

Termites and your home

November 2007

When you engage a builder to construct your new home, you will be presented with a range of measures that can be taken as a precaution against damage by termites (white ants). This fact sheet outlines some methods used to avoid problems.

What are termites?

Termites, often referred to as 'white ants', serve an important function in nature by feeding on dead trees and converting them into organic matter. Unfortunately, the wood in buildings and other structures such as pergolas, is equally as appetising to termites, causing serious damage that can be very expensive to repair.

There are some 350 species of termites in Australia, and about 20 species can eat solid wood in buildings. These particular species require ideal temperature and humidity levels to survive and live in colonies up to seven metres below the soil surface with up to 200,000 termites. Extensive tunnel networks can extend up to 100 metres from the nest.

Any timbers in your garden and home can provide an ideal environment for termites.

Detection

Homes and gardens should have regular inspections of all accessible timber and potential termite entry points. A licensed pest controller should carry out the inspections. The pest controller can identify timber problems and advise on individual solutions.

Termites are often detected after they have built a wafer thin mud tunnel on the timber to protect them from the environment and maintain humidity levels. In the garden, specialised pest managers drill into wood or the trunk of a tree to place temperature probes to locate the termite nest. Despite regular inspections of the garden, termites may still enter your home.

In the home, the first indicator may be a slight discolouration of the surface wall, followed by warping if wood panelling is used to line the wall. If termite damage is found in the home, do not disturb the termites by using household sprays or removing infested wood. There is no immediate threat to the house. Take time to investigate the size and nature of the problem as well as the options available to you for termite destruction.



Prevention of termite damage

Building design can minimise the risk of termite damage. Strategies include:

- reducing the amount of timber used in buildings;
- designing the concrete slab with edges exposed for inspection for termite activity; or
- laying timber floors with under-floor inspection access points.

Installation of a reticulated system under the concrete slab can also allow chemical barriers to be applied and re-applied whenever necessary.

Many local building authorities require preventative measures against termites to be incorporated during construction of new and existing buildings in Australia.

Preventative measures rely heavily on barriers to stop subterranean termites entering the premises or timber from the underlying soil. Currently, two types of barriers are used, physical or chemical, often in combination.

Physical barriers

Metal shields, stainless steel mesh or granite chip barriers can be used to stop termites getting into buildings.

Continuous sheets of fine stainless steel mesh can be installed under buildings during concrete slab construction. In certain situations, the mesh may be adapted for service openings or wall cavities of existing structures.

Graded stone barriers are made up of a thick layer of small granite chips graded to a size and shape that cannot be transported by termites and spaces between the particles are too small for termites to get through. Stone barriers can be installed underneath a concrete slab or beneath a suspended floor. Such barriers are yet to be developed for tropical northern areas, which are inhabited by large termites (*Mastotermes darwiniensis*) that can make their way through the standard granite chip barrier.

Chemical barriers

In the past, new homes were protected by spraying the sand pad with organochlorine chemicals. However, increased awareness on the health effects of these chemicals and on the environment resulted in the Commonwealth Government decision to make organochlorines unavailable since 30 June 1995.

It is important to be aware that the available pesticides or termiticides which have replaced organochlorines may not be as effective in the longer term.

Environmentally friendly methods of control are also available through some pest controllers. However, they may not always be as effective as the methods described above due to the level of infestation or the location of the nest.

For many new buildings, creation of a termiticide-treated layer of soil surrounding and under the building form an integrated barrier together with the physical methods discussed above. The termiticide is applied to the soil under the slab and around the footings, pipes, conduits and other structures of the house during construction to create a vertical barrier. Loosened soil around the perimeter of the house, including around all pipes and service facilities, is treated during construction to form a horizontal barrier.

Timber intended for use in the construction of houses, outbuildings, fences and other outdoor structures is often treated with chemicals by dipping and pressure or vacuum impregnation.

To successfully complete termite barriers for existing buildings, strategic drilling through concrete slabs, porches, floors and wall footings may be needed, as well as under-floor treatment. The Consumer Protection Division of the Department of Consumer and Employment Protection (DOCEP) recommends this be carried out by a qualified licensed pest controller.

