

THE FOREST BIOLOGY RESEARCH COOPERATIVE



MISSION: *To optimize productivity, health and sustainability of intensively managed forest ecosystems by investigating the interactions among genetics, silviculture, insects and disease, competition, nutrition and soils.*

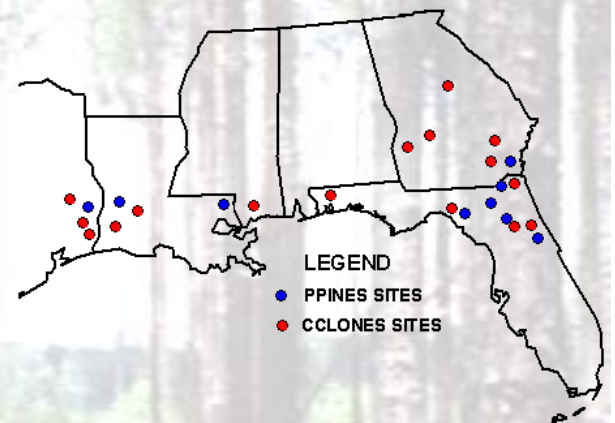
PHASE I 1996-2001	Understanding forest stand dynamics and productivity utilizing established trials while planning and establishing core FBRC field experiments (PPINES and CCLONES).
PHASE II 2001-2006	Investigating genetic control of complex traits (CCLONES) and the interactions between genotype and environment (PPINES) by capitalizing on and leveraging established regional field experiments.
PHASE III 2006-2011	Strengthen the FBRC's leadership position in the development of clonal forestry. Development of genetically improved feedstocks and management tools for sustainable biomass production suitable for forest biorefinery applications.

CORE LARGE-SCALE FIELD STUDIES

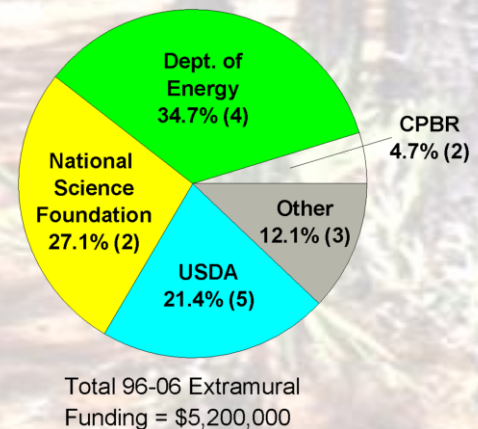
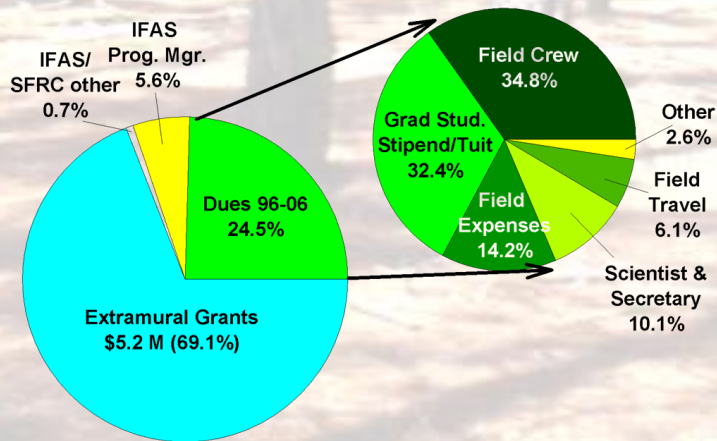
PPINES - "Pine Productivity Interactions on Experimental Sites" - Factorial full-sib family block plot study with spacing and cultural treatments designed to detect genotype X environment interactions; 8 locations, ~ 150 acres

CCLONES - "Comparing Clonal Lines ON Experimental Sites" - Single-tree-plot clonal biology study designed to maximize quantitative genetics power; 16 locations, 2000 loblolly and slash pine clones

