



# Agenda<sup>®</sup>

*Termite Baiting System*



## > Why On-Ground?

Trials in the USA (carried out in the '70s) indicate stations that are located **on or above** the ground are found much sooner than stations which are placed in the ground.

*Termite infestations in Australia have told us, there is no need to bury your house for termites to find it.*

It makes sense when you think about it – all timber that is damaged in service is above ground, because termite scouts have come from the soil to find it.

By installing stations containing timber on surfaces on ground, you can intercept them in places where they are foraging – on ground.

On-Ground Stations can be installed efficiently with minimal impact:

- No digging
- No concrete drilling
- Can be easily moved if required
- More effective at intercepting termite activity than other stations
- Timber decay almost non-existent
- Larger pieces of timber to allow more termites to be aggregated
- 2 types of timber in each station, Tasmanian Oak and Radiata Pine
- On-Ground Stations are made from concrete grey, UV stable plastic to suit the harsh Australian environment, and to blend in with most surroundings



Dimensions of the On-Ground Station are length 21cm x width 11cm x height 9.5cm

## > Why In-Ground?

In-Ground Stations have been the accepted standard for termite aggregation for 15+ years.

Stations will be most suitable for lawns, or any area that is appropriate.

- The station diameter is 150mm and depth is 160mm, shorter depth for easier installation (less digging standard 150mm auger to dig holes)
- Aerial can be used to find the station, or assist in opening the station
- Larger timber sizes have been used to increase the time any active termites feed at the station, also allowing more termites to be aggregated
- Each station is loaded with 2 types of timber: 2 x Tasmanian Oak, 2 x Radiata Pine
- Timber volume 558cm<sup>3</sup>



Aerial can be used to find station when inspecting.



Larger timber sizes to increase time for active termite feeding.



Termites will quickly 'mud up' the hole letting you know they have arrived for ease of inspection.

## > Agenda Termite Bait Q&As

**Q: The bait seems to be drying out in the pouches, it is not staying mushy?**

**A:** The natural food for the major subterranean termites is solid timber at whatever the equilibrium moisture content may be: between say 10%-20%. The alpha cellulose bait matrix when wetted, changes from a fine particulate powder (which is unnatural, and impossible for termites to eat) into a coagulated or semi-solid from which the normal chewing process can be used to harvest – just as for solid timber. However the energy cost of chewing off a bellyful of the matrix is much less than the energy required to fill up on solid timber.

**Q: What if the bait breaks up?**

**A:** After the bait matrix absorbs the water it continues to absorb and swell slightly and appear drier. This is a normal process. Bait taken out of the Foil Pouch and added to the top of the timber in an attacked On-Ground Station should be patted down to form a continuous layer of 'dough' with few 'crumbs'. Remember, the termites have developed for millions of years eating continuous wood and could ignore 'crumbs' unless there is nothing else left. Bait added to In-Ground Stations is also to be pushed down into the spaces between the timber pieces so as to make it a reasonably continuous mass.

**Q: Is the 600 mL always the right amount of water?**

**A:** There is no need to add more water unless it is to re-form the last bit of left over bait into a solid matrix once more. Bait which remains inside the Foil Pouch is less likely to dry out because of the foil sealing in moisture. And it doesn't matter if it did; it is still probably higher moisture than the EMC and still easier to chew/harvest.

**Q: What if the bait is attacked by fungi? How long will it last when mixed?**

**A:** The active does not degrade in moisture and will last in attractive form when mixed, opened and placed into active stations or, directly onto timbers containing active termites (inside the pouch). Sure it may be attacked by fungi but this is usually not a deterrent to termites. Bait is not placed out 'hoping' termites will find it. Added to an active site, a bag should be consumed inside 2-4 weeks.

**Q: Once bait placed out on termite workings, after first inspection there is plenty of *Shedorhinotermes* activity working through the bait (getting good numbers) but at this stage they do not seem to be consuming any?**

**A:** Once they're in they usually eat unless disturbed. Often there is a big 'cave' adjacent to the underside entry which is out of sight but it collapses if prodded. The next inspection will tell the story.

**Q: Why has Bayer chosen to create an On-Ground Station for termite aggregation?**

**A:** In many studies gone by, evidence suggests that termites search for new food sources by leaving the security of the enclosed workings when the conditions are right. Workers will usually search outside the enclosed termite workings when the temperature and humidity conditions are high, usually in darkness to explore the surface in their search for food sources. Once a food source is discovered, the workers will make a more or less direct line back to the safety of the termite workings, leaving a pheromone trail, which is in turn used as a marker for shelter tube construction, this will begin sometimes above ground, but usually below.

The termites search for food does not end there, scouting parties are constantly on the lookout for additional food sources.

When stations are placed above ground, the probability that they will be found by scouting parties are considerably higher.

**Q: Termites have been successfully discovering In-Ground Stations, why specifically are On-Ground Stations any better at intercepting scouts?**

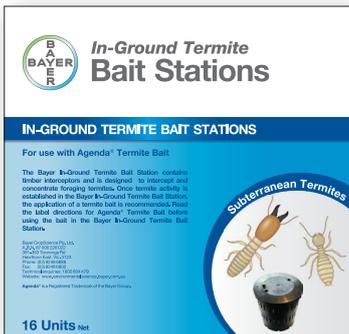
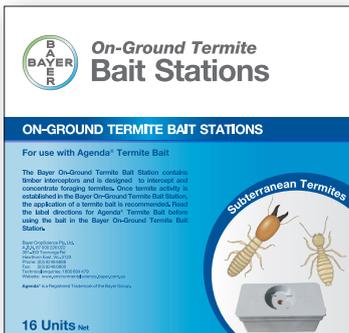
**A:** The short answer is that it takes less energy and more distance can be covered by scouting above the soil. Every piece of timber that has been attacked above the foundations of a building has been found because scouts have left the ground to find it.

Termites mostly find in-ground monitors by burrowing through the (usually) upper 100mm of soil until they pick up the traces of carbon dioxide emanating from decaying wood and they turn 'upstream' toward the source. The effort required to do this is much greater than sending scouts up above the surface where they can traverse greater distances in a shorter time. Although scouts can and do walk across open ground and paths and pavers, the more instinctive method is for them to walk along joints and edges. Placing On-Ground Stations on concrete paths against walls with the openings over the gap in the expansion joint means the scouts moving along the joint are highly likely to encounter a station. Or, placing an On-Ground Station on the edge of the path against a fence puts it in the way of those scouts traversing along the edge of the path.

The only place you wouldn't use an On-Ground Station is in a lawn. Which also means the time taken and the energy cost to the technician is also much less for the installation procedure.

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