



A PUBLICATION OF THE CONNECTICUT
PROFESSIONAL TIMBER PRODUCERS
ASSOCIATION, INC.

SPRING 2019

ISSUE 35

The Cutting Edge



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Cover art: Deborah Roach

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The Connecticut Professional Timber Producers Association, Inc. (TIMPRO CT) is recognized by the IRS as a 501(c)6 non-profit corporation. Our mission is to enhance the image and understanding of the forest products industry throughout the state through public outreach programs, education, and a commitment to professionalism among its members.

TIMPRO CT NEWS

TIMPRO AT CONNECTICUT AGRICULTURAL DAY

Brennan Sheahan and Joan Nichols attended the annual Connecticut Agricultural Day in Hartford, 10 AM to 1 PM on Wednesday March 20th. The *Hartford Courant's* Daniella Altamari reported, "Dozens of farmers, aquaculture purveyors and foresters came to the Capitol Wednesday for Agriculture Day."

"In addition to handing out samples of maple syrup, Fuji apples, ice cream, and clam chowder, the businesses had a chance to discuss their concerns with lawmakers. Connecticut is not often thought of as an agricultural state but farming has been a crucial part of the state's economy since Colonial times."

Altamari pointed out that "The sector continues to play an outsized role, with agriculture sales estimated at \$3.3 to \$4.0 billion in 2015, according to a research report prepared that year by the UConn College of Agriculture, Health and Natural Resources. The study estimated agriculture generated 20,007 to 21,696 jobs and approximately \$759 to \$899 million in wages."

These figures actually understate the value to Connecticut of healthy forests. The recreation sector (from leaf peepers to skiers) produced 4,600 jobs in 2013 and generated a payroll of \$121,997,984 million.



Above: Brennan Sheahan with new TIMPRO display. Below: With Don Tuller, President of the Connecticut Farm Bureau.



Photos courtesy of Joan Nichols

Membership in the Connecticut Professional Timber Producers Association

Membership is open to sawmills, loggers, foresters, landowners, supporting businesses and anyone else interested in supporting the forest products industry in Connecticut. Benefits include educational programs, a voice in the Connecticut Legislature, a listing on the TIMPRO CT website, current information on issues affecting the forest products industry, discounts from area businesses, a free subscription to ***The Cutting Edge*** and more.

Dues are \$150/year. \$25.00 for student memberships.

Applications are available by calling TIMPRO CT at 860-948-0432 or visiting the website at www.timproct.org.

TIMPRO BOARD WELCOMES NEW MEMBERS

The following new members were approved at the March 4 Board Meeting:

Kate Blacker, Noank, CT, has joined as a Supporting Member. She is the sister of Kevin Blacker, an advocate of the timber products industry featured in our Winter 2018 issue.

Joe Randazzo, Randazzo Timber and Stone, is a timber harvester and firewood producer in Willamantic, CT. He holds an SPFH certification.

UPDATE FROM 2018 SCHOLARSHIP WINNER REBECCA DURINICK

Writing from Unity College, Rebecca Durinick reports: "My Fall semester was great and at the end of the semester I came out with good grades, but I want to do even better this semester. I was able to join the Trail Crew on the college and have done some work in the woods in Northern Maine. Here is a photo of Hubbard's Walk where we replaced a bridge board, but later in the semester we redid all the boards on two bridges. Being on the Trail Crew comes with an array of tasks to maintain the trail including removing trees that have fallen during the storms, which is probably my favorite. We get to use everything from polaskis to sledge hammers; even loppers for the mandatory corridor cleaning. We also got to go up Mount Abrams in Maine that has a spectacular view. It was fortunate that we weren't carrying too much gear up to the top. The excitement didn't end when I came back from break, since I just got my first chain saw which is a Stihl, of course. Bought it used and just put a new chain on. I can't wait to start the next semester. In case you didn't know I'm the short girl in the photo and I'm sorry If I blend into the scenery Chuck Norris style."



