

## **INFORMATION SHEET ON TERMITES & TERMITE MANAGEMENT PROCEDURES**

**IMPORTANT INFORMATION:** The Australian Standard AS 3660.2 Protection of buildings from subterranean termites provides details for minimising the risks to buildings from termite attack, and methods for treatment to manage termite infestations. The purpose of a complete soil barrier is to impede concealed termite entry into buildings. Termites can build around barriers but their workings or evidence are then in the open where they can be detected more readily during regular inspections.

Modern termite control agents are designed to biologically degrade, for your safety and that of the environment. Their effectiveness is therefore limited by various environmental factors and focussed termite pressure. Termites may bridge the soil barriers and cause some further damage. Regular inspection is vital.

Sometimes, following the installation of a soil barrier, the termites may be trapped in the building unable to return to the ground. If there is sufficient moisture in the building they can remain active for up to 12 months or more. Whilst they are less active when cut off from the nest they may still cause some further damage. They will eventually die out though. In rare cases the nest may be concealed within the building. It is difficult to determine this on initial

inspection or treatment. In these cases a soil barrier is not effective.

### **IMPORTANT CONDITIONS CONCERNING YOUR TERMITE MANAGEMENT PROGRAM**

- If during the course of the treatment program it is found that structural or environmental conditions prevent us performing any sections of the Management Program then the FREE Service Period or the cost of your investment may have to be reviewed.
- **WARNING.** Where drilling and or cutting is required; no liability is accepted should damage result to concealed services such as power, gas, water, etc. You indemnify Us against any costs that may arise from such possible damage. Clear and accurate plans should be provided by you before we commence.
- Where a FREE Service Period has been provided then, upon notification by you, we agree to provide you with any remedial treatment(s) as may be required to the treated structures, AT NO COST TO YOU. Any FREE Service Period is conditional upon you notifying us of signs of termite

infestation. Fences, gates, pergolas, trees and garden retaining walls are excluded from the terms of any FREE Service Period. Any signs of activity in these areas must be reported to us.

- Since we are not builders, NO RESPONSIBILITY is accepted for concealed entry by termites through building design faults. In particular no responsibility can be accepted for entry through incorrectly installed engaged piers.
- It is imperative that you have regular, competent inspections by a licensed pest management firm (at three, six or twelve monthly intervals depending on risk assessment). Retreatment in the future will need to be considered to replenish the soil barrier. AT YOUR COST
- You need to be aware that a termite management program can be rendered ineffective due to you making building alterations, renovations, additions (including pergolas, awnings, verandahs, etc), introducing conducive materials, disturbing external gardens, pathways, etc adjacent to the areas treated and through establishing lawns &/or garden beds adjacent to the treated areas. (Such changes to the property are likely to breach the soil

barrier). Where such changes occur you must contact us for further advice. You must be careful and take precautions to ensure that you do not in any way damage the soil barrier. With a concrete slab on ground home it is important that you ensure the edge of the slab remains exposed and is not covered up by garden materials eg soil, pine bark or similar. Also ensure that air vents or weep holes are never blocked. Do not use untreated timbers for garden beds or retaining walls as they may attract termites.

#### **Specifications for termite colony control procedures.**

It is very important that you **DO NOT** disturb any termite workings, leads, galleries, etc. before commencement of the treatment program. If you disturb the termites then these treatment procedures may be rendered ineffective.

Where applicable: Suspect trees and stumps within 50 metres of the structures, usually only within the boundaries of the property, are test drilled using an auger drill to determine whether a termite colony is present in the vicinity. If a nest is located it is destroyed by the careful application of a suitable termiticide. After drilling, any living trees are treated with a plant protection compound to prevent any subsequent plant disease prior to the sealing of the hole.

### **Specifications for treatment of accessible sub-floor crawl spaces.**

Termiticide is applied at the rate as per label specifications i.e. 5 litres per square metre for horizontal barriers up to 50mm deep and 100 litres per cubic metre for vertical barriers so as to form a complete and continuous treated soil barrier (both vertical and horizontal) by trenching and rodding beneath and around the structures. The barrier is continuous where the subfloor crawl space is less than 400mm high; and at least 300mm wide, abutting all substructure piers, walls and connections, where the subfloor crawl space is more than 400mm high.

### **Specifications for drilling of concrete slab areas**

Concrete slabs and paths, both internally will be drilled in accordance with label specifications using a concrete hammer drill with a 10mm bit. Holes around perimeter walls will be drilled in accord with AS3660.2 at up to 300mm centres, depending upon the substrate beneath the concrete. Holes are drilled as close as possible, but not more than 150mm, out from the wall. The termiticide is applied at a rate of 10 litres per lineal metre i.e. up to 3 litres per hole. Holes will be sealed on completion.

Where a recommendation has been made to grid pattern drill a concrete slab, the perimeter of the slab will be drilled as above and the remainder

of the slab drilled in a checkerboard fashion. The hole centres will be drilled at up to 300mm intervals, in rows at up to 1 metre apart. Termiticide will be applied to the holes at a rate of up to 3 litres per hole. Holes will be sealed on completion.

### **Waffle Pod Concrete Slab Construction.**

Due to the nature of construction we are not able to drill and inject chemical on the interior of these structures.

