
EXTERRA
EXTERRA™
TERMITE INTERCEPTION
AND BAITING SYSTEM

The Termite Management Revolution

Your home has subterranean termites. Or you realize there's a good chance that it will if it's not properly protected. But the only way to stop termites is an invasive process that requires the application of hundreds of gallons of toxic spray under and around your home. Right?

Not anymore. Imagine all this being replaced by the application in a closed and locked station of a termite bait containing less than one ounce of an active ingredient less toxic than table salt. Welcome to the future of termite control – termite baiting with Exterra.

Until recently, the almost exclusively used method of termite control was the application of a chemical termite barrier. The application of such a barrier to your home would typically involve spraying large volumes of toxic and environmentally persistent chemicals around and under its foundation in close proximity to you and your family. But Exterra radically changes all that.

And as important as Exterra's environment friendly features are, they're just a big bonus. Exterra's greatest advantage compared to chemical barriers is its ability to eliminate the actual source of your termite problem - the termite colony itself.

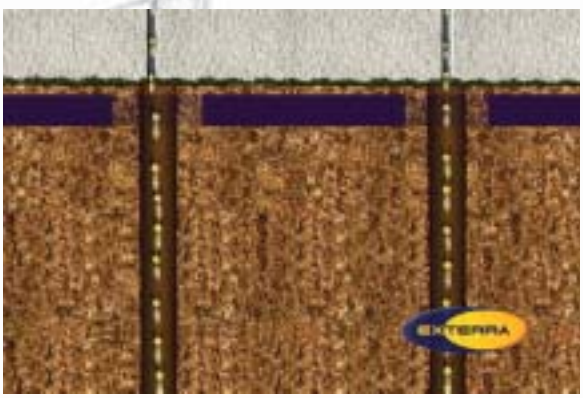
Chemical Barriers - A Primer

Subterranean termites live in the ground and are commonly located under and around buildings. This is quite natural. Also natural is their appetite for wood, which they are designed by nature to consume and digest. Termites and their insatiable appetite for wood create a problem only when they enter buildings in search of a new food source.

Termites The Hidden Invaders

Termite barriers handle the termites-looking-for-wood-in-the-wrong-place problem by either repelling termites that attempt to cross the barrier or by killing termites that come in contact with the barrier. To properly protect a building, a barrier must be placed under and around the entire foundation of the building where termites will encounter it as they try to enter from beneath (which they must do since the form of termites that eat wood cannot fly). To be totally effective the barrier must be applied under and around the entire building foundation at a high enough concentration that every possible point of potential termite entry into the building is protected. But what happens if the barrier is not continuous or is not strong enough? Good question. But you might not like the answer.

Even the most carefully applied barrier treatments do not always form continuous and uniformly strong barriers between the building and the termite infested earth beneath them. This is because of the tedious nature of the application process and the difficulty of placing a barrier beneath an existing building. Almost inevitably, gaps or breaks are left in the barrier through which termites, which are always looking for an opening and a new meal, can invade. And variations can occur in the strength of the barrier. For example, forming a continuous and uniformly strong barrier under a concrete slab floor is rarely if ever possible. This means that if a slab floor cracks at a point at which the barrier is too weak or no barrier has been applied, termites can enter the building unimpeded and often undetected until they have done large amounts of damage. And termites can penetrate a crack as narrow as a penny.



Termites Taking Advantage of Gaps in a Barrier

Gaps can be created in barriers when they are physically disturbed, weakened or simply wear out. For example, earth treated with a barrier toxicant may be disturbed or washed away. Even if a barrier is continuous and uniformly strong when applied, the strength of the barrier will naturally decrease over time as the toxicant naturally breaks down. Also, currently available barrier treatment products are not as long lasting as older barrier treatment chemicals that are now banned. In other words, the really strong, long lasting stuff is gone.

In order to spread the barrier under the building foundation, it is often necessary to drill a large number of barrier injection holes into the foundation. The barrier application process can sometimes even involve the removal of finished interior surfaces such as flooring and molding. Needless to say, termite barrier toxicants are toxic to more than just termites. This means that an incorrectly or carelessly applied barrier treatment can affect more than just the termites under your home.

