AGRONOMY

Program of the Southern Branch
American Society of Agronomy Annual Meeting
February 3-5, 2019

Sheraton Birmingham Hotel
Birmingham, AL

2018-2019 OFFICERS

President
Julie A. Howe
Texas A&M University
j-howe@tamu.edu

Vice-President & Program Chair
L. Jason Krutz
Mississippi State University
j.krutz@msstate.edu

Secretary/Treasurer
Nithya Rajan
Texas A&M University
nrajan@tamu.edu

Past President
Dr. Paul B. DeLaune
Texas A&M AgriLife Research
pb delaune@ag.tamu.edu
SUNDAY, FEBRUARY 3, 2019

Registration: 10:00 AM - 4:00 PM
Forum Building – Lobby - Third Floor

POSTER SESSION 1:00 PM - 4:00 PM
Authors Present from 1:00 PM - 3:00 PM
Sheraton Hotel - Birmingham Ballroom Prefunction – First Floor

UNDERGRADUATE STUDENT POSTER COMPETITION – CROPS AND SOILS

1. Influence of Trichoderma Species on Biomass Production and Nutritive Value of Warm-Season Annual Grasses. Lizney Rudds, University of Arkansas - Pine Bluff; Rocky W. Lemus, Mississippi State University; Corianne Schmidt, Mississippi State University

2. Evaluation of BMR Forage Systems for Beef Cattle Performance in Mississippi. Corianne Schmidt, Mississippi State University; Rocky W. Lemus, Mississippi State University; Lizney Rudds, University of Arkansas - Pine Bluff

3. Continuation of a Long-Term Copper Fertility Experiment. Nolan M Mullican, Murray State University; James Brandon Clark, Murray State University; John D Mikulcik, Murray State University; David L Ferguson, Murray State University

4. ALS-Inhibiting Herbicides on Germination and Seedling Growth in Two Cultivars of Switchgrass. Calyn Adams, Mississippi State University; Jesse I. Morrison, Mississippi State University; Brian S. Baldwin, Mississippi State University

5. Evaluating the Impacts of Tillage Systems and Cover Crops on Soil Quality. Carrie Ann Followell, Murray State University; Iin P. Handayani, Murray State University; David L Ferguson, Murray State University

6. Assessing Urban and Rural Soil Characteristics in Various Ecosystems. Gabrielle Barnes, Murray State University; Iin P. Handayani, Murray State University; Steven M. Still, Murray State University

7. Evaluating the Effect of Osmotic Stress Tolerance in Maize Based on in Vitro Seed Germination. Anna Beth Gaudin, Mississippi State University; Charles Hunt Walne, Mississippi State; K. Raja Reddy, Mississippi State University

8. Supplemental Nitrogen Use in Soybeans. John Taylor Elliott, Abraham Baldwin Agricultural College; William Slaton Lunsford, Abraham Baldwin Agricultural College; Alex McLemore, Abraham Baldwin Agricultural College; Michael J Maw, University of Missouri-Columbia

9. Developing Functional Relationships between Sesame (Solanum indicum L.) Growth Development and Nitrogen Nutrition during Early-Season. Anna Beth Gaudin, Mississippi State University; Charles Hunt Walne, Mississippi State; K. Raja Reddy, Mississippi State University

GRADUATE STUDENT POSTER COMPETITION – M.S. Students
1. **IMPACT of LAND Management Practices on Selected Soil Properties, Enzyme Activities and Bacterial Communities.** Sangita Karki, Tuskegee University; Raymon Shange, Tuskegee University

2. **Corn Yield, Plant N Uptake and Environmental N Loss Differences Under Urea and Poultry Litter Application at Different Rates and Timing in Alabama Soils.** Rajveer Singh, Auburn University; Rishi Prasad, Auburn University; Kip Balkcom, USDA-ARS; Elizabeth A. Guertal, Auburn University; Jasmeet Lamba, Auburn University; Brenda V. Ortiz, Auburn University

3. **Cotton Response to Polyhalite Fertilization.** Carson Riley Wade, Texas A&M University; Julie A Howe, Texas A&M University; Brady Arthur, Texas A&M University; Joseph Burke, Texas A&M University

