

Table of Contents

	Page
Grow It and They Will Come Gene Kodama	1
Perspectives of Institutional Timberland Owners On Modern Tree Improvement Technologies Tony Cascio	2
Anticipating the Future of Forests and Uses in the South: Implications for Forest Management David Wear	3
Modeling Genetic Improvement Effects on Growth and Value of Forest Plantations Harold Burkhart	4
A Transgenic American Chestnut System for Evaluation of Pathogen Resistance Genes Campbell J. Nairn, et al.	7
Enhancing <i>Septoria musiva</i> Resistance in Poplar with Molecular Genetic Approaches Haiying Liang, et al	8
Towards a Genome Sequence of the Brown Spot Needle Blight Pathogen (<i>Mycosphaerella dearnessii</i>) Infecting Longleaf Pine B.D. Bartlett, et al	12
Reconstruction of Regulatory Networks in <i>Fusarium graminearum</i> Using a Systems Biology Approach Li Guo, et al	15
Constitutively Elevated Salicylic Acid Provokes Oxidative Response in Transgenic Populus via Metabolic and Transcriptional Reprogramming C-J Tsai	16
Broad-Based Testing Compared to Local Testing of Families of Loblolly Pine for Resistance to Fusiform Jesse Spitzer, et al	17
Fungal Effectors of <i>Cronartium quercuum f.sp. fusiforme</i> Katherine E. Smith	18
Best Performing Cottonwood and Hybrid Poplar Varieties in the Southeastern United States and Their Basic Specific Gravity and Moisture Content Bijay Tamang, et al	19
Longleaf Pine Grown in Virginia: A Provenance Test Kurt Johnsen, et al	22

	Page
High Resolution X-ray Micro Computed Tomography for Genetic Analysis of Wood Traits Alejandro Riveros-Walker, et al	23
Modeling the Growth of Loblolly Pine Seed Sources in the Southeastern United States Alfredo Farjat, et al	24
Impacts of Genetics on Juvenile Stem Characteristics and Potential Stand-level Value in Loblolly Pine J.J. Steiger et al	27
Genetic Effects on Early Stand Development and Physiology of Loblolly Pine (<i>Pinus taeda</i> L.) Seedlings S. Sharma, et al	30
A Climate Change Response Function for Loblolly Pine (<i>Pinus taeda</i> L.) from the Western Gulf region of the United States Thomas D. Byram, et al	36
Effect of Organic Soils on Tree Form and Quality Traits of Open-Pollinated Loblolly Pine in the Coastal Plain of North Carolina Christopher Rosier, et al	37
Integrating Climate and Genetic Effects of Loblolly Pine by Universal Response Functions Jianxing Zhang, et al	38
Genetic Control of Growth and Shoot Phenology in Loblolly Pine (<i>Pinus taeda</i> L.) Clonal Trials During the Second and Sixth Growing Seasons Tania Quesada, et al	39
Tree Improvement and Silviculture, Teamwork in Action Marshall A. Jacobson	43
Planted Forest Value: Tree Breeders Can Enable New Markets Gary F. Peter and Rafael de la Torre	44
Will Advanced Loblolly Pine Genetics Deliver Added Value to Landowners in the Southeastern United States? W. Patrick Cumbie, et al	45
Physiological Approaches to Species Conservation and Restoration Rodney E. Will, et al	46
DNA Marker Approaches to Species Conservation and Restoration C. Echt, et al	47
The Role of Genetics in Agroforestry Systems Gwendolyn Boyd	52

