2014-2016 Officers

President:
Dr. Steve Hague
Texas A&M University

Vice-President & Program Chair:
Dr. Yoana Newman
University of Florida

Secretary/Treasurer:
Dr. Mark Reiter
Virginia Tech University

Past President:
Dr. Philip Moore
USDA-ARS, Fayetteville, AR

SUNDAY, FEB. 2, 2014

Registration: 10:00 AM-4:00 PM

Poster Session
1:00 PM - 4:00 PM
Authors Present 1:00 PM - 3:00 PM

PROFESSIONAL POSTERS – CROPS

1. Bermudagrass Forage Production As Affected By Rate and Timing of Nitrogen Fertilization. Rocky W. Lemus*, Joshua Andrew White, Patton Slusher, Karl Keith Crouse, Michael S. Cox and Jac J. Varco, Mississippi State University


4. **Impact of Planting Date on Irrigated Grain Sorghum in Arkansas.** Jason Kelley* and Tyler Keene, University of Arkansas

5. **Soybean Irrigation Scheduling Using the Arkansas Tub Gauge.** Paul B. Francis*, University of Arkansas

6. **Managing Irrigated Corn Fertilization with Alternative Nitrogen Sources and Amendments.** M. Wayne Ebelhar and Davis R. Clark*, Mississippi State University

7. **Corn (Zea mays L.) Planting Density and the Effect on Dryland Yield in Mississippi.** W. Brien Henry*, Matthew W. Hock, Chathurika Wijewardana, Normie Buehring and K. Raja Reddy, Mississippi State University

8. **Managing Cotton Fertilization with Alternative Nitrogen Sources and Amendments.** M. Wayne Ebelhar and Davis R. Clark*, Mississippi State University

**PROFESSIONAL POSTER – SOILS**

9. **Sulfur Fertility for Barley in the Mid-Atlantic.** Mark S. Reiter*, David Moore and Keith Balderson, (1)Virginia Tech Eastern Shore Agricultural Research and Extension Center, (2)Virginia Cooperative Extension

10. **Comparison of Nutrient Content in Fescue Soils Receiving Different Fertilizer Sources.** Rebecca Gilfillen, Annesly Netthisinghe, Paul Woosley, Kimberly Cook and Karamat R Sistani, (1)Western Kentucky University, (2)USDA-ARS

11. **Response of Corn to Varying Nitrogen Rates in Clayey Soils.** Leonel Espinoza* and Mukhammadzakhrab Ismanov, University of Arkansas

**GRADUATE STUDENT POSTERS - CROPS**

12. **Leaf Nitrogen and Protein Precipitable Phenolic Concentration Responses to Insect Herbivory Differ Between Plant Functional Types.** Caitlyn E. Cooper*, Texas A&M University, Harley D. Naumann, University of Missouri, James P. Muir and Barry D. Lambert, Texas A&M AgriLife Research-Stephenville

13. **Effect of Legumes and N Applications in Tall Fescue Yield and Quality.** Patton J. Slusher* IV, Rocky W. Lemus, Jerry Michael Phillips, David J. Lang, Joshua Andrew White and Brian Rude, Mississippi State University

14. **Effects of Fertilization and Cutting Height on Yield and Persistence of Orchardgrass (Dactylis glomerata L.).** Gordon B. Jones* and Benjamin F. Tracy, Virginia Tech
15. **Optical Sensor-Based Nitrogen Fertilization in Grain Sorghum in Arkansas.** Kamil H Rosales*, University of Arkansas


17. **Land Use Change from Cotton to Biofuel Crops: Implications on Evapotranspiration and Energy Fluxes.** Sumit Sharma*, Nithya Rajan and Stephen Maas, (1)Texas Tech University, (2)Texas A&M AgriLife Research

18. **Evaluation of Seed Treatments for Soybean Production in Western Kentucky in 2013.** Stephanie A. Rexing* and David L. Ferguson, Murray State University

19. **Corn Evaluation for Early Season Planting System By Morphological Traits.** Chathurika Wijewardana*, William Brien Henry, K. Raja Reddy and Matthew Hock, Mississippi State University

20. **Early Corn (Zea mays L) Planting Date and the Effect on Yield.** Matthew W. Hock*, Chathurika Wijewardana, William Brien Henry, K. Raja Reddy and Normie Buehring, Mississippi State University