VARIETIES - "Varietal ARchitecture Investigations Examining Tree Interactions on Experimental Sites" - Clonal block plot trial investigating competition dynamics of architecturally contrasting ideotypes; One site installed 2009, another to be installed 2010

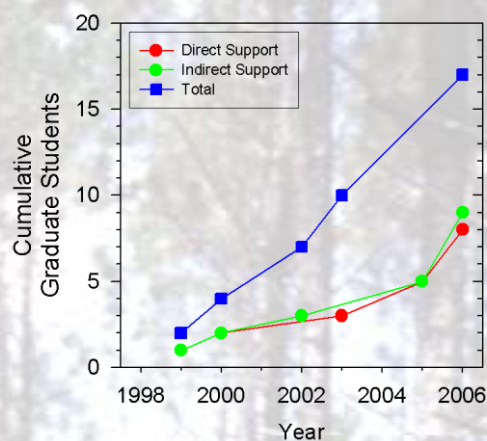
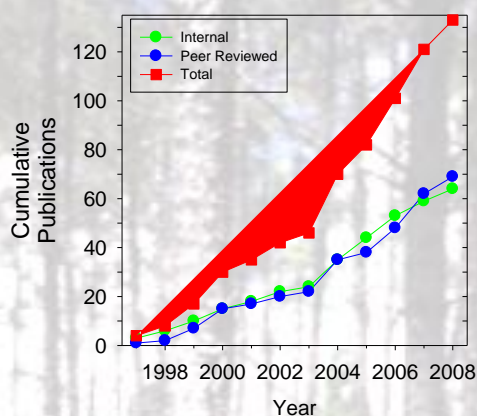


PHASE I & II TOTAL FUNDING = \$7.527 M



FBRC funding sources, and allocation of cooperator dues (left). Sources of extramural funding, with number of grants from each agency shown in parenthesis (right). Not shown is industrial in-kind funding (study installation, measurement, breeding, etc.) which is estimated to be an additional \$2.0 M for 1996-2006.

RESEARCH OUTPUTS



INTERDISCIPLINARY TEAM

Co-Directors

John Davis, SFRC, Genetics and Molecular Biology
Eric Jokela, SFRC, Silviculture and Forest Soils
Tim Martin, SFRC, Tree Physiology
Gary Peter, SFRC, Molecular Bio. and Wood Formation

Staff

Jason Vogel, SFRC, Postdoctoral Associate

COOPERATORS

Industrial: Plum Creek Timber Company, Rayonier, Weyerhaeuser Co.; Together, the FBRC's industrial cooperators are responsible for the management of 16 million acres of forestland in the United States (10 million acres in the southern U.S.).

Biotechnology and Genetics: ArborGen, CellFor; Together, these companies produce over 400 million tree seedlings per year, more than a fourth of all seedlings planted in the country.

Consulting Foresters: F&W Forestry Services, Inc.

Government: US Forest Service Southern Research Station

IMPACTS on MANAGEMENT and SCIENCE

"The Annual Report clearly shows the breadth and depth of research that has been undertaken by the FBRC and the results that are being generated from these investments. It's an impressive document and I'm sure we'll be gleaning information from it for a while." Donald Kaczmarek, Senior Research Scientist, ArborGen LLC

"...one of the best efforts at understanding forest productivity in the country...These [FBRC Reports] have great value to my research program and over the years a great many findings have influenced the way we do business in the field of production forestry from fertilization to biotechnology." Marshall Jacobson, Manager, Forest Productivity, Plum Creek

"I enjoyed your presentation on [disease] resistance screening. We can probably make use of the information in the near-term when making deployment decisions for various families from our seed orchards." Greg Leach, Tree Improvement, Rayonier

"The FBRC is the number one center for University-led forest biology research in the USA." Phil Dougherty, ArborGen LLC

MEMBERSHIP CATEGORIES

Contributing members may attend meetings, give input to study design, and receive annual reports. Full members vote as Advisory Council and Scientific Committee members, receive annual and interim reports, have access to raw data, and may receive consulting services and field trial design and analysis assistance.