RTA 2020 Virtual Conference Recap: Survive & Thrive
Experts Discuss Pressing Challenges & Great Opportunities
By Kristen McIntosh

The Railway Tie Association (RTA) held its annual conference Oct. 20-22. Although COVID-19 concerns kept association members from meeting in the typical in-person format, this year’s virtual sessions drew quite a large and engaged audience, said Ashley Goodin, who joined RTA as executive director in May.

Goodin was accompanied by RTA President Bill Behan, president of Gross & Jances Co., in leading the sessions, fielding questions for presenters, and keeping sessions on track.

This year’s theme, “Survive & Thrive,” seemed particularly appropriate in light of the challenges 2020 presented.

Behan and Goodin addressed attendees during the opening session and offered updates on the association. He wished Jim Gauntt, who served as executive director of RTA for 25+ years, and his wife, Susan, well on their retirement and welcomed Goodin to the RTA family.

“Many of you will recall an announcement two years ago that RTA would begin a search process for a new executive director as Jim Gauntt prepared to transition to retirement. I am very pleased to announce the committee’s search was successful and, on May 1 of this year, Ashley Goodin became executive director. We thank Jim and Susan for their contributions to the association and the industry for many years.”

Goodin addressed attendees on the state of the association. “We’ve had a few changes in our staff, effective immediately. Debbie Corallo now serves as deputy director and COO of RTA. Barbara Stacey now serves as director of communications. We are truly fortunate as the RTA family to have Debbie and Barbara as key parts of our organization. Regina Robuck is director of partner relations as we move forward into 2021 in creating further member value through our sponsorships. Kristen McIntosh and her team will continue to produce Crossties magazine in conjunction with our publishing partner, Covey Communications Corp. Petr Ledvina continues his work aggregating data and producing our sales and inventory reporting methods.”

Goodin reported that RTA is in a sound financial position thanks to fiscally responsible management and the leadership of the RTA Executive Committee members and the dedicated support of sponsor partners.

“I will continue to work with the Executive Committee to determine strategies, policies and resource allocation moving forward to ensure the association remains relevant in its service to the industry while practicing the financial stewardship that will allow us to continue for many more years.”

Future endeavors in the coming months include an updated RTA.org website. “Barbara has been working diligently to create a new website to launch later this year. We hope you will find the resources you need faster with a more intuitive interface compatible with mobile devices.

Goodin also reported that the 103rd RTA Annual Conference and Technical Symposium will be relocated from the initially announced site of Mission Hills, Calif., to a location more centrally located to the majority of members. “To that end, we are adjusting our 2021 meeting plans to provide safe, in-person opportunities for networking, education and fellowship. I can say from recent business and personal experiences that this can and has been done in a safe, responsible manner. I will be working with RTA committees to make sure we are making responsible choices to bring you together for meaningful experiences.”

Goodin said the first event is planned for June 7-10, 2021, in Florence, S.C. While this time is typically reserved for the Annual RTA Field Trip, this event will be repurposed to address industry issues, such as the cradle-to-cradle and cradle-to-grave life of wood crossties, succession planning, employment and employee relations, and other topics.

Goodin also reported the 103rd RTA Annual Conference and Technical Symposium will be relocated from the initially announced site of Mission Hills, Calif., to a location more centrally located to the majority of members. “To that end, we will make an announcement in early 2021. While I know we are all suffering from Zoom zone-out, I am glad you are here with us. On behalf of the RTA family as well as my wife, Meg, and my sons, Hudson and Hayes, I would like to say thank you for the opportunity to serve you as executive director. I look forward to meeting all of you in person, shaking hands and getting to know the smile behind the mask. From my family to yours, we pray you all survive and thrive in the weeks, months and years to come. Thank you for attending the Annual RTA Conference and Technical Symposium.”

On the pages that follow are excerpted comments from conference presentations.
Sponsored by Koppers Inc., the first panel discussion of the conference brought together veteran sawmillers Skipper Beal of Beal Lumber Company in Prosperity, S.C., and Matthew Netterville of Netterville Lumber Company in Woodville, Miss. They addressed log availability, markets for non-crosstie products, creative solutions for challenges faced during and post-COVID-19, and employee recruitment, onboarding and retention.

**Beal:** I don’t find it easy to read today’s market. My grandfather started this business in the 1920s in Florida. We moved to South Carolina, and he bought a tract of timber in the Santee River Basin in South Carolina. He was a big proponent of cypress, and was particularly attracted to virgin cypress, so we had some small mills logged by steam locomotive logging crews. He built a band mill in Andrews, not far from Charleston, in 1954. My dad ran that mill. I wasn’t doing all that well in school at the time, so he asked me what I intended to do with my life. I didn’t have a firm plan, so I built a sawmill. I went to NHLA (National Hardwood Lumber Association) school and learned how to grade hardwood at the hardwood mill where I worked in Virginia. I’m third or fourth generation in this industry, and I’ll probably be the last. My son has decided to pursue a law career.

The biggest challenge in times past was building a mill from scratch. Today, the biggest challenge is trying to motivate a workforce that can’t do anything without a cell phone in their hand and have them show up for work on time, and have a work ethic and actually care. It’s becoming more and more difficult to motivate people to find the sawmill industry to be as attractive as it was during my generation.

