

AMERICAN SOCIETY OF AGRONOMY SOUTHERN REGIONAL BRANCH

Sunday, 4 February 2007

Registration

Mobile Convention Center, Concourse Lobby Area
12:00–5:00 PM

Posters—Crops

Mobile Convention Center, Prefunction/Upper Concourse
Authors Present 3:00 PM–6:00 PM

- 1 **DNA Content of Florida Paspalum Accessions.** B.L. Burson*, USDA-ARS
- 2 **Effect of irrigation and intense shade on alley-cropped tall fescue herbage productivity.** David Burner* and David P. Belesky, USDA-ARS
- 3 **Composted Cattle Manure Affects Corn Yield and Soil Properties.** Kent Gallaher¹, Bethany Dru Stevens*¹ and Raymond Gallaher², (1)Agricultural and Environmental Sciences, Abilene Christian University, (2)Agronomy Department, Institute of Food and Agricultural Sciences, University of Florida
- 4 **Agronomic Performance of Dallisgrass Tissue Culture Regenerants.** B.C. Venuto*¹, W.D. Pitman², R.W. Jessup¹, B.L. Burson¹, K. Renganayaki³ and S.S. Croughan², (1)USDA-ARS, (2)LSU Ag Center, (3)Department of Soil & Crop Sciences, Texas A&M University
- 5 **Arkansas Wheat Research Verification Program.** Matt Cordell*, Jack Reaper, III and Jason Kelley, University of Arkansas
- 6 **Peanut Response to Late-Season Glyphosate Applications.** Timothy Grey* and Eric P. Prostko, Univ of Georgia
- 7 **Bioprospecting of American mayapple.** Valtcho D. Zheljazkov*, Mississippi State, Rita Moraes, National Center for Natural Products Research, School of Pharmacy, The University of Mississippi, Victor L. Maddox, Mississippi State University, GeoResources Institute and Andrew Maxwell Phineas Jones, Mississippi State, North Mississippi Res. & Ext. Center
- 8 **Lemon grass as a new essential oil crop for Mississippi.** Valtcho D. Zheljazkov*, Mississippi State
- 9 **Influence of Desiccants and Timing of Desiccant Applications on Sorghum Grain Development and Yield.** Henry J. Mascagni*, Bill Williams and Robert Bell, LSU AgCenter Northeast Reserach Station
- 10 **Effect of Polymers and Fungicide on Seeding Emergence at Two Planting Depths in Three Soil Types.** Udai. R. Bishnoi* and Gaganpreet Kaur, Alabama A & M University
- 11 **Evaluation of critical shattering time of soybean varieties under early production system.** Lingxiao Zhang*¹, Stephen Kyei-Boahen¹ and Bernie White², (1)Mississippi State University, (2)Mississippi State University

Posters—Soils

Mobile Convention Center, Prefunction/Upper Concourse
Authors Present 3:00 PM–6:00 PM

- 12 **Denitrifier Ecology in Fragipan Soils of Kentucky.** Tingting Wu* and Mark Coyne, Department of Plant and Soil Sciences, University of Kentucky
- 13 **Evaluation of Nitrogen Transformations in Constructed Wetlands.** Hyun Woo Kim*, Department of Environmental Sciences

Graduate Student Poster Competition—Crops

Mobile Convention Center, Prefunction/Upper Concourse

Authors Present 3:00 PM–6:00 PM

- 14 **Cover Crops for Weed Management in Organic Production Systems.** Gurudev Mayalagu*¹, Rao Mentreddy¹, Jan Garrett², Arnold Caylor² and Joseph Kloepper², (1)Alabama A&M University, (2)Auburn University
- 15 **Nitrogen Use Efficiency of Stay-green Sorghum Under Three Soil Moisture Levels.** Sylvester Addy*, North Carolina A & T State University and Muchha Reddy, North Carolina State Univ., Dept of Natural Resources
- 16 **Impact of Tillage, Raised Seedbeds, and Fungicides for Soybean Production in Mississippi.** J. B. Blessitt*, D.H. Poston, T.W. Eubank and R.T. Coleman, Mississippi State University-Delta Research and Extension Center
- 17 **Foliar applications of glycine betaine improves soybean yield under rain-fed conditions in the Midsouth.** David Brand*¹, Sailaja Koti² and K.Raja Reddy¹, (1)Mississippi State University, (2)Mississippi State University
- 18 **Effects Of Nitrogen Deficiency On Plant Growth, Leaf Photosynthesis, And Hyper Spectral Reflectance Properties In Castor (Ricinus Communis).** Satya Sai Kumar Matcha*, Mississippi State University and K. Raja Reddy, Mississippi State Univ
- 19 **Screening cowpea cultivars to multiple abiotic stresses.** Shardendu Kumar Singh*¹, Vijaya G. Kakani², Giridara Kumar Surabhi¹ and K.Raja Reddy³, (1)Mississippi State Univ., (2)Univ. of Florida-Agronomy Dept, (3)Mississippi State University

