

Borates to the Rescue: Treated Structural System saves the day

By Tarun Bhatia

In the *Invasion of the Body Snatchers*, a science fiction classic, creatures from outer space take over the planet, one person at a time. In the Southern United States, creatures from the South Pacific are threatening to do the same, one house at a time. They're Formosan subterranean termites, they're voracious, and they're public enemy number one in an astonishingly expensive war against wooden homes.

With the advent of more stringent environmental regulations in the United States, many traditional treatments to protect homes have been banned. But, like any proper story about the battle of good and evil, this one has a happy ending: a safe, environmentally-compatible solution called the Treated Structural System (TSS).

At first glance, it may seem that the best way to stop termite infestation is to build houses out of something termites don't like to eat. But then we all lose. Research by organizations including the Building Research Establishment in the United Kingdom and the Department of Agriculture in the United States shows that wood has the best environmental attributes among all building materials. In fact, trees' ability to absorb carbon dioxide and emit oxygen make wood the only building material that has a positive impact on the environment. However, wood as a construction material also has a downside - its vulnerability to organisms such as termites and decay fungi.

The extent of the problem is easy to envision. Just pick up a building code in the U.S. and you'll see two geographical maps - a termite infestation probability map and a decay probability map. We estimate that nearly half of the 1.5 million new homes built each year in the U.S. are at risk of significant termite and decay damage. The devastation can be tremendous and widespread: homeowners stand to lose thousands of dollars - not to mention their peace of mind; builders face increased liability; and we all pay the price in the form of higher insurance rates and less durable structures.

Invasion of the Homewreckers

The National Institute of Building Sciences estimates that it costs U.S. homeowners more than two billion dollars each year to replace wood that has been severely damaged by decay fungi and termite attack. This tally was taken in 1993 and has been growing ever since. The damage occurs because many homes are improperly protected. Often a chemical barrier (sometimes a physical barrier) at the base of the house constitutes the only shield between the house and termites that nest in the soil. But some pests - drywood and Formosan subterranean termites, wood boring beetles and decay fungi - thrive above-ground and are unaffected by these barriers. On top of that, most chemical soil barriers degrade in only a few years and are easily corrupted during the construction process or even by tasks like gardening.

Borates to the Rescue

The best solution is to go beyond soil barriers to treating the wood itself. This approach has been successful for more than 50 years in New Zealand, and is required by building codes in Hawaii where Formosan subterranean termites run rampant. The key is to protect the structural and hidden components of the house where catastrophic and costly damage can occur.

To make this solution possible, Borax has teamed with two wood superheroes - Osmose, the leading chemical supplier to the wood preservation industry, who provides borate-

treated lumber through its many licensees; and, L-P Corporation, the world's largest producer of oriented strand board, who incorporates borates into some of their structural panel products. Borax brings the borates to the mix: Timbor® Industrial (disodium octaborate tetrahydrate) for lumber and plywood, and Composibor® (zinc borate) for engineered wood products such as oriented strand board. Look for borate-treated wood products under the SmartGuard™ brand name.

The Treated Structural System combines borate-treated building components with ground line barriers and the services of professional pest control operators to protect wooden components throughout the house. The price tag for this integrated protection is a one-time fee that adds only two percent to the total cost of building a new home.

With the Treated Structural System comes systematic peace of mind. Homeowners' most precious investment is protected from termite and decay damage for years to come, and we all benefit from sustained reliance on the most environ-mentally-friendly building material on the market. Another victory for planet earth!

For more information, please contact Tarun Bhatia at (1) 661 287 6055 (United States).

TSS VS. TERMITES THE SCORE

0:	Number of equally safe, effective alternatives to TSS
3:	Milligrams of boron in a healthy human diet
150:	Annual rainfall, in inches, at test sites chosen to ensure that borate-treated wood remains effective in all weather conditions
45:	Percent of all new homes in the United States being built in termite and decay zones
50:	Number of years borates have been used to successfully zap termites in New Zealand
1,000:	Pounds of wood a Formosan termite colony consumes per year
3,000:	Dollars the average homeowner will pay for TSS to prevent damage.
11,400:	Dollars the average homeowner will pay to repair a home damaged by Formosan termites