

AGRONOMY

Southern Branch 2009 SAAS Program

Sunday, February 1, 2009

Registration: 10:00 AM – 5:00 PM
Westin Peachtree Plaza
International Room C Foyer

Poster Session
Westin Peachtree Plaza
The Overlook Room
1:00 PM to 5:00 PM

Session No. 1 Graduate Student Poster Competition – Crops
Westin Peachtree Plaza, The Overlook Room
Authors Present 1:00 PM–5:00 PM

- 1 **Determination of Optimal Cropping Systems for White-tailed Deer in the Southeast.** Alex Johnson*, Charles Wood, David Weaver, Edzard van Santen, Don Ball and Stephen Ditchkoff, Auburn University
- 2 **Five Warm-Season Legumes as Supplemental Summer Forage for Meat Goats.** Susan E. Henderson*, Robert Lane, and Craig Henderson, Sam Houston State University
- 3 **Evaluation of Double-cropped Cotton (*Gossypium hirsutum* L.) and Soybean [*Glycine max* (L.) Merr.] after Autumn or Winter Treatments of Pyroxsulam to Winter Wheat (*Triticum aestivum* L).** Rebekah D. Wallace* and Timothy Grey, University of Georgia
- 4 **Growth Response of Cotton (*Gossypium hirsutum* L.) to Pendimethalin Formulation, Timing, and Method of Application.** George S. Cutts* III, University of Georgia and Timothy L. Grey, University of Georgia
- 5 **Assimilation of Organic Phosphorus in *Lolium multiflorum*.** Shivendra V. Sahi*¹, Pradyut Paul¹ and Kenneth Sajwan², (1)Western Kentucky University, (2)Savannah State University
- 6 **Comparison of Phytophthora Tolerance between Rps1c and Rps1k Isolines in Soybean.** Kevin A. Dillon* and J. M. Phillips, Morehead State University
- 7 **Sodium Azide as a Possible Nitrification Inhibitor in a Bentgrass Putting Green.** Sheryl Wells*, R.H. Walker and E.A. Guertal, Auburn University
- 8 **Growth, Yield, Fruit Size, and Flowering Dates of Inter and Intra-Specific Crosses of Chile Pepper (*Capsicum* spp).** Keremy Noble*¹, Reddy Chinthakuntla¹, Rao Mentreddy², Bill Evans³ and Tahir Rashid¹, (1)Alcorn State University, (2)Alabama A&M University, (3)Mississippi State University

Session No. 2 Graduate Student Poster Competition – Soils
Westin Peachtree Plaza, The Overlook Room
Authors Present 1:00 PM–5:00 PM

- 10 **Development of N-P-K Fertilization Recommendations for Switchgrass and Big Bluestem as Native Biofuels.** Richard Z. Brown*, Auburn University
- 11 **Soil Taxonomic Comparison between Selected Soils in the Big South Fork National River and Recreation Area with Geology, Landforms, and Site Position.** Ryan Blair*, University of Tennessee Plant, Soil & Env. Club
- 12 **Carbon Sequestration in a Forest Soil in the Citronelle Oil Field of South Alabama.** Latasha Lyte*, Alabama A & M University and Ermson Nyakatawa, Alabama A&M University
- 13 **Nitrogen Sources for Cotton and Corn and Ammonia Volatilization.** Cody Smith*¹, Charles Mitchell¹, Katy Smith² and Fernando Ducamp³, (1)Auburn University, (2)National Soil Dynamics Laboratory, (3)USDA Soil Dynamics Laboratory

- 14 **Transformation of Natural and Synthetic Estrogens Mediated by a Soil Enzyme-Lignin Peroxidase.** Liang Mao*, University of Georgia and Qingguo Huang, University of Georgia, Griffin
- 15 **N₂O, CO₂, and CH₄ Fluxes from Deep Row Applied Biosolids for Production of Hybrid Poplar in Virginia Coastal Plain Mineland Reclamation Sites.** Kirill Kostyanovskiy*, Gregory Evanylo, Chao Shang, Beshr Sukkariyah and Katrina Lasley, Virginia Tech
- 16 **Effects of Livestock Antibiotics on Nitrification and Denitrification in Soils Along a Topographic Gradient.** Sagarika Banerjee* and Elisa D'Angelo, University of Kentucky
- 17 **Tillage Systems Influence on Soil Microbial Community Structure.** Reji P. Mathew*¹, Yucheng Feng¹ and Kipling S. Balkcom², (1)Auburn University, (2)USDA-ARS