Photo courtesy of Rebecca Durinick : Fixing a Unity College Trailbridge.

(RE)BIRTH OF A SAWMILL

August 3, 2018. Jim Moore cautiously opened the door to his new workplace, a sawmill in Portland owned by the State of Connecticut, Department of Energy and Environmental Protection. "There were cobwebs hanging everywhere. I walked into what would be my office and a squirrel ran out through a hole above the door!"

Moore's new workplace is a 51-year old sawmill whose origins go back even farther – to the Civilian Conservation Corps created in 1933 by President Franklin Delano Roosevelt during The Great Depression to put thousands of jobless young men to work enhancing public parks and forests throughout the country.

The Corps opened 21 camps in Connecticut. One of the last, opened in July 1935, was Camp Buck in Portland's Meshomasic State Forest. Crews carried out backbreaking work building structures and roads, creating picnic areas and beaches, laying out trails, and posting signs. The wood for all these CCC projects throughout the State was locally harvested and processed in its own sawmills including the original one at Portland. When the camps closed in the 1940's, many sawmills disappeared. But the one at Camp Buck survived to be replaced by this successor.

The sawmill in Portland was infrequently operated before Moore's first day in August. Now, it is coming back to life, thanks to Moore, a sawyer whose family roots here go back to the 1600's. "The Moores have been in Connecticut over 350 years near the Farmington River in Windsor, then Simsbury, and now in Bloomfield working wood," Moore recalled in a phone interview. "Andrew Moore, an ancestor, built one of the first ferry boats that went across the river."

A graduate of Harvard H. Ellis Technical School in aviation maintenance, Jim Moore worked for his father for 32 years at Moore's Sawmill, now run by his brother, TIMPRO CT Board member Doug Moore.

Besides a lifetime of working with wood, Moore has mastered the basics of mechanics and how to fix things – skills he is using to the max in his new position. "When I got here, the mill had been operated on and off for 6 years and was in a state of disrepair. Once I got the sawmill running, we cleared out the older material and began working on an oak gypsy moth salvage cut from the Salmon River State Forest. We got 30 loads of logs within 3 weeks!" Moore recalled. "The wood hadn't rotted or decomposed so we're sawing out picnic table tops and benches for state parks, state forests, and other recreation areas. There are more than 10,000 picnic tables in use at any one time. We deliver them all over the state."

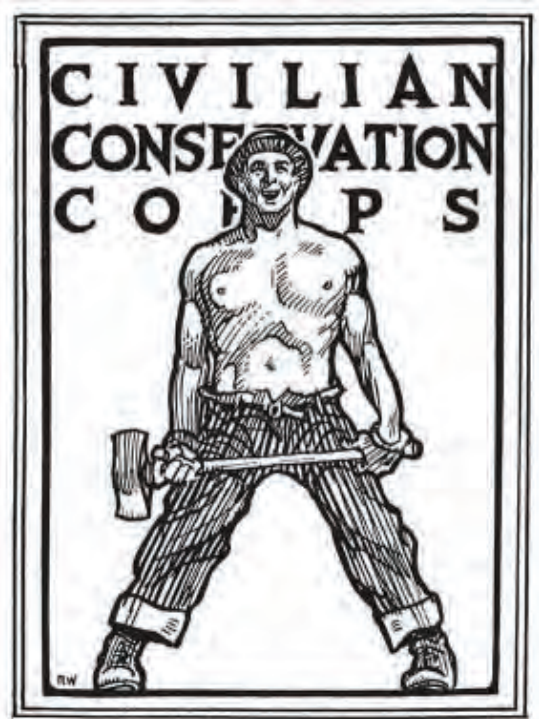
Until the mill was reopened this year, the state had to outsource some of the wood products it needed. Now that Moore has the mill running again, he is sawing oak, white pine, hemlock, and spruce for shield signs, parking barriers, lifeguard chairs, picnic tables, information kiosks, wood duck boxes, bluebird boxes, and more for use across the state.