4. **Using Spatial Correlation Analysis to Identify Ancillary Data for Soil Fertility Mapping.** Jordan Oldag, Auburn University

5. **Soil Enzymatic Activities Under Various Customized Poultry Litter Application.** Sangita Karki, Tuskegee University; Raymon Shange, Tuskegee University; Ramble O. Ankumah, Tuskegee University; Osagie Idehen, Tuskegee University

6. **Radish Cover Crop Growth and Compaction Alleviation: Effects of Cultivar and Planting Date.** Trevor Cofer, Auburn University; Audrey V Gamble, Auburn University

7. **Soybean (Glycine max) Cultivar Response to Iron Deficiency Chlorosis.** Kyle Sorrels, Mississippi State University; J. Trenton Irby, Mississippi State University; Alanna B. Scholtes, Mississippi State University; Chase A. Floyd, Mississippi State University; Charlie Stokes, Mississippi State University; Dennis Reginelli, Mississippi State University

8. **Evaluation of the Impact of Fungicide Application Timing on Soybean (Glycine max) Growth, Development, and Yield.** Chase A. Floyd, Mississippi State University; J. Trenton Irby, Mississippi State University; Angus L. Catchot, Mississippi State University; Thomas W. Allen, Mississippi State University; Darrin M. Dodds, Mississippi State University; Jason M. Sarver, Indigo Ag; Alanna B. Scholtes, Mississippi State University

9. **Characterization of Phosphorus(P) in Poultry Litter and Determination of P Extraction Efficiency of Extractants.** Poulomi Dey, Auburn University; Rishi Prasad, Auburn University; Debolina Chakraborty, Auburn University; Brendan Higgins, Auburn University; Audrey Gamble, Auburn University; Yucheng Feng, Auburn University

10. **Establishment of Quail Habitat in Native Warm Season Grasses.** Lori Hearon, Mississippi State University; Jesse Morrison, Mississippi State University

11. **Phosphorus Characterization of Alabama Soils Under Different Management Practices for Environmental Risk Assessment.** Anjan Bhatta, Auburn University; Rishi Prasad, Auburn University; Debolina Chakraborty, Auburn University; Joey N. Shaw, Auburn University; Eve Brantley, Auburn University; Jasmeet Lamba, Auburn University

12. **Contributions of the First True Leaf to Seedling Vigor Under Different Field Conditions.** Gurpreet Virk, University of Georgia-Tifton; John Snider, University of Georgia-Tifton; Cristiane Pilon, University of Georgia – Tifton

13. **Long-Term Effects of Different Cover Crops, Tillages, and Nitrogen Fertilization Rates on Soil Properties Under Continuous Cotton System of West Tennessee.** Safak Ceylan, University of Tennessee-Knoxville; Forbes R. Walker, University of Tennessee-Knoxville;
GRADUATE STUDENT POSTER COMPETITION – Ph.D. Students

1. **Effect of Organic Manures on Growth, Biomass, Photochemical Compositions and Steviol Glycosides in Stevia rebaudiana.** Varsha Chowdary Anche, Alabama A&M University

2. **Evaluating Haney’s Soil Health Test on Various Agroecosystem Traits in West Tennessee.** Surendra Singh, University of Tennessee-Knoxville; Sindhu Jagadamma, University of Tennessee-Knoxville; Forbes R. Walker, University of Tennessee-Knoxville

3. **Elucidating the Combined Effects of Organic and Conventional Grain Cropping Systems with Tillage Methods on Soil Organic Carbon Distribution.** James Littrell, University of Tennessee-Knoxville; Sindhu Jagadamma, University of Tennessee Institute of Agriculture; Emmanuel Omondi, Rodale Institute; Sutie Xu, University of Tennessee-Knoxville

4. **TBD.** Ana Julia Azevedo, University of Georgia-Tifton

5. **Determining Proper Row Orientation and Seeding Population for Soybean Production.** Richard E. Turner, Mississippi State University; M. W. Ebelhar, Mississippi State University