Other challenges include markets, timber, weather. All these things are beyond our control, but we just have to navigate through and hope that tomorrow will be better and brighter for us.

**Netterville:** We’re in Woodville, Miss., right off the Mississippi River a little north of Baton Rouge, La. I’m a fourth generation sawmiller. My great-grandfather started this company back in the 1940s. Dad came in and grew it, and my brother and I are also trying to grow it. Educationally, I went to college and got an accounting degree. Dad had us pulling boards from the time we were children. I always knew I wanted to be involved in the lumber industry. I have really enjoyed it and the people I’ve met.

We’re a hardwood sawmill. Some of the issues we find is trying to figure out what we’re going to cut because the markets are changing so rapidly. I feel like I need a crystal ball to see what we’re going to do next week, but then you get a crack in it by Thursday, which throws things to the wolves a little bit. When people were running sawmills in the 1900s, they were making crossties and building and framing material. A lot of it has gone back to industrial like crossties and infrastructure. We’ve been through adversities in the past. We had a mill burn last year and rebuilt it. It’s just part of this industry—learning from those challenges and educating yourself to do better in the future.

The lack of unskilled labor is a constant battle. Typically, we don’t see a lot of turnover in sawyers or lumber graders because what they do is so specialized. Once we get them trained, we want to keep them happy so they don’t go anywhere. For unskilled labor, we are competing with the oil industry and chemical plants. Employees pulling boards, stacking and doing...
CONFERENCE RECAP

We have teamed up with the local community college and are doing training seminars, the topics of which can range from safety to how to read a tape measure.
—Matthew Netterville

our site and the college sends an instructor once every other week to have a 45-minute class with every employee. We plan out the curriculum every quarter. We’ve seen our safety numbers improve and really good educational information come out of these classes. We stop sawmill operations for 45 minutes, which is not cheap. But, at the end of the day, several hours of instruction per year will save us money and help us be more productive in the future. We’ve also seen good things come from people who had been incarcerated, changed their ways and now need an opportunity. We want them to make a good living and be successful.

Beal: The NHLA school that trains people how to grade lumber had almost 70 students when I did it. Now, there may be only six to 10 people to attend. Maybe young people just don’t find this a rewarding career. Old timers would only teach family members a skill. They were taught by people who cared for them—they were apprentices, so to speak. We don’t see that anymore. As far as teaching people to be a saw filer or a sawyer, you just don’t see people teaching that these days.

Netterville: The trend of dads sending their sons off to be a lawyer or a doctor has given manufacturing and our job titles a bad name. However, I have guys working in airconditioned cabs, and it looks like they are playing real life video games. We’re a high-tech manufacturer, but the legacy has kind of stopped for this business.

specialized track will be laid. We utilize gauntlet tracks to accommodate freight operations so they may clear platforms. Several turnouts and crossovers will be included, and it’s worth noting for this conference that the South Shore standardizes on wood ties and catenary poles. Four new bridges are to be built as well as numerous culverts and retaining walls. Route 12 and Route 20 merge in Gary and will be relocated to the east to allow us to replace the station at Lake Street and provide more service to the Miller Community. We will construct two storage tracks to make this station a turning point for additional trains. These improvements are projected to increase ridership in Miller by 30 percent.

Echler: The Carolina Connector Intermodal Terminal, or CCX, has been going on for a couple of years. We started a brand-new intermodal yard in 2019 that will be done sometime in 2021.

Everything’s built but the crane. We’ve already built 4.2 miles of siding track to get into the facility, using 14,480 wood ties. The turnouts, we have seven wood tie and one concrete tie. There are eight miles of terminal track with two miles of wood ties and six miles of steel ties.

Sponsored by Stella-Jones Corporation, the Railroad Engineering Panel brought together Victor Babin of the North Indiana Commuter Transportation District South Shore Line, Tod Echler of CSX Transportation and Scott Sandoval of Genesee & Wyoming. Presenters provided summaries of some of their companies’ major engineering projects.

Babin: The project we are reviewing today is the South Shore Line Double Track Northwest Indiana Project that will extend the double track segment eastward to milepost 33.3 in Michigan City. The most notable improvements will be to capacity, which will improve reliability and service levels and shorten travel times. We will be building or improving five stations within the project limits in Gary, Ogden Dunes, Dune Park, Beverly Shores and Michigan City. Hwy. 12 will be relocated to make room for a new station complex and a set-out yard in Gary. Much of this corridor exists within Indiana Dunes National and State Parks. Environmental work has been and will be extensive throughout the project limits. Twenty-two miles of new track and terminal track with two miles of wood ties and six miles of steel ties.
We’ve had a couple of challenges, one of the biggest of which was of the historical significance of the area being an old plantation requiring portions of the property to go through an archaeological review. We had three hurricanes and tropical storms during the peak of the grading and dirt work. And with the pandemic, we are still experiencing problems. The suppliers of the overhead gantry cranes are from Ireland, so we have 85 truckloads of material sitting at CCX but cannot get the specialized crews into the United States to erect the cranes.