Session No. 3 Professional Poster Presentation – Crops/Soils

Westin Peachtree Plaza, The Overlook Room

Authors Present 1:00 PM–5:00 PM

- 18 **Glyphosate Control of Orange and Brown Rusts in Glyphosate-Sensitive Sugarcane Cultivars.** Isabel A. del Blanco*, Moaiad Kanaan, Barry Glaz, Sushma Sood and Jack Comstock, USDA-ARS
- 19 **Fitting Winter Annual Legumes into a Corn/Soybean Rotation.** Carl Crozier*¹, Alan Meijer¹, Samuel C. Reberg-Horton² and George T. Place², (1)North Carolina State University-Soil Science Dept., (2)North Carolina State University
- 20 **Nutrient Uptake and Removal from Various Cropping Systems in the Mississippi Delta.** Davis R. Clark* and M. Wayne Ebelhar, Mississippi State University
- 21 **Effects of Delayed-Harvest on Seed Quality and Final Yield of Maturity Group IV Soybean in the Mississippi Delta.** Lingxiao Zhang*, Mississippi State Delta Research Center and Nacer Bellaloui, USDA-ARS
- 22 **Tolerance of Clearfield Sunflowers to Imazapic.** Eric P. Prostko*, Timothy L. Grey and Jerry W. Davis, University of Georgia
- 23 **Variety Effects on Growth and Yield Distribution of Cotton in Irrigated and Non-Irrigated Conditions.** Glen L. Ritchie*, Wheelus Davis, Lola Sexton and Dudley Cook, University of Georgia
- 24 **Weed Control Using Imazamox in Imidazolinone-Resistant Wheat (*Triticum aestivum* L.).** Timothy L. Grey*, University of Georgia and Jerry Johnson, University of Georgia Experiment Station
- 25 **Breeding for Reduced Post-Harvest Seed Dormancy in Switchgrass.** Byron L. Burson*¹, Charles R. Tischler¹ and William R. Ocumpaugh², (1)USDA-ARS, (2)Texas AgriLife Research
- 26 **Control of Weed Biomass with Use of Herbicide and Inter-row Cultivation in Canola.** Lekhanath Paudel and Udai R. Bishnoi*, Alabama A&M University
- 27 **Evaluation of Nutritive Value of Pueraria Montana (Kudzu) During the Growing Season.** Shawn M. Kelly, Elena Mikhailova*, Christopher J. Post, Julia L. Sharp, Silas K. Cox and David C. Guynn, Clemson University
- 28 **Early Maturing Winter Canola in Double Cropping System: Potential IPM Considerations.** Rufina Ward*, Sasikiran Sangireddy, Ernst Ceibert and Kenneth Ward, Alabama A&M University
- 29 **The Closed-Loop Biodiesel Production Model.** Ernst Ceibert*, Alabama A&M University and LaMar Hauck, TECHNICORP LLC
- 30 **Yield Response of Tall Fescue/White Clover Mixtures With and Without N Fertilizer When Managed for Stockpiled Winter Pasture.** John Jennings, Danny Griffin*, Michelle Mobley, Kenny Simon, John Boyd and Shane Gadberry, University of Arkansas Cooperative Extension Service
- 31 **Effect of Herbicide Suppression of Tall Fescue Sod in Winter with Metsulfuron or Glyphosate on White Clover Establishment.** John Jennings, Michelle Mobley*, Kenny Simon, Danny Griffin, John Boyd and Shane Gadberry, University of Arkansas Cooperative Extension Service
- 32 **Effect of Seeding Date and N Rate on Sunflower Yields, Oil Content and Composition.** Valtcho D. Zheljazkov*¹, Brady Vick², Brian Baldwin³, Normie Buehring³, M. Wayne Ebelhar³, Tess Astatkie⁴, Thomas Horgan³ and Billy Johnson³, (1)Mississippi State University, (2)USDA-ARS, (3)Mississippi State University, (4)Nova Scotia Agricultural College
- 33 **Imported Fire Ant-Mediated Effects on Mound Surfaces and Soil Chemical Properties in a Warm-Season Turfgrass.** Sherri L. DeFauw*¹, James T. Vogt¹, Patrick J. English², Jeffrey L. Willers³ and Debbie L. Boykin⁴, (1)USDA-ARS Biological Control of Pests Research Unit, (2)Mississippi State University, (3)USDA-ARS, (4)USDA-ARS Mid South Area
- 34 **Soil Methane and Nitrous Oxide Dynamics as Influenced by Tillage and Fertilizer Management Practices.** Ermson Z. Nyakatawa*, Alabama A&M University
- 35 **Tillage and Poultry Litter Application Influence on Nutrient Accumulation in Corn Soil.** R.A. Gilfillen*, W.T. Willian and N.S. Rowland, Western Kentucky University
- 36 **Rice Yield and Nitrogen Recovery from Nitrogen-Fortified Poultry Litter Granular Fertilizers.** Mark S. Reiter*¹, Tommy C. Daniel², Nathan Slaton² and Richard J. Norman², (1)Virginia Polytechnic Institute and State University, (2)University of Arkansas