6. **Conservation Production Systems Influence on Selected Mid-Southern USA Furrow-Irrigation Properties.** Corey Bryant, Mississippi State University; L. Jason Krutz, Mississippi State University; Martin A. Locke, USDA-ARS; Daniel B. Reynolds, Mississippi State University; Bobby R. Golden, Mississippi State University; Trent Irby, Mississippi State University; Wade Steinniede Jr., USDA-ARS

7. **Soil Physical and Chemical Properties Under Conservation Management Practices.** Gene Spencer, Mississippi State University; L. Jason Krutz, Mississippi State University; Martin A. Locke, USDA-ARS; Brien Henry, Mississippi State University; Bobby Golden, Delta Research and Extension Center

8. **Comparison of Eddy Covariance Evapotranspiration Measurements to DSSAT Simulation for Dryland Corn and Cotton in East-Central Texas.** Dorothy Menefee, Texas A&M University; Nithya Rajan, Texas A&M University

9. **Evaluating Haney’s Soil Health Test on Various Agroecosystems of West Tennessee.** Surendra Singh, University of Tennessee-Knoxville; Sindhu Jagadamma, University of Tennessee-Knoxville; Forbes R. Walker, University of Tennessee-Knoxville

10. **Irrigation, Planting Date, and Corn (Zea mays L.) Hybrid Selection Impacts on Aflatoxin Accumulation.** John J. Williams, Mississippi State University; W. Brien Henry, Mississippi State University

11. **Development of a Methodology to Irradiate Peanut (Arachis hypogaea L.) Seeds to Simulate Stand Problems in Small Plot Trials.** Sara E. Pelham, University of Georgia - Tifton; W. Scott Monfort, University of Georgia - Tifton; R. Scott Tubbs, University of Georgia - Tifton

12. **Metabolic Traits Associated with Drought Tolerance in Peanut Genotypes.** Leticia de Aguila Moreno, University of Georgia-Tifton; Cristiane Pilon, University of Georgia - Tifton; Beatriz Fabretti da Silva, University of Georgia; Ana Carolina da Costa Lara-Fioreze, Universidade Federal de Santa Catarina; C. Corley Holbrook, USDA-ARS
13. **Plot-Scale Evaluation of Moisture Control on Soil Organic Carbon Dynamics.** Shikha Singh, University of Tennessee-Knoxville; Sindhu Jagadamma, University of Tennessee-Knoxville; Avat Shekoofa, University of Tennessee-Knoxville; Melanie Mayes, Oak Ridge National Laboratory


15. **Characterizing Resistance to Reniform Nematode in Accessions of Gossypium barbadense Based on Classical Growth Analysis.** Bhuipinder Singh, Mississippi State University; Daryl Chastain, Mississippi State University; John Snider, University of Georgia-Tifton; K. Raja Reddy, Mississippi State University; L. Jason Krutz, Mississippi State University; Sally Stetina, United States Department of Agriculture, Agricultural Research Service

16. **Unmanned Aerial Remote Sensing for Cotton Yield Estimation.** Jeff Siegfried, Texas A&M University; Nithya Rajan, Texas A&M University

17. **Greenhouse Gas Emissions from Cover Crop Decomposition in an Organic Corn Field in Texas.** Diana Zapata, Texas A&M University; Nithya Rajan, Texas A&M University; Kenneth D. Casey, Texas Agrilife Research-Amarillo; Ronnie W. Schnell, Texas A&M University; Jake E. Mowrer, Texas A&M AgriLife Extension Service

18. **Evaluating Corn Hybrid Variation in Response to Soil Moisture Stress.** Charles Walne, Mississippi State University; K. Raja Reddy, Mississippi State University

19. **Local Effective Microorganisms: Farmers Making Their Own Biological Inoculant for Improved Soil Health.** Laura Ney, University of Georgia-Athens; Dorcas H. Franklin, University of Georgia-Athens; Kishan Mahmud, University of Georgia-Athens; Miguel L. Cabrera, University of Georgia-Athens; Dennis W. Hancock, University of Georgia-Athens; Mussie Y. Habteselassie, University of Georgia-Griffin; Quint Newcomer, University of Georgia; Subash Dahal, University of Georgia-Athens; Anish Subedi, University of Georgia

**PROFESSIONAL POSTER – CROPS**

1. **Increasing Fertilizer Rates - Impact on Yield in Twin-Row Corn and Soybean Grown in Rotation.** M. Wayne Ebelhar, Mississippi State University; Richard E. Turner, Mississippi State University

