

Bug-Wise

No. 5
March 19, 2009



Office: 1-662-325-2085

Protect Your Home From Termites: For most of us, our home is our largest single investment, and we want to keep it in good repair and protect it from threats. Fire and wind are two of the more obvious threats, and we use insurance and safety precautions to protect against these. Termites are a more insidious threat. They work slowly and are difficult to detect, but over time undetected termite infestations can cause tens of thousands of dollars in damage. If your home is made of wood or contains significant amounts of wood it is important to protect it from termites. It is rare for termites to completely destroy a building, but no one wants to have a fifty thousand dollar repair bill for termite damage to a home that is still under mortgage!

Termite control is best done preventively! You want to treat before termites get into the building. Termite treatments can be divided into two broad categories: pre-construction treatments, which are treatments applied at the time the building is being built, and post-construction treatments, which are treatments applied to an existing structure. This article focuses on post-construction termite protection and attempts to answer some of the most common questions that homeowners have about post-construction treatments.

What types of termite treatment options are available?: Currently there are two basic options for post-construction termite control: in-ground baits or liquid termiticides. The baits are a relatively recent innovation, with the liquid termiticides being the more conventional method of treatment.

In-ground baits consist of stations placed in the ground around the perimeter of the building and checked regularly for termite activity, usually every three months or so. Initially, the stations contain only wood or some other bait. They do not contain any insecticide. When/if termite activity is detected in a station the non-insecticide bait is replaced with bait containing a slow-acting insecticide or insect growth disruptor. Foraging workers carry this baited material back to the colony where it is shared with other colony members, eventually resulting in control.

Liquid termiticides are applied by trenching, rodding, and/or drilling around the building and treating with a liquid termiticide to create an insecticide barrier, approximately 1 foot wide and 1 foot deep, around the foundation of the building. The liquid termiticides on the market today are very effective and most provide many years of residual control of both eastern subterranean termites and Formosan termites. Of course any activity that disturbs this treated soil barrier will create a potential point of entry for termite infestation. Examples of such activities include: digging flower beds too near the building, piling mulch or leaves against the building, treated soil being washed away from building, untreated soil being washed against building, fire wood being left stacked against the building, untreated wood structures (trellis, planter box, steps, etc.) being added to building, and so on.

Which treatment option is best, the bait or the liquid termiticide?: Both the liquid termiticides and the in-ground baits are capable of providing effective, long-term termite control. The baits have the advantage of using far less total insecticide and of being able to provide control in environmentally sensitive or hard-to-treat situations. However, baits are much slower-acting than liquid termiticides, and it can take a year or longer to eliminate an active termite infestation using baits alone. Liquid termiticides offer quicker control with fewer service visits. One of the key advantages of liquid perimeter treatments is that, once properly applied, they will usually continue to provide years of effective termite control—even if the termite contract is not renewed. This is not true for the in-ground baiting method, which must be serviced routinely, usually every three months, in order to remain effective.

What liquid termiticides are used today and how long do they last?: Currently there are several active ingredients approved for use as liquid termiticides. These include fipronil (Termidor), imidacloprid (Premise), chlorfenapyr (Phantom), and several pyrethroid insecticides, such as bifenthrin (Talstar), cypermethrin (Prevail), and permethrin (Dragnet). Termiticides are subjected to rigorous, long-term testing by the USDA Forest Service at four field locations in the US. In general, products must provide 100% control for a minimum of five years in order to be labeled, but there have been some exceptions. As of the end of the 2008 testing season, the better termiticides have provided 100% control for seven or more years in the USDA Forest Service trials in Mississippi. But termiticides do break down over time, and even the best termiticide cannot provide protection if the treated soil barrier around the foundation is disturbed in some way.

What if I have Formosan termites?: Fortunately, although there are some key differences in the biology, behavior and damage potential of these two species (Formosans tend to form larger colonies and are generally more damaging), control options are similar. The insecticides and treatment methods used to control eastern subterranean termites will work equally well on Formosan termites. The only real difference is that Formosan termites are much more likely than eastern subterranean termites to have aerial colonies, relying on either their carton nest material or some plumbing or structural leak as a source of moisture. This means that they do not have to travel back to the soil to obtain moisture, and this means that they may not be controlled by a typical soil-applied termiticide barrier treatment.