Regional offices:

Goldfields/Esperance	(08) 9021 5966
Great Southern	(08) 9842 8366
Kimberley	(08) 9169 2811
Mid-West	(08) 9964 5644
North-West	(08) 9185 0900
South-West	(08) 9722 2888

Chemical baits

Strategically placed bait stations can be used to lure termites to a food source such as dry wood or paper refuse. About 30 bait stations are needed for a typical house and they need to be inspected regularly to assess termite activity. Once the termites are attracted to the bait station, a particular termiticide is added that sticks to the termite.

It is quickly spread through the colony by foraging termites due to their communal grooming activity and ultimately reaches and kills the queen. This external 'bait and treat' approach is not always possible in built-up areas as some space around a building is needed for placement of the bait stations.

Treatment

Treatment of a termite infestation in an existing structure also requires an integrated approach including:

- destruction of termites within the timber structures;
- measures to locate and destroy the termite nest;
- re-establishment of a chemical and/or physical barrier; and
- regular inspections to detect any ongoing or new termite activity.

For existing buildings, where signs of infestation have been detected, chemical treatment is usually the only option for destroying the termite nest. Treatment includes the re-establishment of a chemical and/or physical barrier and regular inspections to detect any ongoing or new termite activity.

Treatment with a termiticide directly into tunnels of the nest where termites are known to be active can reduce numbers but rarely eliminates the colony altogether unless used in conjunction with another method.

Regular inspections

Whichever system is selected for the prevention or early detection of termites, it is important that inspections are carried out regularly. You should

inspect your property every six months for any obvious signs of infestation.

Consumer Protection also recommends that you arrange for an inspection by a licensed pest control operator at least once a year to detect an infestation and undertake any preventative measures if required.

Further advice

Buying an existing home

When buying an existing home, Consumer Protection recommends including a White Ant Certificate clause in the Offer and Acceptance form. This is intended to ensure the home is free of termites and there is no structural damage from any previous infestation. A separate fact sheet about the need for timber pest inspections and reports when buying property is available from DOCEP by contacting the Consumer Protection Advice Line on 1300 30 40 54.

More advice about termites

For specific advice about termite protection for a proposed new home, contact the building surveyor at your council, your builder or architect, or a licensed pest control professional.

Advice about all types of pesticide treatments can be obtained from the:

- Pesticide Safety Section of the Health Department of Western Australia - 9383 4244
- Building Control Section of the Department of Local Government & Regional Development 9222 0511
- Housing Industry Association - 9244 3222
- Master Builders' Association - 9322 5133

We are available

Consumer Protection can provide information or refer you to the appropriate authority for any questions or problems relating to general home building or renovation work.

You can visit our offices or call the Consumer Protection Advice Line on 1300 30 40 54 cost of a local call.

Preventative housekeeping – a checklist

You should check your home regularly for anything that may attract termites.

The following housekeeping and gardening tips are designed to help you reduce the risk of damage:

- Plumbing leaks, drainage problems and roof leaks should all be dealt with quickly, as damp conditions attract termites.
- Garden beds and plants should be kept away from direct contact with outside walls. Hard paving should be substituted.
- Do not allow soil from garden beds to block drainage or ventilation openings in walls.
- Nothing should be stored against outside walls. This practice may allow termites to gain easy access to the wall cavity without early detection.
- Proposed extensions or alterations to the building must not result in the removal of existing termite barriers or access for inspections.
- Spaces under the floor must be kept well ventilated. Make certain that airflow through the vents is not obstructed.
- Watch for termite infestation in piles of firewood or stacks of stored timber. These must be kept well away from the house, raised above the ground and covered to keep them dry.
- Consider using termite-resistant timber for work on your home.
- Remove dead trees and stumps as soon as possible.
- Metal stirrups should be used for setting pergola, gate and verandah posts in the ground.
- Where possible, the use of untreated timber sleepers for retaining walls and garden beds should be avoided.
- Timber decking around verandahs and swimming pools should be cleaned and inspected regularly.