Graduate Student Poster Competition—Soils

Mobile Convention Center, Prefunction/Upper Concourse

Authors Present 3:00 PM–6:00 PM

- 20 **Fertilizer Value of Densified Broiler Litter.** L.E. Sturgeon*¹, C.W. Wood¹, J.P. Fulton² and Brenda H. Wood¹, (1)Auburn University, (2)Auburn Univ.
- 21 **Decomposition and Nutrient Release of Cover Crops on Different Landscape Positions.** Catherine N. Gacengo*¹, C Wesley Wood¹, Joey N. Shaw¹, Kipling Balkcom², Andrew J. Price², Randy L. Raper² and Brenda H. Wood¹, (1)Auburn University, (2)USDA-ARS
- 22 **Hydromorphology of some Alabama Coastal Plain Soils.** Richard Smith*¹, J. Shaw¹, J. Owen¹, J. Dane¹, J. Odom¹ and Paul Martin², (1)Auburn University, (2)NRCS
- 23 **Management dependent soil properties of cultivated versus non-cultivated SE Coastal Plain ecosystems.** Matthew R. Levi*¹, Joey N. Shaw², Wes Wood¹, Sharon M. Hermann³ and Emily Carter⁴, (1)Agronomy and Soils Department, (2)Auburn Univ., (3)Auburn University Biological Sciences Department, (4)USDA, Forest Service
- 24 **Effects of Conservation Tillage and Poultry Litter Application on Soil Carbon Dioxide Efflux.** Tiffany Roberson*¹, Ermson Nyakatawa¹, Chandra Reddy¹, Randy L. Raper² and D. Wayne Reeves², (1)Alabama A&M University, (2)USDA-ARS
- 25 **Effects of irrigation and fertilizer application on soil microbial biomass and activity in an intensively managed loblolly pine plantation.** Reji Mathew*¹, Yucheng Feng¹, Michele Owsley¹, Lisa Samuelson², Thomas Stokes² and Mark Coleman³, (1)Agronomy and soils, Department, Auburn University, (2) Department of Forest Sciences, Auburn University, (3)Southern Research Station
- 26 **Evaluating Ionophore Supplementation in Two Winter Grazing Systems.** Mary Maddox*¹, Cheryl Mackowiak², J. N. Carter¹, R. O. Myer¹ and Donald Graetz³, (1)Univ. of Florida, North Florida Research and Education Center, (2)Univ. of Florida, NFREC, (3)Univ. of Florida, 106 Newell
- 27 **Impact of winter cover crop biomass removal on soil properties and cotton yield.** Fernando Ducamp*¹, Francisco Arriaga², Kipling Balkcom² and Charles Mitchell³, (1)Auburn University, (2)USDA-ARS, (3)Dept. of Agronomy & Soils
- 28 **Management practices and landscape variability effects on selected soil physical properties.** Andre Biscaro*¹, Francisco Arriaga², Kipling Balkcom², Joey Shaw³ and Jason Bergtold², (1)Auburn University, (2)USDA-ARS, (3)Agronomy and Soils Department

- 29 **Fertilizer Value of Waste Char from Poultry Litter Gasification.** J.H. Roberts*¹, C.W. Wood¹, David Bransby², and Brenda H. Wood³, (1)Auburn University, (2)Dept of Agronomy & Soils, (3)Auburn University

SAAS Opening Session

Mobile Convention Center, West Ballroom

3:30 PM–5:00 PM

Topic: Immigration Policies and their Impact on Southern Agriculture and Agribusiness

SAAS Super Bowl Party/Reception

Mobile Convention Center, East Ballroom

Sponsored by Southern Farm Bureau Life Insurance Co. Jackson, Mississippi and Affiliates

5:00 pm - 6:00 pm Social Hour

6:00 pm - 9:00 pm Reception

Monday, 5 February 2007

Graduate Student Oral Competition—Crops

Mobile Convention Center, Room 203B

7:55 AM–9:45 AM

Presiding: Kipling S. Balkcom, USDA-ARS

7:55 AM **Introductory Remarks**

8:00 AM **Bioavailability of Mercury in Soil, and its Effects on Plant Structure and Reflectance.** Safwan M. Shiyab*, Institute for Clean Energy Technology - Mississippi State University