It is still important to apply a liquid termiticide barrier treatment when treating for Formosan termites, but it is also important to treat any aerial colonies that may exist. This is usually done by using an insecticide foam to treat wall and ceiling voids where such colonies occur. Professional pest control technicians are aware of this tendency of Formosan termites to form aerial colonies and have equipment and experience needed to treat such colonies. However, aerial colonies are difficult to detect, and it is not practical to preventively treat an entire building for aerial colonies. It can take several repeat visits by the termite technician to find and eliminate all aerial Formosan colonies. This is one reason it is especially important to keep your termite contract in force if you live in an area where Formosan termites occur.

How will I know if my house is infested?: Termites work quietly inside walls, floors, and attics, and because of their secretive nature, a building can be infested for quite a long time before the problem is detected. This is why it is best to go ahead and take preventive action, rather than waiting until you have damage. Still, it is important to be aware of the signs of termite infestation, because even buildings that have been treated can become infested. Some of the most common signs of termite infestation are listed in the following table.

Signs of Termite Infestation

| Sign | Comments |
|---|---|
| You see swarmers emerge <u>inside</u> the house or you find dead swarmers on the floor or windowsill. | This is a sure sign the building has an active termite infestation. Start getting bids/inspections. |
| You see swarmers emerge <u>outside</u> from a stump, wood pile, or other source very near the building's foundation. | This may or may not mean that the building is infested, but it is definitely cause for further investigation. Get a professional inspection. If you do not know when the building was last treated, it would be a good idea to get it treated. |
| You see swarmers emerge <u>outside</u> from a stump, fallen log, pile of wood, etc. located well away (25 feet or more) from the building. | This is rarely cause for concern. It is normal for termites to be in these types of situations. Still, if you do not know when the building was last treated, this should serve as a reminder. |
| You find mud tubes traveling up the outside foundation wall, inner foundation wall, up support piers or plumbing under the house, etc. {Note that simply destroying these tubes will not control or deter the termites.} | Such tubes are usually a sure sign of termite infestation. Carefully break a 1 inch section of the tube and watch to see if you observe termites or if they repair the tube over the next few days. Get a professional inspection whether you see termites or not. |
| You notice a BB-sized spot of dried mud on an inside wall or ceiling of sheetrock, wood paneling, or other wall covering. | These are known as "pin-holes" in the pest control trade. They occur when termites accidentally cut an opening to the outside, which they promptly repair with mud because they do not like the light and air flow. Get a professional inspection. |
| You notice narrow, sunken, winding lines in wall paper, paint, or other surfaces. | This could be due to termite galleries located just beneath the surface. Note that termites do not eat the gypsum core in sheetrock, but they readily eat the outer cardboard covering. Get a professional inspection. |
| You notice odd-shaped formations of dried mud sprouting from walls, etc in the spring. | These are probably "swarm castles" built by Formosan termites in preparation for swarming. Start getting bids/inspections. |
| You encounter termite damage when removing wall paper, doing home repairs or remodeling. | If you actually see termites, you know this is an active infestation. If there is dried mud in the galleries, this is a sign of termite damage, but if no termites are present, this could be old damage from an infestation that was controlled at some time in the past. Get a professional inspection. |
| You notice subtle structural problems such as a sagging floor or roof or more obvious problems, like a broken door frame. | Of course this could be due to causes other than termites, but if you find damaged timbers and actually see termites in the damaged wood, you know this is an active infestation. Be aware that wood rot and other kinds of insects can also cause structural failures. Get a professional inspection. |

I found swarmers! Does this mean my house is infested with termites?: If the swarmers actually emerge inside the house, or if dead swarmers are found inside the house, then the home definitely has an active termite infestation. If swarmers are observed emerging just outside the house, within 10 feet or so of the foundation, then the home may be infested, but not necessarily. If the house has been properly treated, the swarmers could be coming from a stump or other nearby outside wood source. Termites are a natural and beneficial part of the forest ecosystem. They are present in every wooded environment in the state, including wooded home landscapes, and the observation of a swarm emerging from a stump or other site that is located some distance from the house is not cause for alarm. However, if you do not have a current termite contract and do not know when the building was last treated, seeing swarmers anywhere in the landscape is a good reminder that you need to have the building inspected.

