

AGRONOMY

Program of the
Southern Branch
American Society of Agronomy
Annual Meeting
February 5-7, 2017

Mobile Convention Center
Mobile, AL

2016-2017 OFFICERS

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USDA-ARS National Soil Dynamics Lab
dexter.watts@ars.usda.gov

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Texas A&M AgriLife Research
pbdelaune@ag.tamu.edu

Secretary/Treasurer

Julie A. Howe
Auburn University
jah0020@auburn.edu

Past President

Dr. Mark S. Reiter
Virginia Tech
mreiter@vt.edu

SUNDAY, FEBRUARY 5, 2017

Registration: 10:00 AM – 4:00 PM

Mobile Convention Center
Prefunction Area

POSTER SESSION

1:00 PM – 4:00 PM

Authors Present from 1:00 PM- 3:00 PM

Mobile Convention Center
Prefunction Area 201/202

**UNDERGRADUATE STUDENT POSTER
COMPETITION – CROPS AND SOILS**

- 1. Dynamics of Soil Characteristics in Cultivated Areas of Silt Loam, Kentucky.** S. Schacht*, L.P. Handayani, M. Derting, and A. Shultz; Murray State University
- 2. Quantifying Changes of Soil Properties in Urban and Rural Landscapes in Kentucky.** G.M. Davis* and L. Handayani; Murray State University
- 3. Unravelling Drought Stress Responses in Corn during Early Vegetative Growth Stages.** H. Walne*, A.A. Lone, C. Wijewardana, and K.R. Reddy; Mississippi State University
- 4. Soil Characteristics of a Western Kentucky Permaculture Orchard.** S. Still*, K. Goheen and L.P. Handayani; Murray State University
- 5. Precision Corn Seeding Alternative: High Velocity Projectile.** Z. Sumner*, W.B. Henry, and H. Walne; Mississippi State University

GRADUATE STUDENT POSTER COMPETITION – M.S. Students

- 6. Planting Date, Hybrid Selection, and Irrigation Frequency to Optimize Profitability in a Mid-South Corn Production System.** J.J. Williams*, W.B. Henry, N. Buehring, L.J. Krutz, J.B. Whittenton, and O. Ali; Mississippi State University
- 7. Evaluation of Corn Replanting Methods for the Mid-South.** K.Pettit Jr.*, E.J. Larson, M. Cox, W.B. Henry, T. Irby and A. Catchot; Mississippi State University

- 8. Yield Response to Relative Maturity Rating in Corn (*Zea mays* L.).** J. Whittenton* and W.B. Henry; Mississippi State University
- 9. Impact of Pre-Bloom Square Loss on Yield and Lint Quality in Louisiana Cotton Cropping Systems.** C.L. Cole*¹, D.D. Fromme², D. Kerns³, and G. Myers⁴; (1) USDA-NRCS, Kenner; (2) LSU AgCenter, Alexandria; (3) LSU AgCenter, Winnsboro; (4) LSU AgCenter, Baton Rouge
- 10. Pre-Emergent Herbicide Rate Effects on Phytotoxicity and Weed Suppression in Industrial Hemp.** P. Woosley, R. Anderson* and T. Willian; Western Kentucky University
- 11. Boron Rate and Timing on Runner Peanuts (*Arachis hypogaea* L.).** A. Van Cleave*¹, A. Callaway¹, G. Harris², and J.A. Howe¹; (1) Auburn University; (2) University of Georgia, Tifton
- 12. Impact of Row Spacing, Planting Date and Seeding Rate in Dryland Soybean (*Glycine max*) Production.** S.M. Carver*¹, J.T. Irby¹, D.M. Dodds¹, D.B. Reynolds¹, A.L. Catchot Jr.¹, J.M. Orłowski², A.B. Scholtes¹ and S.G. Flint¹; (1)Mississippi State University, Mississippi State; (2)Mississippi State University, Stoneville
- 13. Bahiagrass-Legume Mixtures Reduce the Need for N Fertilizer Inputs in Hay Fields.** E.R. da Silva Santos*¹, J.C.B. Dubeux Jr.¹, C. Mackowiak², A. Blount¹, J. Shirley², D. Jaramillo², L. Garcia¹, M. Ruiz-Moreno¹, J. Diogenes Neto³ and L. M. Dantas Queiroz⁴; (1)North Florida Research and Education Center, Marianna; (2)North Florida Research and Education Center, Quincy; (3) Universidade Federal Rural de Pernambuco, Marianna; (4) Federal Rural University of Pernambuco, Serra Talhada - PE, Brazil
- 14. Ironstone and Red Mud Soil Amendment: Phosphorus Solubility and Bermudagrass Growth.** S. Smith*, L. Gaston, and J.S. Beasley; Louisiana State University
- 15. Validation of Soil Test and Plant Tissue Potassium Recommendations for Soybean in North Carolina.** L. Lintz*¹, C.R. Crozier², and D.H. Hardy³; (1) North Carolina State University, Raleigh; (2) North Carolina State University, Plymouth; (3) North Carolina Department of Agriculture, Raleigh
- 16. Temporal and Spatial Relationships of Suspended Sediments in Bioretention Cells (BRCs).** H. Douglas*; Auburn University
- 17. Using Photogrammetry to Document Stream Topography.** C. Duke*; Auburn University