2. **Initial Observations from Stepwise Input Additions and Deletions for Corn in the Mississippi Delta.** M. Wayne Ebelhar, Mississippi State University; Richard E. Turner, Mississippi State University

3. **Mississippi State University Extension Soybean Variety Demonstration Program.** Alanna B. Scholtes, Mississippi State University; J. Trenton Irby, Mississippi State University; Chase A. Floyd, Mississippi State University; Kyle Sorrels, Mississippi State University; Garrett Oswalt, Mississippi State University

4. **Effect of Row Spacing on Biomass Yield of Energy Cane Cultivar HO72-114.** Hari Pratap Singh, Fort Valley State University; Anuj Chiluwal, Kansas State University; Jamaura Williams, Fort Valley State University; Venkata Nagendra Degala, Fort Valley State University

5. **Effect of Skip-Row Furrow Irrigation on Corn and Soybeans Growth and Yields in Different Soil Types.** Syam K. Dodla, Louisiana State University; Josh Copes, Louisiana State University
6. **Decision Support System for Planting and Physiological Maturity of Mississippi Corn.**
   Patrick J. English, Mississippi State University; Sherri L. DeFauw, Ascend Geospatial LLC

7. **Effect of Seeding Distance from Subsurface Banded Poultry Litter on Corn Yield and Leaf Nitrogen in a Conservation Tillage System.**
   Amanda J. Ashworth, USDA-ARS; Daniel H. Pote, USDA-ARS; Thomas R. Way, USDA-ARS; Dexter B. Watts, USDA-ARS; Larry C. Purcell, University of Arkansas

8. **Seed Chemical Composition Responses to Nitrogen and Sulfur Nutrition in Oilseed Brassicas.**
   Ramdeo Seepaul, North Florida Research & Education Center; Ian M Small, North Florida Research & Education Center; Sheeja George, North Florida Research & Education Center; David L Wright, North Florida Research & Education Center

9. **Corn (Zea maize L.) Height in a Mid-South Production System, and Breeding Implications.**
   William Brien Henry, Mississippi State University; John J. Williams, Mississippi State University

**PROFESSIONAL POSTER – SOILS**

1. **Do Biofuel and Cover Crops Affect Soil Thermal Properties?**
   Samuel I Haruna, Middle Tennessee State University/University of Missouri; Stephen H. Anderson, University of Missouri; Nsalambi V. Nkongolo, Institut Facultaire des Sciences Agronomiques; Timothy M. Reinbott, University of Missouri; Syaharudin Zaibon, University Putra Malaysia

2. **Cotton Production As Affected By Irrigation Timing in Conservation Systems.**
   Paul B. DeLaune, Texas A&M AgriLife Research; Partson Mubvumba, Texas A&M AgriLife Research

3. **Cover Crops in Dryland Cotton Production Systems in Texas Rolling Pains: Short- Vs. Long-Term Economic Benefits.**
   Yubing Fan, Texas A&M AgriLife Research; Paul B. DeLaune, Texas A&M AgriLife Research; Partson Mubvumba, Texas A&M AgriLife Research

4. **Quantitative Approach to Identify Phosphorus Hotspots and Predict Phosphorus Loss Risk in Poultry Litter Impacted Soils of Lake Wedowee Watershed in Alabama.**
   Rishi Prasad, Auburn University; Debolina Chakraborty, Auburn University

**SAAS Program**

4:00 PM-5:00 PM
**SAAS Business Meeting**
Forum Building – Room G - Second Floor

5:00 PM
**Social and Super Bowl Party**
Southern Kitchen & Bar
2301 Richard Arrington Jr Blvd
## GRADUATE STUDENT ORAL COMPETITION - M.S. Students
Forum Building - Room H/I – Third Floor

