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NEWS RELEASE

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Freres Wood Biochar Used in USDA Project on Microplastics Mitigation

Freres Wood biochar supports research efforts with local farmers and OSU

LYONS, Ore., June 17, 2025 – Farmers, corporations and even cities in search of real climate solutions now have a powerful ally in a carbon-rich material called biochar, produced by Freres Engineered Wood. Known for their state-of-the-art Mass Ply Panels, Freres Wood has produced biochar, a byproduct of forestry waste, since 2021. With market momentum accelerating and new research underway in 2025, the company's latest efforts could play a powerful role in global carbon removal strategies.

In May of 2025, Microsoft signed the "world's largest biochar carbon removal agreement" and the City of Minneapolis began construction on the nation's first city-owned biochar facility. In the same month, a landmark study labeled biochar "one of the most promising carbon-negative technologies available today." Long celebrated for their innovative approach to forest products, Freres Wood is entering new territory, collaborating with local farmers and Oregon State University researchers to study potential applications for biochar, such as filtering and even breaking down pollutants like microplastics in water and soil.

"We have been generating carbon credits from our biochar for about three years now, but we have always looked for a higher and better use of the actual product," says Kyle Freres, the company's VP of Operations. "Improvements to our system in late 2024 have opened new markets for the material."

Ryan Ramage, the owner and founder of Ramage Farms and Valley Environmental, began using Freres' biochar on his property in 2024. Ramage combines the biochar with organic waste, including horse manure and hazelnut shells, and says "the property is literally coming back to life." Ramage has primarily used the biochar "for storytelling" on social media and hopes to encourage others to reduce their carbon footprint by publicly showcasing the incorporation of biochar and other organic waste on his own farm.

"There's a lot of talk, but not all biochar is the same," he says. "If we're going to create a better market, we've got to be smart about it and have the right people doing the right testing and getting it to the right places. We have to take action and change our ways to make a difference."

Among those conducting research are assistant professor at OSU Gerald Presley and local farmer Kathy Bridges, who began a joint-venture project in 2022, funded through the United States Department of Agriculture's (USDA's) Natural Resources Conservation Service (NRCS). The goal of the project is to study the ability of fungus to break down weathered polyethylene on

Bridges' farm, Santiam Valley Ranch, and repair the depleted agricultural soil; however, it evolved to include biochar from Freres Wood in 2023.

"Biochar is kind of a hot research topic right now," says Presley. "People have looked at biochar in a lot of applications related to water filtration, but there's a little bit of work showing they can capture microplastics as well. We thought it may help Kathy's situation, one, by improving the soil properties and making a better environment for the microorganisms that can potentially oxidize plastic and help break it down and, two, by immobilizing what microplastics are present to prevent further contamination."

While still in the early stages of their research, Presley and Bridges are excited by the preliminary findings and future contributions to the microplastics decomposition literature, which may include the discovery of a new species of fungus that interacts with polyethylene, found at Santiam Valley Ranch. At this time, they plan to seek additional funding to continue their research when the initial project concludes in 2026.

"My upbringing has been to solve problems. I've pretty much put this whole part of my farm into this project with the hopes it'll continue," says Bridges. "We have a lot to learn from the interaction of biochar with abandoned plastic mulch and its breakdown into microplastics on farmland."

Freres Engineered Wood applied for a grant from the USDA to expand their biochar production in late 2024 and hopes to receive funding by the end of summer 2025. The company has maintained a legacy of innovation for 100+ years and hopes their participation in budding biochar research will encourage continued ingenuity across industries, paving the way for a more sustainable future.

For more information about Freres and their biochar products, email buyMPP@frereswood.com or visit www.frereswood.com.

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About Freres Engineered Wood Products

Freres Lumber Co., Inc., DBA Freres Engineered Wood, has a 100-year history of innovation in the wood products industry, beginning in 1922 when T.G. Freres started a small sawmill in Oregon's Santiam Canyon. Today, Freres' operations include finished plywood, lumber, veneer and structural composite lumber, Mass Ply products, biochar, and a cogeneration facility that supplies renewable power for the local area. Known for being traditionally innovative, Freres is deeply committed to its community and to sustainable forest management practices. The company uses 100 percent of the wood it processes throughout its three operations—Freres Engineered Wood Products, Freres Timber and Evergreen BioPower LLC—and six wood products facilities. Freres provides family wage jobs to nearly 500 employees. For more information, visit www.frereswood.com or call 503-859-2121.