

Knock on plastic-bag wood

Plastic lumber cuts both landfill and arsenic use

by Doug George

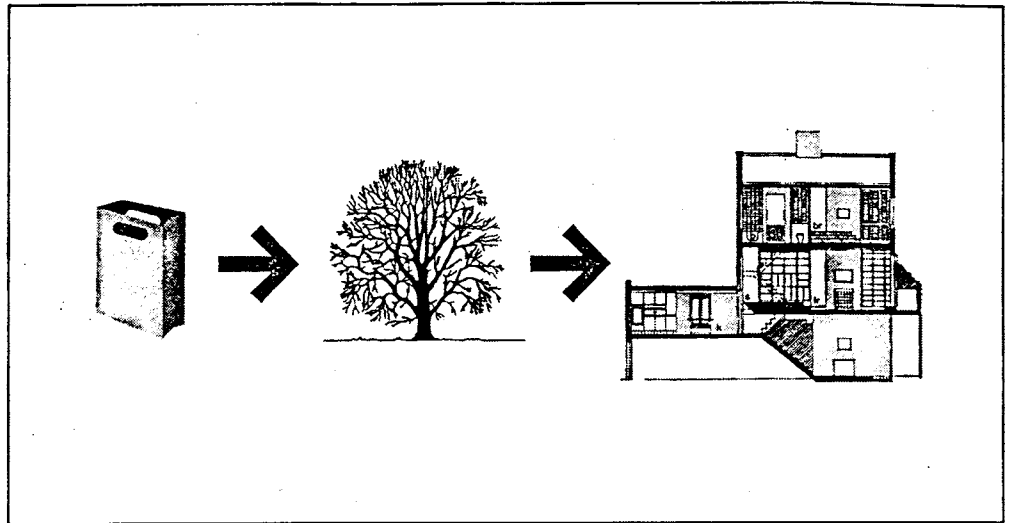
You've probably forgotten about the Sobeys grocery bags you stuffed into a blue recycling bag, but you'll see them again. Along with thousands of other grocery bags, yours are being transformed into the building blocks of Halifax decks, PEI cottages and Newfoundland wharves through the magic of recycling.

Plastic lumber, an innovative construction material manufactured from bags, detergent jugs and wrapping film, owes its existence to local entrepreneurs, the global green movement and anyone who recycles plastics.

Plastic lumber provides a tough building material for environmentally responsible builders—thousands of kilograms of recyclable plastic are diverted from landfills yearly. Last year, almost two million kilograms of Nova Scotian plastic was turned into lumber. "It's a win-win-win situation," says Austin Boyd, founder of PEI-based Island Plastics, the only Atlantic Canadian manufacturer of plastic lumber. "We can take our garbage and put it into rails, posts, walks."

Plastic-based lumbars emerged in the 1990s and can be found coast to coast, from Vancouver plazas to Dartmouth playgrounds. In the 1980s, faced with mountains of non-biodegradable plastic, researchers across North America began thinking of converting disposable items into new material. Research got a boost as people recognized the toxic effects of chemically treated wood, commonly doused in a cocktail of arsenic, copper and chromium—all known to cause birth defects and death in people and animals.

The two types of plastic lumber available—100 percent plastic lumber and 50/50 blends of plastic and hardwood chip—have advantages over real wood: a longer lifespan, lower maintenance,



The fantastic plastic machine Plastic lumber may be pricey, but it's good for your health—and the planet. illustration Devin Slater

higher resistance to sun and water damage and no chemical sealants. Yet the high initial cost of plastic-based lumber has kept consumers timid. One linear foot can cost \$2.50, which compared to a price of less than \$1 per foot for real wood, seems pricey. And the difference can add up—for a 500 square-foot deck: \$1,250 versus \$500.

"It's still expensive but as practises get better, the price will come down," says Duncan Cross, executive director of the Atlantic region for the Canadian Plastics Industry Association. The 450-member group accounts for 75 percent of Canadian plastic producers, 50 of whom are in the Maritimes.

The financial downside is countered by the amount of plastics that are diverted from landfills. In Halifax alone 480,000 kg of plastic were sent to the recycling plants in 2001 and 2002. "Halifax diverts more than 50 percent of its waste, a large quantity which is plastic," says Brian Smith, director of the city's solid waste division. Haligonian plastic recyclables are sent to PEI or exported to the US for manufacturing and return to Nova Scotia as lumber. It is put to use here in dozens of

provincial projects.

One such project is the Nova Scotia Department of Natural Resources and Resource Recovery Fund Board waste separation initiative. By 2003, every provincial park will have recycling stations constructed with Island Plastics' plastic lumber. Officials hope the 160 stations will be a powerful example of the efficacy of recycling. "We felt everything fit into the same theme," says Trevor Franker, the DNR landscape architect who oversaw the design process. Each station—basically a three-sided shell over four barrels—costs \$550 and will allow park visitors to separate their waste into four streams: paper, garbage, refundables (beverage bottles) and, of course, recyclables.

Although supplies are inconsistent (a July 15 electrical fire burned 14,000 kg of bags at an Island Plastics storage facility), Atlantic Canada's plastic lumber industry is growing. Boyd, who has plastic lumber bunk-beds in his house, expects business to quadruple, producing 11 million kg of lumber during the next two years. One of his favourite products? "Oh, those blue recycling bags make a beautiful blue picnic table," he says. ▀