

**Hybrid Poplar Research and Demonstration Areas**  
**by: Amy Brunner, Virginia Tech Forestry Department**

Commonly referred to as poplars, aspens and cottonwoods, the genus *Populus* includes some of the fastest-growing trees of the temperate zone. Poplars are widely distributed throughout the Northern hemisphere with eight of the 29 *Populus* species being native to the U.S. One frequent point of confusion to clarify is that *Liriodendron tulipifera*, though commonly known as yellow or tulip poplar, is actually a member of the magnolia family and not a true poplar.



A hybrid poplar nursery. Photo by: Chris Schnepf, University of Idaho.

Poplars have a long history of cultivation for various uses, including pulp and paper, solid wood products, and environmental remediation. Worldwide, poplar cultivation relies mostly on select hybrid clonal varieties that typically produce between 4 and 10 dry tons of wood per acre per year (8-22 metric tones per hectare per year) and can achieve a height of 60 feet in as little as six years. Poplar is widely considered to be the top woody perennial candidate for biomass feedstock production, and thus, major efforts are now focused on developing poplar as a bioenergy crop.

Conventional tree breeding, assisted and accelerated by genomics technologies, can develop superior poplar trees for biofuels, biopower or high-valued biomaterials production that are also well-adapted to local environments. Working with GreenWood Resources, Inc., one of the world's premier hybrid poplar breeding programs, researchers at Virginia Tech, Virginia State University, the Institute of Sustainable and Renewable Resources, and Windy Acres Nursery are initiating work to develop productive hybrid poplar varieties for Virginia. With funding from the Virginia Tobacco Indemnification and Community Revitalization Commission, field trials studying nearly 100 hybrid poplar varieties are being established this spring at Gretna, Petersburg, and the Powell River Project's reclaimed mine land in Wise County.



Hybrid poplar plantation. Photo by: Howard Schwartz, University of Colorado.

Later this year (dates to be announced in the *Forest Landowner Update* summer edition), landowner workshops at the field sites and a fall symposium at the Institute for Advanced Learning and Research will provide opportunities for citizens of the Commonwealth to learn about hybrid poplar and its potential as a woody biomass crop for Virginia.

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