- 37 **The Effect of Enhanced-Efficiency Nitrogen Fertilizer Formulations on the Yield of Bermudagrass.** Dennis Hancock* and Glen Harris, University of Georgia
- 38 **Assessing Nutrients in Two Creeks at the Collins River Sub Watershed in Middle Tennessee.** Samuel Dennis*¹, Debbie Eskandarnia¹ and Teferi Tsegaye², (1)Tennessee State University, (2)Alabama A&M University
- 39 **Cover Crop Residue Decomposition and the Release of Nitrogen to Asian Vegetable.** Kurt O. Taylor*, M.R. Reddy, Ramesh Ravella and Marvin Clarke, North Carolina Agricultural and Technical State University

SAAS Opening Session/Business Meeting

Discuss on Alternative Fuels

Westin Peachtree Plaza, Vinings Room

3:30 – 5:00 p.m.

SAAS Reception/Super Bowl Party/Reception

Westin Peachtree Plaza, Peachtree Ballroom

5:00 pm – till

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Southern Branch 2009 SAAS Program

Monday, February 2, 2009

Registration: 7:00 AM – 12:00 PM
Westin Peachtree Plaza
International Room C Foyer

Session No. 4 Graduate Student Oral Competition – Crops
7:20 AM to 10:00 AM

Westin Peachtree Plaza, International Room C
Presiding: Kipling S. Balkcom, USDA-ARS

- 7:20 AM **Introductory Remarks**
M. Wayne Ebelhar, Program Chairman, Mississippi State University
- 7:30 AM **Fall-raised Beds for Reduced Digging Losses in Strip-till Peanut.** J. L. Jackson*, J. P. Beasley Jr., R. S. Tubbs, R. D. Lee and T. L. Grey, University of Georgia
- 7:45 AM **Herbicide and Cover Crop Residue Integration Affect Weed Control and Yield in Conservation Tillage Peanut.** Monika Saini*¹, Andrew Price², Wilson Faircloth³, Glenn Wehtje¹ and Edzard van Santen¹, (1)Auburn University, (2)USDA-ARS Invasive Weed Management Research Unit, (3)USDA-ARS-NPRL
- 8:00 AM **Potassium Fertilization Influences Rice Growth, Yield, and Stem Rot Index.** Elliot T. Maschmann*, Nathan A. Slaton, Rick Cartwright, Rick Norman, Russ Delong and Bobby Golden, University of Arkansas
- 8:15 AM **Sunn Hemp Biomass and Nitrogen Production for Different Planting Dates and Seeding Rates.** Jessica M. Massey*¹, Kipling S. Balkcom², Jorge A. Mosjidis¹, Andrew J. Price² and Stephen F. Enloe¹, (1)Auburn University, (2)USDA-ARS
- 8:30 AM **Hessian Fly Resistance of Triticum Durum-derived Soft Winter Wheat.** Kathryn Harman*¹, Jerry Johnson², Lilian Miranda² and David Buntin³, (1)University of Georgia, (2)University of Georgia Experiment Station, (3)University of Georgia
- 8:45 AM **Multivariate Repeated Measures Analysis of Sugarcane Breeding Data.** Marvellous Zhou* and Collins Kimbeng, Louisiana State University
- 9:00 AM **Effect of N, Location, and Harvesting Stage on Peppermint Productivity, Oil Content, and Composition.** Vasile Cerven*¹, Valtcho D. Zheljzkov², Charles Cantrell³, M. Wayne Ebelhar¹ and Dennis E. Rowe¹, (1)Mississippi State University, (2)Mississippi State, (3)USDA-ARS
- 9:15 AM **Selection for Increased Winter Production in Annual Ryegrass (*Lolium multiflorum* Lam).** Amandeep Dhaliwal*, Kamal Chugh and Edzard van Santen, Auburn University
- 9:30 AM **Defoliation Management of Tifton 85 Bermudagrass Used as Greenchop in North Florida Dairies.** Jose Clavijo*¹, Yoana C. Newman², Lynn Sollenberger¹, Charles Staples¹ and Leonardo E. Ortega³, (1)University of Florida, (2)University of Florida - Agronomy Department, (3)NMB
- 10:00 AM **Discussion**
- 10:10 AM **Break**