The Howard Street project is fully funded. We’re into feasibility to determine the methods of how to enlarge the inside of the tunnel or rebuild portions of it. We’re doing our NEPA right now and hope to hear from FRA relatively soon. We are going to the final design phase and have plans to complete the project in 2021. Construction is still planned for late next year. Expected double stack clearance in 2025 is the plan.

Our other project is the 75th Street CREATE project, which calls for a 6,500-foot structure built across several main lines. It’s the largest group of projects in the Chicago Region Environmental and Transportation Efficiency Program and includes two projects on the CSX: the Forest Hill Junction Flyover and the 71st Street Road/Rail Grade Separation.

I do see a significant increase in 2021 for bridge ties, so if you’re in that business we intended to increase that.

Sandoval: We have internal production gangs. In 2016, Atlas Construction was overhauled and rebranded as Railroad Engineering Services (RES). RES is made up of bridge, surfacing and tie gangs that allow us to complete more than 50 percent of our capital tie projects in house. Bridge inspections were brought in house in 2018. We have nine bridge inspectors and two FAA-certified drone operators to limit our exposure to free climbing. Insourcing bridge inspections has brought consistency to classification and condition reporting.

I do see a significant increase in 2021 for bridge ties. —Tod Echler
1. TIES LAST LONGER
QNAP ties will last 20% longer than creosote ties.

2. CLEANER HANDLING CHARACTERISTICS
QNAP ties are clean and easier to handle in the field.

3. QNAP WON'T BURN SKIN
We've seen railroaders use a stack of ties as a field desk with no impact on the people or the documents being used.

4. AN OIL-BORNE PRESERVATIVE
Like creosote, QNAP is a heavy duty oil-borne preservative, which means it can be used to treat hard refractory species like white oak and Douglas fir.
5. REDUCES BLEEDING AND DRIPPA GE  
QNAP ties have quickly become the #1 choice of Class I railroads for their bridges because it virtually eliminates bridge ties from dripping onto roads, vehicles and waterways.

6. QNAP TIES ARE NON-CORROSIVE  
Ties treated with QNAP are non-corrosive so they will not degrade or cause fasteners, plates, spikes and fittings to corrode.

7. QNAP TIES ARE NON-CONDUCTIVE  
Conductivity of QNAP-treated wood is similar so there is no concern of signal interference.

8. SAME LUBRICATION PROPERTIES 
QNAP has the same lubricating properties as creosote, giving you consistent performance with treated ties.

9. GENERAL USE PRESERVATIVE  
QNAP is not a restricted use preservative like creosote or penta. Your workers’ clothing will last longer and and meets EPA NHSM rule for easier end of life recycling.

10. AWPA STANDARDIZED  
QNAP has been standardized by the AWPA for use on ties, timbers and poles. Additionally, ready-to-use QNAP 2 is available to field treat end-cuts, daps and drill holes, eliminating treatment gaps.
Since 2016, G&W has utilized GREX’s Aurora tie inspection system to evaluate tie condition. We have been able to test more than 90% of G&W’s main track over the last five years. The next step in the process will be a second round of collections to help determine a tie degradation rate. The benefits from RES, bridge inspections and the Aurora system translate directly to our capital planning process and create efficiencies for our system-wide long-term capital plan.

Rail grinding is one of our more recent initiatives. In 2019, we ground the Buffalo to Pittsburgh Railroad. In 2020, we are scheduled for 100 days of grinding across the G&W system. We utilized Loram’s Mobile RGT to grind a total of 11 railroads. A large portion of our rail has not been ground in decades. To get the grinding program off its feet, we targeted larger tonnage lines that have histories of SSC and LER rail defects. Given our lower traffic volumes, we don’t anticipate the fuel benefits that Class 1’s see from rail grinding. Our grinding program is aimed at removing surface conditions that prevent valid Ultrasonic tests and can also lead to transverse defects.

Whether it is through bridge inspection, tie condition analysis or rail grinding, G&W is focused on data collection and utilization to drive a proficient long-term capital plan.

The CT system creates raw data in helical form, which then needs to be deconvoluted into two-dimensional slices. The last step is to put the slices together to form a three-dimensional model.

We are researching a dual-energy x-ray system that allows us to better determine density changes. This is valuable when trying to determine where penetration of creosote stops and starts. If you’re detecting x-rays coming back at both lower energy and higher energy you can subtract those images and areas to create bright contrast where the density changes rapidly. It allows you to have an A scan, a B scan and a subtracted scan. So, you have three layers of data you can operate in between to make your analysis and reconstruct your images.

Once all the two-dimensional slices are assembled, they stack together to become three-dimensional.

A CT scan of a tie will be hundreds of two-dimensional slices. For this scenario, we are doing one-eighth-inch thickness. This means each inch of the 3D image has eight two-dimensional slices. The 3D reconstruction can be put into viewing software and we can “fly” through the interior. We can see the rings in the tie and can follow the heartwood along the entire length of the tie. Another feature we can see is if the heartwood is outside of its acceptable position.

