

FACILITIES & RESOURCES

Pfendler Hall

Pfendler Hall is the oldest building in the Purdue University School of Agriculture. It was expanded, restored and refurbished in 2003 and is home to the Hardwood Tree Improvement and Regeneration Center and the Department of Forestry and Natural Resources. In addition to housing faculty, staff, and graduate student offices, the genetics, tissue culture, molecular and plant physiology, and silviculture research laboratories are located in Pfendler Hall.



J.S. Wright Forestry Center



The Center was opened in 2003 as a research, teaching, and conference facility. It is located 12 miles (19 km) west of campus in the 450 acre (180 ha) Martell Forest, which is used as a research,

teaching, and recreation facility by the Department of Forestry and Natural Resources.

Other facilities, properties, and partners include:

- 18 research properties in Indiana totaling 2,581 acres (1,032 ha), as well as properties in California and Oregon
- On-campus greenhouse facilities and growth chambers
- Partnership with state and federal agencies, industry, and universities
- Collaboration with programs in the United Kingdom, Italy, Spain, and Costa Rica
- National Science Foundation (NSF) Industry/University Cooperative Research Center (I/UCRC)



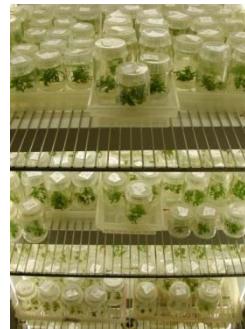
GRADUATE STUDY

Fred M. van Eck Scholars

Description: The HTIRC is seeking outstanding candidates interested in obtaining M.S. or Ph.D. degrees. Areas of research include development of plant tissue culture and genetic modification technologies for tree improvement; conservation and population genetics; forest tree breeding; and nursery, outplanting, and silvicultural stand management.

Qualifications: Candidates should have well developed quantitative skills and knowledge and experience in biological sciences such as forestry, horticulture, botany, plant biology, genetics, physiology, or pathology. Candidates should have a GPA of at least 3.2 and a top-tier GRE score.

Assistantships will be awarded at \$18,000 (M.S.) and \$20,500 (Ph.D.) per year plus tuition waiver, medical coverage, and a laptop computer. In addition, an annual research budget (\$10,000) will be available. Interested candidates who do not meet requirements for van Eck Scholar graduate assistantships will be considered for additional graduate assistantships available through the HTIRC and the Department of Forestry and Natural Resources.



For more information contact:

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HARDWOOD TREE IMPROVEMENT AND REGENERATION CENTER



Improving genetic quality and productivity of fine hardwoods

The mission of the Hardwood Tree Improvement and Regeneration Center (HTIRC) is to develop genetic, molecular, and tissue culture technologies and forest and nursery management guidelines for improvement of central hardwood forest productivity. A collaborative regional research, development and technology transfer effort between industry, university, private, state and federal entities. The main partners of the HTIRC are Purdue University and the USDA-Forest Service. The aim of the HTIRC is to advance tree improvement of central hardwood tree species for increased forest productivity in restoration and reforestation programs.



PURDUE
UNIVERSITY



STAFF

The HTIRC is staffed by ten principal investigators of the USDA-Forest Service and the Department of Forestry and Natural Resources of Purdue University.

Charles Michler

Center Director
Ph.D. (1985) Ohio State University
Email: cmichler@fs.fed.us

Research interests:

- woody plant tissue culture
- genetic modification
- hardwood tree genetics

Keith Woeste

Molecular Geneticist
Ph.D. (1994) University of California, Davis
Email: kwoeste@fs.fed.us

Research interests:

- forest tree genetics
- conservation genetics
- molecular biology of wood formation

Paula Pijut

Plant Physiologist
Ph.D. (1988) Ohio State University
Email: ppijut@fs.fed.us

Research interests:

- woody plant tissue culture
- genetic modification
- clonal propagation

Douglass F. Jacobs

Forest Regeneration
Ph.D. (2001) Oregon State University
Email: djacobs@purdue.edu

Research interests:

- forest regeneration
- nursery management
- plant mineral nutrition

Michael Jenkins

Forest Ecologist
Ph.D. (1998) Purdue University
Email: jenkinma@purdue.edu

Research interests:

- invasion dynamics of exotic plants
- effect of chronic herb-ivory of understory plant communities

Richard Meilan

Molecular Tree Physiologist
Ph.D. (1990) Iowa State University
Email: rmeilan@purdue.edu

Research interests:

- regulation of the transition to heartwood formation in hardwoods
- genes involved in controlling the production of figured wood
- control of flower development

Matt Ginzel

Forest Entomologist
Ph.D. (2003) University of Illinois at Urbana-Champaign
Email: mginzel@purdue.edu

Research interests:

- Chemically-mediated host location and colonization behavior of wood-boring insects
- Biosynthesis and endocrine regulation of pheromone production in xylophagous beetles

Michael Saunders

Silviculturist
Ph.D. (2006) University of Maine
Email: msaunder@purdue.edu

Research interests:

- plantation growth and yield
- use of silviculture to mutate natural disturbance

Ronald Overton

Area Regeneration Specialist, USDA Forest Service, State and Private Forestry
Ph.D. (1983) North Carolina State University
Email: roverton@fs.fed.us

Research interests:

- hardwood and native plant nursery technology
- international nursery practices

Robert Karrfalt

Director, National Seed Laboratory
Email: rkarrfalt@fs.fed.us

Research interests:

- influence of seed size on seedling development
- seed moisture content

In addition to those listed above, the HTIRC presently employs:

- 22 graduate students
- 5 research technicians

2009 INFORMATION

- 78 peer-reviewed journal publications
- 91 conference presentations
- \$1,400,000 in grants awarded
- annual research budget of \$5,500,000

Within Purdue University, the HTIRC is administratively located in the Department of Forestry and Natural Resources. Established in 1914, the Forestry program at Purdue University has a strong reputation as a leader in forest research, a tradition which the HTIRC continues and enhances.