

# RTA Tie Grading Seminar: Keeping America's Railroads Safely On The Move

This year's Crosstie Grading Seminar took place at the AmeriTies plant in Hope, Ark. The students learned about engineering principles, wood identification and anatomy, tie defects and inspection, fungi, drying and conditioning, treating, procurement, and their place in the creation of a railroad tie.

The instructors taught students how to

spot defects that might limit tie life, and which species of trees make the best ties. "RTA is honored to gather such a skilled team of instructors year after year who are willing to share their knowledge of the fundamentals of tie grading with our students," said RTA Education Committee Chairman Marshall Allen. "Every year, we are proud to be able to send these

professionals out into the field with the information they need to ensure wood ties placed in track are suitable for America's railroads."

The photos and captions on the next few pages provide a snapshot of what the seminar is like and how you might benefit from attending next year in Florence, S.C. ■

## DAY 1

Day one is filled with classroom instruction on engineering principles, an overview of each individual's importance in the supply chain, and the basics of wood identification.



Kevin Hicks of TranSystems begins the classroom portion with a presentation of engineering principles switching off with...



...Michael Skeen of CSX. The two give the class an overview of why a good tie is so important to the railroad.



Jim Ringe of the University of Kentucky tells the story of a tie's journey from tree to plant and then hands off the conversation to...



...newly minted Ph.D., Dr. Nate Irby of Union Pacific, who continues the story of the tie's journey from plant to track.



Terry Conners of the University of Kentucky launches into a discussion about wood identification.



Looking deep into the structure of wood with hand lenses, Terese Hadwin and Sarah Liebhart, both of Stella-Jones, decide whether the wood is ring porous or diffuse porous.



Titus Mills of Koppers tests the porosity of red oak by dipping one end in soap bubbles. Looks like this piece has no tyloses.

## DAY 2

Day two begins in the classroom with instruction on grading and defects, including a test, and continues with full-sized ties at the plant.



Robert Pearce of Stella-Jones discusses the rail bearing area of a tie. This is a crucial part where defects can spell disaster.



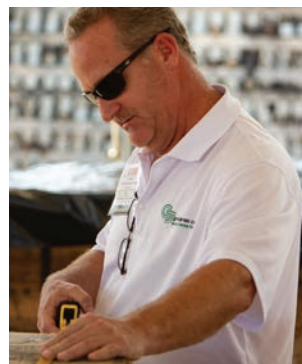
Each instructor takes a group of students to look at cut tie ends for in-depth species identification. Here, Dr. Conners listens to Maria Tanase ask a pertinent question about this type of wood.



After learning about defects from Pearce, the students take a graded video test. This year's winner of a \$100 Amazon Gift Card is Eric Lehr of Applied Testing & Geosciences.



Robert Pearce discusses defects on full-sized ties with Duncan Lawson of Proven Management, Colton and Tanner Hatfield of McCreary County Hardwoods, and Jeremy Millard of Stella-Jones.



RTA President Bill Behan of Gross & Janes measures the tie to see if it is the right length to put in track.



Mark Bear of the National Hardwood Lumber Association ponders whether the defect in this tie is large enough to reject the tie, or if it could be used as an industrial grade tie.

## DAY 3

Day 3 is Hawaiian shirt day for the instructors, a tradition started by Dr. Conners in 2016. Instruction begins in the classroom again with specifications and defects, insects, fungi, drying, a treating demonstration, and a discussion about procurement. Then it's off to the plant again for the Annual Tie Grading Derby.



Robert Pearce goes more in depth about tie defects and RTA specifications.



Brad Crawford of Norfolk Southern shows core samples of treated ties during his presentation on seasoning and treating.



Dr. Conners fills his full-cell demonstration container with black dye to see how far it will penetrate different species when pressurized.

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Source: The University of Tennessee-Knoxville 2-Step Tie Strength Study



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— **Jim Gorman**  
*Corporate V.P. Marketing, Nisus Corporation*

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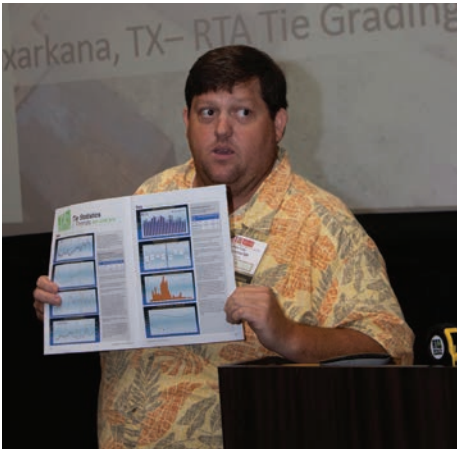
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Dr. Irby shows the latest issue of *Crossties* magazine to make a point in his procurement presentation.



At the plant it's quiet as each individual has to decide species and defects for themselves. Zachary Mayes of Proven Management scrutinizes the tie for species and defects.



And the winner of the \$100 Amazon Gift Card for the most correct answers on the Tie Grading Derby is Nathan Hosterman of Koppers.

## Hats Off To The Tie Grading Crew!

### INSTRUCTORS/RTA TEAM:

Marshall Allen; Bill Behan of Gross & Janes; Terry Conners and Jim Ringe of University of Kentucky; Brad Crawford of Norfolk Southern; Jim Gauntt and Barbara Stacey of RTA; Kevin Hicks of TranSystem Corp.; Nate Irby of UP; Robert Pearce of Stella-Jones; Michael Skeen of CSX; Ted Woerle of Koppers Inc.; and Mike Goldston of Brewco (reception host).

### STUDENTS:

Jacob Greer, Eric Lehr, Maria Tanase and Raphael Termat of Applied Testing & Geosciences; Bill Behan and Darrin Freeman of Gross & Janes; Corey Augenstein, Jon Paul Bennett, John Clayton, Nathan Hosterman, Titus Mills, Jeremy Millard, Tommy Paddy, Ronald Staggert and Randy Volk of Koppers Inc.; Colton Hatfield and Tanner Hatfield of McCreary County Hardwoods; Vuk Milicevic of MiTek; Cole

Benefield of Natural Wood Solutions; Mark Bear of NHLA; Tanner Fee of Nisus; Duncan Lawson and Zachary Mayes of Proven Management; Charles Isaacs of RLT Solutions; Derick Bryant, Patrick Cullinan, Therese Hadwin, Reginald Johnson, Derrick Kneifl, Sarah Leibhart, Heath Russell, Eduardo Silva, Payton Stracener, Jason Waller and Keith Williams of Stella-Jones Corp.; and Taylor Bonnin of Trans-Global Solutions. ■