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presentation Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:55 AM</td>
<td>Opening remarks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 AM</td>
<td>Soil Health Benefits of Intensifying Winter Wheat Systems.</td>
<td>Marie Schirmacher, Texas A&amp;M University; Paul B. DeLaune, Texas A&amp;M AgriLife Research; Terry J. Gentry, Texas A&amp;M University; Partson Mubvumba, Texas A&amp;M AgriLife Research</td>
<td></td>
</tr>
<tr>
<td>8:15 AM</td>
<td>Peanut Drought/Heat-to be Modified.</td>
<td>Zolian Zoong Lwe, Clemson University</td>
<td></td>
</tr>
<tr>
<td>8:30 AM</td>
<td>Comparison of Variable Rate Irrigation Based on Soil Sensor Irrigation Scheduling and Farmer Uniform Irrigation.</td>
<td>Luca Bondesan, Auburn University; Brenda V. Ortiz, Auburn University; Guilherme Morata, Auburn University; Andres Fernando Jimenez, Universidad Nacional de Colombia; George Vellidis, University of Georgia - Tifton; Francesco Morari, University of Padua</td>
<td></td>
</tr>
<tr>
<td>8:45 AM</td>
<td>Use of Soil Sensor-Based Irrigation Scheduling for Corn Production in Alabama.</td>
<td>Guilherme Morata, Auburn University; Brenda V. Ortiz, Auburn University; Luca Bondesan, Auburn University; Andres Fernando Jimenez, Universidad Nacional de Colombia</td>
<td></td>
</tr>
<tr>
<td>9:00 AM</td>
<td>Evaluation of Row Spacing, Planting Date and Fungicide Application on Soybean (Glycine max) Growth, Development and Yield.</td>
<td>Chase A. Floyd, Mississippi State University; J. Trenton Irby, Mississippi State University; Angus L. Catchot, Mississippi State University; Thomas W. Allen, Mississippi State University; Darrin M. Dodds, Mississippi State University; Jason M. Sarver, Indigo Ag; Alanna B. Scholtes, Mississippi State University</td>
<td></td>
</tr>
<tr>
<td>9:15 AM</td>
<td>The Influence of Environmental Conditions on the Germination and Vigor of Three Peanut Cultivars.</td>
<td>Caleb Weaver, University of Georgia-Tifton; W. Scott Monfort, University of Georgia - Tifton; Cristiane Pilon, University of Georgia - Tifton; Timothy L. Grey, University of Georgia; R. Scott Tubbs, University of Georgia - Tifton</td>
<td></td>
</tr>
<tr>
<td>9:30 AM</td>
<td>Improving Corn (Zea mays L.) Stands By Adapting Planting Practices.</td>
<td>Nolan Stapleton, Mississippi State University; Erick Larson, Mississippi State University</td>
<td></td>
</tr>
<tr>
<td>9:45 AM</td>
<td>Assessment of Native Warm Season Grasses for Post-Mining Reclamation.</td>
<td>Melanie Parker, Mississippi State University; Jesse Morrison, Mississippi State University; Brian S. Baldwin, Mississippi State University; Rebecca McGrew, Red Hills Mine</td>
<td></td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Break</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:15 AM</td>
<td>Effect of Fungicide Programs on Plant Health, Maturity, Yield, and Quality of Two Peanut Cultivars.</td>
<td>Matthew Stuart, University of Georgia-Tifton; W. Scott Monfort, University of Georgia - Tifton; Cristiane Pilon, University of Georgia - Tifton</td>
<td></td>
</tr>
<tr>
<td>10:30 AM</td>
<td>Alignment of Soil Test and Tissue Potassium for Maximizing Soybean Yield in Mississippi.</td>
<td>Andrew Dygert, Mississippi State University</td>
<td></td>
</tr>
</tbody>
</table>

MONDAY, FEBRUARY 4, 2019
Registration: 7:00 AM - 5:00 PM
Forum Building - Lobby – Third Floor
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:45 AM</td>
<td>Dual-Platform Comparison of Canopy Reflectance on Corn Whole Plant and Leaf Tissue Nitrogen Status and Grain Yield.</td>
<td>Zachary Sumner, Mississippi State University; Jac J. Varco, Mississippi State University; Joby Czarnecki, Mississippi State University; Amelia A. Fox, MSU</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>From Monoculture to Biculture: Cover Cropping Effects on Nitrogen Dynamics in a Strip Tilled Corn Production System.</td>
<td>Eduardo Samuel Garay, Mississippi State University; Jac J. Varco, Mississippi State University</td>
</tr>
<tr>
<td>11:15 AM</td>
<td>Evaluation of Mined Humates As a Source of Iron for Soybean [Glycine max. (L.) Merr.] As Influenced By Variety and Soil pH.</td>
<td>Andrea Elvir Flores, Mississippi State University; Jac J. Varco, Mississippi State University</td>
</tr>
<tr>
<td>11:30 AM</td>
<td>Adjourn</td>
<td></td>
</tr>
</tbody>
</table>