21. **Cotton Irrigation Schedule Using Crop Growth Model Cotton2K.** Ahmed Attia*, Shyam Sivankutty Nair, Nithya Rajan and Glen Lorin Ritchie, (1)Texas AgriLife Research-Vernon, (2)Texas Tech University, (3)Texas A&M AgriLife Research

22. **Effect of Ca Source on Peanut (Arachis hypogaea L.) Yield, Grade and Seed Quality.** Rui Yang*, Julie A. Howe and Glen Harris, (1)Auburn University, (2)University of Georgia

23. **Nutrient Availability and Ryegrass Productivity in Soils Amended with Lipid Extracted Algae.** Katie L Rothlisberger-Lewis*, Jamie L. Foster, Frank M. Hons and Terry J. Gentry, (1)Texas A&M University, (2)Texas A&M Agrilife Research-Beeville

24. **Characterizing Water Use Under Different Tillage and Water Management Strategies for Grain Sorghum Production.** Partson Mubvumba*, Texas A&M University and Paul B. DeLaune, Texas A&M AgriLife Research

25. **Light Induction of Biogenic Manganese Oxide Production By Pseudomonas Putida.** Keya Howard*, Terry J. Gentry and R Karthikeyan, Texas A&M University

26. **Potassium Fertilization for Soybean in the Mid-Atlantic United States.** Anna E.
27. **Nutrient Availability from Poultry Litter ASH CO-Products.** Amanda Middleton* and Mark S. Reiter, Virginia Tech Eastern Shore Agricultural Research and Extension Center

**UNDERGRADUATE STUDENT POSTERS**

**– CROPS AND SOILS**

28. **Forage Condensed Tannins Have a Role in Integrated Pest Management.** Tiana Blackmon*, James P. Muir², Barry D. Lambert¹ and David Kattes¹, (1) Tarleton State University, (2) Texas A&M AgriLife Research-Stephenville

29. **Study of Morphophysiological Adaptations in Alfalfa Under High Phosphate Regime.** Paul Fleischmann*, Devesh Shukla, Sinilal Bhaskaran, Sneha Murthy and Shivendra Sahi, Western Kentucky University

30. **Effect of Soil Application of Five Trace Elements and Citric Acid on Soybean Plants Leave's Mineral Content during Vegetative (V3) Stage.** Yasmine Stanley*, Mississippi Valley State University, Mudlagiri B Goli, Mississippi Valley State University and Manju Pande, Mississippi Valley State University

31. **Effect of Soil Application of Five Trace Elements and Citric Acid on Soybean Seed Protein, Oil, and Fatty Acids.** Daniel Kibet*, Mudlagiri B Goli² and Manju Pande¹, (1) Mississippi Valley State University, (2) Mississippi Valley State University

32. **Effect of Sun and Shade on Soybean Plant Growth and Physiology Under Potassium Fertilized and Non Fertilized Conditions.** Caitlin Daisie Garrison* and Manju Pande, Mississippi Valley State University

33. **Effects of Low Oxygen on the Growth of Aspergillus Flavus and Aflatoxin Production.** Megan Ann Dupnik*, Charles Woloshuk², Shad D. Nelson¹, Greta Schuster¹ and Kiersten Alane Wise², (1) Texas A&M University-Kingsville, (2) Purdue University

34. **Mycotoxin Levels Associated with Fall Armyworm (Spodoptera frugiperda) and Corn Earworm (Helicoverpa zea) Infested Corn.** Dal Herrington*, Greta Schuster¹, Amanda Lewis¹ and Pat Porter¹, (1) Texas A&M University-Kingsville, (2) Texas A&M AgriLife Extension

35. **Infiltration Rate and Its Related Soil Properties in Various Land Management Systems of Western Kentucky.** Landon M
36. **Vermicompost Solution As a Nutrient Source in Hydroponic Crop Production.** Amanda M. Lewis*1, Juan Carlos Melgar2 and Greta Schuster1, (1)Texas A&M University-Kingsville, (2)Texas A&M University-Kingsville Citrus Center