Currently, we are using case testing on reduced tie segments. We are trying to get our hands on more sample sizes, including different types of wood, treated and non-treated, composite, concrete ties, all of which can be different sizes. We’re also upgrading our abilities to scan full-length ties at speeds that meet daily plant production quotas. Once fully implemented, this technology will give tie plants the ability to weed out bad material earlier in the process, resulting in a higher percentage of healthy ties going to railroads.

"This technology will give tie plants the ability to weed out bad material earlier in the process, resulting in a higher percentage of healthy ties going to railroads." — Jeb Belcher

In a presentation sponsored by Gross & Janes Co. and Nisus Corporation, Alex Chausovsky of ITR Economics presented a review of short-term and long-term economic forecasts. The presentation included an explanation of 12/2 and 3/12 monthly moving averages, business cycles and how attendees can directly apply their use to business. Chausovsky’s goal with the presentation was to provide guidance in an uncertain economy.

Chausovsky: During this time of uncertainty, you have to be a data-driven decision-maker. You cannot allow emotions, fear, anxiety to make your business decisions for you. You must base decisions on good quality, reliable data.

I need you to find balance between the challenges facing you in your business right now—whether that’s having to do with lower revenues or a drop-off in potential orders, staff challenges, capacity planning, etc.—with an understanding that this is not the end of the world. The economy will grow again, your business will recover from the pandemic crisis, and you need to be thinking ahead right now.

The pandemic continues to rage on, but we have seen some encouraging signs from the economy. Over the fall, we’ve seen the green shoots of a recovery start taking hold. And, as we look out over the rest of the year...
and into 2021 and beyond, we’re monitoring how those green shoots are going to behave and how they are likely to continue.

We believe the recovery is real and that the worst of the crisis will be contained to the second quarter of this year. And, as we continue to progress into 2021, we should start seeing the green shoots of recovery transform into something more meaningful. Some upside business cycle movement is expected in 2021, and with that in mind you need to be thinking about how to plan for the future. Ask yourself, “the last time I was headed into a downturn, what do I wish I had done more of? What do I wish was in place that would have allowed me to ride this until the cycle improves?”

If I were to give any advice, it would be to

- Be data driven. Focus on what you can control. Don’t worry about what’s happening on Capitol Hill. That will work itself out. What you need to focus on is investing in people, investing in your business and making sure you are positioned correctly to reflect what’s going on in the business cycle. In other words—and this is important—separate near-term events from fundamental economics and ascertain what will be driving your business in the next 12-18 months. One of the changes we believe will have an impact on you and your business are changes in interest rate policy, which will be supportive all the way through and into 2023. We see signs that Fed Chairman Powell is certainly intent on supporting the economy as much as possible. What this means to you as a decision-maker, especially as you plan to invest in your business for the future, is that you should think about leveraging somebody else’s money to grow your business into the future. Interest rate policy like this will not stick around forever. The longer-term expectations are about 2.5 to 3 percent higher than they are today. So, ask yourself, even if you are in a cash favorable position, can you borrow money to invest in capacity planning, people, equipment, and all of the things you will need to leverage that growth trend in the United States when it comes calling in 2021? Start with as much and as frequent data as possible.

“

As we face challenging times, the relationships of this industry give me confidence we will get through this.”

—Jason Dallas
some signs of life. Overall hardwood production has been awfully low. May was the lowest annualized production in the Eastern U.S. since 1960. Softwood lumber is hitting homeruns right now. Softwood composite prices enjoyed a 148 percent increase year over year. We all know the building industry has the biggest impact on domestic hardwood demand, so the numbers we saw about housing starts, and interest rates at an all-time low, will have some impact on the industry. As for sawmill byproducts, these are a challenge for our sawmills. Paper prices are down, which has caused some plant closures or conversion from hardwood to softwood. We have seen this affect our operations in Tennessee, Arkansas, Louisiana and Michigan. Pallet wood prices have seen the bottom and are recovering. The industrial mat business has been a very difficult market. It’s slowed to a crawl with Texas crude oil and gas prices being down. In crossties, production has gained momentum since June 2019. Pricing is relatively stable vs. other hardwood products. In fact, crossties may be the only value proposition for the sawmill owner. Covid-19 has caused more producers to jump on the crosstie bandwagon.

**Heller:** The hardwood industry in the United States has been using about 8 billion board feet per year in the last decade. This year, that number should be about 6 billion board feet. There are a lot of challenges for sawmillers. The softwood industry vs. the hardwood industry is dramatically different. Hardwood has really taken it on the chin. Softwood, with people working out of their houses, we’ve seen a record amount of construction to add decks, restaurants adding spaces to work around COVID regulations and more. It does appear that the softwood industry has peaked. When COVID hit, nobody foresaw softwood demand taking off, and it surprised a lot of people. It took a while for softwoods to get back in there and get production where it needed to be. That has pretty much peaked. We are seeing softwood prices falling from peak.

One of the things I think is important to mention is that we all need each other to succeed. We are very satisfied with most of the suppliers producing ties for us. We want them to succeed and be around. We also feel the same with the railroads. If their tie program changes, the sooner they get that information to us so adjustments can be made, the better. It helps avoid some of those peaks and valleys.

