

# SEASONED WOOD AND TIMBER STRUCTURES

H.G. Philip

## CARPENTER ANTS

### Preventive Control -

Carpenter ant colonies may establish in stumps, unhealthy or dead trees, and in various interior and exterior buildings; wood structures such as studs, rafters, baseboards, door casings and other support structures. Exterior decaying structures are particularly vulnerable and should be replaced. Outside stacked wood materials should be removed or examined annually for colony establishment, and not placed adjacent to buildings.

### Chemical Control -

Several domestic control products are available for control of ants in and around buildings (diazinon, carbaryl, malathion, propoxur). The products listed below are specifically recommended for control of carpenter ant infestations.

Active Ingredient	Concentration
Bendiocarb*	1% dust
Cyfluthrin*	0.1% spray
Disodium octaborate tetrahydrate	As per label instructions
Permethrin*	0.5% spray
Propoxur	2% ready-to-use spray
Permethrin (10%) Pyrethrin (5%) N-octyl bicycloheptane dicarboximide (10%)	85 g product/3.8 L

\* Application by licensed applicators only.

Locate and determine the extent of excavated cavities in wood structures from the small exuded piles of "sawdust", by "sounding", and by drilling fine holes. Inject or blow dust or sprays into holes near the top of cavities and into other cracks and crevices used as exit holes, or onto ant trails leading to and from the structure. Dusts are usually more effective than sprays. Liquid ant baits with 1-2% boric acid (boric acid) will assist in control of carpenter ant infestations.

### References:

*Effective Control of Carpenter Ant.* Pest Management Regulatory Agency.  
Web site: <http://www.hc-sc.gc.ca/pmra-arla/english/pdf/pnotes/carpent-e.pdf>

## POWDERPOST BEETLES

Dry, seasoned, manufactured and unrotted coniferous and hardwoods may be attacked by a variety of species of Powderpost beetles which are more commonly in coastal B.C. areas than in the interior or prairie provinces. Most occurrences are in hardwoods in furniture, flooring, decorative trim, carved ornaments and other exotic wood products. Small circular holes and fine boring sawdust are diagnostic signs.

### Cultural Control -

Expose infested material to heat (above 60EC) or to freezing temperatures for several hours. Unfinished material can be protected by varnishing, painting, coating with linseed oil or wax, or by using acceptable wood preservatives. Heavily infested material should be destroyed or replaced.

### Chemical Control -

Active Ingredient	Concentration
Disodium octaborate tetrahydrate	10%-15% spray

**References** – Note: Pesticides recommended in the following factsheets may not be registered for such uses in Canada.

1. Preventing and Controlling Powderpost Beetles in and Around the Home. J. DeAngelis. Fact sheet PNW 326 <http://www.ent.orst.edu/urban/PDF%20Files/Powderpost%20Beetles.pdf>
2. Powderpost Bettles. William F. Lyon. Ohio State University fact sheet # HYG-2090-96 <http://ohioline.osu.edu/hyg-fact/2000/2090.html>

## SAWYER BEETLES

Sawyer beetles attack newly killed or severely weakened coniferous trees, mostly within the first year following death. The larvae bore tunnels into the wood and may be present for one to three years.

### Preventive Control -

Process newly cut logs into lumber or other wood products within a few months after cutting.  
Remove bark of fresh-killed trees by early June.

### Direct Control -

Expose infested logs to 60-71EC for two or more hours.

### Chemical Control -

Active Ingredient	Concentration
disodium octaborate tetrahydrate*	10%-15% spray

### References -

1. Monochamus spp. (Cerambycidae) Sawyer beetles. [http://www.forestry.ubc.ca/fetch21/FRST308/lab7/monochamus\\_sp/sawyer.html](http://www.forestry.ubc.ca/fetch21/FRST308/lab7/monochamus_sp/sawyer.html)

## TERMITES

Pacific dampwood termite and Western subterranean termites feed in wood structures, especially coniferous materials and may eventually cause weakening or collapse of the structure. Favoured locations include: coniferous forests; dead trees; stumps, logs, or various wood structures; and partially decayed or mechanically damaged wood material in contact with the ground or moist substrate.

### Preventive Control -

New Constructions: Remove all wood and cellulose debris from property prior to erecting forms for pouring concrete. After pouring concrete slabs, walls, piers, etc., remove all framework wood from the building site. Do not use back fill containing wood or cellulose. It is important that new construction has a minimum wood-to-soil clearance of 50 cm in order to discourage termite invasion. Use pressure-treated wood where contact with soil is possible or clearance is less than 50 cm.

- Wooden outdoor structures in contact with the ground should be protected from termite attack by application of wood preservatives that contain copper 8-quinolinolate, copper naphthenate or creosote.

Existing Structures: Replace wood infested and damaged beyond repair. Correct conditions leading to abnormally high moisture in and around the structure, e.g. grading, eaves troughing, etc.

Break wood-soil contact by the following measures:

- Remove all loose wood and other cellulose debris (stumps, roots, etc) from property around the structure to be protected.
- Ensure adequate clearance (50 cm) exists between soil and structural wood or support posts under porches or in crawl spaces. Excavate and pour new concrete piers if necessary. Wooden support posts can be replaced with steel jack posts.
- Window sills below grade level require alteration employing a window well to retain soil.
- Outdoor, wooden stair supports should be severed 10-15 cm above soil level and supported by concrete slabs or blocks.
- Where wooden siding is used, lower grade to expose a minimum of 15 cm of foundation wall.
- Repair all cracks or other points of entry for termites in foundation walls or concrete floors (e.g. expansion jackets, crevices, weeping tiles, utility holes, etc.) with commercial sealant - preferably concrete.
- Provide adequate ventilation for soil-surfaced crawl spaces under porches or living areas.

More information on the biology and control of the Western subterranean termite is available at <http://www.agf.gov.bc.ca/croplive/cropprot/termite.htm>. Information on termites in general and their management is available at <http://www.utoronto.ca/forest/termite/termite.htm>

**Chemical Control** – Chemical control of termites is best achieved using a professional termite control contractor specillay trained in the detection of termite infestations and in the effective use of termiticides.

<b>Active Ingredient</b>	<b>Concentration</b>
Disodium octaborate tetrahydrate*	10-15% spray
Permethrin*	0.5-1% emulsion

\* Application by licensed applicators only.

Disodium octaborate tetrahydrate can be applied to dry wood during construction to prevent termite feeding, or applied to infested wood to stop feeding. Follow product label instructions carefully.

**References -**

For more information on termites, see Urban Entomology Program Faculty of Forestry, University of Toronto, at <http://www.utoronto.ca/forest/termite/termite.htm>

Section updated: November 2001