8:15 AM **Turf Quality and Root Length Density of Hybrid Bluegrass and Tall Fescue Influenced by Et-Based Irrigation Scheduling.** Leonard Githinji*, Jacob Dane and Robert Walker, Auburn University

8:30 AM **Evaluation of Polymer-Coated Urea as an Alternative to Preflood Urea for Delayed-Flood Rice.** Bobby Golden*¹, Nathan Slaton², Russell DeLong² and Richard Norman², (1)University of Arkansas, (2)Univ. of Arkansas

8:45 AM **Factors Affecting the Growth and Secondary Metabolism of Medicinal Plants.** Andrew Maxwell Phineas Jones*, Mississippi State, North Mississippi Res. & Ext. Center and Valtcho D. Zheljzakov, Mississippi State

9:00 AM **Oilseed Crops as Potential Biodiesel Crops for Mississippi.** Shankar Ganapathi Shanmugam*, Mississippi State, North Mississippi Res. & Ext. Center and Valtcho D. Zheljzakov, Mississippi State

9:15 AM **Searching for photosynthetic and fluorescence variability among cowpea cultivars to water stress.** Shardendu Kumar Singh*, Mississippi State Univ. and K.Raja Reddy, Mississippi State University

9:30 AM **Tomato Production under Conservation-Tillage Systems: Comparison of three Cover Crops for Weed Control.** Monika Saini*, Auburn Univ., Dept. of Agronomy & Soils and Andrew J. Price, USDA-ARS

9:45 AM **Break**

Graduate Student Oral Competition—Soils

Mobile Convention Center, Room 203B

10:10 AM–11:45 AM

Presiding: Francisco J. Arriaga, USDA-ARS

10:10 AM **Introductory Remarks**

- 10:15 AM **Nitrogen source effects on ammonia volatilization from fertilizers applied to turfgrass.** Ellen C. Knight*, Auburn University Department of Agronomy and Soils, C.W. Wood, Auburn University and Elizabeth Guertal, Auburn Univ.-Agron.& Soils Dep
- 10:30 AM **Effects of Tillage, Location and Variety on Nitrogen Release from Peanut Residue under Field Conditions.** Michael Mulvaney*¹, Kipling S. Balkcom², Wes Wood¹, Bernard Meso¹ and Brenda Wood¹, (1)Auburn U. Dept. of Agronomy & Soils, (2)USDA-ARS
- 10:45 AM **Evaluation of spatial patterns in yield reduction of a Florida citrus grove.** Kirandeep Mann*, Univ. of Florida and Arnold Schumann, Univ. of Florida-CREC
- 11:00 AM **Vegetation and Soil Depth Affect Phenol Oxidase Activity in a Model Riparian Site.** Bunjirtluk Jintaridth*¹, Mark S. Coyne¹ and Steve Workman², (1)Departments of Plant and Soil Science, (2)Departments of Biosystems and Agricultural Engineering
- 11:15 AM **Nitrogen Mineralization in Soil Treated With Trace Element-Enriched Broiler Litter.** Osagie Idehen* and K Kpombekou-A, Tuskegee Univ.
- 11:30 AM **A Seasonal Nitrogen Mineralization Study as Influenced by Soil Properties and Landscape Position.** Dexter Watts*, Auburn Univ., H. A. Torbert, USDA-ARS and Stephen Prior, USDA-ARS, Nat'l Soil Dynamics Lab
- 11:45 AM **Lunch**

Crops—Specialty Crops

Mobile Convention Center, Room 203B

12:55 PM–2:15 PM

Presiding: Nathan A. Slaton, Univ. of Arkansas

12:55 PM **Introductory Remarks**

- 1:00 PM **Chlorophyll Studies in Date Palm (Phoenix dactylifera L.).** Humphrey A. Esehie* and Abdullah Al-Falahi, Sultan Qaboos University
- 1:15 PM **Productivity And Persistence In Mississippi Of Chicory (Cichorium Intybus L.) Cultivars Bred For High And Low Sequiterpene Lactones.** Jimmy R. Parish*¹, Richard H. Watson², Bisoondat Macoon¹, Brian S. Baldwin¹, David J. Lang¹ and Allen S. Hubbard¹, (1)Mississippi State Univ., (2)AgResearch Limited
- 1:30 PM **Sunflowers as an Oil Seed Crop for Biodiesel Production in Mississippi.** Valtcho D. Zheljaskov*, Mississippi State, Brian Baldwin, Dep. of Plant & Soil Sciences, M. W. Ebelhar, Delta Research & Extension Center, Normie Buehring, North Mississippi Research and Ext Center and Christine Coker, Coastal Research and Extension Center, Biloxi, MS 39532
- 1:45 PM **Herbs as Potential High-value Crops for Mississippi.** Valtcho D. Zheljaskov*, Mississippi State, Christine Coker, Coastal Research and Extension Center, Biloxi, MS 39532, William Evans, Mississippi State Univ and M. W. Ebelhar, Delta Research & Extension Center
- 2:00 PM **Can crops be used to remediate excess phosphorus?.** Shivendra Sahi*¹, Daniel Starnes², Pradyut Paul², Priya Padmanabhan², Nilesh Sharma² and Kenneth Sajwan³, (1)Western Kentucky U. Biology Dept., (2)Western Kentucky University, (3)Savanah State University
- 2:15 PM **Break**