GRADUATE STUDENT POSTER COMPETITION – Ph.D. Students

- 18. Transgenerational Inheritance of Soil Moisture Stress Induced Loss on Soybean Seed Germination.** C. Wijewardana*, F. A. Alsajri, and K. R. Reddy; Mississippi State University
- 19. Stratification of Soil Properties By Depth in a Perennial Warm Season Pasture Overseeded with Cool Season Annuals.** K. Bridges*¹, L. M. Fultz¹, W. Alison², K. J. Han¹, B. Macoon³, and W. Pitman⁴; (1) Louisiana State University, Baton Rouge; (2) LSU AgCenter, Winnsboro; (3) Mississippi State University, Jackson; and (4) LSU AgCenter, Homer
- 20. Soft Red Winter Wheat Response to Mesz Fertilizer.** J. F. Da Cunha Leme Filho* and W. E. Thomason; Virginia Tech University
- 21. Soil Surfactant Chemistries on Volumetric Water Content and Leachate of Greenhouse Substrates Under Two Irrigation Regimes.** G. Abagandura*, D. Park, and W. Bridges; Clemson University
- 22. Defining Slope Length and Steepness (LS) Factor of the Rusle to Model Soil Erosion in Urban Mountainous Landscapes.** D. Wijesinghe*, D. White, D. Hitchcock, W. Bridges, and D. Park; Clemson University
- 23. Irrigation and Fertilizer Placement Effects on Trace Gas Emissions from an Ornamental Crop.** A. M. Murphy*¹, S. A. Prior², B. Runion², H. A. Torbert², J. Sibley¹, and C. H. Gilliam¹; (1) Auburn University; (2) National Soil Dynamics Laboratory, USDA-ARS, Auburn
- 24. Does the Presence of the Arsenic Hyperaccumulator, Pteris Vittata, Modulate Impact of Arsenic on Enzyme Activity in Contaminated Soil?** O. Idehen*, R. Ankumah, M. Egnin, A. Kumi, R. Shange, M. Oruwari, C. Bonsi, G. Bernard, and F. Burkari; Tuskegee University
- 25. Screening Rice Lines for Salinity Tolerance at Early Stages.** N. Naqeebullah*¹, K. R. Reddy¹, and E. D. Redoña²; (1) Mississippi State University, Mississippi State; (2) Delta Research and Extension Center, Mississippi State University, Stoneville
- 26. Impact of Low- and High-Temperature Stress on Soybean Early Seedling Growth.** F. A. Alsajri*, C. Wijewardana, and K. R. Reddy; Mississippi State University
- 27. Developing Screening Tools for Temperature Tolerance in Rice Cultivars during Early-Season.** S. Jumaa* and K. R. Reddy; Mississippi State University