Moore even envisions a line of wood products tied to the "Connecticut Grown" program: "We have developed an in-house brand to tie the forest and forest services to the state parks using a Charter Oak symbol."

For more on the sawmill, read the p. 7 profile of Nate Piché.



Camp Buck was opened September 13, 1935 and closed July 21, 1941.



This Vermont CCC poster emphasized the benefits of getting jobless, often homeless, young men away from the desperate poverty of the city and into rural areas where they would carry out constructive work - lay out trails, build roads, dams, bridges - while becoming strong and healthy.

There were 21 CCC camps in Connecticut. Most opened in the late 1930s. All were closed by 1941 when America entered WWII. Additional information about CCC camps and projects in Connecticut is available at the North East States Civilian Conservation Corps Museum located in the former headquarters building of Camp Conner in the Shenipsit State Forest in Stafford Springs. The museum has CCC photographs, documents, uniforms, and personal letters. Currently the museum is open only in the summer.



The present sawmill (above) may sit on a concrete foundation laid by CCC workers for the original sawmill.

Photo above of the mill courtesy of Jim Moore. When he's not working or with his family, Jim is a ski racer and Assistant Race Director at Sun-down. He also coaches at Avon - Old School and sits on the Board of the Connecticut Industrial Ski Council.



A CONNECTICUT CROP: WITCH-HAZEL

When you think about Connecticut crops, you might not think of witch-hazel. But Ben Hall does. Now 79, he's been cutting witch-hazel since he was 16.

The Native Americans knew well the healing powers of *Hamamelis virginiana*, a.k.a. witch-hazel - a name that has nothing to do with witches but comes from the Old English *wice* which means "pliant" or "bendable." But the potential wasn't fully exploited until Dr. Charles Hawes and chemist Alvan Whittemore began using steam to distill the essence from the twigs. Thomas Newton Dickinson, Sr. further refined the process and gave his name to the business, then carried on by his two sons but now owned by American Distilling. Virtually all witch-hazel (as much as 99%) is processed right here in Connecticut, and most of it is also harvested in our state.

Hall is currently cutting witch-hazel for American Distilling in Mohawk State Forest overseen by CT-DEEP Forester David Irvin. According to Irvin, American Distilling buys twigs by the ton – and not just any twigs. They must be cut before the shrubs break winter dormancy as the movement of chlorophyll alters the astringency of the sap. Furthermore, the company's witch-hazel products are organic so American Distilling will only buy twigs from shrubs grown on land it can verify has not been treated with herbicides or pesticides. Hall pays the CT-DEEP \$10/ton to cut the brush.

According to Irvin, "It's all light brush. Occasionally we find patches but it's getting to be more and more rare to find big older shrubs because of overstory growth. But it doesn't take much to become a sustainable crop because it sprouts from the base." Irvin saw this first-hand when he conducted a selection cut for uneven-age management to promote regeneration 15 years ago. "The witch-hazel came back so aggressively," he notes, "that we didn't get trees. But harvesting the shrub now may encourage new forest regeneration."

For Irvin, the harvest of witch-hazel is more than a forestry operation. "It's part of our history," he said. "I post information so the public can understand what a resource we have here. It's used in a long list of medicinal and cosmetic products all over the world, and this is where it begins. The harvest and use of natural and organic witch-hazel is very sustainable and renewable in many of our woods. I think that's amazing." It's part of Hall's history, too, a history that's vanishing elsewhere in Connecticut. He used to

Editor: A special thank you to CT-DEEP Forester Gerard Milne for suggesting this article to *The Cutting Edge*.

cut more twigs on private property. But, he said, "Farms are disappearing. Nothing's like it used to be."



Hamamélide de Virginie (*Hamamelis Virginica*).

oldbookillustrations.com

Witch-Hazel is not a true member of the Hazel (Corylus) family, hence the hyphen in its common name. This name derives from the Old English word "Wice" meaning "pliant" and "bendable." This feature made it prized as a divining rod to locate water sources. An understory shrub, it can reach a considerable size over time. The Native Americans decocted an astringent from it as a cooling agent and a remedy for skin ailments. It is still valued for these purposes today.

