

Recent Major Accomplishments

QUICK FACTS

Number of Employees

34

Number of Facilities

2

Total Budget

\$2,829,894

Acres of Forest

8,044,000

Research Work Units

- **DELAWARE, OH:**
NRS-02 Sustaining Forests in Changing Environment
NRS-04 Genetics, Biological Control and Management of Invasive Species

Partners

- Allegheny National Forest
- Howard University
- MeadWestvaco Corporation
- Nature Conservancy
- Ohio Department of Natural Resources
- Ohio State University
- Pennsylvania State University
- Swiss Federal Institute for Forest, Snow, and Landscape Research
- University of Massachusetts
- Wayne National Forest

The Northern Research Station will continue to implement a program that addresses a comprehensive scientific foundation, including the following strategic program directions: Sustaining forests; Forest disturbance processes; Urban natural resources stewardship; Providing clean air & water; and Natural resources Inventory and monitoring. Within this program direction NRS scientists have already ---

- Hybridized Asian and North American ash species and tested the progeny for resistance to the emerald ash borer.
- Helped restore American elm to Ohio's forests by developing new strains of the American elm with greater levels of tolerance to Dutch elm disease and test planting seedlings.
- Field tested male-produced pheromones and tree volatiles as lures in traps to detect Asian longhorned beetles. The traps are being used to detect these beetles in the outbreak in southwestern Ohio.
- Developed a DNA-based method to identify trees with resistance to beech bark disease and a method for grafting beech-bark-disease-resistant American beech to establish seed orchards.
- Outplanted American chestnut seedlings inoculated with newly identified strains of ectomycorrhizal fungi, which improved their survival in Ohio coal mine spoils.
- Improved user friendliness of computer models of potential change in ranges of 134 tree species due to climate change; these models provide managers with visual guides to assess the relative urgency of developing coping strategies for various species.
- Planted 3000+ containerized elm & other seedlings in ash floodplain forests in Ohio; results will help forest managers decide when replanting is most effective – before EAB has killed trees, during an EAB infestation, or after ash trees have been killed. These trees will replace the ash and keep the forest canopy intact.
- Demonstrated that using repeated small prescribed fires considerably improves the regeneration of oak seedlings in forest gaps, thus helping to preserve oak dominance in eastern forests.

Budget for Ohio

Research Work Unit	FY 11	FY 12	FY 13
<i>Delaware, NRS-02</i>	1,510,118	1,391,608	1,246,868
<i>Delaware, NRS-04</i>	1,438,286	1,438,286	1,438,286
STATE TOTAL	\$2,948,404	\$2,829,894	\$2,685,154

Grants and Agreements

Research Work Unit	Value of Grants & Agreements (all locations)	Fiscal Year
<i>NRS-02</i>	\$215,711	2011
<i>NRS-04</i>	\$228,082	2011