**GRADUATE STUDENT ORAL COMPETITION - Ph.D. Students**

Forum Building - Room H/I – Third Floor

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Presenters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:25 PM</td>
<td>Opening Comments</td>
<td></td>
</tr>
<tr>
<td>1:30 PM</td>
<td>Prediction of Irrigation Needs at Farm Level Using Recurrent Neural Networks.</td>
<td>Andres Fernando Jimenez, Universidad Nacional de Colombia; Brenda V. Ortiz, Auburn University; Luca Bondesan, Auburn University; Guilherme Morata, Auburn University; Damianos Damianidis, Auburn University</td>
</tr>
<tr>
<td>1:45 PM</td>
<td>Trade-Off between Native Grassland Improvement and Water Consumption.</td>
<td>Madhav Dhakal, Texas Tech College of Agricultural Sciences &amp; Natural Resources</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>Determining an Economical Approach to Mid-South Soybean Production.</td>
<td>Richard E. Turner, Mississippi State University; M. W. Ebelhar, Mississippi State University</td>
</tr>
<tr>
<td>2:15 PM</td>
<td>Effects of Cultural Best Management Practices Managed for Irrigation Benefits in Mid-Southern Irrigated Soybean Production.</td>
<td>Corey Bryant, Mississippi State University; L. Jason Krutz, Mississippi State University; Martin A. Locke, USDA-ARS; Daniel B. Reynolds, Mississippi State University; Bobby R. Golden, Mississippi State University; Trent Irby, Mississippi State University; Wade Steinriede Jr., USDA-ARS</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>Carbon Mineralization from Winter Cereal Cover Crops in an Organic No-till Soybean Production System.</td>
<td>Pramod Pokhrel, Texas A&amp;M University; Nithya Rajan, Texas A&amp;M University; Ronnie W. Schnell, Texas A&amp;M University</td>
</tr>
<tr>
<td>2:45 PM</td>
<td>Mid-Southern, USA Corn Management Practices to Improve Infiltration and Decrease Nutrient Runoff.</td>
<td>Gene Spencer, Mississippi State University; L. Jason Krutz, Mississippi State University; Martin A. Locke, USDA-ARS; Brien Henry, Mississippi State University; Bobby Golden, Delta Research and Extension Center</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Deposition and Transformation of Nitrogen By the Pre-Plant Soil Fumigant Ethanedinitrile.</td>
<td>Mary C. Stevens, University of Florida North Florida Research &amp; Extension Center; Joshua H. Freeman, University of Florida</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>Detection of Personal Care Products in Surface Water of a Rural Sub Watershed in</td>
<td></td>
</tr>
</tbody>
</table>
Middle Tennessee. Ravneet Kaur, Tennessee State University; Anonya Akuley Amenyenu, Tennessee State University; Samuel O. Dennis, Tennessee State University

3:30 PM Break

3:45 PM Evapotranspiration, Gross Primary Production and Water-Use Efficiency Estimates of Cotton and Corn in East-Central Texas Using Eddy Covariance and Planetoscope. Dorothy Menefee, Texas A&M University; Nithya Rajan, Texas A&M University; Sanaz Shafian, Texas A&M University Agronomy Society

4:00 PM Comparative Evaluation of Turfgrass and Row Crop Management on Soil Carbon Dynamics and Nutrient Availability. Shikha Singh, University of Tennessee-Knoxville; sheng yan, University of Tennessee; John C. Sorochan, University of Tennessee - Knoxville; John C. Stier, University of Tennessee-Knoxville; Melanie Mayes, Oak Ridge National Laboratory; Jie Zhuang, University of Tennessee-Knoxville; Sindhu Jagadamma, University of Tennessee-Knoxville

