

FIELD NOTES

MACHINE GRADING FOR THE FUTURE



Throughout the industry as we struggle for competent, motivated staffing more and more we turn to technology for consistent good decision making. Moving piece value decisions from entirely human based on-the-fly to technology driven analysis is becoming increasingly important.

Visible-defect recognition systems and software have been developed, especially with the application of Deep Learning Artificial Intelligence to grade hardwood lumber well and consistently.

With a deep neuro network, a computer will use data (inputted initially by a programmer for training) to learn to perform a specific task. If there are errors and the AI system is alerted to those

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errors with better data, the AI system will find ways to fix the errors with additional input from the manufacturer's system specialist. It will develop its own algorithm, and better data can be provided to enable the system to make the corrections.

The critical factor for these systems to work properly at the start is for wood product manufacturing facilities to provide new and better data over time to train the AI system as well as for correcting errors should they crop up down the road.

With the customer acceptance we are seeing, and this reference from NHLA the way of the future is being shaped.

These times of poor markets, tough logging conditions and labor shortages makes it difficult to implement capital improvement decisions. These trying conditions should not preclude solid future planning and we can help you formulate a solid plan.

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NHLA Chief Inspector Dana Spessert in his article from the September 2023 "Hardwood Matters" magazine states:

"In the future, the NHLA Grading Rules will continue to evolve to meet the changing needs of the industry. One potential area of development is using AI grading machines to assist in the lumber grading process. While human graders will always play an essential role in ensuring the accuracy of the grading process, AI-powered machines can help to streamline the process and improve consistency. However, it is vital that AI grading machines be carefully calibrated to ensure that they accurately identify the quality of the wood, which requires ongoing research and development, as well as collaboration between NHLA and manufacturers of AI grading machines.

The future partnership between the NHLA Grading Rules and AI grading machines looks bright. NHLA is looking to expand the NHLA Facility Grade Certification program to include AI grading machines. This will help ensure that the Lumber Inspectors and machines maintain the highest standards and accuracy. By providing a fair and consistent system for grading hardwood lumber, NHLA will continue to play a critical role in ensuring that buyers and sellers can communicate effectively and that the wood they buy and sell meets specific quality standards."