- 28. Temperature Effect on Maize Germination and Root Elongation.** O. Ali*; Mississippi State University
- 29. Residual Effect of Poultry Litter on Soybean Productivity Following Wheat Cropping.** Y. Lin*¹, D. B. Watts², and H. A. Torbert²; (1) Auburn University; (2) National Soil Dynamics Laboratory, USDA-ARS, Auburn
- 30. Influence of Plant Growth-Promoting Rhizobacteria on Maize Growth Under Different Fertility Sources.** Y. Lin*¹, D. B. Watts², and J. Kloepper¹; (1) Auburn University; (2) National Soil Dynamics Laboratory, USDA-ARS, Auburn
- 31. Quantifying Impacts of Early Season Water Deficit on Multiple Cotton Cultivars.** C. Meeks*, J. Snider, T. Barnes, and M. Babb-Hartman; University of Georgia, Tifton
- 32. Winter Malt Barley Cultivar Response to Disease Incidence and Management Effects on Grain Yield and Quality.** M. Swoish*; Virginia Tech University
- 33. Cultivar Variation in Dynamic Seed Germination Response to Time and Temperature in Cotton.** S. Singla*¹, J. Snider², T. L. Grey², W. Porter², P. Roberts², D. Chastain³, and K. Chapman⁴; (1) University of Georgia, Athens; (2) University of Georgia, Tifton; (3) Mississippi State University, Stoneville; (4) University of North Texas
- 34. Effect of Calcium Silicate Slag on Drought Stress in Rice Production.** R. Yang*¹, J. A. Howe¹, and B. R. Golden²; (1) Auburn University; (2) Mississippi State University, Stoneville

PROFESSIONAL POSTER – CROPS

- 35. Stockpiling Perennial Warm-Season Forage Grasses in East-Central Mississippi.** J.B. Rushing*¹, M. T. Thornton², and R. W. Lemus²; (1) Mississippi State University, Newton; (2) Mississippi State University, Mississippi State
- 36. Implementating Best Management Practices in Corn Production to Protect Water Quality.** P. Troy*; University of Florida, Live Oak
- 37. Using Biochar As a Soil Amendment for Radish Production in Middle Tennessee.** T. Pirtle*¹, L. Rumble², M. Klug², S. Cui² and N. Phillips²; (1) Middle Tennessee State University, Winchester; (2) Middle Tennessee State University, Murfreesboro

- 38. Maturity Group III Soybean Varieties' Yield Response in North Mississippi.** A. R. Taylor*, N. W. Buehring, and M. P. Harrison; Mississippi State University, Verona
- 39. MSU Extension Service Corn Verification Program.** J. Bibb*¹, E. J. Larson¹, L. J. Krutz², A. Catchot¹, and T. Allen¹; (1) Mississippi State University, Mississippi State; (2) Mississippi State University, Stoneville
- 40. High Efficient Somatic Embryogenesis Development from Leaf Cultures of Citrullus Colocynthis (L.) Schrad for Generating True Type Clones.** S. Taduri* and K. R. Reddy; Mississippi State University
- 41. Enhancing Corn Yield with Elevated Plant Population.** W. B. Henry*¹, N. W. Buehring², J. B. Whittenton¹, J. J. Williams¹, O. Ali¹, and J. Kelley³; (1) Mississippi State University, Mississippi State; (2) Mississippi State University, Verona; (3) University of Arkansas, Little Rock
- 42. Cellulose Nanocrystals (CNC) from Renewable Bioenergy Crops: A Sustainable Green Material for the Future.** H. P. Singh*, L. G. Chivukula, and J. A. Mason; Fort Valley State University
- 43. Effects of Tillage and N Fertilizer on Cotton Growth, Yield, and Fiber Quality.** B. Runion*, D. B. Watts, and K. Balkcom; National Soil Dynamics Laboratory, USDA-ARS, Auburn
- 44. Long-Term Effects of Conservation Systems on Productivity for the Old Rotation.** L. M. Duzy*¹, K. S. Balkcom¹, C. C. Mitchell², and D. Delaney²; (1)USDA-ARS, Auburn; (2)Auburn University;
- 45. Comparison of Spatial Models for Corn Planting Date and Crop Maturity in Mississippi.** P. J. English*¹, S. L. DeFauw², and L. L. Falconer¹; Mississippi State University, Stoneville; (2) Ascend Geospatial LLC.
- 46. Fertilizer Effects on a Winter Cereal Cover Crop.** K. S. Balkcom*; USDA-ARS, Auburn
- 47. Increasing Yields and Profitability for Mid-Atlantic Double-Crop Soybean.** D.L. Holshouser*¹, R. Kratochvil², C. Whaley³, D.G. Voight Jr.⁴, G.W. Roth⁵, G.S. Faé⁵, E.J. Dunphy⁶ and R. Parvej¹; 1)Tidewater AREC, Virginia Tech, Suffolk; (2)University of Maryland; (3)Carvel Research and Education Center, University of Delaware, Georgetown; (4)Pennsylvania State University, Lebanon; (5) Pennsylvania State University, University Park; (7)North Carolina State University

