

28th Southern Forest Tree Improvement Conference
June 21-23, 2005 – Sheraton Capital Center Hotel, Raleigh, NC

Program

Tuesday, June 21

- 7:00 - 8:00 am Continental Breakfast - Sheraton Hotel - Room: Esplanade Area
- 7:30 - 8:30 am **Registration** - Room: Esplanade Area
- 8:00 am Welcome and Introductions – Room: Oak Forest B
- 8:10 - 11:45 am Plenary session – Room: Oak Forest B
- 11:45 am Lunch (provided) – Room: Oak Forest A
- 1:00 - 5:00 pm Concurrent Sessions – Rooms: Governor’s Ballroom and Hannover III
- 5:00 – 6:00 pm SRIEG Business Meeting – Room: Hannover III
- 5:30 - 7:30 pm Social and Poster Session – Room: Oak Forest A

Wednesday, June 22

- 7:00 - 8:00 am Continental Breakfast - Room: Outside the Governor’s Ballroom
- 8:00 am - 12:00 pm Concurrent Sessions – Rooms: Governor’s Ballroom and Hannover III
- 12:00 pm Lunch (provided) – Room: Oak Forest A
- 1:00 - 4:30 pm Concurrent Sessions – Rooms: Governor’s Ballroom and Hannover III
- 5:30 - 9:00 pm Pig Pickin at Montague Lake (transportation provided)

Thursday, June 23

- 7:00 - 8:00 am Continental Breakfast - Room: Oak Forest A
- 8:00 - 11:30 am Plenary Session – Room: Oak Forest A
- 11:30 am - 12:00 pm Closing Comments – Room: Oak Forest A
- 12:00 pm SFTIC Adjourns
- 12:00 - 2:00 pm SFTIC Planning Committee Meeting (working lunch) – Room: Capital
- 2:00 - 6:00 pm Loblolly Pine Genome Project (LPGP) Workshop, Jeff Dean, organizer –
Room: Hannover III

Session Schedules

Tuesday, June 21

8:00 am Welcome and Introductions – Room: Oak Forest B

8:10 - 11:45 am Plenary session – Celebrating our History / Building a New Legacy
Moderator – Bailian Li

8:15 Our Roots: The Start of Tree Improvement in the South – Bruce Zobel

8:45 Impacts of Tree Improvement on the Forest Products Industry – Bob Kellison

9:15 Tree Improvement and Forest Management in the Evolving Landscape of Forest Land Ownership – Al Lyons

9:45 – Break

10:15 Issues Facing State Tree Improvement Programs – Russ Pohl

10:45 Improving Forest Productivity Through Biotechnology – Mark Rutter

11:15 Clonal Forestry: Out of the Lab, Finally – John Pait

11:45 am Lunch (provided) – Room: Oak Forest A

Tuesday, June 21 - 1:00-5:00 pm Concurrent Sessions IA, IB

Session I A – **Genomics & Biotechnology** – Room: Governor’s Ballroom – Moderator: Andy Benowicz

- 1:00 Genomic Resources for the Study of Loblolly Pine and Other Conifers – J.F.D. Dean
- 1:30 The Cellulose Synthase and Cellulose Synthase-Like Gene Superfamily in the *Populus* genome – L. Li
- 2:00 Candidate Gene-Quantitative Phenotype Associations for Resistance to Fusiform Rust and Pitch Canker in Loblolly Pine – E. Ersoz
- 2:30 Microsatellite DNA Variation within the University/Industry Tree Improvement Cooperatives’ Loblolly Pine Founder Population - C.D. Nelson
- 3:00 – Break
- 3:30 Identification of a New Retrotransposable Element in Loblolly Pine – M.N. Islam-Faridi
- 4:00 Molecular Genetics of Cellulose Synthesis in Developing Wood of Loblolly Pine – C. J. Nairn

Session I B – **Breeding, Testing, & Selection** – Room: Hannover III – Moderator: Richard Bryant

- 1:00 Family Composition Changes Over Time in a 17-Year-Old Mixed-Family Loblolly Pine Stand – J.P. Adams
- 1:30 Heritability and Gain for Early Height Growth and Foliage Retention in Eastern Cottonwood from the Southeast – J. P. Jeffreys
- 2:00 Interacting Genes in the Pine-Fusiform Rust Forest Pathosystem – H.V. Amerson
- 2:30 Variation in Wood Quality of Coastal Douglas-fir - R. Johnson
- 3:00 – Break
- 3:30 GxE of Improved Genotypes of Loblolly Pine in Varied Environments in the South – S.E. McKeand
- 4:00 Genetically Improved Eucalypts for Novel Applications and Sites in Florida – Gary Peter
- 4:30 Sessions end
- 5:30 – 7:30 Social and Poster Session – Sheraton – Room: Oak Forest A

Wednesday, June 22 8:00–12:00 Concurrent Sessions IIA, IIB

Session IIA – **Seed & Propagule Production, Clonal Testing** – Room: Governor’s Ballroom –
Moderator: Nick Muir