**Ramadan:** Our network is divided into the eastern and western region. There is an estimated demand forecast for 2021 of about 2 million crossties systemwide, about 75,000 switch ties and pre-plated ties, and 100,000 concrete ties and composite ties. Of that 2 million crossties, we plan on procuring approximately 1.9 million, and this is due to the depletion of our inventory levels. The strategy in recent years has been to deplete inventory levels due to the increase in green tie prices as well as low inventory levels. Overall, our forecast for ties is 2.1-2.2 million.

Our goal is to secure our supply of crossties in cost-efficient and effective ways to meet the tie program requirements. Our challenges are significant increases in green ties and 50,000 concrete ties for a total of 3.45 million.
tie prices in recent years, low availability of green ties, and poor lifecycle of a wood ties in high humidity regions.

There is increased interest in alternative solutions. Opportunities include supply chain solutions to manage wood tie supply as well as value-added projects to reduce the cost increase of wood ties. We’re really hoping for a paradigm shift for green tie supply to reverse the upward trend of green tie prices.

**Knopsnider:** We’ve always been around a 3 million tie program. We’re going to hit that or maybe a hair over this year. For 2021, we are looking at around 3 million ties once again. With this pandemic, we didn’t make a lot of changes in our tie program. It’s interesting, when Erin had this role before me, we were in a circumstance where we had too many ties. In 2019, we had a tie shortage due to weather conditions. Last year, she said we are going to create a more normalized program. I think we’re getting close to that and working with our suppliers to make that happen. Switch ties are going to stay pretty much unchanged next year at a forecast of 130,000. We have seen an increase in our forecast for bridge ties for a minimum of 30,000.

We will continue to ask our suppliers to produce better products. We will look at our specs and determine what we can do differently as well. Basically, we want to be sure the products are in line with our specs and expectations.

**Storm:** The Genesee & Wyoming footprint has changed slightly since last year. We have 116 railroads, 7,300 employees, 3,000 customers, 2.4 million carloads, and 13,700 track miles. The Brookfield acquisition of G&W closed on Dec. 30, 2019. We are now privatized.

While G&W is technically classified as regional short line, we’ve invested more than $1 billion in the past three years. In 2020, our capital tie program represents 40 percent of the spend. The G&W forward purchasing process has allowed us to be proactive instead of reactive. Our largest challenge by far is logistics, especially the trucking side. Our suppliers provide this service and fill a hole that currently exists in our supply chain, and for that we are truly grateful.

G&W’s tie type specification is 80 percent grade and 20 percent industrial grade; 99 percent hardwood, 1 percent softwood; 70 percent borate dual treated, 25 percent creosote and 5 percent copper naphthenate.

We are forecasting a slight decrease in demand into 2021 for core capital, special projects and grants. Wood crossties: 975,000 EA, 800,000 BF of switch timbers due to significant turnout replacement scheduled for next year, 2 million BF of bridge timbers; 150,000 BF of crossing timbers, and 1,000 EA steel ties.

**Ostrander:** This year, we installed 1.5 million ties—a record year of installing ties. We installed ties 20 percent faster than we normally do, and we are two months ahead of schedule. We also saw growth in furthering our code of conduct, sustainability, indigenous leadership and diversity initiatives. We are continuing trials of turning scrap ties into renewable fuels.

Looking forward to 2021, we’re forecasting 1.3 million ties. Track time is at a premium, so we are always looking for innovative ways to install ties so we can keep serving our customers. We are having a limited concrete and steel tie program—less than 10,000 ties. We are planning 30,000 switch ties, 65,000 pre-plated ties, 100 percent hardwood, and no 6x8’s in the U.S. and Canada. No grade 4’s in mainline track. Limited 7x9x8. We’re evaluating concrete and composite ties. We will continue in the development of our environmentally sustainable scrap tie recycling program. We’re conducting trials to receive our provincial environmental permitting to recycle scrap ties to diesel and naphtha kerosene with a goal of by mid next year of getting into full commercial production in producing these materials from scrap ties.

**Velez:** Olivia Daily is the new VP of Purchasing. In 2020, we will install approximately 540,000 wood and 80,000 concrete for approximately 620,000 ties. We believe this pattern will remain consistent over the next few years.

**Rail Products.** Participants discussed the latest in their companies’ wood preservation research and innovations.

**Lloyd:** Earlier this year, we did both dip treatments and pressure treatments on green ties. We assayed for borate and looked at gauge retentions and then carried out Boulton drying and treatment in copper naphthenate commercially. We did extend the dipping process with a high borate solution: 30 percent DOT drip for 16 hours and 150 and 210 degrees Fahrenheit. Cellutreat DOT pressure we did at 30 percent DOT, 1.5 hours for MHW and 3.5 hours for oaks at 150 psi, 150 and 210 degrees Fahrenheit. We got quite a nice treatment on the gum; the oak was arguably a better treatment. With the dip treatment, as expected, we get less penetration. With the hotter temperature we got a bit better treatment by diffusion. The ties were then commercially Boulton dried and pressure treated in copper naphthenate. The gum ties treated a bit more than initial penetration. With the hotter temperature we got very good treatment as a result of Boulton drying, and copper naphthenate drives additional penetration of the borate. We see similar results with the pressure-treated borate followed by Boulton-dried oak and dip-
treated borate followed by Boulton dried and pressure treated. On this side of the slide, we sprayed with copper. More penetration with gum, less penetration with oak. The inner part not penetrated by copper is really the reason we are doing the dual treatment. First of all, the copper retention doesn’t really change that much with the treatment. This commercial Boulton drying treatment well exceeded the AWPA and AREMA guideline for copper retention. We wanted to make sure initial treatment with borate did not impact final treatment for copper. We also looked at borate retention treatment. We’re five and six times the standard levels.