- 48. Cover Crop Management for Mid-Atlantic Vegetable Systems.** M. S. Reiter*; Eastern Shore Agricultural Research and Extension Center, Virginia Tech University, Painter
- 49. Cover Crop Effects on Nutrient Cycling and Microbial Communities.** Paul B. DeLaune*, Partson Mubvumba, and Charles Coufal; Texas A&M AgriLife Research
- 50. Detection of Human Pharmaceuticals in Surface Water of a Middle Tennessee Urbanizing Watershed.** S. Dennis*, R. Kaur, and A. A. Amenyenu; Tennessee State University
- 51. Removal of Excess Nutrients from Soil Following Poultry Litter Application By Use of Prescription Based Inorganic Fertilizer Addition.** R. Gilfillen*, A. Netthisinghe, and P. Woosley; Western Kentucky University
- 52. Elevated CO₂ and Nitrogen Effects on Soil CO₂ Flux from a Pasture upon Return to Cultivation.** S. A. Prior*, H. A. Torbert, and G. B. Runion; National Soil Dynamics Laboratory, USDA-ARS, Auburn
- 53. Opportunities to Increase Nitrogen and Water Use Efficiency in Grain Sorghum Production.** L. Espinoza* and M. Ismanov; University of Arkansas, Little Rock

SAAS Program

4:00 PM – 4:15 PM
SAAS Business Meeting,
Room 203 B
Mobile Convention Center

5:00 PM
Social and Super Bowl Party
East and West Ballroom
Mobile Convention Center

MONDAY, FEBRUARY 6, 2017

Registration: 7:00 AM – 5:00 PM

Mobile Convention Center
Prefunction Area

GRADUATE STUDENT ORAL COMPETITION – M.S. Students

Mobile Convention Center
Room 201A

- 7:55 AM** **Introductory Remarks.**
- 8:00 AM** **Evaluating the Impact of Canopy Defoliation Levels at Two Critical Timings in Peanut.** C. Abbott*¹, J. M. Sarver², A. Henn¹, J. Gore³, and J. Krutz³; (1)Mississippi State University, Mississippi State; (2)Mississippi State University, Starkville; (3)Mississippi State University, Stoneville
- 8:15 AM** **Applied Use of Unmanned Aerial Systems for Soybean Harvest Aid Application.** C. A. Smith*, J. Czarnecki, T. Irby, and S. M. Carver; Mississippi State University
- 8:30 AM** **Use of Winter Legumes As Late Summer through Spring Cover Crops.** J. McLemore*; Mississippi State University
- 8:45 AM** **Evaluation of Calcium Fertilization in Irrigated and Non-Irrigated Runner Peanut.** K. D. Pegues*, R. S. Tubbs, W. S. Monfort, and G. Harris; University of Georgia - Tifton
- 9:00 AM** **Evaluation of Replant Methods for Maximizing Yield in Suboptimal Soybean (Glycine max) Populations.** S. M. Carver*¹, J. T. Irby¹, D. M. Dodds¹, D. B. Reynolds¹, A. L. Catchot Jr.¹, J. M. Orłowski², A. B. Scholtes¹, and S. G. Flint¹; (1)Mississippi State University, Mississippi State; (2)Mississippi State University, Stoneville
- 9:15 AM** **Response of Corn (Zea mays L.) Hybrids to Plant Population Changes Planted in Alabama.** N. Welch* and B. V. Ortiz; Auburn University
- 9:30 AM** **Temperature Effects on Cotton Seedling Emergence, Growth, and Development.** D. Brand*¹, K. R. Reddy¹, C. Wijewardana¹, and W. Gao²; (1) Mississippi State University; (2) Colorado State University
- 9:45 AM** **Tissue Analyses As a Peanut Seed Quality Tool.** A. K. Pierre*¹, M. J. Mulvaney¹, D. L. Rowland², T. L. Grey³, B. L. Tillman⁴, and E. van Santen²; (1) University of Florida West Florida Research & Education

Center, Jay; University of Florida, Gainesville; (3) University of Georgia, Tifton; (4) North Florida Research and Education Center, Marianna