Session No. 5 Graduate Student Oral Competition – Soils

10:30 AM to 12:30 PM

Westin Peachtree Plaza, International Room C

Presiding: Nathan A. Slaton, University of Arkansas

- 10:30 AM **Persistence and Nutrient Release from Organic Mulches and Cover Crops.** Michael J. Mulvaney*, C. Wesley Wood and Brenda H. Wood, Auburn University
- 10:45 AM **Nitrogen Release from Environmentally Smart Nitrogen Fertilizer as Influenced by Soil Texture, Temperature, Moisture and Incubation Method.** Bobby Golden*, Nathan Slaton, Colin G. Massey, Elliot T. Maschmann and Richard J. Norman, University of Arkansas
- 11:00 AM **Nitrogen Content in Floodwater of Drill-Seeded, Delayed Flood Rice Following Urea Fertilization.** Alice J. Enochs*, Trenton L. Roberts, Nathan A. Slaton, Richard J. Norman, Charles E. Wilson Jr., Donna Frizzell and James Branson, University of Arkansas
- 11:15 AM **Assessment of Rice Yield and Nitrogen Nutrition Using Canopy Spectral Reflectance.** Jason M. Satterfield*¹, Timothy W. Walker¹, Jac Varco¹, Richard J. Norman² and Dustin Harrell³, (1)Mississippi State University, (2)University of Arkansas, (3)Louisiana State University Agricultural Center
- 11:30 AM **Assessment of Urea Stabilizers Applied Preflood to Delayed-Flood Rice.** Trenton L. Roberts*¹, Alice Enochs¹, Richard Norman¹, Timothy Walker², Nathan Slaton¹ and Charles Wilson Jr.¹, (1)University of Arkansas, (2)Mississippi State University
- 11:45 AM **Assessment of the Potassium Buffering Capacity of Selected Arkansas Soils.** Jose Pantoja*, Leonel Espinoza and David M. Miller, University of Arkansas
- 12:00 PM **Bermudagrass Response to Saline Water Delivered by a Subsurface Drip Irrigation System.** Kelsey Gorman*¹, Dara Park¹, Lambert McCarty¹, Haibo Liu¹, Joseph E. Toler¹ and Kenneth Stone², (1)Clemson University, (2)USDA-ARS
- 12:15 PM **Leaching Potential of Nitrogen and Phosphorus in Deep Row Biosolids Incorporation Technology in Coastal Plain Mine Reclamation Sites in Virginia.** Kirill Kostyanovskiy*, Gregory Evanylo, Katrina Lasley, Beshr Sukkariyah and Chao Shang, Virginia Tech
- 12:30 PM **Discussion**
- 12:40 PM **Lunch**