Soils—Environmental

Mobile Convention Center, Room 203B

2:40 PM–3:45 PM

Presiding: C. Wesley Wood, Auburn University

2:40 PM **Introductory Remarks**

- 2:45 PM **Effect of phosphate amendments on leaching of Pb in selected shooting range soils.** Abioye O. Fayiga*, Uttam Saha and Lena Ma, University of Florida

- 3:00 PM **Nitrogen and Carbon Mineralization from Poultry Litter Bricks.** Brenda H. Wood*, C.W. Wood and L.E. Sturgeon, Auburn University
- 3:15 PM **Nitrogen and phosphorus runoff losses from variable and constant intensity rainfall simulations on Loamy Sand under conventional and strip tillage systems.** Dorcas Franklin*¹, Clinton Truman², David Bosch³, Thomas Potter⁴ and Timothy Strickland⁴, (1)USDA-ARS, (2)Southeast Watershed Res. Lab., (3)USDA-ARS-SEWRL, (4)USDA ARS
- 3:30 PM **Persistence of an Insecticide Used in Dip Treatment of Japanese beetle Grubs in Nursery Soils.** Sam O. Dennis* and Jason Oliver, Tennessee State University

Southern Branch-ASA Business Meeting

Mobile Convention Center, Room 203B

3:45 PM–4:45 PM

Presiding: John P. Beasley, Jr., Univ. of Georgia

Tuesday, 6 February 2007

Crops—Field Crops

Mobile Convention Center, Room 203B

8:25 AM–10:00 AM

Presiding: M. Wayne Ebelhar, Mississippi State Univ.

- 8:25 AM **Introductory Remarks**
- 8:30 AM **Influence of Seeding Rate on Grain Yield and Milling Yield of Five Rice Cultivars in Arkansas.** Stewart Runsick, C.E. Wilson Jr., D.L. Frizzell and J. Hill, Univ. of Arkansas
- 8:45 AM **Four-year Summary of Cotton Production with Varying Nitrogen Rates and Mepiquat Pentaborate in the Mississippi Delta.** M. W. Ebelhar*, Delta Research & Extension Center and Davis R. Clark, Delta Research and Extension Center
- 9:00 AM **On-Farm Evaluation of Seeding Rates and Nitrogen Rates for Twin-row Corn.** M. W. Ebelhar*, Delta Research & Extension Center, Jerry Singleton, Mississippi State University - Extension Service and Davis R. Clark, Delta Research and Extension Center
- 9:15 AM **Evaluation of seeding rates on soybean.** P.J. Wiatrak*, Clemson Univ. / Edisto REC
- 9:30 AM **Cultivar and nitrogen interaction on growth, and yield of cotton.** David Brand* and K.Raja Reddy, Mississippi State University
- 9:45 AM **Seedling growth and biomass accumulation of sugarcane at varying soil organic matter levels.** Ike Ezenwa*¹, Peter Newman¹ and Aloysio Guimaraes Jr.², (1)UF/IFAS SW Florida Res. Educ. Ctr., (2)Faculdade de Ciencias Agronomicas
- 10:00 AM **Break**

Crops—Grasses

Mobile Convention Center, Room 203B

10:25 AM–11:30 AM

Presiding: Andrew J. Price, USDA-ARS

- 10:25 AM **Introductory Remarks**
- 10:30 AM **Comparison of Annual and Perennial Ryegrass In Overseeded Bermudagrass Turf.** Lloyd Nelson* and Jimmy Crowder, Texas A & M University
- 10:45 AM **Seed Production Potential of Switchgrass in the Southeast USA.** David Lang* and Vitalis Temu, Mississippi State Univ.

- 11:00 AM **Emergence and seedling weight of annual ryegrass when mixed with commercial fertilizer before planting.** Gerald Evers* and Peggy Parsons, Texas Agricultural Experiment Station
- 11:15 AM **Molecular diversity among wild *Saccharum spontaneum* clones and the proportion of wild germplasm represented in the commercial gene pool.** Suman Andru* and Collins A Kimbeng, Louisiana State University
- 11:30 AM **Adjourn**