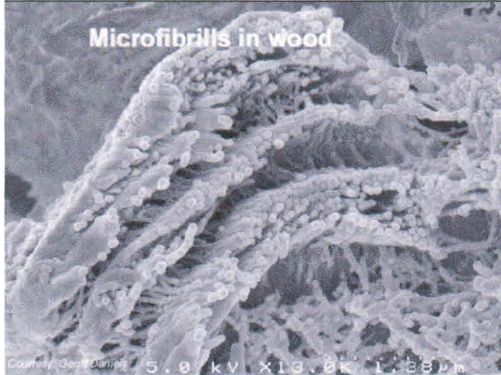




Bits and Chokers

MORE PRODUCTS FROM YOUR FOREST

Is there a plant near you that manufactures concrete? Paint? Ink? If so, advised Michael Bilodeau, Director of the Nanocellulose Research Program, a unit of University of Maine's Process Development Center, "You've got a great way of getting rid of diseased wood."



That's because any wood – any plant material, for that matter – can be broken down to its elemental building blocks and transformed into a valuable new material: cellulose nanofiber (CNF). Bilodeau's program started as a pilot project in 2011 with the United States Department of Agriculture (USDA) Forest Products Laboratory in Wisconsin. It encourages high-end use of poor quality wood and even mill residue by producing sufficient quantities of the product for research and development efforts.

Bilodeau's facility mechanically breaks down plant materials and forms them into a gel. "We've shipped this to more than 100 companies and 60 research labs in 28 different countries in the last 12 months. That's about 5,000 pounds," he said. The gel goes into a wide variety of end uses: plastics, filtration membranes, a strengthener in concrete, even a thickener in yogurt. Because nanocellulose has a smooth texture but no calories, it is also being used in diet foods.

For TIMPRO CT members, the challenge will be finding users near by. "The gel is only 3% plant material but 97% water so it is best to use it close to where it's processed," Bilodeau noted. But there is good news, he added: "I ship at least one sample a day to researchers testing ways to use the product." And federal money is available for research. The goal is to scale up the processes quickly. As uses increase, so can Connecticut Grown's opportunities and markets for wood.

Ink density of Ink Jet Printed Samples



EKA Chemicals Inc.

CNF improves ink jet print quality

Or is there an energy drink in your forest? Valentina Cugnasca, Co-Founder and CEO of Vertical Water, thinks there may be. Vertical Water is a drink made of pure maple water – not syrup. Says Cugnasca, "Vertical Water originated out of Feronia Forests Sustainable Full Forestry strategy. It's a project we have been working on since 2004. We believe in working with as many woodland owners as possible both through Feronia and Vertical Water as we recognize that there are many ways to sustainably manage forestland and [we] are happy to share our learnings." Vertical Water is exclusively sourced and bottled in the USA.