We only need to hit the AWPA/AREMA retention of 0.25 pcf DOT. That was easily done, and we demonstrated no borate loss. There was no cross-contamination of borate and copper naphthenate. Because we are not removing borate, we don’t get a drop out of borate from copper naphthenate previously seen. There was no borate sludge to clean out from the cylinder. It’s a much better process. We maximized the cylinder process and removed that seven-day diffusion traditional time. If we do dip treatment before the Boultonize treatment, we’ve maximized the cylinder time, but there is a little bit of extra handling. We get a much better final treatment with shorter treatment times. Treatments can be done by either dip or pressure treatment. We are getting faster treatment times and faster penetration with pressure process vs. the dip. We are recommending to use a 20 percent DOT borate solution concentration with 1.5 hours press time on mixed hardwoods or 3.5 hours press time on the oak with an extended final vacuum followed by Boulton drying and copper naphthenate pressure impregnation. Now, hopefully, the railroads can order the dual treated borate copper naphthenate switch ties for all the benefits we get in crossties and bridge ties.

Smith: Creosote is really the original wood preservative. It goes way back to the 1700s when it was used to preserve wood on ships that were being eaten by ship worms. And it’s been used ever since. Creosote, like just about everything, has some degree of toxicity. As this saying from the 1400s recognizes, just about anything can be a poison if there’s too much of it.

While creosote presents long-term (chronic) health hazards, we note that for short-term (acute) hazards, creosote is somewhat more toxic than table salt and is less toxic than aspirin on a short-term, acute basis. Creosote is effective as a wood preservative. It makes wood last much longer. It still is a toxic chemical, which is why it works in part, but with proper use and precautions, it is safe to use. Creosote products have a long-proven history.

Skoulis: Creosote is a restricted-use pesticide, meaning treatment plant workers are required to use protective clothing and equipment. The major routes of exposure are dermal contact and inhalation. Creosote is not acutely toxic via dermal contact. On casual contact with creosote to the skin, it’s not irritating, however, repeated exposures to skin can cause some irritation characterized by some reddening and in some cases increased sensitivity to sunlight.

Epidemiology studies of creosote treatment plant workers reported no serious chronic health conditions, including cancer, when workers’ health was compared to the general public.

As far as the environmental component of the EPA’s assessment is concerned, the Creosote Council is currently engaged in a testing program in the eco-tox area. The Council is working with Oregon State University to study the dynamics of PAH migration from creosote treated posts in soil and in freshwater settings and as part of the EPA Data Call In, the Council is running requested tests on fresh- and saltwater aquatic organisms. Once everything is completed, the Council will have a full dynamic picture of PAHs in the environment and satisfy any concerns of the EPA.

EPA’s assessment of creosote treatment plant workers determined exposures were considered acceptable for risks pertaining to cancer. The Creosote Council is negotiating with EPA to work on processes for tweaking the hygiene and safety to further improve the safety to the workers.

Chambers: Borates are amazing preservatives. We have been using them for over 40 years in the pole industry with diffused rods for remedial treatment. The pole industry, through work with Oregon State, developed a pole research cooperative and came up with use of borate rods in remedial treatment. Borates have also been used well over 20 years in the railroad industry for dual treatment in crossties and other railroad timber products. If you get an adequate amount of borate in the timber tie, it will diffuse and extend tie life.
Poles are seasoned by air drying, steaming or kiln drying. Though you still have the center portion of pole with some moisture that can promote decay. The Achilles heel of the pole is the ground line. As moisture builds to 30 percent, you start getting decay. The ground line is what the pole industry attacks. The industry has addressed this by using borate rods at ground line. Analysis has determined you get a good return on your investment.

Bor8Rod treatment cycles are usually five years and yield an average savings for the life of the pole of $9. It is estimated that the savings per year for the timber pole industry is over $1 million.

Railroad timbers have seen a 175 percent plus increase in raw cost, moving them into the expense of the pole cost category. AWPA specs require that the outer three inches of timber be brought down to 50 percent moisture, which allows for good treatment with specified oil borne preservatives. After conditioning/treatment, moisture contents will be over 50 percent to 75 percent plus in the center portion of the timber.

Using 100 percent DOT concentrate, we drill a 13/16-inch hole and apply it right in the middle of the timber. Borate rod preservative volumes are known when applied. That volume is not lost during the Boulton conditioning/treatment process which enables a guarantee of borate preservative treatment. The outer shell is treated with oil borne preservative.

From pole and timber tie research, it is known that fused borate rods will dissolve and diffuse in these timbers. You are making a treating solution in the center of the center portion of that tie.