CT-DEEP's newly-hired Nick Zito, featured in our last issue, will speak at our April 17 TIM-PRO CT event. Here are four additional new members of the CT-DEEP staff.

NATE PICHÉ

"We're blessed to have the resources we do." That's Nate Piché speaking about his position as new State Land Forester for the Meshomasic and Salmon River State Forests.

Piché can't help but sound excited even though he faced a daunting challenge right from the start. "When I came on, one of my first jobs was to oversee a timber operation of gypsy-moth killed trees in the Salmon River State Forest. Connecticut is really known for its oaks. It was sad to see so much go," he said.

After graduating from Paul Smith's College, Piché worked for Southwind Forestry, LLC in Pawlet, VT where he helped landowners in southern Vermont manage their forestland. In 2017 he began working for NEFCO (New England Forestry Consultants, Inc) as a consulting forester, starting a satellite office for the company, based out of Hoosick Falls, NY. In that position he continued to help landowners manage their forests through forest tax law incentives, commercial timber sales, and non-commercial timber stand improvement.

What makes his work here in Connecticut so different from Vermont or New York is, as he said, resources. "I had moved here to Connecticut from just over the state border in New York," he explained. "None of the other states where I worked has a program like ours here. We have our own sawyer and sawmill to source products we need – state park signs, picnic tables, deck boards for a trailer – whatever we need to make out of wood. The mill has been part of the state for about 50 years and its 1960's equipment needed a lot of work but our new sawyer, Jim Moore, got it going."

"About 20% of my time is making sure the sawmill has the wood it needs. The sawmill made a big difference clearing the dead standing timber. A lot of it was on roadsides," he pointed out. "We reduced that damage. But now the market is flooded. From what I can see, mills deduct because it's barely worthwhile to process the material." It would help open markets if low-grade woody material could be used for pellets. Piché can even foresee a possibility that the sawmill itself could be heated by its own waste. "But that doesn't seem to be happening now," he noted.

Piché spends most of his time now inventorying the forest and locating and marking boundary lines. He guesses, "off the cuff," that the two state forests alone have about 100 miles of boundary lines to maintain: "It will take pretty much the better part of a decade and then I'll have to go back to the beginning." He also coordinates with and considers the needs of Wildlife Management in his forestry plans. "I like to do a good job that benefits wildlife. It's a win-win situation," he said.

He figures that, in a typical year, he pedals about 4,000 miles on his road bikes. In the fall, he hunts



white tail with a bow and in the winter enjoys cross country skiing.

As he bikes, hunt, or skis, he marvels at the rich forests here. "You drive around Connecticut and there's valuable hardwoods everywhere you go. I've driven around New York and other places. They just don't have this huge hardwood timber resource of such high quality."

ANDREA URBANO



With her background in urban forestry, arboriculture, Christmas tree farming, and carbon forestry, Andrea Urbano is a perfect fit for her CT-DEEP position as our new Central Connecticut Service Forester for private and municipal woodland owners.

Settling into her position, Urbano explains, "The position has been vacant for nearly five years. There's a lot to pick up. I have several filing cabinets full of landowner records, stewardship plans, partnership program files, and such since I work closely with NRCS and state agencies. Fortunately, there are two other service foresters whom I'm learning from while they're still here."

Urbano comes to the Division of Forestry from Jones Tree Farm in Shelton. Before that she was consultant forester with Redstart, Inc. in Corinth, VT and an assistant municipal forester and outreach specialist with the State of Vermont. Originally from Connecticut, she met Terry Jones while interviewing for another position when she decided to move back. "He recruited me,"

she said. "It was a beautiful opportunity for which I'm grateful."