37. **Vermicompost Solution As a Nutrient Source in Hydroponic Production of Horticultural Crops.** Juan Carlos Melgar*, Texas A&M University-Kingsville Citrus Center

38. **Assessing the Need for Improvement of Plant Biotechnology Curriculum in Texas.** Ian Sprouse*, Tim Murphy, Kirk Edney and Steve Hague, Texas A&M University

**SAAS Program**

4:00 pm - 4:30 pm  
SAAS Business Meeting

4:00 pm - 5:00 pm  
SAAS Graduate Student Mixer

6:00 pm Super Bowl Party

**MONDAY, FEB. 3, 2014**

**GRADUATE STUDENT ORAL PRESENTATIONS - CROPS**

8:55 AM **Introductory Remarks.**

9:00 AM **Seedbed Preparation in Rhizoma Peanut for Millet and Sorghum.** James P. Muir*, Texas A&M AgriLife Research-Stephenville and Barry D. Lambert, Texas AgriLife Research-Stephenville

9:15 AM **Bermudagrass (Cynodon dactylon [L.] Pers. var. dactylon x C. transvaalensis Burtt-Davy) Control Using Topramezone.** Justin P. Duckworth*, Western Kentucky University

9:30 AM **The Effect of Seeding Rate on Mixed Alfalfa/Bermudagrass Systems in Mississippi.** Rocky W. Lemus and Joshua Andrew White*, Mississippi State University

9:45 AM **The Potential of Mixed Alfalfa/Bermudagrass Systems in Mississippi.** Joshua Andrew White* and Rocky W. Lemus, Mississippi State Univ.

10:00 AM **Break.**

10:15 AM **Effects of Poultry Litter Injection on Corn and Orchardgrass Hay Yield and Quality.** Stephanie Kulesza*, Rory O. Maguire, Wade E. Thomason and Steven C. Hodges, Virginia Tech
10:30 AM **Sunn Hemp As a Cover Crop to Reduce Nitrogen Inputs for Winter Wheat**. Anna M. Stallings¹, Kipling S. Balkcom², Elizabeth A. Guertal³, David B. Weaver³ and Wes Wood³, (1)Auburn Univ., (2)USDA-ARS, (3)Auburn University

10:45 AM **Integrating Cover Crops into Strip-till Cropping Systems in a Semi-Arid Environment**. Reagan Noland*, Jamie L. Foster¹, Cristine L. S. Morgan¹, David A. Forbes³, Gaylon D. Morgan³, Michael J. Brewer⁴ and Vanessa A. Olson⁴, (1)Texas A&M AgriLife Research-Beeville, (2)Texas A&M University, (3)Texas A&M AgriLife Research-Uvalde, (4)Texas A&M AgriLife Research-Corpus Christi, (5)Texas A&M AgriLife Extension

11:00 AM **Sod-Based Rotation, Conservation Tillage, and Water Use Efficiency**. Kelsey L. Hoegenauer* and Julie A. Howe, Auburn University

11:15 AM **Lunch Break**.

1:25 PM **Introductory Remarks**.

1:30 PM **Modified Trapezoid Method to Estimate Soil Moisture Status with Medium Resolution Imagery (LANDSAT) Products**. Sanaz Shafian* and Stephan Maas, Texas Tech University

1:45 PM **Simulating Seasonal Trends in Switchgrass Biomass Using Almanac**. Alexandre Caldeira Rocatelli¹, Charles P. West¹, Michael Popp¹, Kristofer R. Brye¹, James R. Kiniry³ and Amanda Joy Ashworth⁴, (1)Texas Tech University, (2)University of Arkansas, (3)USDA-ARS, (4)University of Tennessee-Knoxville

2:00 PM **Irrigation and Tillage Effects on Four Cotton Cultivars Growth and Yield in the Texas Rolling Plains**. Ahmed Attia¹, Nithya Rajan³, Glen Lorin Ritchie³, Amir M.H. Ibrahim³, Dirk Hays⁴ and Qingwu Xue⁵, (1)Texas AgriLife Research-Vernon, (2)Texas A&M AgriLife Research, (3)Texas Tech University, (4)Texas A&M University

2:15 PM **Evaluation of Peanut Genotypes for Disease Resistance, Yield Potential, and Farmer Acceptance in Guyana, South America**. Alyssa Cho*, Greg MacDonald¹, Barry L. Tillman¹, Robert Kemerait² and Diane L. Rowland¹, (1)University of Florida, (2)University of Georgia