With crossing timbers, when we apply Bor8Rods, we apply the AWPA volume and customer requirements. In bridge timbers, we are applying Bor8Rods as a dual treatment or remedial treatment in the field. Other high-decay areas and moisture barrier problems in timber railroad products are being reviewed.

As with timber poles, these railroad timbers have reached the point of being high value timber. Bor8Rods can be delivered to extend service life with remedial treatment and as a dual treatment. Bor8Rods are an added-value preservative system providing a return on investment of 17-21 percent.

The same economic success that the pole industry realizes for utility poles can be realized by the railroad industry for bridge, crossing, switch, and specialty tie applications with the use of Bor8Rods.

Hardwood industry association representatives Dana Lee Cole of the Hardwood Federation and Tom Inman of the Appalachian Hardwood Manufacturers Inc. discussed trade, tariffs, regulation and challenges facing the forest industry.

Cole: The Hardwood Federation is the voice of the U.S. hardwood Industry in the United States. We represent 28 associations throughout the United States. We educate policymakers at the federal level about federal issues that affect the industry and how those issues can either help us or hurt us. We lobby them to make sure good policy gets passed and bad policy gets stopped. We network with industry and association allies. We also support our Hardwood Federation PAC and are very careful with those dollars in supporting members that support us. We target committees on both the Senate and House side that have specified issues related to the hardwood industry. We do have a pretty healthy PAC, and it is an important way for us to be seen and heard on Capitol Hill.

Tariff elimination would not have happened had we not been so active with USTR and if they hadn’t pushed China as well.

We’ve identified our policy priorities over the next months. The board has sent a letter to (what is now) the Biden transition team outlining our priorities for 2021 and a new Administration, including strong international and domestic markets and policies that support those; supporting green building initiatives, perhaps a tax break for use of wood and wood products in use of building products; increased government purchasing of hardwood; active forest management of federal lands, which is even more important as we go through this forest fire season; carbon neutrality of forest biomass; and tax policy that supports small- and medium-sized businesses.

There is a perfect storm driving high interest in the hardwood products industry, including the rise of competitive products such as plastic flooring, environmental messaging, China trade and COVID-19.

The Real American Hardwood Promotion Coalition is an industry-led initiative to develop a campaign for consumption of hardwood products. There are 27 associations engaged or that have provided funding for us to get started. It’s the CEOs who are really at head of this, and we are really hopeful they will be able to bring those company members along. We are in the process of finalizing a brand and strategy to determine what we can do collectively and domestically.

A lesson learned is that a unified industry is more effective. When elected officials hear from you, it matters. You can’t just show up when there’s a crisis. Too much education is needed to make people understand. If we are unified and constantly engaged, it’s easier to make policymakers understand.

Inman: The Appalachian Hardwood Manufacturers’ mission is to promote the distinct advantages of hardwoods produced in the Appalachian region of United States and develop programs and services to help ensure an adequate supply of wood resource for the purpose of helping members meet the
needs of the public in general.

The good news is that we have the trees! The U.S. Forest Service counts the volume of live trees in the forest. The resource is there and in a species mix that we need. The live tree stands are also great. The growth of these forests is truly increasing, mostly in the Eastern and the Appalachian region specifically. We truly are growing more trees than harvesting and dying combined.

Log supply as we move into fall and winter is fair. Many logging companies, however, have scaled back over the summer and into early part of fall, so sawmills did not have inventory they would like. A number of mills didn’t run over the summer because they were out of logs. They couldn’t continue to pay higher prices for logs they were getting. This could mean lumber and tie supplies will tighten a little bit as we go into early part of fall and into the winter.

Tie supply is very stable. I did a survey of all my sawmill members that produce ties to see how they were in their supply. The majority said they are able to move all of their production. The demand for inventory is solid going into fall. Some adjustments were made earlier in the year, but that has improved. One member said they had a regular contract with a tie company that scaled back on its purchasing, but they were able to move those ties to another supplier in just days. Most say they are able to move their production. The expectation is that supplies could rise into next year, and that’s good news.

While we’ve lost some production of our grade lumber at this time, fortunately our industrial products have really helped our sawmills.

**AREMA both needs and appreciates the relationships built with organizations like RTA. We ask you to become involved in our technical committees.** —Beth Caruso

Leaders of key railroad industry associations discussed how 2020 went for their members, and what their top priorities are for 2021. On this panel were Beth Caruso, executive director and CEO of the American Railway Engineering and Maintenance-of-Way Association (AREMA), Ashley Wieland, president of the National Railroad Construction and Maintenance Association (NRC), and Chuck Baker, president of the American Short Line and Regional Railroad Association (ASLRRA).

**Caruso:** This year was challenging, but it was still very positive. In September, we held our virtual conference and expo, and we appreciate every person involved as we made the adjustment. We welcomed 1,700 attendees and were grateful we could still provide 80 technical presentations and the opportunity to participate in multiple networking and educational sessions. Education remains a primary focus of AREMA. Web-based educational programs are offered throughout the year and expand on material produced by our technical committees.

AREMA membership remains strong, and we are pleased to be the railway professional membership organization of choice for nearly 5,500 people.