Her study experiences have taken her far afield of New England, though. "I love to travel and experience different cultural environments," she said. "When I was in high school, I spent a summer at Oxford University in England." During her undergraduate studies, Urbano studied abroad in New Zealand as part of University of New Hampshire's EcoQuest, an intensive ecology based program. "In graduate school, I studied at the University of Havana in Cuba. It was a marine biology and ecoagriculture project and it was a great way to explore and learn about Cuba's uniquely preserved natural resources. I'm not fluent in Spanish but I'm better when I'm immersed in it." Urbano earned her Bachelor of Science in environmental conservation and political science at the University of New Hampshire and her Master of Science in forestry from the University of Vermont where she helped run the Forestry Department's Carbon Dynamics Lab and won an award for her outstanding graduate research and scholarship. Her published research (Urbano and Keeton 2017, posted on our website) focused on long term biomass accumulation, i.e. carbon storage, dynamics in northeastern secondary forests.

Back in her home state Connecticut with her dog Shiloh, she is building a house and planning her outdoor ventures. "I'm a farmer," Urbano stated. "I am very passionate about sustainable agriculture and plan to live off the land as best I can. The house will have a wood-burning stove because I see value in being connected to my energy consumption and offsetting my carbon footprint through sustainable forest management. I also hope for and see a future in woody biomass. I think it's incredibly efficient. And practicing multifunctional forestry can help offset our greenhouse gas emissions."

Although Urbano is currently covering a wide territory, she will ultimately work from the DEEP Connecticut Eastern District headquarters in Marlborough. “Thankfully,” she concluded, “the territory I’m from is the one I’m working in. I feel right at home! It is an honor to serve Connecticut landowners and I look forward to establishing and maintaining beneficial working relations with them and the Department’s program partners.”

TIMOTHY BATCHELOR

Do not picture Timothy Batchelor, Western Connecticut’s Fire Control Officer since May 2018, in a lonely Fire Tower scanning the horizon with binoculars. But that’s not for lack of concern about potential forest fires.

“My primary job is to support the cities and towns of Western Connecticut with manpower, equipment, and operational tactics when forest fires go beyond the capabilities of local resources. This means keeping track of a few factors involved with forest fires. One factor is available fuel (grass, brush and trees): is it dry enough to burn? Second is the weather (winds, temperature and relative humidity): are there favorable conditions to burn? We have lots of good fuel here to support large forest fires but we don’t usually have prolonged dry conditions to promote them or the prevalence of triggers such as dry lightning to start them. Our weather patterns are ever changing and very difficult to predict being so near the ocean. In a normal weather pattern we receive precipitation with the lightning and that produces a wet storm. This means natural starts are a rarity in New England forests compared to the western forests where lightning is the primary cause. We have the fuels, we have the terrain, we are just missing that drier weather pattern that supports those large damaging fires we see in the western part of the U.S. Some years we do experience those dry conditions and have devastating wild fires in the Northeast states.”



Batchelor and a Colorado fire truck

Past eras were more at risk and had a pretty significant fire history. In Northwest Connecticut, charcoal manufacture from the vast acres of oak trees triggered several large burns during the mid-1800’s through the turn of the century. In addition, Batchelor says climate change has created very different conditions from when he was growing up in New England. “I’m originally from Massachusetts and I’ve never seen it rain as much as now. It’s like Seattle! Another serious issue is all the ‘dead standing’ trees. The gypsy moth kill isn’t done yet and we have the Emerald Ash Borer eradicating all the ash trees along with the Asian Longhorn beetle taking a large number of the maple trees. The Southern pine beetle is just on the southern edge of the State and all together this is creating a huge fire problem for the future.”

Yet when fires do occur, it isn’t necessarily a disaster. Batchelor cites the 2016 the Flat Rock Fire in Cornwall set by lightning on State owned land. Instead of rushing to put it out, State Fire Managers decided to use the fire as a resource benefit to the forest by reducing the amount of dead trees and forest debris. Fire crews kept the fire confined to high terrain where it consumed a lot of hemlock already devastated by woolly adelgid. “The fire did a lot of good” according to Batchelor, by reducing the fire load for future fires, releasing nutrients back to the soil, and promoting good forest regeneration.

