

Subterranean Termite Management: *Still* an Ongoing Process

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Five years after a group of researchers created IMOST — a ground-breaking approach to Integrated Management Of Subterranean Termites — the playing field has changed a bit, but the goal remains.

Five years ago, *Pest Control* published an article titled “Termite Management is an Ongoing Process” (February 2002, page 36). The article presented the concept of bringing termite control into the professional realm by involving the termite management specialist and customer in a dynamic process, not a one-sided “event” of termite treatment. Practicing the process of termite management was described from a researcher perspective as Integrated Management of Subterranean Termites (IMOST).

What follows is an update of that 2002 article, because in the past five years the termite management landscape has changed. This article describes a professional approach to termite management that moves the termite control business from a “jobber” mentality into the realm of service contract work.

THE CUSTOMER’S ROLE — COOPERATION

Termite management is a difficult, demanding and long-term proposition. The underlying principle of the IMOST model is to notify and educate the well-informed customer that he or she is a cooperative partner with responsibilities as a property owner — building maintenance, water-flow management, moisture control and landscaping — in the ongoing process of termite management.

To enhance what the customer does to protect the structure, the pest management professional (PMP) has a highlighted role in the IMOST partnership: expertise in termite biology/behavior and access to the most effective tools, tactics and technology. The PMP understands that the cryptic habits of termites in combination with problematic construction features can compromise accurate verification of the presence and/or absence of termites in any structure. The IMOST professional also realizes the site-specific nature of each account and designs a management program — an action plan — only after a rigorous and thorough inspection of the property.

TAILOR YOUR INSPECTION

To do a proper inspection, one must have an understanding of moisture management, construction and landscape practices, termite biology, and the tools and tactics available to the industry, as well as knowledge of regulatory standards and liability issues. The inspection is the foundation of IMOST and must not be short-changed.

The process must begin with a thorough inspection of the *property* — not just a building. In your inspection report, identify structural or landscape features that could provide termites with their biological needs — moisture and food — along with recommendations for altering those conditions.



Identify those areas that could provide termites access to a structure and, specifically, note those areas that cannot be visually inspected. Inform the customer of these locations and suggest potential remedies (such as bath trap access doors, removable baseboards or inspection ports in soil back-filled porches). In addition, identify potential moisture problems and suggest remedies altering those conducive conditions.

MORE ON MOISTURE

Moisture reduction is critical for effective termite management because the PMP understands the role moisture plays in termite biology. Document moisture-related conditions in the inspection report. Your recommendations should indicate the customer's cooperative responsibility in the process of termite management; and could be as simple as "contact a reputable contractor in your area."

An inspection involving moisture problems relative to their potential as a termite management issue operates under the premise that all above-ground wood must be kept dry, in addition to minimizing sources of moisture in the landscape. Landscape water drainage should be directed away from the foundation, including that from sprinkler systems and roof run-off.

The ideal situation is to provide a "moisture-free zone" for several feet outside the entire foundation. In this way,

the soil immediately adjacent to the building provides a less-than-suitable habitat that discourages termite foraging and survival.

Damp or wet areas allow termites to continue their food-searching activity, thereby increasing the probability that termites foraging for food will identify elements of construction as a feeding site.

Knowing that termites search for food by following physical and chemical guidelines can help identify those areas of a particular construction type that are most likely to be termite entry points into a structure.

For example, termites searching for food conserve energy by following cracks and crevices because these features provide half of the construction of a tunnel — all the termites have to do is finish two sides to make a finished gallery. In light of this fact, concentrate inspection and treatment efforts along cold joints, expansion joints, utility access points in slabs, cracked slab and foundation elements, and other features of construction where two structural elements come together to form a crack or crevice.

Knowledge of termite foraging behavior also provides an easy explanation to the homeowner why an inspection port in a porch back-filled with soil or bath trap is required for effective and timely control. For example, soil-filled porches provide not only cracks and crevices but damp, dark conditions that promote termite foraging

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activity — not to mention the potential for wood scraps and other fill materials that could influence treatment efforts. Treatments to a soil-filled porch are conducted blindfolded unless there is an access door.

Therefore, only after a thorough inspection and detailed inspection report can an effective, knowledge-based action plan be developed to carry the IMOST PMP into the treatment phase.

TREATMENT OPTIONS

It must be reiterated that the PMP uses the inspection report to explain the constraints presented by conditions outside of his or her professional control — such as landscape and construction details.

The inspection report also informs the customer that the process of termite management is site-specific, and the PMP is using his or her understanding of the pests' biological requirements as the foundation for the decision-making process involved in developing an action plan, or the best combination of treatment tactics and tools suitable for that particular account.

