While fire is a more recognizable harm to North American homes today, termites actually account for more property damage annually. One particularly hearty strain of termite, the Formosan subterranean termite (FST), is ripping through homes and trees in southern Louisiana, neighboring parts of Texas, and surrounding Gulf states of Mississippi, Alabama, and Florida thoroughly devastating old and new homes alike. The FST has also been detected in Georgia, South Carolina, North Carolina, Tennessee, and has had a presence in Hawaii for over 50 years.

A native of China, Formosa and Japan, the FST was introduced to the US via ships right after World War II. It eats wood much faster than other subterranean termites, and grows the largest colonies of any termite species in North America; a mature colony has up to 10 million termites extending passageways 10 feet deep underground and over half an acre in area. The queen can live up to 30 years, laying well over 2,000 eggs a day. Each colony consists of three castes: reproducers, workers/immatures and soldiers. The workers and immatures, which make up a vast majority of the termites in the colony, are the only caste that destroys wood. Winged termites (alates) are reproducers who swarm to find a mate in the spring and summer months, then shed their wings and nest to form new colonies.

New Orleans collection traps have shown a more than 2,000 percent increase in numbers of alate FSTs for the 9-year period 1989 to 1998. This incredible explosion of the FST population has caused an estimated $300 million in annual property damage in the Greater New Orleans Metropolitan Area alone. Approximately $100 million is spent in Hawaii for prevention, control and repair due to the FST annually. Further economic impact studies have shown that for the Greater New Orleans Metropolitan Area, a 21 percent increase in framing lumber, according to the Formosan Wood Products Economic Impact Subcommittee Report, New Orleans, February, 2000.

Recently, policymakers there have changed the regulatory direction from one of mandating the use of treated wood, to another emphasizing alternative materials and methods for controlling the FST. This is plausible because FSTs are aggressive foragers that persistently test chemical barriers, seeking ways in which they can penetrate treated soil. Therefore, pressure treated lumber is not immune to their attack. The termites will enter treated lumber through cut ends and will build tunnels over the treated surface.

Termites, including the FST, however, will not eat steel framing products. This is good news for the structural integrity of the home. While termites including FSTs will eat through other building products commonly used in the construction of steel framed homes, the frame of the home will not be destroyed, saving the inhabitants a lot of money in repairs. The Steel Framing Alliance recommends the use of termite-resistant construction products when building termite-resistant homes. Many insurance companies do not cover repairs necessary due to termite damage. This coupled with exorbitant repair...
costs and a severe devaluation of the home infested with termites, causes homebuilders and homebuyers to rethink the way their homes are constructed. Are the materials long lasting, and termite-resistant? Will these materials and construction methods hold up in other natural disasters such as hurricanes, fires, earthquakes, and tornadoes, especially after termites or other pests (e.g., poria incrasata fungus discovered in California) have done their damage?

The use of steel framing provides an answer to these questions, and helps build termite-resistant homes. With straight walls, square corners, no nail pops or drywall cracks, steel framing offers strong solutions to problems builders are facing all over the US and Canada. Because steel has the highest strength to weight ratio of any building material, it is by nature a superior construction material. It doesn’t rot, warp, split, crack or creep. It doesn’t expand or contract with moisture content. It doesn’t burn or fuel a fire. It is impervious to termites and other wood-eating pests. And a historical graph of steel prices is a flat line; with stable material prices, the framer can hold his quote for the framing package, and be assured the quality of the materials used is consistently high.

Homes built with steel look better, perform better, provide a safer environment for inhabitants and contribute to saving trees. Steel framed homes have a much lower probability of sustaining foundation problems, earthquake and high wind damage, and produce far less job site waste (2% for steel vs. 20% for lumber).

Recently, the US Department of Housing and Urban Development (HUD) issued a policy stating,

“For new construction in affected areas, one of the following must be used:
1. Soil treatment, NPCA-99b, PLUS one year guarantee NPCA-99a; OR
2. Bait system/Wood plus NPCA-99a; OR
3. Any construction determined not requiring termite protection by the CABO One and Two Family Dwelling Code (i.e., steel frame or concrete structures, or structures built of pressure treated or termite resistant wood with only minor interior wood trim. Roof sheathing may be untreated wood.)"

The Steel Framing Alliance and the steel industry, with the help and support of the National Association of Home Builders (NAHB), the NAHB Research Center, and many other organizations, have made huge strides toward fully enabling the residential construction market for steel. Product standards, prescriptive building methods, adoption by the codes, and training the code officials have collectively leveled the playing field for steel. At the same time, innovative steel framing products and effective training programs help to make steel an economically viable option for today’s homebuilders and homebuyers.

When considering the materials to build your next home or housing community, consider steel. You won’t be bugged if you do.