2:30 PM **Carbon Dynamics of Biofuel Cropping Systems Compared to Conventional Cotton Cropping Systems**. Sumit Sharma*, Nithya Rajan³ and Stephen Maas⁵, (1)Texas Tech University, (2)Texas A&M AgriLife Research
2:45 PM The Effect of Various Water Management Strategies on Rice Yield, NUE, and Soil Chemical Properties on a Sharkey Clay Soil. Richard Lee Atwill* II1, Timothy W. Walker1, Jennifer LeAnn Corbin1, Paxton Fitts1 and Dustin L. Harrell2, (1)Mississippi State University, (2)LSU AgCenter Rice Experiment Station.

3:00 PM Heterologous Expression of Arabidopsis Purple Acid Phosphatase (AtPAP15) in Tobacco for Remediation of Excess Phosphorus from Soil. Jane Bartonjo*, Sinilal Bhaskaran, Sneha Murthy, Devesh Shukla and Shivendra Sahi, Western Kentucky University.

3:15 PM Break.

GRADUATE STUDENT ORAL – SOILS


4:00 PM Soybean Yield and Seed Potassium Concentration Response to Long-Term Potassium Fertilization. Md. Rasel Parvej* and Nathan A. Slaton, University of Arkansas.

4:15 PM Adjourn.

Professional Development for Students
4:15 PM-4:45 PM

Southern Branch ASA Business Meeting
4:45 PM

TUESDAY, FEB. 4, 2014

PROFESSIONAL ORAL PRESENTATIONS – SOILS

8:25 AM Introductory Remarks.

8:30 AM Use of FGD Gypsum to Reduce P Loss from Agricultural Fields. Dexter B. Watts* and H. Allen Torbert, USDA-ARS.

8:45 AM Poultry Manure N Availability to Summer and Winter Crops. Canon S. Engoke1, Carl R. Crozier*2, Thomas J. Smyth2 and David H. Hardy3, (1)International Institute of Tropical Agriculture, (2)North Carolina State University, (3)North Carolina Department of Agriculture.
9:00 AM  Phosphorus Assessment in James River Sediments. Asmare Atalay*, Virginia State University

9:15 AM  Cotton Yield and Soil Test P As Influenced By Phosphorus Fertilization. M. Wayne Ebelhar* and Davis R. Clark, Mississippi State University


9:45 AM  XRF Determination of Elemental Composition of King County Clearfork Silty Clay Loam Following Exposure to Methane Seepage. Joshua B Rucker*1, Howard Renick Jr.1, Michael Adam Nicodemus2 and Brian Cavitt2, (1)Renick and Associates, (2)Abilene Christian University

10:00 AM  Break.

PROFESSIONAL ORAL PRESENTATIONS – SOILS & CROPS

10:15 AM  Factors That Impact Yield of Irrigated Corn in Arkansas. Jason Kelley*, Tyler Keene and Scott Hayes, University of Arkansas

10:30 AM  On-Farm Evaluation of Nitrogen Management for Selected Corn Cultivars in a Twin-Row Production System. M. Wayne Ebelhar* and Davis R. Clark, Mississippi State University


11:00 AM  Evaluation of Seeding/Sprigging, Nitrogen, and Traffic Rates on Late Established Hybrid Bermudagrass in the Transition Zone. Gregg C. Munshaw, University of Kentucky and Paul Woosley*, Western Kentucky University

11:15 AM  Targeting Yield Components and Fruiting Habit to Develop High-Yielding Cultivars. Steve Hague*, Laura Ann McLoud, Austin Terhune and Rasha Al-Azzawi, Texas A&M University

11:30 AM  Effect of Organic Manure and a Preceding Summer Cover Crop in the Biomass Development and Soil Physico-Chemical Changes in a Succeeding Broccoli. Girish Kumar Panicker*, Germania Salazar-Mejia1, Carl E Motsenbocker2, William Evans3 and Rao S. Mentreddy4, (1)Alcorn State University, (2)Louisiana State University, (3)Mississippi State University, (4)Alabama A&M University

11:45 AM  Adjourn.