control. Some of these ready to use aerosol sprays come with a small extension tube for treatment in cracks and crevices. Those containing 0.5-1% propoxur as an active ingredient are best. Household preparations with .5% diazinon are also effective in controlling carpenter ants. Stronger formulations of diazinon* are for outdoor use. Chlorpyrifos, carbaryl and malathion are also registered for control of carpenter ants. "Ant cups" of some types may also kill the ants but do not usually eliminate the colony. Check the label on the formulation you intend to use to be sure it is cleared for your application needs. Carefully follow all instructions given on the pesticide container as to treatment methods, and amount and frequency of applications. Stronger baits and sprays are available but should only be used by trained commercial pesticide applicators. The old home remedy ant bait may also provide control when prepared and used as follows:

RECIPE FOR ANT BAIT

3 Cups water
1 Cup sugar
4 Tsp. boric acid powder (from drug store)
Jar lids (shallow)
Wads of cotton batting

Heat water and then add sugar and boric acid powder. Stir to dissolve. Place a wad of cotton in jar lid (shallow enough so ants can crawl in). Soak cotton with solution. Place lid in area frequented by ants. Keep solution replenished until ants disappear.

Keep bait lids away from children and pets as boric acid is a poison.

When done with bait, it should be destroyed. Label solution properly if kept on hand.

IN MOST CASES HOMEOWNERS SHOULD CONCERN THEMSELVES MAINLY WITH CORRECTING THE SITUATION CAUSING THE PROBLEM. IF STEPS 3a - c ARE FOLLOWED CAREFULLY, THEY SHOULD ELIMINATE THE PROBLEM. THE USE OF PESTICIDES MAY ONLY ALLEVIATE THE PROBLEM TEMPORARILY AND REPEAT APPLICATIONS ARE MOST OFTEN NECESSARY.

IN MOBILE HOMES

In recent years it has been increasingly common for carpenter ants to set up housekeeping within the walls, floor and ceiling of mobile homes. Here they live in the insulation and go out to seek food. Apparently, they find the insulation as a suitable nesting material and the humidity as a result of condensation provides the needed moisture. In these cases adequate ventilation is of prime concern both within these confined locations and beneath the mobile home. Insecticide treatment here should be handled on a case by case basis and should be done only with professional advice. Owners of mobile homes in wooded areas should be aware of this problem and seek further advice if needed.

*Some formulations are restricted-use pesticides and may only be purchased or used by certified pesticide applicators.