4:15 PM Ethephon Application Modulated Nitrogen Use Efficiency in Maize (Zea mays L.) through Regulating Plant Nitrogen Uptake and Post-Silking Nitrogen Remobilization in Response to Nitrogen Rate and Plant Density. Yushi Zhang, China Agricultural University; Yubin Wang, China Agricultural University; Delian Ye, Fujian Agricultural and Forest University; Churong Liu, China Agricultural University; Zhaohu Li, China Agricultural University; Mingcai Zhang, China Agricultural University

4:30 PM Assessment of Narrow-Row Corn (Zea mays L.) Production in the Mid-South. John J. Williams, Mississippi State University; W. Brien Henry, Mississippi State University; Normie W. Buehring, Mississippi State University

4:45 PM Use of Simulation Models for Evaluating High Input Production Practices in Corn in Georgia. Anna Orfanou, University of Georgia - Tifton; Dimitrios Pavlou, University of Georgia - Tifton; George Vellidis, University of Georgia - Tifton; Kenneth Boote, University of Florida - Gainesville; Miguel L. Cabrera, University of Georgia - Athens; Glendon Harris, University of Georgia - Tifton; R. Dewey Lee, University of Georgia - Tifton; Reagan L. Noland, University of Georgia - Tifton; Wesley M Porter, University of Georgia-Tifton

5:00 PM Simulating Water and Nutrient Movement in a Corn Field with High Input Production Practices. Dimitrios Pavlou, University of Georgia - Tifton; Anna Orfanou, University of Georgia - Tifton; Miguel L. Cabrera, University of Georgia - Athens; Glendon Harris, University of Georgia - Tifton; Gerrit Hoogenboom, University of Florida; R. Dewey Lee, University of Georgia - Tifton; Reagan L. Noland, University of Georgia - Tifton; Wesley M Porter, University of Georgia-Tifton; David E. Radcliffe, University of Georgia - Athens; George Vellidis, University of Georgia - Tifton

5:15 PM Standardization of Canopy Reflectance of Peanut (Arachis hypogaea L.) Varieties to Assist in Developing a Yield Prediction Tool. Sara E. Pelham, University of Georgia - Tifton; W. Scott Monfort, University of Georgia - Tifton; Cristiane Pilon, University of Georgia - Tifton; Alisa Coffin, USDA-ARS

5:30 PM Adjourn

5:40 PM Agronomy Business Meeting.
TUESDAY, FEBRUARY 5, 2019

GRADUATE STUDENT ORAL COMPETITION - Ph.D. Students
Forum Building - Room H/I – Third Floor

7:55 AM  Opening remarks

8:00 AM  Seasonal Influence on Selenium Removal Efficiency in Simulated Constructed Wetlands. Michael Nattrass, Mississippi State University; Jesse Morrison, Mississippi State University; Brian S. Baldwin, Mississippi State University

8:15 AM  Evaluating Suitability of Soil Health Assessment Approaches for the Agricultural Soils of West Tennessee. Surendra Singh, University of Tennessee-Knoxville; Sindhu Jagadamma, University of Tennessee-Knoxville; Forbes R. Walker, University of Tennessee-Knoxville

8:30 AM  Quantifying Temperature Effects on Corn Growth and Development. Charles Wally, Mississippi State University; K. Raja Reddy, Mississippi State University

8:45 AM  Physiological Responses and Tolerance Mechanisms of Turfgrasses Exposed to Drought and Salt Stresses with Similar Osmotic Strength. Krishna Katuwal, University of Georgia-Griffin; Bo Xiao, Yangtze University; David Jespersen, University of Georgia

9:00 AM  Improving Kale Yield and Freeze Tolerance after Soil Biosolarization. Laura Ney, University of Georgia-Athens; Dorcas H. Franklin, University of Georgia-Athens; Kishan Mahmud, University of Georgia-Athens; Miguel L. Cabrera, University of Georgia - Athens; Dennis W. Hancock, University of Georgia-Athens; Mussie Y. Habteselassie, University of Georgia-Griffin; Quint Newcomer, University of Georgia; Subash Dahal, University of Georgia-Athens; Anish Subedi, University of Georgia

