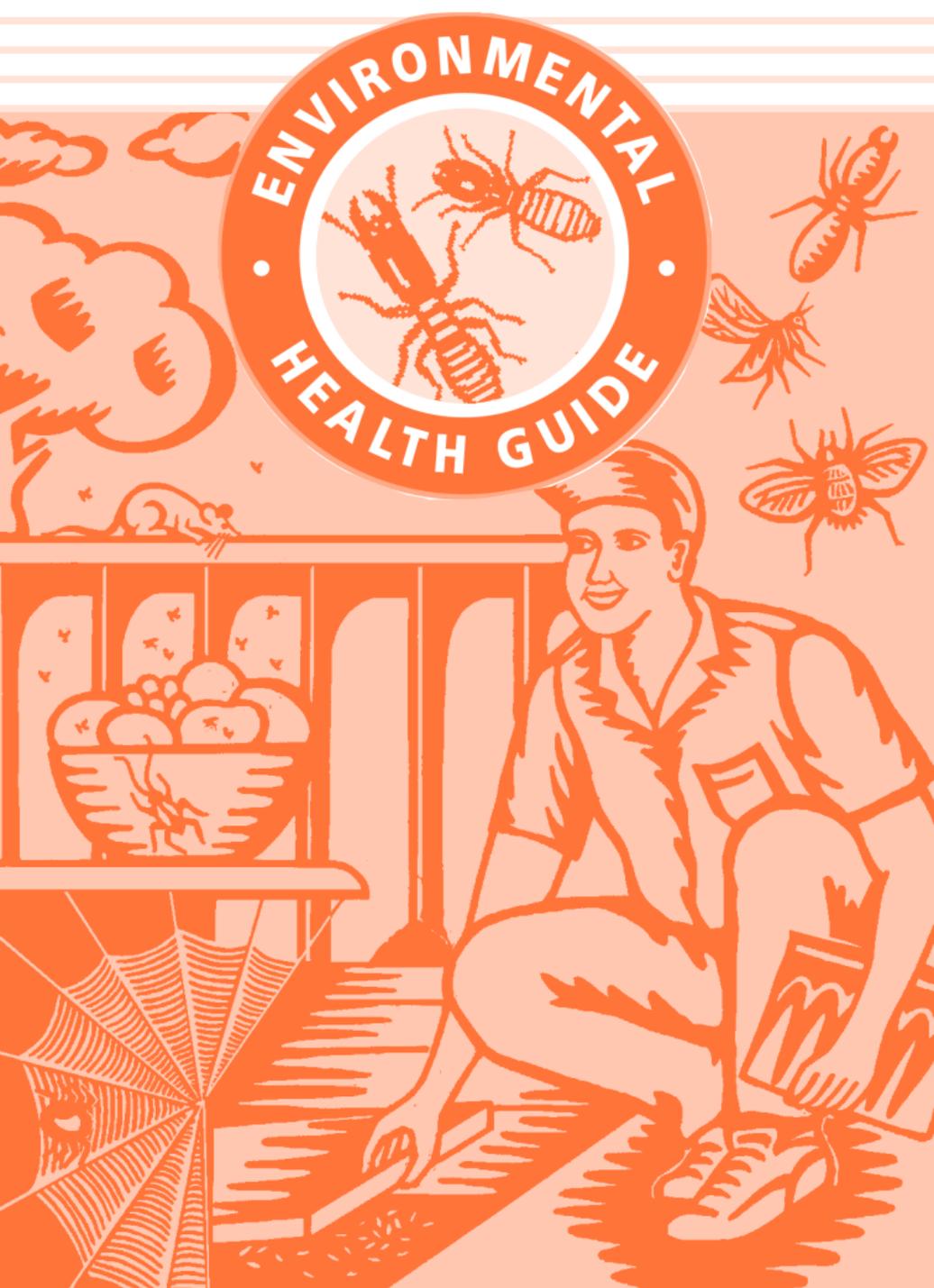


Protecting Your House from Termites





This publication replaces the brochure 'Termite Prevention for Your Home' and is intended to provide information on the different chemicals used in the treatment of buildings to prevent damage from termites. Information on other non-

chemical methods of prevention can be obtained from the Ministry of Fair Trading, tel: (08) 9222 0666, the Department of Local Government, tel: (08) 9222 0511, or your local council.

Termites occur naturally throughout Australia and there are many species. Only a few species pose a major threat to buildings because they eat wood and other materials containing cellulose plant fibre. If left unchecked, they can destroy both the strength and appearance of timbers in buildings. Because the termite nest is often beneath the soil surface, entry into a building can go unnoticed as severe structural damage may take a long time to become visible. If termites are discovered on your property there is no need to panic but there is a need for further investigation by a registered pest control operator.



