RESEARCH

University of Kentucky
Department of Forestry and Natural Resources

ECONOMICS OF WHITE OAK (*QUERCUS ALBA*) TIMBER SUPPLY

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PROJECT GOAL: To provide an economy-wide assessment of the impacts of white oak timber supply under a range of growth and demand alternatives.

PROJECT DESCRIPTION: White oak (*Quercus alba*) is a major commercial tree species and an important timber resource for a wide range of primary and secondary forest industries, including high-value products such as cooperage, veneer, flooring, and cabinetry. Sustained timber supplies, at price points important for white oak dependent industries, are threatened as the current age class of merchantable white oak (70 to 100 years) is not being replaced at an appropriate rate. This casts a shadow on the future of economic sectors that rely on sustained white oak timber supply. This project assesses the resource sustainability of white oak logs and the economic implications of the projected white oak timber supply under simulated scenarios. USDA Forest Service Forest Inventory and Analysis (FIA) data is being used to examine the past and current white oak growing stock and the Forest Vegetation Simulator (FVS) model is being used to project white oak growth. Computable General Equilibrium (CGE) modelling will be used to assess economy-wide (direct, indirect, and induced) impacts of white oak timber supply under a range of growth and demand alternatives. Project deliverables will include: 1) explicit white oak inventory trends (past and present), 2) projected change in inventory levels, and 3) economy-wide impacts of the projected white oak timber supply. Initially this study is using Kentucky data to validate the predictive approaches and can be scaled accordingly for region-wide application. Results from this analysis will provide insights and rationale to aid white oak dependent industries and assist in developing strategies for proactive forest management approaches to stabilize the white oak timber resource supply in Kentucky and beyond.

PROGRESS:

- Stand level, plot level and tree level inventory data of Kentucky's forest has been queried from Forest Inventory and Analysis (FIA) database
- FIA data is being prepared into FVS ready format for initial growth and yield simulation of white oak stands in Kentucky

FUNDING AND RESOURCES:

- University of Kentucky, $50,000
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