	Page
Multiple Pedigrees Allow Construction of a Densely Populated Reference Linkage Map in Loblolly Pine (<i>Pinus taeda</i> L.) V. E. Chhatre, et al	53
Impacts of Cost-Effective High-Throughput Genotyping of Loblolly Pine on Applied Tree Breeding Programs Ross Whetten, et al	54
The Influence of Chinese Chestnut Genome Proportion on the Success of Somatic Embryogenesis in Chestnut C. T. Holtz, et al	55
The Peach Genome: A Comparative Genomics Reference for Identification of Genes Controlling Traits of Importance in Fruit and Forest Trees Albert G. Abbott, et al	59
FISHing for a Cyto-Molecular Map of Chestnut (<i>Castanea</i> spp.) Using Genetically and Physically Mapped BACs Nurul Islam-Faridi, et al	60
Evaluating the Potential of Black Willow as a Viable Biomass Species for the LMAV R. J. Rousseau, et al	61
Beyond Hybrid Backcross Breeding: The Intersection of The American Chestnut Foundation’s Breeding Program and Varietal Forestry S. A. Merkle, et al	64
Effects of Genetic Improvement on Growth and Survival of Cherrybark Oaks (<i>Quercus pagoda</i> Raf.) in Southern Arkansas: First Year Results Nicholas A. Mustoe and Joshua P. Adams	67
And They’re Off! – Fourth Cycle of Loblolly Pine Breeding Has Begun in the NCSU Cooperative Tree Improvement Program Steve McKeand, et al	73
Genetic Improvement for Ecosystem Restoration C. Dana Nelson, et al	74
PINEMAP: Cooperative Forestry Research, Extension and Education for a Changing World Tim Martin, et al	75
Improving Forest Plantations Through Biotechnology: Can a Systems-Level Understanding of Tree Biology be Translated to Major Gains in Tree Improvement via Transgenic Technology? Amy M Brunner	76
Phytophthora Cinnamomi the “Stealth” Killer Joseph James	77

	Page
CUGI: A Resource for Genomics and Bioinformatics	
Christopher Saski	79
The Pine Reference Genome Sequence and Applied Tree Breeding	
N. C. Wheeler and R. Whetten	80
Genes to Phenotype, Function to Applications: Near-Term Potential of Large-Scale Genomics	
Jerry Tuskan	85
POSTERS	
High Variability in Biomarker Gene Responses to <i>Sirex noctilio</i> Venom in Field-Grown Pines	
J. Michael Bordeaux, et al	86
A Medium Throughput Greenhouse Phenotyping Assay of <i>Populus</i> spp. for Septoria Canker Resistance	
Kelsey L.Dunnell, et al	94
Diversity Within a Population of <i>Phytophthora cinnamomi</i> from Ornamental Crops in South Carolina	
Simon Schreier and Steve N. Jeffers	95
Progress Towards Better DNA Marker Sets for Southern Pines	
Sedley Josserand	96
Scaling Up Hybrid Sweetgum Somatic Seedling Production	
Siran Lu and Scott Merkle	97
Somatic Embryogenesis for Ash Conservation and Restoration	
Scott Merkle, et al	98
Establishment of Fusarium oxysporum-Arabidopsis Pathosystem	
Stefan Nakollari, et al	99
Effects of Timber Harvesting on Water Resources in the Santee Watershed in South Carolina	
Gang Shao, et al	100
Genomic Resource Development from Low Coverage Whole Genome Sequencing of Ten Hardwood Tree Species	
Margaret Stanton, et al	101
The Frequency of Loblolly - Shortleaf Hybrids in Shortleaf Pine Seed Orchards and Nurseries	
John F. Stewart, et al	102
Identifying Genetic Variation in Site Adaptability in Loblolly Pine	
Laura Townsend and Ross Whetten	103

	Page
Characterization of Redbay (<i>Persea borbonia</i>) gSSR Markers Yi Xu, et al	104
Liriodendron EST-SSR Marker Development and Genetic Constitution of a Liriodendron Breeding Orchard Xinfu Zhang et al	105
Genetic Mapping of Resistance to Root Rot Disease (<i>Phytophthora cinnamomi</i>) in Chestnut (<i>Castanea</i> spp.) T. Zhebentyayeva, et al	106
Selection of High-Yielding Shrub Willow Genotypes with Improved Biomass Characteristics for Conversion to Biofuels Michelle J. Serapiglia, et al	107
List of Participants	111