ENHANCING FOREST PRODUCTIVITY AND WOOD QUALITY

A McIntire-Stennis project to optimize management regimes for genetically improved southern pines

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With increasing demand for wood production from an ever-decreasing land base, it's important for forestland investors to understand the best methods to enhance tree stand productivity, improve wood quality, reduce rotation length and increase financial returns.

Often, genetically improved southern pines are an integral part of this equation. But these types of plantations can vary significantly, which can affect wood quality, growth and yield. As we rely on a set of growth and yield models to determine production, it's necessary to understand how genetically improved stands grow across a range of genotypes, then to specify and evaluate models of stand dynamics.

In this project, we are designing and installing a region-wide trial to examine growth and yield components such as height-age, height-diameter, mortality relationships and product quality for improved genotypes. Our findings will eventually inform new forest growth and yield model systems.

About McIntire-Stennis

The McIntire-Stennis program, a unique federal-state partnership, cultivates and delivers forestry and natural resource innovations for a better future. By advancing research and education that increases the understanding of emerging challenges and fosters the development of relevant solutions, the McIntire-Stennis program has ensured healthy resilient forests and communities and an exceptional natural resources workforce since 1962.

USDA

COLLABORATION

Our field research takes place across the Southeast. Collaborators include:
- Forest industry partners
- University-level scientists

27+
Partners in industry and higher education

IMPACT

By improving forest productivity and wood quality, the United States benefits from both economic and environmental perspectives

KNOWLEDGE

This project will develop an enhanced toolbox for better forest management decisions.

QUALITY

Improvements affect fiber production and wood use on a global scale.

ECONOMICS

The forest industry in Georgia alone is valued at more than $36 billion.

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