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Treated Wood Products: *Opportunities to Maintain and Grow the Pie in North America*

Branded treated framing lumber

Roughly 75 percent of wood products in North America (lumber, wood-based panels, engineered wood) finds its way into two end-uses: 1) new residential construction; and 2) repair & renovation.

Yet both these markets are potentially at risk of market share erosion from alternative products, primarily concrete and steel for framing and plastic-wood composites for decking products.

In the U.S. southern states alone, new home construction consumes over 11 billion board feet of lumber and over 7 billion square feet (3/8" basis) of structural panels annually. Added to this are over 7 billion board feet of lumber and over 2 billion square feet (3/8" basis) of structural panels annually for repair & renovation in the South (2003 data; Wood Products Council / National Association of Home builders).

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It is estimated that the annual loss due to termite damage in the U.S. South is over $3 billion a year. While wood-frame construction continues to hold the largest market share, areas such as Florida (due to the added problems of hurricane force winds) have seen concrete emerge as a dominant material for exterior walls. Of particular interest is that treated lumber and panels have seen insignificant market penetration in framing other than for sill plates (an example of treated framing lumber is shown on cover page).

> ***« Roughly 30% of all framing lumber and 25% of all structural panels are consumed by residential construction and repair & renovation in the U.S. South–exactly the area that is most vulnerable to termites and decay or termite damage. »***

Forintek's most recent market study indicated that this is due in part to the added cost, which currently adds an additional $1.50 to $2.00 per square foot to the cost of a home. Market pricing will likely have to drop one-half to one-third of those numbers to aid in market penetration.

Geographic differentiation will also be important, with initial efforts to be focused in higher income/higher termite damaged Orlando, for example, over Houston. Home owner and builder education around the protective effectiveness and air-quality advantages of using borate-treated framing is also critical. Also, home owners seem just as interested in treated framing's ability to control roaches as termites—again, leading to education and promotional needs. Other recommendations included incorporating treated framing products with prefabricated building components; separate and complementary marketing focus on new home starts and repair & renovation; and educating insurance underwriters and code officials.

Recommendations

- For most market segments, bring down product cost to under $1 per square foot; segment market niches
- Create promotional literature on the performance and air-quality attributes of borate-treated framing lumber/panels–branding
- Promote the use of treated framing/panels for prefabricated homes, especially for export
- Separate promotion targeting repair & renovation
- Educating insurance underwriters on the advantages of using treated framing products

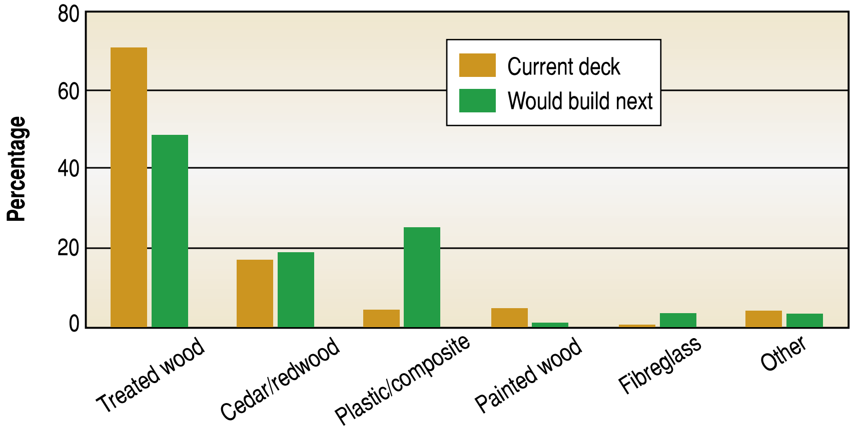
In the case of wood decking–estimated to consume over 4 billion board feet of lumber per year–considerable market share erosion to wood-plastic composite products has been seen in the past few years The wood-plastic market share is estimated to exceed 20% in the U.S., with percentages much higher in the west and parts of New England. For decks built as a part of a new house by the developer, these percentages are even higher (the percentage of wood-plastic decks for the U.S. West is reported at 40% in the WPC / National Association of Homebuilders report for 2003). If the trend continues, treated wood decking will no longer hold its dominant position.

This is an equally important issue for Canadian lumber producers, as southern yellow pine is the dominant species for treated decking in the U.S. The lost wood decking market share means that a significant volume of this lumber will compete with Canadian SPF for U.S. home framing.

Wood-plastic composite producers have been effective in gaining market share by offering consumers considerably more product choices, including innovative designs, decking/railing packages, hidden fasteners, less maintenance, claims for longer durability, no cracking or splitting, and so on. The wood decking industry has done little to innovate and has been hurt by the CCA scare and its subsequent removal from the home market.

The recommendation to the wood decking industry is to innovate. Consumers are showing their desire to pay considerable price premiums for product attributes that go beyond the classic North American, green-coloured, non-profiled deck.

It is interesting to note that at a recent decking exposition in the U.S. South, there were only two wood decking manufacturers, compared to over 40 wood-plastic or plastic decking manufacturers.



Consumer decking choice (Source: Fell, Brooks, and Gaston 2005)

The photos below show examples of innovation that is commonplace in markets such as the United Kingdom, yet non-existent in North America. This simple product enhancement is ripple profiling, offering a different look from dimension lumber and has the advantage of minimizing cracking.

« Wood-plastic decking costs two to four times as much as treated lumber, leaving the wood products industry considerable room for innovation in its attempt to minimize further market share erosion. »

Vancouver Forintek laboratory ripple deck trial

Recommendations

- Innovative product formats, including colours, edge- and surface-profiles
- Low maintenance products
- Colour retention, minimal checks and splits
- Brand complementary products such as fences, railings, and lattice; branding on quality, design, colour, or other attributes
- Market premium treated wood grades or brands (every piece of plastic lumber at a big box store is the same)
- Work on maintaining a price advantage over non-wood alternatives

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Detailed reports:

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Fell, D., Gaston, C. 2001
Forintek Canada Corp., W-1737

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*Ce **Profil technologique** est également disponible en français.*

Value to Wood

As part of the ***Value to Wood*** program, funded by Natural Resources Canada, Forintek's Industry Advisors are providing technical services to value-added wood product manufacturers in all regions of Canada. If you need information on any technical issue related to wood product manufacturing, you can:

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