Our 2021 conference will be held in conjunction with Railway Interchange (AREMA, RSI, REMSA and RSSI) Sept. 26-29 at the Indiana Convention Center in Indianapolis, Ind. It is the largest combined railroad exhibition and technical conference in North America. Attendance at our 2019 event topped 8,500, and our hopes are that the 2021 event will be just as successful.

AREMA’s 2022 Annual Conference and Expo will be held Aug. 28-31 at the Colorado Convention Center in Denver, Colo.

AREMA’s executive leadership clearly understands that a key strength of the railway industry is the positive relationships that exist between the railroads and their professional and supplier organizations.

AREMA maintains close working relationships built with allied organizations, including RTA. We appreciate the support of the RTA, since members of both organizations freely intermix to promote the railway tie industry. To this point, we appreciate that some of our AREMA committees meet in conjunction with RTA events.

AREMA Committee 30 concentrates exclusively on ties and helps drive the recommended practices that are ultimately incorporated into the purchasing specs for many railway companies and transit agencies. The committee is made up of volunteers, many of whom are in this virtual audience, and I’d like to say thank you for your efforts and involvement. If you are not familiar with this committee and are interested in serving, please contact me or our leaders. You can also visit our website. The committee members are always looking for new and interested members to assist in their work.

AREMA is stronger than ever. We are committed to remaining vital to this industry moving forward and helping develop the next generation. AREMA both needs and appreciates the relationship built with organizations like RTA. We ask for your continued support through membership and ask you to become involved in our technical committees. We are actively recruiting subject matter experts to provide their expertise in the development of our publications, educational opportunities and to serve as mentors to the younger generation. Most importantly, we look forward to your participation in our conference and educational opportunities.

**Wieland:** NRC is a nonprofit trade association representing contractors and suppliers within the railway construction and maintenance industry. We have some overlap with RTA membership. Our members perform work for various customers, including freight, transit, commuter, inner city passenger, and industrial rail customers, with services including track construction and maintenance, grade crossings, signal and communications installations, bridge construction and repair and rail yard work to name a few.

On the legislative side, we are looking at the next iteration of transportation reauthorization. On Sept. 30, Congress passed a one-year extension of the FAST Act, which is better than letting it expire, but doesn’t
Baker: The short lines kept going right through the pandemic, and the suppliers and contractors were right there with them. What you do is very crucial to the economy. What railroads move keeps the economy going.

Business is down some—about 7-8 percent YTD on average for short lines, but this varies depending on the railroad and the customers. It has been slowly picking back up for many months now and is close to flat at this point from last year on a weekly basis.

Early on in this year, we spent a lot of focus on emergency safety waivers and also with DHS/CISA to have our employees designated as critical infrastructure workers. We also spent a fair amount of time on big coronavirus relief packages, on RUIA issues and employee retention tax credits. Into the summer, we shifted our focus to the transportation legislative front. We spent a lot of time on the Surface Transportation Reauthorization bill. It was a mixed bag at best. There was some good news on CRISI, some good news on the Short Line Safety Institute, and no bad truck size/weight provisions. The biggest issue for us that really got our members quite frustrated was a crew size mandate, which we believe was totally unjustified. There’s no data that shows a two-person crew is safer than one, and there’s just no reason to believe there’s a need for federal legislation on that front. There was also a proposed ban on moving LNG by rail and, overall, there was more of a focus on passenger rail than freight rail, which for short lines would be problematic. The good news is that it was an extremely partisan bill and thus didn’t move, so we get to try again next year.

The 45G tax credit is extended through 2022, so I don’t have to wake up in a cold sweat every morning worrying about it getting extended. There is a chance that permanency could happen in the lame duck session of Congress this year. What the RTA has done to support short line association on that effort is really huge. The data you provide and econometric analysis that you’ve been working on for years that essentially proves that short lines buy more ties with the credit in place and, even better, buy even more ties when they know about the credit in advance as opposed to retroactively, is the single best data we have proving the value of the tax credit and proving we do what we say we do with it and don’t just do work we would have done anyway or just pocket the money. Thank you in advance for your support on this topic and providing that data.

We have a few major initiatives for 2021. One is on the environmental front. Our newest committee is the environmental committee, and we’re going to be spending a lot of time sharing best practices on sustainable railroading, tracking federal and state funding activities, fire suppression tactics, and making sure shippers understand environmental benefits of shipping by rail. I would say RTA is a leader in this topic. We do have a specific request. Tie disposal continues to be a big challenge for our railroads. I just had one reach out to me whose ties were historically taken for chipping, which is no longer attractive given the changing energy markets. They are now looking at a huge price increase on tie disposal, so if anyone has a new idea on how a short line in the upper Midwest can economically dispose of a lot of ties, I am all ears.

Tie disposal continues to be a big challenge for our railroads. —Chuck Baker
Closing Session
RTA’s 2020 Virtual Conference, themed “Survive & Thrive” officially closed Oct. 22 as the association welcomed Rick Gibson of Appalachian Timber Services as the new president to serve for a duration of two years. See page 6 for a Q&A with Gibson.

The association wishes to thank Bill Behan of Gross & Janes Co. for his dedicated service for the last two years and looks forward to his continued participation on committees and events.

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