Session No. 6 Professional Oral Presentations – Row Crops

2:00 PM to 3:00 PM

Westin Peachtree Plaza, International Room C

Presiding: M. Wayne Ebelhar, Mississippi State University

- 2:00 PM **Incidence and Causes of Soybean Plant Attrition.** Eric Walker^{*1}, Richard Joost², Alemu Mengistu¹ and Mark Potter², (1)USDA-ARS, (2)University of Tennessee - Martin
- 2:15 PM **How Late Can We Plant Peanut?** John P. Beasley^{*1}, R.S. Tubbs¹, J.E. Paulk III¹, R.C. Kemerait¹, Albert K. Culbreath² and T.B. Brenneman¹, (1)University of Georgia, (2)University of Georgia Tifton Campus
- 2:30 PM **Breeding for Drought Tolerant Cotton.** Steve Hague^{*}, C. Wayne Smith and Jane Dever, Texas A&M University
- 2:45 PM **Effects of Seeding Rates and Nitrogen Rates on Corn Production in Twin-row Planting Systems for the Mississippi Delta.** M. Wayne Ebelhar^{*} and Davis R. Clark, Mississippi State University
- 3:00 PM **Discussion**
- 3:10 AM **Break**
- 3:30 PM **Southern Branch – American Society of Agronomy Business Meeting**
Westin Peachtree Plaza, International Room C
Presiding: Nathan A. Slaton, University of Arkansas, President
- 4:15 PM **Southern Branch – American Society of Agronomy Awards and Recognition Program**
Westin Peachtree Plaza, International Room C
Presiding: Nathan A. Slaton, University of Arkansas, President
- 5:00 PM **Adjourn**

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Southern Branch 2009 SAAS Program

Tuesday, February 3, 2009

Session No. 7 Professional Oral Presentations – Crops/Soils I
7:20 AM to 10:00 AM

Westin Peachtree Plaza, International Room C
Presiding: Timothy W. Walker, Mississippi State University

- 8:20 AM **Introductory Remarks**
M. Wayne Ebelhar, Program Chairman, Mississippi State University
- 8:30 AM **Inorganic and Organic Nitrogen Sources to Optimize Cover Crop Biomass and Cotton Yields in Conservation Systems.** Kipling S. Balkcom^{*1}, Francisco J. Arriaga¹, Charles Mitchell², Dennis Delaney² and Jason S. Bergtold³, (1)USDA-ARS, (2)Auburn University, (3)Kansas State University
- 8:45 AM **Comparison of Twin-row and Single-row Planting Patterns for Optimum Corn Production in the Mississippi Delta.** M. Wayne Ebelhar* and Davis R. Clark, Mississippi State University
- 9:00 AM **Nodulation of Inoculated and Non-Inoculated Peanuts Planted with Various Rates of Starter N Fertilizer.** R.S. Tubbs*, G.H. Harris and John P. Beasley Jr., University of Georgia
- 9:15 AM **Soybean Response to Potassium and Sulfur Additions in Single-row and Twin-row Planting Systems.** Davis R. Clark* and M. Wayne Ebelhar, Mississippi State University
- 9:30 AM **Quantifying and Controlling Ammonia Losses from Broiler Manure.** Philip Moore* Jr., PPSRU, Dana M. Miles, USDA-ARS, R.T. Burns, Iowa State University and Dan Pote, Dale Bumpers Small Farms Research Center
- 9:45 AM **Evaluating Planting Dates for Maturity Group IV through VIII Soybeans in South Carolina.** Pawel Wiatrak*, Clemson University
- 10:00 AM **Discussion**
- 10:10 AM **Break**

Session No. 8 Professional Oral Presentations – Crops/Soils II
10:30 AM to 11:30 AM

Westin Peachtree Plaza, International Room C
Presiding: M. Wayne Ebelhar, Mississippi State University

- 10:30 AM **Temporal Stability of Rice Grain and Whole Kernel Milling Yield is Affected by Cultivar and Date of Planting.** Sterling Brooks Blanche* and Steve Linscombe, Louisiana State University Agricultural Center
- 10:45 AM **Nanoparticle Synthesis in Alfalfa.** Shivendra V. Sahi* and Daniel Starnes, Western Kentucky University
- 11:00 AM **An Alternative Planting Strategy for Establishing White Clover in Tall Fescue Pastures.** John Jennings*, Kenny Simon, Danny Griffin, Michelle Mobley, John Boyd and Shane Gadberry, University of Arkansas Cooperative Extension Service
- 11:15 AM **Soil N Dynamics in a Goat-Loblolly Pine Silvopasture System in the South-east U.S.** Ermson Z. Nyakatawa*, Alabama A&M University
- 11:30 PM **Discussion**
- 11:40 AM **Adjourn**