

ARTIFICIAL HARDWOOD REGENERATION



American chestnut.

Artificial hardwood regeneration success is limited by an incomplete knowledge of seedling performance in relation to seedling size and quality, environmental conditions such as light and competition, and site quality. Upland Hardwood Ecology and Management RWU 4157 scientists, with many [collaborators and partners](#), study the genetics, morphology, physiology, and silviculture of artificially regenerated hardwoods, with an emphasis on oak and

Our research addresses:



- Outplanting performance of pedigreed seedlings produced using the most advanced nursery protocols available.
- Seedling performance under different cultural treatments, from broad-scale silvicultural systems to micro-site

environmental and genetic variation.

- Predicting outplanting performance for land managers based on genetics, seedling quality, site quality, and cultural treatments.
- Predicting success of underplanted northern red oak seedlings within upland oak-hickory forests of the Ozark Highlands of [Arkansas OAKUS](#) (Oak Underplanting Success Program) is located at an internet site that forest managers can access (<http://ncrs.fs.fed.us/oakus/>) and allows managers to easily and interactively solve complex, site specific underplanting problems. (Contact: Marty Spetich)
- Potential factors affecting the successful artificial regeneration of [American chestnut](#) for restoration.

Contact: Stacy Clark