### **Specifications for ventilation**

The Australian Standard recommends that subfloor regions should have adequate cross flow of air equivalent to 7300 mm net ventilation area per lineal metre on external and internal walls.

### **SUBTERRANEAN TERMITES**

#### **No property is safe from termites!**

Termites are the cause of the greatest economic losses of timber in structures in Australia. Independent data compiled by State Forests shows 1 in every 5 homes is attacked by termites at some stage in its life, however CSIRO data indicates that it could be as high as 1 in 3. Australia's subterranean termite species (white ants) are the most destructive termites in the world. In fact it can take "as little as 3 months for a termite colony to severely damage almost all the timber in a home".

#### **How termites attack your home:**

The most destructive species live in

large underground nests containing several million timber destroying insects. The problem arises when a nest matures near your home. Your home provides natural shelter and a food source for the termites. The gallery system of a single colony may exploit food sources over as much as one hectare, with individual galleries extending up to 50 metres to enter your home, where there is a smorgasbord of timber to feast upon. Even concrete slabs do not act as a barrier, they can penetrate through cracks in the slab to gain access to your home. They even build mud tubes to gain access to above ground timbers. In rare cases termites may create their nests in the cavity wall of the property without making ground contact. In these cases it may be impossible to determine their presence until extensive timber damage occurs.

**Termite damage:** Once in contact with the timber they excavate it, often leaving only a thin veneer on the outside. If left undiscovered the economic species can cause many thousands of dollars damage and cost two to five thousand dollars (or more) to treat.

**Subterranean termite ecology:** These termites are social insects usually living in underground nests. Nests may be in trees or in rare instances they may be in above ground areas within the property. They tunnel underground to enter the building and then remain hidden within the timber making it very difficult to locate them. Where

timbers are concealed, as in most modern homes, it makes it even more difficult to locate their presence, especially if gardens have been built up around the home and termite barriers are either not in place or poorly maintained. Termite form nests in all sorts of locations and they are usually not visible. There may be more than one nest on a property. The diet of termites in the natural environment is the various hardwood and softwood species growing throughout Australia. These same timbers are used in buildings. Worker termites move out from their underground nest into surrounding areas where they obtain food and return to nurture the other casts of termites within the nest. Termites are extremely sensitive to temperature, humidity and light and hence cannot move over ground like most insects. They travel in mud encrusted tunnels to the source of food. Detection of termites is usually by locating these mud tunnels rising from the ground into the affected structure. This takes an expert eye.

Termite barriers protect a building by forcing termites to show themselves. Termites can build mud tunnels around termite barriers to reach the timber above. The presence of termite tracks or leads does not necessarily mean that termites have entered the timber. A clear view of walls and pies and easy access to the sub-floor means that detection should be fairly easy. However, many styles of construction do not lend themselves to ready detection of termites. The design of some properties is such that they made the

detection by a pest inspector difficult, if not impossible.

The tapping and probing of walls and internal timbers is an adjunct or additional means of detection of termites but is not as reliable as locating tracks. The use of a moisture meter is a useful aid for determining the presence of termites concealed behind thin wall panels, but it only detected high levels of activity. Older damage that has dried out will not be recorded. It may also provide false readings. Termite tracks may be present in the ceiling space however some roofs of a low pitch and with the presence of sisalation, insulation, air conditioning ductwork and hot water services may prevent a full inspection of the timbers in these areas. Therefore since foolproof and absolute certain detection is not possible the use of protective barrier and regular inspections is a necessary step in protecting timbers from termite attack.

### **TIMBER DECAY FUNGI**

The fruiting bodies of wood decay fungi vary in size, shape and colour. The type of fungi encountered by pest controllers usually resides in poorly ventilated subfloors, below wet areas of the home, exterior timbers and in areas that retain water in the soil. The durability and type of timbers are factors along with the temperature and environment. Removal of the moisture source usually alleviates the problem **Fungal decay is attractive to termites** and if the problem is not

rectified it may well lead to future termite attack.

### **Important Maintenance Advice regarding Integrated Pest Management for Protecting against termites.**

Termites can attack any structure. Periodic maintenance should include measures to minimize possibilities of infestation in and around a property. Factors that may lead to infestation from termites include:-

- Situations where the edge of the concrete slab is covered by soil or garden debris.
- Filled areas, areas with less than 400mm clearance.
- Foam insulation at foundations.
- Poor drainage, leaking pipes, damp areas, form-work timbers, scryptimber, tree stumps, mulch, tree branches touching the structure, wood rot and timber retaining walls. **Note:** Termites often build nest behind timber retaining walls.
- Gardens, pathways or turf abutting or concealing the edge of a concrete slab will allow for concealed entry by termites.

All timber in contact with soil such as formwork, retaining walls, scrap timbers or stumps must be removed from under and around the buildings and any leaks or poor drainage repaired. **You should endeavour to ensure such conditions DO NOT occur around your property.**

**IMPORTANT INFORMATION:** The Australian Standard AS3660 series details methods for the detection, treatment and minimisation of subterranean termite infestation in and around buildings. These barriers impede termites from accessing timber and other termite susceptible material. AS3660.2 also details methods for minimising the risk of reinfestation by termites