Better than fires for reducing fuel loads, however, would be a robust biomass industry. “We have so much material – large volumes of chips – to get rid of. There’s lots of debris,” Batchelor added, “I’d like the state to promote some biomass reduction solutions in the future to produce much needed clean energy. I truly believe we need to figure that out.”

"Connecticut State Foresters are working aggressively to harvest useable dead and dying trees from State lands before they become a hazard to all State land users which includes safety to firefighters. I appreciate all the dedicated State Forestry employees who have been involved with this State-wide problem. They have been able to produce a useable product that is helping reduce a future safety hazard at the same time."

Now settled in Winchester CT, Batchelor notes how different it is here from his previous home in Southwest Colorado. "I was in high elevation, mostly unpopulated areas on the western side of the Continental Divide near Wolf Creek Pass.* It was very beautiful and rural but it was time to come back to New England," Batchelor concluded. **Check out C. W. McCall 's song, "Wolf Creek Pass" on our website.*

JEREMY CLARK

Jeremy Clark, newly hired State Lands Forester for the Western District, is filling a slot that's been vacant for 19 years. His new position is a homecoming, though. With a Bachelor's Degree in Natural Resources from the University of Connecticut, he joined CT-DEEP first in the Forestry and then Wildlife Management Divisions. He



also spent five years here as a consulting Forester and land manager. More recently he was a Wildlife Management Institute Contractor to the Maine Department of Inland Fisheries and Wildlife Lands Program implementing habitat enhancement projects on State Wildlife Management Areas.

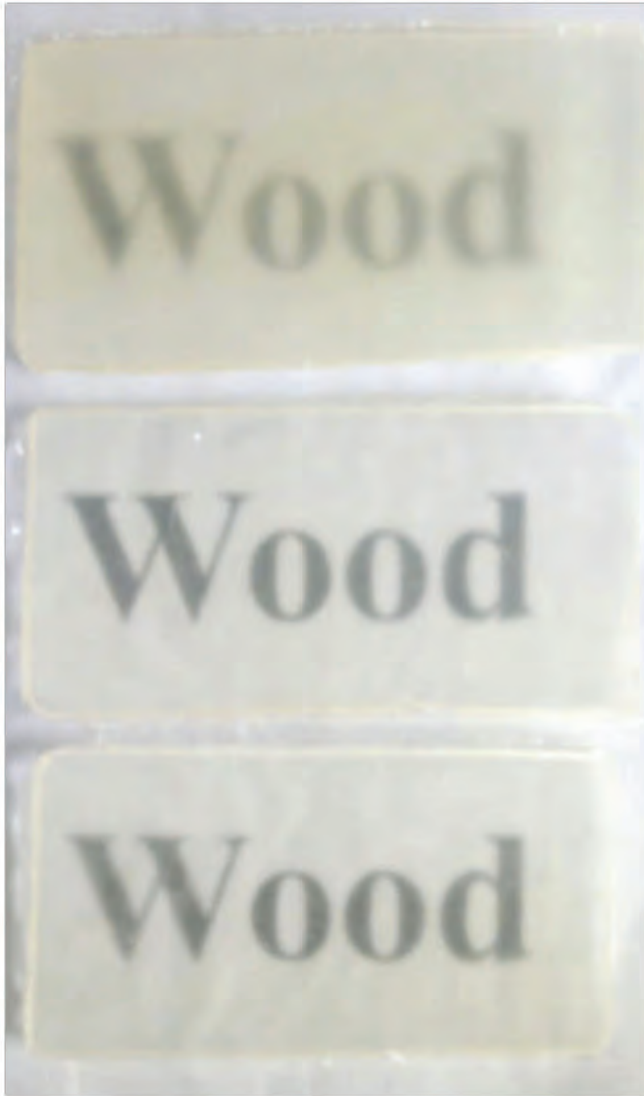
Easing into his new position, Clark explains, "For now, I'm helping everyone with ongoing projects. Ultimately, I'll be assigned to the Housatonic region with a primary duty station in the Pleasant Valley office. As State Land Forester, I'll have to go through all the old harvest and management records and begin assessing and refreshing property boundaries. Then I'm going to prepare a management plan so we can begin prescribing forest management activities, including harvesting. I'll start by walking the Sharon Mountain block of 3300 acres. I'll cruise and see what needs to be done there for forest health and diversity."