- 10:00 AM Break.**
- 10:15 AM Evaluation of Yield and Economic Loss Due to Twin Row Planter Problems for Soybean Production in the Mid-South.** R. M. Smith* and J. M. Orlowski; Mississippi State University, Stoneville
- 10:30 AM Comparative Study of Soil Surface Greenhouse Gas Fluxes from Energy Cane and Napier Grass Fields in Relation to Soil Temperature, Soil Moisture and Nitrogen Amendments.** B. Khanal^{*1}, H. P. Singh¹, A. Chiluwal², E. Obeng², C. M. Clegg³, R. R. Lowrance⁴, and B. P. Singh¹; (1) Fort Valley State University; (2) Kansas State University; (3) USDA-ARS-Tifton; (4) National Risk Management Research Laboratory, Ada, OK
- 10:45 AM Bermudagrass-Legume Mixtures As an Option to Reduce N Fertilizer Use in Hay Fields.** E. R. D. S. Santos^{*1}, J. C. B. Dubeux Jr.¹, C. Mackowiak², A. Blount¹, J. Shirley², L. Garcia¹, D. Jaramillo¹, M. Ruiz-Moreno¹, J. D. Neto³, and L. M. D. Queiroz⁴; (1)North Florida Research and Education Center, Marianna; (2)North Florida Research and Education Center, Quincy, (3) Universidade Federal Rural de Pernambuco, Marianna; (4)Federal Rural University of Pernambuco, Serra Talhada - PE, Brazil
- 11:00 AM Screening and Selection for Cold and Drought Tolerance in an RIL Population of Grain Sorghum.** J. Sanchez^{*1}, G. L. Ritchie¹, Y. Y. Emendack², and J. J. Burke²; (1) Texas Tech University; USDA-ARS, Lubbock
- 11:15 AM Planting Date, Hybrid Selection, and Irrigation Frequency to Optimize Yield and Profitability in a Mid-South Corn Production System.** J. J. Williams*; Mississippi State University
- 11:30 AM The Influence of Soil Surface Temperature and Relative Humidity on 2, 4-D Volatilization.** P. Wang*, T. Knappenberger, and J. N. Shaw; Auburn University
- 11:45 AM Discussion.**
- 12:00 PM Lunch.**

GRADUATE STUDENT ORAL COMPETITION – Ph.D. Students

- 1:25 PM** **Introductory Remarks.**
- 1:30 PM** **Soil Salinity Under Seepage Irrigation and Irrigation Drainage Tile in Northeast Florida.** E. Yarney* and M. W. Clark; University of Florida
- 1:45 PM** **Multi-Species Cover Crop Effects on Nitrogen Availability in Corn in the Mid-Atlantic USA.** M. Battaglia* and W. E. Thomason; Virginia Tech
- 2:00 PM** **Comparing Productivity and Efficiency of Grass-Only and Grass-Legume Beef Stocker Grazing Systems in the Southern High Plains.** L. Baxter* and C. P. West; Texas Tech University
- 2:15 PM** **Genetic Improvement of Harvest Index and Stay-Green Traits in US Soft Wheat Germplasm Under High Temperature Stress Condition.** S. Pradhan Shrestha*, J. Khan, M. Avci, D. Shahi, M. M. Hossain, and M. A. Babar; University of Florida
- 2:30 PM** **Drought and UV-B Radiation Effects on Soybean Early Seedling Growth.** C. Wijewardana*, F. A. Alsajri, and K. R. Reddy; Mississippi State University
- 2:45 PM** **Temporal Patterns of Sesame (*Sesamum indicum* L.) Nutrient Uptake in the Southeastern US.** A. D. Jani*¹, M. J. Mulvaney², D. L. Rowland¹, A. Couch¹, J. Erickson¹, R. G. Leon², and C. W. Wood²; (1) University of Florida, Gainesville; (2) University of Florida West Florida Research & Education Center, Jay
- 3:00 PM** **Break.**
- 3:15 PM** **The Production of Glucosinolates in Brassica Carinata with Plant Development and Varying Soil Types and Nitrogen Rates.** T. Stansly*; University of Florida North Florida Research & Extension Center, Quincy
- 3:30 PM** **Developing a Screening Tool to Identify Drought Tolerance Among 100 Elite Rice Lines.** S. Jumaa, A. Lone, S. Thaduri, E. Redoña, and K. R. Reddy; Mississippi State University
- 3:45 PM** **Production of Various Ploidy Hybrids from Wide Crosses Between *Hordeum vulgare* (2x) and *H. Bulbosum* (2x, 4x).** A. H. Mohammed and B. S. Baldwin; Mississippi State University
- 4:00 PM** **Plant Growth and Nutrient Uptake Effects from Humic Substances in Mined Lignite.** M. Nattrass*; Mississippi State University