8:00 Survival and Promotion of Female and Male Strobili from Topgrafting in Third-Cycle Slash Pine (*Pinus elliottii* var. *elliottii*) Breeding Program – A.M. Medina

8:30 The Effect of Root Segment Origin, Size, and Orientation in Aspen Rootling Propagation – J. S. Brouard

9:00 The Impact of Variable Success of Somatic Embryogenesis Among Elite Crosses on Expected Genetic Gain and Diversity of Selected Varieties - T.J. Mullin

9:30 Genetic Variation in MFA, MOE and Wood Density Among Clones of *Pinus taeda* L. – F. Isik

10:00 – Break

10:30 Genetic Analysis of Early Field Growth of Loblolly Pine Clones and Seedlings from the Same Full-Fib Families – B. Baltunis

11:00 Accounting for Spatial Variability in Clonal Forestry Trials – S.A. Gezan

11:30 Clonal Replacement as a Tool for Seed Orchard Managers - C.L. Rosier

Session IIB – **Breeding, Testing, & Selection** – Room: Hannover III – Moderator: Greg Powell

8:00 Susceptibility of Loblolly x Slash Pine Interspecific F1 Hybrids to Tip Moth Infestation and Fusiform Rust Infection in a South Mississippi Planting – M.T. Highsmith

8:30 Comparing Parameter Estimation Techniques for Diameter Distributions of Loblolly Pine - B.C. Smith

9:00 Performance of Slash Pine Hybrids with Caribbean Pine to 5 Years of Age in Louisiana, USA – J. Donahue

9:30 Preliminary Results for Above- and Below-Ground Bio-Sequestration of a Mature F1 Black Spruce Varying in Site and Family Productivity – J.E. Major

10:00 – Break

10:30 Third-Generation Breeding and Selection for Growth and Brown Spot Resistance in Longleaf Pine - L.H. Lott

11:00 Genetic Variation in Young Fraser Fir Progeny Tests – J.L. Emerson

11:30 Using Biotechnology to Help Restore the American Chestnut – S.A. Merkle

12:00 – Lunch (provided) – Room: Oak Forest A

Wednesday, June 22 - 1:00–4:30 pm Concurrent Sessions

Session IIIA – **Breeding, Testing, & Selection** – Room: Governor’s Ballroom – Moderator: Fred Raley

- 1:00 Total Inside-Bark Volume Estimation for Loblolly Pine (*Pinus taeda* L.) in Genetic Trials – J.R. Sherrill
- 1:30 Selfing Results in Inbreeding Depression of Growth but not of Gas Exchange – J.E. Major
- 2:00 Is the *cad-n1* Allele Associated with Increased Wood Density or Growth in Full-Sib Families of Loblolly Pine? - Q. Yu
- 2:30 Height and Diameter Growth Differences Among Eight Cherrybark Oak Provenances – J.P. Adams
- 3:00 – Break
- 3:30 Genetic Variation in Basal Area Increment Phenology and its Correlation with Growth Rate in Loblolly and Slash Pine Families and Clones – V. I. Emhart
- 4:00 Open

Session IIIB – **Conservation & Genetic Diversity** – Room: Hannover III – Moderator: Gary Hodge

- 1:00 Seedling Resistance to *Phytophthora cinnamomi* in the Genus *Abies* - J. Frampton
- 1:30 Open
- 2:00 An *Ex Situ* Gene Conservation Plan for Fraser Fir – K.M. Potter
- 2:30 Summary of Important Results from Biological Research Conducted by Camcore Over the Last 25 Years - W. S. Dvorak
- 3:00 – Break
- 3:30 Geographic Variation in Shortleaf Pine - Cortical monoterpenes - R. Schmidting
- 4:00 From Tree Improvement to Species Improvement: Restoration and Conservation Efforts on the Forest Service’s Southern National Forests – B.S. Crane
- 4:30 Sessions end

5:30 – 9:00 Pig Pickin at Montague Lake (transportation provided)

Thursday, June 23

8:30 - 11:30 am Plenary session – **Changing Wood Products** – Room: Oak Forest B –
Moderator: J.B. Jett

8:30 A Random Walk Through the History of Breeding for Wood Quality – Hans van
Buijtenen

9:00 Economics of Plantation Production of Wood Products – Bob Abt

9:30 After 50 Years, Shift Genetic Emphasis Toward the True Tree Value – Pine Sawtimber
– Mac Lupold

10:00 – Break

10:30 The Value of Forest Biotechnology: A Cost Modeling Study with Loblolly Pine and
Kraft Linerboard in the Southeastern USA – Gary Peter

11:00 What Do We Do to Improve Wood Properties in a Breeding Program? – Bailian Li

11:30 Closing Comments

12:00 – SFTIC Adjourns

12:00 – 2:00 SFTIC Committee Meeting – Room: Capital

2:00 – 6:00 Loblolly Pine Genome Project (LPGP) – Jeff Dean – Room: Hannover III