**Probing the Potential Value of Enhanced Genetic Stands**

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Mass Controlled pollinated (MCP) and varietal somatic embryogenesis (SE) technology loblolly pine (*Pinus taeda* L.) seedlings are becoming available on a large scale. These seedlings are superior to the best open-pollinated (OP) seedlings in both production and stem quality. MCP and SE seedlings cost more than OP seedlings, but the higher degree of growth uniformity, lower inherent tendency to allocate growth into branch development, and lower rust infections permit decreasing the initial planting density and adjustments in silvicultural cost. To permit potential buyers of MCP and SE seedlings to determine if the extra seedling cost is a wise investment, an estimate of their impacts on yields and stand value are needed. Unfortunately block plantings of MCP and SE material are few, and most of the growth data is less than eight years old. However, these young stands do provide us with early estimates of growth gains, improvements in percent sawtimber trees, and the amount of reduction in fusiform rust that can be expected. What is needed are realistic projections of the yields and value of rapidly growing, high quality stands to the end of the rotation (23-25 years). This presentation utilizes the actual production of a 13-year-old varietal screening control-cross and a selected variety from within this cross to serve as a solid platform to project:

- The expected value of the control-cross stand (exhibited SI-100)
- The expected value of a stand of the best selected variety (exhibited SI of 105)
- The expected value of the control-cross stand but with improvements in the percent sawtimber that is being reflected in MeadWestvaco (MWV) young block plantings.
- The expected value of a varietal stand with current observed improvements in percent sawtimber.
- An estimate of the previous rotation stand yield and values.

The basis for and results of these simulations will be presented and discussed.