- 4:15 PM** **Yield Potential of Novel Semi-Dwarf Grain Amaranths Tested for Tennessee Growing Conditions.** D. Yahaya*, R. Thapa, and M. Blair; Tennessee State University
- 4:30 PM** **Seed Characteristics Affect Seedling Vigor of Various Cotton Cultivars Under Different Planting Environments and Cultural Practices.** S. Singla*¹, J. Snider², T. L. Grey², W. Porter², P. Roberts², D. Chastain³, Y. Chen⁴, and K. Chapman⁵; (1) University of Georgia, Athens; (2) University of Georgia, Tifton; (3) Mississippi State University, Stoneville; (4) Nanjing Agricultural University; (5) University of North Texas
- 4:45 PM** **Discussion/Break.**
- 5:00 PM** **Agronomy Business Meeting.**

TUESDAY, FEBRUARY 7, 2017

PROFESSIONAL ORAL PRESENTATIONS – Soils
 Mobile Convention Center
 Room 201A

- 7:55 AM** **Introductory Remarks.**
- 8:00 AM** **First Year Results from Evaluation of ZINC Rates and Nitrogen Rates for Cotton and Corn in Rotation.** M. W. Ebelhar*; Mississippi State University, Stoneville
- 8:15 AM** **Full-Season and Double-Crop Soybean Response to Potassium on Southeast Coastal Plain and Piedmont Soils.** R. Parvej*¹, D. L. Holshouser¹, A. B. Williams², W. H. Frame¹, and M. S. Reiter³; (1) Virginia Tech Tidewater Agricultural Research & Extension Center, Suffolk; (2) Washington County Center, Plymouth, NC; (3) Virginia Tech Eastern Shore Agricultural Research and Extension Center, Painter
- 8:30 AM** **Biomass Production and Nutrient Removal By Potential Biofuel Grasses Grown on Sprayfields.** C. R. Crozier*¹, T. J. Smyth², A. Heitman², Z. Wang², and M. S. Castillo²; (1) North Carolina State University, Plymouth; (2) North Carolina State University, Raleigh
- 8:45 AM** **Soil Respiration and Carbon Loss Responses to Cropping Systems Management.** N. Rajan* and D. Zapata; Texas A&M University
- 9:00 AM** **Effects of Buffer Strips and Grazing Management on Edge of Field Soil Loss from Pastures.** P. A. Moore Jr.*¹, C. Pilon², D. H. Pote³, J.

Pennington⁴, D. K. Brauer⁵, R. Raper⁶, S. M. Dabney⁷, and J. A. Lee⁸; (1) USDA-ARS, Fayetteville, AR; (2) University of Arkansas; (3) USDA-ARS, Booneville, AR; (4) John Pennington, Beaver Watershed Alliance; (5) USDA-ARS, Bushland, TX; (6) Oklahoma State University; (7) USDA-ARS, Oxford, MS; (8) USDA, Little Rock, AR

9:15 AM Soil Carbon Analysis Using Gamma Rays Induced By Neutrons. G. Yakubova*, A. Kavetskiy, S. A. Prior, and A. Torbert; National Soil Dynamics Laboratory, USDA-ARS, Auburn

9:30 AM Break.

Special Session - Gypsum Use in Agricultural Production Systems

9:45 AM Adoption of the 333 Amending Soil Properties with Gypsum Products Conservation Practice Standard in the State of Alabama. T. Horvath*; USDA-NRCS, Auburn, AL

10:00 AM Evaluation of FGD-Gypsum As a Soil Amendment in Arkansas. L. Espinoza*, University of Arkansas, Little Rock

10:15 AM Flue Gas Desulfurization (FGD) Gypsum to Reduce Runoff, Erosion, Sediment and Nutrient Load from Disturbed Areas. M. E. Sumner*; University of Georgia, Watkinsville

10:30 AM Effectiveness of Using FGD Gypsum to Reduce Dissolved P Losses from a Corn Field in the Southern Piedmont Region. D. B. Watts* and A. Torbert; USDA-ARS, Auburn, AL