9:15 AM  Stomatal Effects on Leaf Metabolism in Two Cotton Species with Alternative Stress Response Strategies. Bhupinder Singh, Mississippi State University; Daryl Chastain, Mississippi State University; John Snider, University of Georgia-Tifton

9:30 AM  Impact of 34-Year Tillage on Soil CO2 Emissions and Carbon Sequestration in Monoculture and Rotational Cropping Systems. Diana Zapata, Texas A&M University; Nithya Rajan, Texas A&M University; Frank M. Hons, Texas A&M University

9:45 AM  Winter Carinata Reduces Nitrate-N Leaching in North Florida Cropping Systems. Jixiao Cui, North Florida Research & Education Center; Ramdeo Seepaul, North Florida Research & Education Center; Ian M Small, North Florida Research & Education Center; Sheeja George, North Florida Research & Education Center; David L Wright, North Florida Research & Education Center

10:00 AM  Break

10:25 AM  Opening Comments
Long-Term Study on the Effects of Buffer Strips and Grazing Management on Phosphorus Runoff from Pastures Fertilized with Poultry Litter. Philip A. Moore Jr., USDA-ARS; Kelsey Anderson, University of Arkansas; Cristiane Pilon, University of Georgia - Tifton; Jerry Martin, USDA; Daniel H. Pote, USDA-ARS; Phillip R. Owens, USDA-ARS; Amanda J. Ashworth, USDA-ARS; David Miller, University of Arkansas; Paul B. DeLaune, Texas A&M AgriLife Research

Soil Carbon Pools and Distribution Under Different Grazing Management Practices. Sutie Xu, University of Tennessee-Knoxville; Surendra Singh, University of Tennessee-Knoxville; Amanda J. Ashworth, USDA-ARS; Phillip R. Owens, USDA-ARS; Philip Moore, USDA-ARS; Sindhu Jagadamma, University of Tennessee-Knoxville

10:45 AM

11:00 AM

11:15 AM

PROFESSIONAL ORAL PRESENTATIONS – Crops
Forum Building - Room H/I – Third Floor

1:25 PM

Opening Comments

1:30 PM

Effects of N and Harvest Frequency on Forage Quality and Yield of Native Grasses. Jason Brett Rushing, Mississippi State University; Rocky W. Lemus, Mississippi State University; John Clay Lyles, Mississippi State University

1:45 PM

Moving Beyond 300 Bushel Corn in Mississippi - Increasing Seeding Rates and Nitrogen Rates in Different Planting Patterns. M. Wayne Ebelhar, Mississippi State University; W. Brien Henry, Mississippi State University; Richard E. Turner, Mississippi State University

2:00 PM

Utilizing Eastern Gamagrass for Early Spring Grazing and Late Fall Stockpile. Jesse I. Morrison, Mississippi State University; Brian S. Baldwin, Mississippi State University; Michael Nattrass, Mississippi State University

2:15 PM

Should Seeding Rate Change Under Different Land Preparation Methods of Brassica Carinata? Michael J. Mulvaney, University of Florida West Florida Research & Education Center; Kipling S. Balkcom, USDA-ARS

2:30 PM

Influence of Tillage and Row Configuration on Yield and Quality of Peanut over a Ten-Year Period. W. Scott Monfort, University of Georgia - Tifton; R. Scott Tubbs, University of Georgia - Tifton; John Beasley, Auburn University

2:45 PM


3:00 PM

Optimum Nitrogen and Sulfur Required for Growth and Seed Productivity in Oilseed Brassicas. Ramdeo Seepaul, North Florida Research & Education Center; Ian M Small, North Florida Research & Education Center; Sheeja George, North Florida Research & Education Center; David L Wright, North Florida Research & Education Center

3:15 PM

Predicting Leaf Rust Infection Rate in Winter Wheat Using Normalized Difference Vegetation Index. Xuejun Dong, Texas Agrilife Research-Uvalde; Shane Sieckenius, Texas A&M AgriLife Research at Uvalde; Bin Peng, Yancheng
Institute of Technology; Qingwu Xue, Texas A&M AgriLife Research; Amir M.H. Ibrahim, Texas A&M University

3:30 PM Adjourn