Barrier Application Preparation

Don't Just Exclude Termites- Eliminate Them

As difficult as they can be to apply properly, termite barriers are still only a passive approach to termite control. This is because termites must attempt to enter a building protected by a barrier to be affected by it. In other words, barriers simply lay in wait for termite attacks - slowly degrading day by day.

But Exterra is a proactive, go get 'em before they get your home, form of termite control. And boy, does Exterra go all out. Exterra doesn't just kill termites when they try to enter your home. It can actually eliminate the termite nest or colony and all its members right in the ground where it lives. Even before it has a chance to think about your home as a food source. Big difference you'll certainly agree. But how does Exterra provide such a radically more satisfactory and satisfying solution to such an age old problem?

Successful Termite Baiting- A Primer

By feeding a termite bait to the termite colony that kills all of its members. Simple. Sounding that is. But it's actually not simple at all. In fact it can be very difficult to kill an entire colony of termites, whose members can number in the millions. This is because of the secretive nature of termites and their colony-protective instincts that cause them to avoid harmful substances. However Exterra has been carefully designed to defeat the termite colony's protective instincts and eliminate every one of its tremendous number of members. But how does Exterra do this? By addressing the three important keys to termite baiting success.

Termites Exchanging Food in the Colony

Key One - Intercepting Termites

To bait termites effectively, they must first be aggregated or gathered at selected points. Exterra does this by taking advantage of the fact that termites continually forage for food in the earth around their nest. Depending on the termite species, points of termite aggregation may be located both in the ground around the building and inside the building above ground, if termites can be located there. If a food substance is placed at each of these selected points and there are termite colonies nearby, they will eventually find and begin to consume the food at one or more of these points.

For this reason, the first step in the termite baiting process is the placement of specially designed Exterra Stations at carefully selected points in the ground around the outside of your building and, when necessary, inside and above ground. Pieces of non-toxic food that termites are known to prefer to eat are placed in the Stations at the time of Station installation. This substance is referred to as an Interceptor. The Exterra Station is designed to help make sure that termites searching for food in the area of the Station are able to easily find and begin feeding on the Interceptors.

Exterra In-Ground Stations in Place

Termites that find the Interceptors and begin feeding in the Station are referred to as having been intercepted. Once termites have been intercepted, the actual process of baiting them at the infested Stations begins. Sounds simple, but this is the easy part.

Key Two – Avoiding Termite Disturbance

The non-toxic Interceptors do not kill termites. They only establish termite feeding in the Station. Bait is added to the Station after termites are found feeding on the Interceptors. However feeding termites do not like to be disturbed and may even leave the Station if disturbed. But inspecting the Station for termite attack or adding bait means termites have to be disturbed, right? Not with Exterra.

The Exterra Interception and Baiting Method

Some termite baiting systems disturb termites feeding in their stations whenever they are inspected or baited. This is because their station design requires that their interceptors must be removed and reinserted during inspections and removed and replaced with bait when the station is actually baited. With Exterra this is not the case. Little or no disturbance at any time. Period. But how?

Exterra Station Unique Design

The unique open cavity design of the Exterra In-ground Station allows the Interceptors lining its perimeter to be visually inspected during regular inspections for termite attack without being removed from the Station. And the Interceptors are also not removed or disturbed during the bait application process. Instead of removing the Interceptors to replace them with bait at this critical moment in the baiting process like some other systems, the open cavity Exterra Station design allows bait to be added to the Station without removing the Interceptors. During baiting the open cavity is filled with bait where it fully contacts the exposed inner surfaces of the termite infested Interceptors. Because the bait used with Exterra is preferred by termites even more than the Interceptors, they quickly transfer from feeding on the Interceptors to feeding on the bait. This low disturbance Station design and baiting method used with Exterra is so revolutionary, its patented.

Above-ground Stations

If termites are actively attacking your home, these termites can often be dealt with using Above-ground Stations in combination with In-ground Stations. Exterra Above-ground Stations can be invaluable because they allow some termite problems to be dealt with more quickly, right at the point of termite attack - right now. This can mean a significant decrease in the time between Exterra System installation and colony elimination.