The rules

The Building Code of Australia stipulates that all new buildings require some form of protection from termite entry. It is also compulsory for your pest control operator to give you a copy of this pamphlet before treating your house with a termiticide. Although it contains information on the methods of termite prevention currently available, the choice of method resides with the householder. However, for new houses it is best to contact your local government as the building surveyor may stipulate use of a specific method of treatment as a result of the environmental conditions in your area.

Methods of prevention

Four methods of preventing termite entry are currently approved:

- Use of construction methods which make entry of termites visible.
- Use of physical barriers such as stainless steel mesh or crushed granite.

- Application of chemical barriers, either hand-sprayed on the sand pad or distributed through a series of pipes laid under the concrete slab.
- Use of termite-resistant materials.

The warranty for each method can vary considerably and the extent of a warranty is commensurate with the cost of treatment. Warranties usually reflect the confidence of the termite prevention consultant, so cheap choices may not always be wise choices.

Approved chemicals



Legislation requires that all chemicals are applied in accordance with labelled directions. Information in this pamphlet supplements those directions, it does not replace or attempt to cover them all. Chemicals used in previous years such as *heptachlor*, *dieldrin*, *aldrin* and *chlordane*, are from the organochlorine class of chemicals and are now banned in Australia. *Chlorpyrifos* and *bifenthrin* are approved replacements of organochlorines, both for pre-construction treatment of new buildings and treatment of existing buildings. *Imidacloprid* has recently been registered for use in existing buildings. *Arsenic trioxide*, *permethrin powder* and *hexaflumuron* are used sparingly on active infestations.

Chlorpyrifos - This chemical is from the organophosphate group. It often leaves an after-smell, especially when used on existing buildings. *Chlorpyrifos* is now approved for use on new building sites in addition to its previous registration for existing buildings.

Bifenthrin - This chemical is a synthetic pyrethroid, the use of which has recently been extended to include termite control. It has a slight odour, noticeable after use. Like *chlorpyrifos*, it is registered for new and existing buildings.

Imidacloprid - Only recently registered, this product provides limited length protection to existing buildings. However, it is less toxic to humans than most other termiticides.



Arsenic Trioxide (arsenic powder) - This chemical is used to treat active termite infestations by applying small amounts (one or two grams) to termite galleries. A high level of skill by the pest control technician, and a knowledge of the behaviour of termites, increases the probability of *arsenic trioxide* successfully destroying the infestation.

Permethrin Powder - This chemical is used for nest destruction in trees or tree stumps only.

Hexaflumuron - A recent addition to the termiticide arena, this product is used in lures which are placed around a building to allow for nest destruction.

Chemical Treatments

For information on alternative methods of termite control, consult your builder or local council building surveyor. Chemicals can be toxic to fish, small birds and animals, so advise your pest management technician if you have any pets.

Barrier treatment of new buildings - An approved termiticide, currently *chlorpyrifos* or *bifenthrin*, is applied to the sand pad and covered with a waterproof membrane. When the construction is eventually completed, an external barrier must be established in the soil immediately surrounding the perimeter of the building. This secondary treatment is considered essential to protect the footings of the building from subterranean attack. However, it is an optional treatment to be considered. Applied correctly, these chemicals should remain effective for many years. However, re-treatment at some future stage will almost certainly be required. The period of protection can vary considerably from site to site and with each chemical.

Barrier treatment of existing buildings - *Chlorpyrifos* or *bifenthrin* is injected into the soil around the footings and/or the base of the stumps or pillars, or poured into a trench around each, and then backfilled. Similar treatment around the perimeter of a building may also be required. If applied to the sub-floor area of a building, these chemicals may leave after-smells. It is recommended that the ventilation in the sub-floor area be assessed by a person familiar with building practices, such as a registered builder or architect, prior to this method of treatment. As with new homes, re-treatment periods and length of protection can vary. Current label recommendations are indicated below. However, these are a guide only and can vary substantially.

Chlorpyrifos - re-application may be required after 3-5 years.

Bifenthrin - gives up to 6 years protection.

Imidacloprid - provides up to 3 years protection.



Notwithstanding the above, the Australian Standard for termite control, AS3660-1993, recommends that regular inspections be carried out at least annually.

Spot treatment of active infestations - The common procedure for technicians is to treat an active infestation in and around buildings with *arsenic powder* and re-visit after 10-14 days to re-establish the chemical barrier. Nests in trees or tree stumps are treated with *permethrin powder*. *Hexaflumuron* lures may be used to destroy nests that cannot be readily located.