10:45 AM Does Industrial Gypsum with Cover Crop Improve Soil Biological and Physical Quality? K. R. Islam*¹, G. W. Roth², and R. C. Reeder³; Ohio State University, Piketon; (2) Pennsylvania State University; (3) Ohio State University, Columbus

11:00 AM FGD Gypsum in Peanut Production. J. A. Howe*; Auburn University

11:15 AM Gypsum Adherence to Forage: Consideration for Excessive Ingestion By Ruminates. H. A. Torbert*¹, R. L. Chaney², and D. B. Watts¹; (1) USDA-ARS, Auburn, AL; (2) USDA-ARS, Beltsville, MD

11:30 AM Gypsum As a Bedding Source for Broiler Chickens. J. Hess*¹, D. B. Watts², H. A. Torbert², J. Davis¹, and J. Sibley¹; (1) Auburn University; (2) USDA-ARS, Auburn, AL

11:45 AM Discussion.

11:55 AM Lunch.

PROFESSIONAL ORAL PRESENTATIONS – Crops

12:55 PM Introductory Remarks

1:00 PM Response of Bahiagrass Cultivars to Nitrogen Fertilization and Cutting Frequency. R. W. Lemus*, J. A. White, and K. K. Crouse; Mississippi State University

1:15 PM PRE-Tassel Nitrogen Rates Applied Across Multiple Corn Cultivars. M. W. Ebelhar*; Mississippi State University, Stoneville

1:30 PM Blends and Timing of Polymer Coated and Uncoated Urea: Effects on Corn and Cotton in the Deep South. M. J. Mulvaney*¹ and H. A. Enloe²; (1) University of Florida West Florida Research & Education Center, Jay; (2) University of Florida, Gainesville

1:45 PM Carinata Seed and Oil Yield Responses to Nitrogen and Sulphur Nutrition Under Rainfed Conditions. R. Seepaul*, D. L. Wright, and S. George; North Florida Research & Education Center, Quincy

2:00 PM Evaluation of New Irrigation Scheduling Methods for Peanut. W. S. Monfort, W. Porter, J. Snider, C. Perry, and G. Vellidis; University of Georgia - Tifton

2:15 PM Irrigation Management and Crop Modeling in Safflower. S. Singh*¹, S. V. Angadi², K. K. Grover³, and K. J. Boote⁴; (1) Texas Tech University; (2) New Mexico State University, Clovis; (3) New Mexico State University, Las Cruces; (4) University of Florida

2:30 PM Break.

2:45 PM Cotton Phenotyping Using Field and Uav-Based Sensors. N. Rajan*, M. Mikeska, and S. Shafian; Texas A&M University

3:00 PM Clonal Testing of Elite Eastern Gamagrass [Tripsacum Dactyloides (L.) L.] Germplasm for Forage Quality and in Vitro Dry Matter Digestibility (IVDMD). J. I. Morrison* and B. S. Baldwin; Mississippi State University

3:15 PM Forages in Corn Rotations: A Meta-Analytical Perspective. B. M. Goff, C. Lee, J. M. McGrath, and J. H. Grove; University of Kentucky

- 3:30 PM Seedling Growth Characteristics Relates to the Staygreen Trait and Dhurrin Levels in Sorghum.** Y. Y. Emendack*¹, J. Sanchez², R. Chopra¹, C. Hayes¹, G. B. Burow¹, Z. Xin¹, and J. J. Burke¹; (1) USDA-ARS, Lubbock, TX (2) Texas Tech University
- 3:45 PM Early High Moisture Wheat Harvest Improves Wheat and Double-Crop Soybean Yield and Quality.** D. L. Holshouser*¹, R. Parvej¹, G. S. Faé², G. W. Roth², C. Whaley³, R. Kratochvil⁴, and E. J. Dunphy⁵; (1)Virginia Tech Tidewater AREC, Suffolk; (2) Pennsylvania State University; (3)Carvel Research and Education Center, University of Delaware, Georgetown; (4)University of Maryland; (5)North Carolina State University
- 4:00 PM Breeding for Stress Resilience in Corn Under Indian Scenario.** K. R. Reddy*¹, A. A. Lone¹, and Z. A. Dar²; (1) Mississippi State University; (2) Sher-e-Kashmir University of Agriculture Sciences & Technology of Kashmir, India
- 4:15 PM Discussion**
- 4:30 PM Adjourn**
-