Key Three - Choosing The Right Toxicant

Almost any type of insecticide will kill termites if they consume it. However few toxicants can reliably eliminate a termite colony. Why is this the case? Because most types of toxicants are quick acting, meaning they kill an insect soon after the insect contacts or consumes it. A quick acting toxicant placed in a termite bait would cause the immediate death of any termites that found and started consuming the bait. Other colony members of the now dead termites arriving at the bait looking for food would discover their dead nest mates. These newly arriving termites would quickly realize that the bait was causing the death of their nest mates. These termites and all their other nest mates would then instinctively avoid consuming the bait. This would mean the bait had killed some termites but had failed to eliminate the colony. How can this colony-protective instinct be successfully defeated?

Exterra Above-Ground Station In Place

Termites Avoiding a Quick-Acting Toxicant Bait

To date the best strategy developed is to select a toxicant for use in the bait which acts slowly. If a toxicant acts slowly enough, termites consuming the toxicant containing bait are able to leave the Station before being affected by the toxicant. Optimally, these termites are able to return to the colony where in keeping with their colony duties they deliver food back to other colony members. Food that just happens to be toxicant-containing bait. If the toxicant in the bait works slowly enough, the colony is unable to learn to avoid eating the bait because they can't connect the death of more and more colony members with the consumption of the bait. The slow (but not too slow) speed of action of the termite bait toxicant used with Exterra (plus other attributes) makes it an optimal termite bait toxicant.

Labyrinth Termite Bait

Large animals have bony interior skeletons. But insects, including termites, have an exterior skeleton, referred to as an exoskeleton. As they grow, termites must shed their exoskeleton to form a new replacement exoskeleton. This exoskeleton replacement process is called molting. A failure to complete the molting process is always lethal to termites. This means that a toxicant that stopped termites from successfully completing the molting process would be a reliable termite bait toxicant. The toxicant contained in Labyrinth Termite Bait, the bait component of Exterra, has this exact action. But how does it act slowly enough to eliminate the colony?

After consuming Labyrinth, a termite is killed when it molts. However, not all of the termites in a colony molt at the same time. Because some termites in the colony molt sooner and others molt later, the termites die at different times. As more and more colony members that have consumed Labyrinth molt and die, the number of surviving colony members is whittled down. Finally when only a few colony members are left, the colony normally collapses and is eliminated. Because the whittling down process occurs slowly, it is almost impossible for the then surviving colony members to identify and avoid the substance that is causing the slow, gradual loss of other colony members.

Kills Slowly But Stops Damage Quickly

Labyrinth can take several months or more to completely eliminate a termite colony. However, it can drastically reduce the rate of wood consumption of a colony within six to eight weeks after the colony starts consuming Labyrinth. This is because while termites may take several months to molt and die after consuming Labyrinth, its active ingredient has other (too complicated to explain here) effects on termites that begin within a few weeks of when termites first start to consume it. These effects interrupt a termite's ability to consume wood. This means the amount of damage a termite colony is doing to a building it is infesting is reduced well before it actually eliminates the colony.

High Powered Active Ingredient – Low in Toxicity

The active ingredient used in Labyrinth is very powerful. So powerful that it needs to be present in Labyrinth only at a very low concentration. This concentration is so low that the amount of Labyrinth needed to completely fill one Exterra Station contains less than one ounce of toxicant. But the active ingredient is low in toxicity to humans.

But how can the active ingredient in Labyrinth be so effective in killing termites yet so low in toxicity to humans? Because the active ingredient has an action only against animals that molt and humans do not molt! As mentioned earlier, the active ingredient in its pure, concentrated form is less toxic than table salt.

Termites Consuming Labyrinth Termite Bait

Attractive Ingredients = Superior Results

No matter how well a termite baiting system is designed or how effective an active ingredient it uses, if termites won't eat the bait, it won't work. That's why extensive research was conducted to optimise Labyrinth to the appetites of termites found in the US. Termites simply can't resist Labyrinth. Too bad for them but good for you and your home.

Why Keeping Exterra At Work is Important

Labyrinth can eliminate all the termite colonies under and around a building. However, after a colony is eliminated, ground areas that the eliminated colonies previously occupied may be invaded by new termite colonies. This is why the interception and baiting process must be continued at your building even after the termite colonies active under it now are eliminated.