I haven't seen any swarmers. Does this mean that my house is not infested?: Not necessarily. Observation of swarmers is only one means of discovering an infestation. By their very nature termite infestations are cryptic and difficult to detect. Although termite colonies swarm only one day a year, detection of swarmers is one of the most easily observed signs of infestation. Other signs of termite infestation include exposed mud tubes; pin holes in sheet rock, paneling, or other wood surfaces; sunken 'trails' in walls or ceilings, indicating the presence of termite tunnels located just below the surface; accumulations of soil on windowsills or along baseboards; and detection of damage to wood, books or other cellulose products.

What should I do if I observe a swarm in or near my house, or have some other reason to suspect an infestation? If you already have an active ‘termite contract’ with a pest control company, contact the company; tell them what you observed and where you observed it, and request a follow-up inspection. Depending on the contract, the company will usually provide any additional treatments that are needed at no additional cost. If you do not have a current ‘termite contract’ on your home, contact a local pest control company, inform them of what you have observed, and request an inspection, as well as a bid for any necessary treatment.

How much will it cost to have my home treated for termites?: Depending on the size of the home, the type of foundation, and how the home is constructed, costs of termite treatments can range from around \$800 to several thousand dollars. Mississippi has many high quality pest control companies, but the cost of treatments and the type of service can vary considerably among companies, and it is a good idea to get bids from several different companies.

Keep in mind that price and quality of service are not necessarily closely correlated, and the lowest bid may not always be the best bid. Also realize that there is a lot involved in treating for termites and quality service and treatment are not cheap. Be sure to ask questions and understand exactly what you are getting when you buy a treatment and ‘termite contract’. In addition to the original treatment cost, most companies charge an annual ‘renewal’ fee to keep the contract in place from year to year. The cost of an annual inspection is usually included in this renewal fee. Depending on the details of the contract and size of the home, renewal fees can range from around \$80 to several hundred dollars.

If my building sustains termite damage while under a contract, will the company pay for the repairs?: That depends on your contract. Most contracts today only provide for retreating the structure in the event that it becomes reinfested while under contract. But some companies still offer damage repair contracts as an additional option. Contracts that cover damage repair and re-treatment are usually more costly than those that only provide for retreatment. Be sure to read contracts carefully and understand what you are getting—before you commit.

Can I treat my home myself?: No! Treating a building for termites is not a do-it-yourself project! Most of the insecticides professional pest control companies use to treat termites are not available to the general public. This is especially true for the longer lasting, more effective products. Even if the insecticides were available, few homeowners have the training and specialized equipment needed to properly apply termite treatments. Having a building professionally treated for termites is costly, but it is far less costly than having to repair major termite damage that occurs due to an ineffective do-it-yourself treatment.

Should I pay the renewal fee each year?: After you have spent the money for the initial treatment, it is usually a good idea to pay the renewal fee each year to keep your contract in force and get the annual inspection. But read your contract carefully to see exactly what protection and services you are getting for the renewal fee and how much the renewal fee is. Then make an informed decision based on the potential risks and benefits. You definitely need to pay the annual renewal fee and keep the contract in force when using the in-ground baiting method, because termite protection ceases as soon as service visits cease. It is also an especially good idea to keep your contract in force in areas where Formosan termites are present because of their more aggressive foraging behavior and tendency to establish aerial colonies.

I just found termites in my house. How much time do I have to do something?: If your home is infested with termites, it is critical, but not urgent, that you have the home treated to eliminate the infestation. It takes several years for a colony of termites to grow large enough to invade a building and produce swarmers. If you have found an infestation or had a swarm emerge in or near your house, the colony has been there for several years. Taking a month or two to get the home inspected and get bids from several companies won’t result in that much additional damage, and it may result in obtaining a better treatment at a lower price.

Blake Layton, Extension Entomology Specialist

This information is for educational and preliminary planning purposes only. Brand names mentioned in this publication are used as examples only. No endorsement of these products is intended. Other appropriately labeled products containing similar active ingredients should provide similar levels of control. Always read and follow the insecticide label.