IMOST practitioners also realize that there are no “silver bullets,” and that no single treatment option will work every time on every account. They also realize,

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because they are including the property owner in the process, that a personalized approach helps the consumer understand the role of a termite management professional (More to the point: They are neither magicians nor miracle-workers).

The PMP also should be prepared to temper traditional claims regarding termite management in phone directory ads or sales presentations.

Solutions can be structure-based and/or soil-based. Sometimes the same chemistry can be used in a soil- and structure-based action plan.

Termite treatment strategies can be aimed at impeding the termites' search for food, like moisture management or exclusionary barriers; or they can be dependent on maintaining unaltered termite behavior, like baits. Understanding the various treatment options, and their influence on termite biology, is the value-added reason for a homeowner to employ the termite management professional. PMPs should sell their knowledge, expertise, and access to a variety of tools and tactics.

TERMITE EXCLUSION

Structure-based treatment options include topical application of materials to wood that discourage termite feeding. Termites can be denied food inside a structure by making the wood and wood by-products unpalatable through treatment.

Pressure-treated wood or non-cellulose building

materials are also choices in a non-palatable-food approach to termite control. Yet, the PMP knows that using non-cellulose building materials does not discourage termite foraging activity, and termites may still make their presence known as they search for food. For example, concrete buildings can have termite infestations in their wood flooring or built-in bookcases.

Termite management can involve altering termite behavior using other means. Termites could be prevented from finding wooden structural components by employing a physical or chemical barrier.

Soil-based treatments that can exclude termites from structures include a variety of physical barriers, such as chemically treated plastics, particle barriers (sand, crushed rock, glass beads) or stainless steel mesh. Termites can also be excluded from a structure using soil termiticides.

Termite activity may be observed inside an area treated with certain ("nonrepellent") termiticides. This does not mean that the treatment failed. These termiticides are generally slow-acting, and therefore termites could continue to tunnel through the treatment before they are affected. The structure may still be "protected" from infestation yet verifying this requires timely inspections after a 'nonrepellent' soil termiticide treatment event.

The PMP understands that all of the aforementioned treatment tactics do not appreciably affect termite populations — they simply keep termites away from the

Emphasizing Inspection, Not Treatment

Non-invasive, objective inspection tools and procedures to identify and delimit termite populations are now being investigated and developed in termite research programs across the country.

These and other powerful new tools

will be ready in this decade, but to be properly used in a realistic IMOST program, the termite management industry must be prepared.

The first step is to eliminate termite treatment as the "main event" of the termite control business, and

elevate inspection and customer education as the cornerstones of the *process* of protecting structures from subterranean termite infestations. This can be accomplished by employing an ongoing, management-based service model.

structure by altering their ability to search for, locate and recruit to food. Therefore termites will still be present on the property, to continue doing whatever termites do during their life span. This is neither a good nor bad thing, but understanding how a treatment tactic affects the biology and behavior of the pest is important in the process of termite management.

POPULATION REDUCTION

Termite management also can involve the use of population reduction tactics like termite baits.

Bait tactics also rely on unaltered termite foraging activity. They are a population management tool intended to reduce or eliminate termites found foraging within the vicinity of a structure, and therefore protect it.

However, it must be explained to the property owner that certain delayed-action treatment tactics, like baits, do not provide immediate results.

Again, timely inspection of the structure is required to verify the relationship between reduced termite populations and protection of that structure from infestation.

IMOST IN ACTION

The process of termite management is realized after the initial inspection, when the PMP and property owner discuss and agree to an action plan. This is followed by repeated inspections to verify the infestation-related status of the structure.

If termite activity is discovered during subsequent inspections, the PMP again presents the homeowner with a set of treatment strategies (a modification of the original action plan), conducts those treatments and continues an ongoing inspection program.

Practicing IMOST requires acknowledging that a single treatment tactic may not always address all the factors that allow termites to continue an infestation, and that termite populations will, over time, continue to pose the threat of infestation — to the point that other options may have to be tried in the future.

The word “re-treat” disappears from the vocabulary of the termite management professional. The difference comes in what the PMP tells the customer, and how they approach the details of maintaining an on-going termite management program. **PC**



Authors' Notes: This article is dedicated to Dr. Harry N. Howell, Jr., born Aug. 28, 1944, transitioned June 23, 2005, from complications following a brain aneurism. Dr. Howell's engagement in the discussions that culminated in this article was noteworthy as were his contributions to urban pest management. He will be missed dearly. The article is a compilation of research philosophies and does not necessarily entirely represent the personal opinions of each of the contributing authors, which include:

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