new ways to Keep Trees Formosan-free

By James W. Austin and Roger E. Gold • Contributors

Protecting urban infrastructure from destructive termites such as the Formosan subterranean termite (Coptotermes formosanus) has been an ongoing battle in Texas. With more than 27 counties now documented with Formosan termites, the battle against this opponent has largely been focused on urban dwellings. However, very few people have stopped to focus on the impact Formosan termites are having on urban forests.

Researchers at Texas A&M University and the U.S. Department of Agriculture-Agricultural Research Service (USDA-ARS) Operation Full Stop program, headquartered out of New Orleans, are working together with private industry, and pest management professionals (PMPs) to identify new tactics to both defeat and prevent this challenging opponent.

Honing in
The project’s area-wide control efforts are being evaluated in Aransas County, with hopeful expansion to additional counties. The city of Rockport, Texas, was selected as a research site because the introduction dynamics of Formosan termites there were better documented than in virtually any other county.

In addition, the city of Rockport was in the process of drafting municipal legislation that dealt with corrective measures that might be enforced when Formosan-infested trees, mulch or structural timbers have been discovered.

Discarded Formosan termite-infested materials placed into local landfills are an important source of infestation. Many cities in Texas, and across the Gulf region, have unwittingly contributed to infestations through careless disposal of infested wood materials, particularly recycled railroad ties and wooden pallets. When present, Formosan termites will aggressively consume the heartwood of living trees, structurally weakening them and creating a safety hazard that goes unrecognized until a strong windstorm topples the tree.

This was most evident when Hurricane Rita hit Texas in 2005. In Beaumont, more than 40 percent of felled trees marked for local landfills by the Army Corps of Engineers were infested with Formosan termites. Their present locations in landfills remain unknown.

In many instances, these trees are combined with other wood debris and taken to adjacent county landfills or remediation sites, where termites will tunnel out of infestations through careless disposal of infested wood materials, particularly recycled railroad ties and wooden pallets. When present, Formosan termites will aggressively consume the heartwood of living trees, structurally weakening them and creating a safety hazard that goes unrecognized until a strong windstorm topples the tree.

Researchers investigate how to protect high-value trees from Formosan termites in the Lone Star State.
in the process of with corrective Formosan-infested trees discovered, materials placed of infestation. region, have contributed to trow careless fested wood particularly recycled nd wooden pul-
}presentation, Formosan aggressively con-
twood of living rially weakening as unrecognized 

- Rita hit Texas cent of felled my Corps of termites. Their nown, 

ed trees and establish themselves in the immediate area. In other instances, reproductive alates will swarm to adjacent trees and establish arboreal nests, oftentimes from pruning scars on large mature hardwoods, their favored food sources. Many of these trees have tremendous value, whether for historic reasons or because of their added value to properties where they have been planted.

**Case in Point**

One such instance of this was in Baytown, Texas. Its entire history is tied to land deeded to the city from a private citizen that requested his family's contribution be remembered by preservation and memorial of an oak tree.

This tree was determined to be infested with Formosan termites in 2006, and through coordinated efforts by Texas A&M, the city of Baytown, the Texas Forest Service, and private industry, the tree was saved from Formosan termites.

Clint May and his father Pat of Coastal Exterminators volunteered their time and effort to assist with remedial control measures on the tree. The tree was baited with in-ground and above-ground bait stations using Sentricon ESP and AG technologies, donated by DowAgroSciences.

After five months of continuous feeding and monitoring, Formosan termites were successfully eliminated from this tree. Following this, the tree was drilled and treated with Termidor, donated by BASF Professional Products as a preventative strategy.

While the efficacy of termiticide treatments into trees requires additional testing and evaluation, results from Texas A&M have demonstrated 100 percent control of urban dwellings treated with Termidor applied to soils for Formosan termites (and other subterranean termite species) in Texas after eight years of annual inspection and chemical analysis. Further evaluations of other active ingredients for tree applications are anticipated in the future. Results from similar applications in New Orleans have shown relatively good efficacy for treatment of trees with both imidacloprid (Premise, from Bayer Environmental Science) and with other novel chemistries currently under development.

Many chemical companies generally frown on combination approaches to controlling any pest. Simply put, they want to believe that their chemical or technology is singularly responsible for control or elimination. This continued on next page
Keep Trees Formosan-free

is counter to everything we know in an integrated pest management (IPM) approach. When used in combination, these technologies enhance our ability to preserve and protect urban forests, and this creates an entirely new niche market for many PMPs who are willing to combat this difficult pest.

Once considered the bane of “tree-huggers” existence, PMPs are now becoming environmentalists’ greatest ally, protecting urban forests from Formosan termites one tree at a time.

Teamwork is Key

Coordination with municipal governments and homeowner associations has proven to be essential when attempting area-wide control efforts. Access to areas that can be vigorously and systematically evaluated is essential to assess the long-term impact through targeted control efforts such as these.

Formosan termites can be managed, and area-wide control can become a reality if there is a commitment by all interested parties. Municipal regulations at the local city level are one of the most important ways that this may be achieved. The legislation currently being considered by the city of Rockport is the first of its kind in Texas.

Legislation at the state level is also helpful, but it must be properly funded and sustained. Currently in the state of Texas, there is a Formosan quarantine that the public knows virtually nothing about. Unfortunately, there is no state funding for termite research, education or training (of inspection officials) on this problem, and the areas of Formosan infestation have continued to increase.

If it were not for federal financial support for Formosan termite research, through the USDA, there would be virtually no funding at all in the state of Texas for this important pest. For this reason, PMPs who operate in these areas have a real opportunity to rethink how they address their termite control bids to their customers.
Money Might Grow on Trees, After All

If you're in a Formosan termite-prone area, start looking at the landscape. You need to think more broadly and address control in trees at these accounts, labor costs for monitoring, and treatment costs for disposal of infested timbers.

There is tremendous interest from homeowners and businesses in protecting high value trees. This directly translates to possible niche marketing of tree treatments. It also has the ancillary benefit of actually attempting population management (through baiting scenarios) while preserving and protecting both urban forests and structures alike, with conventional and non-conventional applications.

Most homeowners are concerned for the health and protection of high-value trees on their properties. This creates an opportunity for PMPs to increase their profits for added-services in Formosan termite affected areas, while providing a more thorough and comprehensive control program for their customers.

Quite often PMPs get focused on protecting the structure without giving enough concern or effort toward addressing protection of their customer's trees. If more PMPs embrace this approach, there will be untold benefits to whole communities by the concerted population reduction of Formosan termites while simultaneously protecting future invasions into adjacent structures.

The bottom line is that this is good for your profits, better for your customers, and better for everyone living in areas where Formosan termites are present. PMP

As a Pestmaster Franchise, you'll benefit from:
- National Contracts
- License Assistance
- Discounted Group Insurance
- Name Recognition
- Protected Geographical Area
- Expanded Customer Base
- Volume Buying Power
- Education