Reduced Environmental Impact

Termite colony elimination is the most important advantage of Exterra. However an important added bonus of using Exterra is the significant reduction in the amount of toxicant necessary to manage termites at a site when compared to barrier treatments. Just how large are these potential reductions? Let's take an example.

Some barrier treatments can involve the application of more than 10 pounds of actual chemical toxicant mixed with hundreds of gallons of water around a typical house. But Exterra replaces all this with a few ounces of active ingredient. In some situations, using Exterra in place of a barrier chemical product can result in up to a 10,000 fold reduction in the amount of toxicant needed to control termites at a site. Real reductions in exposure of applicators and the environment to termite control toxicants can be achieved when Exterra is used in place of a chemical barrier treatment. Good for you, good for your family and good for the environment.

EXTERRA IN ACTION

You've got termites and you want them gone. Here's how Exterra does it.

Exterra gets to work in-ground...

To the right is a house under attack by subterranean termites. Termites have been attacking this house from some time. This is a job for Exterra.

The first step of using Exterra is to install In-ground Stations around the building at points near where termites are likely to be foraging in the ground for food. The Stations contain non-toxic food preferred by termites. This food is called Interceptors.

The Stations are inspected at regular intervals for evidence that termites have found some of the Stations and are feeding on the Interceptors.

...and above-ground quickly.

Here we see an installed Above-ground Station under termite attack. Above-ground Stations are not always installed however in certain circumstances they can be very useful. Above-ground Stations can speed up the process of colony elimination.

Above-ground Stations are used only when a point of termite attack in the building can be located. Bait is placed in the Station when it is installed. After the termite colony is eliminated, Above-ground stations are removed.

Termites have been intercepted...

Foraging termites have found one of the In-ground Stations and are feeding on the Interceptors. Notice how the termites have built tunnels in the earth that now reach the Station. This is their pathway back to the colony.

The Exterra Station is designed to both speed the process of termites finding the Station and to increase the percentage of installed Stations at which termites are intercepted.

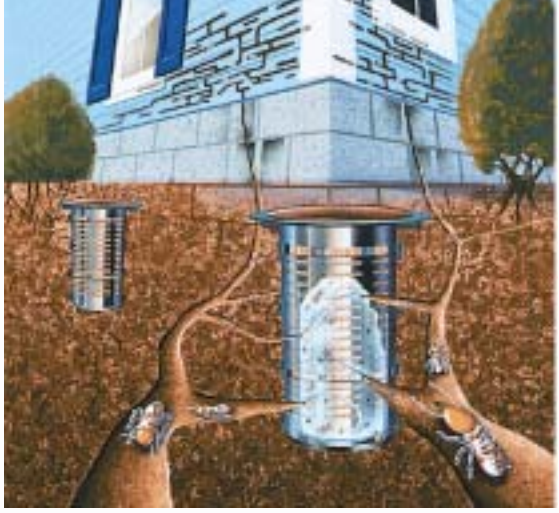
This is made possible because of the arrangement of the Interceptors in the Station and the high preference termites have for the wood used to form the Interceptors.

...so it's time to put Labyrinth to work.

To the right we see the Station after it has been filled with Labyrinth Termite Bait. The Interceptors have been omitted in this view but are actually still in place.

The termites were feeding on the Interceptors but have now switched to feeding on the Labyrinth Termite Bait.

The termites made this switch because they prefer to eat Labyrinth Termite Bait even more than they prefer to consume the Interceptors. This is because Labyrinth is designed to be highly preferred by termites.



Termites can't resist Labyrinth which leads to the colony's quick demise.

Here we see both Stations have been located by termites. The Stations have been replenished with Labyrinth Termite Bait several times.

Labyrinth has severely affected the termite colony. The best evidence of this is the small number of termites left feeding. These few remaining termites have been severely affected and are in no shape to cause much more damage to the building.

Soon these few termites will be gone as Labyrinth succeeds in completely eliminating the colony and stopping further damage to the building.

Above-ground stations are then removed...

...but In-ground stations stay at work.

In the left and right views above, the termites have been eliminated from the building and the earth beneath it. The Above-ground Station has been removed and will not be replaced. The In-ground Stations in which termites were previously feeding will now be prepared to intercept any new colonies that may occupy the area that was once occupied by the now eliminated termite colony.