

WWPI, OSU COLLABORATION HELPS THE PRESERVED WOOD INDUSTRY & THE ENVIRONMENT

By Paige Townley

From boardwalks to bridges and porches to piers, preserved wood has long been a preferred product for almost any type of construction. Dallin Brooks and Jeff Morrell are two people impacting the preserved wood industry to keep it front and center in consumers' minds. At the same time, they are also working to ensure there is no negative impact on the environment.

Dallin Brooks, WWPI

Brooks has long held an interest and appreciation in preserved wood and environmental sustainability. He was raised at a hunting and fishing resort in British Columbia, Canada, guiding moose hunters each year or climbing mountains. "These experiences have given me a strong appreciation of sustainability, both of the forests and its inhabitants," Brooks said.

Brooks took that interest and appreciation and turned it into a bachelor of science in wood products processing and a master of science in forests and society from the University of British Columbia.

Throughout his career, Brooks has worked in various management capacities for a number of forest, primary and secondary wood manufacturing companies, and several forestry research organizations.

For the past five years, Brooks has served as executive director of the Western Wood



Brooks will provide a keynote address on the subject of the North American Forest Partnership at the upcoming RTA Conference Annual Luncheon in San Diego.

Preservers Institute (WWPI), a nonprofit trade association dedicated to managing the legislative, regulatory and market outreach programs for the preserved wood industry. "Our mission is to preserve the preserved wood market," Brooks said. "Using preservatives in wood

is very important because sustainability isn't just about planting more trees than you cut down. It's also about ensuring the wood you use lasts long enough for a tree to grow to replace it."

One way Brooks is helping the preserved wood industry is getting preserved wood back on the North American Forest Partnership's industry sector wheel. A recent version of the wheel had omitted preserved wood. "As preserved wood is an important part of America's transportation and energy infrastructure, it is amazing that the general forest industry does not talk about preserva-

tives," he said. "I continued to press them [the North American Forest Partnership] with preservatives in engineered wood, and they finally realized the omission and included preserved wood."

Brooks and the WWPI are also active in creating needed information for the industry. They have created multiple apps, including the Treated Wood Guide and the Wood Pole Guide, both of which are available for free and allow users to find out basic information on standards, handling, selection options, Best Management Practices (BMPs) and environmental studies. "The use of BMPs is critical to the environmental impact model as it reduces the amount of preservative on the surface, thus preventing additional migration to the water," he said.

To further preserve the preserved wood industry, WWPI coordinates research with other associations and universities on the environmental performance of treated wood and substitute products. One organization the WWPI works with is Oregon State University.

Jeff Morrell, Oregon State University

Morrell is an Oregon State University professor of wood science and engineering. With a bachelor's degree in forest biology from Syracuse University, a master's degree



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Jeff Morrell, pictured in back second from right, stands with the Biodeterioration/Preservation research group at Oregon State University.

in plant pathology from Pennsylvania State University and Ph.D. in forest pathology and mycology from Syracuse University, Morrell has worked in the industry for 30 years.

His first industry job was working for an electric utility company inspecting utility poles. “At the time, I was planning on studying forest tree diseases,” Morrell said. “But then I started working with utility poles, and I found that interesting. It has led to a wonderful career working with a group of great people.”

Morrell joined Oregon State University in 1983, starting out mostly doing research, serving as director of the research cooperative that was working to improve the performance of wood utility poles.

While he now does a fair amount of teaching, he also leads a group of 10 to 12 graduate students, research scientists and visiting faculty who perform research in collaboration a variety of industry groups. One of the organizations Morrell works with is WWPI. “We work to help the industry improve,” Morrell said. “That entails us working with a number of companies, and WWPI is part of that.”

Preserving Wood & The Environment

WWPI works with and helps fund some of Oregon State’s research into the performance of treated wood. One specific area of research is looking at the use of treated wood in and near water. “We are trying to look at the real risks and then trying to identify methods for reducing any risks,” Morrell said. “Right now, there are a lot of questions about the use of treated wood near waterways. Part of our program entails assessing the actual amount of preservative

that migrates from bridges and other projects so that we can get real data.”

This research and earlier work led to the development of an online Environmental Assessment Modeling Tool, which helps evaluate structure above and below water built with wood treated with one of 11 of the most commonly used preservatives. “The model gives us the ability to predict exactly what is going

to happen with preserved wood when in service,” WWPI’s Brooks said. “It’s designed to estimate movement of preservatives into the environment and the impact it will have on the environment.”

Aquatic ecologist researcher Dr. Kenneth Brooks (no relation to Dallin) first developed the model as a spreadsheet that estimated the potential migration of preservatives and metals from preserved wood immersed in water and exposed to weather. The new model is an online, user-friendly interface that simplifies the process.

“Migration is not unique to treated wood; everything erodes and degrades over time with water, sun and wind,” Brooks said.

“With this model, we have the ability to predict the amount of preservative movement into the environment. It’s a tool for both regulators and project designers to use to determine what preservatives should be used and/or if preserved wood should even be used at all.”

The revolutionary tool is allowing specifiers to determine how to construct structures, like bridges and railroads, without negatively impacting the environment. “We don’t want to hurt the environment, so we have to make sure any impact we have is minimized as much as possible,” Brooks said.

Thus far, the model has helped on a variety of projects, especially with bridge structures and rail lines next to or over water. “The tool allows for justification of using preserved wood,” Brooks said. “There have been instances where the model helps us determine what type of preservative should be used so that a project can include preserved wood. This really is a win-win.” ■

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