Record of treatment - All termiticide treatments should be recorded on the appropriate notice by the technician and placed in the meter box. This establishes a permanent record of treatments at your home.

After treatment smells - Smells may be noticeable for some time after treatment. They may be due to the active constituent, other components of the solution applied, such as solvents or emulsifiers, or a combination of all. Moisture in the sub-floor area can react with solvents resulting in persistent, and occasionally, strong odours. If a strong smell persists for longer than a week after application, this may be evidence of a misapplication.

The technicians

Commercial treatment of houses must only be carried out by licensed operators employed by a registered firm. It is recommended that you ask the operator to produce a current licence and ensure that the work is being undertaken on behalf of a registered firm before allowing the operator to start work. Door to door sales reps offering chemicals and providing advice on their use, must also be licensed.

If in doubt about the validity of a licence, telephone the Health Department's Pesticide Safety Section on (08) 9383 4244.

Prices and contracts

These vary. The chemicals used are not cheap, so beware of very low prices. Before signing a contract, take your time and obtain quotes. Ask for a written specification of treatment, including chemicals to be used, their strengths and the rates of application.



For your own protection, ask for written details of work to be performed, and what will/will not be covered by any warranty. If you decide to enter into a contract with a pest management firm by signing the documentation, remember that the contract is legally binding on both parties. If you already have an annual contract, check exactly what services are to be provided. Annual treatments with termiticides are unlikely to be necessary. Nevertheless, you should consider annual inspections which are important in good termite management programs.

Further information on pest control contracts can be obtained from the Ministry of Fair Trading, tel: (08) 9222 0666.

Maintenance inspections

Annual maintenance should be confined to inspections for termites, at least initially. If no infestation is present, treatment may not be required. If termites are found and chemical treatment is required, it may only be necessary to treat the area of activity and the immediate vicinity.

Inspection times will vary, depending on the size of the property and type of building, but should involve inspection of the ceiling cavity, outside grounds and all accessible areas. Termite infestations result from incomplete barriers. This may be due to disturbances, building extensions, poor initial application, or normal chemical breakdown.

Toxic effects

The termiticides described in this pamphlet can be toxic to humans if sufficient amounts are absorbed through the skin, inhaled or swallowed. *Permethrin* and *imidacloprid* can also be moderately irritating to the skin and eyes. Even if small amounts of the chemicals are absorbed, the human body is able to detoxify them before excreting them in the usual manner. These chemicals do not accumulate in the body like the organochlorines which were used in the past. Building occupants are unlikely to suffer any reaction to the chemical if the treatment has been carried out correctly and in accordance with the labelled directions.

If occupants are exposed, either through misapplication or because of an accident, the chemical used, its concentration, the period of exposure, the amount absorbed and the individual who is exposed, will determine the toxic effect. In such cases, symptoms of poisoning may occur. Symptoms vary and are often unspecific, being similar to those produced by a number of illnesses or diseases. Nevertheless, if some or all of the following symptoms occur after exposure, contact a medical practitioner.

Skin irritation, headache, increased salivation and sweating, excessive contraction of the pupil, dizziness, blurred vision, difficulty breathing, coughing, abdominal pain and cramps, nausea, vomiting, confusion, disorientation.

The following precautions should be observed as a matter of good practice.

1. Delay treatment, if possible, where there is a pregnant woman or nursing mother in the house. Urgent treatments can be confined to small spot treatments which minimise the risk of exposure.
2. Remove domestic animals, including birds and fish, from the areas to be treated.
3. Leave the premises during application of the chemicals, securing your valuables in the usual manner.
4. Ventilate the premises thoroughly after treatment for as long as possible but at least four hours. This is essential to allow chemical odours to dissipate.
5. If you are concerned about your health, contact a medical practitioner.
6. Contact your local government Environmental Health Officer or the Health Department, tel: (08) 9383 4244 if you believe that a misapplication has occurred.



Other leaflets available

Fleas

Facts on Rats

Fly Control

Mosquitoes in Your Backyard

Stable Fly

Further information

This pamphlet is intended to be a brief guide for consumers. For further information on matters relating to treatment, contracts, complaints on workmanship, contact:

Pesticide Safety Section
Environmental Health Service
Health Department Of Western Australia

PO Box 8172

Stirling Street

PERTH WA 6849

Tel: (08) 9383 4244

Fax: (08) 9383 1819

<http://www.public.health.wa.gov.au>

or

Ministry Of Fair Trading

251 Hay Street

EAST PERTH WA 6004

Tel: (08) 9222 0666



CREATING A HEALTHIER STATE FOR EVERYBODY.

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