He's not sure exactly what he'll find but he does have some expectations: "I'm sure we'll find plenty of Emerald Ash Borer damage since ash likes the damp sites in the block. I'm assuming a lot of trees will be attacked or possibly threatened. I'll also have to assess the gypsy moth situation. I know from previous work there will be invasives. Localized herbicide is the most effective and efficient treatment if we have to do something – conscientious and careful. That's the only way to really beat them back."

"Beyond forest management, I want to assist wildlife management. A lot depends on the site but I want to include some young forest habitat. It's a balance. We'll try to keep a mix of old, mid, and young age classes. I'm hoping to work closely with the Wildlife Management Team. That's my passion, using silviculture to grow healthy forests and enhance habitats for wildlife."

SEE THROUGH WOOD

Image credits: Courtesy of Rongbo Zheng



We last reported on this new technology in our March 2017 newsletter. But recent breakthroughs have made this product, now more thoroughly stripped of its lignin, even more transparent than before, according to Yuen Yiu, Staff Writer for the *Inside Science* newsletter.

This February, he reported that materials scientists, inspired by a technique developed by botanists in the 1990s, have increased transparency and have even proposed scaling up the technique to produce load-bearing windows.

The report's authors, Huayang Li, Xuelian Guo, Yuming He, and Rongbo Zheng in China, have brought see-through wood one step closer to commercial application.

According to their paper published in the February *Journal of Materials Research*, they made panels of transparent wood that are bigger, thicker, and more transparent than their predecessors', while at the same time using a more environmentally friendly manufacturing process.

Instead of boiling the wood in bleaching solutions to strip the lignin, they steamed the wood with hydrogen peroxide over several hours before backfilling the stripped-down wood panels with transparent resin. The authors say their technique can remove more lignin more deeply into the wood grains, which makes the final

product more transparent. They also claim that steaming instead of boiling the wood keeps the wood's cellular structure relatively intact thus making the final product stronger.

The researchers might have made their experiment even easier by using wood panels cut across the fibers instead of along the grain. This might have made it easier for the lignin to bleed out.

"Before the material is ready for real-world applications," Yiu wrote, "researchers will need to further explore its mechanical properties and the scalability of the manufacturing techniques. But when that day finally comes, we might be able to build greenhouses with tough, transparent wood panes, a sight that could confuse philosophers who say that those who live in glass houses should not throw stones."



PO Box 508
Oneco, CT 06373

CALENDAR OF EVENTS 2019

CT Professional Timber Producers Association

Look for mailings or check the website for further details and any changes to the Calendar of Events.

Ideas for classes you would like offered?

Contact TIMPRO CT:

PO Box 508

Oneco, CT 06373

860-948-0432

info@timproct.org

Articles, ideas, pictures
you'd like to see?
hallie.metzger@rcn.com

"NEWS YOU CAN USE:

HOT TOPICS FOR THE CONNECTICUT FOREST PRODUCTS INDUSTRY"

WED., APRIL 17

4:30 TO 9 pm

ADAM'S MILL RESTAURANT

MANCHESTER, CT

SEE REGISTRATION AND PROGRAM ON TIMPRO WEBSITE.

Get Involved

The Board of Directors is seeking members who are interested in helping out with various activities throughout the year such as CEU programming, fairs, Ag Days at the State Capitol in March, Plant Science Day in August in Hamden, programs at the Agriscience Centers and more. The Board, made up of business owners, just like yourselves, is keenly aware of the demands on your time. Any amount of time, no matter how minimal, is greatly needed.

Contact TIMPRO CT for more information:

860-948-0432 or e-mail: info@timproct.org.