Plastics may give long life to MPB wood

FORESTRY INNOVATION INVESTMENT

No.MDP 2007-020C

MOUNTAIN PINE BEETLE update

The changed characteristics of pine after it has been killed by mountain pine beetle could lend themselves to creation of some new products.

Beetle attack leaves pine with reduced moisture content and density. Outer layers of sapwood are more permeable, while inner heartwood is less permeable. The carbohydrate content of the sapwood is reduced due to the metabolization of soluble hemicelluloses. The soluble extractive content, constituents and pH are all quite different from normal wood.

These changes cause problems for some production processes, but might lend themselves to the addition of other materials to beetle-killed wood for development of some value-added products. The addition of small particles or fines from beetle-killed wood to plastic, for instance, could be a profitable fit for production of weather-resistant outdoor products.

Any new product must meet market expectations and demands in terms of durability and performance. A report by researchers at the University of British Columbia helps lay some groundwork for this by benchmarking the mechanical and physical properties of an existing wood-plastic composite product.

Scientists tested some normal wood-thermoplastic composites used in decking for water adsorption and thickness swell, bending strength, and resistance to compression, shear, hardness and

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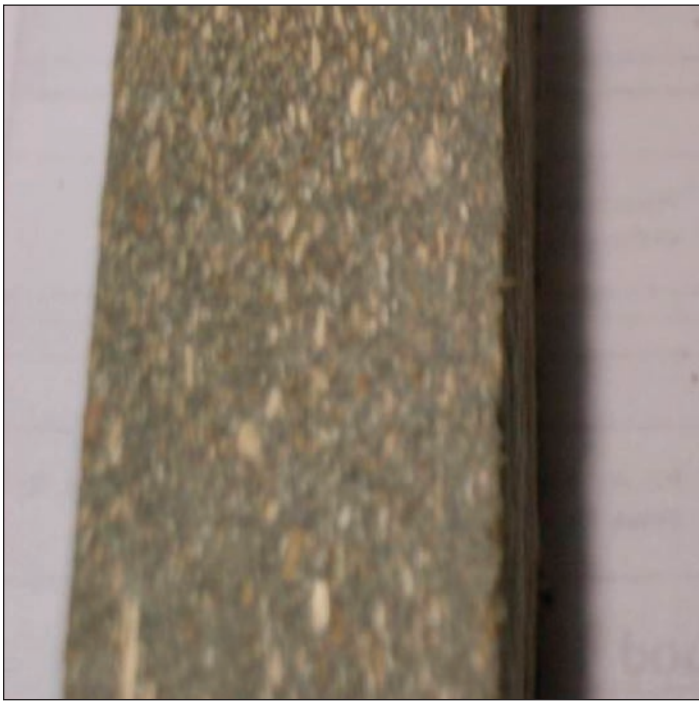
nail withdrawal, as well as for creep recovery and accelerated aging. Scanning electron micrography was used to generate images of the material's surface and interior after cutting and bending.

The report provides full details of the results of the benchmarking tests. The next phase of the project will be to combine mountain pine beetle-killed wood and plastic to make a composite product that can be tested against these benchmark results.



FOR THE FULL REPORT GO TO WWW.BCFII.CA/MPB/ AND DOWNLOAD THE REPORT "MPB-07-020C: DEVELOPMENT OF MPB WOOD/PLASTIC AND WOOD/CEMENT PRODUCTS – YEAR 2 REPORT"

Forestry Innovation Investment is a British Columbia government corporation investing in initiatives to help market BC forest products and promotes our sustainable forest practices to the world. FII's Mountain Pine Beetle Program supports the government's Mountain Pine Beetle Action Plan and its objective to maximize the economic value of mountain pine beetle wood. FII does this through marketing activities and research into new products and manufacturing processes for mountain pine beetle wood.

For more information, go to www.bcfii.ca or contact

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